COLORADO GENERAL ASSEMBLY
JOINT BUDGET COMMITTEE

FY 2011-12 STAFF BUDGET BRIEFING

DEPARTMENT OF NATURAL RESOURCES

(Division of Reclamation, Mining, and Safety, Colorado Geological Survey, 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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FY 2011-12 BUDGET BRIEFING
STAFF PRESENTATION TO THE JOINT BUDGET COMMITTEE

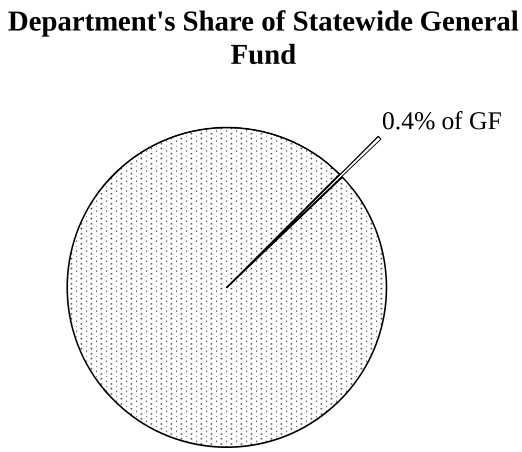
DEPARTMENT OF NATURAL RESOURCES

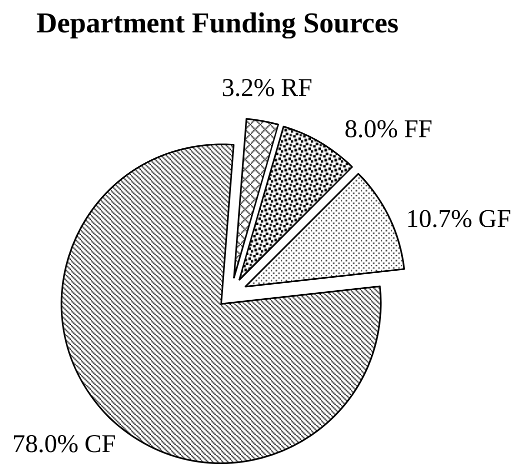
(Division of Reclamation, Mining, and Safety, Colorado Geological Survey, Oil and Gas Conservation Commission, State Board of Land Commissioners)

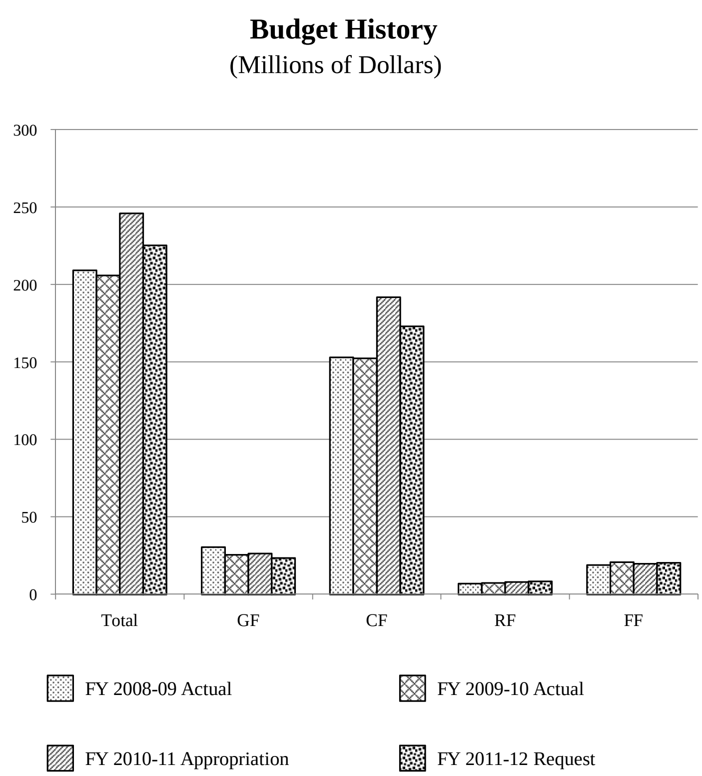
Table of Contents

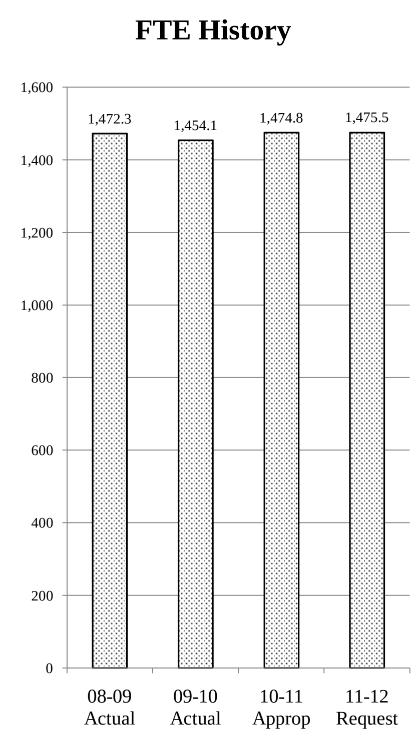
FY 2011-12 Joint Budget Committee Staff Budget Briefing
Department of Natural Resources

GRAPHIC OVERVIEW



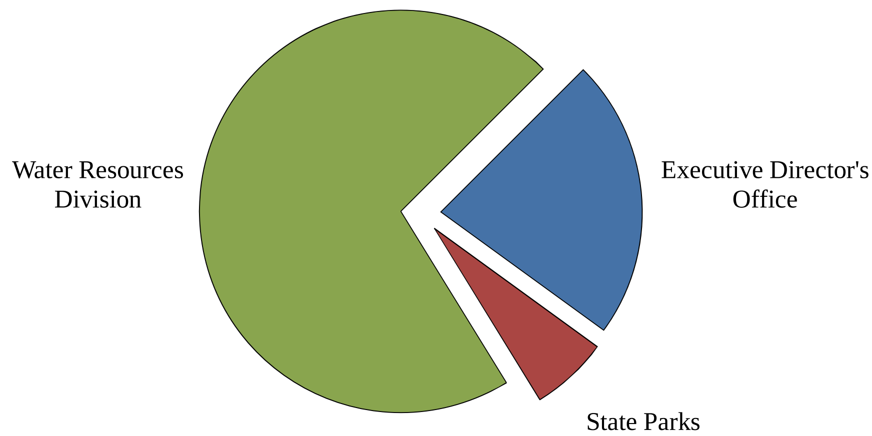




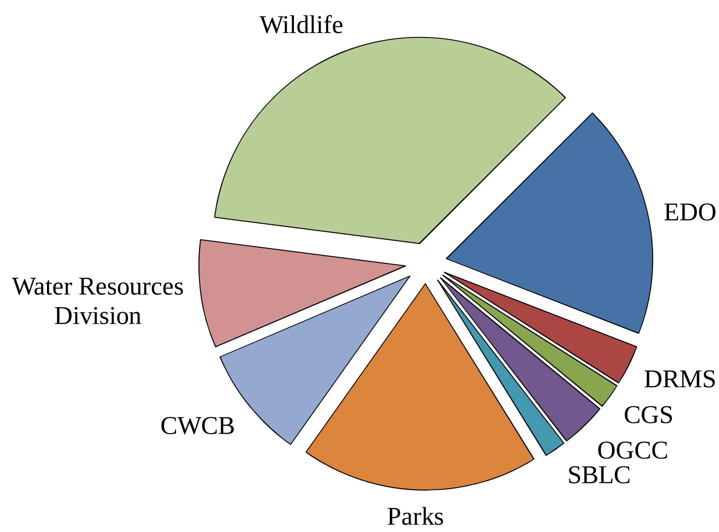


Unless otherwise noted, all charts are based on the FY 2010-11 appropriation.

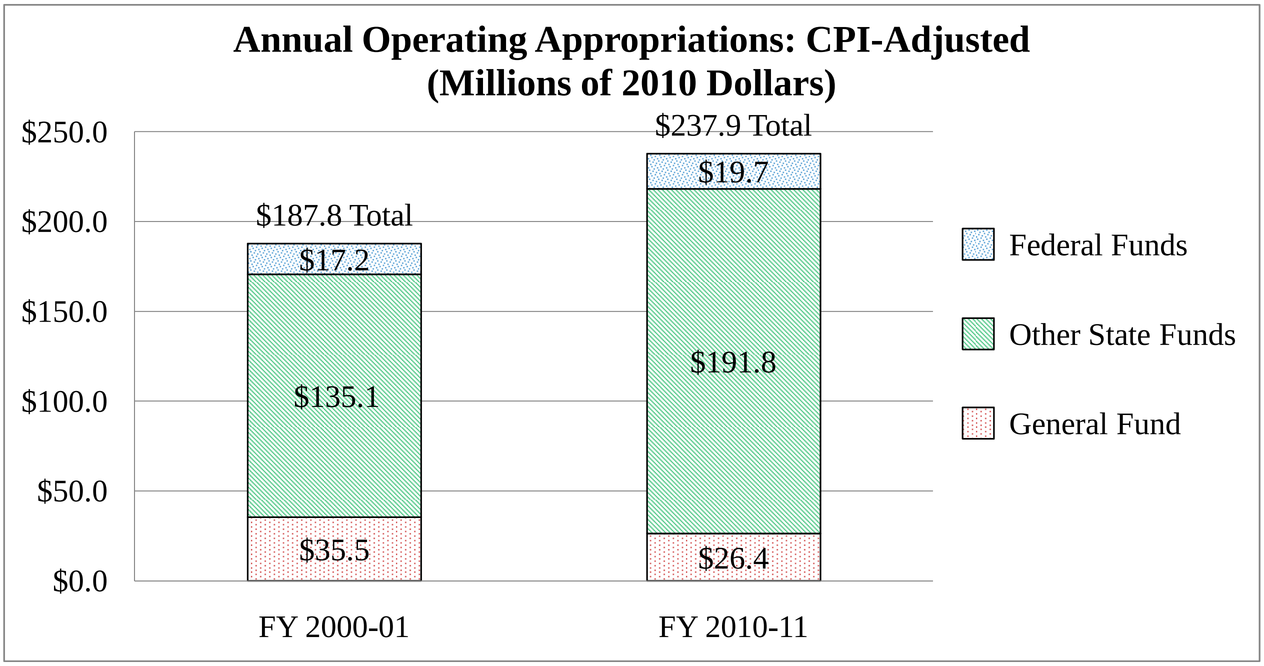
Distribution of General Fund by Division

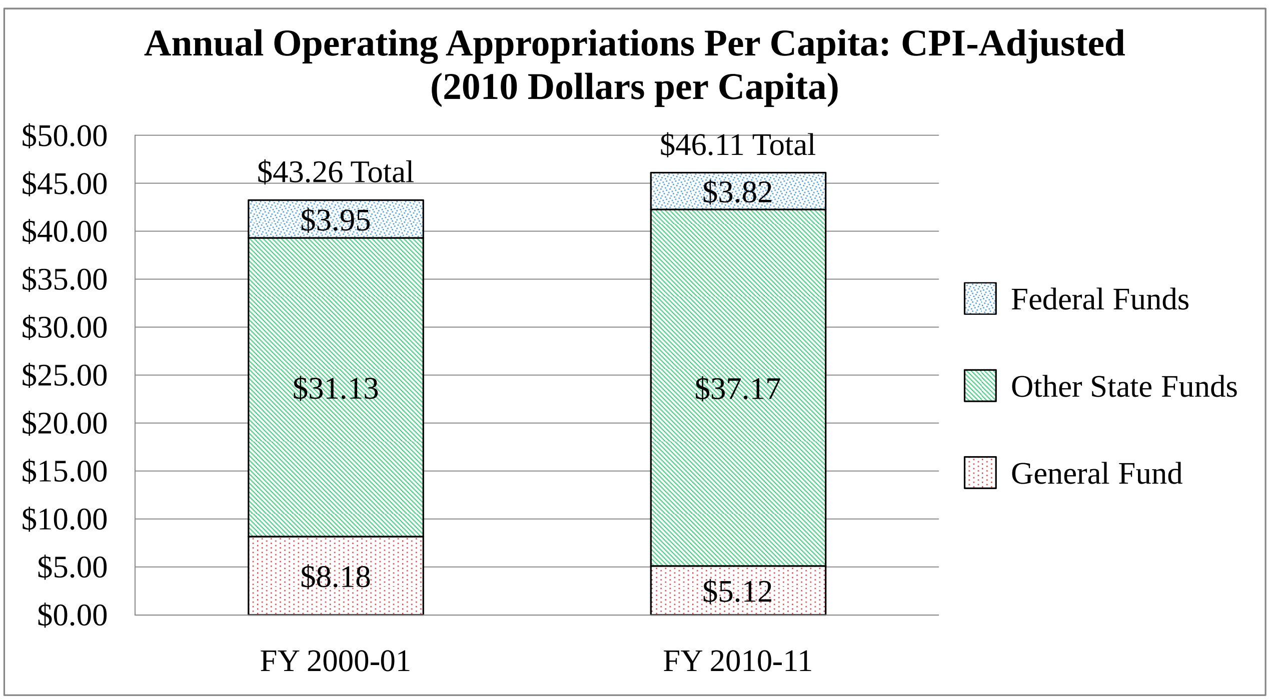


Distribution of Total Funds by Division



COMPARISON OF FY 2000-01 AND FY 2010-11 APPROPRIATIONS





NOTES: (1) All appropriations above *exclude* duplicate appropriations (i.e., these appropriations exclude reappropriated funds for FY 2010-11 and, for FY 2000-01, exclude amounts that would have been classified as reappropriated funds).

(2) For the purpose of providing comparable figures, FY 2000-01 appropriations are adjusted to reflect changes in the Denver-Boulder-Greeley consumer price index (CPI) from 2000 to 2010. Based on the Legislative Council Staff September 2010 Economic and Revenue Forecast, the CPI is projected to increase 21.9 percent over this period.

(3) In the per capita chart, above, appropriations are divided by the Colorado population (for 2000 and 2010, respectively). Based on the Legislative Council Staff September 2010 Economic and Revenue Forecast, Colorado population is projected to increase by 18.9 percent over this period.

FY 2011-12 Joint Budget Committee Staff Budget Briefing
Department of Natural Resources
(Division of Reclamation, Mining, and Safety, Colorado Geological Survey, Oil and Gas Conservation Commission, State Board of Land Commissioners)

DEPARTMENT OVERVIEW

Key Responsibilities

- The **Division of Reclamation, Mining, and Safety** regulates the development and reclamation of mining sites.
- The **Colorado Geological Survey** seeks to enhance the economic vitality of the state, protect citizens from adverse conditions and to provide information using geological tools.
- The **Oil and Gas Conservation Commission** promotes responsible development of oil and gas.
- The **State Board of Land Commissioners** manages state-owned lands for agriculture, minerals development, and commercial purposes, to benefit public schools and other trust beneficiaries.
- The division of **Parks and Outdoor Recreation** manages 44 state parks and associated park projects, and various recreation programs.
- The **Colorado Water Conservation Board** promotes conservation of the state's water resources to ensure maximum use and flood prevention.
- The **Water Resources Division** ("State Engineer's Office") administers and enforces water rights throughout the state.
- The **Division of Wildlife** manages the state's 960 game and non-game wildlife species through the issuance of hunting and fishing licenses, the enforcement of wildlife regulations, and the administration of more than 250 state wildlife areas.

This document covers only the Division of Reclamation, Mining, and Safety, the Colorado Geological Survey, the Oil and Gas Conservation Commission, and the State Board of Land Commissioners. The remaining divisions were included in a separate document and presented by another analyst.

Factors Driving the Budget

For FY 2010-11, funding for the entire department consists of 10.7 percent General Fund, 78.0 percent cash funds, 3.2 percent reappropriated funds, and 8.0 percent federal funds.

Severance Tax (Operational Account) Expenditures

The availability of severance tax revenues to the Operational Account influences the funding levels for many programs in the Department. Section 39-29-108 (2), C.R.S., provides that 50.0 percent of total severance tax revenues are credited to the Severance Tax Trust Fund and 50.0 percent of the revenues are credited to the Department of Local Affairs for grants and distributions to local governments impacted by mining activities. Of the revenues credited to the Severance Tax Trust Fund, 50.0 percent are allocated to the Perpetual Base Account of the Severance Tax Trust Fund (or 25.0 percent of total severance tax revenues), which is used by the Colorado Water Conservation Board for water construction projects. The other 50.0 percent of Severance Tax Trust Fund revenues (or 25.0 percent of total severance tax revenues) are allocated to the Operational Account to fund programs that "promote and encourage sound natural resource planning, management, and development related to minerals, energy, geology, and water."

Severance tax revenues are highly variable. To manage this variability H.B. 08-1398 divided programs funded from the Operational Account into two tiers. The tier 1 programs primarily support the day-to-day operations of the Department of Natural Resources, including paying salaries for employees. The tier 2 programs support grants, loans, research, and construction. The required reserve for tier 1 programs is one times the appropriations. The reserve requirement for tier 2 programs is equal to 15.0 percent of the authorized expenditures. The distribution of funding for tier 2 programs is staggered with 40.0 percent released July 1, 30.0 percent released January 4, and the final 30.0 percent released April 1 of a given fiscal year. Tier 2 programs are subject to proportional reduction if mid-year revenue projections indicate there are insufficient funds to cover the full authorizations. The following table shows revenues to and expenditures from the Operational Account from FY 2005-06 through FY 2010-11. See the issue write-up beginning on page 17 for additional background on the State's severance tax. See the issue write-up beginning on page 22 for a discussion of the status of the Operational Account.

	FY 06-07 Actual	FY 07-08 Actual	FY 08-09 Actual	FY 09-10 Actual	FY 10-11 Estimate	FY 2011-12 Estimate
Beginning balance	$50,851,610	$40,012,876	$46,588,101	$68,073,848	$31,181,533	$22,127,408
Revenues	33,312,271	39,367,947	81,052,610	10,119,342	40,570,111	45,346,829
Total available	$84,163,881	$79,380,823	$127,640,711	$78,193,190	$71,751,644	$67,474,237
Tier 1 Programs	8,669,679	9,715,887	12,701,274	15,910,585	17,787,989	16,399,261
Tier 2 Programs	35,481,326	23,076,835	46,865,589	20,101,072	31,836,247	25,251,072
Transfer to GF	0	0	0	11,000,000	0	0
Ending balance	40,012,876	46,588,101	68,073,848	31,181,533	22,127,408	25,823,904
Reserve	28,864,470	32,431,774	19,731,112	18,925,746	21,017,025	20,186,922
Unobligated	11,148,406	14,156,327	48,342,736	12,255,787	1,110,383	5,636,982

State Board of Land Commissioners

The State Board of Land Commissioners (State Land Board) manages properties in the Public School Trust to raise money for the benefit of K-12 education. The State Land Board also manages seven other smaller trusts set up in the Colorado Constitution or in statute. Approximately 98.0 percent of State Land Board revenue is attributable to the Public School Trust, with the remainder coming from lands associated with the other trusts.

House Bill 08-1335 (known as the BEST bill; see Section 22-43.7-104, C.R.S.) significantly changed the distribution of state public school land revenue. Fifty percent of the gross amount of income received during the fiscal year from income and mineral royalties derived from state public school lands is deposited in the Public School Capital Construction Assistance (PSCCA) Fund. Up to $11.0 million of rental income may be appropriated to the Department of Education for public schools for operating expenses. Any remaining revenue is deposited in the Public School Fund (the Permanent Fund) or may be reinvested by the State Land Board to purchase other lands.

As shown in the table below, mineral revenues are the primary driver of State Land Board and School Trust revenues. Royalties and bonus payments (primarily from oil, gas, and coal) accounted for $49.1 million (73.9 percent) of School Trust revenues in FY 2009-10, down from $58.3 million ($78.8 percent) in FY 2008-09. From FY 2008-09 to FY 2009-10, decreases of approximately $16.0 million in coal royalties and $5.6 million in gas royalties were partially offset by increases in oil royalties ($1.3 million) and bonus payments ($11.0 million).

SCHOOL TRUST REVENUE	FY05-06 Actual	FY06-07 Actual	FY07-08 Actual	FY08-09 Actual	FY 09-10 Actual
School Trust-Total Revenues	$63,868,553	$61,151,881	$69,495,847	$74,023,628	$66,361,923
Mineral Rental	1,751,130	1,614,907	2,023,401	1,739,678	1,729,683
Mineral Royalties/Bonuses	50,399,909	46,715,425	53,105,648	58,327,085	49,049,789
Surface Rental	8,009,916	8,371,449	8,819,293	8,305,534	9,157,949
Commercial/Other	3,478,051	3,259,564	5,172,228	5,210,122	6,210,687
Land Sales	11,286	60,021	4,085	3,250	4,095
Interest and Penalties	126,634	16,694	315,960	381,501	209,720
Timber Sales	91,627	1,113,821	55,232	56,458	0

Oil and Gas Activity

The Colorado Oil and Gas Conservation Commission (OGCC) is responsible for promoting the exploration, development, and conservation of Colorado's oil and natural gas resources. Colorado experienced a significant increase in oil and gas drilling activity from 2002 through 2008, which dramatically affected the Colorado Oil and Gas Conservation Commission's workload and expenditures. Drilling activity, as measured by the number of permit applications received by the OGCC and by the number of active drilling rigs in Colorado, dropped off significantly in FY 2009-10 but appears to be rebounding some in FY 2010-11 and the number of active wells in the state continues to grow. The amount of oil and gas activity in the State remains a driver of the OGCC's and the Department's budget. For additional information on current oil and gas industry activity in Colorado, see the issue paper beginning on page 30 of this document.

