WATER STRATEGIST

ANALYSIS OF WATER MARKETING, FINANCE, LEGISLATION AND LITIGATION

Editor: Rodney T. Smith Publisher: Lisa Hahn

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(909) 981-7808
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TRANSACTIONS

*Each month, **WS** reports on purchases, leases and exchanges of water in western states' water markets.*

California

Acquirer: *Bureau of Reclamation*
Supplier: *California Department of Water Resources*
Water: *Short-term loan of up to 100,000 AF from San Luis Reservoir*
Purpose: *To meet current demands of CVP contractors*
Terms: *Exchange of like volume at a later date*
Status: *Complete*

In early July, California Governor Arnold Schwarzenegger announced that the Department of Water Resources ("DWR") would release up to 100,000 AF of State Water Project ("SWP") supplies in San Luis Reservoir to the Bureau of Reclamation ("Reclamation"). Reclamation will repay the water by November 30, 2009.

The exchange is being completed in accordance with the 1972 San Luis Supplemental Agreement, which governs the coordination of available San Luis Reservoir supplies, and is considered to be consistent with the emergency proclamation and drought mitigation efforts that the governor declared earlier this year (see ***WS** March 2009*).

According to a letter agreement between the two parties, Reclamation needs the additional water because of drought conditions; Delta smelt, Central Valley steelhead, and Chinook salmon protection measures; and Central Valley Project ("CVP") operational requirements. Ultimately, the water will be used to meet CVP contractors' current demands and help lessen economic damages in the San Joaquin Valley.

The governor praised the effort.

"Nothing is more important to Central Valley farmers than ensuring there is water to fuel jobs and feed families, and with today's announcement, we are taking quick action to deliver water to those who need it most," said Governor Schwarzenegger.

While no adverse impacts are anticipated for the power operations of either project, if such impacts occur, the two agencies will coordinate to mitigate those impacts.

Acquirer: *San Diego County Water Authority*
Supplier: *Placer County Water Agency*
Water: *1-year lease of up to 20,000 AF from the Middle Fork Project*
Purpose: *M&I*
Terms: *$275/AF, plus conveyance charges*
Status: *Pending execution of a conveyance agreement with DWR*

San Diego County Water Authority ("SDCWA") executed an agreement with Placer County Water Agency ("PCWA") to lease up to 20,000 AF from the Middle Fork Project. SDCWA will pay to PCWA a total of $275/AF, which includes an option fee of $10/AF that was paid when an option for the lease was secured this spring, a $40/AF call fee that was due when SDCWA exercised the option, and a premium of $225/AF for the water.

The water will incur losses, including a 20% carriage loss and a 3% Delta loss. Also 5,000 AF may be conveyed using federal facilities and stored at Folsom Reservoir under a Warren Act contract with the Bureau of Reclamation. If that 5,000 AF is stored, it will incur a 5% loss. Considering the losses, SDCWA will still take delivery of more than 15,000 AF.

The water will be used to limit water delivery cuts to SDCWA member agencies and help mitigate the impact of the water shortage.

"This transfer will ease the region's transition from voluntary conservation to mandatory water use restrictions by keeping our regional water savings target for the next fiscal year at a manageable level," said Water Authority Board Chair Claude A. "Bud" Lewis. "These transfer supplies will help mitigate the impact of the water shortage on the region's 3 million residents and $171 billion economy."

A number of conveyance arrangements are required to move the water from the Middle Fork Project, which is upstream of Folsom Reservoir, to the SDCWA service area. SDCWA will pay a $50/AF accommodation charge to PG&E for rescheduling power releases to accommodate the water transfer, and an estimated wheeling charge of $375/AF to Metropolitan Water District. Use of Central Valley Project ("CVP") facilities will cost $17.71/AF under a Warren Act contract with Bureau of Reclamation, but SDCWA anticipates using CVP facilities for only 5,000 AF. A conveyance agreement with the Department of Water Resources is still in progress. Required approvals to change the point of diversion were obtained from the State Water Resources Control Board on July 20th.

Colorado

Five entities acquired a total of 70 Colorado–Big Thompson ("CBT") units in five transactions in June (see table). CBT units currently yield 0.8 AF/unit, based upon the 80% quota set by the Northern Colorado Water Conservancy District ("Northern Water") Board of Directors in April. The quota will be effective through October 31. The board has the option to raise the quota later, but has indicated that an increase is unlikely.

Of the 70 units transferred, 19 units were dedicated in exchange for service and one unit sold at a price of $7,500/unit. The remaining 50 units were part of an exchange between the City of Longmont and Independent Reservoir Company. In what is considered to be an equivalent exchange, Longmont received 50 CBT units from the reservoir company in return for assigning all interest in Independent Reservoir to the company.

An additional 69 units changed hands between private parties with prices and use information remaining undisclosed.

Colorado-Big Thompson Units Transactions Report

Reflects June 2009 activity

Acquirer	Supplier	Purpose	Prior Use	Units	Terms
Town of Berthoud	Aims Junior College	Municipal	NA	1	Transfer for taps
Central Weld County WD	Irrigator	Municipal	Irrigation	8	Transfer for taps
Fort Collins-Loveland WD	Irrigator	Municipal	Irrigation	1	$7,500/unit
City of Longmont	Independent Res. Co.	Municipal	NA	50	Exchange
St. Vrain & Left Hand WCD	Irrigator	Municipal	Irrigation	10	Transfer for taps

Acquirer: *Boulder County Parks & Open Space*
Supplier: *Private party*
Water: *Purchase of a) 40 shares of Left Hand Ditch Company, b) ½ share of Holland Ditch and c) 39.394 acres of land*
Purpose: *Preservation of open space*
Terms: *a) $3,800/share, b) $1,000 for the ½ share, c) $32,162/acre*
Status: *Complete*

Last year, Boulder County Parks & Open Space purchased 40 shares of Left Hand Ditch Company along with 39.394 acres of land and ½ share of Holland Ditch from a private party. The acquisition was made in conjunction with another transaction with the same seller for another 40 shares of Left Hand Ditch Company (see ***WS*** *June 2009*). The county paid $3,800/share for the Left Hand Ditch shares, which have an average yield of 1 AF/share and an annual assessment of $14/share, with a minimum of $100. The Holland Ditch ½ share cost the county $1,000 and the land was priced at $32,162/acre. In addition, the county paid the Left Hand Ditch Company transfer fee of $75 per transaction, the Holland Ditch Company transfer fee of $25, the tax certification fee of $30, and closing costs.

The Boulder County Parks & Open Space program has a mission to "conserve natural, cultural, and agricultural resources and provide public uses that reflect sound resource management and community values." Citizens initiated the program in the mid-1960's to preserve land from rapid development.

Acquirers: *Irrigators*
Supplier: *Little Thompson Water District*
Water: *One-year leases of 1,000 AF of Colorado–Big Thompson Project water*
Purpose: *Irrigation*
Terms: *$35/AF*
Status: *Complete*

While activity has been slow on the Front Range due to economic conditions, Little Thompson Water District ("LTWD") rented out a total of 1,000 AF of its Colorado–Big Thompson Project water to area irrigators this year. The irrigators paid $35/AF. In dry years, LTWD expects to use its entire water supply to meet its own demands, but conditions this spring allowed the district to make a portion of its CBT water available on the rental market.

Acquirers: *Various recycled water customers*
Supplier: *City of Westminster*
Water: *Water service providing 1,533 AF of reclaimed, nonpotable water*
Purpose: *Landscape irrigation and dust suppression*
Terms: *$1,111/AF to $1,352/AF*
Status: *Complete*

The City of Westminster provided a total of 1,533 AF of reclaimed, nonpotable water to 78 recycled water customers in 2008. The acquirers include industrial customers, parks, golf courses, business parks, schools, and multi-family residential projects. The city charged a rate of approximately $1,111/AF ($3.41/thousand gallons) for block 1 recycled water and $1,352/AF ($4.15/thousand gallons) for block 2 recycled water. Block 1 and block 2 refer to tiered rate structure in which the buyer pays more for recycled water over a certain volume used each month. The block 2 breakpoint depends upon the meter size—with a breakpoint of 20,000 gallons for a 5/8-inch x 3/4-inch meter to 4.3 million gallons for a 10-inch x 12-inch x 6-inch meter. The acquirers are also responsible for a monthly meter service charge, which for 2008 ranged from $6/month for the smallest meter to nearly $300/month for the largest meter.

