COLORADO GENERAL ASSEMBLY JOINT BUDGET COMMITTEE



FY 2014-15 STAFF BUDGET BRIEFING

DEPARTMENT OF NATURAL RESOURCES

(Division of Reclamation, Mining, and Safety; Oil and Gas Conservation Commission; State Board of Land Commissioners)

JBC Working Document - Subject to Change Staff Recommendation Does Not Represent Committee Decision

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DEPARTMENT OF NATURAL RESOURCES

Department Overview

The Department of Natural Resources is responsible for developing, protecting, and enhancing Colorado's natural resources for the use and enjoyment of the State's present and future residents and visitors. The Department is comprised of the following divisions:

- The Division of Reclamation, Mining, and Safety (DRMS) has two major programs: the
 Office of Mined Land Reclamation regulates development and reclamation at mining sites
 for coal, metals, aggregate, and other minerals through permitting and inspections; and the
 Office of Active and Inactive Mines reclaims abandoned mine sites and provides safety
 training for mine operators and employees.
- The **Oil and Gas Conservation Commission** (OGCC) is responsible for promoting the exploration, development, and conservation of Colorado's oil and natural gas resources. This includes issuing permits, conducting inspections, pursuing enforcement actions, and engaging in public outreach efforts.
- The **State Board of Land Commissioners** (State Land Board) manages agricultural, mineral development, and commercial activities on state-owned lands to generate reasonable and consistent revenue for public schools and seven other trust beneficiaries over time.

The three remaining divisions (the **Division of Parks and Wildlife**, the **Colorado Water Conservation Board**, and the **Water Resources Division**) were discussed in a separate staff briefing on November 22, 2013.

Pursuant to HB 12-1355, the **Colorado Geological Survey** was transferred out of the Department of Natural Resources to the Colorado School of Mines, effective January 31, 2013. The program is now included in the budget for the Department of Higher Education which was covered in a separate staff briefing on December 12, 2013.

Department Budget: Recent Appropriations

Funding Source	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15 *
General Fund	\$23,429,407	\$23,768,283	\$24,978,508	\$25,875,846
Cash Funds	190,187,713	209,619,862	215,177,148	180,787,502
Reappropriated Funds	8,480,565	8,641,534	8,774,311	8,025,565
Federal Funds	19,884,955	20,748,282	28,579,274	28,433,483
Total Funds	\$241,982,640	\$262,777,961	\$277,509,241	\$243,122,396
Full Time Equiv. Staff	1,466.1	1,464.1	1,438.8	1,442.5

^{*}Requested appropriation.

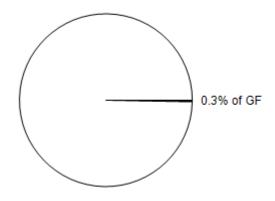
Division Budgets: Recent Appropriations (DRMS, OGCC, State Land Board)

Funding Source	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15 *
Division of Reclamation, Mini	ng, and Safety			
Cash Funds	4,297,246	4,201,162	4,398,942	4,739,658
Reappropriated Funds	0	0	30,000	30,000
Federal Funds	3,367,535	3,041,821	3,318,057	3,080,651
DRMS Total Funds	\$7,664,781	\$7,242,983	\$7,746,999	\$7,850,009
DRMS FTE	51.6	53.8	68.9	68.9
Oil and Gas Conservation Con	nmission			
Cash Funds	7,305,299	7,538,411	11,092,226	10,820,421
Federal Funds	<u>96,559</u>	107,475	102,825	101,585
OGCC Total Funds	\$7,401,858	\$7,645,886	\$11,132,051	\$10,922,006
OGCC FTE	65.4	72.2	95.4	95.4
State Board of Land Commiss	sioners			
Cash Funds	3,814,307	3,993,004	5,107,877	4,438,660
Reappropriated Funds	209,145	189,274	225,000	225,000
Land Board Total Funds	\$4,023,452	\$4,182,278	\$5,332,877	\$4,663,660
Land Board FTE	36.8	37.0	40.0	40.0
Total Funds	\$19,090,091	\$19,071,147	\$24,211,927	\$23,435,675
Total Full Time Equiv. Staff	153.8	163	204.3	204.3

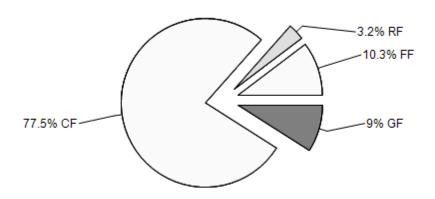
^{*}Requested appropriation.

Department Budget: Graphic Overview

Department's Share of Statewide General Fund

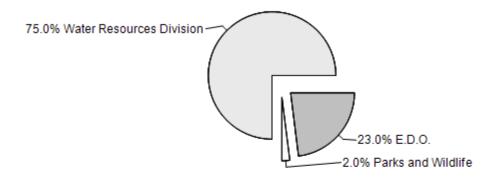


Department Funding Sources

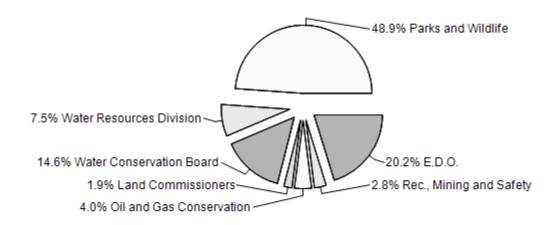


All charts are based on the FY 2013-14 appropriation.

Distribution of General Fund by Division



Distribution of Total Funds by Division



All charts are based on the FY 2013-14 appropriation.

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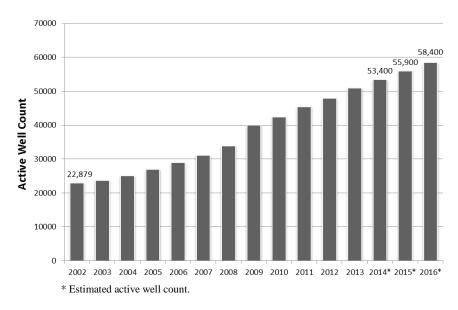
General Factors Driving the Budget

In FY 2013-14, funding for the Department consists of 9.0 percent General Fund, 77.5 percent cash funds, 3.2 percent reappropriated funds, and 10.3 percent federal funds.

Funding for the divisions covered in this briefing packet consists of 84.8 percent cash funds, 1.1 percent reappropriated funds, and 14.1 percent federal funds. These divisions received no General Fund appropriations in FY 2013-14 and are not requesting General Fund appropriations in FY 2014-15.

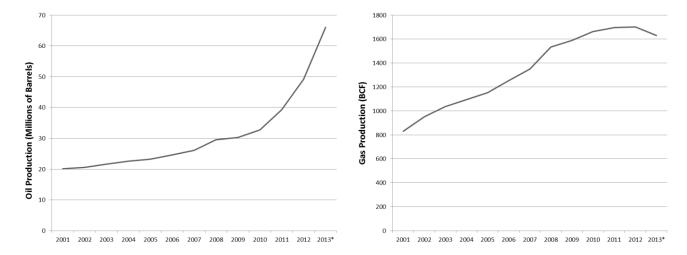
Oil and Gas Activity

Colorado has experienced significant growth in oil and gas development over the past decade, which has dramatically affected the Colorado Oil and Gas Conservation Commission's (OGCC) workload and expenditures, as well as the budgets for the DRMS and the State Land Board. As shown in the figure below, the number of active wells in the state has more than doubled since 2001, and is projected to exceed 58,000 by FY 2015-16.



The net growth in the number of active wells indicates that more oil and gas wells are currently being drilled than plugged, and this activity drives OGCC workload and expenditures related to permitting, inspection, and enforcement. In response to the growing workload, the General Assembly approved FTE increases for the OGCC in the past two legislative sessions: 7.0 FTE in 2012, and 19.4 FTE in 2013. These additional FTE account for the majority of the 30.7 percent increase in OGCC appropriations since FY 2011-12. Please see the issue brief beginning on page 11 for a discussion of recent workload and FTE increases for the OGCC.

The production and price of oil and gas also contributes significantly to several major sources of funding for all three divisions covered in this briefing packet. The following figures show production trends in oil (left) and gas (right) since 2001:



Oil production has increased substantially in the last five years due, in part, to strong oil prices and the adoption of horizontal drilling technology. Growth in gas peaked in 2012 and then declined slightly, but near-term projections show production remaining relatively stable over the next two years. Revenue for the OGCC comes from severance tax on non-renewable resources (largely oil and gas), and a mill levy of 0.7 mills on the market value of oil and gas. The DRMS also receives severance tax and the State Land Board has received record royalty and bonus payments on oil, gas, and other mineral leases over the past several years. Severance tax and State Land Board trust revenues are discussed in more detail below.

Severance Tax Operational Fund

The State of Colorado levies a tax on the severance of non-renewable resources including oil and gas, coal, molybdenum, and metallic minerals. Severance tax from oil and gas production alone accounts for approximately 90.0 percent of total severance tax revenues in five of the last six fiscal years. This close link to oil and gas production and prices, paired with the effects of an ad valorem tax credit and exceptions for low-production wells, can produce significant swings in severance tax from year to year. The September 2013 forecast for FY 2014-15 project that severance tax revenues will be slightly higher than in FY 2013-14.

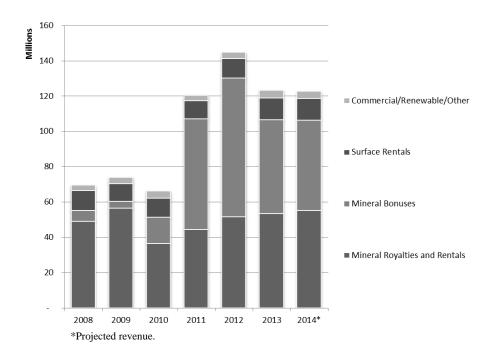
Fifty percent of severance tax revenues credited to the Severance Tax Trust Fund (or 25.0 percent of total severance tax revenues) is transferred to the Operational Fund for programs that "promote and encourage sound natural resource planning, management, and development related to minerals, energy, geology, and water." A number of divisions and programs in the Department receive severance tax, including the Division of Reclamation, Mining and Safety, and the Oil and Gas Conservation Commission. Both the DRMS and OGCC are classified as Tier 1 programs and are insulated from any swings in severance tax revenues. Revenues from the Operational Fund support a sizeable portion of their total appropriations: 36.5 percent for the DRMS and 28.8 percent for the OGCC in FY 2013-14.

