


Colorado Legislative Council Staff Fiscal Note
STATE
FISCAL IMPACT

Drafting Number: LLS 12-0710

Date: February 17, 2012

Prime Sponsor(s): Rep. Fischer

Bill Status: House Agriculture

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TITLE: CONCERNING GROUNDWATER IN THE SOUTH PLATTE RIVER BASIN.

Fiscal Impact Summary	FY 2012-2013	FY 2013-2014
State Revenue		
State Expenditures		
General Fund	\$41,057	
Cash Funds		
CWCB Construction Fund	3,827,451	
FTE Position Change	1.0 FTE	
Effective Date: Upon signature of the Governor, or upon becoming law without his signature.		
Appropriation Summary for FY 2012-2013: See Appropriations Section.		
Local Government Impact: None.		

Summary of Legislation

The bill requires the Colorado Water Conservation Board (CWCB) and the State Engineer in the Division of Water Resources, Department of Natural Resources, to conduct a comprehensive study of the interaction between the South Platte alluvial aquifer and surface streams. The results of the study must be reported to the General Assembly by June 1, 2013.

Section 3 of the bill authorizes the State Engineer to approve temporary substitute water supply plans in the South Platte River Basin that do not require the replacement of all out-of-priority depletions if he determines that such plans are needed to address damage caused by groundwater levels. The plans may only be approved if they will not cause injury to vested water rights, decreed conditional water rights, or impair compliance with any interstate compact. The State Engineer may also allow a water user to engage in out-of-priority well pumping without requiring the water user to fully replace depletions in order to reduce damage from groundwater levels. Additionally, the State Engineer is required to request that the water judge for Water Court Division 1 reconsider augmentation plans based on information obtained from the study.

State Expenditures

In FY 2012-13, the bill is expected to increase expenditures in the Department of Natural Resources by \$3,827,451 and in the Judicial Department by \$41,057. These costs are shown in Table 1 and are explained below.

Table 1. Expenditures Under HB 12-1278		
Cost Components	FY 2012-13	FY 2013-14
Study and Contractor Expenses	\$3,824,400	
Personal Services	30,701	
FTE	1.0	
Operating Expenses and Capital Outlay	10,681	
Legal Services	2,726	
TOTAL	\$3,868,508	

Colorado Water Conservation Board and Division of Water Resources, Department of Natural Resources. The study required in the bill can be broken down into six components. Each component and its associated cost is shown in Table 2 and is further explained below.

Table 2. Cost of Study Required Under HB 12-1278	
Study Component	Cost
1. Determining the number and location of alluvial wells withdrawing groundwater in the basin.	No fiscal impact.
2. Determining the number and location of alluvial wells in the basin that are currently totally or partially curtailed from pumping.	No fiscal impact.
3. Determining the number and location of existing and planned artificial recharge facilities, and the historic, current, and future volume totals of water recharged	\$100,000
4. Determining the impact of well withdrawals on groundwater levels and surface flows in the basin.	1,017,400
5. Determining whether the current administrative framework achieves the state's goals of protecting senior rights and maximizing the beneficial use of waters of the state	117,000
6. Determining whether additional usage of the alluvial aquifers could be permitted in a manner consistent with protecting senior rights.	2,590,000
TOTAL	\$3,824,400

To address the first and second study components, the Division of Water Resources currently monitors the number and location of wells with a pumping capacity greater than 50 gallons per minute and the number and location of alluvial wells in the basin that are totally or partially curtailed from pumping. Assuming that this portion of the study will only include wells with a 50 gallon per minute pumping capacity, there is no fiscal impact from these two components of the study.

For the third study component, the division already monitors the number, location, and recharge volumes for existing decreed recharge sites, therefore, a general investigation of existing operations could be completed without any fiscal impact. To estimate the planned future recharge facilities and total future volume of water recharged, a comprehensive study would need to be conducted including interviews of water users, forecasting of basin recharge needs, and site availability for recharge facilities. This would require 800 hours of professional engineering time at \$125 per hour, for a total of \$100,000.