Oil and Gas Conservation Commission	FY 06-07 Actual	FY 07-08 Actual	FY 08-09 Actual	FY 09-10 Actual	FY 10-11 Estimate	FY 11-12 Estimate
Workload Activity						
Drilling Permits Received	6,664	7,661	6,910	4,770	5,500	5,000
Location Assessments (Form 2A) Received	N/A	N/A	67	2,119	2,400	2,200
Number of Active Wells	32,021	35,686	39,944	42,217	45,300	48,400
Active Drilling Rigs	97	113	87	46	63	60
OGCC Expenditures[1/]	$6,067,702	$6,533,355	$8,226,522	$7,238,243	$8,580,033	$8,778,894
Total FTE	43.4	53.0	54.6	62.1	69.0	69.0

[1/] Division-only expenditures include all fund sources; does not include centrally appropriated items funded in the Executive Director's Office. Expenditures for FY 2010-11 and FY 2011-12 reflect the appropriation and request, respectively.

FY 2011-12 Joint Budget Committee Staff Budget Briefing
Department of Natural Resources
(Division of Reclamation, Mining, and Safety, Colorado Geological Survey, Oil and Gas Conservation Commission, State Board of Land Commissioners)

DECISION ITEM PRIORITY LIST

Note: This table includes all Department of Natural Resources decision items. However, the full decision item text is shown only for those decision items that affect the sections of the budget covered in this presentation. In some cases, only a portion of the total decision item amount shown will apply to the budget sections addressed in this packet.

Decision Item	GF	CF	RF	FF	Total	FTE
1	0	273,306	0	(273,306)	0	0.0
Coal Regulatory Program Refinance **Division of Reclamation, Mining, and Safety.** The Department requests an increase of $273,306 cash funds from the Operational Account of the Severance Tax Trust Fund to offset an anticipated decrease of the same amount in federal grant funding from the U.S. Office of Surface Mining. The refinance would allow the division to maintain current staffing levels with reduced federal funding. *Statutory authority: Sections 34-33-101 and 39-29-109, C.R.S.*						
2	0	0	28,179	0	28,179	0.7
San Juan Forecaster **Colorado Geological Survey (Colorado Avalanche Information Center).** The Department requests an increase of $28,179 reappropriated funds from the Department of Transportation and 0.7 FTE to hire a permanent avalanche forecaster for the US 550 and SH 145 corridors. The requested position would be stationed in Ouray and focused on forecasting services for Red Mountain Pass and Lizard Head Pass and training area CDOT staff. The Department of Transportation supports the request, and the Transportation Commission has approved the required increase in contract payments to the Avalanche Information Center for the additional forecasting and training services. *Statutory authority: Section 34-1-101 (2), C.R.S.*						
3	0	0	0	0	0	0.0
Modify Footnote Regarding Use of Emergency Funds **Colorado Oil and Gas Conservation Commission (OGCC).** For FY 2011-12, the Department requests a modification of the footnote governing the use of the OGCC's Emergency Response Long Bill line item. The Department requests that the footnote be modified to allow up to 15.0 percent of Emergency Response appropriations to be used for mitigating oil and gas impacts that are a concern to the OGCC staff and commissioners due to potential threats to the environment, public health, and/or wildlife but are not classified as emergencies. Because the annual appropriation to the Emergency Response line item has been $1.5 million, the request would allow the OGCC to spend up to an additional $225,000 on non-emergency projects in years when the Commission has reasonable cause to believe that the Emergency Response line item will not be expended in full. The source of funds for the Emergency Response line item is the Oil and Gas Conservation and Environmental Response Fund (OGCERF), which receives revenue from a 0.7 mill levy on the value of oil and gas production. The Department projects that revenue to the OGCERF will be sufficient to fund this decision item without an accelerated increase in the mill rate. *Statutory authority: Section 34-60-102 (1), C.R.S.*						

Decision Item	GF	CF	RF	FF	Total	FTE
4	0	0	0	0	0	0.0
Snowmobile Program Costs Refinance						
5	0	13,076	0	0	13,076	0.0
Increased Dues						
6	0	10,124	0	849	10,973	0.0
Adjustments to Leased Space						
7	0	0	0	0	0	0.0
River Outfitters Refinance						
NP-1	941	13,549	163	135	14,788	0.0
Printing of Statewide Warrants and Mainframe Documents						
Multiple Divisions. This statewide decision item is submitted through the Department of Personnel (DPA) in order to transition statewide printing services for certain types of printing jobs from the Office of Information Technology (OIT) to DPA. *Statutory Authority: Section 24-30-1101 through 1102, C.R.S.*						
Total	**941**	**310,055**	**28,342**	**(272,322)**	**67,016**	**0.7**

BASE REDUCTION ITEM PRIORITY LIST

Base Reduction	GF	CF	RF	FF	Total	FTE
BRI-1	(2,688,388)	1,119,244	0	0	(1,569,144)	0.0
Eliminate General Fund Support for State Parks						
BRI-2	(438,351)	0	0	0	(438,351)	0.0
Statewide 2 Percent Across the Board General Fund Personal Services Reduction						
BRI-3	0	0	0	0	0	0.0
Severance Tax Perpetual Base Account Transfer						
BRI-4	0	(3,252)	0	(12,236)	(15,488)	0.0
IT Asset Maintenance Coal Adjustment						
NP-2	(4,398)	(2,470)	0	(11,703)	(18,571)	0.0
Pro-Rated Benefits						
NP-3	3,111	(462,371)	0	(3,464)	(462,724)	0.0
Statewide Vehicle Lease						
NP-4	(384,244)	(1,478,456)	(74,295)	(272,507)	(2,209,502)	0.0
Statewide PERA Adjustment						

Base Reduction	GF	CF	RF	FF	Total	FTE
Various Line Items. The Governor's Office requests continuation of S.B. 10-146, concerning a one-time modification of contribution rates of the Public Employees' Retirement Association (PERA). This request would continue to require all State employees participating in PERA defined benefit and defined contribution pension plans to contribute an additional 2.5 percent of salary for retirement in FY 2011-12. *Statutory authority: Section 24-51-401, C.R.S.*						
Total	**(3,512,270)**	**(827,305)**	**(74,295)**	**(299,910)**	**(4,713,780)**	**0.0**

FY 2011-12 Joint Budget Committee Staff Budget Briefing
Department of Natural Resources
(Division of Reclamation, Mining, and Safety, Colorado Geological Survey, Oil and Gas Conservation Commission, State Board of Land Commissioners)

OVERVIEW OF NUMBERS PAGES

The following table summarizes the total change, in dollars and as a percentage, between the Department's FY 2010-11 appropriation and its FY 2011-12 request.

Total Requested Change for the Entire Department, FY 2010-11 to FY 2011-12 (millions of dollars)

Category	GF	CF	RF	FF	Total	FTE
FY 2010-11 Appropriation	$26.4	$191.8	$8.0	$19.7	$245.9	1,474.8
FY 2011-12 Request	23.5	173.1	8.5	20.3	225.4	1,475.5
Increase / (Decrease)	($2.9)	($18.7)	$0.5	$0.6	($20.5)	0.7
Percentage Change	-11.0%	-9.8%	6.3%	3.0%	-8.3%	0.0%

Total Requested Change for DRMS, CGS, OGCC, and SLB, FY 2010-11 to FY 2011-12 (millions of dollars)

Category	GF	CF	RF	FF	Total	FTE
FY 2010-11 Appropriation	$0.0	$19.8	$1.1	$4.4	$25.3	212.3
FY 2011-12 Request	0.0	20.1	1.1	4.1	25.4	213.0
Increase / (Decrease)	$0.0	$0.3	$0.0	($0.3)	$0.1	0.7
Percentage Change	n/a	1.8%	1.5%	-6.4%	0.3%	0.3%

The following table highlights the individual changes contained in the Department's FY 2011-12 budget request, as compared with the FY 2010-11 appropriation, for the portion of the Department covered in this briefing packet. For additional detail, see the numbers pages in Appendix A.

Requested Changes, FY 2010-11 to FY 2011-12

Category	GF	CF	RF	FF	Total	FTE
Division of Reclamation, Mining, and Safety						
Restore FY 2010-11 PERA Reduction	0	54,094	0	66,423	120,517	0.0

Category	GF	CF	RF	FF	Total	FTE
DI NP-1 - Printing of Statewide Warrants and Mainframe Documents	0	131	0	135	266	0.0
DI #1 - Coal Program Refinance	0	273,306	0	(273,306)	0	0.0
DI NP-4 - Statewide PERA Adjustment	0	(60,794)	0	(62,172)	(122,966)	0.0
Indirect Cost Adjustment	0	12,271	0	(30,433)	(18,162)	0.0
Subtotal	**$0**	**$279,008**	**$0**	**($299,353)**	**($20,345)**	**0.0**
Colorado Geological Survey						
Restore FY 2010-11 PERA Reduction	$0	$36,862	$12,329	$7,113	$56,304	0.0
DI #2 - San Juan Forecaster	0	0	28,179	0	28,179	0.7
DI NP-1 - Printing of Statewide Warrants and Mainframe Documents	0	133	0	0	133	0.0
DI NP-4 - Statewide PERA Adjustment	0	(42,451)	(7,414)	(4,490)	(54,355)	0.0
Indirect Cost Adjustment	0	(5,392)	0	(2,759)	(8,151)	0.0
Subtotal	**$0**	**($10,848)**	**$33,094**	**($136)**	**$22,110**	**0.7**
Oil and Gas Conservation Commission						
Restore FY 2010-11 PERA Reduction	$0	$93,508	$0	$0	$93,508	0.0
Indirect Cost Adjustment	0	50,243	0	1,779	52,022	0.0
DI NP-1 - Printing of Statewide Warrants and Mainframe Documents	0	257	0	0	257	0.0
DI NP-4 - Statewide PERA Adjustment	0	(112,851)	0	0	(112,851)	0.0
Subtotal	**$0**	**$31,157**	**$0**	**$1,779**	**$32,936**	**0.0**
State Land Board						
Restore FY 2010-11 PERA Reduction	$0	$63,709	$0	$0	$63,709	0.0
Indirect Cost Adjustments	0	11,588	0	0	11,588	0.0
DI NP-1 - Printing of Statewide Warrants and Mainframe Documents	0	138	0	0	138	0.0

Category	GF	CF	RF	FF	Total	FTE
DI NP-4 - Statewide PERA Adjustment	0	(59,882)	0	0	(59,882)	0.0
Subtotal	**$0**	**$15,553**	**$0**	**$0**	**$15,553**	**0.0**
Total Change	**$0**	**$314,870**	**$33,094**	**($297,710)**	**$50,254**	**0.7**

FY 2011-12 Joint Budget Committee Staff Budget Briefing
Department of Natural Resources
(Division of Reclamation, Mining, and Safety, Colorado Geological Survey, Oil and Gas Conservation Commission, State Board of Land Commissioners)

BRIEFING ISSUE

ISSUE: Significant Actions Taken from FY 2007-08 to FY 2010-11 to Balance the Budget

Total appropriations to the Department of Natural Resources have primarily increased since FY 2007-08 due to cash fund increases related to funding for the annual Species Conservation Trust Fund bill, the annual Colorado Water Conservation Board water projects bill, a transfer of funding from the Parks capital construction budget to the operating budget, as well as increases in severance tax funding to State Parks. Since the most recent economic downturn started in 2008, the General Assembly has taken several actions to reduce General Fund expenditures in this department. As a result, the General Fund appropriation to the Department of Natural Resources has decreased by $3.8 million (12.7 percent) from FY 2007-08 to FY 2010-11.

SUMMARY:

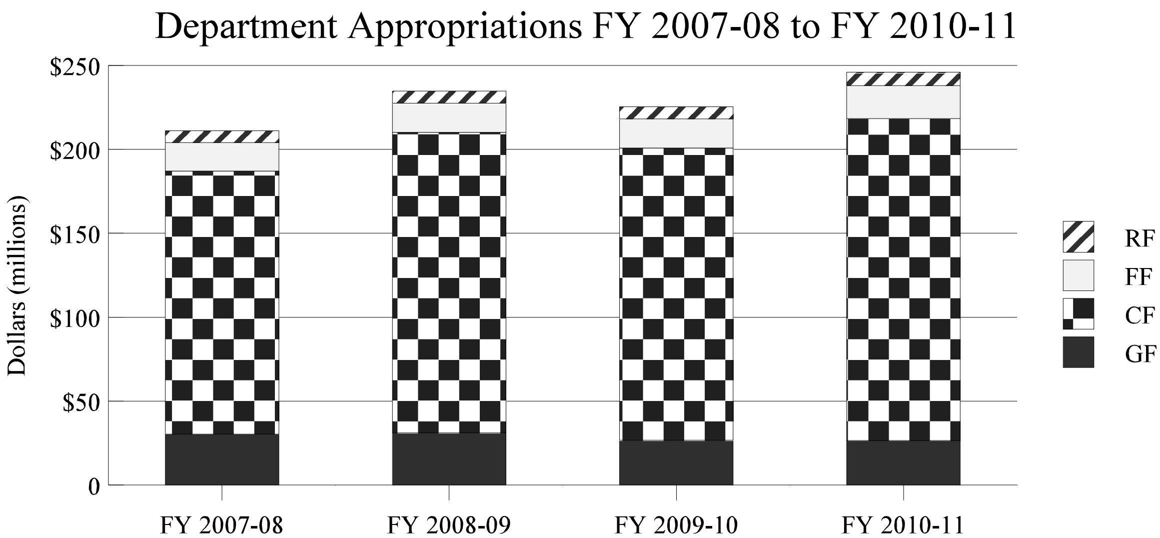
❑ The General Assembly transferred $11.0 million from the Operational Account of the Severance Tax Trust Fund (Operational Account) to the General Fund in FY 2009-10. The transfer was enabled by reductions to low-income energy efficiency (weatherization) programs in the Governor's Energy Office in FY 2010-11 and FY 2011-12.

❑ The General Assembly also refinanced $2.1 million General Fund in the Division of Parks and Outdoor Recreation with Operational Account Funds in FY 2010-11, with the refinance expected to continue on an ongoing basis. This refinance was enabled by reductions to authorized expenditures from the Water Supply Reserve Account and was discussed during a separate briefing on the Department of Natural Resources.

DISCUSSION:

From FY 2007-08 to FY 2010-11, total appropriations to the Department of Natural Resources increased by approximately 16.5 percent ($34.8 million). Most of this increase was provided through cash funds ($35.0 million), an increase of federal funds ($2.8 million), an increase of reappropriated funds ($787,000), and a decrease of $3.8 million in General Fund. The major cash fund increases are related to increases in funding for the annual Species Conservation Trust Fund bill, the annual Colorado Water Conservation Board water projects bill, a transfer of funding from the Parks capital construction budget to the operating budget, as well as increases in severance tax funding to State Parks. The major General Fund reductions are related to State Parks operating reductions and refinance of funding.

Appropriations to the Department of Natural Resources for FY 2007-08 through FY 2010-11 are illustrated in the bar chart and detailed in the table below.



Department of Natural Resources Appropriations FY 2007-08 to FY 2010-11					
	Total Funds	**General Fund**	**Cash Funds**	**Federal Funds**	**Reappropriated Funds**
FY 2007-08 /a	$211,142,943	$30,258,368	$156,795,840	$16,903,787	$7,184,948
FY 2008-09	234,769,579	31,057,499	179,001,019	17,333,292	7,377,769
FY 2009-10	225,420,833	26,634,588	174,244,140	17,236,282	7,305,823
FY 2010-11	245,934,482	26,419,333	191,814,141	19,728,647	7,972,361
Increase/(Decrease.) /b	$34,791,539	($3,839,035)	$35,018,301	$2,824,860	$787,413
Percent Change /b	16.5%	(12.7)%	22.3%	16.7%	11.0%

a/ FY 2007-08 Appropriations have been adjusted to reflect the same "cash funds" and "reappropriated funds" format implemented in FY 2008-09. Source: Page 365 the FY 2008-09 Appropriations Report.
b/ Increase/(Decrease) and Percent Change compare FY 2007-08 and FY 2010-11.

As illustrated in the bar chart and table above, the most significant funding increases over this time period occurred in cash funds. These increases primarily occurred in the Executive Director's Office as a result of an increase in appropriations in the annual Species Conservation Trust Fund bill; in State Parks as a result of an increase in severance tax cash funds for parks operations, aquatic nuisance species, and a transfer of funding from the Department capital construction budget to the operating budget; and in Colorado Water Conservation Board funding through the annual water projects bill.

During the 2010 Session, with the enactment of H.B. 10-1327, the General Assembly transferred $11.0 million from the Operational Account of the Severance Tax Trust Fund to the General Fund to increase General Fund revenues. Through H.B. 10-1319, the General Assembly offset the $11.0

million transfer by eliminating Operational Account funding for weatherization programs in the Governor's Energy Office in FY 2010-11 and FY 2011-12 (6.5 million per year). House Bill 10-1319 also reduced funding for low income energy assistance in the Department of Human Services by $1.6 million in FY 2009-10.

The General Assembly also permanently refinanced $2.1 million General Fund within State Parks with Operational Account funding starting in FY 2010-11. Those changes, and other actions within the Department of Natural Resources, were discussed in a separate briefing presented by another analyst.

FY 2011-12 Joint Budget Committee Staff Budget Briefing
Department of Natural Resources
(Division of Reclamation, Mining, and Safety, Colorado Geological Survey, Oil and Gas Conservation Commission, State Board of Land Commissioners)

BRIEFING ISSUE

INFORMATIONAL ISSUE: Background on Colorado Severance Tax

Discusses the State's severance tax, a major revenue source for various divisions within the Department of Natural Resources.

SUMMARY:

- ❑ Colorado collects a severance tax on the depletion of non-renewable resources including oil and gas, coal, molybdenum, and metallic minerals. Statute also allows for severance tax collections on oil shale should commercial development become viable.

- ❑ Oil and natural gas drive severance tax collections and make the revenue stream highly volatile because of price fluctuations and a tax credit for property taxes paid to local governments, making forecasting severance tax revenues difficult.

- ❑ Once collected, revenues are split between the Department of Local Affairs (50 percent) and the Severance Tax Trust Fund (50 percent). Severance Tax Trust Fund revenues are split evenly between the Perpetual Base Account, managed by the Colorado Water Conservation Board and devoted to water construction projects, and the Operational Account. The Operational Account is a key revenue source for the Department of Natural Resources, including most of the divisions covered in this document.

DISCUSSION:

Severance Tax Background
Under statute (Sections 39-29-101 through 107, C.R.S.), first enacted in 1977, the State levies a tax on the severance of non-renewable natural resources. Colorado collects taxes on the severance of oil and gas, coal, molybdenum, and metallic minerals, and will collect taxes on oil shale if commercial production becomes viable. The table on the following page shows statutory provisions and severance tax rates affecting severance tax collections.

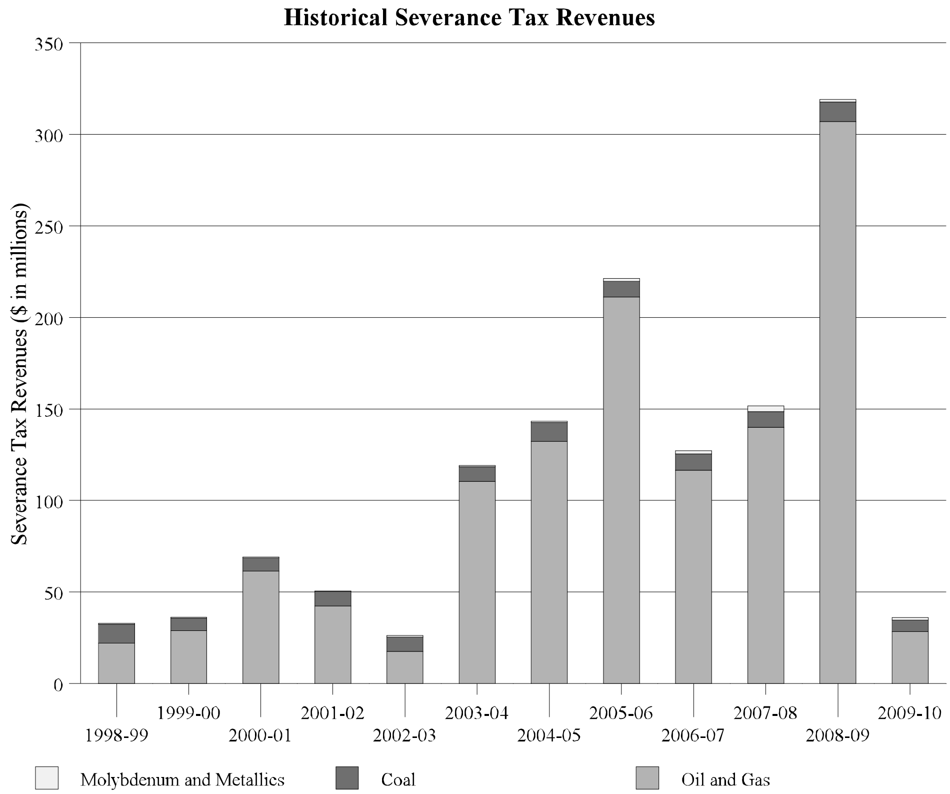
Extracted Material	Statutory Provisions
Oil & Natural Gas (§ 39-29-105, C.R.S.)	Sliding tax rate applied to gross income: - 2 percent under $25,000 - 3 percent between $25,000 and $100,000 - 4 percent between $100,000 and $300,000 - 5 percent above $300,000
	Exemptions: (1) stripper well exemption includes oil produced from any wells that produce 15 barrels or less per day or gas produced from wells that produce 90,000 cubic feet or less per day; (2) transportation, processing, and manufacturing expenses are deductible from gross income; and (3) 87.5 percent tax credit allowed for property taxes paid on oil and gas production (excluding personal property and stripper well production).
Oil Shale (§ 39-29-107, C.R.S.)	Sliding tax rate of 1 percent of gross income, increasing to 4 percent of gross income over a 4 year period at 1 percentage point per year.
	Exemption: first 15,000 tons/day of shale or 10,000 barrels/day of oil, whichever is greater, is tax exempt.
Coal (§ 39-29-106, C.R.S.)	$0.781 per ton for 3rd quarter 2010 (See issue beginning on page 28 for detailed discussion).
	Exemptions: (1) first 300,000 tons produced every quarter are tax exempt; (2) 50 percent credit for coal produced underground; and (3) an additional 50 percent credit for the production of lignitic coal.
Molybdenum (§ 39-29-104, C.R.S.)	$0.05 per ton of ore.
	Exemption: first 625,000 tons produced every quarter are tax exempt.
Metallic Minerals (§ 39-29-103, C.R.S.)	2.25 percent of gross income over $19,000,000.
	Exemption: 50 percent ad valorem tax credit on producing mines.