State Board of Land Commissioners

The State Board of Land Commissioners (State Land Board) manages eight public trusts of land and is tasked with generating reasonable and consistent revenues over time for trust beneficiaries. Total trust revenues have more than tripled over the past ten years, reaching a high \$146.3 million in FY 2011-12. Much of this growth has occurred since FY 2010-11.

Increases in revenue have been driven almost entirely by record bonus payments on mineral leases and royalties collected on oil and gas production. These continue to be a major factor driving the budget and accounted for 80.9 percent of the State Land Board's total revenue in FY 2012-13. However, total trust revenue in FY 2012-13 was \$125 million, a 14.6 percent decrease from the previous year. This decline is largely due to a 32.3 percent reduction in bonus payments, which are expected to continue tapering off as the number of available land parcels decreases and payments on the Lowry Range and National Hog Farm bonuses are completed.

The Public School Trust benefiting K-12 education is the largest of the trusts managed by the State Land Board, accounting for 98.7 percent of total trust revenues. The following figure shows total revenues for the School Trust from FY 2007-08 through projections for FY 2013-14:



Total School Trust revenues for FY 2012-13 were \$123.3 million. This is down 14.8 percent from the record high of \$144.7 million set the previous year, but it remains far above the previous record of \$74.0 million in FY 2008-09. Bonus payments from oil and gas accounted for 43.1 percent of total school trust revenues for FY 2012-13, while royalties and rentals from oil, gas, and coal accounted for another 43.3 percent. The projections for FY 2013-14 show little change from the previous year with \$122.6 million in total School Trust revenue expected.

The seven other smaller trusts are set up either in the Colorado Constitution or in statute and benefit a range of entities including institutions of higher education, state parks, and the Department of Corrections. Revenues for these trusts ranged from \$960,599 to \$8,683 in FY 2012-13, accounting for the remaining 1.7 percent of total revenues for the Land Board.

Summary: FY 2013-14 Appropriation & FY 2014-15 Request

Department of Natural Resources									
	Total Funds	General Fund	Cash Funds	Reappropriated Funds	Federal Funds	FTE			
FY 2013-14 Appropriation									
SB 13-230 (Long Bill)	\$24,101,510	\$0	\$20,425,628	\$255,000	\$3,420,882	204.3			
Other Legislation	110,417	<u>0</u>	<u>110,417</u>	<u>0</u>	<u>0</u>	0.0			
TOTAL	\$24,211,927	\$0	\$20,536,045	\$255,000	\$3,420,882	204.3			
FY 2014-15 Requested Appropriation FY 2013-14 Appropriation R3 Coal regulatory program refinancing Centrally appropriated line item	\$24,211,927 0	0 0	\$20,536,045 352,881	\$255,000 0	\$3,420,882 (352,881)	204.3			
adjustments	421,373	0	333,633	0	87,740	0.0			
Indirect cost assessment	(70,937)	0	(97,132)	0	26,195	0.0			
Annualize prior year budget actions	(1,126,688)	<u>0</u>	(1,126,688)	<u>0</u>	<u>0</u>	0.0			
TOTAL	\$23,435,675	\$0	\$19,998,739	\$255,000	\$3,181,936	204.3			
Increase/(Decrease)	(\$776,252)	\$0	(\$537,306)	\$0	(\$238,946)	0.0			
Percentage Change	(3.2%)	0.0%	(2.6%)	0.0%	0.0%	0.0%			

Issue Descriptions

R2 Additional legal services for enforcement (not shown): This decision item includes an increase of \$327,888 in cash funds from the Oil and Gas Conservation and Environmental Response Fund to provide an additional 3,600 hours of legal services for the OGCC's Hearings Unit in FY 2014-15, which requires assistance with an increased caseload of enforcement matters including adjudicatory hearings, rulemaking, public outreach, and open records requests. For more information on this request, see the issue brief beginning on page 18.

R3 Coal regulatory program refinancing: This decision item includes a net-zero request to refinance \$352,881 federal funds with cash funds from the Severance Tax Operational Fund for the Coal Regulatory Program in FY 2014-15, due to a projected decrease in grant funds from the U.S. Office of Surface Mining because of federal sequestration and budget reductions. For more information on this request, see the issue brief beginning on page 24.

Centrally appropriated line item adjustments: The request includes adjustments merit pay and salary survey included in program costs for DRMS, OGCC, and State Land Board. This request item will be addressed in a separate staff briefing for the Department of Personnel and Administration.

Indirect cost assessment: The request includes a net decrease in the indirect cost assessment for the DRMS, OGCC and State Land Board. For additional information on the Department's indirect cost methodology, see *Appendix D*.

Annualize prior year budget actions: The request includes adjustments related to prior year legislation and budget actions.

Issue: Update on Oil and Gas Activity and OGCC FTE

This issue brief provides an update on trends in oil and gas activity and workload for the Oil and Gas Conservation Commission (OGCC or Commission), recent events pertinent to agency outcomes, and an update on the status of hiring new FTE approved by the General Assembly for FY 2013-14.

SUMMARY:

- Oil and gas activity in Colorado continues to show significant growth in both volume and complexity. This is primarily reflected in the continued growth in active well count. As the principal regulatory agency for oil and gas development in the state, the OGCC has seen commensurate increases in workload over time.
- Current events have also had an impact on the workload and responsibilities of the OGCC including: recent legislation and rulemaking activities, the September 2013 flooding, and ongoing litigation on local hydraulic fracturing bans.
- Total FTE for the OGCC has increased by 174.0 percent (59.4 FTE) over the past ten years in response to significant growth in workload. Most recently, the General Assembly authorized additional 19.4 FTE in FY 2013-14, bringing the agency total to 95.4 FTE. The OGCC has filled 14.0 FTE and has begun the hiring process for another 3.0 FTE. All positions are expected to be filled by Spring 2014.
- The 11.0 inspectors added as part of authorized FTE increases in FY 2013-14 are expected to increase the rate of inspection for oil and gas locations to an average of one inspection per oil and gas location every 2.21 years in FY 2014-15.

DISCUSSION:

The Oil and Gas Conservation Commission serves as the primary regulatory agency for oil and gas development in the state of Colorado. Program objectives include preserving public health and safety, ensuring compliance with rules and regulations, processing drilling and other project permits efficiently, and serving as a resource for the public on oil and gas development in Colorado.

OGCC Workload Trends

Workload for the OGCC is driven by a number of factors including the number and complexity of drilling permits requested, active well count (also covered on Page 5 of this briefing packet), and the number of hearing applications submitted to the agency.

The following table includes available data on significant workload measures since FY 2008-09:

OGCC Workload Measures									
	FY08-09	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14*	FY 14-15*		
Drilling Permits Requested	6,923	5,278	4,883	4,541	3,867	4,000	4,000		
Active Wells	39,944	42,324	45,401	47,860	50,909	53,400	55,900		
Hearing Applications	103	125	255	456	525	500	500		

^{*}Estimated workload measures.

The number of *requests for drilling permits* received by the OGCC has been declining since the most recent high of 7,661 in FY 2007-08. However, advances in hydraulic fracturing and increases in directional or horizontal drilling since FY 2009-10 have added to the level of complexity of the permit review process. For example, in areas with high well density, new horizontal wells must essentially thread through existing vertical wells without disrupting the infrastructure already in place. Over 90.0 percent of new wells use horizontal drilling technology compared with just 36.0 percent in FY 2009-10. More complex well projects also require more time of inspectors after drilling is complete.

As mentioned previously, growth in the *number of active wells* is an important factor driving workload inputs and agency performance measures. Projections show active well count exceeding 58,000 by FY 2015-16 which has a direct impact on OGCC workload, increasing the number of inspections required and the subsequent volume enforcement actions handled by the Commission.

While the increasing number of wells alone requires more from the OGCC, the location of many of these new wells also contributes to division workload. Drilling activity is now increasingly occurring near population centers in what the Department calls the urban interface zone. The noise, dust, odors, and traffic associated with oil and gas are now in closer proximity to the public, increasing citizen complaints and concern from local government and private stakeholders. Complaint-driven inspections are more time consuming than routine inspections and often require repeated site visits from OGCC staff.

Applications for adjudicatory hearings have increased over 400.0 percent since FY 2008-09. In FY 2012-13, mineral lease holders, landowners, and operators submitted a total of 525 applications in for Commission orders on fair and efficient well spacing, resource pooling and other matters of orderly oilfield development. Additional information on hearings and enforcement processes is covered in the following issue brief beginning on page 18.

Recent OGCC Actions and Current Events

A number of agency actions and recent events have had an impact oil and gas activity in the state and are pertinent to OGCC workload and responsibilities. They are briefly summarized below:

2013 Legislation and Rulemaking

Senate Bill 13-202 (Jones/Singer)

This legislation requires the OGCC to use a risk-based strategy for the inspection of oil and gas locations in an effort to target the operational phases most prone to compliance issues. A report to the JBC is required by February 1, 2014 that will outline findings, recommendations, and staffing and equipment necessary to implement a plan for risk-based inspections by July 1, 2014.

Spill Reporting (1312-RM-02)

House Bill 13-1278 (Mitsch Bush/Todd) changes spill reporting requirements. Any spill of oil or exploration and production waste that exceeds one barrel must now be reported to the OGCC within 24 hours after the spill is discovered. Old rules require reporting after spills of five barrels or more. A rulemaking hearing is scheduled on December 16, 2013 to adopt a series of additions and amendments to existing OGCC rules to comply with the changes in statute.

Revised Wildlife Maps (1307-RM-01)

During the 2007-2008 rulemaking process, the OGCC adopted rules to minimize adverse impacts to wildlife resources and protect sensitive habitat impacted by oil and gas development pursuant to the Colorado Habitat Stewardship Act of 2007 (Section 34-60-129, C.R.S). In September 2013, the OGCC revised maps of sensitive wildlife habitat and restricted occupancy surface areas to reflect updated scientific data provided by Colorado Parks and Wildlife. These revisions went into effect on November 14, 2013.

