

SOUTH PLATTE RIVER BASIN TASK FORCE

July 16, 2007

**Northeastern Junior College
Sterling, Colorado**

The meeting was called to order at 10:15 a.m. by Director Harris Sherman and Commissioner Stulp

Harris Sherman welcomed everyone to the second meeting of the South Platte River Task Force. He stated that the purpose of this meeting is to continue and complete the public testimony portion of the proceedings and he asked the presenters to keep their comments to ten minutes. Written materials will be accepted and everything received will be part of public record and posted on the website.



Public presentations were made by the following individuals:

Mayor Donald Jones - Mayor of the City of Sterling

Was a Member of the Sterling Irrigation Company. They use about 5,000 acre-feet water annually for standard household use and commercial use for agriculture-related industries. They have an ethanol plant, a prison, and a number of businesses that depend on agriculture and water. This is agriculture-based community. Their concerns are that any change to prior appropriation means they can't guarantee the citizens their water. It is critical to work together and they depend on the laws to be the law. The key issue is to ensure a water supply because it is critical for agriculture and their long-term survival. The only solution to the problem is to store water when there is excess.

Alan Foutz - President of Colorado Farm Bureau and he farms near Akron (provided handout

<http://www.ag.state.co.us/commissioner/southplatte/716testimony.pdf>)

Colorado is one of the most agriculture-productive areas in U.S. and it is imperative to maintain the viability of agriculture along the South Platte area. The major issue is the need to make more timely decisions regarding managing water resources. He recommended reversing the decisions that were made earlier and move some authority to the State Engineer's Office to allow the State Engineer to more effectively manage the water resources. The Farm Bureau is a staunch supporter of the priority system; continue to use water on first-in-time

doctrine; they believe that in most years there is enough water to be converted to beneficial use by means of wells without having to shut down wells; the tributary wells in existence pre-1974 be preserved in the first-in-time and first-in-right doctrine; and the beneficial use of water should include increased storage. He encouraged the Task Force to use the Colorado Farm Bureau as a resource. It is the feeling of their members that if the State Engineer had the ability to manage the resource, it would be accomplished in a more timely fashion versus going through the courts. Potential legislation may result from their upcoming summer annual meeting.

Joe Frank – Manger of the Lower South Platte Water Conservancy District, he's also a member of the South Platte Basin Roundtable

He's a firm believer of the priority system and believes that augmentation is needed to protect the integrity of the priority system and water rights; need to fix flaws in the system; have a system in place to get everyone together to discuss issues, the applicants and objectors should sit down with mediators and work out issues without involving attorneys; need more flexibility in the State Engineer's Office to administer plans. There is a supply issue, too many are competing for water in the South Platte and it's difficult for agricultural interests to compete for water. Solutions: develop unappropriated water in the state; additional storage and expansion; support existing projects (e.g., Windy Gap Firming Project); more flexibility of using excess credits; use Modflow over Glover; phreatophyte control; use center pivots versus flood irrigation.

Michael Shimmin – Representing the Bijou Irrigation Company (provided material later by e-mail

<http://www.ag.state.co.us/commissioner/southplatte/bijou.pdf>)

Bijou Irrigation is an agricultural irrigation system and serves about 25,000 irrigated acres of farmland. They have direct flow rights, storage rights and recharge water rights, and also have 200 wells that irrigate land under their system. There are surface water users and well owners, and he was asked by Bijou to encourage compromise and find a middle ground on these issues. Bijou has a complicated system using various water rights; the current law is close to where it needs to be for encouraging the development of augmentation plans while protecting surface water rights. Whatever the rules are, everyone should be living by the same rules. Bijou has a decreed augmentation plan to replace out-of-priority depletions; the laws governing augmentation plans does a good job of requiring junior wells to provide replacement water to protect senior surface water rights. There should be more flexible water management. When there is a shortage, water management does not work when it competes with the priority system; current rules for augmentation plans only requires out-of-priority depletions to be replaced; people need to develop recharge rights, put water into storage and have that available to replace out-of-priority depletions on the days that it occurs. He is opposed to paper-filling downstream reservoirs because it injures senior storage water rights; cannot predict in advance if reservoirs will fill

by spring. They would support legislation that would establish a cutoff date for post-pumping depletions that occurred prior to 1974, and emphasized that this is about the depletions that happened now from pumping that has occurred before 1974, not grandfather in wells. Stated that shortage in Bijou Reservoir in 2002 could have been covered if upstream well depletions had been replaced. He commented about the Water Court process and stated that 95 percent of the cases that were filed were filed informally without going to the judge, the vast majority of all cases filed in the Water Court get resolved quickly and not very expensively; only 1% of all cases went to trial.