Oil and Gas and Revenue Volatility

Oil and gas are the key drivers for severance tax revenues in Colorado, accounting for 96.2 percent of total revenues in FY 2008-09 and 78.7 percent in FY 2009-10 (see graph on the following page). As shown in the graph, the reliance on oil and gas makes severance tax revenues highly volatile.

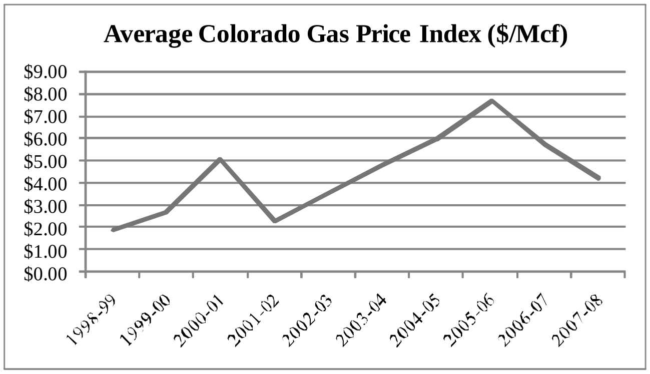
The volatility is partly due to price and production fluctuations in the oil and gas markets. However, that price volatility is compounded by statute (Section 39-29-104 (2) (b), C.R.S.) allowing producers a tax credit equal to 87.5 percent of local ad valorem (property) taxes paid on oil and gas production. Because property tax paid in a given year is based on production values from two years prior (for example, production value in 2008 creates assessed value in 2009 resulting in property tax payments in 2010), there is a two year lag from a high production value year to the resulting high property tax (and tax credit) year. As a result, if you have high prices and high production in 2008, property taxes will be high in 2010, reducing severance tax revenues in 2010 because of the credit. If that large credit is used in a year with lower prices and lower production values, then severance tax revenues can plummet, as happened in FY 2009-10. Because of the property tax credit, changes in local tax policy can also significantly change severance tax revenues.

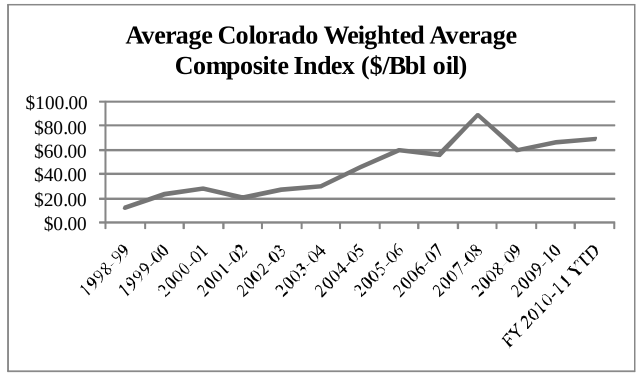
As a result of these factors, severance tax revenues do not always track trends in resource price, making forecasting severance tax revenues a challenge.



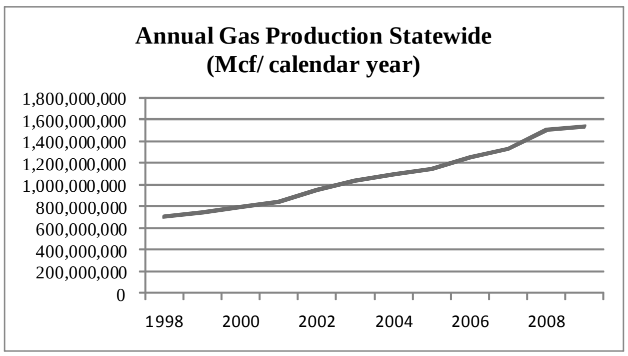
Oil and gas severance tax revenues are therefore affected by four variables: (1) price; (2) production amounts; (3) property tax credits available as a result of prior year production values; and (4) the amount of production coming from "stripper wells" (oil wells producing 15 barrels or less per day and gas wells producing 90,000 cubic feet or less per day) which are exempt from severance tax under statute. The following discussion briefly outlines the impact of each variable on revenues.

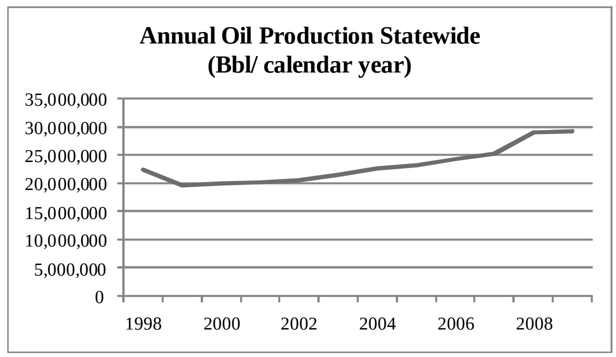
1. *Price:* Oil and gas prices often fluctuate from month to month and from year to year. Based on available data from the Colorado Oil and Gas Conservation Commission from FY 1998-99 through FY 2009-10, statewide average prices peaked for natural gas prices in FY 2005-06 and for oil in FY 2007-08 (see graphs on the following page; average natural gas price information was not available for FY 2008-09 and FY 2009-10). Because of high natural gas production in Colorado relative to oil, small changes in natural gas prices can significantly impact revenues. Price also impacts severance tax revenues indirectly by influencing industry activity and production levels.





2. *Production:* While price has fluctuated over that period, production of both oil and gas has consistently increased, with the exception of a decrease in oil production from CY 1998 to CY 1999 (see graphs below). Natural gas production more than doubled between 1998 and 2009.





3. *Ad valorem tax credit:* According to Legislative Council Staff estimates used to forecast severance tax revenues, the ad valorem tax credit for oil and gas reduced severance tax revenues by approximately $150 million in FY 2008-09 and $200 million in FY 2009-10, with future impacts expected to be in the same range. Given that total severance revenues in FY 2009-10 totaled $36.1 million (excluding interest earned), these estimates indicate that the ad valorem credit reduced FY 2009-10 revenues by approximately 85 percent.

4. *Stripper Well Exemption:* In a 2008 analysis of Amendment 58 (rejected by the voters that year), Legislative Council Staff indicated that the stripper well exemption applied to about 60 percent of oil production and 20 percent of gas production statewide, although staff has not been able to obtain updated information. In a 2006 audit of the severance tax programs at the Departments of Revenue and Natural Resources, the Office of the State Auditor estimated that the stripper well exemption reduced revenues in 2005 by $19 million but staff has also been unable to update that figure.

Revenue Distribution

Section 39-29-101 (3), C.R.S., declares that it is the General Assembly's intent that "a portion of the revenues derived from such a severance tax be used by the state for public purposes, that a portion be held by the state in a perpetual trust fund, and that a portion be made available to local governments to offset the impact created by nonrenewable resource development."

Thus, 50.0 percent of severance tax revenues are credited to the Severance Tax Trust Fund and 50.0 percent to the Department of Local Affairs for grants and distributions to local governments impacted by mining activities. Of the revenue credited to the Severance Tax Trust Fund, 50.0 percent is allocated to the Perpetual Base Account of the Severance Tax Trust Fund (or 25.0 percent of total severance tax revenues), which is used by the Colorado Water Conservation Board for water construction projects. Pursuant to Section 39-29-109 (1), C.R.S., the other 50.0 percent of Severance Tax Trust Fund revenues (or 25.0 percent of total severance tax revenues) is allocated to the Operational Account to fund programs that "promote and encourage sound natural resource planning, management, and development related to minerals, energy, geology, and water and for the use in funding programs to reduce the burden of increasing home energy costs on low-income households."

The Operational Account of the Severance Tax Trust Fund is a major revenue source for the Department of Natural Resources divisions covered in this document. The current status of the Operational Account is the subject of the next issue paper.

FY 2011-12 Joint Budget Committee Staff Budget Briefing
Department of Natural Resources
(Division of Reclamation, Mining, and Safety, Colorado Geological Survey, Oil and Gas Conservation Commission, State Board of Land Commissioners)

BRIEFING ISSUE

ISSUE: Status of the Operational Account of the Severance Tax Trust Fund

Discusses the status of fund balances and revenue volatility in the Operational Account of the Severance Tax Trust Fund.

SUMMARY:

❏ The September 2010 Legislative Council Staff Revenue Forecast anticipates that revenues to the Operational Account of the Severance Tax Trust Fund (Operational Account) will increase from a low of $9.0 million (excluding interest) in FY 2009-10 to $39.6 million in FY 2010-11, $44.3 million in FY 2011-12, and $45.6 million in FY 2012-13.

❏ The Operational Account may be overcommitted. Appropriations and authorized expenditures exceeded revenues in FY 2009-10 and are expected to do so again in FY 2010-11 and FY 2012-13, depleting the Operational Account balance for future years.

❏ Given the anticipated lack of uncommitted balances in the Operational Account, any additional transfers to the General Fund or refinances of General Fund expenditures would require spending reductions from Operational Account programs, and the General Assembly has limited options for major reductions in FY 2010-11 and FY 2011-12.

❏ The Governor is proposing to permanently refinance $1.3 million General Fund appropriated to the Division of Parks and Recreation and $0.3 million federal funds in the Division of Reclamation, Mining, and Safety with equal amounts of cash funds from the Operational Account starting in FY 2011-12. The proposal offsets the impact on the Operational Account by eliminating the Division of Wildlife's Tier 1 appropriation ($1.6 million).

RECOMMENDATION:

Staff recommends that the JBC discuss potential Operational Account spending reductions for FY 2010-11 and FY 2011-12 to better balance spending and available revenues. If cuts are necessary based on the December 2010 Legislative Council Staff Revenue Forecast, staff recommends that the Committee make targeted reductions to avoid the automatic prorated reductions imposed by statute.

DISCUSSION:

Background

Current statute, enacted as a JBC bill in 2008 (H.B. 08-1398), divides Operational Account expenditures into two categories. Tier 1 expenditures primarily support salaries and on-going core programs of the Department of Natural Resources. Tier 2 programs generally support grants, loans, research, and construction. Because of the volatility in severance tax revenues (see prior issue paper beginning on page 17), the General Assembly has established statutory reserve requirements for Operational Account expenditures. The reserve requirement for tier 1 programs is equal to one full year of operating appropriations. The reserve requirement for tier 2 programs is equal to fifteen percent of authorized expenditures. The distribution of funding for tier 2 programs is staggered with 40 percent released July 1, 30 percent released January 4, and the final 30 percent released April 1. If a mid-year projection indicates there will be insufficient revenues to the Operational Account to support all statutorily authorized expenditures, the tier 2 programs are automatically proportionally reduced to fit the projections unless the General Assembly acts to prioritize reductions.

The General Assembly has historically used some Operational Account revenues for General Fund balancing during shortfalls. Most recently, as discussed on page 14, the General Assembly transferred $11.0 million from the Operational Account to the General Fund to assist with FY 2009-10 budget balancing. That amount exceeded total "new" revenues to the Operational Account that year (totaling $10.2 million including interest), so the $36.0 million in FY 2009-10 Operational Account expenditures came entirely from existing fund balances, reducing the amount of revenue available for future years.

As shown in the severance tax overview table on page 25, the Operational Account began FY 2009-10 with a balance of $68.1 million but carried only $31.2 million over as a beginning balance for FY 2010-11. Starting with FY 2010-11, the General Assembly also permanently increased Operational Account spending on State Parks to offset General Fund reductions in that division. The increased spending in State Parks in FY 2010-11 and beyond was offset by reductions to expenditures from the Water Supply Reserve Account.

September 2010 Revenue Forecast

The September 2010 Legislative Council Staff Revenue Forecast (September Forecast) anticipates increases in severance tax revenues in FY 2010-11 and beyond relative to FY 2009-10 but still shows a structural imbalance in the Operational Account. Appropriations and authorized expenditures exceeded revenues in FY 2009-10 and are expected to do so again in FY 2010-11 and FY 2012-13, depleting existing fund balances in each of those years (see table below).

Operational Account Revenues and Expenditures

	FY 2008-09 Actual	FY 2009-10 Actual	FY 2010-11 Estimate*	FY 2011-12 Estimate*	FY 2012-13 Estimate*
Revenues	$81,216,379	$10,168,149	$40,570,111	$45,346,829	$46,550,994
Expenditures	59,566,863	36,011,657	49,624,236	41,650,333	54,403,061

	FY 2008-09 Actual	FY 2009-10 Actual	FY 2010-11 Estimate*	FY 2011-12 Estimate*	FY 2012-13 Estimate*
GF Transfer	0	11,000,000	0	0	0
Surplus/(Deficit)	**$21,649,516**	**($36,843,508)**	**($9,054,125)**	**$3,696,496**	**($7,852,067)**
Uncommitted Balance (after reserve)	**$48,342,736**	**$12,255,788**	**$1,110,383**	**$5,636,982**	**($4,300,313)**

*Estimated expenditures are based on FY 2009-10 appropriations (Tier 1) and authorized expenditures (Tier 2) and include an estimate of $1.0 million per year in interest. Estimated revenues are based on September 2010 Legislative Council Staff Revenue Forecast.

Current law would leave only $1.1 million in uncommitted balances in FY 2010-11, after accounting for required reserves. Based on the Governor's request and current authorizations for FY 2011-12, the situation improves slightly that year, with an uncommitted balance of $5.5 million. By FY 2012-13, the situation worsens again because forecasted revenues will not support anticipated expenditures and reserve requirements, generating a negative uncommitted balance. Staff and the Department agree that the Committee should focus its attention on FY 2010-11 and FY 2011-12 because severance forecasts farther into the future are so uncertain.

Because the uncommitted fund balance is low, staff does not recommend making any additional transfers to the General Fund or refinancing current General Fund programs without equivalent (or larger) cuts to Operational Account expenditures.

FY 2011-12 Request

The overview table on page 25 incorporates the Governor's FY 2011-12 request. Within the Tier 1 appropriations, the request includes two significant changes:

- Budget Reduction Item #4 would eliminate $2.7 million General Fund for state parks and replace that funding with a combination of Operational Account funds ($1.3 million) and increased cash funds from fees ($1.4 million). The proposal pays for the Operational Account funding by eliminating $1.6 million in Tier 1 funding provided to the Division of Wildlife. This proposal was discussed in a previous briefing on the Department of Natural Resources presented by another analyst.
- Decision Item #1 increases Tier 1 funding for the coal program in the Division of Reclamation, Mining, and Safety by $273,306 to offset an anticipated reduction of that amount of federal funds from the Office of Surface Mining. The proposed elimination of Tier 1 funding for the Division of Wildlife (discussed above) also offsets the increase to the coal program.

As a result, the Governor's request would offset $1.3 million in General Fund cuts with Operational Account Spending, as well as an anticipated reduction of $0.3 million in federal funds, by eliminating $1.6 million in funding for the Division of Wildlife. Because all of the changes are within Tier 1 and therefore do not affect reserve requirements, the proposal is approximately revenue neutral for the operational account.

	Severance Tax Trust Fund Operational Account												
	Date Printed: December 6, 2010	Statutory Site	Actual FY 08-09		Actual FY 09-10		Appropriation FY 10-11		Estimated FY 11-12		Estimated FY 12-13		Key Bills
1	Beginning balance		$46,588,101		$68,073,848		$31,181,533		$22,127,408		$25,823,904		
2	Revenue		81,216,379		10,168,149 (est.)		40,570,111 (est.)		45,346,829 (est.)		46,550,994 (est.)		
3	Public School Energy Fund	39-29-109.5	(163,769)		(48,807)		TBD		TBD		TBD		
4	**TOTAL Available for Expenditure**		**127,640,711**	100.0%	**78,193,190**	100.0%	**71,751,644**	100.0%	**67,474,237**	100.0%	**72,374,897**	100.0%	
5	Roll-forwards		0	0.0%	0	0.0%	1,661,300		0				
	Tier 1	39-29-109.3 (1)											
6	Colorado Geological Survey	(b)	2,451,579	1.9%	2,432,751	3.1%	2,431,139	3.4%	2,405,285	3.6%	2,453,391	3.4%	
7	Oil and Gas Conservation Commission	(a)	2,639,668	2.1%	2,958,240	3.8%	3,234,045	4.5%	3,223,632	4.8%	3,288,105	4.5%	
8	Division of Reclamation, Mining, and Safety	(c)	3,817,071	3.0%	4,211,250	5.4%	4,181,211	5.8%	4,507,465	6.7%	4,597,614	6.4%	
9	Colorado Water Conservation Board	(d)	1,266,839	1.0%	1,303,408	1.7%	1,319,250	1.8%	1,319,250	2.0%	1,319,250	1.8%	
10	Division of Parks and Outdoor Recreation	(f)	1,234,058	1.0%	3,659,838	4.7%	3,475,863	4.8%	4,943,629	7.3%	4,943,629	6.8%	SB 08-13/HB 10-1326
11	Division of Wildlife	(e)	1,292,059	1.0%	1,345,098	1.7%	1,620,356	2.3%	0	0.0%	0	0.0%	SB 08-13
12	**SUBTOTAL Tier 1**		12,701,274	10.0%	15,910,585	20.3%	16,261,864	22.7%	16,399,261	24.3%	16,601,989	22.9%	
	Tier 2	39-29-109.3 (2)											
13	Water Conservation Board Litigation Fund		0		0		0		0		0		HB 06-1313 (Sect. 17)
14	Underground water storage		0		0		0		0		0		SB 06-193
15	Water infrastructure development	(a)	7,000,000		5,775,000		6,000,000		7,000,000		10,000,000		SB 06-179/HB 10-1326
16	Soil Conservation Districts matching grants	(b)	450,000		450,000		450,000		0		0		HB 06-1393
17	Water efficiency grants	(c)	1,800,000		0		0		0		550,000		SB 07-008/SB 10-025
18	Species Conservation Trust Fund	(d) & (e)	12,513,886		4,500,000		11,000,000		4,000,000		6,500,000		SB 08-168/SB 08-226
19	Low income energy assistance	(f)	13,000,000		1,625,000		6,500,000		6,500,000		13,000,000		HB 08-1387/HB 10-1319
20	Renewable energy - Higher ed consortium	(g)	2,000,000		0		0		0		0		HB 06-1322
21	Renewable energy - Agriculture	(h)	500,000		500,000		500,000		500,000		500,000		HB 06-1322
22	Interbasin water compacts	(i)	1,145,067		745,067		745,067		745,067		745,067		HB 05-1177/HB 06-1400
23	CO Water Research Institute - CSU	(j)	500,000		0		0		0		0		HB 08-1405
24	Forest restoration grants/ bark beetle	(k) and (n)	1,000,000		2,500,000		2,500,000		2,500,000		2,500,000		SB 08-71/HB 09-1199
25	Tamarisk control	(l)	1,000,000		0		0		0		0		HB 08-1346 (Sect. 29)
26	Acquatic Nuisance Species Fund	(m)	5,956,636		4,006,005		4,006,005		4,006,005		4,006,005		SB 08-226
27	**SUBTOTAL Tier 2**		46,865,589	36.7%	20,101,072	25.7%	31,701,072	44.2%	25,251,072	37.4%	37,801,072	52.2%	
28	**TOTAL Expenditures**		**59,566,863**		**36,011,657**		**49,624,236**		**41,650,333**		**54,403,061**		
28a	Transfer to General Fund (HB 10-1327)	39-29-109.3 (6)			11,000,000								HB 10-1327
29	**Ending Balance**		68,073,848		31,181,533		22,127,408		25,823,904		17,971,837		
30	Tier 1 Reserve	39-29-109.3 (3)	12,701,274		15,910,585		16,261,864		16,399,261		16,601,989		HB 02-1041/HB 08-1398
31	Tier 2 Reserve	39-29-109.3 (3)	7,029,838		3,015,161		4,755,161		3,787,661		5,670,161		HB 08-1398
32	Low income energy assistance reserve		0		0		0		0		0		HB 06-1200/HB 08-1387
33	**TOTAL Reserve Requirement**		19,731,112	15.5%	18,925,746	24.2%	21,017,025	29.3%	20,186,922	29.9%	22,272,149	30.8%	
34	**UNOBLIGATED BALANCE**		**48,342,736**	37.9%	**12,255,788**	15.7%	**1,110,383**	1.5%	**5,636,982**	8.4%	**(4,300,313)**	-5.9%	

(est.) = estimate. Revenue Estimates based on Legislative Council's September 2010 Economic Forecast, including $1.0 million in estimated interest.
TBD = To be determined

Options for Severance Tax Spending Reductions

Based on the upcoming December and March revenue forecasts, the Committee may wish to make targeted spending reductions to either: (1) balance the Operational Account; or (2) assist with General Fund balancing through either transfers to the General Fund or additional refinancing of General Fund activities. If upcoming revenue forecasts show a shortfall in the Operational Account for FY 2010-11 and FY 2011-12, staff would recommend that the Committee make targeted reductions rather than allow for the prorated Tier 2 reductions otherwise required by statute.