Statewide Setbacks (1211-RM-04)

In February 2013, the OGCC approved new setback rules that increased the distances required between different kinds of structures and oil and gas operations, established measures to reduce or mitigate environmental and nuisance impacts from oil and gas development, and required enhanced notice and communication practices from operators. The revised rules took effect August 31, 2013.

Statewide Groundwater Sampling and Monitoring (1211-RM-03)

The OGCC expanded water sampling requirements in January of 2013 to: 1) gather baseline water quality data before oil and gas development occurs in an area, and 2) gather additional data after drilling and completion operations to monitor potential changes in water quality or contaminants. Effective: May 1, 2013.

September 2013 Floods

The severe flooding that occurred in mid-September had a significant impact in areas with heavy oil and gas activity, particularly in Weld County and the Denver Julesberg (DJ) Basin along the South Platte, Cash La Poudre, and Big Thompson Rivers. The most recent flood response update from the OGCC was issued on November 26, 2013, and included the following data:

• Oil and gas producers shut in a total of 2,608 wells in anticipation of flooding. Of those, 78.0 percent (2,022 wells) have returned to production.

- Fourteen notable spills, or single spills of greater than 20 barrels, were caused by the flooding. The largest single spill of oil or condensate was 323 barrels (10,175 gallons).
- In total, 1,149 barrels of oil or condensate and 1,035 barrels of produced water were spilled during the flooding. At 91,729 gallons, all of the spills combined would fill roughly 1.4 lanes of one Olympic-sized swimming pool.

For context, flood waters were being discharged at rates as high as 10,000 cubic feet (74,805 gallons) per second at some United States Geological Survey (USGS) stream and river gauges. That is roughly equivalent to draining one Olympic-sized swimming pool every nine seconds. Additionally, the Colorado Department of Public Health and Environment conducted water sampling at 29 sites in late September and found elevated levels of bacteria like *E. coli*, but no evidence of pollutants from flood-related oil and gas spills.

In terms of budgetary impacts, the OGCC has dedicated many hours of staff time to damage assessments and inspections of wells in the flood-impacted area over the past three months. Immediately after the flood, four to nine two-person teams were in the field six days per week to assess impacts, and 35 staff members were dedicated to flood response. Agency oversight of recovery efforts is ongoing and the OGCC has absorbed all flood-related personal services and equipment costs in the Program Costs line item.

There is an Emergency Response line item in the OGCC budget with an annual appropriation of \$1 million in cash funds from the Oil and Gas Conservation and Environmental Response Fund. These funds are for the "investigation, prevention, monitoring, and mitigation of circumstances, which are caused by or are alleged to be associated with oil and gas activities and which call for immediate action by the Oil and Gas Conservation Commission," as specified in Long Bill Footnote 51.

A total of \$282,053 in emergency response funds has been spent since FY 2009-10. The OGCC has indicated that the cost of an emergency is assessed to the operator whenever possible. Emergency response funds are used when an operator cannot be identified or linked to an event that threatens public or environment welfare. In the case of the releases and property damage caused by the recent flooding, operators with spills are addressing all cleanup and remediation issues and the OGCC does not anticipate the need for any emergency response expenditures.

Local Hydraulic Fracturing Bans and Litigation

Boulder, Broomfield, Fort Collins, and Lafayette each had initiatives either banning or suspending hydraulic fracturing on the ballot for the November 2013 election. All four passed, though the results from Broomfield are being contested because the measure passed by a margin of only 20 votes. The Colorado Oil and Gas Association has filed suit against Fort Collins, which instituted a five-year moratorium on hydraulic fracturing, and Lafayette, which banned oil and gas development through an amendment to the city charter.

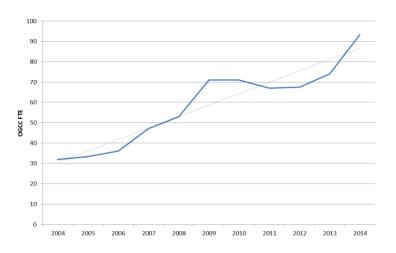
The OGCC is party to ongoing litigation regarding restrictions on oil and gas activity in Longmont, including the use of hydraulic fracturing and submitted the following statement:

The OGCC looks forward to the clarity that a decision in the Longmont case may bring to the issue of hydraulic fracturing, but at this point in time, the State is not involved with COGA lawsuits against the measures recently approved by voters in Fort Collins and Lafayette.

A trial date has been set for August 11, 2014 in the Longmont case and proceedings are slated to last three weeks.

Recent Trends in OGCC FTE

Over the past ten years, a series of FTE increases have been authorized in response to the significant growth in workload for the OGCC (shown in the figure below):



The first significant increase in FTE happened between 2007 and 2009, which roughly corresponds to the peak in requested drilling permits. Over half of the 35.0 FTE added in those three years were in the permitting, engineering, or environmental work groups, all of which participate in well permitting and location approval processes. The remainder went to inspections (22.9 percent), hearings (8.5 percent), and administration or IT (11.4 percent).

A second round of increases began with the approval of 7.0 FTE in FY 2012-13, which included two field inspectors, two local government liaisons, and one hearings officer, an environmental specialist, and an engineer. Most recently, the General Assembly approved an additional 19.4 FTE in the FY 2013-14 Long Bill: 5.0 FTE were added per a decision item from the Department, 5.4 FTE were added in response to rulemaking on groundwater sampling and spill reporting, 4.0 FTE were added through JBC action, and 5.0 were added in an amendment to the 2013 Long Bill. In all, the OGCC gained 12.0 inspectors and field staff, 5.0 engineers and environmental specialists, 1.0 enforcement officer, and 1.4 budget and administrative staff.

At this time, a total of 14.0 of the new positions have been filled, the hiring process has started for 3.0 FTE, and the OGCC anticipates that the remaining 2.4 FTE will be filled by Spring 2014. The Department submitted the following table which shows the current progress in filling those positions:

OGCC Hiring	OGCC Hiring Update for FTE Approved in the FY 2013-14 Long Bill								
Work Group	Position/Location	Start Date							
Positions Filled									
Field Inspection	Field Inspection Supervisor - Southwest	November 18, 2013							
Field Inspection	Field Inspector - Northeast	November 1, 2013							
Field Inspection	Field Inspector - Eastern CO	November 1, 2013							
Multiple	Deputy Director of Field Operations	November 1, 2013							
Field Inspection	Field Inspector - NE, Greeley Area	November 1, 2013							
Field Inspection	Field Inspector - NW, Rifle Area	October 1, 2013							
Field Inspection	Field Inspector - NW, Rangely Area	October 1, 2013							
Field Inspection	Field Inspector - NE, Greeley Area	October 1, 2013							
Environmental	Environmental Protection Specialist - Northeast	October 1, 2013							
Finance and Budget	Budget Analyst	July 22, 2013							
Engineering	Engineer - Northeast	July 15, 2013							
Environmental	Environmental Protection Specialist - Northwest	June 24, 2013							
Engineering	Engineer - Northeast	June 24, 2013							
Environmental	Environmental Protection Specialist - Northeast	May 16, 2013							
Hiring Process Under	way With Initial Paperwork Completed								
Hearings	Hearing Officer - Enforcement	December 31, 2013							
Field Inspection	Reclamation Supervisor	Early 2014							
Field Inspection	Quality Assurance Professional	Early 2014							
Formal Hiring Proces	s Not Yet Underway - Positions Will Be Filled By Sp	oring 2014							
Field Inspection	Reclamation Specialist - Southeast								
Field Inspection	Reclamation Specialist - Southwest								
Database Manager	0.4 FTE								
Total Authorized by F	Total Authorized by FY 2013-14 Long Bill 19.4 FTE								

A key consideration driving the FY 2013-14 increase in FTE was the average rate of inspection for active wells in the state. From 2008 to 2012, the OGCC was inspecting wells at an average frequency of once every 3.25 years, with the ratio of wells per inspector increasing to nearly 3,500 in FY 2011-12. The Department anticipates that the addition of 11.0 new inspectors will keep the frequency of inspections within an average range of once every two to three years with an inspection rate of 1,000 wells per inspector per year.

The following table shows the average number of years in between inspections beginning in FY 2008-09:

OGCC Average Inspection Frequency									
FY 08-09	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14*	FY 14-15*	FY 15-16*		
3.78	3.39	2.66	3.16	2.71	2.5	2.21	2.0		

^{*}Estimated inspection frequency.

Program output measures set a benchmark for average inspection frequency of 2.21 years for FY 2014-15 and 2.0 years for FY 2015-16. However, should the growth in active well count continue, average inspection frequency will return to prior levels if FTE devoted to inspection remains the same.

RELEVANCE OF BRIEFING ISSUE TO THE DEPARTMENT'S PERFORMANCE PLAN:

The OGCC is primarily responsible for permitting, monitoring and enforcement, overseeing reclamation, and public outreach to protect public health and safety while promoting the responsible development of oil and gas in the State of Colorado. This issue brief reviews workload measures, staffing, and other outside factors that directly impact the OGCCs ability to carry out its regulatory role and achieve strategic program objectives.

Issue: Additional Legal Services for OGCC Enforcement

The Department is requesting a total of \$327,888 cash funds for an additional 3,600 hours of legal services to assist the Oil and Gas Conservation Commission's Hearings Unit and enforcement program with increasing workload due to continued growth in oil and gas activity in the state.

SUMMARY:

- The Hearings Unit is responsible for enforcement actions, adjudicatory hearings, rulemaking, and public outreach related to oil and gas activity in the state. Each of these functions requires legal support provided by the Attorney General's (AG) Office.
- Workload measures for the Hearings Unit have shown significant increases since 2006, some as much as 400.0 percent. The Department cites continued growth in active well count and a rise in general public interest about oil and gas development as the primary factors driving the workload increases for the Hearings Unit.
- In response to workload increases, the Hearings Unit has doubled in size with the addition of a total of 4.0 FTE since FY 2007-08. Legal services hours for the OGCC have also doubled, increasing by the equivalent of 1.0 FTE to a total of 2.0 FTE.
- The Department is requesting an additional 3,600 hours of legal services (equivalent to adding 2.0 FTE) to assist the OGCC's Hearings Unit, and specifically the enforcement program, with increases workload that are expected to continue into the future.