The recycled water was used for dust suppression and for irrigation of golf courses, parks, business parks, rights-of-way, medians, and common areas.

Montana

Acquirers: *19 water contractors*
Supplier: *Bureau of Reclamation*
Water: *a) 40 year lease for up to 626 AF/year from Lake Elwell, b) 40 year lease for up to 14 AF/year from the Nelson South Canal, and c) 5 year leases totaling up to 111.6 AF/year from Canyon Ferry Reservoir*
Purpose: *M&I, irrigation, domestic*
Terms: *$2.23/AF to $31.32/AF, plus a $250 annual contract administration fee and a proportionate share of the actual OM&R costs*
Status: *Complete*

In May and June, the Bureau of Reclamation executed 19 contracts for leases from various water projects in Montana. One contract provides an irrigator with a 40-year lease for up to 626 AF/year from Lake Elwell, a key feature of the Lower Marias Unit of the Pick Sloan Missouri Basin Program, at a price of $2.23/AF, plus an annual contract administration fee of $250. Because of a take-or-pay provision in the contract, the contractor will pay $1,645.98 per year, regardless of the actual amount of water ordered. In addition, the contractor is responsible for a proportionate share of the actual OM&R costs for Lake Elwell, estimated to be about $3/AF.

Another contract provides a municipal and industrial water user with a 40-year lease for up to 14 AF/year from Nelson South Canal, a feature of the Milk River Project, St. Mary Storage Unit, at a price of $14.80/AF, plus a $250 annual contract administration fee and a proportionate share of the OM&R costs (currently $3.28/AF).

There were 17 five-year contracts for 111.6 AF from Canyon Ferry Dam—an essential part of the Pick Sloan Missouri Basin Program, Canyon Ferry Unit. Under one contract, an irrigator is leasing up to 40 AF/year at a price of $2.75/AF. The remaining 16 contracts are for domestic water users and were previously done as annual contracts. Reclamation extended the contract period to simplify the work involved. These contracts provide a total of up to 71.6 AF/year at a price of $31.32/AF. All of the 17 contractors must also pay a $250 annual contract administration fee and a proportionate share of the actual OM&R costs (estimated at about $0.50/AF). The OM&R responsibility for Canyon Ferry Dam has been given to Helena Valley Irrigation District.

Nevada

Acquirer:	*Washoe County*
Suppliers:	*Developers*
Water:	*Dedications of 108.53 AF of surface water and 34.12 AF of groundwater in the Truckee River Basin*
Purpose:	*M&I*
Terms:	*Developers paid $15,000/AF to $40,000/AF, depending on source and location*
Status:	*Complete*

Washoe County received dedications of 108.53 AF of surface water and 34.12 AF of groundwater in the Truckee River Basin during the first half of this year. Under Article 422 of the Washoe County Development Code, developers must dedicate necessary water rights to obtain permission to develop residential or commercial property in the county.

After rebounding in the fourth quarter last year, prices now appear to be stabilizing. Surface water dedications came from the Truckee Meadows sub-area and again had prices ranging from $15,000/AF to $20,000/AF—compared to prices ranging from $10,000/AF to $20,000/AF in the third quarter of last year. Groundwater came from the Warm Springs sub-area with prices again ranging from $15,000/AF to $20,000/AF and from the Lemmon Valley sub-area with prices ranging from $30,000/AF to $40,000/AF—compared to prices of $10,000/AF to $15,000/AF in Warm Springs and $20,000/AF to $25,000/AF in Lemmon Valley in the third quarter last year.

Acquirer: *Developers*
Suppliers: *Truckee Meadows Water Authority*
Water: *Water service to development projects in the Cities of Reno and Sparks, based upon dedications of 148.18 AF of Truckee River water rights*
Purpose: *M&I*
Terms: *up to $22,900/AF*
Status: *Complete*

Truckee Meadows Water Authority ("TMWA") issued will-serve commitments for development projects in the Cities of Reno and Sparks based upon the dedication of 148.18 AF Truckee River surface water rights during the first half of 2009. Under TMWA's Rule 7, developers must dedicate water to the Authority to receive water service for their projects.

In the City of Reno, TMWA issued 15 will-serve commitments for 44.73 AF of surface water and 1 will-serve commitment for 1.72 AF of groundwater, while developers in the City of Sparks received 8 will-serve commitments for 101.73 AF of surface water.

To meet the Rule 7 requirements, developers can either bring in water that they acquired from another party in a private transaction or purchase water from TMWA at a price that is based upon what TMWA paid to acquire the water. For the first half of 2009, TMWA charged $22,900/AF, while the prices for private party transactions likely were somewhat lower.

Developers that dedicate surface water must pay a water meter retrofit fee of $1,830/AF to TMWA when the will-serve commitment is issued. Groundwater users pay a facility charge. To meet watershed goals, TMWA requires developers to dedicate 1.11 AF for 1 AF of demand projected for their projects.

An additional 8.42 AF were dedicated in Washoe County's jurisdiction in 9 dedications, which were completed as wholesale will-serve commitments between TMWA and Washoe County. All wholesale will-serve commitments require the water rights to be dedicated to Washoe County. Then TMWA issues Washoe County a will-serve commitment based on a contract. (See previous transaction for information on the water rights dedicated to Washoe County during this period).

North Dakota

Acquirers: *a) Dickinson Parks and Recreation District, b) Dickinson-Heart River Mutual Aid Corporation*
Supplier: *Bureau of Reclamation*
Water: *20-year leases of a) up to 400 AF/year and b) up to 400 AF/year from Dickinson Reservoir*
Purpose: *a) M&I, b) irrigation*
Terms: *a) $36/AF, subject to review and adjustment, b) $1/AF, plus a proportionate share of the actual OM&R costs*
Status: *Complete*

The Bureau of Reclamation executed two 20-year lease agreements in North Dakota. Each agreement provides up to 400 AF/year from Dickinson Reservoir.

Under the first agreement, signed in late May, Dickinson Parks and Recreation District will lease municipal and industrial water at a price of $36/AF, which is a combined rate for both water service and OM&R costs and is subject to review and adjustment at five-year intervals.

The second agreement, signed in late June, provides Dickinson-Heart Mutual Aid Corporation with irrigation water at a price of $1/AF, plus a proportionate share of the actual OM&R costs (estimated to be $18.39/AF for this year).

Dickinson Reservoir is a key feature of the Dickinson Unit, Heart Division of the Pick Sloan Missouri Basin Program.

Texas

Acquirer: *El Paso Water Utilities*
Suppliers: *Various landowners*
Water: *75-year leases of 17.74 acres with a long-term average annual allotment of 2.5 AF/acre of Rio Grande River water*
Purpose: *M&I*
Terms: *$1,000/acre, plus assumption of district taxes and fees*
Status: *Complete*

In the first half of 2009, El Paso Water Utilities ("EPWU") executed 64 lease agreements with 2 landowners. Under the 75-year agreements EPWU is leasing 17.74 acres, with a long-term average annual allotment of 2.5 AF/acre of Rio Grande River water—increasing the utility's water supply by an average of 44.35 AF/year.

EPWU meets its municipal water needs by leasing the water from landowners with parcels that are 2 acres or less, typically large residential properties that do not need the water for agricultural or other uses.

EPWU paid a one-time payment of $1,000/acre and will assume payment of taxes and fees assessed by the El Paso County Water Improvement District No. 1 ("EPCWID #1"), including a base tax of $32/acre and a water assessment fee of $8/AF. In addition, EPWU pays an administrative fee of $100/contract to EPCWID #1, when the contracts are submitted for approval.

In June 2008, EPWU reduced the price from $4,500/acre, with a minimum of $765 for 0.17 acres or less, for budgetary reasons. Leasing activity was lower than normal during the first half of this year, which EPWU believes is due mostly to the reduced compensation amount.

EPWU regularly acquires Rio Grande surface water under its Water Resource Management Plan, which calls for the utility to expand development of surface water supplies and reduce demand on groundwater supplies, such as the Hueco Bolson Aquifer.

Acquirers:	*5 irrigators, North Alamo Water Supply Company, and 1 mining interest*
Suppliers:	*4 irrigation districts and 2 irrigators*
Water:	*1-year leases of 2,116.475 AF of Lower Rio Grande surface water*
Purpose:	*Irrigation, municipal, and mining*
Terms:	*Irrigation (up to $30/AF), Municipal ($36/AF), Mining ($100/AF)*
Status:	*Complete*

Five irrigators, North Alamo Water Supply Company ("NAWSC"), and a mining interested leased a total of 2,116.475 AF of Lower Rio Grande surface water under 11 one-year contracts during the second quarter of 2009. The water was supplied by 4 irrigation districts and 2 irrigators.