Staff highlights two themes that the Committee should consider with respect to potential adjustments to Operational Account spending.

1. Tier 1 vs. Tier 2: In the past, the Department has always highlighted Tier 1 programs (those supporting direct expenses for staff and operations) as the highest priority for protection within the Operational Account. That priority has changed some this year, as the Department is requesting the elimination of Tier 1 spending in the Division of Wildlife in order to support additional spending on State Parks. The Department may also support other, limited Tier 1 reductions if needed to balance the Operational Account. In general, however, Tier 2 programs that do not support staff salaries are more suited to temporary reductions.

2. Reserve Impacts: Any adjustments to Operational Account spending impact reserve requirements. For example, increasing spending in Tier 1 requires additional reserves equal to the new spending and reductions in Tier 1 can "free up" an equal amount from the reserves. Because of the additional reserve requirements in Tier 1, making reductions in Tier 2 to offset increases for Tier 1 programs requires a cut that is larger than the increase in Tier 1 in the first year and equal to the increase in Tier 1 in future years.

As in previous years, staff asked the Department for feedback on how to prioritize Operational Account expenditures if reductions are necessary. Based on the September 2010 revenue forecast, the Department would not currently support cuts to Operational Account expenditures to assist with General Fund balancing (other than the proposed cut to the Division of Wildlife to support refinancing State Parks). The responses provide analysis and justification for the Department's positions with respect to a variety of programs funded from the Operational Account. Rather than paraphrase the Department's responses, staff has attached the Department's response as Appendix D of this document. The Department also prepared a separate document specifically detailing the uses of severance tax funds within the Colorado Geological Survey (Tier 1 appropriations). Staff has attached that document as Appendix E.

The Operational Account presents fewer options for major spending reductions in FY 2010-11 and FY 2011-12 than in prior years because of reductions already taken for balancing purposes. The following discussion briefly outlines some of the available options for Operational Account spending reductions

Tier 1

Tier 1 programs present limited options for major reductions in spending. Three Tier 1 Divisions

(Reclamation, Mining, and Safety; Oil and Gas Conservation Commission; and Geological Survey) directly regulate or support the industries that pay severance tax. Major reductions to those divisions without offsetting increases from other fund sources (most likely fees on the industries in question) would impact operations and could negatively impact severance tax revenues by delaying permitting and regulatory activities. While offsetting reductions in Operational Account funding with additional fees would be possible for some programs, increasing fees on severance tax paying industries to support additional General Fund programs would spur industry opposition.

Outside of the three divisions associated with the mineral industries, State Parks, the Colorado Water Conservation Board (CWCB), and the Division of Wildlife (DOW) received Tier 1 appropriations in FY 2010-11. As discussed above, the Governor is requesting the elimination of the appropriation to the DOW to increase support for State Parks and reduce General Fund expenditures. Additional adjustments to the CWCB appropriation may be warranted depending on future revenue forecasts; those options would be presented by another analyst.

Tier 2

Tier 2 programs present fewer options for major reductions than in prior years because the General Assembly has already made reductions to some of the largest authorizations for FY 2010-11 and FY 2011-12. During the 2010 Session, the General Assembly:

- Reduced Tier 2 authorizations for the Water Supply Reserve Account (managed by the CWCB) by $4 million (40 percent) in FY 2010-11 and $3 million (30 percent) in FY 2011-12 and beyond. Because of the degree of reductions to water programs in general (including transfers from the Perpetual Base Account of the Severance Tax Trust Fund presented in a separate briefing), the Department would not currently support additional unrequested cuts to water programs.
- Eliminated appropriations for energy efficiency (weatherization) programs in the Governor's Energy Office ($6.5 million) in both FY 2010-11 and FY 2011-12. This reduction, totaling $13.0 million over two years facilitated the $11.0 million transfer to the General Fund in FY 2009-10. Current authorizations would provide $6.5 million per year in direct bill assistance through the Department of Human Services and the Governor's Energy Office. Direct bill assistance funds were reduced by $4.9 million (75 percent) in FY 2009-10 because of the availability of additional federal LIHEAP funds. The outlook for federal LIHEAP funds for FY 2011-12 is uncertain.

As with Tier 1 programs, smaller scale reductions to assist with Operational Account balancing would be feasible and the Department might support reductions necessary to balance the Operational Account. Based on the December and March Revenue forecasts, staff may return with additional discussions of options to either balance the Operational Account or further assist with General Fund balancing.

FY 2011-12 Joint Budget Committee Staff Budget Briefing
Department of Natural Resources
(Division of Reclamation, Mining, and Safety, Colorado Geological Survey, Oil and Gas Conservation Commission, State Board of Land Commissioners)

BRIEFING ISSUE

INFORMATIONAL ISSUE: Lawsuit Regarding Severance Tax Rate on Coal

Discusses a pending lawsuit regarding the severance tax rate levied on the extraction of coal and possible liability for refunds to coal producers.

SUMMARY:

❑ The State Supreme Court is considering a lawsuit filed by the Colorado Mining Association and others challenging the Department of Revenue's ability to adjust the severance tax rate on coal as required by statute.

❑ The district court sided with the Department of Revenue, and an official opinion published by the Attorney General in 2007, and said that the Department must follow statute and adjust the severance tax rate on coal based on the producers' price index published by the U.S. Bureau of Labor Statistics.

❑ The Court of Appeals disagreed and sided with the Plaintiffs, arguing that TABOR prohibits increasing the severance tax rate on coal without a prior vote of the people, regardless of the fact that the statute requiring such adjustments predates TABOR.

❑ If the Supreme Court sides with the plaintiffs, then the Department of Revenue will have to reduce the tax rate from the current $0.781 per ton to $0.54 per ton (the rate in effect when TABOR passed) and the State may have to refund several million in coal-related severance taxes collected as a result of rate increases implemented since January 2008.

DISCUSSION:

Background
The State began collecting severance tax on coal and other minerals in 1977 with the implementation of H.B. 77-1076. The original statute (Sec. 39-29-106, C.R.S.) set a base severance tax rate for coal of $.60 per ton, which was later reduced to $0.36 per ton. While the specifics have change several times since 1977, the statute has always indexed the tax rate for coal to inflation in the Producers' Price Index published by the U.S. Bureau of Labor Statistics. Section 39-29-106 (5) reads:

> "For every full one and one-half percent change in the index of producers' prices for all commodities prepared by the bureau of labor statistics of the United States

department of labor, the tax rate provided in subsection (1) of this section shall be increased or decreased one percent. The executive director shall determine such adjustments to the rate of tax based upon changes in the index of producers' prices from the level of such index as of January, 1978, to the level of such index as of the last month of the quarter immediately preceding the quarter for which any taxes are due."

The Department adjusted the tax rate pursuant to statute from Jan. 1, 1978 until December 1992. Following the voters' approval of TABOR in 1992, the Department of Revenue stopped adjusting the tax rate on coal, with the rate at $0.54 per ton. In 1993, the Department issued a memorandum stating that the tax rate would remain unchanged "pending the Department of Revenue's resolution of the applicability to changes in these tax rates" and that the rate would remain $0.54 per ton until further notice.

The rate remained unchanged until 2008. Based on a 2006 audit report, the Department of Revenue requested and received an official opinion from Attorney General Suthers (Opinion No. 07-01), which states that because the relevant statute predates TABOR, the rate adjustments do not represent a tax policy change subject to TABOR's requirements and the Department of Revenue *must* follow statute and adjust the rate on coal. Based on the Attorney General's Opinion, the Department proceeded with rulemaking to again adjust the tax rate. Effective January 2008, the rate rose to $0.76 per ton and it now stands at $0.781 per ton according to the Department of Revenue website.

Colorado Mining Association Lawsuit

The Colorado Mining Association and other interested parties filed suit to stop the rate adjustments in 2008 based on the argument that TABOR requires a vote of the people to approve a "tax rate increase" or "tax policy change directly causing a net revenue gain". In 2008, the Colorado District Court rejected the challenge, finding that the rate adjustments were neither a "tax rate increase" nor a "tax policy change" under TABOR because the statute requiring such increases predated TABOR. However, in February 2010, the Court of Appeals reversed the lower court ruling and sided with the plaintiffs, finding that upward adjustments of the tax rate do constitute a "tax rate increase" under TABOR and would therefore require a vote of the people. The State Supreme Court has agreed to hear but has not yet ruled on the case.

<u>If the Supreme Court upholds the Appeals Court decision, then the Department of Revenue will have to restore the rate to $0.54 per ton, a decrease of 30.9 percent from the current rate of 0.781 per ton, reducing anticipated coal revenues by that amount. In addition, the State may have to refund moneys collected as a result of the adjustments since 2008, amounting to between $2 million and $4 million dollars per year. The source of any such refunds would be up to the General Assembly. Paying such refunds from the Operational Account of the Severance Tax Trust Fund would further strain the existing fund.</u>

FY 2011-12 Joint Budget Committee Staff Budget Briefing
Department of Natural Resources
(Division of Reclamation, Mining, and Safety, Colorado Geological Survey, Oil and Gas Conservation Commission, State Board of Land Commissioners)

BRIEFING ISSUE

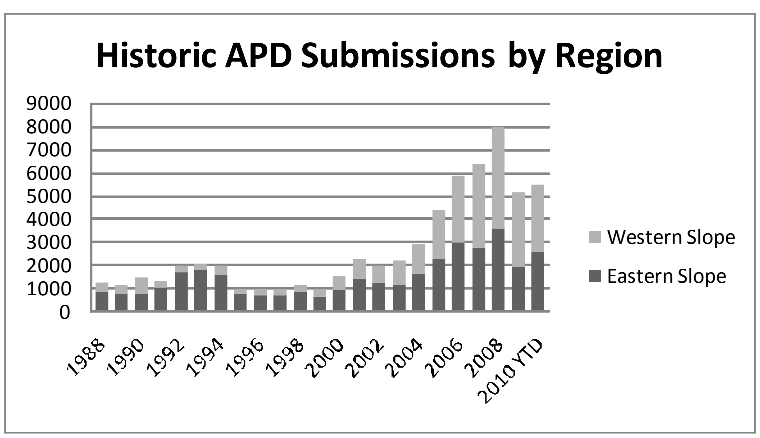
INFORMATIONAL ISSUE: Update on Oil and Gas Activity in Colorado

Provides an update on oil and gas activity in Colorado and a comparison to activity in other states in the region.

DISCUSSION:

After a period of rapid growth in the oil and gas industry, Colorado experienced a decline in activity in recent years. As shown in the table below (and in the Factors Driving the Budget Section of this document), the number of applications for permits to drill (APD's) and the number of active rigs in the state dropped significantly from FY 2008-09 to FY 2009-10. However, current statistics indicate that activity is rebounding, as shown in the Oil and Gas Conservation Commission's (OGCC) estimates for FY 2010-11.

Oil and Gas Conservation Commission	FY 06-07 Actual	FY 07-08 Actual	FY 08-09 Actual	FY 09-10 Actual	FY 10-11 Estimate	FY 11-12 Estimate
Workload Activity						
Drilling Permits Received	6,664	7,661	6,910	4,770	5,500	5,000
Location Assessments (Form 2A) Received	N/A	N/A	67	2,119	2,400	2,200
Number of Active Wells	32,021	35,686	39,944	42,217	45,300	48,400
Active Drilling Rigs	97	113	87	46	63	60



Looking at total numbers statewide masks regional changes in the industry's activity. As shown in the graph at left, which is based on calendar years rather than fiscal years, both the eastern and western slopes have seen dramatic increases in APD submissions in the past 10 years, with a peak in submissions in 2008, a large drop in 2009 and a slight rebound thus far in 2010.

As a general rule of thumb, activity on the western slope is focused on natural gas production while eastern slope activity generally produces oil. As shown in the graph, there was very little western slope activity prior to 2000 but the region experienced a rapid growth in industry interest and activity after that time. At the county-level, the changes are even more dramatic. According to OGCC data, Garfield county made up only 4.8 percent of western slope APD submissions in 1994, while La Plata County made up 76.3 percent of western slope APDs that year. In contrast, Garfield County has accounted for a majority of western slope APD permits every year since 2002 and La Plata County has not had more than 15.2 percent of submissions over that period. The eastern slope has been more consistent, with Weld County serving as the most significant player over the entire period.

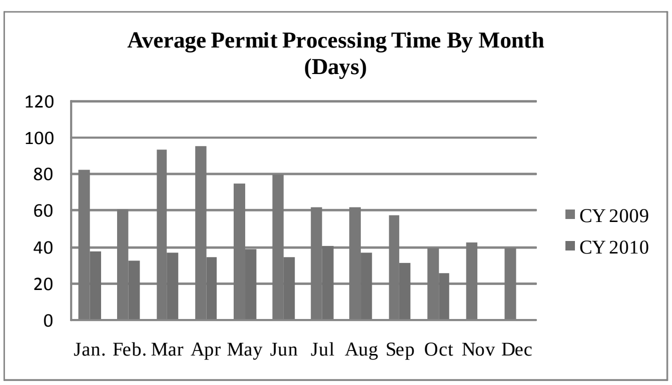
Comparison of Current Activity to Neighboring States

With the decline in activity and ongoing discussions of the cause(s) of that decline, the OGCC has tracked industry activity in neighboring states (see table below). According to the OGCC, Colorado remains the regional leader in the number of drilling permits issued and the number of new well starts in 2010. The OGCC data also indicate that Colorado is in the top two in the region in terms of the number of rigs active in September 2010, one rig below New Mexico.

	APDs Issued through September 2010	New Well Starts through October 5, 2010	Active Drilling Rigs September 2010
Colorado	4,714	1,442	68
Wyoming	4,274	882	43
New Mexico*	1,665	145	69
Utah	907	568	17
Montana	292	95	7
Kansas	3,420	Not Available	23

*Well start data for New Mexico only includes the San Juan Basin.

According to OGCC data, the agency's average permit processing time in calendar year 2010 is down significantly relative to 2009 (see chart below). On a related note, the OGCC has also reduced the backlog of permits awaiting approval. Reducing permit processing time has been a priority for both the industry and the OGCC.



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

APPENDIX A: NUMBERS PAGES

	FY 2008-09 Actual	FY 2009-10 Actual	FY 2010-11 Appropriation	FY 2011-12 Request	Change Requests
DEPARTMENT OF NATURAL RESOURCES					
Executive Director: Mike King					
(2) DIVISION OF RECLAMATION, MINING, AND SAFETY (Loretta Pineda, Director)					
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	2,087,395	2,117,899	2,134,008	2,133,490	DI #1; NP-1; NP-4
FTE	18.1	20.0	23.0	23.0	
CF - Severance Tax	438,355	444,163	447,548	720,745	
Federal Funds	1,649,040	1,673,736	1,686,460	1,412,745	
Indirect Cost Assessment	164,900	164,379	147,199	136,073	
CF - Severance Tax	53,777	30,393	25,999	28,575	
Federal Funds	111,123	133,986	121,200	107,498	
(A) Coal Land Reclamation	2,252,295	2,282,278	2,281,207	2,269,563	
FTE	18.1	20.0	23.0	23.0	
Cash Funds	492,132	474,556	473,547	749,320	
Federal Funds	1,760,163	1,807,722	1,807,660	1,520,243	
(B) Inactive Mines					
Program Costs	1,437,869	984,788	1,617,378	1,622,178	DI NP-1; NP-4
FTE	10.4	7.4	16.4	16.4	
CF - Abandoned Mine Safety Reclamation Fund	50,239	15,893	520,000	520,000	
Federal Funds	1,387,630	968,895	1,097,378	1,102,178	

	FY 2008-09 Actual	FY 2009-10 Actual	FY 2010-11 Appropriation	FY 2011-12 Request	Change Requests
Mine Site Reclamation	52,089	31,216	410,790	409,487	DI NP-4
FTE	0.4	0.4	1.2	1.2	
CF - Severance Tax	52,089	31,216	380,790	379,487	
RF/CFE - Public Health and Environment	0	0	30,000	30,000	
Reclamation of Forfeited Mine Sites					
CF - Severance Tax	0	0	171,000	171,000	
Abandoned Mine Safety					
CF - Severance Tax	112,113	100,000	100,000	99,746	DI NP-4
FTE	0.1	0.2	0.2	0.2	
Indirect Cost Assessment	144,022	137,099	144,678	133,226	
CF - Severance Tax	28,473	8,250	12,995	12,026	
Federal Funds	115,549	128,849	131,683	121,200	
(B) Inactive Mines	1,746,093	1,253,103	2,443,846	2,435,637	
FTE	10.9	8.0	17.8	17.8	
Cash Funds	242,914	155,359	1,184,785	1,182,259	
Reappropriated Funds/Cash Funds Exempt	0	0	30,000	30,000	
Federal Funds	1,503,179	1,097,744	1,229,061	1,223,378	
(C) Minerals					
Program Costs	1,915,434	2,164,151	2,170,170	2,165,238	DI NP-1; NP-4
FTE	20.8	20.5	24.1	24.1	
CF - Severance Tax	976,539	1,115,978	1,140,652	1,099,818	
CF - Mined Land Reclamation Fund	938,895	1,048,173	1,029,518	1,065,420	
CFE - Mined Land Reclamation Fund reserves	0	0	0	0	
Indirect Cost Assessment					
CF - Severance Tax	114,718	109,392	112,421	121,219	
(C) Minerals	2,030,152	2,273,543	2,282,591	2,286,457	
FTE	20.8	20.5	24.1	24.1	
Cash Funds	2,030,152	2,273,543	2,282,591	2,286,457	
Reappropriated Funds/Cash Funds Exempt	0	0	0	0	

	FY 2008-09 Actual	FY 2009-10 Actual	FY 2010-11 Appropriation	FY 2011-12 Request	Change Requests
(D) Mines Program					
Colorado and Federal Mine Safety Program	505,140	487,560	509,499	509,529	DI NP-1; NP-4
FTE	5.0	5.0	5.0	5.0	
CF - Severance Tax	307,218	306,741	308,632	308,662	
CF - Fees	2,179	10,000	10,000	10,000	
Federal Funds	195,743	170,819	190,867	190,867	
Blaster Certification Program	106,714	105,782	107,916	107,910	DI NP-4
FTE	1.0	1.0	1.0	1.0	
CF - Severance Tax	22,410	22,064	22,512	22,511	
Federal Funds	84,304	83,718	85,404	85,399	
Indirect Cost Assessment	30,565	28,076	32,573	28,191	
CF - Severance Tax	15,850	14,644	15,802	17,668	
Federal Funds	14,715	13,432	16,771	10,523	
(D) Mines Program	642,419	621,418	649,988	645,630	
FTE	6.0	6.0	6.0	6.0	
Cash Funds	347,657	353,449	356,946	358,841	
Federal Funds	294,762	267,969	293,042	286,789	
(E) Emergency Response Costs					
CF - Severance Tax	24,900	25,000	25,000	25,000	
(2) DIVISION OF RECLAMATION, MINING, AND SAFETY - SUBTOTAL a/	6,695,859	6,455,342	7,682,632	7,662,287	
FTE	55.8	54.5	70.9	70.9	
Cash Funds	3,137,755	3,281,907	4,322,869	4,601,877	
Reappropriated Funds/Cash Funds Exempt	0	0	30,000	30,000	
Federal Funds	3,558,104	3,173,435	3,329,763	3,030,410	

a/ Prior to FY 2006-07, this division was known as the Division of Minerals and Geology. The name was changed pursuant to S.B. 06-140.

