DIVISION 5 WATER RESOURCES

2008 ANNUAL REPORT

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ANNUAL REPORT
WATER DIVISION 5
2008 IRRIGATION YEAR

Water Division 5 is the Colorado River main stem. The Division covers an area of approximately 9,930 square miles and is comprised of all tributaries to the Colorado River in the state of Colorado, excluding the Gunnison River Basin. The average annual precipitation in Water Division 5 varies from less than 9 inches in the Grand Valley to over 50 inches in a few remote areas of the Elk Mountains, Gore Range, and Northern Sawatch Range. The average annual natural flow of the Colorado River above Grand Junction is approximately 3.6M AF/YR. The two primary uses of this water for average year conditions are approximately 540,000AF/YR consumed for irrigation on 270,000 acres (note recent trends are well below these long-term averages), and approximately 560,000AF/YR of transmountain diversions to Eastern Colorado. Other major uses in order of consumption include evaporation, municipal and domestic, and stock watering. The greatest diversion of water is for hydroelectric power generation with an average year yield of 2.5M AF/YR.

The 2008 irrigation year continued a 25-year trend with the basin-wide reduction in irrigated acres. This trend is the result of continued urbanization of agricultural land. The peak of irrigated acres in Water Division 5 occurred in the mid-1970's. The 1980's began slightly off the peak with 360,000 acres irrigated, which declined to 295,000 acres by the end of the 1990's. For 2002 and 2003 dramatic drought-related declines occurred with only 250,000 and 254,000 acres irrigated. However, irrigated land temporarily taken out of production due to drought shortages appears to have been much less significant than irrigated acreage permanently taken out of production from 2001 through 2007 for conversion of agricultural lands to municipal land. For Irrigation Year 2008, there were 5,197,869AF of total diversions. Of that, 592,468AF went to storage and 1,775,491AF went to irrigation. For IY2008 the basin-wide minimum storage content was 846,334AF. This is a slight improvement over the IY2007 minimum of 815,625AF. For IY2008 the basin-wide maximum storage content was 1,308,666AF. This is virtually the same maximum storage as occurred in IY2007 at 1,300,133AF.

A few major reservoirs in Water Division 5, including Granby, Dillon, Green Mountain, Ruedi, Williams Fork, Wolford Mountain, Homestake, and Vega make up the bulk of this storage. The 2008 minimum storage for these reservoirs was 775,635AF, while the maximum storage was 1,188,476. The year ended on a positive note with storage at 969,365AF.

The irrigated acres for 2008 were reported as 237,745 acres, and the rate of irrigation for the Division averaged 7.47acre-feet per irrigated acre. Irrigation diversions were up in 2008 to 1,775,491AF from 1,689,927AF in 2007 due to reduced demands and reduced supplies.

I. 2008 WATER YEAR ACCOMPLISHMENTS AND EVENTS

- **RUNOFF CONDITIONS AND WATER ADMINISTRATION**

- **Runoff Conditions**

The 2008 irrigation year began with wet October and a very dry and warm November. However, reasonable snow accumulations in December resulted in a

slightly above average snow pack by January 1, 2008 at 105% of average basin wide. October through December produces on average 32% of the annual snow pack accumulation. It was the third consecutive year that January 1st snow pack was above normal. However, reservoir storage began the calendar year slightly below average and below last year on this date.

January and February 2008 precipitation were both well above average, with snow pack on March 1st at 128% of average for the entire basin, with the Roaring Fork sub-basin attaining the highest sub-basin average at 154% of normal. March 1st reservoir storage was a slight improvement over January 1st at 102% of average. With the tremendous snow pack and runoff projections varying from 102% of normal at Granby to 141% in the Roaring Fork reservoir operators began to make space for some flood mitigation.

Basin wide precipitation for March 2008 was 85% of normal with the Roaring Fork and Eagle River basins near normal and the western areas at 50% of normal. As a result the snow water equivalent dropped 5% to 123% of normal, and stream flow forecasts for April through July varied from a near normal 102% for the Lake Granby inflow to 148% of normal in the Roaring Fork. The 148% in the Roaring Fork is the highest reported on April 1st since 1968. The April 1, 2008 forecast for April through July runoff for the Colorado River at Cameo was 129% of normal Basin wide snow pack continued to increase considerably after April 1st and several SNOTEL sites in the Roaring Fork Basin had set new records for maximum snow water equivalent. With average precipitation for the months of April and May, only November 2007 was below average for the October 2007 through May 2008 period (See Appendix M).

On June 1, 2008 with less than half the snow water equivalent remaining the April through July runoff remained optimistic, varying from near normal at Granby Reservoir to 155% of normal on the Roaring Fork. The Colorado River at Dotsero and the Colorado River near Cameo were 125% and 127% respectively.