RECOMMENDATION:

Staff recommends that the Department provide the Committee with an estimate of the number of Notices of Alleged Violation that could be developed into formal enforcement actions but are not pursued due to lack of staff time or legal resources, and discuss whether the requested increase in legal services hours is sufficient to reduce the backlog of cases that should result in disciplinary proceedings.

Additionally, staff recommends that the Department provide with an overview of the Department's plan to strengthen the enforcement program, as outlined in the report prepared in response to Executive Order D 2013-004. This should include an account of anticipated workload impacts for the OGCC and any changes in staffing that would be required to successfully implement the proposed changes.

DISCUSSION:

OGCC Hearings Unit and Enforcement Program

The OGCC Hearings Unit has four main areas of responsibility, each of which requires legal assistance provided by the Attorney General's Office:

Enforcement

When violations of OGCC rules are identified by field inspection staff, enforcement actions can be initiated if the charges are serious or the corrective actions are not completed promptly. Hearings Unit enforcement efforts generally fall into three categories:

- Notices of Alleged Violation (NOAV): Formal enforcement actions are initiated when the OGCC issues a NOAV to an operator found to be in violation of rules or permit conditions. The notice identifies the legal and factual bases for the alleged violations and specifies corrective actions that are required to bring the operator back into compliance. The Hearings Unit conducts a review of each NOAV to determine the appropriate charges to file given the facts presented in the notice and evaluate the strength and enforceability of each alleged violation. These analyses are estimated to require an average 4.0 hours of staff time per NOAV to complete.
- Administrative Order by Consent (AOC): One mode of resolving enforcement actions is an AOC, which is a negotiated settlement between OGCC staff and the operator found to have rule or permit violations. Each AOC requires the Hearings Unit to work on case development, prepare a notice of hearing, and draft, negotiate, and finalize the settlement agreement. Processing each AOC requires an estimated average of 104 hours of staff time.
- Orders Finding Violation (OFV): When enforcement actions cannot be resolved by settlement, the matter is presented in a contested evidentiary hearing on an OFV in front of the Commission, similar to a case being heard in a court. Hearings Unit work on OFVs includes everything required to prepare an AOC, plus preparing the case for trial. This includes participating in discovery, conducting depositions, attending pre-hearing conferences, and preparing motions, briefs, exhibits, and witness. OFVs are the most labor intensive for the Hearings Unit, requiring an average of 600 hours of staff time to complete.

Adjudication

The Commission is responsible for adjudicating matters of efficient and orderly oilfield development. This includes things like well spacing, statutory resource pooling, unitization, and cost recovery. Hearings Unit staff process and present the applications submitted by operators, mineral-lease holders, and landowners for adjudication on these matters. A Commission order is required before any new well projects can proceed.

Rulemaking

As the primary regulatory agency for the oil and gas industry in Colorado, the OGCC maintains a comprehensive set of rules and regulations related to public health, environmental quality, and resource development. These rules are established or amended in a series of public rulemaking hearings held by the Commission.

Public and Local Government Outreach

Open records requests under the Colorado Open Records Act (CORA) constitute one component of public outreach handled the Hearings Unit. These are often quite time consuming for OGCC staff to compile. The Hearings Unit also works closely with local governments and recently added two liaisons tasked exclusively with providing outreach, education, and training for local governments.

Role of the Attorney General's Office

An Assistant Attorney General (AAG) acts as the attorney to the Commissioners, provides legal counsel in hearings, and collaborates with OGCC Hearings Unit staff on work in each of the four areas of responsibility. For enforcement proceedings, the AG's Office is highly involved in every stage of the process, working closely with OGCC staff on case preparation activities through the presentation of evidence to the Commission. In some instances the AAG will act as the prosecutor, presenting cases brought before the Commission. In matters of adjudication, the AG's Office provides legal review of applications and gives legal advice during Commission deliberations.

In the rulemaking process, the AG's Office reviews all proposed rules before they are finalized to ensure they are consistent with statute and clearly communicate requirements to industry. Assistant Attorneys General must also assist with the preparation of the required Statement of Basis and Purpose for new or amended rules. Finally, the AG's Office provides analysis and legal support for CORA public records requests and works closely with OGCC staff on local government outreach efforts including reviewing proposed local government regulations, agreements with operators, and proposed memoranda of understanding between local governments and the OGCC.

Hearings Unit Workload

Trends in Workload Measures

For the most part, there have been significant workload increases in each of these areas of responsibility. The following table shows trends in available workload measures affecting Hearings Unit from FY 2008-09 through estimates for FY 2013-14:

OGCC Hearings Unit Workload Measures									
	FY 08-09	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14*			
NOAVs	258	237	337	172	180	180			
Enforcement Actions (OFVs + AOCs)	n/a	n/a	29	14	24	20 ^a			
Applications for Orders	103	125	225	456	525	500			
CORA Requests	n/a	n/a	n/a	2	8	41 ^b			

^{*} Data for FY 2013-14 is estimated.

Enforcement: The number of NOAVs issued has actually declined 69.5 percent since FY 2008-2009, which is a substantial change but not necessarily indicative of a decreasing workload for the Hearings Unit. The OGCC attributes this change to a shift in how violations are addressed. Previously, NOAVs were issued as a kind of warning. Many involved minor violations that could be resolved without formal enforcement proceedings. Now, the OGCC issues Unsatisfactory Inspection Reports and Warning Letters for minor violations to allow operators to rectify issues without receiving a NOAV. However, since NOAVs are now limited to more serious violations, the Department anticipates that they are more likely to result in time-intensive proceedings before the Commission.

AOCs and OFVs are the more serious enforcement actions handled by the Hearings Unit with significant assistance from the AG's Office. For the first five months of FY 2013-14, the Hearings Unit was handling four enforcement actions per month which is nearly double the rate in the previous year. At present, these are covered by 1.0 enforcement officer and approximately 1.5 FTE in hours from the Assistant Attorneys General. A second enforcement officer is being hired as part of the FY 2013-14 increase in FTE and is expected to begin work by the end of the year.

In terms of legal services hours, a portion of the 600 hours required to process an OFV is attorney time, and in some cases the AAG accounts for the majority of the required hours if serving as the lead prosecutor. Enforcement Officers or the AAG has prosecutorial discretion on what charges to bring or whether to bring a case at all depending on the strength of the evidence. The Department has had to prioritize and focus resources on the most serious legal issues but has indicated that there is a supply of standing violations that could easily be developed into an AOC or OFV if additional resources were available.

Adjudication: The number of Applications for Orders (requests for adjudication by the Commission) is a primary workload measure for the Hearings Unit. These applications have increased approximately 400.0 percent over the past five years. Two Hearings Officers are currently responsible for responsible for reviewing applications, facilitating prehearing conferences, and presenting draft orders to the Commission, which occupies the entirety of their time.

<u>Public Records Requests:</u> The OGCC has received a large number of CORA open records requests over the past year. In 2011 and 2012, the OGCC had two and eight open records

a. Enforcement Actions through November 2013 (5 months).

b. CORA requests submitted through November 25, 2013.

requests respectively, but there have already been 41 requests submitted as of November 25, 2013. That is a rate of nearly one per week, which is a significant burden for Hearings Unit staff in terms of the time required to compile the necessary materials to complete each request.

Factors Driving Hearings Unit Workload

The Department cites two major factors driving workload for the Hearings Unit: increasing active well count and growing public awareness about oil and gas development.

Active Well Count:

Like other programs in the OGCC, workload for the Hearings Unit is ultimately driven by the increasing active well count in the state. The addition of roughly 3,000 new wells per year means there are more wells to inspect and the recent increases in inspection staff will lead to more frequent inspections. This increases the possibility of a rule or permit violation and the likelihood it will be spotted by an inspector, which ultimately means more enforcement actions from the OGCC.

In terms of adjudication, active well count is more an indicator of activity in Hearings Unit than a workload driver. Operators must have an order issued by the Commission before proceeding with any new well development. At present, commodity prices continue to make adding oil and gas production a profitable endeavor so active well count and requests for adjudication increase together because one has to come before the other. Finally, since the OGCC is responsible for the regulation of oil and gas development, additional rulemaking is also required to keep regulations current and respond to changing conditions driven by increases in activity.

In short, the workload burden is moving up through each layer of oversight provided by the OGCC. Demand for oil and gas drove a spike in permitting in 2007. The subsequent growth in active wells has recently been driving the need for more field inspection staff. Now the growth has reached the Hearings Unit that is responsible for managing the development of oilfields and enforcing the rules established to regulate the industry.

Growing Public Interest:

The Department also cites increasing interest in oil and gas development as a separate and important contributing factor to workload increases, in large part because the OGCC is subject to greater public scrutiny. Specific measures for public concern were not provided by the Department, but the recent jump in indicators like public records requests and the number of recent ballot initiatives seem to correspond to a growing public awareness of oil and gas activity. The Department argues that this ultimately raises expectations for the Hearings Unit and factors into its responsibilities.

Executive Order D 2013-004

In addition to the workload increases driven by oil and gas activity, the Governor issued Executive Order D 2013-004 directing the OGCC to review and strengthen its enforcement program, penalty structure, and imposition of fine to ensure compliance with rules and prompt

response to any found violations. This will likely increase demands on the Hearings Unit enforcement staff which is currently operating without sufficient legal assistance.

The Department submitted the required report to the Governor's Office on December 10, 2013 which details a plan for implementing a more robust enforcement program and it is currently under review. The report will be publically available prior to the Department hearing, and staff recommends the Committee discuss report findings and any anticipated workload impact of any changes to enforcement program objectives or practices.

R2 Additional Legal Services for Enforcement

In response to significant increases in workload over the past five years, the Hearings Unit has added 4.0 FTE since FY 2007-08. Legal services support has increased by the equivalent of 1.0 FTE (1,800 hours) in the past 10 years. Given the degree to which legal support is necessary for program outcomes, especially with labor intensive enforcement actions, the Department is requesting a 3,600 hour increase in legal services for the OGCC. This would bring total legal services hours for the OGCC to 7,200 hours. Funding for the increase would come from the Oil and Gas Conservation and Emergency Response fund, which is fully able to support the \$327,888 appropriation without adversely affecting the mill levy or fund balance.