	FY 2008-09 Actual	FY 2009-10 Actual	FY 2010-11 Appropriation	FY 2011-12 Request	Change Requests
(3) COLORADO GEOLOGICAL SURVEY (Vince Matthews, Director and State Geologist)					
Primary functions: providing 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.					
Environmental Geology and Geological Hazards Program	1,525,872	1,706,432	2,516,073	2,512,013	DI NP-1; NP-4
FTE	11.9	11.7	17.2	17.2	
CF - Severance Tax	860,506	881,059	915,142	915,208	
CF - Fees for geological services	149,840	198,860	548,001	543,399	
RF/CFE - Other state agencies	245,276	364,775	452,092	453,260	
Federal Funds	270,250	261,738	600,838	600,146	
Mineral Resources and Mapping	1,164,228	1,129,540	1,442,215	1,446,119	DI NP-4
FTE	8.1	8.2	10.5	10.5	
CF - Severance Tax	955,662	1,001,411	1,029,185	1,029,936	
CF - Local government payments for geo. services	0	0	91,114	91,114	
Federal Funds	208,566	128,129	321,916	325,069	
Colorado Avalanche Information Center	638,223	609,029	676,970	707,387	DI #2; NP-4
FTE	7.4	7.1	7.7	8.4	
CF - Severance Tax	151,424	156,213	156,383	154,712	
CF - Fees/Grants	116,997	74,988	124,958	124,958	
RF/CFE - Fees	346,597	372,961	377,504	409,430	
Federal Funds	23,205	4,867	18,125	18,287	
Indirect Cost Assessment	182,498	240,533	160,940	152,789	
CF - Severance Tax	134,901	167,844	115,940	110,548	
Federal Funds	47,597	72,689	45,000	42,241	
(3) COLORADO GEOLOGICAL SURVEY - SUBTOTAL	3,510,821	3,685,534	4,796,198	4,818,308	
FTE	27.4	27.0	35.4	36.1	
Cash Funds	2,369,330	2,480,375	2,980,723	2,969,875	
Reappropriated Funds/Cash Funds Exempt	591,873	737,736	829,596	862,690	
Federal Funds	549,618	467,423	985,879	985,743	

	FY 2008-09 Actual	FY 2009-10 Actual	FY 2010-11 Appropriation	FY 2011-12 Request	Change Requests
(4) OIL AND GAS CONSERVATION COMMISSION (David Neslin, Director)					
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	5,215,837	5,720,272	5,913,427	5,894,341	DI NP-1; NP-4
FTE	50.6	60.1	67.0	67.0	
CF - Severance Tax	2,616,378	2,958,240	3,234,045	3,223,632	
CF - OGC Environmental Response Fund	2,599,459	2,762,032	2,679,382	2,670,709	
RF/CFE - OGC Environmental Response Fund	0	0	0	0	
Underground Injection Program					
Federal Funds	95,189	88,385	96,559	96,559	
FTE	2.0	2.0	2.0	2.0	
Plugging and Reclaiming Abandoned Wells	191,534	162,084	220,000	220,000	
CF - OGC Environmental Response Fund	191,534	162,084	220,000	220,000	
RF/CFE - OGC Environmental Response Fund	0	0	0	0	
Environmental Assistance and Complaint Resolution	312,032	311,801	312,033	312,033	
CF - OGC Environmental Response Fund	312,032	311,801	312,033	312,033	
RF/CFE - OGC Environmental Response Fund	0	0	0	0	
Emergency Response	0	0	1,500,000	1,500,000	DI #3
CF - OGC Environmental Response Fund	0	0	1,500,000	1,500,000	
RF/CFE - OGC Environmental Response Fund	0	0	0	0	
Special Environmental Protection and Mitigation Studies					
CF - OGC Environmental Response Fund	81,173	192,843	325,000	325,000	
S.B. 07-198 Coalbed Methane Seepage Projects					
CF - OGC Environmental Response Fund	2,003,400	445,200	0	0	
Indirect Cost Assessment - Total Funds	327,357	317,658	411,875	463,897	
CF - OGC Environmental Response Fund	319,294	310,119	405,977	456,220	
Federal Funds	8,063	7,539	5,898	7,677	

	FY 2008-09 Actual	FY 2009-10 Actual	FY 2010-11 Appropriation	FY 2011-12 Request	Change Requests
(4) OIL & GAS CONSERVATION COMMISSION - SUBTOTAL	8,226,522	7,238,243	8,778,894	8,811,830	
FTE	52.6	62.1	69.0	69.0	
Cash Funds	8,123,270	7,142,319	8,676,437	8,707,594	
Reappropriated Funds/Cash Funds Exempt	0	0	0	0	
Federal Funds	103,252	95,924	102,457	104,236	

(5) STATE BOARD OF LAND COMMISSIONERS (Tobin Follenweider, Acting Director)

Primary Functions: Manages around 2.6 million surface acres and 4.5 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.

	FY 2008-09 Actual	FY 2009-10 Actual	FY 2010-11 Appropriation	FY 2011-12 Request	Change Requests
Program Costs	3,637,746	3,742,771	3,675,330	3,679,295	DI NP-1; NP-4
FTE	35.1	35.1	37.0	37.0	
CF - Land Board Trust Administration Fund	3,562,746	3,667,771	3,600,330	3,604,295	
CF - SBLC Land and Water Management Fund	75,000	75,000	75,000	75,000	
RF/CFE - Land Board Trust Administration Fund	0	0	0	0	
Public Access Program Damage and Enhancement Costs (New Line Item Requested)					
RF/CFE - Division of Wildlife	0	0	225,000	225,000	
Indirect Cost Assessment					
CF - Land Board Trust Administration Fund	221,075	165,450	177,993	189,581	
(5) STATE LAND BOARD - SUBTOTAL a/	3,858,821	3,908,221	4,078,323	4,093,876	
FTE	35.1	35.1	37.0	37.0	
Cash Funds	3,858,821	3,908,221	3,853,323	3,868,876	
Reappropriated Funds/Cash Funds Exempt	0	0	225,000	225,000	

a/ Senate Bill 09-22 continuously appropriated $3,000,000 cash funds for the SLB Investment and Development Fund in FY 2009-10, $4,000,000 in FY 2010-11, and $5,000,000 per year in FY 2011-12 and beyond. As these moneys are continuously appropriated by the General Assemmbly and are not shown in the Long Bill, they are not reflected in the JBC staff numbers pages.

	FY 2008-09 Actual	FY 2009-10 Actual	FY 2010-11 Appropriation	FY 2011-12 Request	Change Requests
DEPARTMENT OF NATURAL RESOURCES					
TOTAL FOR INCLUDED DIVISIONS	22,292,023	21,287,340	25,336,047	25,386,301	
FTE	170.9	178.7	212.3	213.0	
Cash Funds	17,489,176	16,812,822	19,833,352	20,148,222	
Reappropriated Funds/Cash Funds Exempt	591,873	737,736	1,084,596	1,117,690	
Federal Funds	4,210,974	3,736,782	4,418,099	4,120,389	
CF - Severance Tax	*6,865,313*	*7,372,608*	*8,214,046*	*8,440,493*	

FY 2011-12 Joint Budget Committee Staff Budget Briefing
Department of Natural Resources
(Division of Reclamation, Mining, and Safety, Colorado Geological Survey, Oil and Gas Conservation Commission, State Board of Land Commissioners)

APPENDIX B: SUMMARY OF MAJOR LEGISLATION

- ❑ **S.B. 10-071 (Morse/Riesberg):** Creates an Aspen Leaf Lifetime Pass to Colorado State Parks for residents that meet the age requirement for the existing Aspen Leaf Annual Pass, which is currently 64 years or older. The price of the lifetime pass will be set by the Colorado State Parks Board, but cannot exceed 5 times the cost of the Aspen Leaf Annual Pass. Appropriates $8,800 from the Parks and Outdoor Recreation Cash Fund to State Parks in FY 2010-11.

- ❑ **H.B. 10-1250 (Fischer/Hodge):** Appropriates $13,225,000 cash funds from the Colorado Water Conservation Board (CWCB) Construction Fund to the Department of Natural Resources in FY 2010-11 for various water-related projects. Transfers $300,000 from the CWCB Construction Fund to the Flood Response Fund in FY 2010-11. Transfers $36.0 million dollars from the Perpetual Base Account of the Severance Tax Trust Fund to the CWCB Construction Fund for the purchase of all or a portion of Colorado's allotment of the Animas-La Plata Project water. The $36.0 million dollars in transfers are to occur in three consecutive annual installments of $12.0 million dollars on June 30 of each year, commencing June 30, 2011.

- ❑ **H.B. 10-1309 (Pommer/Keller):** Supplemental appropriation to the Department of Natural Resources to modify FY 2009-10 appropriations included in the FY 2009-10 Long Bill (S.B. 09-259).

- ❑ **H.B. 10-1319 (Ferrandino/Tapia):** Makes the following changes to transfers from the Operational Account of the Severance Tax Trust Fund: (1) reduces funding for low-income energy assistance through the Department of Human Services by $1,625,000 in FY 2009-10; and (2) reduces funding for low-income energy assistance through the Governor's Energy Office by $6.5 million per year in FY 2010-11 and FY 2011-12.

- ❑ **H.B. 10-1326 (Pommer/Tapia):** Makes the following adjustments to the authorization of appropriations from the Operational Account of the Severance Tax Trust Fund (Operational Account) for tax years beginning on or after July 1, 2009: (1) decreases the authorization to the Colorado Oil and Gas Conservation Commission from up to 40 percent to up to 35 percent of the Operational Account; (2) increases the authorization to the Division of Parks and Outdoor Recreation from up to 5 percent to up to 10 percent of the Operational Account; and (3) allows the increased appropriation to the Division of Parks and Outdoor Recreation to supplant moneys that would otherwise be available to the Division of Parks and Outdoor Recreation.

Also makes the following adjustments: (1) decreases transfers from the Operational Account to the Water Supply Reserve Account by $4.0 million in FY 2010-11 and by $3.0 million in FY 2011-12 and beyond; and (2) decreases the FY 2009-10 Long Bill General Fund appropriation to the Division of Parks and Outdoor Recreation by $2,147,415 and increases its cash fund appropriation from the Operational Account by the same amount.

- ❑ **H.B. 10-1327 (Pommer/White):** Transfers $2,000,000 from the Perpetual Base Account of the Severance Tax Trust Fund to the General Fund in FY 2009-10.

- ❑ **H.B. 10-1349 (Fischer and Pace/Schwartz and Tapia):** Creates the Re-energize Colorado Program in the Division of Parks and Outdoor Recreation. The goal of the program is to generate or offset 100 percent of the division's electrical energy consumption by 2020 using energy resources on land owned, leased, or controlled by the Division of Parks and Outdoor Recreation. For purposes of meeting this goal, a qualifying retail utility can waive some of the existing limits placed on net metering and energy generated on a customer's property. Restricts any state agency from making retail sales, transmitting, or distributing electric energy between or among state agencies or properties. Authorizes the Department of Natural Resources to acquire lands under the control of the Division of Parks and Outdoor Recreation that have the potential to support renewable energy generation development. Directs the Public Utilities Commission to give the fullest possible consideration to approving projects developed under the Re-energize Colorado Program with particular attention to those projects that offer the prospect of job creation and local economic growth. Requires the Governor's Energy Office (GEO) to conduct a Geographic Information System (GIS) analysis to determine the optimum state park land for renewable energy development.

  Creates the Renewable Resource Generation Development Areas Fund and authorizes the GEO to accept public and private gifts, grants, and donations to support the activities authorized under the bill. Appropriates $50,000 federal funds to the Governor's Energy Office in FY 2010-11 for the implementation of the Geographic Information System analysis.

- ❑ **H.B. 10-1376 (Pommer/Keller):** General appropriations act for FY 2010-11.

- ❑ **H.B. 10-1388 (Ferrandino/Tapia):** Transfers $11,000,000 to the General Fund from the Perpetual Base Account of the Severance Tax Trust Fund in FY 2010-11.

- ❑ **H.B. 10-1398 (Fischer/Whitehead):** Appropriates $4,500,000 from the Capital Account of the Species Conservation Trust Fund (Capital Account) and $3,500,000 from the Operation and Maintenance Account of the Species Conservation Trust Fund (Operation and Maintenance Account) to the Department of Natural Resources for programs to conserve native species that have been listed as threatened or endangered under state or federal law, or are candidate species or are likely to become candidate species as determined by the United States Fish and Wildlife Service. Reduces the authorization contained in H.B. 09-1289 to obligate and expend $500,000 of revenues from the Capital Account for the purpose of instream flow protection and transfers on July 1, 2010, $500,000 to the Operation and Maintenance Account for the Upper Colorado River Recovery Program. Makes the following transfers from the Operational Account of the Severance Tax Trust Fund to the Capital Account: reduces from $4.0 million to $3.0 million the transfer scheduled to occur on July 1, 2011; transfers $4.5 million each year on July 1, 2012 and on July 1, 2013. Makes the following transfers from the Operational Account of the Severance Tax Trust Fund to the Operation and Maintenance Account: transfers $1.0 million on July 1, 2011; and transfers $2.5 million each year on July 1, 2012 and on July 1, 2013.

FY 2011-12 Joint Budget Committee Staff Budget Briefing
Department of Natural Resources
(Division of Reclamation, Mining, and Safety, Colorado Geological Survey, Oil and Gas Conservation Commission, State Board of Land Commissioners)

APPENDIX C: UPDATE ON FY 2010-11 LONG BILL FOOTNOTES AND REQUESTS FOR INFORMATION

Long Bill Footnotes

35 **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 2012-13, 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.

36 **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 2012-13, 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.

37 **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.

Comment: 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. Said sum is to be used -- if and when necessary -- for emergency responses. The funding was added due to a 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).

38 **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.

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

Requests for Information

1 **All Departments, Totals** - Every department is requested to submit to the Joint Budget Committee, by November 1, 2010, information on the number of additional federal and cash funds FTE associated with any federal grants or private donations that were received in FY 2009-10. The Departments are also requested to identify the number of additional federal and cash funds FTE associated with any federal grants or private donations that are anticipated to be received during FY 2010-11.

Comment: Staff did not receive a response to this request for information.

38 **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.

Comment: The Department complied with this request. The Department reports that there were no expenditures from this line item in FY 2009-10.

39 **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.

Comment: The Department complied with this request. The report describes nine studies that the Oil and Gas Conservation Commission supported through this line item in FY 2009-10, totaling $192,843 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: DEPARTMENT RESPONSE ON PRIORITIZING OPERATIONAL ACCOUNT SPENDING

JBC Staff Question

Given current revenue forecasts, the low severance tax revenue levels in FY 2009-10, and the ongoing "structural imbalance" in the Operational Account, the General Assembly may need to relieve pressure on the Operational Account in FY 2010-11 or FY 2011-12. The General Assembly may also wish to relieve pressure on the General Fund through either refinancing of current General Fund expenditures or transferring cash balances from the Operational Account to the General Fund. In considering these potential goals, how would the Department recommend evaluating and prioritizing the programs currently funded from the Operational Account? Should Tier 2 programs be reduced proportionately as provided in statute or should cuts be targeted? In prior years, the Department has said that "the 'core' Tier 1 programs (for CGS, OGCC, DRMS, and CWCB) should receive the first priority for funding." Is that still the Department's position, or should we begin to consider either cutting or changing the structure or fund source for some of the existing Tier 1 programs? I would note that last year the Department was opposed to any long-term/permanent reduction in Operational Account spending on natural resource programs to solve the current economic crisis, arguing that because the extent of the economic problems was not known it would have been premature to begin such reductions. Please discuss the Department's current position, both in light of the General Fund situation and the ongoing imbalance within the Operational Account.

Department Response

SECTION 1 - PREFACE TO RESPONSE: Before attempting to answer these questions, it is important to lay out a few of the current conditions under which we have analyzed the status of the Operational Account. These conditions impact the way we view the Operational Account today and may help to put some of the Department's responses, priorities, and strategies in perspective. Each will be briefly discussed below:

- **Funding for Water Programs – From FY 2008-09 through FY 2010-11, a total of $130 million will be transferred from CWCB cash funds to the General Fund. These transfers severely restricted the ability of the CWCB to issue new loans for water projects and have permanently reduced the future revenues of the CWCB by irrevocably shrinking the size of the Perpetual Base Account (a revolving loan fund). Non-reimbursable grants that also support water projects and other water-related**

programs have also been scaled back to reflect the reduced revenue available for water programs. Recognizing that Colorado will have an increasingly difficult time meeting water supply needs in the future with these reductions, the Department is hesitant to recommend additional cuts to water programs. The CWCB has over $100 million in water projects identified on our loan prospect summary report and needed in the next 5-7 years. Current studies identify a municipal and industrial gap of 750,000 to 1,100,000 acre feet of water by 2050, with billions of dollars of estimated cost required to meet these statewide water supply needs. New water supplies will not only have to be developed to address inevitable growth, but also to supplement or replace community water supplies that are depleting non-renewable groundwater aquifers. Water shortage in the State is not a future problem; it exists today and may reach crisis level if we do not continue to provide programs to ensure a viable, long-term water supply for the State.

- **Declining Severance Tax Revenues –** The volatility in severance tax revenues was never more prominent than in FY 2008-09 and FY 2009-10. In FY 2008-09, the Operational Account earned $81.2 million in revenues. In FY 2009-10, the Operational Account earned only $10.2 million in revenues (a reduction of over 87% compared to FY 2008-09 actual revenues). Had the Operational Account not started FY 2009-10 with a significant fund balance, above and beyond the normal reserve requirements, the programmatic results may have been disastrous. The extreme volatility of the last two years highlights why this fund needs to be managed actively and conservatively.

- **General Fund Transfers –** In FY 2009-10, the Operational Account of the Severance Tax Trust Fund earned $10.2 million in gross severance tax revenues as well as interest income on the Account balance. However, $11 million was transferred straight to the General Fund, more than "wiping out" this paltry annual revenue. As such, the entire $36 million in Operational Account expenditures in FY 2009-10 came out of fund balance. As such, the margin for error in FY 2010-11 is greatly reduced.

- **Declining Revenues –** The forecasted structural problems with the Operational Account have been hastened by: (1) FY 2009-10 revenues coming in $4 million lower than projected statewide (a $1 million hit to the Operational Account); (2) Recent Legislative Council Staff revenue projections lowered FY 2010-11 projected severance tax revenues by almost $18 million (a reduction of about $4.4 million to the Operational Account). As a result of these declining revenues, the Operational Account is now projected to end FY 2010-11 with only $1.1 million in unobligated, above-the-reserve fund balance.

- **Structural Imbalance –** The Department has been talking about a "structural imbalance" in the Operational Account. This imbalance is seen clearly in the latest Department severance tax sheet, which shows $55 million in projected/authorized expenditures in FY 2012-13. Similar spending is authorized and/or expected in out-years. Simply put, actual and projected revenue appear to be more in the range of $45 million per year on average. As such, it is not clear that the $55 million per year is really sustainable in the long term (although history would project that this volatile revenue stream will have boom years in which this level of spending will be possible).

- **Significant Operational Account Reductions Have Already Been Made – Over the last few years, the General Assembly has already made significant reductions to LEAP's direct bill assistance and weatherization programs, as well as to the Water Supply Reserve Account. Smaller reductions have also been made to smaller water programs, including the Interbasin Compacts Line and the Water Efficiency Grant Program.**

- **The Operational Account is Already Assisting the State with the General Fund Revenue Shortfall –** As you know, through H.B. 10-1326, the Operational Account is now financing roughly $2.2 million of expenses in Colorado State Parks which were formerly paid for with moneys from the General Fund. In this regard, the Operational Account will be providing $2.2 million of General Fund relief indefinitely (not counting the relief it already provides in having refinanced away General Fund expenses entirely in the Colorado Geological Survey and the Division of Reclamation, Mining, and Safety). This on-going relief is on top of the $11 million which was transferred directly from the Operational Account to the General Fund in FY 2009-10.

Limitation: This Analysis will almost entirely center on DNR programs. As you know, a large number of state departments now receive funding from the Operational Account of the Severance Tax Trust Fund, including the Governor's Office, the Department of Human Services, the Department of Higher Education, and the Department of Agriculture. Given that most of these programs fall outside of the Department's sphere of knowledge and expertise, it is probably not appropriate for the Department to recommend specific funding levels or priorities for programs outside of DNR.

SECTION II – PRINCIPLES RELATED TO THE OPERATIONAL ACCOUNT – The Department has a few principles to help guide discussions about Operational Account management and priorities.

PRINCIPLE #1: The Operational Account was Established to Address Long-term Natural Resource Problems - It is important to note that the Operational Account of the Severance Tax Trust Fund is used to fund a number of critical natural resource programs, including: (1) the regulation of mining as well as oil and gas activities; (2) water studies, projects, and programs to address the State's water supply needs; (3) protection of endangered species in a way which balances the need to develop and utilize land and water resources; and (4) programs to address the State's bark beetle problem in a way which protects watersheds and minimizes the risks associated with forest fires. All of these programs are consistent with the statutory intent of the General Assembly that a portion of the state severance tax be used for natural resource programs. As a general rule, therefore, natural resource programs should receive priority when looking at budget reductions from the Operational Account.

PRINCIPLE #2: Tier 1 Funding is Generally – But Not Always - the Highest Priority for the Operational Account Funding - The Department would back away a bit from past statements about Tier 1 programs being inherently the highest priority. A better way to state the Department's position is the first priority should be to protect the historic, core functions supported with severance tax. This priority is further heightened for operating programs that include staff salaries. It makes no sense to hire and lay off staff every time forecasted severance tax revenues go down. When the Operational Account was first created, 95% of the funding was supposed to go to CGS, OGCC, and DRMS. Each of these agencies plays a critical role in regulating and/or supporting the mineral and energy industries that produce the severance tax revenue stream. Failure to appropriately fund these divisions could negatively impact the mineral and energy industries themselves, thereby reducing future severance tax revenue receipts by the State. Some of the more specific impacts to industry will be discussed in more detail later in this document. However, as examples, the mineral and energy industry would be negatively impacted if DNR does not have the staff necessary to process permits in a timely fashion, examine sites for the release of reclamation bonds, or perform studies that promote development of natural resources. Similarly, it is critical that funding is provided for environmental staff to ensure the protection of public health, safety, and welfare (including the protection of wildlife, wildlife habitat, and water). The consequences of failing to fund environmental protection related to mineral and energy development could be significant, and may include increased public resistance to such development in the future.

PRINCIPLE #3: Across the Board Tier 2 Cuts Are Not the Best Way to Balance Operational Account Spending – The Department has consistently argued that automatic, proportional reductions to Tier 2 are not preferred. Indeed, not all Tier 2 programs are created equal. That is, different programs have different priorities and different programs can absorb funding changes with lesser and greater impacts. Given these beliefs, the Department will always favor thoughtful, intentional choice about priorities in place of automatic proportional reductions to Tier 2.