By the end of the storage season in early July 2008 all the major reservoirs in Water Division 5 had filled with the exception once again of Granby Reservoir (See Appendix K) Storage at Granby Reservoir peaked at 437,128AF, which is 106,678AF below the spillway and a fraction greater than the maximum storage in 2007.

With the Shoshone Power plant down for repair the entire winter, the 2007-2008 winter river flows were below average but continued to be propped up by releases through the Green Mountain power plant. The repair of the June 20, 2007 rupture of the Shoshone Power plant penstock was not completed until April 25, 2008. The lack of main stem calls throughout the year resulted in improved storage supplies.

- **Water Administration**

The 2008 Irrigation Year began on November 1, 2007 without a mainstem call. High flows and operational issues at Shoshone delayed a call from the power plant until October 6, 2008. The Shoshone call was effective a total of only 26 days during the 2008IY. Meanwhile, a Cameo call was never implemented during the 2008IY. See Appendix C for a summary of main stem calls.

The Green Mountain power call remained in effect from November 1, 2007 through April 23, 2008. The Green Mountain Reservoir start of fill was declared on April 24, 2008 with 61,581 acre-feet in storage. The target storage for average year runoff at start of fill is 65,000 acre-feet. Pursuant to the Blue River Decrees, the USBR on that date declared there would be surplus water available in the Blue River for the cities of Denver and Colorado Springs. Accounting

pursuant to the State Engineers Interim Policy for 2008 (See Appendix A) attained a paper fill on May 31, 2008. With a storage deficit of 9,165 acre-feet Green Mountain continued storing under the policy and on June 5, 2008 eliminated any need to provide a substitution for this deficit, and then on July 7th achieved a physical fill.

The Green Mountain Reservoir Power Plant was on line and operational the entire 2007-08 irrigation year. A call from the power plant was administered November 1, 2007 through April 23, 2008. With the declaration of start of fill the power call at Green Mountain was dropped for the storage call. After the storage season ended, the Blue River was free from a call between July 5, 2008 and August 17, 2008. From August 18, 2008 through the end of the irrigation season the power call was in place for all but three days.

The 15 Mile Reach is on the main stem of the Colorado River and extends from Palisade below the diversion dam for the Grand Valley Canal to the confluence with the Gunnison. This reach of river is critical to the survival of several species of endangered fish. They include the Colorado Pike Minnow, Humpback Chub, Bonytail Chub, and Razorback Sucker. The recovery program includes storage in Ruedi, Wolford Mountain, and Williams Fork Reservoirs, as well as surplus storage in Green Mountain Reservoir's HUP and savings from the Grand Valley Management Operations returned to the river by the Palisade Pipeline. With full storage in all these pools and relatively high summer flows without reservoir support, high target flows for the 15-mile reach was established. The dry year flow recommendation is 810cfs, the average year is 1240cfs, and the wet year is 1630cfs. The U S Fish and Wildlife Service set the target flows for the Colorado River at Palisade gage at 1630cfs for the period of August 13th through September 23rd. By September 24th the target flows were revised down to a target of 1500 cfs through September 30th. On October 1st the target was again decreased to 1150 cfs, but from October 6th through the 31st the target was set at 1400 cfs. The results of these operations can be seen in Appendix E.

Conservative releases at Green Mountain were made until August 27th when a surplus in the HUP was declared. At that time discretionary power releases were also made from the HUP to support flows in the Grand Valley. These releases continued through October 31st. Releases from the HUP totaled 61,433 acre-feet in 2008, with discretionary releases totaling 11,591 acre-feet. Going into the winter season, 4,567 acre-feet remained in the pool (See Appendix B).

Including the HUP releases previously noted, 115,106AF was released from the reservoirs for the benefit of these fish, after assessment of transit losses 103,845AF was delivered to the 15-Mile Reach for flow enhancement. The reservoir releases were supplemented with water from the Grand Valley Management Operations of the Palisade Pipeline. Total deliveries from the Palisade Pipeline totaled 12,000AF (See Appendix E) for details on the release and delivery schedule.

- **Shoshone Penstock Failure**

On June 20, 2007 one of two penstocks at the Shoshone Power Plant ruptured, inundating the facility with water, and tons of rock and debris. As previously noted the repair was not completed until April 25, 2008. However, operational issues with the power plant throughout the remainder of the year kept it off-line more often than it was operational. To mitigate a declaration the Orchard Mesa Check Case settlement inoperable, Green Mountain Reservoir made discretionary power releases and Denver Water began making releases at Williams Fork Reservoir to reach on elevation to allow repair and maintenance on the spillway, work initially planned for late fall.