Irrigators made up most of the activity, leasing 1,503 AF in seven transactions at prices up to $30/AF. Municipal water was leased in two transactions totaling 598.475 AF between Engelman ID and NAWSC at a price of $36/AF, and a mining interested leased 15 AF from HCID No. 2 in two transactions at a price of $100/AF.

Activity began to pick up during the quarter after being unusually low for two quarters because the Watermaster offered "free water" through March 28. Free water does not count against contractors' allotments—so there was little need for contractors to enter into lease agreements. The Watermaster offers free water when there is excess water in the system. Water releases from Mexico and high streamflows from rainstorms in the basin combined to create excess supplies that could be offered as free water.

WATER MARKET INDICATORS

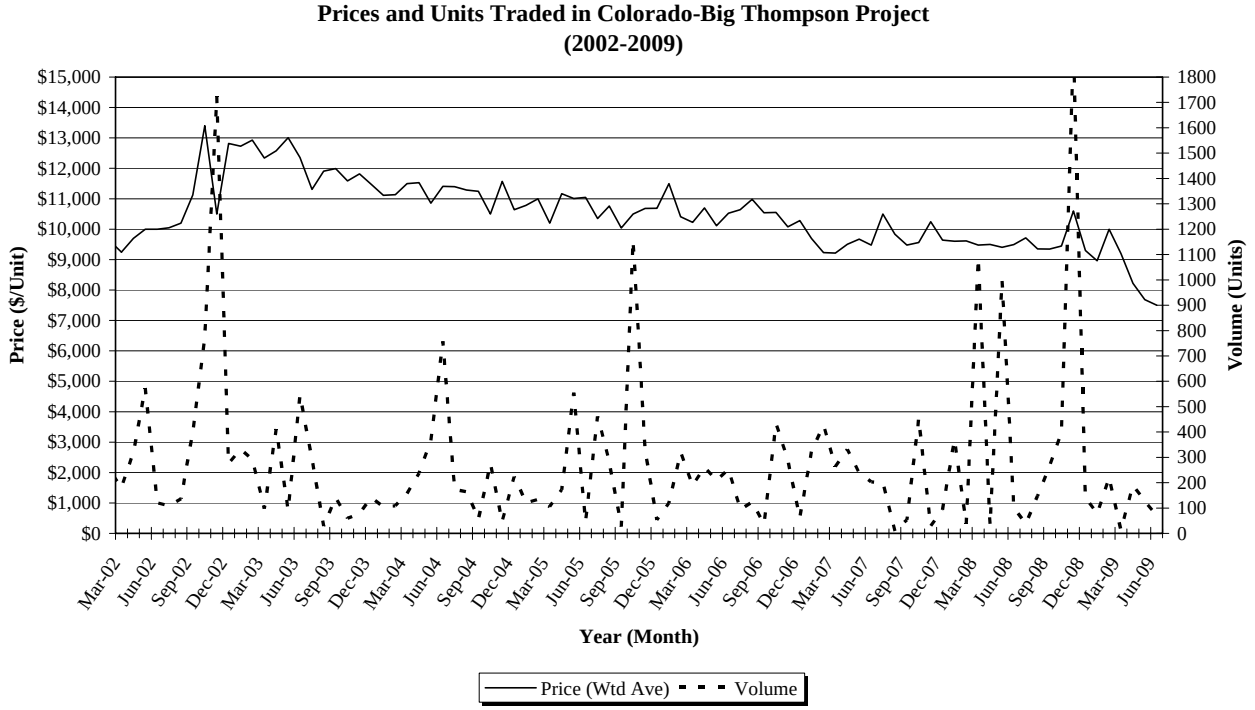
Unlike stock or commodity exchanges or bond markets, water markets are still in their infancy. Water assets are not traded westwide; no indicator can measure overall activity in water markets. The economic value of water depends upon the reliability of the underlying water right, quantity, quality, uses and the location and availability of competing sources of supply. ***WS*** *Indicators*, therefore, provide only a partial picture of emerging water market trends. As markets evolve, so will ***WS*** *Indicators*.

WS *Indicators*, which are selected because the water rights or leases represented are widely traded, include permanent acquisitions of Colorado–Big Thompson units in Colorado, Truckee River Surface Water Rights in Nevada, and Middle Rio Grande water rights in New Mexico; leases of Lower Rio Grande surface water in Texas; and the CAWCD lease rates for Central Arizona Project allocations in Arizona. ***WS*** *Indicators* are reported quarterly, though some individual indicators are omitted from some of the quarterly reports because their related transactions are reported to ***WS*** less frequently. Each quarterly ***WS*** *Indicators* report includes CBT units, which have related transactions reported monthly, and Lower Rio Grande Surface Water Leases, which have related transactions reported quarterly. Purchases of Truckee River Surface Water Rights and Middle Rio Grande Water Rights Purchases appear twice each year, at the same frequency as their related transactions are reported. Central Arizona Project Allocation Leases appear annually, because the Central Arizona Water Conservancy District sets the rates annually. Related CAP lease transactions are reported as they occur.

Colorado–Big Thompson Units

Water rights are traded widely in the market created by the Colorado–Big Thompson ("CBT") Project. The Northern Colorado Water Conservancy District ("NCWCD") manages the project, with its board of directors approving transfers of CBT units and setting quotas to determine the yield of each unit. The board sets an initial quota each November and revisits it the following April. The CBT quota allows all CBT Project water users to plan for their water supply needs. The board began setting an initial quota in 2001 to allow municipal and domestic water users access to CBT water in the winter months without incurring a negative balance when the quota is set in April. The board considers both the availability of water and the water needs in the region when it determines the quota. Historically, CBT units yield an average of 0.7 AF/unit in years of normal hydrology and 0.5 AF/unit in years of heavy runoff. The current quota is 0.8 AF/unit. The CBT Project has a total of 310,000 units.

Irrigators, developers, and municipal water suppliers buy and sell CBT units through a well-defined process (see "Trading Federal Project Water," ***WS*** *October 1990*). ***WS*** reports an average of 8 transactions each month.



Average prices continued their downward trend in the second quarter ranging $7,500/unit to $8,223/unit—compared to $8,961/unit to $10,000/unit in the first quarter. In the second quarter last year, prices ranged from $9,410/unit to $9,500/unit. April saw the highest actual price when the Town of Windsor purchased a single unit at a price of $9,600/unit—while Fort Collins-Loveland Water District had the lowest priced purchases paying $7,500/unit for 100 units in May and for one unit in June.

Volume traded decreased over the quarter—ranging from 189 units traded in April to 70 units traded in June, with a total volume for the quarter of 387 units. During the first quarter, activity ranged from 14 units to 221 units traded, with a quarterly total of 312 units—while the second quarter last year saw a range from 32 units to 997 units, with a quarterly total of 1,130 units.

With growth and new development continuing to languish, expect prices and trading activity to continue to ebb.