The Department continues to believe that Aquatic Nuisance Species (ANS) funding remains one of DNR's highest priorities. Amongst the potential problems with taking a proportional reduction to this program, ANS Funding is used to hire 7.0 FTE in State Parks to run an inspection, decontamination, and education program. Effective control of aquatic nuisance species requires a consistent, continual effort. Having efforts ebb and flow with the ups and downs of the revenue stream will render these efforts much less effective. Furthermore, ANS funding provided to the Division of Wildlife is significantly less than required to run the DOW's inspection, decontamination, and education programs. The DOW budget was set when there was only one known body of water in the State with Zebra Mussels (Pueblo Reservoir, which is operated by State Parks). Since the budget was set, at least seven more waters have tested positive (none of which are state parks, which means these fall under the management and control of the Division of Wildlife to monitor and regulate). As a result, the Division of Wildlife is projecting the need to spend $600,000 more each year than it currently provided through Tier 2 of the Operational Account. The Division is currently developing a strategy to address this budgetary problem. However, in the interim, cuts to this program would only worsen the situation. As such, both the Parks and DOW Aquatic Nuisance Species programs remain very high priorities to protect.

Similarly, a significant acreage of forest has been severely impacted by bark beetles as well as other forest pests and diseases. The current budget allows funding to treat only a small portion of the affected forest land. Consequently, it is arguable that more funding, not less, is needed for forestry grants. While funding limitations may preclude such an increase, the forestry grants program is another emerging natural resource issue that should be considered a higher priority Tier 2 program. In this same spirit, both forestry and aquatic nuisance species programs were protected from the Operational Account reductions contained in S.B. 09-293 (the last piece of legislation designed solely to balance Operational Account spending).

PRINCIPLE #4: Direct Transfers of Severance Tax to the General Fund are Preferrable to Refinancings – If absolutely necessary for General Fund budget balancing, the Department would prefer direct transfers of severance tax to the General Fund. Such transfers are inherently one-time in nature. A refinancing, on the other hand, generally creates a permanent new severance tax expenditure. As such, the refinancing of General Fund expenses should be accompanied by off-setting reductions in Operational Account spending. This off-set is needed given the structural imbalance talked about earlier in this analysis.

PRINCIPLE #5: While a Structural Imbalance is Not Ideal, We Should Not Over-React To It Either – The Department believes in balancing spending in both the current and request years, as needed to maintain reserve requirements and fund the highest priority programs. Further, the Department continues to believe in making reductions in the request year, before the year has started, to avoid dipping into the Operational Account reserves (the Department believes the reserves should only be used for unanticipated revenue declines, not anticipated declines). All of this stated, as you move beyond the request year, there is even more uncertainty than usual for a revenue stream that is highly volatile and unpredictable. As such, the Department does not support the concept of making drastic out-year reductions to balance the Operational Account. It is hard enough to plan one year in advance given severance tax volatility; as such, the State should not rush to balance out-year budgets when the projected revenue for that year will change multiple times before that year even arrives. While there may be some merit to making modest reductions to long-term Operational Account spending, the Department does not believe the goal should be to inherently balance projected spending in all out-years.

PRINCIPLE #6: Consider Federal Match – There are a number of places where Operational Account moneys are used to match federal dollars, including the Coal Program, the DRMS Mine Site Reclamation Program, the STATEMAP program, and a variety of one-time programs and projects within the Colorado Geological Survey. In CGS, the federal government will often match $1 of state funding with $1 to $4 of federal funds. In this regard, a relatively small amount of severance tax can be leveraged to achieve significant amounts of work, as well as bringing additional revenue (and the associated jobs) to Colorado. Because the federal funds would often be lost without the availability of a severance tax match, the Department would place a very high relative priority on programs that leverage additional federal matching dollars.

SECTION III – ANALYSIS OF SPECIFIC OPERATIONAL ACCOUNT PROGRAMS – This section will analyze specific programs funded from the Operational Account. Please note, **the Department will likely oppose reductions not contained in the Governor's FY 2011-12 Budget Request or FY 2010-11 Budget Balancing Plan.** Current revenue forecasts show that there is enough funding to finish FY 2010-11 and FY 2011-12 with positive balances in the Account and to meet all reserve requirements. Similarly, the Governor will be introducing plans to balance General Fund spending in both FY 2010-11 and FY 2011-12, such that additional reductions to this Account are not likely to be supported by the Department. As such, we view this exercise as discussing our Operational Account spending priorities and preparing for additional cuts, should they be needed.

Low-income Energy Assistance Program - This program is authorized to receive $6.5 million in both FY 2010-11 and FY 2011-12 to provide direct bill assistance to citizens for their home heating costs. Under S.B. 07-122, the Public Utilities Commission (PUC) can consider the needs of low-income households when setting utility rates. For this to occur, action by the PUC to implement such a change would be needed. It is possible that some part of the $6.5 million program could be eliminated and, in essence, funded instead through a utility rate structure change designed to help provide relief to low-income households. Going forward, funding in FY 2012-13 is supposed to increase to $13 million and include $6.5 million for weatherization projects funded through the Governor's Energy Office. It is not clear to the Department whether or not significant inflow of federal dollars for this purpose (which caused the severance tax funded weatherization dollars to be zeroed out in FY 2009-10, FY 2010-11, and FY 2011-12) will have dried up. Given the potential for other revenue streams to support this program – and the large relative size of this program – this will remain an area to monitor closely for potential savings in future years.

Division of Wildlife - Under S.B. 08-013, the Division of Wildlife will get $1.5 million per year to study the impacts of energy development on wildlife and wildlife habitat, as well as to study best management practices to reduce such impacts. This money will be used to hire contractors to complete a variety of studies. Since most of these studies have been started, a reduction in funding and associated stoppage of a study will result in the initial spending on the study having been wasted. These studies, once completed, will be invaluable to the management of Colorado's wildlife resources and minimizing the impact energy development on wildlife and wildlife habitat. That said, the Division is examining ways to both reduce the cost of these on-going studies and to absorb continuing costs within either its base budget or (for sage grouse related studies) to fund the project within the Division of Wildlife's annual Species Conservation Trust Fund allocation. This reallocation would need approval from the General Assembly through the annual Species Conservation Trust Fund legislation. Given the availability of these alternatives and potential cost reductions, the Division of Wildlife's Tier 1 allocation is a low priority for the Department. This potential reduction would also allow the Division of Wildlife to contribute $1.6 million towards General Fund budget relief.

Water Supply Reserve Account – This Water Supply Reserve Account is an important part of solving the State's long-term shortage of water. A larger appropriation for this program allows the Department and the Interbasin Compact Committee to provide funding for actual implementation of water projects and plans. The basin grants have proven to be very effective in addressing water needs at the local level. They also support roundtable members dialogue and action toward larger, statewide solutions. If funding is reduced, implementing local solutions to our State's water problems will be more difficult and the problems will compound over time. Finally, the Department believes that this money is essential to the roundtable process because it provides an important basis for participation in interbasin water discussions and it increases the likelihood of win-win interbasin water cooperation. Significant reductions could jeopardize the entire Basin Roundtable and IBCC program. Answering our future water supply issues is of paramount importance.

Given the above, the Department could not support wholesale cuts that would threaten the entire program. Further, the Department has already had to propose multiple reductions to this program. As such, this program has not been funded anywhere near the fully authorized $10 million in any of the last several years. However, because this remains one of the biggest DNR pots of severance tax, reducing the Water Supply Reserve Account remains a potential option to balance Operational Account spending.

Species Conservation Trust Fund - H.B. 10-1398 appropriated $3.0 million for payment towards Colorado's obligations in the Platte River Recovery Program. With this payment, Colorado's obligation on the South Platte will be reduced to roughly $3.0 million going in to FY 2011-12. According to the Department's multi-year SCTF plan (which is not binding), the plan was to fully pay off this obligation in FY 2011-12. The General Assembly could choose to reduce the payment made to the Platte River Recovery Program in FY 2011-12. However, the Department believes that any such proposed reduction should involve a clear plan on how this obligation will be paid off. It is worth reiterating that a negative consequence of reducing current appropriations for the Platte River Recovery Program will be that the State will accrue additional interest payments as a result of paying down its obligation more slowly. Given these costs – and general economic uncertainty as we move further and further into the future – the Department would not support suspension of the Platte River payoff in FY 2011-12, but would consider a reduction in this regard if needed for Operational Account balancing purposes.

Species Conservation Trust Fund moneys are also used for other species protection programs, including protection of federally-listed species as well as "species of concern" protected by the Division of Wildlife. However, the Department notes that there is always the potential for new federal threatened and endangered species listings. Two species of particular concern in this regard are the Gunnison sage-grouse and the greater sage-grouse. New endangered species listings – and the associated land and water use restrictions – could have significant economic impacts on Colorado. Given this, the Department would not recommend any significant reductions in these conservation programs.

Division of Reclamation, Mining, and Safety

<u>Coal Program</u> – The Department believes that appropriate funding for the Coal Regulatory Program remains one of the highest priority uses of Operational Account moneys. This program has roughly 79% of its funding provided by the federal government and 21% from severance tax. Were the State

to turn back primacy for this program, Colorado would lose control over the entire program. The federal government would set all the rules for coal mining in Colorado, would issue permits, would calculate reclamation bond requirements, and would perform enforcement activities. The coal industry would have less certainty related to program requirements, expediency of permitting activities and bond release, and enforcement activities. Without appropriate staff, the federal government may be very slow in issuing mining permits – and may take a conservative and/or inflexible stance in issuing permits, potentially harming industry's ability to produce coal and generate associated severance tax revenues. A further result of relinquishing state primacy for the Coal program is a withdrawal of federal funding for the Inactive Mine Reclamation Program in this division, which is responsible for safeguarding abandoned mine sites that pose hazards to the public in historic mining areas of the state. In this regard, the State would lose millions of federal Inactive Mines dollars if State primacy were relinquished.

<u>Inactive Mines Program – Abandoned Mine Safety</u> – This remains a Medium priority for the Department and would be the first of the 3 Inactive Mines Program grant programs that we would give up if severance tax cuts were necessary. This funding provides $100,000 to supplement the larger amount of federal funds provided for safeguarding abandoned mine sites. Because of the existence of these federal funds, the State would still continue to address safeguarding priorities if this money were reverted. However, eliminating this funding will slow the process down a bit. Given the health, life, and safety aspect of these projects, the Department is not currently recommending any adjustments to this line item.

<u>Inactive Mines Program - Forfeited Mine Site Reclamation</u> – In FY 2007-08, the Department received an appropriation of $342,000 from the Operational Account to reclaim forfeited mine sites. These are previously bonded sites where, for various reasons, the permits were revoked. The bond was not always adequate to cover the cost of reclamation, due to the insolvency of the operator, and due to caps on bonds that existed until the late 1980s. In all cases, there is not a solvent company to clean up such sites. In FY 2008-09, the Department identified that the longer term need (not counting projects to be funded under the original FY 2007-08 appropriation for this purpose) was to reclaim 35 "forfeited" mine sites at an estimated total cost of $1,710,000. In FY 2008-09, the Department received an additional $342,000 to continue addressing these mine sites. Under the original plan, reclamation of the 35 sites would have been achieved through five appropriations of $342,000 starting in FY 2008-09. In FY 2009-10, the Joint Budget Committee cut funding for this line item in half. This will roughly double the amount of time it takes to address the environmental and public health problems at these mines sites. There are currently about 25 underfunded forfeited sites remaining to be reclaimed for a total of $1,091,901 in 2006 dollars. It will already take at least six years of additional funding to complete this list of reclamation projects at current funding levels. Unfortunately, the cost escalates over time due to inflation in construction costs; therefore, long-term funding reductions will further delay stabilization of these sites and further compound inflationary cost increases. As such, the Department cannot support any further reductions to this line item. Further, these reclamation projects are ineligible to be funded through the federal dollars that flow into the Inactive Mines program. Hence, this grant program would be the second priority to eliminate of the three Inactive Mines grant programs.

Inactive Mines Program - Mine Site Reclamation – The Division has been receiving $380,790 per year in severance tax for Mine Site Reclamation. These funds were designated for partnering with local watershed groups, local Soil Conservation Districts, and the Colorado Department of Public Health and Environment to match Section 319 Clean Water Act and other conservation grants. This funding enhances local watershed initiatives in dealing with environmental, water quality and non-point source issues associated with abandoned mines, including acid mine drainage, and erosion of mine and mill waste piles into streams and rivers. This funding is critical to local watersheds as they develop long-term plans and best management practices for dealing with the effects of past mining operations within their watersheds.

This state funding matches other federal and local funding. On the average, $60,000 of state funds per watershed leverages $180,000 of federal funding. Long term reductions will greatly affect the ability of these local groups to be successful in receiving federal funding. There are over 150 sites in Colorado where partnerships for environmental clean-up are essential to completing the work given the costs involved. These funds provide local economic benefits in the creation of hundreds of jobs in Colorado's construction industry. Economic impacts extend into the construction, labor, equipment and services industries. Given the many benefits of this program and its ability to leverage federal funds, this would be the Department's last priority to cut amongst the Inactive Mines Program's three grant programs.

Minerals Program – The minerals program regulates over 1,600 active non-coal mine operations in the State. While these operations are a minor contributor to the severance tax revenue stream, these companies are an important part of Colorado's overall economic base. Funding for the regulation of these mining operations is funded with a mix of severance tax and direct mining fees. This program operates under State law (the Colorado Mined Land Reclamation Act and the Colorado Land Reclamation Act for the Extraction of Construction Materials) to balance mineral development with protection of public health, safety, and welfare. The Department would be strongly opposed to elimination of this program, which would both jeopardize the public health and safety and threaten the State's mining industry (its not clear that the State's courts or voters would allow for unregulated mineral development to occur in the State). While raising mineral fees could free up some severance taxes, this type of regulatory activity is a primary purpose of the Operational Account. Further, raising fees on mining companies who already pay severance tax would appear to some to be double taxation.

Mine Safety Training – The Mine Safety Training Program helps various mining industry professionals meet various federal and state safety regulations. Although Colorado is not required to manage a mine safety training program, the Department strongly believes in the importance of this program. The federal Mine Safety and Health Administration sets forth a number of requirements related to mine safety. These federal requirements are regularly updated and changed. DRMS's Mine Safety Training Program is essential to keeping miners current on the requirements and providing adequate training on safety practices. In this regard, the program is important both because it protects the health and safety of mining industry employees, but also because it helps to assure the uninterrupted operation of a multi-billion dollar industry in Colorado. In contrast, the impacts of workplace accidents can range from having a single employee missing time due to injury to having the entire workplace shutdown either temporarily or permanently.

Colorado Geological Survey – The use of Operational Account moneys is separately addressed in an analysis titled "The Use of Severance Tax Funds by the Colorado Geological Survey". In short, the Department believes that Operational Account appropriations to the Survey are very high priority and would not recommend cuts to any of the CGS sub-programs. The benefits of these programs – including both general economic benefits as well as health, life, and safety benefits – are detailed in the CGS analysis.

Oil and Gas Conservation Commission - Severance tax revenues could be saved by refinancing a greater percentage of the OGCC budget with mill levy revenues. This would require the OGCC to raise the mill levy from its current level. The oil and gas industry has not yet fully recovered from relatively low energy prices and decreased demand for energy resulting from the current slowdown in economic activity. Further, current statutes direct that the OGCC give priority to uses of Operational Account moneys which reduce industry fees and the mill levy. Funding a greater percentage of the OGCC budget with a higher mill levy – then using additional money from the Operational Account for General Fund purposes – would directly contradict the intent of this statute. Maintaining a well staffed OGCC is critical for both providing for the efficient processing of drilling permit requests and for adequate regulation of industry activity to protect public healthy, safety, and welfare. For these reasons, the Department does not currently support this idea of reducing severance tax funding of OGCC.

Division of Parks and Outdoor Recreation – In the early 1990's, State Parks got over 30% of its operating budget funded by General Fund. In FY 2010-11, General Fund will provide only 5% of State Parks' operating funding. Given the reduction in General Fund support, severance tax funding has become an essential part of keeping Colorado's 42 state parks open. State Parks are an important part of Colorado's tourism economy. A 2009 Market Assessment Study by Corona Insights found that visitation to state parks generates $396 million in economic benefits to the local economies where state parks are located. Further, in large part due to Operational Account funding, the Division is able to provide continued access to over 225,100 acres of public land and numerous high quality outdoor recreation opportunities. Given the importance of these economic and recreational benefits – and declining General Fund support – the Department believes that Tier 1 moneys received by State Parks are very high priority.

Colorado Water Conservation Board (Administrative Funding) – The CWCB gets $43,750 each year to assist in funding CWCB Administrative expenses. Theoretically, this amount is to help cover the costs of administering the Severance Tax Grants program. Because this is not a large amount of funding, if necessary these administrative expenses could be covered by the CWCB Construction Fund (which already covers almost all other administrative expenses of the division). However, the CWCB Construction Fund has already provided $10.25 million of General Fund relief through direct cash transfers to the General Fund. Continuing to provide such General Fund relief worsens the financial condition of the Construction Fund and will reduce funding available for CWCB administrative expenses, water project loans, and non-reimbursable water programs in the future.

Colorado Water Conservation Board (Severance Tax Grants) - The CWCB gets $1,275,000 annually to address a variety of water projects, water studies, and water programs. This line item funds important water supply studies and planning efforts, instream flow projects, water conservation planning, and flood protection efforts. There may be some ability to reduce the size of this grant program, which would require the CWCB to prioritize the highest priority projects and the most immediate needs, while postponing lower priority projects. However, given the significant cuts already made to water programs (including the $130 million in CWCB cash fund transfers to the General Fund as well as reductions to the Water Supply Reserve Account over the last several years), the Department would not currently support any reduction to this program.

Forestry Grants - Bark beetles, other pests, diseases, and wildfire are causing dramatic changes in Colorado's forests. Recent aerial survey data collected by the U.S. Forest Service and Colorado State Forest Service indicate that bark beetles and other diseases have effected well over 3 million acres of higher-elevation lodgepole pine and mixed conifer forests, over half a million acres of aspen, and hundreds of thousands of acres more of spruce and fir forests.

While these forest health problems occur mostly on federal land, and are therefore the principal responsibility of the federal government, the State has responded in each of the last three fiscal years with stepped-up commitments to provide matching cost-share grants to communities seeking to harvest dead, dying, and overstocked trees to reduce fuels, remove hazard trees, protect watershed functions, and improve aesthetics.

These grants are administered by the Colorado State Forest Service, are funded from Tier 2 of the Operational Account, and were authorized most recently by the *Colorado Healthy Forests and Vibrant Communities Act of 2010.* They have helped catalyze treatment of thousands of acres of unhealthy forests, have reduced risks associated with these forests, and have leveraged millions in matching investments from other public and private sources. As such, they remain a high priority for the Department and for the State Forest Service.

APPENDIX E: DEPARTMENT RESPONSE ON OPERATIONAL ACCOUNT SPENDING IN THE COLORADO GEOLOGICAL SURVEY

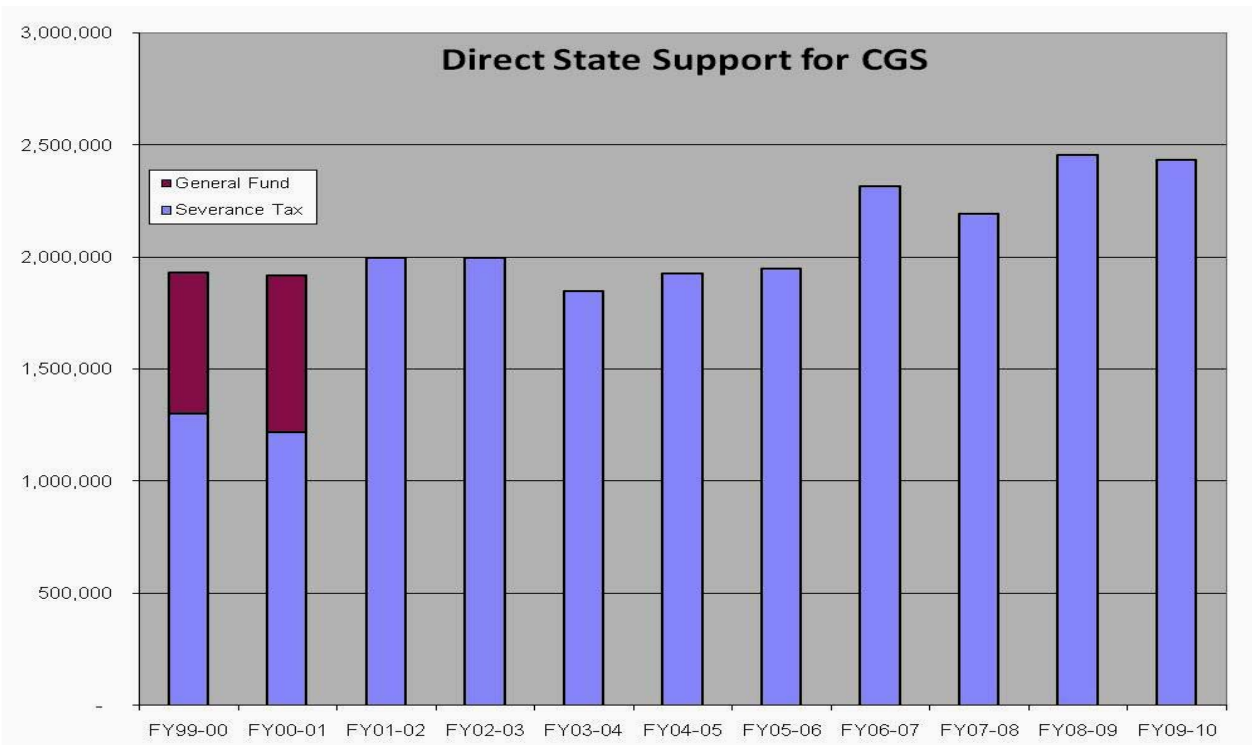
The Use of Severance Tax Funds by the Colorado Geological Survey

-An Overview

September 2010

Executive Summary

Severance tax funding for the Colorado Geological Survey (CGS) grew at an average annual rate of 1.5% over the last decade. All of the increase came in the last four years. These increases included a 1-year, FY06-07 project to analyze the potential impacts of coalbed methane development on surface-water resources. Funding for a new geothermal energy program was requested and granted in FY08-09.



