0595 Water Resources Review Committee

Colorado Legislative Council

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Water Resources Review Committee

Members of the Committee

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Representative Kathleen Curry, Vice-Chair

Senator Greg Brophy
Senator Gail Schwartz
Senator Al White
Senator Bruce Whitehead

Representative Randy Baumgardner
Representative Randy Fischer
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To Members of the Sixty-seventh General Assembly:

Submitted herewith is the final report of the Water Resources Review Committee. This committee was created pursuant to Section 37-98-102, C.R.S. The purpose of the committee is to review water issues and propose legislation related to the conservation, use, development, and financing of Colorado's water resources.

At its meeting on November 10, 2009, the Legislative Council reviewed the report of this committee. A motion to forward this report and the bills therein for consideration in the 2010 session was approved.

Respectfully submitted,

/is/ Senator Brandon Shaffer
Chair
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*This report is also available on line at:*

[http://www.colorado.gov/lcs/WRRC](http://www.colorado.gov/lcs/WRRC)
Executive Summary

Committee Charge

The Water Resources Review Committee was created to contribute to and monitor the conservation, use, development, and financing of Colorado's water resources for the general welfare of the state (Section 37-98-102, C.R.S.). The committee is authorized to review and propose legislation in furtherance of its purposes. In conducting its review, the committee is required to consult with experts in the field of water conservation, quality, use, finance, and development. The committee was authorized to meet eight times in 2009, including two times outside of the interim period, and to take two field trips in connection with its mandate.

Committee Activities

The committee met six times and took two tours during the 2009 interim. It also met once during the 2009 legislative session. During the 2009 interim, the committee met with a broad range of water users and government officials including local water providers, state water rights administrators, water quality regulators, state water planners, water project developers, and concerned citizens. The committee received briefings on major water issues affecting the state including planning for future water needs, funding needs for state water agencies and water projects, regulation of groundwater use, implementation of new water laws, and other issues.

Committee tours. In June, the committee toured for two days in the Rio Grande Basin in southern Colorado and visited water storage and distribution facilities, irrigation projects, an endangered fish hatchery, a solar electric generation facility, a mine reclamation project, and other sites. This tour was organized by the Colorado Foundation for Water Education. In September, the committee toured for one day in southwest Colorado where it visited the recently completed Animas-La Plata water storage project, a proposed white water park in Durango, and a wildfire mitigation project. It also held a committee meeting in Durango to consider draft legislation and learn about proposed water supply projects and water supply challenges facing the area. The committee also attended the Colorado Water Congress summer convention in Steamboat Springs where it held a public meeting to discuss funding needs for the Division of Water Resources and the Water Efficiency Grant Program and attended presentations about water infrastructure needs and financing options, on-going water supply studies, and other water management issues.

Alternative funding mechanism for the Division of Water Resources. The committee heard testimony from the budget director of Colorado Department of Natural Resources about Governor Ritter's FY 2009-10 budget balancing plan that seeks to reduce the FY 2009-10 General Fund appropriation to the department by 9.2 percent, or $2.7 million, including a reduction of $400,000 for the Division of Water Resources. It also reduces the equivalent of 5.3 full time employees from the Division of Water Resources. The division, also known as the Office of the State Engineer, administers water rights, issues water well permits, monitors stream flows and water uses, inspects dams for safety, and represents Colorado in interstate water compact proceedings.
The severance tax is collected on oil and gas and other nonrenewable minerals that are removed from the earth. The Operational Account receives 25 percent of severance tax receipts. Moneys in the account have traditionally been used to fund the operations of the Oil and Gas Conservation Commission, the Geological Survey, the Division of Reclamation, Mining, and Safety, and the Water Conservation Board within the Department of Natural Resources. In 2008, the legislature also authorized the Division of Wildlife and the Division of Outdoor Parks and Recreation to receive these moneys. These programs are collectively referred to as tier 1 programs. Tier 2 programs support grants, loans, research, and construction projects. These programs are subject to proportional reduction if severance tax revenues are lower than expected. Because severance tax revenues are historically variable, tier 2 programs are selected in part because they are designed to withstand short-term reductions in funding. The committee recommends Bill A that authorizes the expenditure of up to 5 percent of the moneys in tier 1 of the Operational Account of the Severance Tax Trust Fund for the Division of Water Resources. It also eliminates the tier 1 authorization for the Division of Wildlife to account for the increase.

**Water Efficiency Grant Program.** The Water Efficiency Grant Program is administered by the Colorado Water Conservation Board’s Office of Water Conservation and Drought Planning. The program provides financial assistance to communities, water providers, and eligible agencies for water conservation-related activities and projects. In 2007, the Colorado General Assembly expanded the Water Efficiency Grant Program by passing Senate Bill 07-008 to combine previous grant programs into one program. With over $3 million in grant moneys available, eligible entities, state and local governments, and agencies can receive funding to develop Water Conservation and Drought Plans, to implement water conservation goals outlined in a water conservation plan, and for public education and outreach regarding water conservation. The Water Efficiency Grant Program will be repealed on July 1, 2012, unless the legislature passes a law to extend the program. The committee recommends Bill B, which extends the program to 2020 and authorizes annual appropriations of up to $550,000 from the Water Efficiency Grant Program Cash Fund beginning on July 1, 2010. The bill also annually transfers $550,000 from tier 2 of the Operational Account of the Severance Tax Trust Fund to the Water Efficiency Grant Program Cash Fund beginning on July 1, 2012.

**Valuation of large hydroelectric facilities.** There are three approaches for appraising property for purposes of property taxation:

- the market approach — estimates the most probable price that a property would bring if sold in the open market;
- the cost approach — estimates the material and labor costs to replace a building or facility with an existing one; and
- the income approach — considers the landlord's income and operating expenses, and the financial return expected from a given type of property investment.