Truckee River Surface Water Rights

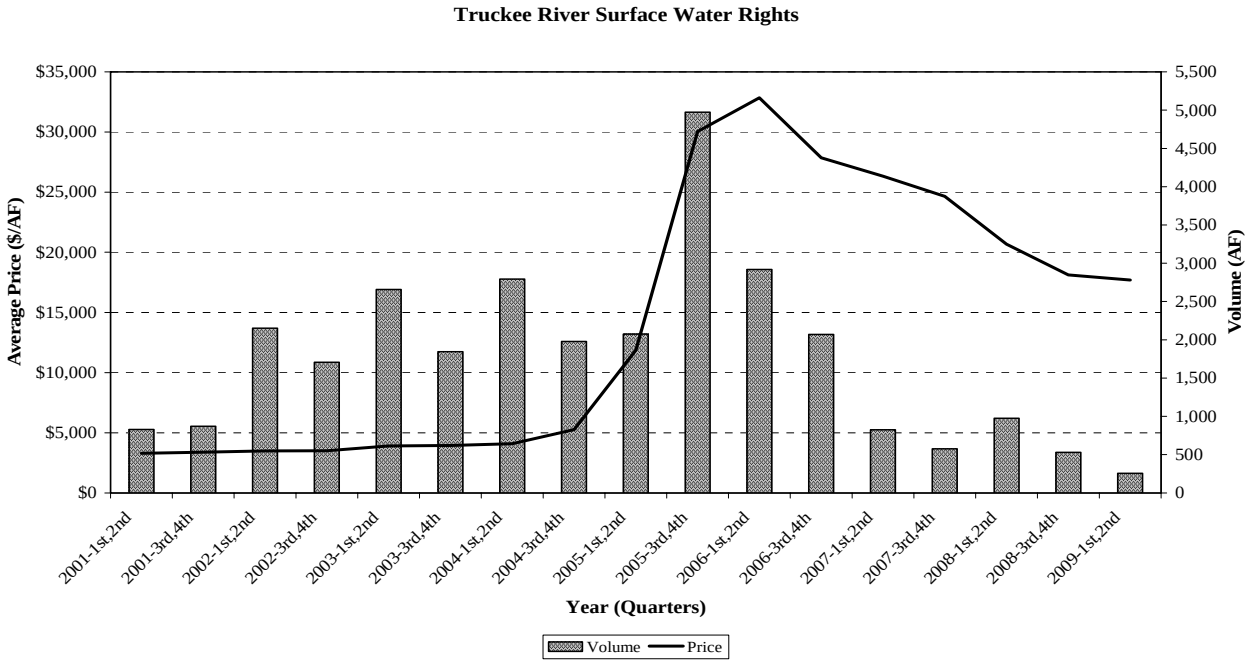
A policy that requires developers in the Reno metropolitan area to dedicate necessary water to Truckee Meadows Water Authority ("TMWA") or Washoe County in order to receive water service for their developments has created a market for Truckee River surface water rights. When developers dedicate surface water to TMWA, they pay a one-time water meter retro fit fee of $1,830/AF. In addition, they must dedicate 1.11 AF for each 1 AF of demand under an adjusted yield system that TMWA implemented to meet watershed needs. Developers may also dedicate

groundwater, though prices vary widely—ranging from $10,000/AF to $50,000/AF. Truckee River water rights trade a prices that depend on several factors, including water quality, location, and urban growth in the area.

The average price in the first half of 2009 continued its decline from the all-time high of $32,848/AF in the first half of 2006 and is now at $17,688/AF. Before the run-up in 2005 and 2006, prices were at $5,264/AF had only changed incrementally (see chart).

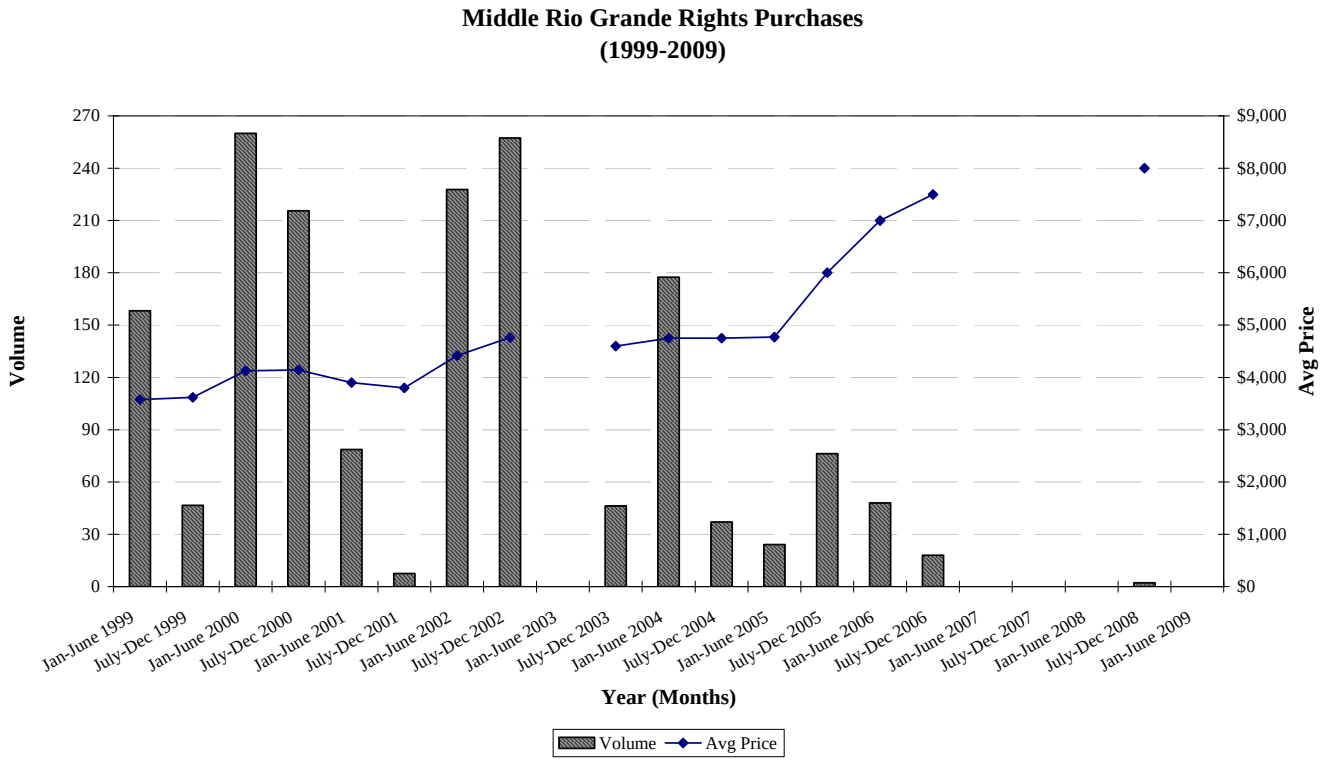
Activity was at the lowest level in 14 years, with only 256.71 AF trading—less than half of the 530.06 AF that traded in the second half of 2008 and just more than a quarter to the 975.26 AF that traded in the first half of 2008.

A demand for water rights driven by a growth boom ran up prices and activity in 2005 and 2006, but like with much of the west, the development market in northern Nevada has receded. Expect prices and activity to continue to ease.



Middle Rio Grande Water Right Purchases

To meet its future water needs, the Albuquerque Bernalillo County Water Utility Authority ("ABCWUA") acquires pre-1907 Middle Rio Grande water rights from area irrigators. ABCWUA was created by the New Mexico State Legislature in 2003 as a joint agency to handle water and wastewater administration for the City of Albuquerque and the County of Bernalillo. The water right purchases were previously completed by the City of Albuquerque.



Since the Rio Grande Compact was signed in 1939, the river's surface waters have been fully appropriated. In 1956, the Rio Grande Underground Water Basin was declared, and a requirement was established for groundwater appropriators to obtain surface water rights to offset effects on the river caused by their pumping. The New Mexico State Engineer established a policy in 2000 that requires acquisition of surface water rights prior to pumping.

Pre-1907 Middle Rio Grande surface water rights were purchased at administratively set prices between 1982 and 1994. In 1995, the City of Albuquerque was the primary entity acquiring municipal water rights for their area, but because the state engineer ordered a moratorium on dedications, the process through which rights were transferred to the city, the city had no acquisitions that year. Acquisitions resumed in 1996 under a policy that allowed its negotiators to offer market-driven prices.

ABCWUA has not purchased Middle Rio Grande water rights in the first half of this year. While some reports indicate going rates as high as $20,000/AF, a purchase by ABCWUA late last year shows a price of $8,000/AF—compared to a range from $7,000/AF to $7,500/AF in 2006. Prices began increasing in 2002, when a drought emergency prompted a jump to 4,763/AF from a range of $3,700/AF to $3,800/AF prior to the drought declaration.

Because Middle Rio Grande water supplies are sought by environmental interests, irrigators, and municipalities, expect prices to remain high as these interests compete for regional water supplies.