- **Coordinated Reservoir Operations ("CROS")**

Coordinated Reservoir Operations (CROS) is under the Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River. The objective of the program is to coordinate operations of bypasses and releases from various reservoirs to enhance habitat in the 15-Mile reach of the Colorado River below the Grand Valley Irrigation Canal for the benefit of endangered fish species. The plan bypasses storable inflow to increase the maximum peak at the Colorado River near Palisade gage. Cooperators limit such bypasses to amounts that would spill in the current fill season after the Cameo gage peaks. Peak flows are considered essential to many life stages of the fish, and a key element to the recovery program. The minimum projected peak flow to trigger operation is 12,900cfs in the 15-Mile Reach, determined to be the minimum needed to provide habitat maintenance and enhancement, without exceeding flows above 25,600cfs at Palisade, considered to be a stage where flood damage begins to occur in the Grand Valley.

A committee of several governmental agencies and water user groups oversees the Coordinated Reservoir Operations. Division 5 staff serves on the committee along with representatives of the U S Fish and Wildlife Service , National Weather Service, Reclamation, Colorado River Water Conservation District, Denver Water, Grand Valley Water Users Association, City of Colorado Springs, Orchard Mesa Irrigation District, and Grand Valley Irrigation Company. Division 5 staff is charged with the responsibility to determine in consultation with Fish and Wildlife when it is appropriate to begin and end the releases, and to maintain accounting records of the operation.

For 2008, the 12th year of the program, planning was kicked-off on April 21st. Storage, snow pack, and run-off forecasts indicated that flooding may be a concern. Regular meetings were held however flooding remained a concern until June 4th. On that day CROS was implemented and releases were made for the following 5 days. The reservoir operators who made releases include Green Mountain Reservoir, releasing 2,100 AF between June 4 and June 9. Ruedi Reservoir released 4,838 AF from June 4 through June 13. Windy Gap and Willow Creek Reservoirs contributed water by not decreasing their releases as planned. Wolford Mountain and Williams Fork Reservoirs were both full and spilling in early June, thus enhancing the spring peak flows to benefit the fish. Homestake Reservoir was asked to withdraw due to the flooding potential on the Eagle River (**See Appendix D**).

- **Coordinated Facilities Operations ("CFOPS")**

CFOPS is Similar to CROS. The differences are CFOPS is not voluntary and considers re-operation that does not impact the long term yield of the reservoirs as opposed to the current storage season yield. The CFOPS program was not implemented in 2008.

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- **DAM SAFETY**

- **Inspections**

The total number of inspections performed in Division 5 in 2008 was 156. The breakdown of the inspections performed is as follows, include 93

Inspections performed by John G. Blair, Division 5 (Glenwood Springs) Dam Safety Engineer:

22	High hazard regular
17	Significant hazard regular
18	Low hazard regular
0	No public hazard regular
23	Follow-up
11	Construction
2	Outlet

44 Inspections performed by Garrett Jackson, Division 5 (Grand Junction) Dam Safety Engineer:

6	High hazard regular
5	Significant hazard regular
4	Low hazard regular
0	No public hazard regular
7	Follow-up
22	Construction
0	Outlet

The Dam Safety Engineer based in Steamboat Springs, John R Blair performed 16 inspections in the upper basin, as follows:

2	High hazard regular
7	Significant hazard regular
5	Low hazard regular
0	No public hazard regular
2	Follow-up
0	Construction
0	Outlet

A Division 2 dam safety engineer performed 1 high hazard regular inspection of a Colorado Springs-owned dam in District 36 and the Denver Water Department inspected its usual 2 dams in District 36 and 51.

The Glenwood Springs dam safety engineer also completed 11 hazard evaluations, 13 hydrology studies (which included a detailed QAQC of the new EPAT version), and several other technical evaluations.

- **Dam Safety Incidents and Restrictions**

1. **OLD DILLON** – an officially low hazard dam, but most likely a significant hazard dam located in District 36. This dam had a deteriorated service spillway and had pine-beetle killed trees on the dam that were at risk of causing severe damage to the embankment. A zero storage restriction was imposed, resulting in a lost volume of about 46 AF

2. **VALANA K** – a significant hazard dam in Water District 38. A zero storage restriction was imposed for an inadequate spillway and other issues. The total volume lost = 19 AF.

3. **LAZY O RESERVOIR #2** – a significant hazard dam in District 38. A zero storage restriction was imposed for upstream slope slide activity and illegal construction. Volume lost = 14 AF

4. **JONES #2** – A low hazard dam in District 53 was restricted to 10 feet below the spillway crest due to increased seepage. Volume lost = 260 AF.

- **Rehabilitations and Restrictions Lifted or avoided**

1. **TRAIL RIDGE MV 1 - 23 WATER IMPOUNDMENT** - an illegal dam constructed last year in District 39. The restriction was lifted because the spillway was lowered to a non-jurisdictional level making it not a public safety threat. The volume restored = 6.