The table below shows the breakdown by program of CGS severance tax funding for each Long Bill Line Item. Current levels of severance tax funding fall short of covering the salaries of employees and associated administrative/overhead costs by about $200,000. CGS also has employees engaged in a statutory, geologic hazard "Land Use Review" program that is self-funded through fees. Grants from federal, state, and local sources are used to augment and leverage State severance tax funding.

LBLI BUDGET LINE PROGRAM		**SEVERANCE TAX FUNDS (FY 10-11)**
Environmental Geology and Geological Hazards		**$1,052, 660**
Geothermal Energy Program		$154,185
Geologic Hazards Program		$340, 802
Land Use Review Program		$0
Groundwater Geology Program		$343,869
Water Quality Program		$213,804
Mineral Resources and Mapping		**$1,060,504**
CO2 Sequestration Program		$79,620
Petroleum Program		$222,043
Minerals Program		$185,220
Coal Program		$178,314
Geologic Mapping Program		$395,307
Colorado Avalanche Information Center		**$202,035**
Forecasting and Safety Program		$202,035
STAX Appropriation		
Salaries + Admin/Overhead	$2,315,199	**TOTAL**
DNR Indirect Cost	$115,940	**$2,431,139**

Severance tax funds do not comprise the whole of the CGS budget. The overall CGS budget in FY10-11 was $3,806,888. The agency actively pursues grant funds and fee-for-service contracts from Federal, State, and Local governments to augment severance tax funding in performing its mission. Most grants received are won through an open, competitive process – they are not "block" grants. CGS historically uses contractors to conduct a significant amount of the work for external grants, while severance-tax-funded employees supervise the contractors.

The Use of Severance Tax Funds by the Colorado Geological Survey

Leveraging of STAX funds through Federal grants

Severance tax dollars, coupled with qualified, STAX-funded CGS personnel, allow CGS to quickly and successfully respond to Federal-Grant RFPs that usually require a match. This ability enables CGS to greatly extend the projects that can be achieved from the STAX funds appropriated. STAX-supported personnel are necessary to find, apply for, qualify for, and carryout/direct the grant work. Contractors are commonly used to help achieve project goals.

Following are examples where the ability to quickly commit STAX funds to match federal dollars (from 10 – 50%) brought in substantial federal funds for Colorado projects over the last decade:

2010	USGS COTSA	$ 50,000
Project to assess the geology and CO2 sequestration potential in areas of Colorado not evaluated in previous studies. This will address areas not in close proximity to current CO2 point sources.		
2009	DOE	$ 8,800,000
By quickly being able to commit $114,385 in severance tax matching funds, CGS was able to put together a coalition for an $ 11 million CO2-sequestration project centered on northwest Colorado that brought in $8.8 million in DOE/ARRA funds. This area is home to two major coal-burning power plants. Primary tasks are geologic characterization and CO2 injection modeling. Most of the grant funds are designated for drilling a deep well with coring, logging, and analytical services.		
2005	USGS NCRDS	$ 75,000
This was a five-year grant to understand the geology of Colorado's coal resources. The project derives data to calculate coal reserve volumes and understand the chemical quality of coal resources.		
2003	DOE SWP	$ 260,309
This grant funded CGS work in Dept of Energy's Carbon Sequestration Southwest Partnership. This resulted in the first and only statewide assessment of CO2 sequestration potential in Colorado.		
2001	NASA	$ 954,832
This four-year project identified and characterized both natural and mining-related impacts to water quality in the upper Arkansas River watershed in Lake County. It successfully proved the ability to identify water quality impacts to mountain streams through remote-sensing technology.		
2001	USGS STATEMAP	$ 782, 969
Grant funds are competitively awarded to state geological surveys to map the geology of their state on a 7.5' quadrangle basis. This scale has multiple uses for local government planning, geologic hazard identification, resource exploration, and groundwater aquifer characterization. Merely 20% of Colorado is currently mapped at this scale.		

An additional $332,516 in federal money leveraged by STAX has been brought in since 2005 from USFS, USGS, FEMA, BLM, and DOE.

Introduction

Quick Response

No agency can respond to the scientific needs of State government as competently and quickly as CGS because of our diversity of talent and experience, and the flexibility of STAX funding. CGS possesses the capability to promptly respond to urgent state needs without having to wait 18 months to two years for Decision Items.

An excellent example is a request six years ago from DNR/EDO and the Governor to evaluate within one year the statewide potential for underground storage of water in Colorado, and with no increase in funding. CGS reordered priorities and organized our team of experts in coal geology, geohydrology, mining, oil & gas, and GIS to accomplish the charge. The timetable was met with the publication of the report, *Artificial Recharge of Ground Water in Colorado - A Statewide Assessment.* This study led to several pieces of legislation, legislative directives to consider the results in SWASI, and two recent studies on specific locales along the Front Range.

Other examples of assistance accomplished without increasing appropriations include,

- providing technical advice for Oil Shale development activities,
- providing technical advice to the 13-member Colorado Carbon Sequestration Task Force to examine Colorado's potential need for legislative action regarding sequestration,
- providing ongoing technical advice to the Regional Water Roundtables,
- providing technical advice to DNR and the BLM for the Roan Plateau, Glenwood Springs, White River, and Little Snake Resource Management Plans.

CGS also responded to a request from the Attorney General's Office to reevaluate their Rocky Mountain Arsenal contaminated groundwater damage claims. We were able to provide them with data that could support increasing their claims by 40%.

Emergency Response

Colorado's plethora of geologic hazards can often create situations where life/safety situations affect rescuers and emergency responders. Following are several instances of our emergency response to these occurrences:

Archuleta County landslide

A slow-moving landslide threatened to dam the river upstream from Pagosa Springs, with the possibility of a consequent breach of the dam thus flooding the city. CGS had a geologist on the ground in just over twelve hours to advise county emergency personnel.

Alpine mudslide events

Several mudslide events occurred in Chafee County isolating and damaging homes near the community of Alpine. The county requested our assistance and we had geologists on the ground quickly to advise responders on the probability of new slides.

Avalanche events

Avalanche personnel respond to avalanche burials to advise rescuers whether it is safe to attempt rescue/recovery operations.

Fourmile Canyon Fire

CGS quickly provided the Colorado Division of Emergency Management with information regarding the susceptibility of the burn area to post-wildfire mudslides caused by future precipitation events and is currently on the ground evaluating erosion potential.

Severance Tax Program Descriptions

The following pages provide a summary explanation of the activities and benefits of each CGS program using a single-page format. The *allocated* severance tax amount for each program is identified. The severance tax funds do not cover the full activities and budgets of the individual programs. Severance tax allocations are augmented by grants, contracts, and fee-based services.

Geothermal Program

Average Annual Investment of STAX: $ 154,185

1) **Areas of Involvement**
   - Geothermal resource studies, data creation, geothermal mapping, expert advice to industry, federal, and local governments, and state policy makers
2) **Life/Health/Safety Benefits to Colorado**
   - Geothermal is a renewable energy form with no greenhouse gas emissions
   - Direct use of heat from geothermal displaces fossil fuel sources of heating (gas, propane, coal-fired electricity), minimizing air pollution and mining land disturbance.
   - Diversity of CGS expertise provides reliable information regarding the potential risks from geothermal development.
3) **Economic Benefit/ Prevention of Economic Loss to Colorado**
   - Geothermal is available 24/7/365 and is a baseload source of renewable energy, able to stabilize an electrical grid that uses intermittent solar and wind energy
   - Proof of geothermal electrical generation capacity in Colorado will initiate a new energy industry
4) **Policy-Making Benefits**
   - Geothermal investigations and eventual energy production will help Colorado meet its "30% by 2020" renewable portfolio standard with a reliable source of electricity.
   - Provide the Division of Water Resources with geothermal information and data pertinent to their regulation of geothermal wells
   - Provide expertise to the Governor's Energy Office in their renewable energy incentive grant process to assess promising geothermal projects
5) **Assistance to State Agencies/ Local Governments**
   - Governor's Energy Office, State Land Board, Division of Water Resources, Colorado School of Mines, Colorado State University; Chaffee, Gunnison, Ouray, San Miguel, and Montrose counties; Salida, Poncha Springs, Rico, Steamboat Springs, and Alamosa
   - CGS is the only scientific agency charged with assisting the State Engineer in geothermal rule and regulation promulgation
   - CGS is charged to provide other governmental agencies with technical assistance regarding geothermal resources (34-1-103 (1)(j), C.R.S.)
6) **Who would do, if CGS did not**
   - Only CGS has compiled statewide data on geothermal resources. Colorado universities may perform specific studies, but generally work on grants that may not be directed to Colorado's geothermal resources. No university has the expertise, commitment, or experience in geothermal energy that CGS possesses.

Geologic Hazard Program

Average Annual Investment of STAX: $ 340,802

1) **Areas of Involvement**
   - Avalanche, landslide, rockfall, mudslides, unstable slopes, swelling soil, collapsing soil, earthquakes; radioactivity; ground subsidence, and technology transfer.
   - Identify, map, and assess areas with geologic hazard risks, which in turn are used in emergency management planning, zoning, and land use review
   - Assess vulnerability to hazards for local governments and state facilities
2) **Life/Health/Safety Benefits to Colorado**
   - This program plays a vital role in the land use review process. CGS conducts studies to understand the location, behavior, severity, and mitigation of hazards.
   - Geologic hazards mapping creates a framework for risk-based, decision making to reduce loss of lives, property, infrastructure and the economy from future events.
   - The program helps school districts reduce or eliminate exposure to geologic hazards
3) **Economic Benefit/ Prevention of Economic Loss to Colorado**
   - Work by CGS on "heaving bedrock" caused by swelling clays in the western Denver and Douglas County metro area resulted in the development of new construction methods that not only prevent damage to structures, but also reduce construction costs. Therefore, costly building repairs are avoided.
   - Because swelling soils were unrecognized, a school in Jefferson County was so damaged and unsafe that it had to be demolished and replaced at a cost of about $ 5,000,000. Hazard mapping and studies help local governments avoid similar economic losses.
4) **Policy-Making Benefits**
   - Hazard avoidance saves money and is good policy. Studies and mapping of geologic hazards are crucial to enable hazard avoidance at the local level.
   - The CGS Geologic Hazards Program helps local governments make wise decisions about location of housing and shared community infrastructure.
5) **Assistance to State Agencies/ Local Governments**
   - CDOT, DRMS, State Parks, CODEM
   - CGS assists most counties and many municipalities through hazard mapping & assessment.
   - CGS provides emergency response, such as to the recent Fourmile Canyon fire.
6) **Who would do, if CGS did not**
   - CGS is the only state or local agency that performs this function. Consultants could do parts of the work, but would not save money, have built-in conflicts of interest, would not have institutional memory, and many disadvantaged counties could not afford the cost.

Land Use Review Program

Average Annual Dollars of STAX invested: $ 0 (fee based)

This program is listed because it is heavily dependent on the work of the Geologic Hazard and Geologic Mapping STAX-supported programs.

1) Areas of Involvement

- Review of local government land use development proposals to determine potential impacts of geologic hazards on the planned housing and infrastructure
- Special geologic hazard reviews for: New school sites, school site additions reviews for; major infrastructure such as hospital, water treatment plants, etc

2) Life/Health/Safety Benefits to Colorado

- Statewide county and municipal governments rely on the CGS land use review program to advise them on avoidance of geologic hazards
- Safety of school children is enhanced through school site reviews

3) Economic Benefit/ Prevention of Economic Loss to Colorado

- Prevents economic loss of homes and infrastructure.
- CSU Pueblo was built prior to the CGS land use review program. Buildings suffered more than $ 1 million damage from swelling soils.
- In contrast, a maximum security facility for the Colorado State Prison in Fremont County was proposed for a site where swelling soils and bedrock were shown on geologic maps. A CGS land use review brought this to light, which resulted in a remedial plan by the builder. Millions of dollars in potential damages were avoided.

4) Policy-Making Benefits

- Informs local government zoning and platting decisions to help avoid geologic hazards
- Geologic hazard risk to critical State infrastructure is minimized

5) Assistance to State Agencies/ Local Governments

- All counties of the state as they are required to submit developments less than35 acres for review. Review of municipal developments is not required, but many voluntarily request CGS geologic hazard review.

6) Who would do, if CGS did not

- No other agency objectively reviews land use applications for geologic hazards. If CGS did not perform this function, local governments would largely rely upon geotechnical consultants hired by land developers – whom would have a financial conflict of interest.

Groundwater Geology Program

Average Annual Investment of STAX: $ 343,869

1) **Areas of Involvement**
   - Geologic investigations of groundwater and aquifers throughout the state of Colorado
   - CGS produces maps, cross-sections, and reports that are technical in nature yet target an audience that includes general public, planners, and decision makers
   - CGS provides technical expertise to the nine regional Water Roundtables.
2) **Life/Health/Safety Benefits to Colorado**
   - Society cannot exist without access to adequate water resources. Groundwater is a crucial component of Colorado's water supply infrastructure and may become more so in the future.
   - Large areas of the state rely on groundwater where surface water supplies are limited. Characterization of the underground aquifers holding the water is necessary to understand the quantity available and to ensure its proper management, use, and conservation.
3) **Economic Benefit/ Prevention of Economic Loss to Colorado**
   - Management and preservation of rapidly-depleting groundwater supply in the Denver Basin aquifers is crucial to many communities in Adams, Arapahoe, Douglas, El Paso, and Elbert counties. Inadequate groundwater would result in devastated economies and millions of dollars lost.
   - Agricultural areas reliant on groundwater for irrigation benefit from geological information to help manage groundwater use and to best implement aquifer recharge strategies.
4) **Policy-Making Benefits**
   - Colorado is a semi-arid state. Prudent management of our water resources is crucial to continued economic growth and quality of life.
5) **Assistance to State Agencies/ Local Governments**
   - Div of Water Resources, Colorado Water Conservation Board, State Parks, Attorney General's Office
   - Adams, Chaffee, Clear Creek, Douglas, Garfield, Huerfano, Jefferson, Las Animas, Moffat, Routt, Rio Blanco, San Juan counties
6) **Who would do, if CGS did not**
   - The CGS is in a unique position to provide technical assistance to various parties in gaining powerful knowledge about local and regional aquifers. As an applied science organization, we conduct unbiased investigations usually not possible by other state agencies or private sector firms, or within the scope of local governments.

Water Quality Program Average Annual Investment of STAX: $ 213,804

1) **Areas of Involvement**

   - Natural geologic conditions and human-induced conditions giving rise to poor water quality are identified, mapped and described. This program examines rock types, abandoned mines, quarries, and excavations; and their effects on surface water and groundwater quality in watersheds statewide.

2) **Life/Health/Safety Benefits to Colorado**

   - Findings of this program prompt the reclamation of past mining sites by federal and state agencies improving water quality for humans and aquatic life
   - The program provides data for the avoidance of natural degradation from salt, uranium, acidic waters, selenium, toxic metals, and other contaminants.

3) **Economic Benefit/ Prevention of Economic Loss to Colorado**

   - The program helps distinguish between reversible human-induced water quality problems and irreversible naturally poor water quality, thus saving mitigation funds from being misspent.

4) **Policy-Making Benefits**

   - This program influenced the setting of new stream water quality standards by the Water Quality Control Division for the Alamosa and Animas River watersheds.
   - Studies contribute to local community/watershed decision-making for the form and type of federal assistance requested in water quality mitigation activities.

5) **Assistance to State Agencies/ Local Governments**

   - Div of Reclamation, Mining and Safety, Div of Wildlife, Water Quality Control Division
   - Specific assistance to Adams, El Paso, Gunnison, Lake, Jefferson, Rio Grande, San Juan counties; Glenwood Springs
   - Alamosa River watershed groups, Animas River Stakeholders Group, Bear Creek Watershed Association, Clear Creek Watershed Foundation, Coalition for the Upper South Platte, Gunnison Basin & Grand Valley Selenium Task Forces, Lefthand Watershed Oversight Group, Upper Arkansas River Restoration Project, Upper Arkansas Watershed Council, Willow Creek Reclamation Committee (Creede)

6) **Who would do, if CGS did not**

   - CGS is the only agency in State government that investigates geological causes of poor water quality. Div of Reclamation Mining and Safety mitigates specific mine-induced water quality problems, but does not investigate natural geologic water quality inhibitors. The Water Quality Control Division monitors streams for compliance with standards, but does not perform detailed studies to identify natural geologic sources of poor water quality

CO2 Sequestration Program

Average Annual Investment of STAX: $ 79,620

1) **Areas of Involvement**
   - CO2 sequestration technology review and assessment, geological studies of areas prospective for geologic sequestration.
   - CGS is the only entity in Colorado who has participated in the Southwest Partnership for CO2 Sequestration. The scientific results from this DOE-funded effort, which began in 2003, provide the only reliable data currently available to industry and government in Colorado.
2) **Life/Health/Safety Benefits to Colorado**
   - CO2 is currently being considered by the EPA as a hazardous substance. This declaration could seriously affect all aspects of society. It is important that Colorado be prepared to deal with this eventuality through an understanding of the potential for sequestration.
3) **Economic Benefit/ Prevention of Economic Loss to Colorado**
   - Within the past year, CGS assembled a coalition of industry, academic, and state partners that was successful in obtaining funding for an $11 million ($8.8 million federal) CO2 characterization project centered on Moffat County, Colorado. A CO2 repository here could provide security for existing industries in the area, as well as potentially attracting new industries. Most of the grant funds are designated for drilling a deep well with coring, logging, and analytical services.
   - Colorado provides more than 90% of its electricity from natural-gas-fired and coal-fired power plants which are point source emitters of CO2. Geologic sequestration may become necessary to provide reliable electricity in Colorado for at least the next several decades.
4) **Policy-Making Benefits**
   - Because CGS is the leader with acknowledged expertise in Colorado, a number of local entities are turning to CGS to provide them with an understanding of the technology and risks associated with the geologic sequestration of CO2. CGS personnel provide technical guidance to the Colorado Carbon Sequestration Task Force looking at potential legislation. The Task Force is comprised largely of people with little to no background in carbon sequestration.
5) **Assistance to State Agencies/ Local Governments**
   - Governor's Office, Dept of Public Health and Environment, State Land Board, CDPHE, and COGCC
6) **Who would do, if CGS did not**
   - CSM, CSU, CU, and NREL have formed a Carbon Management Center. They have some expertise in terrestrial sequestration (CSU), legal implications (CU), and technologies of capture and monitoring (CSM). Unfortunately, they have virtually no history of work in Colorado on geologic sequestration. All of the experience in obtaining grants and producing information resides with CGS.

Petroleum Program

Average Annual Investment of STAX: $ 222,043

1) Areas of Involvement

- Oil and gas resource and basin studies; compile oil and gas production statistics for Colorado; provide data for severance tax income forecasts, the Colorado Business Economic Outlook Forum, national compilers; conduct scientific studies to aid regulation by COGCC; assist Div of Reclamation Mining and Safety in oil shale permit reviews.

2) Life/Health/Safety Benefits to Colorado

- Cooperation in CO_2 sequestration studies to enable reductions in greenhouse gas emissions in the near-term and long-term.
- Assist industry and regulators to prevent surface natural gas seeps through geologic mapping and studies
- Energy independence contributes to state and national security

3) Economic Benefit/ Prevention of Economic Loss to Colorado

- Studies of oil and gas basins encourage investment in new exploration activity by industry in Colorado. Numerous, early CGS studies of CBM potential laid the groundwork for a CBM industry that generated $4 billion in revenues in 2008.
- The oil and gas industry contributes more than 90% of annual severance tax revenues.

4) Policy-Making Benefits

- Oil and gas production statistics must be compiled so that economic forecasts can be made and decision-makers can know the potential impact of changing policies on the oil and gas industry and economy of Colorado. Specifically, CGS provides information and consults with the Legislative Economics staff (Jason Schrock) regarding production and its impact on severance tax income.

5) Assistance to State Agencies/ Local Governments

- State Land Board, Colorado Oil and Gas Conservation Commission, Colorado State Parks.
- CGS assessed the oil and gas potential of all State Land Board parcels, which allows them to determine appropriate lease rates. The result is increased income for K-12 education. SLB also benefitted by knowing property values when making land exchanges and designating properties as part of the Stewardship Trust.
- CGS conducted several major studies that guided COGCC regulation

6) Who would do, if CGS did not

- Policy makers would rely on industry for most data and thus lose an impartial source
- US Geological Survey and the US Energy Information Agency collect oil and gas data, but do not give specific oil and gas field or individual county production data.
- COGCC would have to rely on contractors who are rarely impartial.

Minerals Program

Average Annual Investment of STAX: $ 185,220

1) Areas of Involvement

- Mineral evaluations for state lands, strategic mineral studies, compile mineral production statistics for Colorado, provide data for severance tax income forecasts, the Colorado Business Economic Outlook Forum, County planners, and national compilers

2) Life/Health/Safety Benefits to Colorado

- Mineral investigations find crucial strategic and rare-earth minerals required for renewable energy and energy efficiency technologies
- Strategic minerals found and produced in Colorado will reduce our dependence on foreign supplies and contribute to national security

3) Economic Benefit/ Prevention of Economic Loss to Colorado

- Mineral studies encourage investment in new exploration activity by industry in Colorado. In 2002, CGS cooperated with Garfield County in a sand and gravel resource study for areas adjacent to the Colorado River. The county and resource developers were keenly interested in finding sand and gravel resources in proximity to developing areas. Several new mining permits were issued following study publication.
- Mineral production enhances the economy in rural areas (mines) and cities (company offices)
- Mineral production contributed $ 2.2 billion in revenues to the state’s economy in 2008.

