

# **SOUTH PLATTE RIVER BASIN TASK FORCE**

**July 27, 2007**

**State Capitol  
Room 0112, Denver, Colorado**

Attendance: Harold Griffith, Representative Frank McNulty, Representative Jack Pommer, Representative Mary Hodge, Rebecca Kourlis, Manual Montoya, Anne Castle, Arnie Good, John Stulp, Harris Sherman, Randy Knutson, Joe Kiobasa, Hal Simpson, Harold Evans, Jim Yahn, Senator Grep Brophy, Representative Kathleen Curry, Brad Stromberger, Steve Bruntz, Jim Lochhead, Dick Wolfe. Staff: Alex Davis, Jim Miller, Rebecca Swanson, Jenifer Gurr.

Commissioner John Stulp called the meeting to order and asked the task force members and staff to introduce themselves. Director Harris Sherman reviewed the agenda for the day.

## **Division Engineer Presentation**

### **[Glover/Modflow/SPDSS Information Administering a Call on the River](#)**

Jim Hall, Division Engineer for Division 1 gave a presentation to the task force. He discussed how a valid call is placed on the river, priority dates, a typical call, and a typical bypass call. He reviewed river flow graphs and current calls on the river.

Discussion was held with task force members on average flows, compact requirements vs. flows, and if Colorado is allowing more water than required by the compact agreements to flow out of state. It was noted that the 3-state agreement has imposed limits on usage after 1997, but wells may be exempted.

Jim Hall discussed call comparisons, how the calls have changed, and changes in administration over the last several years. He clarified the State Engineer's authority concerning substitute water supply plans, and reviewed the benefits and concerns of augmentation wells and different levels or impacts on depletion.

Jim Hall introduced three options to the current administration of the river:

- 1) Delayed Non-Irrigation Season Replacement;
- 2) Payment for reservoir impact (this was used in 2003, but water is preferred over money); and
- 3) Replace if necessary to fill senior reservoir rights.

Discussion was held with task force members on the options presented including statutory changes, and changing the rules for some users but not all of them. Jim Lochhead explained how a junior well would come into the system now following an adjudicated augmentation plan. Further discussion was held on replacements for 1950 depletions, augmentation only during a call, and pre-1974 post pumping depletions still owed to the river.

## **SB06-193 Underground Water Storage Study**

[Map of Alluvial Aquifer Subregions](#)

[Underground Storage Study – Exec. Summary](#)

[Underground Water Storage Presentation](#)

[Estimated Underground Storage Potential](#)

Andy Moore, Colorado Water Conservation Board (CWCB) and Dr. Gordon McCurry, Camp Dresser & McKee briefed the task force on the study conducted by the CWCB on underground storage area alternatives for surface storage in the Arkansas and South Platte River basins.

Andy Moore presented the background of the legislation and identified the sources of information used for the study. He discussed the Colorado Geological Survey (CGS) 2004 study and breaking that into four smaller regions and 44 subregions.

Dr. Gordon McCurry identified the South Platte River Basin Alluvial Aquifer Subregions and the 15 zones within the subregions. He discussed the hydrogeologic, environmental and implementation evaluation criteria, issues not considered, aspects of the study, method of scoring, and conclusions and recommendations. He stated that many potential areas exist for underground water storage in both basins, further investigation is warranted in areas where there is stakeholder interest and potential water supply.

Andy Moore talked about what's next including 2007 legislative resolutions; SR 07-007 Underground Water Banking Strategies, HJR 07-1017 and upcoming conferences on groundwater management policy. Other ongoing efforts include groundwater evaluations, looking at avenues for funding projects under the CWCB construction fund, severance tax funds, loans and WSRA. The full report on the SB06-193 study can be found on the CWCB website at [www.cwcb.state.co.us](http://www.cwcb.state.co.us).

Discussion was held with task force members on the timeframe to actually get water into the aquifer, how recharge would be accomplished, where the water would come from, and the immediate relief to well owners vs. long term storage.

### **Traditional Above-Ground Storage**

Dick Wolfe presented maps and graphs depicting the above ground storage framework.

[Approved Reservoir Storage – Div. 1](#)

[Conditional Water Rights for Storage – Div. 1 Map](#)

[Existing Dams with Storage – Div. 1 Map](#)

He summarized reservoir storage systems above 1000 acre feet. He reviewed approved storage for each dam, conditional water storage when water is available, and potential development. It was noted that development would be more expensive and time consumptive than some of the smaller recharge projects.

Discussion was held with the task force members on most senior and oldest conditional water rights, total capacity, silting and lost capacity, and reservoir dredging.