In 2006, the General Assembly changed the way that wind energy facilities are valued. House Bill 06-1275 specified that for wind energy facilities in operation on or after January 1, 2006, actual value would be determined using the income method and be based on projected gross revenue. Because of this change, property taxes are lower in early years of operation, but increase to relatively higher levels in later years. Over a 20-year horizon, total property tax revenue remains unchanged. In 2009, the General Assembly passed a law that values solar energy generation facilities using the income approach as well. Senate Bill 09-177 specifies that solar energy generation facilities where energy production begins on or after January 1, 2009, and generation capacity is more than 2 megawatts, are to be valued using the income approach. The committee recommends Bill C, which will require new hydroelectric facilities to also be valued using the income approach.
**Election of water conservancy district boards.** State law provides a mechanism for local communities to form water conservancy districts to finance dams, tunnels, and other water works that provide water for irrigation, mining, domestic purposes, and other beneficial uses. Most water conservancy districts are governed by a board of directors that is appointed by the district court. However, elections of district directors may be held if at least 10 percent of the registered electors in a director's district petition the court to hold an election. The committee rejected a request to draft a bill to reduce the number of signatures required to cause an election for a water conservancy district and make other changes to the law.

**Committee Recommendation**

As a result of committee deliberations, the committee recommends three bills for consideration during the 2010 legislative session.

**Bill A — Increased Funding for the Division of Water Resources from the Operational Account of the Severance Tax Trust Fund.** Bill A authorizes the expenditure of up to 5 percent of the moneys in tier 1 of the Operational Account of the Severance Tax Trust Fund for the Division of Water Resources, and allows this increase to supplant moneys that would otherwise be made available to the division from the General Fund. It also eliminates the tier 1 authorization for the Division of Wildlife to account for the increase.

**Bill B — Long-term Funding of the Water Efficiency Grant Program.** Bill B extends the Water Efficiency Grant Program and authorizes up to $550,000 of annual appropriations from the Water Efficiency Grant Program Cash Fund. The grant program was scheduled to repeal after FY 2010-11, however, Bill B extends this until FY 2019-20. The bill also annually transfers $550,000 from tier 2 of the Operational Account of the Severance Tax Trust Fund to the Water Efficiency Grant Program Cash Fund beginning on July 1, 2012.

**Bill C — Valuation of New Hydroelectric Energy Facilities for the Purpose of Property Taxation.** Bill C requires that new hydroelectric energy facilities be valued for the purpose of property taxation in the same manner as new wind and solar energy facilities are valued. Wind and solar facilities are valued using the income approach, which considers the landlord's income, operating expenses, and the financial return expected from a given type of property investment, rather than the cost approach, which estimates the value of the property based on material and labor costs to replace the facility.
Committee Charge

The Water Resources Review Committee was created pursuant to Section 37-98-102, C.R.S. The committee is composed of five members from the House of Representatives and five members from the Senate. At least four members must reside west of the Continental Divide or their district must have a majority of its population residing west of the Continental Divide. Members should also represent each of the seven water divisions. The committee is authorized to meet eight times during odd-numbered years, two of which may be held during the legislative session. Two field trips are also authorized to meet the purposes of the statute. The committee is charged with contributing to and monitoring the conservation, use, development, and financing of Colorado's water resources for the general welfare of its inhabitants and reviewing and proposing water resources legislation. The committee is to meet with experts in the field of water conservation, quality, use, finance, and development in furthering its charge.

Committee Activities

The committee met six times and took two tours during the 2009 interim. It also met once during the 2009 legislative session. During the 2009 interim, the committee met with a broad range of water users and government officials including local water providers, state water rights administrators, water quality regulators, state water planners, water project developers, and concerned citizens. The committee received briefings on major water issues affecting the state including planning for future water needs, funding needs for state water agencies and water projects, regulation of groundwater use, implementation of new water laws, and other issues.

Committee tours. In June, the committee toured for two days in the Rio Grande Basin in southern Colorado and visited water storage and distribution facilities, irrigation projects, an endangered fish hatchery, a solar electric generation facility, a mine reclamation project, and other sites. This tour was organized by the Colorado Foundation for Water Education. In September, the committee toured for one day in southwest Colorado where it visited the recently completed Animas-La Plata water storage project, a proposed white water park in Durango, and a wildfire mitigation project. It also held a committee meeting in Durango to consider draft legislation and learn about proposed water supply projects and water supply challenges facing the area. The committee also attended the Colorado Water Congress summer convention in Steamboat Springs where it held a public meeting to discuss funding needs for the Division of Water Resources and the Water Efficiency Grant Program and to attend presentation about water infrastructure needs and financing options, on-going water supply studies and other water management issues.

Use of Severance Tax Trust Fund for Water Project and State Government Activities

Allocation of severance tax revenue. The committee recommends two bills that allocate severance tax moneys. The severance tax is paid by producers of oil, gas, coal, and other minerals. State law provides that 50 percent of severance tax revenues are credited to the Severance Tax Trust Fund and 50 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 revenue credited to the Severance Tax Trust Fund, 50 percent is allocated to the Perpetual Base Account of the Severance Tax Trust Fund (or 25 percent of total severance tax revenues) for use by the Colorado Water Conservation Board to build water projects. The other 50 percent of Severance Tax Trust Fund revenues (or 25 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."

**Revenue forecast.** Severance taxes in FY 2008-09, including interest earnings, totaled a record $336.9 million. Natural gas prices, however, fell significantly at the end of 2008 as the economy entered a recession. According to the September 2009 revenue forecast of Legislative Council, the resulting drop in income for energy producers — and thus their severance tax liability — coupled with large severance tax credits based on the higher value of natural gas produced in 2008, will cause a sharp drop in revenue in FY 2009-10. In FY 2009-10, total severance tax revenue is projected to drop to $54.9 million, a decrease of 83.7 percent from FY 2008-09.