2. **HOPKINS RESERVOIR DAM –** a significant hazard dam in District 38. The restriction placed on this dam was lifted because the dam was breached.

3. **CARPENTER RESERVOIR DAM** - a low hazard dam in District 72. The restriction placed on this dam was lifted because the dam was breached.

4. **WELSH RESERVOIR DAM –** a significant hazard dam in District 37. The dam was breached in preparation for rehabilitation to take place next year.

5. **PDC FRESH WATER IMPOUNDMENT DAM –** an illegal dam constructed last year in District 39. This dam was completely removed.

6. **7 W GUEST RANCH –** a low hazard dam in District 53. The spillway was enlarged and lowered to the restricted level, making the dam non-jurisdictional in size and not a public safety threat.

7. **SCHOLL RESERVOIR –** *a* significant hazard dam in District 51. The repair of several sinkholes was performed this year, and the restriction lifted. However, new sinkholes in the natural ground adjacent to the dam developed following its first fill in 2007 with more problems occurring this year. The owners are trying some new repair methods to stop or slow the seepage.

8. **HIMMELLAND RESERVOIR DAM -** a low hazard dam in District 38. The outlet was rehabilitated and the emergency spillway enlarged.

9. **NOTTINGHAM RESERVOIR DAM –** an officially low hazard dam, but most likely a significant hazard dam located in District 37. Improvements were made to the spillway to alleviate the erosion potential.

10. **MCELROY DAM –** a low hazard dam in District 50 that suffered an outlet failure in 2006 was finished in 2008. However some new seepage developed that warrants monitoring.

11. **RITSCHARD DAM** - a high hazard dam in District 50. A grouting project to repair voids found in the concrete around the steel outlet pipe was completed.

12. **CRAVEN DAM** - a low hazard dam in District 50. It was partially repaired and lowered to a non-jurisdictional size.

13. **BULL CREEK #4 –** a high hazard dam in District 72. A rehabilitation of the dam was partially performed.

- **Enlargements and New Dams**

1. **JERRY CREEK #1** - A high hazard dam in District 72. It is being enlarged to incorporate the reservoir of Jerry Creek #2. It was completed.

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GROUNDWATER AND WELL PERMITTING

Colorado's continued slowing economy could be seen during the year 2008 in regards to the total number of permit applications received and the total number of permits issued by the Division of Water Resources. However Division 5 staff kept busy in the areas of ground water and well permitting along with general research regarding water well ownership for real estate transactions and general well permitting issues.

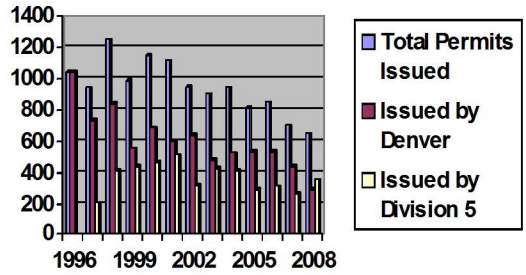
During calendar year 2008 a total of 647 permits were approved for Division 5 - a decrease of 8% from 2007. Additionally, ground water forms such as Change in Ownership and certain types of permits not reviewed by the Division office were preprocessed and forwarded to Denver for review.

A breakdown of permits processed includes:

Exempt permits	386
Non-exempt permits	261
Geothermal permits (excluded from total count)	0
Exempt replacements (included in exempt count)	46
Non-exempt replacements (included in exempt count)	8
Late registrations (included in exempt count)	15

With the decentralized well permitting process in place, a total of 352 permits (288 exempt and 67 non-exempt) or 54% were issued at the Division level. Also, certain types of non-exempt well permit applications, change in ownership applications and well location amendment requests are still preprocessed and forwarded to the Denver office.

The following graph demonstrates Water Division 5 well permitting activity 1996-2008:



The major water well related bill approved during the 2008 legislative session which affected Water Division 5 was House Bill 08-1014 (HB 08-1014). HB 08-1014 requires a transfer of ownership on certain types of wells for buyers of residential real estate transactions.

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• WELL INSPECTION PROGRAM

The Well Inspection Program was developed to monitor licensed well drillers throughout the state and address violations to the rules and standards set forth by the Board of Examiners for Water Well Construction. The program is funded through a portion of the fees for well permit applications.

In 2007 the Division 5 Well Inspector transferred to Division 1. With a decrease in applications this position was left open until permanent funding can be secured. Since then there have been no well inspections performed in Division 5 and all violations and complaints are handled through the Denver office.