## **Analytic vs. Numeric Ground Water Models and South Platte Decision Support System (SPDSS)**

### **Glover/Modflow/SPDSS Information**

Ray Bennett, Division of Water Resources discussed the analytical ground water models noting that they simplify the ground water system and make assumptions. In the numeric models the aquifer is broken into cells with the ability to set different parameters for each cell. The distributed aquifer systems and depletion functions are the same as in the analytical model but data is assigned to each cell. The numeric model is more time intensive. Stream depletion numbers will be similar, but you will also get water levels.

Ray Bennett noted that the South Platte Decision Support System (SPDSS) is the third major decision support system that has been built. The SPDSS does not support the Republican, but does include the North Platte. He identified the major components of the SPDSS, and the data gathered including tabular data, spatial data, and irrigated acreage mapping. Mr. Bennett reviewed the components of the Consumptive Use, StateMod, and the Modflow models.

Discussion was held with the task force members on augmentation plan decrees, and the level of variability in the augmentation plans and the SPDSS.

### **Options for Consideration**

#### **Options for Discussion**

Alex Davis distributed a document categorizing the options for consideration that were gathered from the first two task force meetings and public comment.

Task force members held discussion on further information they would like to receive including a clear articulation of what the problem is and the number of wells that have been curtailed or shut-down; augmentation amounts; and quantification of the overall water supply issues. They also discussed the boundaries set forth in the Executive Order for the task force; non-injury to senior water rights holders; and keeping the general framework of the administrative and adjudicative sides of the problem in mind.

Dick Wolfe stated that the numbers are continually being refined. However, current numbers indicate there are 8,200 wells subject to administration with 5,800 of those wells under augmentation plans. Jim Hall discussed the spectrum of the 2,400 wells not in augmentation plans. He noted that some of these wells are unintended for pumping and staff is going well by well to see if there is a current plan. About 50% of the wells were curtailed or shut-off. Jim Hall stated that the profile has gone up dramatically because some of the augmentation plans that failed are wells people depended on and they have not been able to get plans adjudicated.

Discussion was held with task force members on the priority system, the need for 'real water' solutions, and the cost of augmentation water. They began discussion on the options for consideration.

The options identified for task force consideration have been put into three categories:

- 1) Suggestions for making water available for well augmentation or decreasing amount of augmentation water required to augment wells;
- 2) Suggestions for increasing overall supply of water in the South Platte River Basin; and

- 3) Suggestions for improving the system of water rights adjudication and administration. The task force agreed to start with discussion of the options in category 1.

**a) Pursue voluntary agreements with downstream reservoirs (e.g., “Gentlemen’s Agreement”).**

Points that were made during discussion include that these agreements alter return flows to the lower river; some agreements are in place; can it be accomplished without going to court; and impacts if the agreement does not work.

**b) Allow aggregated, deferred replacement of well depletions during the non-irrigation season – this depends on the ability of the State Engineer to make a reliable determination that reservoirs are likely to fill in the upcoming season.**

Points that were made during discussion include current litigation over the State Engineer’s authority; discretionary power; potential damage to senior water rights if the deferred plan does not work; what other states are doing; maximum beneficial use; and that delayed returns would still be subject to adjudication.

**c) Storage:**

**i) Construction of more recharge pits/ponds;**

**ii) Better use of alluvial aquifer storage (use of alternate points of diversion, recharge wells and augmentation wells);**

**iii) Financial assistance for storage projects and augmentation/recharge projects;**

**iv) Financial assistance for upgrading and reconstructing storage diversion structures and feeder canals to allow reservoirs to fill sooner and allow senior call to come off.**

Points that were made during discussion include financial assistance; better management of what is in place; banking systems for the aquifer; where the water will come from and if it can be relied on for a continuing basis; expansion of the statutes to include underground storage; the creation of a South Platte Water Conservation Board; short vs. long-term options; authority of State Engineer to administer; relying on water banking for pumping depletions and augmentation plans; inability to know when the water hits the river; crediting of water transferred from ag to municipal use; and use when the river is free.

**d) Amnesty on replacement obligations for depletions resulting from pre-1974 pumping (requires statutory change).**

Points that were made during discussion include that litigation has made an un-level playing field; the number of acre feet of depletions; forgiveness of the pre-1974 debt for all wells and the equality; and public policy decisions.

The next meeting of the South Platte River Basin Task Force is set for August 13, 2007 at 10:00 a.m. in Room 0112 of the State Capitol. The task force will receive presentations on improving water yield through forest thinning, a review of the Platte River Recovery Implementation Program, and continue with discussion on the “Options for Consideration” document.