**Operational Account of the Severance Tax Trust Fund.** As evidenced by the steep drop in revenues between FY 2008-09 and FY 2009-10, severance tax revenues are highly variable. The available severance tax revenues to the Operational Account influence the funding levels for many programs in the Department of Natural Resources (DNR). House Bill 08-1398 divided programs funded from the Operational Account into two tiers. The tier 1 programs support the day-to-day operations of the Colorado Department of Natural Resources, including paying salaries for employees. The tier 2 programs support grants, loans, research, and construction. Tier 2 programs are subject to proportional reduction if mid-year revenue projections indicate there are insufficient funds. The distribution of funding for tier 2 programs is staggered over the course of the fiscal year with 40 percent released July 1, 30 percent released January 4, and the final 30 percent released April 1. The committee recommends Bill A that allocates tier 1 moneys to the Division of Water Resources and Bill B that allocates tier 2 moneys for the Water Efficiency Grant Program that is administered by the Colorado Water Conservation Board. Additional information about these bills is provided in the following sections.

**Funding for the Division of Water Resources**

**FY 2009-10 appropriation.** The committee heard testimony about the Division of Water Resources and the effect of proposed budget cuts on its operations. The Division of Water Resources, also known as the State Engineer's Office, is housed in the Department of Natural Resources. The State Engineer administers water rights, issues water well permits, monitors stream flows and water uses, inspects dams for safety, and represents Colorado in interstate water compact proceedings. Most of the Division of Water Resources' budget comes from the General Fund. For FY 2009-10, the General Assembly appropriated $21.8 million and 272 FTE to the division including $20.1 million from the General Fund, $2.0 million from fees, and $96,000 from federal funds. Governor Ritter's FY 2009-10 budget balancing plan seeks to reduce total state General Fund appropriations by 10 percent. The General Fund appropriation for the Department of Natural Resources in FY 2009-10 is $29 million, most of which is used to fund the operations of

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1Section 39-29-108 (2), C.R.S.
the Division of Water Resources. The Governor’s plan reduces the FY 2009-10 General Fund appropriation to the department by 9.2 percent, or $2.7 million, including a reduction of $400,000 for the Division of Water Resources. It also reduces the equivalent of 5.3 full time employees from the Division of Water Resources.

Committee recommendation. The committee recommends Bill A that authorizes the expenditure of up to 5 percent of the moneys in tier 1 of the Operational Account of the Severance Tax Trust Fund for the Division of Water Resources, and allows this increase to supplant moneys that would otherwise be made available to the division from the General Fund. It also eliminates the tier 1 authorization for the Division of Wildlife to account for the increase.

Use of tier 1 moneys by the Division of Wildlife. In 2008, the General Assembly authorized the Division of Wildlife to receive up to 5 percent of the tier 1 moneys for programs that monitor, manage, or mitigate the impacts of mineral or mineral fuel production activities on wildlife. To date, the division has received $1.6 million of tier 1 money. These moneys are being used to study the effects of energy development on sage-grouse and mule deer in northwestern Colorado. For example, the division is using these moneys to conduct a study of greater sage-grouse on the Hiawatha Regional Energy Development Project in Moffat County. This study will monitor habitat use and movement of adult and yearling sage grouse. It will also monitor physiological conditions of grouse in the Hiawatha energy field and compare this data with grouse populations in other areas with different levels of energy development. The committee heard testimony from a representative of the Division of Wildlife about the loss of the tier 1 moneys and its effect on the division’s ability to continue to study the impacts of mineral development on wildlife.

Funding for the Colorado Water Conservation Board

To address revenue shortfalls in FY 2008-09 and FY 2009-10, the General Assembly transferred $107.3 million from funds administered by the Colorado Water Conservation Board (CWCB). The committee heard testimony about the effect of these transfers on the ability of the CWCB to fund new water projects and continue its ongoing operations. A brief explanation follows about the CWCB Construction Fund and the Perpetual Base Account that were affected by the transfers to the General Fund. The Colorado Water Conservation Board (CWCB) in the Department of Natural Resources is the state’s primary water policy and planning agency. Its major programs include water supply protection, flood protection, conservation and drought planning, stream and lake protection (instream flow program), and water supply planning and finance. For FY 2009-10, the General Assembly appropriated $8.8 million and 47.7 FTE to the CWCB for operations, primarily from moneys in the CWCB Construction Fund. No General Fund moneys have been appropriated for the CWCB since FY 2000-01, when the legislature replaced these moneys with moneys from the CWCB Construction Fund.

CWCB Construction Fund. The CWCB Construction Fund finances projects that increase the consumption of Colorado’s undeveloped river entitlements and that repair and rehabilitate existing water storage and delivery facilities. Moneys in the fund may also be used to pay for up to 50 percent of the cost of feasibility studies and water supply investigations. Loans may not be used for domestic water treatment and distribution systems. Revenues for the construction fund come from the return of principal and interest on outstanding loans, interest earned on the cash balance of the fund through investments by the state treasurer, and federal mineral lease (FML) fund distributions. FML revenue is the portion of revenue the state receives from the money the federal government collects for mineral production on federal lands. The CWCB Construction Fund receives a distribution of 10 percent of FML revenue, excluding bonus payments, up to
$14 million annually. Bonus moneys are paid by producers after being awarded a federal mineral lease through a competitive bidding process. The amount of FML revenue transferred to the construction fund is allowed to grow by 4 percent annually. Loans for more than $10 million must be approved by the General Assembly and grants from the fund may not be made unless authorized by bill.

**FY 2010-11 recommendation for CWCB water projects bill.** On November 18, 2009, the CWCB approved a recommendation that the annual CWCB water projects bill appropriate $1.6 million in FY 2010-11 for nonreimbursable investments including $500,000 for flood plan mapping, $250,000 for satellite monitoring system maintenance, and $250,000 to create a watershed restoration program. The board did not recommend new loans for projects that increase the consumption of Colorado’s undeveloped river entitlements or that rehabilitate existing water storage and delivery facilities.