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• HYDROGRAPHIC PROGRAM

• Hydrographic Staff

The lead hydrographer in Division 5 is James Kellogg, who also serves as augmentation plan coordinator. The augmentation plan coordinator/hydrographer is a PE 1 position. Craig Bruner is the Division's full-time hydrographer. This

position is currently at the EIT 2 level. Ultimately, this position will return to the PE 1 level.

Both hydrographers operate and maintain gaging stations, perform measurements, and develop streamflow records. Water Commissioners help with various satellite monitoring and gaging station maintenance duties. Hydrographers in Division 5 received USGS training in cable way inspection and in development of stage-discharge relationship ratings.

- **Gaging Stations Operated and Maintained**

Division 5 operated and maintained 39 satellite monitoring stations in Water Year 2008. Streamflow records were published for 14 of the stations. Thirty gages were used for water administration and to develop diversion records. Five stations measure transdistrict/transbasin diversions into District 45. Three of the stations are reservoir gages. In addition, there was active monitoring of many of the 99 satellite monitoring stations in Division 5 that are operated by other entities.

- **Streamflow Gages with Published Records**

In Water Year 2008, Division 5 published streamflow records for 14 of the gaging stations maintained by the hydrographic staff. The records encompassed a full 12-month period, except where otherwise noted.

Eight stations are on the Fryingpan-Arkansas Project. Four of the Fry-Ark stations (Fryingpan River near Ivanhoe Lake, South Fork of the Fryingpan River, Chapman Gulch, and Ivanhoe Creek) are minimum flow index stations to monitor bypass flow below diversions on the south side of the collection system. A gage on the Fryingpan River near Thomasville is the minimum flow index for the Fryingpan basin, which must be satisfied prior to transmountain diversions. One station on Rocky Fork Creek below Ruedi Dam is used in the determination of released amounts from Ruedi Reservoir. Division 5 cooperates with the National Weather Service to operate the seventh and eighth Fry-Ark stations, which are the Fryingpan River near Meredith and the North Fork of the Fryingpan River.

Division 5 is paid by the Aspen Consolidated Sanitation District to operate and maintain a gage on the Roaring Fork River below Maroon Creek. The gage is critical for discharge of effluent in compliance with the Sanitation District's permit.

Two gaging stations in Summit County, the Blue River at Highway 9 near Breckenridge and the Snake River at Keystone, are minimum flow indexes for the Colorado Water Conservation Board. The Snake River gage is operated the six month period from October 1 through March 31. Five cooperators provide funding for the Blue River gage. Vail Associates, Inc. pays for the Snake River gage.

Division 5 took over operation and maintenance of a gaging station on West Divide Creek near Raven prior to Water Year 2006. This gage is important for water administration in District 45. The gage is operated the six month period from April 1 through September 30.

A gage on the Crystal River at the DOW fish hatchery and a station on the Roaring Fork River above the Fryingpan River were installed in WY 2006. The Colorado Water Conservation Board is a cooperator at these sites. The gages are operated the six month period from April 1 through September 30. Cooperators must be obtained if CDWR is to continue operation and maintenance of these gages. This is especially the case for the gage on the Roaring Fork River because a cableway is needed to make high stage measurements.

- **Additional Key Gaging Stations**

Streamflows are measured and recorded on Snowmass Creek below the Snowmass Water & Sanitation District diversion to monitor compliance with the CWCB minimum requirements. Operation of the gage includes a series of measurements in October that are used by the CWCB to

determine the minimum flow required for the winter.

Gages were operated to measure and record flows on the Government Highline Canal, Grand Valley Canal, and Orchard Mesa power canal and develop diversion records. Additional emphasis was placed on discharge measurements at these stations to address problems with ratings and variable shifts.

Additional attention was given to gaging stations on the Colorado River below Granby Reservoir and Willow Creek below Willow Creek Reservoir. Discharge measurements were made to rate these stations.

- **Measurements Made**

In hydrographic Water Year 2008, Division 5 hydrographers made 123 discharge measurements at gaging stations with published streamflow records. Sixty-five of these measurements were at stations that are associated with the Fryingpan-Arkansas Project. An additional 58 measurements were made in canals, ditches, and streams to rate measuring structures/devices and assist with water administration. Five of these were to rate discharge flumes for reservoirs on Grand Mesa.

- **High Data Rate Satellite Upgrades**

Division 5 came to an agreement with the USBR regarding operation of seven gages on the Colorado-Big Thompson System and installation of high data rate satellite monitoring equipment. The CDWR installed high data-rate DCP/satellite transmitters at gages on the Colorado River below Granby Reservoir, the Colorado River near Granby, and Willow Creek below Willow Creek Reservoir.

After an agreement with the National Weather Service, the CDWR upgraded gages on the Fryingpan River near Meredith and the North Fork of the Fryingpan River with high data rate satellite monitoring equipment including air temperature probes.