Emily Hunt – Water Resources Administrator for the City of Thornton

They have acquired enough water rights to serve the current population of Thornton; all their acquisitions were purchased based on the prior appropriation system; if rules change and there isn't water in the river that should be there, they will need to go acquire water which is very expensive; they have a history of working well with farmers. The best solutions are worked out of compromise. Solutions: collectively get users to buy insurance policies; storage; infrastructures to help move water.

Don Fritzler - Lower South Platte Water Conservancy District

Has a farm in northeastern Colorado, he owns wells, has an augmentation plan and does not injure senior water rights below him. He is not willing to take water that does not belong to him and expects the same to be done to him; he owns surface rights and storage rights. Changing the priority system is taking water from those who own it and giving it to those who don't, it's taking property rights. He asked the Task Force to not change the priority system.

Larry Dirks – Water Resources Engineer for Denver Water (handout attached at the end of this document)

Denver Water began importing water to the South Platte Basin in 1936, it imported water through the Moffat Tunnel which was diverted in the Frazier collection system. In the 1960's, they added on the Blue River collection system, Dillon Reservoir and Roberts Tunnel which imported more water to the South Platte basin. They first began reusing water from effluent plants in the 1970's; the remainder of Denver's effluent stayed in the river and supported the river and masked the effects of the pumping that occurred downstream. They developed a recycling plant which allows recycling from the effluent stream of Metro sewer about 10,000 acre-feet of water per year. At full completion of the plan, Denver Water will be able to recycle 17,000 acre-feet per year. Denver Water also initiated a study to look at the reusable return flows from lawn irrigation throughout their surface area of 235 square miles. As more water is reused, the river will change below Denver, there will be less water available and the call will be more senior. He stated that the priority system should be maintained.

Robert Good – Landowner from Morgan County, owns three wells that were drilled in 1965

The South Platte River basin is sitting on a 13 million acre-foot renewable reservoir that needs to be utilized. The current system cannot manage anything, it just causes more tension between the affected people. The Task Force needs to come up with recommendations that will facilitate the conjunctive use and management of ground water and surface water of the South Platte River basin to maximize beneficial use of this valuable resource.

Larry Frame - Superintendent of the Julesburg Irrigation District

He reiterated that the doctrine of prior appropriation would be their choice. A lot of water exited the state this year. There were excess flows and it may not be the proper time and place to replace those depletions above them, but there should be a plan to capture the flows before it leaves the state.

Laurel Stadjuhar - Engineer with Bishop-Brogden Associates, represented South Adams County Water and Sanitation District and the City of Sterling (provided handout

<http://www.ag.state.co.us/commissioner/southplatte/SPR%20Task%20Force%20Presentation%20Sterling.pdf>)

Sterling fully augments well depletions; the structures include municipal wells, recharge ponds, wastewater recharge sites, direct flow augmentation rights, storage rights according to their decree; the rights are fully augmented. She discussed winter and summer calls and stated that there is enough free river in the winter so that District 64 wells can get enough augmentation with recharge in the winter. Aggregation is hard to predict in Districts 1 and 2 (i.e., what reservoir will be calling, what reservoir might spill, if all reservoirs might fill), it is much easier to predict aggregation in District 64 since there is only one reservoir. Little flow has left the state during the recent drought. Forgiving past post-pumping depletions or grandfathering wells continues to injure senior water rights. Solutions: increase the augmentation supply; recharge is most cost effective solution; storage; storage and recharge should be for the benefit of all users, not a select few; problem solves itself under the current priority system.

Mike Saylor – President of Bishop-Brogden Associates, water resources engineer, represented the South Adams County Water and Sanitation District (provided handout

<http://www.ag.state.co.us/commissioner/southplatte/SPR%20Task%20Force%20Presentation%20SACWSD.pdf>)

Involved in 64 plans for augmentation out of which 63 have Water Court decrees and are operating pursuant to decrees; have a system in place that has faults but it is a system that works and has worked in the 63 plans. There are three components in the 63 plans: (1) calculate the amount of depletion; (2) evaluate the water supply, the augmentation water and make sure what the yield of that water supply is; (3) look at comparing the augmentation supply to the

depletions and put terms and conditions into the decree to make sure that the augmentation supply will always be adequate to fully replace the depletions and prevent injury. South Adams County is essentially the water supply for the Commerce City area and supplies 10,000 acre-feet of water, has recharge rights from the 1970s and is developing several thousand acre-feet of gravel pit storage. He discussed the issue of historic calls, Districts 1 and 2 have on average had calls about half of the year and, during droughts, the call is year-round. He stated that six weeks is not enough time to soak in and refill the aquifer caused by well depletions. The Glover methodology is the most commonly used methodology, the Modflow is a data-intensive computer model and provides better results but requires more information; both are acceptable methods.