Lower Rio Grande Surface Water Leases

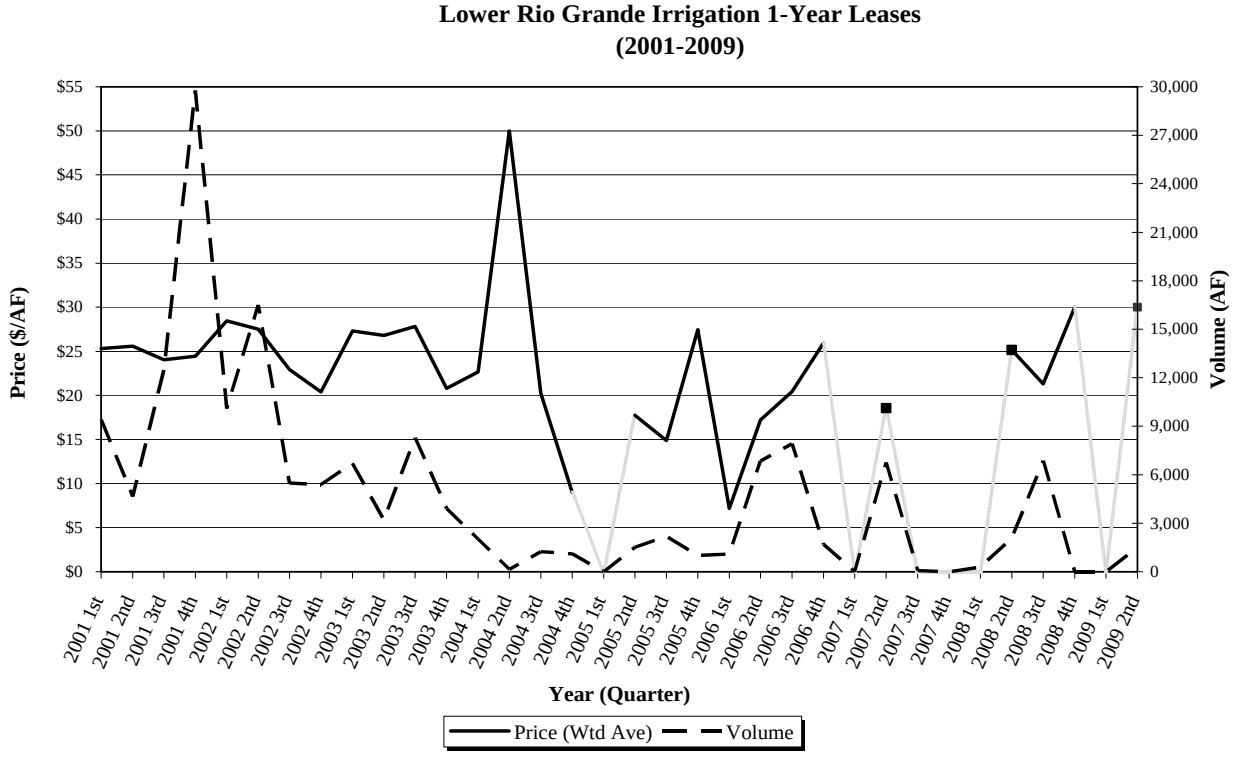
Demand for Lower Rio Grande water created a lease market in south Texas. Lease prices vary by use, with agricultural water users typically paying lower rates per acre-foot because they have lower consumptive use of water.

The long-term average allocation for Lower Rio Grande contracts is 2.5 AF/acre. Because reservoir supplies continue to be sufficient, the Rio Grande Watermaster has been able to provide full allocations (4 AF/acre)—so leases of irrigation water have been small and few over the last couple of years. However, activity increased this year as the irrigation season got underway.

There were 7 leases of irrigation water on the Lower Rio Grande in the second quarter of 2009. A total of 1,503 AF were leased—compared to no irrigation leases in the first quarter of 2009 and totals of 2,068.45 AF in the second quarter of 2008. Activity remains significantly below the levels traded in the second quarters of 2006 and 2007, which had 6,860 AF and 6,762.50 AF, respectively.

Prices remain at the $30/AF level that was reached in the fourth quarter of 2008, but are up from $25.14/AF are year ago, $18.55/AF in the second quarter of 2007, $17.21/AF in the second quarter of 2006, and $17.74/AF in 2005. Over the remainder of the last ten years, prices have reached as high as $50/AF, but generally fell between $27/AF and $29/AF.

Expect leasing activity and prices to increase as demands increase during the irrigation season.



STATE LEGISLATIVE REVIEW

This year, ***WS*** highlights bills passed that notably impact water supplies or water markets or make significant policy changes regarding water resources. All seventeen western states are in session this year. At the time of the last *State Legislative Review*, 14 states had adjourned passing a total of 47 major bills. (For background on those bills, see ***WS*** *March 2009* and *June 2009*). **Arizona** and **Oregon** have now adjourned, passing a total of 7 bills, which brings the total for the year to 54 major bills. ***WS*** will review the bills passed in **California** after its legislative session adjourns.

Arizona (3 bills enacted)

The Arizona legislature, which adjourned unusually late on July 1, passed three major water bills. Two bills deal with emergency conditions. *HB 2440 (Mason)* provides a temporary exemption from the ban on transporting groundwater away from the groundwater basin that is within an Active Management Area in order to provide interim water during a drought emergency. Transportation of such groundwater is still prohibited if it will be used to make up shortages that result from continued growth or insufficient base water supplies and the bill sunsets April 30, 2010. *SB 1323 (Leff)* expands the law governing mutual aid agreements by allowing local governments to enter into mutual aid agreements with private water or wastewater utilities to provide for rapid mutual aid and assistance from other systems when facilities are damaged by natural or man-made incidents. Current law allows local governments to enter into this type of agreement with other government entities, but not with private utilities.

The third bill, *HCR 2030 (Stevens)*, is a resolution that was passed to officially state the legislature's opposition to certain changes that have been proposed to the federal Clean Water Act. Specifically, the legislature opposes expansion of the Federal Point Source Discharge Program and any increase in federal authority that results from weakening state authority.

Oregon (4 bills enacted)

In Oregon four major water bills were enacted this year. Arguably, the most consequential bill was *SB 76 (Dingfelder, at the request of the governor)*, which authorizes funding for the removal of four dams in the Klamath River Basin—a major point in the effort to resolve ongoing conflicts in that area. According the governor's office, the bill "helps to achieve the largest river and salmon restoration effort in U.S. history…" *HB 3369 (Jenson; J. Smith)* also has significant effects on water resource management. This bill directs the Water Resources Department to develop an integrated water resources strategy and to update it every five years and directs the Water Resources Commission to establish standards for borrowing funds from the Water Development Loan Fund, which was established to provide a low-cost, long-term, fixed-rate funding source for projects that are consistent with the state's long-term water management goals.

The remaining two bills are narrower in scope. *SB 788 (Jenson)* directs the Water Resources Department to assess a $250 fee to record certain exempt groundwater uses and calls for

the money collected to be used to fund groundwater studies, monitoring, and enforcement. *HB 3298 (Clem)* designates the Metolius River area as an Area of Critical State Concern, putting into place protections for the basin's natural resources, which include wildlife and plant species, and river, tributary, and groundwater sources. The protections are not expected to affect most land uses, but they do prohibit large-scale development in the area. This bill represents the first time legislative authority has been used to designate an Area of Critical State Concern. Areas previously considered for designation were given protection through land use planning goals, other state designations, or federal actions.

FEDERAL LEGISLATIVE UPDATE

This year, ***WS*** is underscoring 12 federal bills that would impact water resources. When Congress adjourned for its August recess, 2 bills had passed, 9 remained under consideration, and 1 draft bill had not been introduced yet.

The two bills that passed include the American Recovery and Reinvestment Act ("the Stimulus bill") and the Omnibus Public Lands Management Act. The Stimulus bill included more than $7 billion for water and wastewater projects (see ***WS*** *March 2009*)—while the Omnibus Public Lands Management Act, which preserves environmentally sensitive public lands and includes several water-related provisions, including authorization of two major settlements—the settlement related to the San Joaquin River restoration and settlement of a water rights claim in the Four Corners region in New Mexico. The bill also authorizes certain infrastructure projects, such as the Arkansas Valley Conduit in Colorado and the Orchard Detention Basin Flood Control Act in Nevada, and authorizes funding for nine water recycling projects in California. (For more on the Omnibus Public Lands Management Act, see ***WS*** *April 2009*).