CDWR installed new high data rate satellite monitoring equipment at ROABMCCO after the equipment was purchased by the Aspen Consolidated Sanitation District.

- **Gage Construction and Refurbishment**

Construction of an outside cantilever chain gage was completed at the gage on the Roaring Fork River above the Fryingpan River and at the gage on West Divide Creek near Raven. A wire weight gage was installed on the county road bridge at the gage on the Crystal River above the DOW fish hatchery. The cantilever gages and the wire weight gage were all calibrated during level runs.

Satellite monitoring equipment and power sources had to be replaced at the gage on the Fryingpan River near Meredith after vandalism of the gage occurred.

A new cable and traveler had to be fabricated and installed at the gage on the Government Highline Canal after the bank operated cableway was vandalized.

A SonTek Argonaut velocity meter was installed in the bottom of the canal at the ORCHIDCO gage. Better calibration of this device is needed in WY 2009.

Levels were run at all fourteen streamflow gaging stations. Reference marks were installed and improved at most of the gages. All reference points (RP's) were verified or corrected based on the level runs.

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• WATER RECORDS AND INFORMATION

Diversion records for 2008 ran very smoothly this past year. Although there were many anomalies, the data is qualified and reflects both what the commissioners observed and the user supplied data they received.

The variances for uses and amounts include:

1. Transmountain diversions from District 38 were high. The Roaring Fork River basin had a very good snowpack which allowed greater diversions to Division 2 through Boustead and Independence Tunnels to occur. (Although these diversions were above average, all transmountain diversions remained within their legal limits.)

2. Industrial use in District 72 was above average. This may be from a water user reporting flows that were not all beneficially used.

3. Recreation and fishery uses were above normal for Districts 36 and 53. District 36 may have suspicious data while District 53 has a new water right and diversion record data for the fish use.

4. Districts 38 and 45 were below normal for stock use. Perhaps those districts were too busy growing houses rather than stock!

5. The power use in District 36 was high while the power use in District 72 was low. Both Green Mountain and Dillon Reservoirs in District 36 had opportunities to run more water through their turbines than historically. In District 72, both the Redlands and the Orchard Mesa Power Canals generated less power than normal.

6. The "other" use in Districts 36 and 38 are attributed to aesthetic use; in District 50, "other" is used to denote wetlands mitigation.

A disclaimer should always be made: perhaps these types of diversions have occurred in the past. For irrigation year 2008, Division 5 has documented the uses and amounts particularly well (See Appendix L).

The number of acres irrigated previously was calculated using data input from the water commissioners when the diversion records were entered. Today this data is obtained by querying the latest version of the irrigated lands study for Division 5 from CDSS. Although the 2000 study was used for the 2008 irrigated acres, the 2005 study should be in place for next year's report. Both the 2000 and 2005 studies were verified by the water commissioners reviewing each District. By comparison of the two data sets (water commissioner observations vs. satellite imagery), the number of acres irrigated overall and per District are relative to each other.

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G. INFORMATION TECHNOLOGIES

PC Status – This year we were able to upgrade 14 machines, which included Diane McClaskey, John Blair, Judy Sappington, Melissa Dutton, Alan Comerer, Garrett Jackson, Jim Lemon, Bill Blakeslee, Eddie Rubin, Steve Trexel, Neal Misbach, Ron Greene, Tom Brigham, and Bill West. For future needs, I'm hoping to update Frank Schaffner's laptop. We have completed our laptops with the SafeGuard encryption which went rather smoothly. We now have two public machines, 3 water commissioner machines and one public machine in our Grand Junction satellite office. The new HP800PS plotter is working better now and provides good quality prints.