The Department has indicated that the bulk of the new legal services hours would be used to pursue more serious enforcement actions that require a considerable amount of staff time from Hearings Unit staff and the AAGs involved in each case. An addition of 3,600 hours will allow the Hearings Unit to prosecute six to eight additional OFVs per year, which usually result in fines and other disciplinary actions for operators in violation of rules or permit requirements.

RELEVANCE OF BRIEFING ISSUE TO THE DEPARTMENT'S PERFORMANCE PLAN:

This briefing issue addresses the Department's change request (R2) for additional legal services hours in support of the Hearings Unit, which is directly related to the following agency objectives included in the performance plan for the OGCC:

- 1) Prevent and mitigate adverse impacts to public health, safety, and welfare, in addition to the environment and wildlife.
- 2) Ensure compliance through an effective enforcement program.
- 3) Expedite the processing of oil and gas well drilling, recompletion, and underground injection well permit applications.
- 4) Serve as the primary government resource to the public regarding oil and gas development in Colorado.

The four main areas of responsibility for the Hearings unit (enforcement, adjudication, rulemaking, and public outreach) are integral to industry regulation, operator compliance, oil and gas development, and the provision of information to stakeholders and the public. Legal support from the AG's Office is necessary for the achievement of these important program outcomes.

Issue: DRMS Coal Program Refinancing (R3)

The Department is requesting a net-zero fund source adjustment for the Coal Regulatory Program to refinance \$352,881 in federal funds with cash funds from the Severance Tax Operational Fund in anticipation of cuts in grant money from the U.S. Office of Surface Mining.

SUMMARY:

- The Coal Regulatory Program (Program) is responsible for regulating coal mining activity in the state, which includes issuing permits, conducting inspections, enforcing rules and regulations, and overseeing reclamation activities.
- In FY 2014-15, the Department anticipates a 15.0 percent cut (\$352,881) to Program grant funds from the U.S. Office of Surface Mining. A cut of this magnitude would require a 4.0 FTE reduction in Program regulatory staff.
- Colorado has had primacy, or regulatory authority, over its coal mines since 1980 on the
 condition that the Program and state regulations meet national minimum requirements. Longterm reductions in Program capacity to meet these requirements could jeopardize state
 primacy and return regulatory responsibility to the federal level.
- The Department is requesting that the cut in federal funds be replaced with cash funds from the Severance Tax Operational Fund. Projections for severance tax revenue in the Operational Fund show sufficient funds to cover the Department's request for FY 2014-15. The Coal Regulatory Program has required refinancing with severance tax revenue due to federal funding shortfalls in 9 of the last 16 years.

RECOMMENDATIONS:

Staff recommends that the Department discuss the following during the hearing with the Committee: (1) expectations for the long-term availability of federal funding for the Coal Regulatory Program, (2) how the Department intends to handle adjustments to severance tax appropriations to refinance any future cuts in the OSM grant funds, and (3) how an ongoing appropriation of severance tax will be impacted by future fluctuations in severance tax revenue.

DISCUSSION:

Background

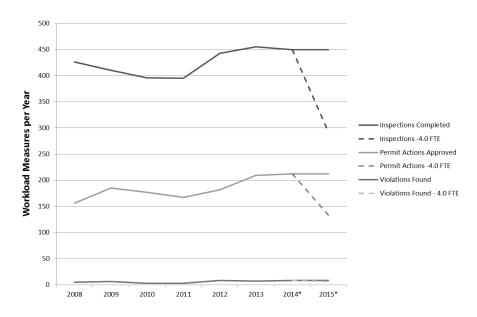
The Coal Regulatory Program (Program) is responsible for issuing and reviewing coal mining permits, inspecting active coal mining operations, enforcing statutes and rules, and overseeing the reclamation of land after mining activities are complete. At present, the Program regulates 122 active mines and exploration operations, and completed 455 inspections in FY 2012-13. Colorado is among the top 10 coal producing states in the country with 28.6 million tons of coal produced in 2012 and 15.7 million tons produced through August of 2013.

Under the federal Surface Mining Control and Reclamation Act (SMCRA) of 1977, states can assume regulatory authority over coal mines so long as state mining and reclamation laws and regulatory programs meet national minimum requirements. In response, Colorado passed the 1979 Surface Coal Mining Reclamation Act (Section 34-33-101, C.R.S.) and began regulating coal mining activities in 1980. The Program has a strong compliance rate of 98.5 percent on average. Federal oversight of the state regulatory program is conducted by the Office of Surface Mining (OSM) in the Department of Interior.

Program Funding and Workload

Funding for the Program comes from federal grants from the OSM (79.0 percent), and a 21.0 percent state match from severance tax revenue in the Operational Fund. In FY 2014-15, however, the Program expects federal grant funds to be cut by 15.0 percent (\$352,881) from current levels due to federal sequester policies. This is equivalent to 3.5 to 4.0 entry-level Environmental Protection Specialist FTE, responsible for monitoring mines through the entire regulatory process from permitting to the completion of reclamation. A reduction in regulatory staff of this size would reduce program personnel by 18.0 percent.

Program workload as measured by the number of inspections completed, permitting actions, and enforcement actions or violations found, has increased over the past three years. Since FY 2010-11, the number of inspections completed by Program staff has risen 15.2 percent and approved permitting actions are up 25.0 percent. The number of found violations is generally low given the consistently high industry compliance rate and Program inspection efforts, but they have jumped from 3 to 7 over the past three years. Department projections on each of these three measures show workload remaining at these slightly elevated levels through FY 2015-16.



Should federal funding cuts require a 4.0 FTE reduction in program staff, the Department estimates that the Program will see the following reductions in workload capacity: 72 permit actions per year, 158 inspections per year, and 2 enforcement actions per year. The solid lines in the figure above show Program workload through estimates for FY 2014-15, assuming

regulatory FTE remain the same. The dashed lines show the estimated effects of a 4.0 FTE reduction on the number of inspections completed, permit actions, and violations.

Delays in the permitting process directly affect production at active mining operations which can reduce royalty payments. In 2012, coal mines that were in production for the entire year produced an average of 3.5 million tons, generating \$45,575 in royalties per day that would be lost in the case of a delay. In terms of inspections, each active mine and reclamation site is inspected monthly with less frequent inspections for sites in cessation or with forfeited bonds. As such the Program has approximately 360 *known* inspections but regularly conducts nearly 100 additional inspections per year due to complaints or violations. Cutting 158 inspections would allow the program to complete only 297 inspections per year, roughly 60 less than the number of known inspections required by rules and regulations.

State Primacy Requirements

Any long-term reduction in workload capacity raises the possibility that state primacy may be revoked, returning regulatory authority to federal OSM staff. The Program has indicated that the federal regulatory program would not be able to provide the same efficient or comprehensive services to stakeholders that are currently being offered by the state. This would cause some uncertainty for the industry and may exacerbate environmental and compliance issues. Additionally, the Inactive Mines Reclamation Program, responsible for securing legacy mines, relies on federal funding from the OSM that is only granted if Colorado maintains regulatory primacy. Though a revocation of primacy is not an imminent or immediate threat, any change in state regulatory responsibilities could have ramifications for industry and the public.

Department Request (R3): Coal Program Refinance

The current federal grant from the OSM is approximately \$2.35 million in total, which also covers the Blaster Certification program and POTS. The Department is requesting a net-zero funding source adjustment to cover the anticipated cut of \$352,881 (15.0 percent) in federal funds with severance tax from the Operational Fund. Federal funds for the Coal Regulatory Program have fallen short of spending authority in 9 of the last 16 fiscal years and severance tax revenue was increased to cover the difference in those instances (shown in the following table):

	History of Federal Funds (OSM) and Severance Tax Backfill										
	FY 99-00	FY 00-01	FY 01-02	FY 02-03	FY 04-05	FY 05-06	FY 06-07	FY 07-08	FY 14-15*		
OSM Funds	1,622,368	1,564,947	1,481,307	1,481,090	1,584,045	1,555,439	1,577,319	1,559,996	1,465,987		
Sev. Tax Backfill	36,152	33,842	240,720	104,040	41,346	125,108	178,138	140,112	352,881		

*FY 2014-15 request.

This change request is for an ongoing appropriation of severance tax cash funds that is roughly \$110,000 higher than the largest amount needed for refinancing in the past. The Program has indicated that it intends to work with staff to adjust that figure annually during figure setting after the availability of federal funds is finalized.

The Department made a similar request for Program refinancing in FY 2011-12. A total of \$273,306 in cash funds from severance tax was approved to refinance cuts in OSM grant funds. However, the anticipated cuts to federal grant funding did not occur and the appropriation was reversed in a supplemental budget amendment.

Impact on the Severance Tax Operational Fund

Over the past 12 years, coal production has contributed an average of \$8.52 million in severance tax revenue annually. Pursuant to HB 08-1398 (Buescher/Johnson), the DRMS is classified as a Tier 1 program that receives severance tax revenue from the Operational Fund to support day-to-day operations, salaries, and on-going program costs. The percentage of moneys in the Operational Fund available to Tier 1 programs is capped in statute (Section 39-29-109.3, C.R.S.), but none have approached these thresholds in recent years. The DRMS is authorized to receive up to 25.0 percent of available Operational Fund appropriations, but has received an average of only 6.6 percent since FY 2010-11. With the request to refinance, the DRMS would account for approximately 7.0 percent of total expenditures from the Operational Fund in FY 2014-15 which is far from the statutory limit.

Statute also requires that the reserve for Tier 1 programs be equal to the appropriation for the year. This effectively doubles the effect of Department's request by adding \$352,881 to the reserve to cover the amount of severance tax that would be newly appropriated to the Coal Regulatory Program. At present, severance tax revenue projections show sufficient funds to cover the Department's request.

RELEVANCE OF BRIEFING ISSUE TO THE DEPARTMENT'S PERFORMANCE PLAN:

The Coal Regulatory Program is part of the Office of Mined Land Reclamation in the Department of Natural Resources, which has the following objectives:

- 1) Promote the responsible development of the State's mineral and energy resources while protecting public health, safety, welfare, and the environment.
- 2) Reclaim coal and mineral mined acres to beneficial post-mining land use.
- 3) Protect the environment by ensuring regulatory compliance.
- 4) Coordinate permitting, regulatory, and public review processes with federal, state, and local agencies.