4) Policy-Making Benefits

- CGS provides data to counties to protect future mineral resources from encroaching land surface development. This assists counties in their HB-1041(1974) land use regulation obligations.
- Mineral production statistics must be compiled so that economic forecasts can be made and decision-makers can know the potential impact of changing policies on the industry and economy of Colorado

5) Assistance to State Agencies/ Local Governments

- State Land Board, Div of Reclamation, Mining, and Safety, Dept of Local Affairs, Colorado State Parks, Lake County, Saguache County, Clear Creek Co, Front Range counties from Larimer Co. to Pueblo Co., City of Grand Junction, etc
- State Land Board uses CGS mineral assessments to fully understand the mineral potential on state lands. This stimulates higher bids and lease fees when mineral rights are auctioned and directly increases revenue to K-12 education.

6) Who would do, if CGS did not

- No one. Only CGS compiles industry-wide summary statistics of mineral production and economic impact for Colorado.

Coal Program

Average Annual Investment of STAX: $ 178,314

1) **Areas of Involvement**
   - Coal quality studies; production/reserve compilation; provide data for severance tax income forecasts, Colorado Business Economic Outlook Forum, and national compilers
2) **Life/Health/Safety Benefits to Colorado**
   - Provide data to industry and regulators to prevent surface natural gas seeps through geologic mapping and studies
   - Cooperation in CO_2 sequestration studies to enable future emission reductions in this greenhouse gas; investigate and encourage low CO_2 coal technologies in Colorado
   - Identify where least-polluting coal is located
   - Energy independence contributes to national security
3) **Economic Benefit/ Prevention of Economic Loss to Colorado**
   - Provide coal resource statistics and economic data to attract new and continuing industry investment Colorado
   - The coal industry annually contributes about $ 1.0 billion in revenues and more than 2,000 direct jobs to Colorado's economy.
4) **Policy-Making Benefits**
   - Coal production statistics must be compiled so that economic forecasts can be made and decision-makers can know the potential impact of changing policies on the coal industry and economy of Colorado
5) **Assistance to State Agencies/ Local Governments**
   - State Land Board, Oil and Gas Conservation Commission, Div of Reclamation, Mining, and Safety, Colorado State Parks, Div of Wildlife, and Dept of Public Health and Environment.
   - Coal mapping in Archuleta and La Plata counties provides valuable data to COGCC to better regulate coal bed methane development, and to better monitor potential environmental impacts.
6) **Who would do, if CGS did not**
   - Policy makers would need to rely on industry for most data and thus lose impartial source
   - US Geological Survey and the US Energy Information Agency collect coal resource and mining statistics, but do not give individual mine and county production data

Geologic Mapping Program

Average Annual Investment of STAX: $ 395,307

1) Areas of Involvement

- Geologic mapping in high-growth areas throughout the state. Priorities are determined by an advisory council composed of industry, academic, and federal/state agencies.
- Only a little more than 400 of the more than 1,700 quadrangles in Colorado have been mapped at the 1:24,000 scale.
- From 1993 through 2010 CGS has leveraged STAX funds to bring in $ 2,634,544 federal dollars to support geologic mapping in the state. Federal funds match severance tax funds dollar for dollar.
- Geologic mapping provides the underlying scientific foundation for the understanding of geologic hazards, the natural degradation of surface waters, the extent of groundwater resources, as well as the nature and location of energy and mineral deposits.

2) Life/Health/Safety Benefits to Colorado

- A decade-long geologic mapping project along the Front Range provided an understanding of the architecture of the rapidly-depleting aquifers that supply groundwater to many residents and municipalities. The CGS data will be crucial to understanding and managing these groundwater resources in the future.

3) Economic Benefit/ Prevention of Economic Loss to Colorado

- A decade-long geologic mapping project along the Front Range provided an understanding of the architecture of the rapidly-depleting aquifers that supply groundwater to many residents and municipalities. The CGS data will be crucial to understanding and managing these groundwater resources in the future.
- Geologic maps are used by consultants, industry, CGS land-use-review personnel, scientists, civil engineers, and academicians.

4) Policy-Making Benefits

- Geologic maps underlie many of the scientific information provided to policy makers.

5) Assistance to State Agencies/ Local Governments

- Geologic maps provide the basic data to generate derivative maps that are useful to county planners and policy makers for sound, land-use decisions.

6) Who would do, if CGS did not

- No one. Most universities no longer engage in geologic mapping because they do not receive academic credit toward tenure for producing geologic maps. In 1992, the National Cooperative Geologic Mapping Act took the responsibility for detailed geologic mapping away from the USGS and gave it to the state geological surveys under the STATEMAP component.

Avalanche Program Average Annual Investment of STAX: $ 202,035

1) **Areas of Involvement**

- The Colorado Avalanche Information Center promotes public safety through forecasting, education, and applied research. We produce daily mountain weather and avalanche forecasts for backcountry recreation and highway maintenance operations from November through April. We also provide education on avalanches and how to use current information to stay safe in both recreational and work-place settings. During the 2009-2010 operating season we taught 6,618 students, our website had over 1.2 million visits, and we sent out over 3,500 forecasts via emails each day.

2) **Life/Health/Safety Benefits to Colorado**

- Avalanches kill more people in Colorado than any other natural hazard. From 1995-2009, 80 people have been killed in avalanches.
- During the same time period (1995-2009) the average number of people killed in avalanches each year has decreased from 6 to 5 while recreational use has increased. The efforts of the CAIC have aided this trend.
- During the 2009-2010 operating season 689 avalanches struck Colorado's highways. There were no major accidents or significant property damage. This is a result of the CAIC/CDOT forecasting and hazard mitigation program.

3) **Economic Benefit/ Prevention of Economic Loss to Colorado**

- Avalanche accidents have a deep impact on local populations and economies. The CAIC's efforts help reduce the number of deaths and their impact on the community. The CAIC also helps to reduce the cost of backcountry rescues due to avalanches.
- CDOT estimates a loss of one million dollars an hour when I-70 is closed through Clear Creek, Summit and Eagle Counties. The CAIC's forecasting efforts reduce the length of closures. The CAIC's forecasting program also allows goods and services to reach ski resorts and other mountain businesses by keeping highways open and safe.
- The ski industry is a major component of Colorado's winter economy. The CAIC provides operational support and training for ski area staff. These efforts help the industry provide safe environments for their customers to recreate. These customers provide income for mountain businesses and communities.

4) **Policy-Making Benefits**

- The CAIC provides information on winter hazards and recreation to other divisions in the Department of Natural Resources, the Department of Transportation, and other areas of the Colorado state government.

5) **Assistance to State Agencies/ Local Governments**

- The CAIC works closely with the Department of Transportation to keep Colorado's highways open and safe from avalanches.

- The CAIC works closely with local sheriff's offices on backcountry rescue missions.
- The CAIC provides training for local government employees, search and rescue staff, and avalanche workers in the public and private sectors.

6) Who would do, if CGS did not

- There is no group that could replicate the work currently being done by the CAIC.
- Private sector efforts to provide avalanche safety information have not been successful in the United States, mostly due to liability.
- A private sector group could not provide the same level of service as the CAIC with the same budget because the CAIC receives over $150,000 in in-kind support. This support comes from federal, state, and local governments and could not be extended to a private sector effort.

APPENDIX F: DEPARTMENT RESPONSE TO FY 2010-11 REQUEST FOR INFORMATION # 39: REPORT ON OGCC SPECIAL ENVIRONMENTAL PROTECTION AND MITIGATION STUDIES LINE ITEM

Department of Natural Resources - Colorado Oil and Gas Conservation Commission
Special Environmental Protection and Mitigation Studies Line Item
Annual Report of Expenditures

Special Study/Project Name	Description	FY 2009-10 Expenditures
Bryce 1-X Investigation	The COGCC performed ongoing monitoring and remediation activities in association with a methane explosion that destroyed a mobile home in February 2005 near Bondad, La Plata County, Colorado. Shallow soils and groundwater were determined to be impacted by methane gas that escaped from the plugged and abandoned Bryce 1-X gas well. In August 2006 COGCC staff successfully re-entered this old well and plugged off the Fruitland Formation, thus isolating the wellbore from the continuous flow of methane. The upper portion of the wellbore was left open and continues to act as a passive vent for remediation of the large quantities of residual gas in the shallow aquifers; therefore, continued access to this property is necessary. Six nearby domestic water wells and shallow soils in the area have historically been monitored for the presence of methane gas and continue to be monitored on an approximately semi-annual basis. Groundwater samples are analyzed for basic chemical parameters, dissolved methane and isotopic gas composition on an approximately semi-annual schedule. Soil gas surveys conducted over a fixed grid have not detected methane in the shallow soils since July 2007. The last soil gas survey was conducted in August 2009 and this will be the last survey, unless conditions change and additional surveys are needed to document changes. Groundwater sampling results are provided to the homeowners and are presented at the quarterly Gas Oil Regulatory Team (GORT) meetings held in	$18,019

	Durango, Colorado. Natural bioremediation of the groundwater appears to be progressing slowly, with most water wells showing continued decreases in methane concentration. Nonetheless, the water wells impacted by methane leaking from the Bryce 1-X still are a potential threat to the safety and welfare of the people who rely on them for their water and, therefore, the COGCC's responsibility for monitoring and remediation of the lingering impacts continues.	
Rulison and Rio Blanco Environmental Monitoring	**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. It involved the detonation of a 40 kiloton nuclear device approximately 8,400 feet deep at a site about 40 miles east of Grand Junction. Detonation of the device created a cavity in the rock which contained approximately 170 million cubic feet of gas and fractured the surrounding rock. In 1970, a test well was drilled back into the cavity to evaluate the effect of the blast. Approximately 450 million cubic feet of gas was produced from the cavity and surrounding rock. At the conclusion of the testing and flaring period the radioactivity of the gas produced from the well was below levels hazardous to human health. This testing demonstrated that the 1970 flaring removed much of the gas-phase radioactive contamination from the blast site. In 1976, the test well was plugged and abandoned. Annual sampling of wells, springs, and streams in the Rulison area has been conducted by the Environmental Protection Agency since the time of the test, with no radionuclides detected above background. The federal government established a 40-acre area around the blast site within which drilling is prohibited below 6,000 feet. This no drill zone extends approximately 325 feet from the blast site, and it remains the only area near the blast site in which drilling has been prohibited by any federal, state, or local agency. The COGCC has,	$12,084

	however, adopted special procedural requirements regarding APDs in the Project Rulison area. In 1998, the COGCC determined that APDs for locations within three miles of the blast site would be forwarded to the Department of Energy (DOE) for review and comment. A three-mile area was adopted for this purpose because as of 1998 no active or proposed wells were located within that area. As part of that 1998 action, the COGCC Deputy Director prepared an extensive review of the literature regarding Project Rulison, which is available on the COGCC website. In 2004, the COGCC further directed that APDs for locations within one-half mile of the blast site would require a formal COGCC hearing. Drilling in the vicinity of Project Rulison has received a great deal of interest from Garfield County and local residents because of ongoing concerns that radioactive gas and drilling wastes might be encountered or generated. Operators with active and planned operations are required to conduct extensive monitoring, sampling, and analysis. COGCC requires the expertise of a health physicist to assist in the oversight of oil and gas activities being conducted in this area by ensuring that operators are in compliance with the radiological provisions of the approved "Project Rulison Sampling and Analysis Plan" (RSAP) and RSAP revisions. M.H. Chew & Associates (Chew) provided such expertise and assisted the COGCC by coordinating with COGCC, CDPHE, DOE, & oil and gas operators; preparing inspection checklists based on the RSAP; conducting inspections; preparing reports; and presenting the results of the inspections and audits to the COGCC, local government, and residents. In addition, Chew assists in answering questions from operators concerning the implementation of the RSAP and in evaluating and making recommendations as to whether modifications to the RSAP are needed and appropriate.	

	Project Rio Blanco is the site of a nearly simultaneous subsurface nuclear detonation of three 30 ± 3-kiloton nuclear devices at depths of 5,838, 6,230, and 6,689 feet below ground on May 17, 1973.The oil and gas operators, in consultation with other affected working interest owners, have voluntarily agreed to a drilling moratorium within the area between the 600-foot Department of Energy (DOE) exclusion zone and a ½-mile radius of Project Rio Blanco until additional radiological data have been collected outside of this zone to demonstrate that gas drilling, completion, and production can be safely accomplished near Project Rio Blanco. The operators also agreed to a voluntary drilling exclusion zone around the Fawn Creek Government No. 1 (FCG No. 1) well where radioactively-contaminated water produced from the Rio Blanco test well was injected into an interval between 5,360 and 6,072 feet below the ground surface. The voluntary drilling exclusion zone around this well will be maintained until sufficient radiological data have been collected to confirm that radionuclide at the FCG No. 1 well have not migrated to producing gas wells outside this zone. Under the voluntary drilling exclusion zone around FCG No. 1, the operators propose to limit drilling and gas production within a 600-foot radius of the FCG No. 1 well to a true vertical depth of 6,500 feet below ground surface. FCG No. 1 is also within the ½-mile voluntary drilling moratorium area discussed above. The federal government did not implement a drilling exclusion zone around FCG No. 1. The COGCC has adopted special procedural requirements regarding APDs in the Project Rio Blanco area. Drilling in the vicinity of Project Rio Blanco has received a great deal of interest from Rio Blanco County and local residents because of ongoing concerns that radioactive gas and drilling wastes might be encountered or generated. Operators with active and planned operations are required to conduct extensive monitoring, sampling,	

	and analysis. COGCC requires the expertise of a health physicist to assist in the oversight of oil and gas activities being conducted in this area by ensuring that operators are in compliance with the radiological provisions of the approved "Project Rio Blanco Sampling and Analysis Plan (RBSAP) and subsequent RBSAP revisions. M.H. Chew & Associates (Chew) provided such expertise and assisted the COGCC by coordinating with COGCC, CDPHE, DOE, & oil and gas operators; preparing inspection checklists based on the RBSAP; conducting inspections; preparing reports; and presenting the results of the inspections and audits to the COGCC, local government, and residents. In addition, Chew's assistance in answering questions from operators concerning the implementation of the RBSAP are needed and appropriate.	

Mamm Creek Report Evaluation	Numerous studies have been conducted in the Piceance Basin of western Colorado by the COGCC, operators, and Garfield County to determine whether impacts to ground water resources and water wells are occurring from oil and gas activities. Although there are instances of impacts from oil and gas activities to ground water resources, the COGCC's evaluation of the data does not indicate that there has been a regional impact to ground water quality. Overall impacts are isolated and the COGCC oversees the operators' remediation activities. Garfield County hired a third party contractor (Dr. Geoff Thyne) to review much of the existing data and to perform an evaluation. Dr. Thyne concluded that "produced gas and water… are present in many ground water wells and this type of impact is increasing with more drilling." Because of the seriousness of this conclusion and the resulting concerns of Garfield County and local residents about the potential impacts to public health, safety, and welfare, the COGCC hired S.S. Papadopulos as a third party contractor to conduct an independent review of the data and Garfield County's report ("Thyne Report"), in addition to reports prepared by other geochemistry experts on behalf of industry to determine whether the Thyne Report's conclusions were valid. S.S. Papadopulos presented its conclusions to the COGCC Commissioners at a public hearing conducted in Glenwood Springs. Based upon a detailed evaluation of the analytical data, including stable isotope results, S.S. Papadopulos concluded that the Thyne Report had incorrectly interpreted the stable isotope data, thus invalidating the report's conclusions.	$25,000
San Juan Coalbed Methane Water Quality Study	The Fruitland Formation of the San Juan Basin extends from southwestern Colorado into New Mexico and is the most productive coalbed methane (CBM) reservoir in the United States. In 2000 the Colorado Oil & Gas Conservation Commission (COGCC) received	$48,154

	a request from area operators to allow for an optional additional well to be drilled for production of Fruitland gas for certain 320-acre drilling and spacing units in the Ignacio-Blanco Field. As a result of that request the COGCC issued Orders No. 112-156 and 112-157 on April 25, 2000 outlining certain groundwater sampling and data gathering requirements that the operators would need to meet to obtain the additional well spacing. Subsequently approximately 25 more orders regarding optional additional wells have been approved by the COGCC Commission and each of these has also required groundwater sampling and analysis. Area operators have been submitting these data to the COGCC since 2000. The data are kept in an Access™ database in the Denver COGCC offices which currently consists of over 1,500 sampled wells and 3,500 associated datasets. In 2009 the COGCC hired an independent contractor, Geomatrix Consultants (now AMEC-Geomatrix) to provide data evaluation services. This project provided a full-scale statistical analysis of these data to: • Assess potential long-term trends in general groundwater quality in the San Juan Basin based on data available in the COGCC database and to evaluate any identified trends for relevance to area CBM drilling and production • Review and update current COGCC data management and QA/QC procedures, and • Add triggers and data flags to the current COGCC San Juan Basin water quality database to help facilitate long-term management of CBM related water quality monitoring data. Updates will be conducted on an annual basis to capture new data	

	and allow for a routine assessment of data to evaluate potential impacts or improvements in area groundwater.	
3M-4M Monitoring O&M	Since 2000, the COGCC 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 COGCC retained a third-party contractor knowledgeable in the systems, Norwest-Applied Hydrology (NAH), to provide ongoing Operations & Maintenance (O&M) support to ensure the systems stay in working order and continue to relay data as designed. This typically includes 1-2 field visits per year to each location to physically evaluate operational conditions, ongoing remote data downloading, and the preparation of an Annual Report analyzing and summarizing the entire historic data set.	$24,619
Prather Spring Study	In May 2008 Mr. Ned Prather contacted the COGCC and informed us that his spring had been contaminated by oil and gas operations and that he had become ill from drinking the contaminated water. Immediately the COGCC began an investigation of this complaint. The COGCC verified that the spring was impacted and then began a systematic evaluation of all of the numerous potential sources, which included oil and gas wells, pipelines, pits, and production facilities operated by 4 different operators. The COGCC's investigation to identify the source of the contamination continued in FY 09-10. In addition to reviewing numerous submittals by the operators of the suspect facilities, the COGCC also hired contractors to collect samples from the Prather Spring and several other springs and monitoring wells in the vicinity. These samples were submitted for laboratory analysis and the analytical results were used to verify ongoing contamination and to help pinpoint the source of the contamination. Ultimately the source of the contamination was	$33,757

	identified as a leaking produced water pit. The COGCC and the operator negotiated a settlement, which resulted in the largest fine ever impose by the COGCC Commission. The operator closed the pit, thereby removing the source of contamination, and continues to monitor and mitigate the lingering impacts.	
Florence & Canon City Oil & Gas Survey	Production began in the historic Florence and Canon City oil field in 1862. More than 700 oil wells were drilled in the area by 1908. Approximate locations of many of these oil and gas wells are known. However, little is known about how or even if these wells were plugged and abandoned. Gas production often increased in many of these wells when oil production declined and the wells were no longer useful to the operators. A methane seep driving survey study was performed in FY 09-10 as a means of attempting to identify the presence of natural gas seeping from unplugged or poorly plugged orphan wells. Several unplugged wells have been found in the area and are known to be venting natural gas. The driving survey and preliminary follow-up ground investigations have indicated natural gas seepage in a densely populated mobile home park and in a residential area in Florence. These areas appear to be close to orphaned oil wells drilled before 1908. More investigations of this area will be performed to determine whether other unplugged or poorly plugged wells pose risks to the residents of the area.	$13,500
Huerfano County Water Sampling	The COGCC performed ongoing monitoring activities at water wells in Huerfano County. One of the water wells being monitored had a fire at the well head in 2007 and the other water well being monitored had an explosion in the well house in 2007. Both the fire and the explosion are thought to be related to coal bed methane that has migrated upwards from the Vermejo Formation. into sandstone aquifers of the overlying Poison Canyon Formation, Petroglyph Energy, Inc. is conducting a remediation and mitigation	$4,750

	project in the area and monitors approximately 80 other domestic wells as part of the ongoing remediation as documented in staff reports and updates to the Commission.	
Water Quality Database	The COGCC has acquired a large volume of environmental data as a result of complaint response, COGCC funded studies, staff investigations, groundwater sampling as required by various Rules and Orders, and studies conducted by operators, the USGS, BLM, and others. Much of the data has been maintained in stand-alone Microsoft Access databases. Although functional, the existing database has limitations regarding data input by remote staff, inconsistent work flow processes for data entry, and reliance on consultants for database queries. The COGCC hired a third party contractor to provide database design services and to assist COGCC staff and contractors in migrating data from the existing access database to a new SQL-Server database. The primary goals of this project are to: 1) migrate the existing data to a central enterprise SQL-Server database, 2) develop improved tools for data input, 3) provide browser-based queries, reports, and data exports for users, 4) develop a set of new workflow procedures that will support the new analytical database, and 5) make the data publicly available via the Internet. Significant progress has been made on the design of the SQL-Server database, creation of a data management tool, and integration of the existing Access databases into one combined database in a suitable format prior to migration to the SQL-Server database. Tasks still in the early stages of work include the design of data entry forms, user-ready queries for report generation and data access, design and development of an electronic data deliverable format, data migration, and SQL-Server database testing.	$12,960
Total Expenditures		**$192,843**