Among the bills that are under consideration, four address water supply by encouraging conservation, efficiency, or use of alternative supply sources. The Produced Water Utilization Act, *HR 469 (Ralph Hall, R–TX)*, would require the Secretary of Energy to research, develop, and demonstrate technologies that provide for environmentally sustainable use of produced water for agriculture, irrigation, municipal, industrial, or other environmentally sustainable use. *HR 631 (Matheson, D–UT)*, the Water Use Efficiency and Conservation Research Act, would require the EPA Administrator to research and develop a program that would encourage greater water use efficiency and conservation and would include funding authorization to incorporate conservation technologies into at least four buildings. *HR 135 (Linder, R–GA)*, the 21st Century Water Commission Act, would establish a water commission to project future water supply and demand, study current water management programs, and consult with water management officials to develop recommendations for a comprehensive water management strategy that would identify incentives to ensure adequate water supplies for the next 50 years, avoid increasing mandates on state and local governments, and suggest funding sources. Finally, water-related provisions in the American Clean Energy and Security Act, *HR 2454 (Waxman, D–CA)*, would provide incentives for acquiring WaterSense rated goods and would establish a program to encourage energy

producers to recover potentially useful byproducts that would generate additional energy or could be sold as steam, hot water, chilled water, or desiccant regeneration.

Another energy-related bill, the Energy and Water Integration Act, *S 531 (Bingaman, D–NM)*, would require the Secretary of Energy to work with the National Academy of Sciences to study the impact of energy development and production on water resources.

Two bills would authorize funding for water infrastructure projects. The Water Infrastructure Financing Act, *S 1005 (Cardin, D–MD)*, would reform and increase investment in the Clean Water State Revolving Fund ("Clean Water SRF") and Drinking Water State Revolving Fund ("Drinking Water SRF"). Specifically, over the next five years it would increase funding authorization to $20 billion for the Clean Water SRF and to $14.7 billion for the Drinking Water SRF, authorize a $60 million per year lead reduction grant program, authorize a $50 million grant program to improve agricultural water quality, increase program flexibility to help low-income communities, and provide incentives for green infrastructure and water conservation, efficiency, and recycling programs. The Water Protection and Reinvestment Act, *HR 3202 (Blumenauer, D–OR)*, would establish a $10 billion annual fund infrastructure and environmental restoration needs. (For additional background, see story in this issue).

One bill, *S 313 (Kyl, R–AZ)*, would settle the White Mountain Apache Tribe's water right claim and provide the tribe with a reliable drinking water source. (See ***WS*** *February 2009* for additional information).

One controversial bill is getting significant attention. The Clean Water Restoration Act, *S 787 (Feingold, D–WI)*, seeks to clarify federal jurisdiction over waterways, by amending the Clean Water Act to replace "navigable waters" with "water of the United States." Senator Feingold asserts that the bill will restore water and wildlife habitat protections that are threatened because of court decisions, while property-owner advocates, such as the American Farm Bureau Federation, claim that it would create a "regulatory quicksand" that would burden farmers with increased compliance costs and complicated permit processes. This bill has been passed by the Senate Committee on Environment and Public Works, but has not yet been scheduled for consideration on the Senate floor. (For more on S 787, see story in this issue).

The last bill, the Sustainable Watershed Planning Act, is a draft bill that has not yet been introduced. It is a working copy that could undergo significant changes before it even becomes an official bill. The current version, dated June 12, 2009, would create an Office of Sustainable Watershed Management "to assess, coordinate, and implement policies and actions to ensure the sustainable use of the water resources of the United States." It would also establish a Council of Sustainable Watershed Management, made up of various federal agency heads, governors, and tribal leaders, to advise the Office Director, would establish regional water boards to develop five-year watershed plans, and would authorize funding of $100 million per year for FY 2010 through 2020.

MONTHLY WATER INTELLIGENCE

Federal Actions

Representative Blumenauer Introduces Water Protection and Reinvestment Act

On July 15, 2009, U.S. Representative Earl Blumenauer (D-OR) introduced legislation to establish a water trust fund for repairing America's aging pipes and overloaded sewer systems. The "Water Protection and Reinvestment Act" ("WPRA"), H.R.3202, establishes a $10 billion annual fund to help states replace, repair, and restore essential drinking water and wastewater treatment facilities. The bill raises funds by taxing products and industries that contribute to water quality problems and corporations that earn over $4 million in profits a year.

"Establishing a steady funding source to rebuild and renew America's outdated water infrastructure is a concrete step that puts us on the path to a healthier, more secure future," said Blumenauer. "As we look for ways to jumpstart our economy, the Water Protection and Reinvestment Act will create hundreds of thousands of jobs while protecting the health of people and the environment."

Bill supporters believe the current condition of the nation's water infrastructure requires a dedicated funding source for improvements. A 2009 report by the American Society of Civil Engineers ("ASCE") graded the nation's drinking water and wastewater infrastructure at "D-." Current water infrastructure funding, which has averaged only slightly more than $2.3 billion a year since 2000, falls significantly short of meeting the estimated need of over $25 billion a year. In addition, a recent analysis by the Environmental Protection Agency ("EPA") estimates a $534 billion gap between current investment and projected needs over the next 20 years. The WPRA is designed to help close that funding gap and create jobs to help boost the economy. The money invested would not only help repair and replace aging drinking water and sewer systems, but it could also create between 200,000 and 267,000 new jobs in engineering, construction and other industries.

The WPRA allocates funding for projects under both the Clean Water Act and the Safe Drinking Water Act. About half of the funding would be distributed to public water facilities as grants and loans through the existing Clean Water State Revolving Loan Fund ("CWSRF"), and over one-third of the money would go to public water facilities in loans from the Safe Drinking Water Act State Revolving Loan Fund ("DWSRF"). Both of these funds allow states to provide grants and loan money to public water systems and treatment plants to improve infrastructure and meet federal requirements.

The remaining money would fund several new programs aimed at:

- improving security and creating emergency response plans
- adapting to climate change and becoming energy efficient
- controlling sewer overflows where untreated sewage contaminates the water system
- conducting research and developing technologies for treating, controlling, transporting, and reusing drinking water and wastewater

- developing the workforce training, undergraduate, and graduate environmental engineering and natural sciences training programs
- creating a Drug Take-Back program to reduce pharmaceutical dumping in water
- supporting a Cost of Service Study by the National Academy of Sciences to better understand the costs associated with operating, maintaining, and replacing infrastructure, and meeting regulatory requirements.

The legislation establishes new taxes on those who use water and contribute to water pollution. A price increase to consumers is expected to be minimal because the taxes would be levied at the manufacturer level. The Government Accountability Office expects these tax sources to raise at least $10 billion a year. The taxes include a 4 cent per container excise tax on water-based beverages, a 3% excise tax on items disposed of in wastewater, such as toothpaste, cosmetics, toilet paper and cooking oil, a 0.5% excise tax on pharmaceutical products, and a 0.15% tax on corporate profits over $4 million. The corporate tax is levied because all corporations depend on drinking and wastewater infrastructure to conduct their business.

The bill has bipartisan support, with Representatives Mike Simpson (R–ID), Norm Dicks (D–WA), Tom Petri (R–WI), and Steve LaTourette (R–OH) as co-sponsors. It also has support from a coalition of stakeholders representing rural communities, contractors, engineers, and environmental and water interests, many of whom provided supporting testimony on the bill before the House Transportation and Infrastructure Subcommittee on Water Resources and Environment.

The National Association of Clean Water Agencies ("NACWA") strongly supports the legislation and testified before the subcommittee about the challenges cities face to provide clean water. At the hearing, NACWA's representative Thomas Walsh told members that cities must respond to a growing population, aging infrastructure, more regulations, and higher labor and material costs, yet they anticipate a funding gap of $300-$500 billion over the next 20 years. "NACWA believes that the federal government must do more to ensure long-term, sustainable funding to address the shortfall facing our nation's publicly owned wastewater treatment agencies," said Walsh.

However, not all water groups believe the water trust fund approach is appropriate for raising money to meet current needs. The American Water Works Association ("AWWA") offered an alternative plan to fund infrastructure projects. Representing AWWA, Denver Water Manager Chips Barry told the subcommittee that "more effective tools for financing water infrastructure include enhancement of the existing state revolving loan fund (SRF) programs." The AWWA wants to establish a federal water infrastructure bank to provide low-interest loans for projects too big for a state to handle, without imposing a new tax.

The National Association of Water Companies ("NAWC") also submitted testimony to the subcommittee requesting a different approach. "The trust fund mechanism created by this bill would serve to further mask the value of water through taxes on unrelated activities and discourage responsible water use and conservation through heavy, broad utility subsidizations," said NAWC. The organization believes federal policies should encourage utilities to set prices that not only allow for infrastructure maintenance and upgrades, but also encourage water users to conserve water and understand the value of water. Like the AWWA, the NAWC also supports more effective use of the SRF programs that provide tax-exempt funding but still allow the public to understand the cost of clean water.