This briefing issue deals with a cut in federal funds that will impede permitting, inspection, and enforcement actions conducted by the Coal Regulatory Program if refinancing does not occur. Adequate state supervision of mining activities, from exploration and permitting to complete reclamation, is directly related to positive outcomes on each of the performance objectives listed above.

Appendix A: Number Pages

FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	Request vs.
Actual	Actual	Appropriation	Request	Appropriation

DEPARTMENT OF NATURAL RESOURCES

Mike King, Executive Director

(2) DIVISION OF RECLAMATION, MINING, AND SAFETY

Primary Functions: Provides regulation and enforcement related to the development and reclamation of mining sites. Primary sources of cash funds are fees on metal and aggregate mining operations and the severance tax.

(A) Coal Land Reclamation

Program Costs	2,105,000	2,126,557	<u>2,126,557</u>	2,181,332	*
FTE	18.7	19.3	22.0	22.0	
General Fund	0	0	0	0	
Cash Funds	441,465	449,087	449,087	820,419	
Reappropriated Funds	0	0	0	0	
Federal Funds	1,663,535	1,677,470	1,677,470	1,360,913	
Indirect Cost Assessment	217,185	110,423	145,144	133,005	
General Fund	0	0	0	0	
Cash Funds	28,575	28,181	30,480	27,931	
Federal Funds	188,610	82,242	114,664	105,074	
SUBTOTAL - (A) Coal Land Reclamation	2,322,185	2,236,980	2,271,701	2,314,337	1.9%
FTE	<u>18.7</u>	<u>19.3</u>	<u>22.0</u>	<u>22.0</u>	0.0%
General Fund	0	0	0	0	0.0%
Cash Funds	470,040	477,268	479,567	848,350	76.9%
Reappropriated Funds	0	0	0	0	0.0%
Federal Funds	1,852,145	1,759,712	1,792,134	1,465,987	(18.2%)

^{*}This line item includes a decision item.

	FY 2011-12 Actual	FY 2012-13 Actual	FY 2013-14 Appropriation	FY 2014-15 Request	Request vs. Appropriation
(B) Inactive Mines					
Program Costs	1,540,929	1,256,438	1,636,925	1,686,541	
FTE	7.8	9.1	16.6	16.4	
General Fund	0	0	0	0	
Cash Funds	501,276	362,469	519,247	519,247	
Federal Funds	1,039,653	893,969	1,117,678	1,167,294	
Mine Site Reclamation	496,450	306,656	409,993	411,665	
FTE	0.3	0.0	1.2	1.2	
Cash Funds	496,450	306,656	379,993	381,665	
Reappropriated Funds	0	0	30,000	30,000	
Reclamation of Forfeited Mine Sites	<u>78,657</u>	267,055	<u>171,000</u>	<u>171,000</u>	
Cash Funds	78,657	267,055	171,000	171,000	
Abandoned Mine Safety	99,596	99,850	<u>0</u>	99,850	
FTE	0.1	0.1	0.0	0.2	
Cash Funds	99,596	99,850	0	99,850	
Indirect Cost Assessment	214,354	109,443	185,626	179,219	
Cash Funds	12,026	14,633	59,504	16,733	
Federal Funds	202,328	94,810	126,122	162,486	
SUBTOTAL - (B) Inactive Mines	2,429,986	2,039,442	2,403,544	2,548,275	6.0%
FTE	<u>8.2</u>	<u>9.2</u>	<u>17.8</u>	<u>17.8</u>	(0.0%)
General Fund	0	0	0	0	0.0%
Cash Funds	1,188,005	1,050,663	1,129,744	1,188,495	5.2%
Reappropriated Funds	0	0	30,000	30,000	0.0%
Federal Funds	1,241,981	988,779	1,243,800	1,329,780	6.9%

	FY 2011-12 Actual	FY 2012-13 Actual	FY 2013-14 Appropriation	FY 2014-15 Request	Request vs. Appropriation
(C) Minerals					
Program Costs	2,135,806	2,157,524	2,257,374	2,178,670	
FTE	20.4	20.3	24.1	24.1	
General Fund	0	0	0	0	
Cash Funds	2,135,806	2,157,524	2,257,374	2,178,670	
Reappropriated Funds	0	0	0	0	
Federal Funds	0	0	0	0	
Indirect Cost Assessment	121,219	127,188	144,147	124,971	
Cash Funds	121,219	127,188	144,147	124,971	
SUBTOTAL - (C) Minerals	2,257,025	2,284,712	2,401,521	2,303,641	(4.1%)
FTE	<u>20.4</u>	<u>20.3</u>	<u>24.1</u>	<u>24.1</u>	<u>0.0%</u>
General Fund	0	0	0	0	0.0%
Cash Funds	2,257,025	2,284,712	2,401,521	2,303,641	(4.1%)
Reappropriated Funds	0	0	0	0	0.0%
Federal Funds	0	0	0	0	0.0%
(D) Mines Program					
Colorado and Federal Mine Safety Program	477,004	523,441	513,045	524,713	
FTE	3.4	4.1	4.0	4.0	
General Fund	0	0	0	0	
Cash Funds	314,785	324,324	324,324	335,068	
Reappropriated Funds	0	0	0	0	
Federal Funds	162,219	199,117	188,721	189,645	

	FY 2011-12 Actual	FY 2012-13 Actual	FY 2013-14 Appropriation	FY 2014-15 Request	Request vs. Appropriation
Blaster Certification Program	118,435	108,353	108,353	109,462	
FTE	0.9	0.9	1.0	1.0	
Cash Funds	24,723	22,606	22,606	22,839	
Federal Funds	93,712	85,747	85,747	86,623	
Indirect Cost Assessment	<u>35,146</u>	<u>25,148</u>	23,835	<u>24,581</u>	
Cash Funds	17,668	16,682	16,180	16,265	
Federal Funds	17,478	8,466	7,655	8,316	
SUBTOTAL - (D) Mines Program	630,585	656,942	645,233	658,756	2.1%
FTE	4.3	<u>5.0</u>	<u>5.0</u>	<u>5.0</u>	0.0%
General Fund	0	0	0	0	0.0%
Cash Funds	357,176	363,612	363,110	374,172	3.0%
Reappropriated Funds	0	0	0	0	0.0%
Federal Funds	273,409	293,330	282,123	284,584	0.9%
(E) Emergency Response Costs					
Emergency Response Costs	<u>25,000</u>	24,907	<u>25,000</u>	<u>25,000</u>	
General Fund	0	0	0	0	
Cash Funds	25,000	24,907	25,000	25,000	
Reappropriated Funds	0	0	0	0	
Federal Funds	0	0	0	0	
SUBTOTAL - (E) Emergency Response Costs	25,000	24,907	25,000	25,000	0.0%
FTE	0.0	0.0	0.0	0.0	0.0%
General Fund	0	0	0	0	0.0%
Cash Funds	25,000	24,907	25,000	25,000	0.0%
Reappropriated Funds	0	0	0	0	0.0%
Federal Funds	0	0	0	0	0.0%

	FY 2011-12 Actual	FY 2012-13 Actual	FY 2013-14 Appropriation	FY 2014-15 Request	Request vs. Appropriation
TOTAL - (2) Division of Reclamation, Mining, and					
Safety	7,664,781	7,242,983	7,746,999	7,850,009	1.3%
FTE	<u>51.6</u>	<u>53.8</u>	<u>68.9</u>	<u>68.9</u>	0.0%
General Fund	0	0	0	0	0.0%
Cash Funds	4,297,246	4,201,162	4,398,942	4,739,658	7.7%
Reappropriated Funds	0	0	30,000	30,000	0.0%
Federal Funds	3,367,535	3,041,821	3,318,057	3,080,351	(7.2%)

FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	Request vs.
Actual	Actual	Appropriation	Request	Appropriation

(3) GEOLOGICAL SURVEY

Environmental Coalogy and Coalogical Hannels

Primary functions: Provides geologic information to the public and government agencies. Cash funds are from severance tax revenues, fees for geological services provided, and grants. Reappropriated funds are from transfers from other state agencies for geological services. The enactment of H.B. 12-1355 transferred most functions of the Geological Survey to the Colorado School of Mines, effective January 31, 2013. The enactment of H.B. 13-1057 retained the Colorado Avalanche Information Center (formerly part of the Geological Survey) within the Department of Natural Resources but moved that function to the Executive Director's Office. As a result of those two bills, the Geological Survey is no longer a division of the Department of Natural Resources, and there is no request or recommendation for FY 2013-14.

Environmental Geology and Geological Hazards				
Program	1,379,957	605,510	<u>0</u>	<u>0</u>
FTE	7.9	0.0	0.0	0.0
General Fund	0	0	0	0
Cash Funds	895,850	475,020	0	0
Reappropriated Funds	199,296	109,571	0	0
Federal Funds	284,811	20,919	0	0
Colorado Avalanche Information Center	687,480	238,531	<u>0</u>	<u>0</u>
FTE	8.4	0.0	0.0	0.0
General Fund	0	0	0	0
Cash Funds	275,825	69,383	0	0
Reappropriated Funds	398,518	151,311	0	0
Federal Funds	13,137	17,837	0	0
Mineral Resources and Mapping	1,082,194	776,213	<u>0</u>	<u>0</u>
FTE	10.5	0.0	0.0	0.0
Cash Funds	977,659	708,241	0	0
Federal Funds	104,535	67,972	0	0

	FY 2011-12 Actual	FY 2012-13 Actual	FY 2013-14 Appropriation	FY 2014-15 Request	Request vs. Appropriation
Indirect Cost Assessment	158,082	93,762	<u>0</u>	<u>0</u>	
Cash Funds	110,548	74,494	0	0	
Federal Funds	47,534	19,268	0	0	
TOTAL - (3) Geological Survey	3,307,713	1,714,016	0	0	0.0%
FTE	<u>26.8</u>	<u>0.0</u>	$\underline{0.0}$	<u>0.0</u>	0.0%
General Fund	0	0	0	0	0.0%
Cash Funds	2,259,882	1,327,138	0	0	0.0%
Reappropriated Funds	597,814	260,882	0	0	0.0%
Federal Funds	450,017	125,996	0	0	0.0%

FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	Request vs.
Actual	Actual	Appropriation	Request	Appropriation

(4) OIL AND GAS CONSERVATION COMMISSION

Primary functions: Promoting and regulating responsible development of oil and gas natural resources. Cash funds are from the Oil and Gas Conservation and Environmental Response Fund and the severance tax.