**Perpetual Base Account.** The Perpetual Base Account moneys are used to provide loans for construction, rehabilitation, enlargement, or improvement of water projects. Loans from the Perpetual Base Account are recommended by the CWCB and approved by the General Assembly in the annual CWCB Construction Fund bill. The law requires that payments on the principal and interest from the loans be credited to the Perpetual Base Account, which makes it a revolving loan fund. Unlike the CWCB Construction Fund, no permanent programs depend on moneys from the Perpetual Base Account. The Perpetual Base Account receives half of the receipts to the Severance Tax Trust Fund which is one fourth of all severance tax revenue. The Perpetual Base Account is estimated to receive $7.5 million in FY 2009-10 in severance tax revenue, down from $58.6 million in FY 2008-09. This decline is due primarily to falling oil and gas prices and a local property tax offset.

To address revenue shortfalls in FY 2008-09, the General Assembly transferred $35 million from the Perpetual Base Account to the General Fund. It also transferred $62 million from the Perpetual Base Account to the General Fund in FY 2009-10. The committee heard testimony about the effect of this transfer on the ability of the CWCB to provide loans for water projects including the Arkansas Valley Conduit. The conduit is a 138-mile water supply pipeline that would extend from Pueblo Reservoir to the City of Lamar. The estimated total cost of the project is $300 million. The Southeastern Colorado Water Conservancy District was approved for a $60.6 million loan from the Severance Tax Trust Fund Perpetual Base Account in the 2007 CWCB water projects bill. The loan provides financing for the local match for the design and construction of the conduit. This loan was extended until 2021 by the 2009 projects bill.

**Water Efficiency Grant Program**

The committee heard testimony from CWCB on the Water Efficiency Grant Program. The program is administered by the CWCB’s Office of Water Conservation and Drought Planning. The program provides financial assistance to communities, water providers, and eligible agencies for water conservation-related activities and projects. The program was originally created in 2005 with House Bill 05-1254 to provide funding over a three-year period to aid in achieving the water efficiency goals outlined in locally adopted water conservation plans. Colorado law authorized the CWCB to distribute the grants from moneys appropriated from the operational account reserve in the Severance Tax Trust fund.
In 2007, the Colorado General Assembly expanded the Water Efficiency Grant Program by passing Senate Bill 07-008 to extend the participation in the grant program to any state or local governmental entity that provides water to retail customers. Previously, the program was restricted to "covered entities," defined in statute as a municipality, agency, or utility with a legal obligation to provide retail water to a customer base with a total demand of at least 2,000 acre-feet. The law, recommended by the Water Resources Review Committee in 2006, also extended the annual appropriation for the program through FY 2011-12 and extended the repeal date of the program from July 1, 2008, to July 1, 2012. The law provided funding for fiscal years 2007-08 and 2008-09 by transferring $800,000 from the operational account of the Severance Tax Trust Fund to the Water Efficiency Grant Program Cash Fund. The law also extended the annual appropriation from the Water Efficiency Grant Program Cash Fund of up to $500,000 for three years to provide grants. It also appropriated an additional $50,000 annually from this fund from FY 2008-09 through FY 2011-12, to cover the program's administrative costs. The Water Efficiency Grant Program will be repealed on July 1, 2012, unless the legislature passes a law to extend the program.

Projects funded. Since the program's creation in 2005 until April of 2008, $1.6 million in grants have been awarded to 41 entities for water conservation activities and projects. The Water Efficiency Grant Program currently funds projects focused on the following types of activities:

- **Water Conservation Planning**—financial assistance is provided to covered entities that are seeking to develop or update their water conservation plans. In 2008, ten projects to develop water conservation plans were approved. Funding ranged from $15,730 to $41,370 per project.

- **Water Conservation Implementation**—financial assistance is provided to covered entities, other state or local governmental entities, and agencies that are seeking to implement the water efficiency goals outlined in the entities' approved Water Conservation Plans. In 2008, four projects were funded to implement water conservation. Funding ranged from $20,000 to $60,000 per project.

- **Drought Mitigation Planning**—financial assistance is provided to communities and state or local governmental entities to assist them in developing drought mitigation plans. There were no drought mitigation planning projects funded in 2008.

- **Water Resource Conservation Public Education and Outreach**—financial assistance is available to any agency to fund education or outreach programs aimed at demonstrating the benefits of water conservation. In 2008, there were two public education and outreach programs funded. One project received $50,394 and the other received $160,000.

**Committee recommendation.** The committee recommends Bill B, which extends the Water Efficiency Grant program to 2020 and authorizes annual appropriations of up to $550,000 from the Water Efficiency Grant Program Cash Fund beginning on July 1, 2010. The bill also annually transfers $550,000 from tier 2 of the Operational Account of the Severance Tax Trust Fund to the Water Efficiency Grant Program Cash Fund beginning on July 1, 2012.
Valuation of Hydroelectric Facilities

There are 62 operating hydropower facilities in Colorado, according to a 2005 inventory done by the National Renewable Energy Laboratory in Golden. These have a combined installed capacity of approximately 1,162 megawatts and produce about 1,036 gigawatt hours of electricity annually. For purposes of appraising hydroelectric facilities for taxation, under current law, assessors are allowed to use either the cost approach, the market approach, or the income approach, and traditionally have used the cost approach. The differences between the cost assessment approaches are described below.

- The market approach estimates the most probable price that a property would bring if sold in the open market.
- The cost approach estimates the material and labor costs to replace a building or facility with an existing one.
- The income approach considers the landlord's income and operating expenses, and the financial return expected from a given type of property investment.