Name	PC Type	Type	GPS Make	Camera Make	PDA Make	Cell Phone
Alan Martellaro	Gateway M465-E	Laptop	None	None	None	Verizon
Brian Romig	Gateway M465-E	Laptop*	Garmin Map76S	Canon PowerShot SD750	None	None
Craig Bruner	Gateway Orion	Laptop*	12XL	OLYMPUS FE-210	None	AT&T
Diane Butler	Gateway E-6610	PC	12XL	None	None	None
Dwight Whitehead	Gateway E-4610	PC	None	None	None	None
James Kellogg	Gateway M465-E	Laptop*	Garmin Map76S	OLYMPUS FE-30	Hp Ipaq	AT&T
John Blair	Gateway E-475M	Laptop*	Garmin Map76S	Kodak EasyShare C340	None	None
Judy Sappington	Gateway E-4610	PC	None	None	None	None
Kyle Whitaker	Gateway M460	Laptop*	Garmin Map76S	Kodak EasyShare CX7430	None	None
Melissa Dutton	Gateway E-4620	PC	None	None	None	None
Steve Pope	Gateway M460	Laptop*	Garmin Map76S	Kodak EasyShare DX4900	HP Ipaq	Verizon
Water Commissioner 1	HP D325	PC				
Water Commissioner 2	HP D325	PC				
Water Commissioner 3	HP D325	PC				
Public Machine 1	HP D325	PC				
Public Machine 2	HP D325	PC				
Alan Comerer	Gateway E-6550	PC	Garmin Map76S	Kodak EasyShare DX3700	None	None
Garrett Jackson	Gateway Orion	Laptop*	Garmin Map76S	Canon PowerShot A720	Ipaq 4700	Verizon
Jim Lemon	Gateway E-475M	Laptop*	Garmin Map76S	Canon PowerShot SD750	None	Nextel
Scott Hummer	Gateway M465-E	Laptop*	12XL	Kodak EasyShare Z885	None	AT&T
WC Grand Junction 1	HP D325	PC				
Bill McEwen	Gateway E-4610	PC	Both	Kodak EasyShare DX4900	None	None
Bill Blakeslee	Gateway E-6550	PC	Garmin Map76S	Canon PowerShot SD750	N/A	AT&T
Brian Epstein	Gateway M465-E	Laptop*	Garmin Map76S	Canon PowerShot SD750	Ipaq 111	Verizon
Eddie Rubin	Gateway Orion	Laptop*	Garmin Map76S	Canon PowerShot SD750	None	AT&T
Bill West	Gateway E-4610	PC	Garmin Map76S	Canon PowerShot SD750	None	AT&T
Steve Trexel	Gateway E-4620	PC	12XL	Kodak EasyShare DX3700	None	AT&T
Bill Thompson	Gateway E-4610	PC	12XL	Kodak EasyShare DX3700	None	None
Neal Misbach	Gateway E-475M	Laptop*	Garmin Map76S	Canon PowerShot SD750	Dell Axim	Verizon
Frank Schaffner	Compaq nc8230	Laptop*	Garmin Map76S	Kodak EasyShare DX3700	None	None
Dave Berry	Gateway M465-E	Laptop*	12XL	None	None	Verizon
Ron Greene	Gateway E-6550	PC	12XL	Kodak EasyShare DX3700	None	None
Tom Brigham	Gateway E-6550	PC	12XL	Canon PowerShot SD750	None	Nextel
Tom Cox	Gateway E-4610	PC	Garmin Map76S	Kodak EasyShare DX3600	N/A	Nextel

Hardware/Software – We are still looking to improve our mapping analysis with the purchase of Spatial Analyst and possibly 3D Analyst. We have purchased eighteen licenses for Topo 4 Pro which will increase the efficiency use for water commissioners' field reports. All of our commissioners are now on high speed personal ISPs. The Admin Orders program will be revised to allow a more user friendly interface as well as provide faster entry tools. We also have a Consultation Database program and a Summit County Program that were developed this year. These programs will speed up the Summary of Consultations and also help us enforce the well permits in Summit County.

Training - Our training budget has mainly been spent on the CWOA conference in Denver. We continue to offer some small work training sessions during our pot luck or open staff meetings. We also had some IT staff in Glenwood for Irrigated Acres training in AquaMap.

Web Page – The Division 5 website continues to be a very useful tool. It has gone through a few changes this year, but overall it has the same feel to it. Contained within our website are phone numbers for all division employees, river calls, the organizational chart, frequently asked questions, news, important meetings and functions, calendar of events and photos of our Division 5 employees. See Appendix H.

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H. GIS PROJECTS

More GIS projects are in the works, including "booklets" for water commissioners that will contain all their streams with irrigated acres and structures in 3-ring binders. Updating our USGS quads, using GPS to locate all structures, map indexes and updating field inspection reports are all on the agenda. We are now converting 1960 NRCS maps into images and geo-rectifying them in order to determine dry up acres and historic acres.

Our goal is to re-do field boundaries and crop types for the Division. The plan is to have our water commissioners entering their irrigated acres into AquaMap. We hope to have all data digitally entered before the irrigation season begins in 2009. We are also hoping to print out a complete set of quad maps in the upcoming year.

We have 10,515 structures currently that we want to GPS. Of these, 2,662 or roughly 25% have been currently GPS located. Our commissioners are doing a great job of getting these structures located and GPS'ed. We also have received GIS parcel data from every county in our division. This data will be extremely beneficial for well enforcement, particularly in Summit County. This county data was given to IT in Denver to include in the Aquamap Program. GPS data continues to be very valuable to us, and we are striving to have a complete database of GPS locations for our major structures that are currently in use.