Program Costs	<u>5,866,959</u>	<u>6,378,943</u>	<u>8,517,429</u>	8,333,154
FTE	63.4	70.2	93.4	93.4
General Fund	0	0	0	0
Cash Funds	5,866,959	6,378,943	8,517,429	8,333,154
Underground Injection Program	96,559	96,559	96,559	96,559
FTE	2.0	2.0	2.0	2.0
Federal Funds	96,559	96,559	96,559	96,559
Plugging and Reclaiming Abandoned Wells	286,235	350,040	445,000	445,000
Cash Funds	286,235	350,040	445,000	445,000
Environmental Assistance and Complaint Resolution	311,312	220,155	312,033	312,033
Cash Funds	311,312	220,155	312,033	312,033
Emergency Response	264,817	<u>0</u>	1,000,000	1,000,000
Cash Funds	264,817	$\overline{0}$	1,000,000	1,000,000
Special Environmental Protection and Mitigation Studies	119,756	196,165	325,000	325,000
Cash Funds	119,756	196,165	325,000	325,000

	FY 2011-12 Actual	FY 2012-13 Actual	FY 2013-14 Appropriation	FY 2014-15 Request	Request vs. Appropriation
Indirect Cost Assessment	456,220	404,024	436,030	410,260	
General Fund	0	0	0	0	
Cash Funds	456,220	393,108	429,764	405,234	
Reappropriated Funds	0	0	0	0	
Federal Funds	0	10,916	6,266	5,026	
TOTAL - (4) Oil and Gas Conservation Commission	7,401,858	7,645,886	11,132,051	10,922,006	(1.9%)
FTE	<u>65.4</u>	<u>72.2</u>	<u>95.4</u>	<u>95.4</u>	<u>0.0%</u>
General Fund	0	0	0	0	0.0%
Cash Funds	7,305,299	7,538,411	11,029,226	10,820,421	(1.9%)
Reappropriated Funds	0	0	0	0	0.0%
Federal Funds	96,559	107,475	102,825	101,585	(1.2%)

FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	Request vs.
Actual	Actual	Appropriation	Request	Appropriation

(5) STATE BOARD OF LAND COMMISSIONERS

Primary Functions: Manages around 2.8 million surface acres and 4.0 million mineral acres of state trust lands for the benefit of 8 public trusts, the largest of which is the School Trust (96% of holdings). Cash funds are from the Trust Administration Fund. Reappropriated funds are from the Division of Parks and Wildlife.

Program Costs FTE General Fund Cash Funds Federal Funds	3,624,726 36.8 0 3,624,726 0	3,790,477 37.0 0 3,790,477 0	4,132,918 40.0 0 4,132,918 0	4,221,892 40.0 0 4,221,892 0	
Public Access Program Damage and Enhancement Costs	209,145	189,274	225,000	225,000	
Reappropriated Funds	209,145	189,274	225,000	225,000	
Asset Management System Upgrade Cash Funds	$\frac{0}{0}$	$\frac{0}{0}$	750,000 750,000	$\frac{0}{0}$	
Indirect Cost Assessment Cash Funds	189,581 189,581	202,527 202,527	224,959 224,959	216,768 216,768	
TOTAL - (5) State Board of Land Commissioners FTE General Fund	4,023,452	4,182,278	5,332,877	4,663,660	(12.5%)
	<u>36.8</u>	<u>37.0</u>	<u>40.0</u>	<u>40.0</u>	<u>0.0%</u>
	0	0	0	0	0.0%
Cash Funds Reappropriated Funds Federal Funds	3,814,307	3,993,004	5,107,877	4,438,660	(13.1%)
	209,145	189,274	225,000	225,000	0.0%
	0	0	0	0	0.0%

	FY 2011-12 Actual	FY 2012-13 Actual	FY 2013-14 Appropriation	FY 2014-15 Request	Request vs. Appropriation
TOTAL - Department of Natural Resources	22,397,804	20,785,163	24,211,927	23,435,675	(3.2%)
FTE	<u>180.6</u>	<u>163.0</u>	<u>204.3</u>	<u>204.3</u>	0.0%
General Fund	0	0	0	0	0.0%
Cash Funds	17,676,734	17,059,715	20,536,045	19,998,739	(2.6%)
Reappropriated Funds	806,959	450,156	255,000	255,000	0.0%
Federal Funds	3,914,111	3,275,292	3,420,882	3,181,936	(7.0%)

Appendix B: Recent Legislation Affecting Department Budget

Information on recent legislation affecting the Department budget can be found on page 53 of the briefing packet for Part I of the Department of Natural Resources (Executive Director's Office, Division of Parks and Wildlife, Colorado Water Conservation Board, and Water Resources Division), available at:

http://www.tornado.state.co.us/gov_dir/leg_dir/jbc/2013-14/natbrf1.pdf

Appendix C: Update on Long Bill Footnotes & Requests for Information

Long Bill Footnotes

Department of Natural Resources, Division of Reclamation, Mining, and Safety, Inactive Mines, Mine Site Reclamation -- It is the intent of the General Assembly that these funds shall remain available until completion of the project or the close of FY 2015-16, whichever comes first. At project completion or the end of the three-year period, any unexpended balances shall revert to the Operation Account of the Severance Tax Trust Fund from which they were appropriated.

Comment: This footnote provides roll-forward authority at the end of the fiscal year.

Department of Natural Resources, Division of Reclamation, Mining, and Safety, Inactive Mines, Reclamation of Forfeited Mine Sites -- It is the intent of the General Assembly that the appropriation to this line item remain available until the completion of the project or the close of FY 2015-16, whichever comes first. At project completion or the end of the three-year period, any unexpended amount shall revert to the Operational Account of the Severance Tax Trust Fund, from which this appropriation was made.

Comment: This footnote provides roll-forward authority at the end of the fiscal year.

Department of Natural Resources, Division of Reclamation, Mining, and Safety, Minerals, Program Costs -- It is the intent of the General Assembly that \$99,850 of the cash funds appropriation to this line item from the Operational Account of the Severance Tax Trust Fund remain available until the completion of the electronic permitting system for the Division of Reclamation, Mining, and Safety or the close of FY 2014-15, whichever comes first. At project completion or the end of the two-year period, any unexpended amount shall revert to the Operational Account of the Severance Tax Trust Fund, from which this appropriation was made.

<u>Comment:</u> This footnote clarifies the General Assembly's intent that the funds appropriated for the development of an electronic permitting system be available for two fiscal years (FY 2013-14 and FY 2014-15).

Department of Natural Resources, Oil and Gas Conservation Commission, Emergency Response -- It is the intent of the General Assembly that funding for this line item be expended in the event that there is an oil and gas related emergency under the jurisdiction of the Oil and Gas Conservation Commission. The purpose of this funding is for investigation, prevention, monitoring, and mitigation of circumstances which are caused by or are alleged to be associated with oil and gas activities and which call for immediate action by the Oil and Gas Conservation Commission. An emergency creates a threat to public health, safety, or welfare or to the environment as proclaimed by the Oil

and Gas Conservation Commission Director and approved by order of the Oil and Gas Conservation Commission.

<u>Comment:</u> This footnote sets forth the purpose, conditions, and limitations of the line item. The JBC created the Emergency Response line item in FY 2006-07, with an appropriation of \$1.5 million from the Oil and Gas Conservation and Environmental Response Fund. The General Assembly reduced the annual appropriation to \$1.0 million in FY 2011-12. Said sum is to be used -- if and when necessary -- for emergency responses. The line item was created because of concern that emergency funding would be necessary during a time when the JBC may not yet be meeting during the interim (and thus would have to wait for an interim supplemental, delaying the Department's ability to respond adequately).

Department of Natural Resources, Oil and Gas Conservation Commission, Special Environmental Protection and Mitigation Studies -- It is the intent of the General Assembly that funding for this line item be used for special environmental protection and mitigation studies including, but not limited to gas seepage mitigation studies, outcrop monitoring studies, soil gas surveys in the vicinity of plugged orphaned wells, and baseline water quality and subsequent follow-up studies.

<u>Comment:</u> This footnote sets forth the purpose, conditions, and limitations of the line item.

Requests for Information

Department of Natural Resources, Oil and Gas Conservation Commission, Emergency Response -- The Oil and Gas Conservation Commission is requested to include in its annual budget request a report detailing all expenditures made in the previous year from this line item.

<u>Comment:</u> The Department complied with this request. The Department reports that no expenditures were made from this line item in FY 2012-13.

3 Department of Natural Resources, Oil and Gas Conservation Commission, Special Environmental Protection and Mitigation Studies -- The Oil and Gas Conservation Commission is requested to include in its annual budget request a report detailing all expenditures made in the previous year from this line item.

<u>Comment:</u> The Department complied with this request. The report describes seven studies that the Oil and Gas Conservation Commission supported through this line item in FY 2012-13, totaling \$196,165 in expenditures. Spending is from cash funds in the Oil and Gas Conservation and Environmental Response Fund and is supported by a mill levy on oil and gas production. The Department's response is attached as Appendix F.

Appendix D: Indirect Cost Assessment Methodology

A description of the Department's indirect cost assessment methodology and FY 2014-15 indirect cost assessment request can be found on page 61 of the briefing packet for Part I of the Department of Natural Resources (Executive Director's Office, Division of Parks and Wildlife, Colorado Water Conservation Board, and Water Resources Division), available at:

http://www.tornado.state.co.us/gov_dir/leg_dir/jbc/2013-14/natbrf1.pdf

Appendix E: Change Requests' Relationship to Measures

This appendix shows how the Department of Natural Resources ranks each change request for the divisions covered in this document in relation to the Department's top priorities, and what measures the Department is using to measure success of the request.