Wind and solar energy facilities valuation. In 2006, the General Assembly changed the way that wind energy facilities are valued. House Bill 06-1275 specified that for wind energy facilities in operation on or after January 1, 2006, actual value would be determined using the income method and be based on projected gross revenue. Because of this change, property taxes are lower in early years of operation, but increase to relatively higher levels in later years. Over a 20-year horizon, total property tax revenue remains unchanged. In 2009, the General Assembly passed a law that values solar energy generation facilities using the income approach as well. Senate Bill 09-177 specifies that solar energy generation facilities where energy production begins on or after January 1, 2009, and generation capacity is more than 2 megawatts, are to be valued using the income approach.

Committee recommendation. The committee recommends Bill C, which will require new hydroelectric facilities to also be valued using the income approach.

Geothermal Resources

Geothermal resources can be classified into three different areas of use: geoexchange (geothermal heat pumps and ground source heat pumps), direct use (pools, spas, greenhouses, aquaculture), and electrical power generation. Colorado ranks fourth among western states in the number of potential sites for geothermal power generation, according to a 2006 Western Governors' Association report. While Colorado has numerous geothermal direct use projects, the state currently has no geothermal electrical generation projects.

Geothermal permitting. The State Engineer's Office provided a briefing to the committee about geothermal well permitting. Ground source heat pumps and geoexchange technologies use the relatively constant temperature of the shallow subsurface of the earth through the seasons. During the winter, heat is drawn from the subsurface into a working fluid in vertical or horizontal shallow ground loop piping. The fluid then transfers its heat to a building heating system. In the summer, the process is reversed, providing cool air for the home. There are two different classes of wells for these processes: those that are exempt from water rights administration and are not administered under the priority system, and those that are non-exempt and are governed by the priority system. Both well classes require permits. Geoexchange systems are considered exempt and geothermal wells are considered non-exempt.
**Geoexchange systems.** A geoexchange system is defined as a heat pump or heat exchange system having a horizontal or vertical closed-loop portion consisting of pipe buried in trenches, boreholes, or wells, or submerged in a body of water, in which a heat exchange medium (either a fluid or a vapor) is circulated and fully contained within the pipe or tubing. The purpose of the closed loop is to provide for the transfer of heat between the circulating fluid or vapor and the ground or water. For geoexchange systems, there is a provision in statute that allows for a blanket permit, rather than a requirement to obtain a permit for each site. Although geoexchange systems do not appropriate subsurface fluids, they do utilize the earth's geothermal properties, and therefore require a permit.

**Geothermal wells.** Geothermal well permits are issued for wells to be used for the purpose of exploring for, monitoring of, or using geothermal resources, or re-injecting geothermal fluids. In issuing a geothermal well permit, the State Engineer must find that there is no material injury to a water right or a geothermal right, and that the applicant can offset any injury or offer replacement water. Injury includes any alteration of the quantity, temperature, or quality of another right. The state allows for geothermal management districts, although there have not been any formed.

### Implementation of the Water for the 21st Century Act

The committee held a joint meeting with the Interbasin Compact Committee (IBCC) to discuss implementation of the *Colorado Water for the 21st Century Act*. In 2005, the Colorado legislature enacted this law which established a process to address the state's growing water demand. This law created nine basin roundtables covering the:

- Denver metropolitan area;
- South Platte River Basin;
- Arkansas River Basin;
- Rio Grande River Basin;
- Gunnison River Basin;
- Colorado River Basin;
- Yampa-White River Basin;
- Dolores-San Miguel-San Juan Basins; and
- North Platte River Basin.

These roundtables are charged with identifying water needs within each basin and conducting discussions with other basins to address interbasin water issues. The law also created a 27-member IBCC to facilitate negotiations between the roundtables. In 2006, the General Assembly approved the IBCC's charter that includes principles to guide negotiations between roundtables and defines the process for ratifying interbasin compacts. It also defines the process for integrating the interbasin compact process with other water planning and development processes, such as the Statewide Water Supply Initiative that was commissioned by the General Assembly in 2003 to explore water supply and demand issues in each of the state's eight major river basins.
**Basin needs assessments.** Representatives from the roundtables briefed the committee about their basin's needs assessments including the need for additional technical studies. Each basin roundtable is charged with developing a basin-wide water needs assessment consisting of four parts:

- an assessment of consumptive water needs (municipal, industrial, and agricultural);
- an assessment of non-consumptive water needs (environmental and recreational);
- an assessment of available water supplies (surface and groundwater) and an analysis of any unappropriated waters; and
- proposed projects or methods to meet any identified water needs and achieve water supply sustainability over time.

A basin report was prepared for each roundtable based on information from the CWCB's Statewide Water Supply Initiative. The basin roundtables have also conducted additional studies to supplement the CWCB report.

**Water Supply Reserve Account.** The committee also heard testimony from these representatives about how Water Supply Reserve Account moneys have been used for needs assessments and to identify methods for addressing these needs. The Water Supply Reserve Account was created in 2006 to help address Colorado's water needs and support the IBCC process. From FY 2006-07 to FY 2008-09, the General Assembly has appropriated $23 million from the Operational Account of the Severance Tax Trust Fund for water activities approved by CWCB including water diversion projects and nonstructural activities. Moneys in the account may be used for grants or loans. Spending from the Water Supply Reserve Account does not require legislative approval. Once a request for funding from the Water Supply Reserve Account is approved by a basin roundtable, the request is forwarded to the CWCB for funding evaluation and final authorization. Eligible activities include:

- competitive grants for environmental compliance and feasibility studies;
- technical assistance regarding permitting, feasibility studies, and environmental compliance;
- studies or analyses of structural and nonstructural water projects or activities; and
- structural and nonstructural water projects or activities.

In 2009, the legislature passed a law that transfers $10 million annually, starting in FY 2010-11, from the Operational Account of the Severance Tax Trust Fund to the Water Supply Reserve Account and continues these transfers indefinitely thereafter. This law also prohibits the CWCB from allocating moneys by grant or loan from the account to "covered entities" unless they have adopted a water conservation plan. Covered entities are defined as a municipality, agency, or utility with a legal obligation to provide retail water to a customer base with a total demand of at least 2,000 acre-feet. Repayments of principal and interest on loans from the account will be credited to the account.