Dave Jankowski – Attorney with White & Jankowski (provided handout [http://www.ag.state.co.us/commissioner/southplatte/20070716%20Task%20Force%20Meeting%20Handouts%20\(00025970\).PDF](http://www.ag.state.co.us/commissioner/southplatte/20070716%20Task%20Force%20Meeting%20Handouts%20(00025970).PDF))

Referenced and discussed the South Platte River Compact and Delph Carpenter's report. The compact is important to District 64 water users. The compact would be self-regulated when water reaches the stateline. Wells are taking the seepage and the return flows, they come to the river underground, the wells intercept that water and prevent the water from reaching the stateline. He asked the Task Force to not take any action that would violate the promise made to the District 64 users when the Compact was written. The solution is a water supply issue and wells need to augment.

Don Chapman – Superintendent of Riverside Reservoir Company and Riverside Irrigation District

He believes it is important to not include the pre-1974 well pumping in depletion calculations because pumping that occurred generations ago occurred under the presumption that there was no long-term replacement obligation being incurred by that activity. It was later determined that there was a connection between the well use and the stream and pumping should be included in depletion calculations. His second proposal is in recognizing that their depletion and accretion calculations are less than perfect, and allow augmentation plans to carry forward a 30-day excess net affect into the next month to cover any augmentation plan depletions in the subsequent month. With respect to augmentation plan administration and operation, and the ability to aggregate wintertime replacement, the State Engineer's Office can make a reliable determination that reservoirs are likely to fill in the upcoming season. The final proposal would be that in the projecting of an augmentation plan during the upcoming year, the administrator of the plan looks at the supply and expected pumping early to communicate with members in March and April when they are making planting decisions what the allocated pumping is likely to be. Allow plans to use average diversions for replacement projections and then use actual

replacements as they occur and adjust or curtail pumping accordingly. This can offer some relief to some challenging augmentation plans.

Dave Miller – President of Natural Energy Resources Company (provided handouts

<http://www.ag.state.co.us/commissioner/southplatte/davemillerletter.pdf>;

<http://www.ag.state.co.us/commissioner/southplatte/articlesubmittedbydavemiller.pdf>;

<http://www.ag.state.co.us/commissioner/southplatte/davemillerwhitepaper.pdf>;

<http://www.ag.state.co.us/commissioner/southplatte/davemillerlettertomayorriviera.pdf>)

The Central Colorado Project is a new way of thinking about storage. Concept is to use two existing Federal reservoirs, the Blue Mesa and Taylor Park, and the new off-river reservoir, Union Park, all in the Upper Gunnison basin. None of this water has been developed. It's a federal water right that is available for upstream development. Capability of storing (using advanced pump-storage technology) and the gravity can move it to Colorado's five major river basins when and where it is needed. It is a whole new way of looking at storage, apply this water where the demands are the greatest; use the water to recharge aquifers. There is plenty of water in Colorado that is flowing to other states, giving our future away. The Task Force should change way they think about storage and way think about water. He has a new paradigm solution that has been ignored too long. The Task Force should take look at this project and use in-house people without spending any outside dollars; will prove that water at high altitudes has a much greater value than a traditional storage project. The total package is about \$4.5 billion and could come out of SWSI funds or Roundtable funds. Suggests study be funded to compare this project with Yampa pumpback, Flaming Gorge project, Big Straw and Gunnison pumpback.

Tom Cech – Manager of the Central Colorado Water Conservancy District in Greeley

Group involved with the well shut down last year and awaiting word from local district judge on the fate of the new group that they took to court this spring. He agrees with what Don Chapman from Riverside said and stated that it makes a lot of sense. The Task Force should look at engineering assumptions that are used in Water Court applications that are considered to be proven and accepted by the parties involved in terms of good public policy. Recommendations: need more water storage; dredging reservoirs, improvements to reservoirs, financial assistance from the State of Colorado; ground water recharge downstream of Greeley or downstream of Kersey on existing ditch systems; history is a good teacher, legal fairness doctrine (keep things as they are) using a 10 million acre-foot aquifer so that senior water rights are not injured and ground water pumping is maintained. Suggested that the Task Force assign someone to look into how much water is in the aquifer, how much is usable, how much is sustainable, and can it be utilized without injuring senior water rights.