GAO Releases Report on Energy and Water

As the United States looks to develop alternative energy sources and increase electrical production for the future, one of the knotty problems facing government and industry is water.

Water usage is tied directly to energy production, be it corn-based ethanol, cellulosic ethanol, other bio fuels, and cooling for thermoelectric generating plants such as coal and nuclear plants.

In order to assist Congress in developing both energy and water policy, the Government Accountability Office ("GAO") released a study before the U.S. House of Representatives Subcommittee on Energy and Environment on July 9, 2009. The study is titled "Energy and Water: Preliminary Observations on the Links between Water and Biofuels and Electricity Production."

The GAO expressed concerns over the ability of the nation's future water supply to help meet the demands of these new fuels and to provide for increased electricity production.

"[B]oth water and energy are facing serious supply constraints," according to the GAO report. "Freshwater is increasingly in demand to meet the needs of municipalities, farmers, industries, and the environment. Likewise, rising demand for energy—fueled by both population growth and expanding uses of energy—may soon outstrip our ability to supply it with existing resources."

Between now and 2030, the GAO says that the United States may need an additional 259 gigawatts of generating capacity or the equivalent of 259 coal-fired plants.

As to biofuels, the GAO reported that little quantitative information exists as to the impact the next generation of fuels might have on water supplies and water quality.

"[L]ittle is known about the effect of large-scale cultivation of next generation feedstocks, such as cellulosic crops," the GAO reported. "Since these feedstocks have not been grown commercially to date, there is little data on the cumulative water, nutrient, and pesticide needs of these crops and the amount of these crops that could be harvested as a biofuel feedstock without compromising soil and water quality."

Cellolosic ethanol production has the potential to save considerable water. The GAO says corn-based ethanol takes 7-321 gallons of water per gallon of ethanol produced while cellulosic ethanol may only take 1.9-5.9 gallons of water per gallon of ethanol.

Still, the GAO expressed concerns about the impacts of oil extraction and contaminants from new fuel stocks such as algae. Regarding extraction, the GAO stated, "Additional research is needed on how to extract the oil from the algal cell in such a way as to preserve the water contained in the cell along with the oil. . . ."

The GAO also found information on contaminate management to be lacking. "Information is needed on how to manage the contaminants that are found in algal cultivation water and how any resulting waste water should be handled," said the GAO.

As to reducing the use of freshwater in the production of electricity, the GAO again found a dearth of information. However, the GAO did note there have been a number of advances in reducing the use of freshwater in the electrical generating process.

"Unlike traditional cooling technologies that use water to cool the steam in power plants, advanced cooling technologies carry out all or part of the cooling process using air," the GAO stated.

However, the GAO also noted that air-cooling has limited applicability because of the added costs in plant construction, the land needed for such plants, where such plants can be sited, and that they can produce less net electricity.

The report concluded that federal agencies are trying to capture more information about the processes involved and are involved in research on the issues. The key, concluded the report, is to balance "energy independence and security with effective management of our freshwater resources."

State Actions

CO: Districts Explore Development of a Compact Water Bank

The Colorado River Water Conservation District ("Colorado River District") and its sister conservation district, the Southwestern Water Conservation District ("Southwest District"), met June 4, 2009 in Durango, Colorado to review work on a proposed Compact Water Bank ("Water Bank").

According to the Colorado River District, the Water Bank would minimize the risk and impacts of an interstate curtailment of water use if the four upper states of the Colorado River Basin fail to meet water delivery requirements under the 1922 Colorado River Compact.

While the Colorado River has never faced a compact call, the two districts believe such a call is possible in the future. The groups believe that new uses, the potential for climate change, and inevitable drought cycles could bring about such a call.

The Colorado River Compact grandfathers all water uses in existence at the time of the agreement in 1922, protecting them from interruption or curtailment. The idea behind the Water Bank is to prevent a rush to purchase these senior rights if the events noted above occur. The Water Bank would temporarily contain senior rights that could be used by critical junior water uses—such as fire control and municipal uses—that would otherwise be trumped by a compact call.

Pre-1922 water rights holders would be compensated for entering into an agreement to offer their senior water rights that are exempt from compact administration to junior users who would otherwise be called by delivery requirements. Junior users would "subscribe" in advance to the bank in the event of a call. Temporary use of the rights would only be allowed in the event of a call or if a call were imminent.

There would still be priority among senior rights holders, such as an 1885 right being able to curtail a 1905 right.

According to the concept paper for the project, the Water Bank would utilize pre-1922 depletions on a willing seller basis to allow post-1922 critical uses to continue. The Water Bank would have no authority to force pre-1922 rights holders to participate.

The districts believe that potential "customers" of the bank would be municipalities on both sides of the Continental Divide. The Colorado River basin is the main source of water not only for users in the basin but for users in the Front Range as well. The river provides between 25 to 75 percent of the total water supplies for cities like Ft. Collins and Pueblo.

Possible benefits of the bank include the delay or prevention of a compact call or mitigating the impact of a call. Another benefit, according to the concept paper, is the Water Bank would likely discourage the permanent dry-up of irrigated land.

The Water Bank would be governed by a board of directors appointed by the Colorado River District, the Southwest District, the State of Colorado, and other "appropriate" representatives. The concept papers suggest the use of a "super majority" to provide for broad support of any decisions. Possible pricing structures include a low participation fee/larger delivery fee for water or more of an "insurance policy" approach.

The conceptual plan was presented by Tom Iseman, water program manager for The Nature Conservancy, who reviewed work that he and the Conservancy completed for the districts.

"Western Colorado has an obvious interest in addressing this issue proactively," said Southwest District General Manager Bruce Whitehead. "We don't want to see an uncontrolled market in buy up and dry up of western Colorado's senior water rights."

The proposal is still in the development stage.

NM: Parties Declare Pecos River Settlement Implemented

Resolving the dispute between New Mexico and Texas over Pecos River basin water has taken another positive step forward.

On June 12, 2009, parties to the March 25, 2003 Pecos River Settlement Agreement ("Settlement Agreement") filed a joint declaration in New Mexico state court that all conditions for the implementation of the settlement agreement have been "substantially" met (see ***WS*** *April 2003* for background on the Settlement Agreement).

Parties to the 2003 Settlement Agreement are the State of New Mexico, the New Mexico Interstate Stream Commission ("ISC"), the Pecos Valley Artesian Conservancy District ("PVACD"), the Carlsbad Irrigation District ("CID"), and the United States Government.

The Settlement Agreement springs from the 1948 Pecos River Compact between New Mexico and Texas. In 1988, Texas sued New Mexico in the U.S. Supreme Court for its share of water under the Compact.

In 2002, as a means to settle the lawsuit, the New Mexico Legislature authorized the ISC to purchase land with water rights in fulfillment of the terms of the Settlement. These terms required the ISC to purchase a minimum of 4,500 acres and up to 6,000 acres of water rights in the CID, 7,500 acres and up to 11,000 acres of water rights in the Roswell Artesian Basin, and up to 1,000 acres of water rights in the Fort Sumner Basin.

So far, the ISC has purchased 4,498 acres of land in the CID and by the end of June 2009 is expected to have purchased water rights associated with 7,248 acres of land in the Roswell Artesian Basin. The ISC has also purchased more than 1,000 acres of water rights in the Fort Sumner Basin. It is also developing two augmentation well fields capable of delivering 15,750 acre-feet of water to the Brantley Reservoir.

New Mexico has spent more than $64 million on Settlement Agreement implementation since 2005.

The Pecos River Basin lies in the eastern half of New Mexico, rising from the 12,000 foot Sangre de Christo Mountains through eastern New Mexico to Texas to its confluence with the Rio

Grande. Rainfall in the basin is moderate to sparse, with 16-17 inches per year in the mountainous regions and 12-14 inches per year on the eastern plains.

Officials in New Mexico were pleased with the progress their state had made on the Settlement Agreement.

"This collaborative effort avoided the negative impacts of a priority call," said Governor Bill Richardson. "The consequences of noncompliance would have devastated the economies of the Pecos River Valley and New Mexico."

The New Mexico State Engineer shared Governor Richardson's analysis.

"It is a significant accomplishment that ensures compliance with New Mexico's interstate delivery requirements to Texas on the Pecos River," said State Engineer John D'Antonio. "It not only brings the Pecos River into balance, but also provides much needed stability to the water right owners in the Lower Pecos Valley."

According to the State Engineer, implementation of the Settlement Agreement assures long-term compliance with Pecos River Compact, provides additional water supplies to the CID, and protects junior water rights in the PVACD.