**Proposal to Promote Election of Water Conservancy District Boards**

**Election of water conservancy district boards.** State law provides a mechanism for local communities to form water conservancy districts to finance dams, tunnels, and other water works that provide water for irrigation, mining, domestic purposes, and other beneficial uses. Fifty-two water conservancy districts have been formed in Colorado. Most water conservancy districts are governed by a board of directors that is appointed by the district court. However, elections of
district directors may be held if at least 10 percent of the registered electors in a director's district petition the court to hold an election. As with directors appointed by the court, candidates for district board elections must be property owners within the district, knowledgeable about the district's water issues, and residents of the counties in which the water conservancy district is situated. House Bill 09-1142 — postponed indefinitely in the House Agriculture, Livestock, and Natural Resources Committee — would have reduced the number of registered electors that must sign a petition in order to hold an election for a director of a water conservancy district. It also would have eliminated the requirement that an elected director own real property. The sponsor of this bill, also a member of the Water Resources Review Committee, explained that signature requirement is particularly onerous for electors in more urban water conservancy districts. For example, to cause an election for a board member in the Northern Colorado Water Conservancy District, over 18,000 valid signatures must be gathered. The committee rejected a request to draft a bill to reduce the number of signatures required to cause an election for a water conservancy district and make other changes to the law.
Summary of Recommendations

As a result of the committee deliberations, the committee recommends three bills for consideration during the 2010 legislative session.

Bill A — Increased Funding for the Division of Water Resources from the Operational Account of the Severance Tax Trust Fund

Bill A authorizes the expenditure of up to 5 percent of the moneys in tier 1 of the Operational Account of the Severance Tax Trust Fund for the Division of Water Resources, and allows this increase to supplant moneys that would otherwise be made available to the division from the General Fund. It also eliminates the tier 1 authorization for the Division of Wildlife to account for the increase.

Bill B — Long-term Funding of the Water Efficiency Grant Program

Bill B extends the Water Efficiency Grant Program and authorizes up to $550,000 of annual appropriations from the Water Efficiency Grant Program Cash Fund. The grant program was scheduled to repeal after FY 2010-11, however, Bill B extends this until FY 2019-20. The bill also annually transfers $550,000 from tier 2 of the Operational Account of the Severance Tax Trust Fund to the Water Efficiency Grant Program Cash Fund beginning on July 1, 2012.

Bill C — Valuation of New Hydroelectric Energy Facilities for the Purpose of Property Taxation

Bill C requires that new hydroelectric energy facilities be valued for the purpose of property taxation in the same manner as new wind and solar energy facilities are valued. Wind and solar facilities are valued using the income approach, which considers the landlord's income, operating expenses, and the financial return expected from a given type of property investment, rather than the cost approach, which estimates the value of the property based on material and labor costs to replace the facility.
Resource Materials

Meeting summaries are prepared for each meeting of the committee and contain all handouts provided to the committee. The summaries of meetings and attachments are available at the Division of Archives, 1313 Sherman Street, Denver, (303-866-4900). The listing below contains the dates of committee meetings and the topics discussed at those meetings. Meeting summaries are also available on our website at:

http://www.colorado.gov/ics/WRRC

Meeting Date and Topics Discussed

April 22, 2009

- Plan interim tours and meeting agenda

July 20, 2009

- Joint meeting with the Interbasin Compact Committee
- Colorado Water Resources and Power Development Authority water project financing
- Water Congress Review of state budget issues

July 21, 2009

- Colorado River availability and curtailment studies
- Colorado Water Conservation Board and water project financing
- Update from members of the Colorado Water Conservation Board on their river basins

August 19, 2009

- Governor's FY 2009-10 budget balancing plan
- Implementation of 2009 Water Bills by the Division of Water Resources
- Water Efficiency Grant Program
- Voted to draft Bill A and draft Bill B

September 9, 2009

- Jackson Gulch Reservoir Project
- Update on the Long Hollow Reservoir Project
- Update on San Miguel, Dolores, Animals, and San Juan River basin issues
- Update on the Dry Gulch Reservoir Project
- Voted to draft Bill C

September 30, 2009

- Aquatic nuisance control programs
- Micro-based fuels
- Preparation of the water eligibility lists
Regulation of exempt residential well permits and geothermal resources
Water court update
Windy Gap Firming Project
Northern Integrated Supply Project
Voted on bills to recommend to Legislative Council

**Tours and Areas Visited**

*June 17, 18, and 19, 2009*

- Tour of acequias and other water collection and distribution facilities in the Rio Grande Basin with the Colorado Foundation for Water Education

*September 10, 2009*

- Tour of the Animas-La Plata water project, a forest management project, and proposed recreational in-channel diversion on the Animas River
A BILL FOR AN ACT

Concerning increased funding for the Division of Water Resources from the operatio

nal account of the severance tax trust fund.

Bill Summary

(Note: This summary applies to this bill as introduced and does not necessarily reflect any amendments that may be subsequently adopted.)