The bill specifies seven issues that must be investigated in the fourth study component, including:

- the current and historical groundwater levels, and the amounts of water leaving the state in excess of compact requirements;
- deliveries to senior surface water rights;
- the relationship between groundwater levels and nonbeneficial consumptive use;
- the impact of a variety of factors on surface flows and groundwater levels;
- the effectiveness of augmentation plans in the basin; and
- the extent to which depletions from past pumping continue to impact surface streams.

Some of these issues can be investigated by making modifications to the South Platte Decision Support System (SPDSS), a water management modeling tool, while others will require data collection and analysis. In total, this study component will require 120 contractor hours at \$20 per hour, and 8,120 hours for a professional engineer at \$125 per hour for a total of \$1,017,400.

The fifth study component, to determine whether the current administrative framework achieves the state's goals of protecting senior rights and maximizes the beneficial use of water of the state, will require contracting with a specialized independent source to ensure transparency and objectivity. The contractor will require \$5,000 for travel and public meetings, and approximately 320 hours at \$350 per hour, for a total of \$117,000.

The sixth study component, to determine whether additional use of the alluvial aquifers could be permitted in a manner consistent with protecting senior surface rights, includes six issues in the bill that must be investigated, including:

- what the planned use of available groundwater storage is to maximize the sustainable yield of the basin;
- how senior surface rights are serviced by groundwater pumping;
- whether management based upon measured groundwater levels could increase basin efficiency and protect senior surface rights;

- whether it would be beneficial to assign the State Engineer increased management responsibility in the basin, and if use of the South Platte Decision Support System can be used as a management and planning tool to more effectively manage the South Platte River system to facilitate use of groundwater and surface water supplies; and
- establishing a basin-wide network of monitoring wells and calibrating existing groundwater models and methods of calculating the depletive effects of recharge activities in the South Platte River.

These tasks will involve making significant modifications to the SPDSS, analyzing water use and water rights data, conducting meetings with water users, having results peer reviewed, and establishing a pilot project network of monitoring wells. This will require a total of 20,320 hours of professional engineer time and installing measurement recorders at 25 existing wells for \$2,000 each, for a total of \$2,590,000.

Additionally, the State Engineer may need to develop criteria to evaluate and approve temporary substitute water supply plans, if the State Engineer determines that such plans are needed to address elevated groundwater levels that are causing damage to property, soils, crops, or infrastructure. The development of criteria would likely be covered with existing staff resources. However, 12 hours of legal services from the Department of Law will be needed at \$75.71 per hour, plus there will be additional public notices and meeting costs. The State Engineer is also required to request the water judge to reconsider augmentation plans based on the information obtained through the study. Accordingly, the division will require an additional 24 hours of legal services to draft a legal brief for the court, for a total of \$1,817.

The bill also requires the State Engineer to reduce groundwater levels in the basin by permitting water users to engage in out-of-priority well pumping without requiring the users to replace depletions, in order to mitigate damage to property, soil, or crops. This could involve significant staff resources and communications costs. However, without knowing the number of wells needed or how much water would be pumped, a cost cannot be determined.

Judicial. Depending on the number of wells that the State Engineer authorizes to be pumped out of priority, there could be additional cases on the Division 1 Water Court's docket. Senior water users will likely challenge the State Engineer if the office authorizes well pumping without replacing depletions. Using an estimate of 50 additional water cases, the Judicial Department will require 0.25 FTE magistrate and 0.75 FTE support staff at a cost of \$41,057.

Expenditures Not Included

Pursuant to a Joint Budget Committee policy, certain costs associated with this bill are addressed through the annual budget process and centrally appropriated in the Long Bill or supplemental appropriations bills, rather than in this bill. The centrally appropriated costs subject to this policy are summarized in Table 3.

Table 3. Expenditures Not Included Under HB 12-1278*		
Cost Components	FY 2012-13	FY 2013-14
Employee Insurance (Health, Life, Dental, and Short-term Disability)	\$6,099	
Supplemental Employee Retirement Payments	1,637	
TOTAL	\$7,736	

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

State Appropriations

In FY 2012-13, the Department of Natural Resources requires a CWCB Construction Fund appropriation of \$3,827,451 and the Judicial Branch requires a General Fund appropriation of \$41,057 and 1.0 FTE. The Department of Law requires \$2,726 in reappropriated funds.

Departments Contacted

Natural Resources

Judicial

Law