Richard O'Connell – Executive Director of the Logan County Economic Development Corp.

Their need is for a predictable factor in this problem. Existing businesses, farmers and ranchers need to plan on an available water source and if they cannot predict it and plan on it, they delay their plans. Uncertainty is the enemy of economic development and he urged the Task Force to improve and increase predictability of water resources in Logan County and surrounding areas.

Harry Wickman - Harmony

Give the State Engineer more discretionary power. He referenced a case from the Supreme Court in the early 1900's, Hinderleider vs. La Plata and also a quote by Justice Hobbs regarding appropriation of the South Platte River. Asked if a Task Force is necessary to keep the system going or to discuss compensation for damage that has been done to the river over the years.

Roni Sylvester – Mother and wife and a person interested in keeping agriculture in Colorado

Requests include the following: do an audit of the South Platte River, it was requested a year ago and has not been done; the ESA in Nebraska on the North Platte has no play on the water problem in Colorado and requested that the Task Force not recognize the organizations and cottage industries that have cropped up to collect money for the ESA; there is an imbalance on landscaping requirements, need to determine how much acreage can be taken out of production because of water used for something else; she invited all 25 Task Force members for a field trip on her farm where they will have two engineers (Bob Longenbaugh and Chuck Leaf) who will discuss hands-on way of understanding how the river operates.

Chris Metherd – Farmer in the Wiggins area

His well was shut off. He agrees with Don Chapman and Tom Cech on how to come to some solutions so they can continue to farm. A group (Orphan Wells of Wiggins, formerly GASP wells) of about 30 farmers borrowed nearly \$1 million from CWCB to put the plan together and build an infrastructure; attorneys and engineers are getting rich on this; something that he bought and thought he owned was taken away from him.

Lance Kauffman – Well user in Morgan County

Diversion systems are all antiquated, the ditch systems can take a lot more water than they are, the diversion structures need to be reconstructed to fill sooner and take call off system. Need state or federal money to replace diversions and get canals fixed. Something needs to be done to get water back to the Front Range from the West Slope, and more states will take Colorado's water if nothing is done about it. Need more storage projects to capture excess water in wet years. Depletions cannot be replaced.

Don Jones – Lived in Fort Morgan since 1978, licensed real estate broker, farm manager and owner

Attended the meeting in Wiggins. Supports the doctrine of prior appropriation, but should not revert back to the way things were in the late 1800s and early 1900s, need to fix water system and make it better. Asked the Task Force to consider the following: streamline the Water Court system and allow the State Engineer's Office to manage the river; make the system more efficient; need the State Engineer's Office to keep records and hire more staff; tired of paying attorneys; put wells drilled prior to 1969 back into the priority system; consider forgiving past depletions for wells in existing or applied for augmentation plan, but only wells that are in an existing plan. The past cannot be changed. Where is the water going to come from to cover the past depletions? Find a system to go forward from here. Need to encourage development of additional storage, additional augmentation recharge sites, more finances to improve these projects including canals and reservoirs. Bring reservoirs back to capacity, they are silted in; off-stream storage and diversions need to be funded instead of on-stream reservoirs; need more augmentation projects.

Bob Longenbaugh – Provided new material to the Task Force (handouts)

There are many other causes that have reduced return flows to the South Platte and he discussed some of those. There are observation well data on irrigation wells and there are historical publications that provide that data. He stated when the records are looked at, that Mother Nature does not support depletions going out and hydrographs show that spring to spring measurements are almost identically the same for the wells along the South Platte. Mother Nature brings system back into equilibrium. Depletions impacts only 12-18 months and not years. They are higher in the fall due to deep percolation of water; measurements in the fall in pumped wells are higher than in the spring. Water levels in wells were the same except one area, depletions and drawdowns have reversed. Encouraged the Task Force to look at this because water tables do not support the depletions; phreatophytes consume water and brings Mother Nature to a balance every spring. Has a list of 12 items (p. 3) which he believes that are significant that reduced the return flows to the river, some are: phreatophyte growth has increased; lined gravel pits do not allow return flows to the river; increased on-farm irrigation efficiency resulted in increased consumptive use results in thousands of acre-feet of decreased return flows. Return flow concept is not status quo, it will change. Drought of 2002 brought a wake-up call. Need to use the aquifer, need to pump it down for more storage; need to manage the resource. The wells vs. surface water was the issue in 1960s; pump the water and put it back in the ditch. The system today is broken, wells cannot pump in their own priority. Need to look at the hydrographs within 1 ½ miles of the river. Never use a finite-difference model unless it is calibrated and verified. Don't get bogged down over methodologies, the overall objective is maximum utilization of all the citizens of Colorado. Need to manage the total

resource, from Denver to Julesburg. Offered to make bibliography of references. Offered to make presentations on depletion methods (e.g. Glover vs. Modflow).