Water Resources Review Committee. Authorizes the expenditure of up to 5% of the moneys in tier 1 of the operational account of the severance tax trust fund for the division of water resources, and allows this increase to supplant moneys that would otherwise be made available to the division from the general fund. Eliminates the tier 1 authorization for the division of wildlife to account for the increase.
Be it enacted by the General Assembly of the State of Colorado:

SECTION 1. 39-29-109.3 (1) (e), Colorado Revised Statutes, is amended, and the said 39-29-109.3 (1) is further amended BY THE ADDITION OF A NEW PARAGRAPH, to read:

39-29-109.3. Operational account of the severance tax trust fund - repeal. (1) For fiscal years commencing on and after July 1, 1997, the executive director of the department of natural resources shall submit with the department's budget request for each fiscal year a list and description of the programs the executive director recommends to be funded from the operational account of the severance tax trust fund created in section 39-29-109 (2) (b), referred to in this section as the "operational account". The minerals, energy, and geology policy advisory board established pursuant to section 34-20-104, C.R.S., shall review the executive director's recommendation before submittal. The general assembly may appropriate moneys from the total moneys available in the operational account to fund recommended programs as follows:

(e) For fiscal years commencing on or after July 1, 2008, only, for programs within the division of wildlife that monitor, manage, or mitigate the impacts of mineral or mineral fuel production activities on wildlife in any region of the state in which production activity is occurring or, from any location in the state, research such impacts, up to five percent of the moneys in the operational account, which moneys shall not supplant moneys that would otherwise be made available for such programs;

(g) For fiscal years commencing on or after July 1, 2010, for programs within the division of water resources, up to five percent of the moneys in the operational account.
SECTION 2. Safety clause. The general assembly hereby finds, determines, and declares that this act is necessary for the immediate preservation of the public peace, health, and safety.
A BILL FOR AN ACT

CONCERNING THE LONG-TERM FUNDING OF THE WATER EFFICIENCY GRANT PROGRAM.

Bill Summary

(Note: This summary applies to this bill as introduced and does not necessarily reflect any amendments that may be subsequently adopted.)

Water Resources Review Committee. The water efficiency grant program is currently scheduled to be repealed on July 1, 2012. Section 1 of the bill extends the repeal until July 1, 2020, and authorizes up to $550,000 of annual appropriations from the cash fund beginning on July 1, 2010. Section 2 annually transfers $550,000 from tier 2 of the operational account of the severance tax trust fund to the water efficiency grant program cash fund beginning on July 1, 2012.
Be it enacted by the General Assembly of the State of Colorado:

SECTION 1. 37-60-126 (12) (a) (III), (12) (a) (IV), and (12) (c), Colorado Revised Statutes, are amended to read:

37-60-126. Water conservation and drought mitigation planning - programs - relationship to state assistance for water facilities - guidelines - water efficiency grant program - repeal.

(12) (a) (III) For the 2005-06 through 2010-11 EACH fiscal years YEAR BEGINNING ON OR AFTER JULY 1, 2010, the general assembly shall appropriate from the fund to the board up to five hundred thousand dollars annually for the purpose of providing grants to covered entities, other state and local governmental entities, and agencies in accordance with this subsection (12). Commencing July 1, 2008, the general assembly shall also appropriate from the fund to the board fifty thousand dollars each fiscal year through 2011-12 to cover the costs associated with the administration of the grant program and the requirements of section 37-60-124. Moneys appropriated pursuant to this subparagraph (III) shall remain available until expended or until June 30, 2012-2020, whichever occurs first.

(IV) Any moneys remaining in the fund on June 30, 2012-2020, shall be transferred to the operational account of the severance tax trust fund described in section 39-29-109 (2) (b), C.R.S.

(c) This subsection (12) is repealed, effective July 1, 2012-2020.

SECTION 2. 39-29-109.3 (2) (c) (I) (A) and (2) (c) (III), Colorado Revised Statutes, are amended to read:

39-29-109.3. Operational account of the severance tax trust fund - repeal. (2) Subject to the requirements of subsections (3) and (4)
of this section, if the general assembly chooses not to spend up to one hundred percent of the moneys in the operational account as specified in subsection (1) of this section, the state treasurer shall transfer the following:

(c) (I) To the water efficiency grant program cash fund created in section 37-60-126 (12), C.R.S., for use in accordance with that section, the following amounts:

(A) For the EACH state fiscal year commencing on or after July 1, 2008, eight 2012, five hundred fifty thousand dollars. If, on June 30, 2008, there is more than one hundred thousand dollars of unobligated revenue in the operational account above the reserve required by subsection (3) of this section, the state treasurer shall transfer such amounts over one hundred thousand dollars, up to a maximum of one million dollars, to the water efficiency grant program cash fund on July 1, 2008:

(III) This paragraph (c) is repealed, effective July 1, 2012 2020.

SECTION 3. Safety clause. The general assembly hereby finds, determines, and declares that this act is necessary for the immediate preservation of the public peace, health, and safety.
STATE OF COLORADO

BILLS NO. 10-0172.01 Jason Gelender

SENATE BILL

SENATE SPONSORSHIP
Schwartz, Brophy, Hodge, White, Whitehead

HOUSE SPONSORSHIP
Fischer, Baumgardner, Curry, Gardner C., McKinley

Senate Committees

House Committees

A BILL FOR AN ACT

CONCERNING THE VALUATION OF NEW HYDROELECTRIC ENERGY
FACILITIES FOR THE PURPOSE OF PROPERTY TAXATION.

Bill Summary

(Note: This summary applies to this bill as introduced and does not necessarily reflect any amendments that may be subsequently adopted.)

Water Resources Review Committee. The bill requires a new hydroelectric energy facility to be valued for the purpose of property taxation in the same manner in which new wind energy facilities and new solar energy facilities are valued for that purpose.

Be it enacted by the General Assembly of the State of Colorado:

1
SECTION 1. 39-4-101 (3), Colorado Revised Statutes, is amended, and the said 39-4-101 is further amended BY THE ADDITION OF A NEW SUBSECTION, to read:

39-4-101. Definitions. As used in this article, unless the context otherwise requires:

(2.7) "HYDROELECTRIC ENERGY FACILITY" MEANS A NEW FACILITY FIRST PLACED IN PRODUCTION ON OR AFTER JANUARY 1, 2010, THAT USES REAL AND PERSONAL PROPERTY, INCLUDING BUT NOT LIMITED TO LEASEHOLDS AND EASEMENTS, TO GENERATE AND DELIVER TO THE INTERCONNECTION METER ANY SOURCE OF ELECTRICAL OR MECHANICAL ENERGY IN EXCESS OF FIVE MEGAWATTS BY HARNESIING THE KINETIC ENERGY OF WATER AND THAT IS NOT PRIMAIIY DESIGNED TO SUPPLY ELECTRICITY FOR CONSUMPTION ON SITE.