	Change Requests' Relationship to Performance Measures					
R	Change Request Description	Goals / Objectives	Performance Measures			
R2	Additional Legal Services for Enforcement (OGCC)	Prevent and mitigate adverse effects to public health, safety, and welfare, in addition to the environment and wildlife. Ensure compliance through an effective enforcement program. Expedite the processing of oil and gas well drilling, recompletion, and underground injection well permit applications. Serve as the primary government resource to the public regarding oil and gas development in Colorado.	Ten measures are provided in the performance plan.			
R3	Coal Regulatory Program Refinancing (DRMS)	Promote the responsible development of the State's mineral and energy resources while protecting public health, safety, welfare, and the environment. Reclaim coal and mineral mined acres to beneficial post mining land use. Protect the environment by ensuring regulatory compliance at coal and mineral mine sites. Coordinate permitting, regulatory, and public review processes with federal, state, and local agencies. Implement interagency agreements for groundwater, storm water, point source, and mine waste issues.	Four measures are provided in the performance plan.			

Information on Department change requests R1 and R4-R6, as well as non-prioritized change requests, can be found can be found on page 63 of the briefing packet for Part I of the Department of Natural Resources (Executive Director's Office, Division of Parks and Wildlife, Colorado Water Conservation Board, and Water Resources Division), available at:

http://www.tornado.state.co.us/gov_dir/leg_dir/jbc/2013-14/natbrf1.pdf

Appendix F: Department Response to FY 2013-14 RFI #3 – Oil and Gas Conservation Commission, Special Environmental Protection and Mitigation Studies

Department of Natural Resources – FY 2013-14 RFI #3 <u>Special Environmental Protection and Mitigation Studies Line Item</u> Annual Report of Expenditures by the Colorado Oil & Gas Conservation Commission

Special Study/ Project Name	Description	FY 2012-13 Expenditures
	Project Rulison was a 1969 underground nuclear blast conducted by the Atomic Energy Commission to investigate the use of nuclear explosives to stimulate gas production. Project Rio Blanco is the site of a nearly simultaneous subsurface nuclear detonation of three nuclear devices at depths between 5,500 and 7,000 feet on May 17, 1973. In both areas, oil and gas operators with active and planned operations are required to conduct extensive monitoring, sampling, and analysis. The OGCC contracts with a health physicist to assist in the oversight of oil and gas activities being conducted in this area by ensuring operators are in compliance with the radiological provisions of the approved Project Rulison Sampling and Analysis Plan (RSAP) and the Project Rio Blanco Sampling and Analysis Plan (RBSAP), as well as subsequent revisions to both. For Project Rulison in FY 2012-13, a health physicist from M.H. Chew and Associates, Inc. and OGCC conducted a document review and field inspection of the PC22 South Piceance well site (Location ID 432551) where a total of 21 wells are actively producing or planned for future development. Chew and	Expenditures \$14,150
	Associates issued a report dated June 27, 2013 and provided documentation that the operator was in compliance with the RSAP. No adverse findings were made following the document review and site inspection. For Project Rio Blanco in FY 2012-13, no oversight activity by OGCC contractors was necessary.	

3M-4M Monitoring	Since 2000, the OGCC has installed 17 monitoring wells at 11 locations along the Fruitland Outcrop in La Plata and Archuleta Counties to monitor gas pressure changes in the Fruitland Coal Formation. All wells are equipped with downhole pressure transducers that report data via a satellite telemetry system to a central data center. The OGCC retained a third-party contractor knowledgeable in the systems to provide ongoing operations and maintenance (O&M) support to ensure the systems stay in working order and continue to relay data as designed. In FY 2012-13, OGCC's contractor performed the following tasks: • Repaired a wellhead at one site; • Evaluated conditions at the 17 wells included in the monitoring program, and replace cable and transducers following wellhead repair; • Performed general O&M of all system locations; • Transmitted automated well pressure monitoring to a central data center; and • Analyzed new and historic online data, and prepared the annual report. To retrieve the FY 2012-13 Annual Report from the OGCC website, navigate online to Library / Area Reports/Data - San Juan Basin / 4M Project Reports.	\$41,977
EPA Frac Study	Scientists from the U.S. Environmental Protection Agency (EPA) contacted the OGCC in 2011 as part of a nationwide study of potential impacts from hydraulic fracturing to ground and surface waters. Given the OGCC's technical knowledge of the Raton Basin, the EPA invited the OGCC to perform analysis of groundwater samples from two areas in the Basin as part of the national study's Colorado sampling program. In FY 2012-13, OGCC staff and a contractor collected and sent water samples to labs in an effort to better understand the groundwater chemistry of both areas. The contractor then completed the following two tasks: • Analysis of eight samples for volatile organic compounds and preparation of a report dated May 30, 2013; and • Analysis of ten water samples for radon and preparation of a report dated May 30, 2013. The reports are downloadable from the OGCC website. From the home page (the URL is http://cogcc.state.co.us/), link to Images, and enter 2122 in the Unique Identifier field. Select the hyperlinks labeled Download to get the report and supporting data in full.	\$24,093

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Huerfano County Methane Survey	The primary objective of the Huerfano County Methane Survey is to proactively and systematically locate and survey methane gas seepage on publicly accessible roads in the Raton Basin of Colorado. The study contributes to public safety in the region by identifying areas of methane seepage and assessing the potential for methane to create hazardous conditions.	\$26,038
	During May and June of 2013, the OGCC's contractor used a 4 wheel drive vehicle mounted with infrared analysis equipment to collect air samples in multiple locations. The vehicle's instrumentation is common to pipeline leak detection teams who service major North American pipeline systems.	
	The 2013 survey was the third since surveying began in 2001. Methane seeps were identified in four locations in 2013, while the 2001 baseline survey identified one and the 2007 follow-up survey identified 11 potential seeps.	
	The report is downloadable from the OGCC website. From the home page (the URL is http://cogcc.state.co.us/), link to Images, and enter 2126 in the Unique Identifier field. Select the hyperlinks labeled Download to get the report and supporting data in full.	
Baseline Water Sampling Requests for Garfield County Residents	In response to landowners and local government concerns about current and future oil and gas development in Garfield County and its potential to impact ground water resources, the OGCC conducted a baseline water quality sampling to characterize groundwater conditions. The OGCC contracted with an environmental consultant to provide technical support for (i) reviewing water quality sample results, (ii) reviewing stable isotope data, and (iii) preparing letters for interested parties.	\$5,007
	 In FY 2012-13, the environmental consultant issued the following work products: Fourteen (14) summary letters addressed to the owners of the sampled water wells, giving each owner information about the characteristics of their well water that could potentially be related to impacts from oil and gas production activities; and Notification of the OGCC that no oil and gas production related impacts were identified in any of the water wells sampled. 	

To detect whether hydraulic fracturing activity in Weld County is causing any changes to groundwater quality, a team of researchers from the Department of Civil and Environmental Engineering at Colorado State University is working to install groundwater monitoring wells into the Laramie-Fox Aquifer near locations of active oil and gas wells. The research effort, which began in late FY 2012-13 and will continue through FY 2013-14, features pattern recognition software capable of detecting changes in groundwater using data relayed wirelessly from each monitoring well to a campus-based server.	\$70,000
Unlike sampling techniques that measure water quality at a single point or perhaps two points in time, this network of monitoring wells will provide continuous measurements over a longer period and in real time. The research team notes the following five project accomplishments to date:	
 Selection of the chemical measurements or analysis that can indicate drilling impacts in a monitoring well; Development of data analysis protocols that define when a water quality anomaly is detected; 	
 Construction of a website that will allow well instruments to transmit data to the oncampus server; Delivery of presentations and hosting of steering committee meetings to define the project and determine protocols; and 	
Coordination with the oil and gas operator to secure the participation of landowners for contracting groundwater monitoring wells.	
The project team expects to install the monitoring systems in the final two months of CY 2013.	
During a regular OGCC inspection in Garfield County in February 2010, bubbles of unidentified gas were observed in storm water pooled around the RWF 342-22 wellhead. Between March and November 2010, a number of tests and engineering reviews were conducted to determine: • The mechanical integrity of well RWF 342-22 on well pad 342-22; • Whether the gas seeping to the surface around RWF 342-22 was the production gas from the Williams Fork Formation or the shallower Wasatch Formation; and • Whether the gas was contaminating shallow groundwater.	\$14, 901
	groundwater quality, a team of researchers from the Department of Civil and Environmental Engineering at Colorado State University is working to install groundwater monitoring wells into the Laramie-Fox Aquifer near locations of active oil and gas wells. The research effort, which began in late FY 2012-13 and will continue through FY 2013-14, features pattern recognition software capable of detecting changes in groundwater using data relayed wirelessly from each monitoring well to a campus-based server. Unlike sampling techniques that measure water quality at a single point or perhaps two points in time, this network of monitoring wells will provide continuous measurements over a longer period and in real time. The research team notes the following five project accomplishments to date: • Selection of the chemical measurements or analysis that can indicate drilling impacts in a monitoring well; • Development of data analysis protocols that define when a water quality anomaly is detected; • Construction of a website that will allow well instruments to transmit data to the oncampus server; • Delivery of presentations and hosting of steering committee meetings to define the project and determine protocols; and • Coordination with the oil and gas operator to secure the participation of landowners for contracting groundwater monitoring wells. The project team expects to install the monitoring systems in the final two months of CY 2013. During a regular OGCC inspection in Garfield County in February 2010, bubbles of unidentified gas were observed in storm water pooled around the RWF 342-22 wellhead. Between March and November 2010, a number of tests and engineering reviews were conducted to determine: • The mechanical integrity of well RWF 342-22 on well pad 342-22; • Whether the gas seeping to the surface around RWF 342-22 was the production gas from the Williams Fork Formation or the shallower Wasatch Formation; and

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WPX Soil Gas Survey at Department of Energy Site (continued)	 In FY 2012-13, the OGCC retained a third party contractor for the following tasks: Complete a historic and data review related to the inspection; Re-measure the pressure in the bradenhead and conductor casing of RWF 342-22 following a 8-day pressure build up; Conduct a pedestrian survey to determine whether surface methane seepages occur in areas around and in between the well pads; and Measure methane fluxes where the highest methane concentrations were observed during the pedestrian survey. The report is downloadable from the OGCC website. From the home page (the URL is http://cogcc.state.co.us/), link to Images, and enter 2145456 in the Document Number field. Select the hyperlink labeled Download to get the report in full. 	
Total Expenditures		\$196,165