John Akolt – Counsel for Farmers Reservoir and Irrigation Company (referred to handout provided by Manual Montoya)

The norm is going to trend back to the period of time before the 70s, 80's and 90s, and that means there is not enough water to meet the demands in the South Platte. Concerns with change of conditions on the river is reduced return flows, increased reuse of transmountain water puts more pressure for senior calls to come on. Senior water rights below them need their water before they can fill; they have a limited window to fill. Overall change of administration of wells; recognize the flexibility of the appropriation system; manage aquifers with augmentation plans. The system is not broke. In the event there is grandfathering of depletions, who bears the shortage? Not all water users are impacted the same. Some are willing to forgive them (e.g. Riverside) since they are senior and can keep call on to satisfy right. Should pursue voluntary agreements with downstream reservoirs.

John Meininger – Spoke on behalf of Senator Anderson

Senator Fred Anderson asked him to emphasize a particular point of the understanding of the statute and what the legislature did 40 years ago, basically to not interfere with the priority system. The focus amongst the Task Force should be that the statutory intention was evidenced by SB-407 which was enacted in '67 to generate the studies that was referred to by Bob Longenbaugh. The reports predict that strict priority administration will not achieve maximum beneficial use.

Next four meetings: July 27, August 13, August 27, September 6, in Denver at the State Capitol in Room 0112, 9:00 a.m. Additional testimony will not be taken at these meetings.

The public meeting adjourned at 5:30 p.m.

SOUTH PLATTE RIVER BASIN TASK FORCE
COMMENTS BY LARRY DIRKS, P.E., DENVER WATER

My comments focus briefly on Denver Water's use of effluent, its future water supply plans and the effects of these plans on flows in the South Platte River below Denver.

- Denver Water began importing water into the South Platte Basin in 1936. Imported water is not considered tributary to the South Platte River, and as a result, may be removed from the river and reused to extinction.
- Denver Water first began reusing water by exchanging reusable effluent to its upstream storage facilities in the 1970s. The remainder of reusable return flows from Denver's imported water have increased flows in the South Platte below Denver and have masked the effects of unreplaced depletions from the pumping of wells.
- Denver Water, like most other growing water suppliers, still needs additional water to serve the City of Denver and its contract distributors. To accomplish that goal, Denver Water is taking steps to enhance its ability to reuse the remainder of its previously unreused return flows through several projects.
 - Denver Water has constructed a water recycling plant at the outfall of the Metro WWTP to reuse 17,000 af.
 - Denver Water is in the process of constructing 30,000 af of gravel pit storage reservoirs that will allow Denver to capture and regulate previously unreused return flows.
 - Denver Water has initiated the process of quantifying several thousand acre-feet of reusable lawn irrigation return flows from its service area.
- Denver Water has contemplated that as these reusable supplies are developed, the call on the South Platte will become more senior and the lower river will have less water available for appropriation by junior water rights. Denver Water has also increased its need for gravel pit storage to address a more senior call.
- As reusable effluent in the South Platte River is reused, the effect of unreplaced well depletions will increase in magnitude for the following reasons:
 - Depletions from wells accrue to the river over many years. Well depletions that go unreplaced during periods of call by downstream senior vested and conditional water rights will extend the calling period for those senior vested and conditional rights. This longer call will decrease the yield of Denver's junior rights.
 - In the past Denver could rely on its unreused transmountain diversions to reduce the adverse impact of unreplaced well depletions. Due to an increasing customer base, more difficult permitting conditions, and more stringent river administration, Denver must protect the yield of its South Platte water rights. Consequently, Denver can no longer afford to overlook unreplaced well depletions.
- The priority system must be maintained and should not be violated for the purpose of relieving water users from bad decisions. Exceptions from the priority system for wells will lead down a slippery slope which will undermine the certainty of the priority system.
- Denver Water commends the well users who have already obtained valid plans for augmentation to protect the use of their wells. Likewise, Denver Water will support future plans for augmentation that are based on reliable, long-term replacement sources.