(3) (a) "Public utility" means, for property tax years commencing on or after January 1, 1987, every sole proprietorship, firm, limited liability company, partnership, association, company, or corporation, and the trustees or receivers thereof, whether elected or appointed, that does business in this state as a railroad company, airline company, electric company, HYDROELECTRIC ENERGY FACILITY, wind energy facility, solar energy facility, rural electric company, telephone company, telegraph company, gas company, gas pipeline carrier company, domestic water company selling at retail except nonprofit domestic water companies, pipeline company, coal slurry pipeline, or private car line company. (b) On and after January 1, 2000, for purposes of this article, "public utility" shall not include any affiliate or subsidiary of a sole proprietorship, firm, limited liability company, partnership, association, company, or corporation of any type of company described in paragraph (a) of this subsection (3) that is not doing business in the state primarily
as a railroad company, airline company, electric company, HYDROELECTRIC ENERGY FACILITY, wind energy facility, solar energy facility, rural electric company, telephone company, telegraph company, gas company, gas pipeline carrier company, domestic water company selling at retail except nonprofit domestic water companies, pipeline company, coal slurry pipeline, or private car line company. Valuation and taxation of any such affiliate or subsidiary of a public utility as defined in paragraph (a) of this subsection (3) shall be assessed pursuant to article 5 of this title.

SECTION 2. 39-4-102 (1) (e) (II), the introductory portion to 39-4-102 (1.5), and 39-4-102 (1.5) (a), (1.5) (b) (I), (1.5) (b) (V), (1.5) (c), and (1.5) (d), Colorado Revised Statutes, are amended to read:

39-4-102. Valuation of public utilities. (1) The administrator shall determine the actual value of the operating property and plant of each public utility as a unit, giving consideration to the following factors and assigning such weight to each of such factors as in the administrator's judgment will secure a just value of such public utility as a unit:

(e) (I) For purposes of this paragraph (e), "renewable energy" has the meaning provided in section 40-1-102 (11), C.R.S., but shall not include energy generated from a HYDROELECTRIC ENERGY FACILITY, a wind energy facility, or a solar energy facility.

(1.5) The administrator shall determine the actual value of a HYDROELECTRIC ENERGY FACILITY, a wind energy facility, or a solar energy facility as follows:

(a) The general assembly hereby declares that consideration by the administrator of the cost approach and market approach to the appraisal of a wind energy facility or a solar energy facility results in valuations that are neither uniform nor just and equal because of wide variations in
the production of energy from wind turbines and solar energy devices, as
defined in section 38-32.5-100.3 (2), C.R.S., because of the uncertainty
of wind and sunlight available for energy production, and because
constructing a wind energy facility or a solar energy facility is
significantly more expensive than constructing any other utility
production facility. The General Assembly further declares that
it is also appropriate to value hydroelectric energy facilities,
which also have high construction costs relative to their
ongoing operational costs, using the income approach. Therefore,
in the absence of preponderant evidence shown by the administrator that
the use of the cost approach and market approach results in uniform and
just and equal valuation, a hydroelectric energy facility, a wind
energy facility, or a solar energy facility shall be valued based solely upon
the income approach.

(b) (I) The actual value of a hydroelectric energy facility, a wind
energy facility, or a solar energy facility shall be at an amount equal to a
tax factor times the selling price at the interconnection meter.

(V) For purposes of calculating the tax factor as required in subparagraph
(IV) of this paragraph (b), an owner or operator of a hydroelectric
energy facility, a wind energy facility, or a solar energy facility shall
provide a copy of the hydroelectric energy facility's, wind energy
facility's, or solar energy facility's current power purchase agreement to
the administrator by April 1 of each assessment year. The administrator
shall also have the authority to request a copy of the current power
purchase agreement from the purchaser of power generated at a
hydroelectric energy facility, a wind energy facility, or a solar
energy facility. All agreements provided to the administrator pursuant to
this subparagraph (V) shall be considered private documents and shall be
available only to the administrator and the employees of the division of
property taxation in the department of local affairs.

(c) The location of a HYDROELECTRIC ENERGY FACILITY, a wind energy
facility, or a solar energy facility on real property shall not affect the
classification of that real property for purposes of determining the actual
value of that real property as provided in section 39-1-103.

(d) Pursuant to section 39-3-118.5, no actual value for any personal
property used in a HYDROELECTRIC ENERGY FACILITY, a wind energy
facility, or a solar energy facility shall be assigned until the personal
property is first put into use by the facility. If any item of personal
property is used in the facility and is subsequently taken out of service so
that no HYDROELECTRIC ENERGY, wind energy, or solar energy is
produced from that facility for the preceding calendar year, no actual
value shall be assigned to that item of more than five percent of the
installed cost of the item for that assessment year.

SECTION 3. 39-5-104.7 (1) (b), Colorado Revised Statutes, is amended
to read:

39-5-104.7. Valuation of real and personal property that produces
alternating current electricity from a renewable energy source.

(1) (b) The valuation requirements specified in paragraph (a) of this
subsection (1) shall not apply to HYDROELECTRIC ENERGY FACILITIES, AS
DEFINED IN SECTION 39-4-101 (2.7), solar energy facilities, as defined in
section 39-4-101 (3.5), or wind energy facilities, as defined in section
39-4-101 (4).

SECTION 4. Applicability. This act shall apply to the determination
of the actual value of new hydroelectric energy facilities first placed in
production on or after January 1, 2010.

SECTION 5. Safety clause. The general assembly hereby finds,
determines, and declares that this act is necessary for the immediate
preservation of the public peace, health, and safety.