TX: Lower Colorado River Authority Develops Water Supply Resource Plan

The Lower Colorado River Authority ("LCRA") has developed a June 2009 Draft Water Supply Resource Plan ("WSRP") to help determine future water needs through the year 2100, and develop plans for meeting those needs. Although still in draft form for board review, the LCRA will issue a public draft this fall and receive public comments through meetings and an online survey. The LCRA will begin devising strategies based on that input in late 2009 and into 2010.

The LCRA predicts water demand will soar in the next 90 years as the population increases and more businesses and industries move to the basin. The WSRP estimates that LCRA would be responsible for providing supplies of approximately 930,000 acre-feet per year by the year 2100, which is more than the projections for the region in the 2006 State Water Plan. The most substantial growth is predicted in Travis County, where demand is expected to increase by almost 270 percent. Travis County and the adjacent counties will likely cause the largest increase in water demand in the lower Colorado River basin.

The LCRA developed the WSRP to evaluate possible strategies that could increase future supply. The report explains each option considered and details the cost estimates, land/easement requirements, feasibility, risks, permitting requirements, benefits, challenges, the estimated gain in additional supply, and the time for development. The options include strategies aimed at increasing conservation, importing water and building pipelines, constructing desalination plants, dredging reservoirs, building new reservoirs, amending downstream water rights, and controlling brush growth. The costs range from $400 per acre-foot for conservation education and incentive programs to $263,000 per acre-foot to dredge the Highland Lakes reservoirs. The LCRA also considered options such as cloud seeding, diverting floodwaters of the Llano River, rainwater harvesting, condensation capture, altering rate structures, and using a wastewater effluent near the Highland Lakes as a potential supply. The report found that these methods have limitations that may not make them feasible to implement.

Based on this information, the LCRA outlined three specific supply-building strategies. The first strategy involves using all available water in the existing supplies. The report concludes that, by combining the current 445,000 acre-feet per year supplies from Highland Lakes with water obtained by amending downstream water rights, there is a total supply of about 600,000 acre-feet of water available to meet firm water demands. This supply would be sufficient until about 2080.

The second strategy combines the first strategy with enhanced water conservation efforts in municipal, industrial, power generation, and agricultural sectors. The LCRA recognizes that it will take an aggressive effort, but estimates it is feasible to increase supply to meet 2100 demands with water conservation, and notes that the 2007 TWDB State Water Plan set a goal of meeting 23 percent of water supply needs through conservation.

The third strategy requires using existing supplies and combining conservation programs with several other water supply options from the strategies evaluated in the WSRP. Options include constructing an off-channel reservoir in the lower basin and a pipeline system to move water from reservoirs, developing a brackish groundwater desalination plant on the Gulf Coast aquifer along with a storage/retrieval system, and importing groundwater from outside the basin. The plan outlines the costs, benefits, and challenges that would arise with each of these options.

Finally, the LCRA uses the WSRP to outline its recommendations to increasing supply and lays out a framework and a timetable for implementation. Water conservation is the primary focus and is compatible with public input that emphasized the need to protect the environment, ensure a high quality water supply, support current lifestyles, be affordable, and be accessible.

The suggested short-term strategies through 2025 include pursuing and amending available water rights, continuing conservation programs, developing creative and innovative conservation programs, pursuing resource management through brush removal and by preventing soil erosion and water pollution, and evaluating additional supply and funding opportunities. Suggested mid-range strategies for the years 2025 through 2060 include pursuing an enhanced conservation program and agricultural conservation program and monitoring demand needs. If demand increases at a faster rate than projected, LCRA would then implement additional projects that would increase supply. The recommended long-term strategies for 2060 through 2100 include projects related to conjunctive groundwater and aquifer storage and retrieval, groundwater desalination, and building off-channel reservoirs, a pipeline to move water further upstream, or a seawater desalination facility in the coastal area. The LCRA will also pursue other types of new technology identified in the future.

The WSRP covers a 15-county area of the lower Colorado River watershed with the boundaries matching the Region K planning area of the 2006 State Water Plan. The LCRA water service area is actually a 33-county region; however, the counties outside the Region K planning area rely on their own local sources of supply, such as groundwater, and are not expected to be high growth areas. As the WSRP is updated, however, the LCRA will determine whether to expand the region covered in the plan based on information available about water supply and demand status in those outlying counties.

Water Quality and Environment

Clean Water Restoration Act Legislation Advances to Senate Floor

On June 18, 2009, the Senate Environment and Public Works ("EPW") Committee advanced S. 787, the Clean Water Restoration Act ("CWRA"). The legislation is intended to reaffirm the original intent of Congress in enacting the Federal Water Pollution Control Act Amendments of 1972, clearly define the waters of the United States that are subject to the Federal Water Pollution Control Act, and provide protection to U.S. waters to the full extent of the legislative authority of Congress. The full Senate will now consider the legislation.

The bill, which was originally introduced by Senator Russ Feingold (D–WI), was amended in committee in a collaborative effort by EPW Committee Chairman Barbara Boxer (D–CA), Senator Max Baucus (D–MT), and Senator Amy Klobuchar (D–MN). The amendment, which Feingold also supports, was written to clearly define the specific waters regulated by the Clean Water Act ("CWA"). Recent Supreme Court decisions in SWANCC and Rapanos have opened the debate over which waters fall under the CWA's jurisdiction.

"For years, communities and businesses have been accustomed to the protections and exemptions the Act provides. But because of two recent decisions by the Supreme Court in SWANCC and Rapanos, there is now great confusion about which waters are protected and which are not. Thousands of miles of streams and millions of acres of wetlands have been opened up to uncontrolled pollution and destruction," said Boxer.

The Obama Administration believed these Supreme Court decisions narrowed the scope of the waters protected under the CWA and asked Congress to clearly define the intentions of the Act. Feingold introduced S. 787 to accomplish this task, but it has met strong opposition because it removes the word "navigable" when defining the bodies of water regulated by the CWA. Under the legislation, the CWA would now apply to "waters of the United States." Opponents believe this broadens the scope of the CWA beyond the interpretation that was followed before the Supreme Court decisions. Senator Boxer said, however, that the amended bill takes great steps to maintain the protections from unnecessary regulations for farmers and ranchers. "In fact, right in the language of this compromise it tells EPA and the Corps to interpret this Act the same way they did the day before the SWANCC case," Boxer explained.

Senator Jeff Merkley (D–OR), a member of the EPW Committee, was an original co-sponsor of the legislation. He said the amended bill will adequately protect rivers and streams without unintended consequences for farmers and landowners who were not previously subject to the CWA. "The Clean Water Restoration Act will restore the purpose of the original legislation and keep our rivers and streams clean and safe," Merkley said.

The Sierra Club, which supported the original bill, would rather see Feingold's legislation pass without the committee amendments. "(The) compromise marks an important start to the process of reaffirming protections for many of our nation's vital water sources. However, it does

not ensure the permanent clean water protections that people, as well as fish, ducks and other wildlife require as clearly as the original bill introduced by Senator Feingold," said Ed Hopkins, Director of the Sierra Club's Environmental Quality Program.

On the other side of the issue, Republicans appear poised to take a definitive stand against the legislation. Senator Mike Crapo of Idaho joined six other Republicans on the EPW Committee and voted against advancing the amended bill out of committee. He also went a step further by placing a "hold" on the bill, indicating the possibility of a filibuster. He is concerned that the bill removes the word "navigable" from the CWA. Crapo said, "By so doing, the Act goes beyond restoring the regulatory environment that existed before the Rapanos and SWANCC decisions. In fact, it expands the scope of the Act by changing the standard for triggering federal jurisdiction. I have grave reservations about fundamentally altering the intent and scope of the Clean Water Act, and I look forward to opposing this bill if it ever makes it to the floor of United States Senate."

The American Farm Bureau Federation agrees with Senator Crapo. Missouri Farm Bureau President Charlie Kruse said the bill extends the reach of the CWA, and as a result, landowners will face a complex permitting process and increased costs to comply with the law. He wants "navigable waters" reinstated in the bill's language. "Farmers and ranchers are practical small business owners," Kruse said. "It is clear to us that Congress intended to use the term 'navigable waters' when it passed the CWA in 1972 – or it would not be there. It is our view, and that of many legal experts, that deleting this form the 1972 act would fundamentally expand, not simply restore, the scope of areas that would be subject to federal regulation," said Kruse.