River Basin	Approx. # of Structures	Total GPS'ed	Total to GPS	%Complete
Upper Blue	665	197	468	29.6%
Lower Blue	111	21	90	18.9%
Eagle	1119	116	1003	10.4%
Upper Fork	1405	255	1150	18.1%
Lower Fork	1304	198	1106	15.2%
Elk /Rifle	901	61	840	6.8%
Beaver/Alkali	182	77	105	42.3%
Divide	414	101	313	24.4%
Battlement	209	148	61	70.8%
Muddy	286	98	188	34.3%
Williams Fork	215	60	155	27.9%
Fraser	912	246	666	27.0%
Piney	322	81	241	25.2%
Sweetwater	583	177	406	30.4%
Kremmling	42	2	40	4.8%
Roan	352	172	180	48.9%
Salt	514	273	241	53.1%
Cottonwood	111	49	62	44.1%
Big	419	184	235	43.9%
Mesa	162	47	115	29.0%
Colorado/GJ	287	99	188	34.5%
	10515	**2662**	**7853**	**25.32%**

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I. AUGMENTATION PLANS

- **Augmentation Plan Staff**

Division 5 has 2 Augmentation Plan Coordinators. Steve Pope is fulltime at a PSRS II level. James Kellogg holds the position of Augmentation Plan Coordinator / Hydrographer, which is at the PE 1 level.
In 2008 Augmentation Plan coordinators developed and populated a comprehensive database of augmentation plans and exchanges in all Water Districts in Division 5. This database was evaluated by the respective Water Commissioners to prioritize the administration of their districts augmentation plans. Several new accounting spreadsheets have been developed for individual augmentation plans and efforts continue to assist water commissioners throughout the Division in improving administration and accounting of these plans and exchanges.

- **Number of Augmentation Plans and Exchanges**

Currently there are 946 decreed and tabulated plans of augmentation and exchanges in Division 5. This is up from 906 in 2007. The distribution among the Water Districts is below:

District	Number of Plans and Exchanges
36	134
37	128
38	291
39	72
45	50
50	7
51	195
52	11
53	33
70	2
72	23

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J. SUBSTITUTE SUPPLY PLANS

There were 17 approvals for substitute water supply plans for 2008, 13 renewals and four new approvals. The renewals include Tiger Run, CB2 Well and Town of Frisco (D36); Basalt Water Conservancy District and West Divide Water Conservancy District-4 Mile (D38): West Divide Water Conservancy District-Area A, Encana, Una Gravel Pit and Glen's Pit (D39); DeBeque Gravel Pit (D45): Shorefox (D51) and #10 Enterprise and Latham Burkett Gravel Pit (D70). The four new plans are Town of Minturn (D37); Roll International (D38); Village Core (D51) and Chevron (D70). During 2008, there were six substitute water supply plans whose court applications were decreed – Town of Gypsum (D37); Bierne, Braun and Morningstar (D38); West Divide-Silt Mesa (D39) and West Divide-Alsbury Reservoir (D45).

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K SPECIAL PROJECTS AND ISSUES

- **Irrigated Acreage Project**

During the winter of 2008, Water Commissioners throughout the Division worked on a project to update irrigated acreage data using Aqua Map. Commissioners QAQC'ed the 2005 layer and corrected the layers for irrigated fields in their respective districts. This was completed in Districts 36, 37, 38, 39, 45, 50, 51, 52, 53, and 70. District 72 is in progress.

Additionally, the commissioners compiled aerial photographs from the 1950 which were digitized by the Denver office and are in the process of being geo-rectified. These projects will provide the division with updated irrigated acreage information in addition to digital historic data.

- **Green Mountain Reservoir Fill Committee and SEO Interim Fill Policy**

For the fill of Green Mountain Reservoir an SEO 2008 Interim Fill Policy was issued. The 2008 policy was identical to the 2007 policy accepting the effective dates. See Appendix A for a copy of the policy.

Green Mountain Reservoir ("Green Mountain") was constructed by Reclamation as part of the Colorado-Big Thompson Project as a compensatory reservoir for the West Slope to offset depletions caused by East Slope diversions. Green Mountain is located on the Blue River downstream from the City of Denver's Dillon Reservoir/-Roberts Tunnel and the City of Colorado Springs' Continental Hoosier Diversion. Green Mountain has a storage right and a power right that is senior to Denver's and Colorado Springs' transmountain diversions on the Blue River. The water rights are extremely important to both the West Slope and to the East Slope because of the location of Green Mountain and the impact of these water rights on many water users in the State of Colorado.

The years 2000-2005 produced below-average runoff in the Colorado River Basin and included the driest year on record. The drought, combined with increased demand from both the East and West Slopes, has made each administrative decision and interpretation of state and federal court decrees more critical. The drought years have focused the various opposing parties on the interaction of the Green Mountain storage and power right. The separate rights have equal priorities and how Reclamation "calls" for their water as either storage in the reservoir or to generate power can impact both upstream and downstream water users.

The central issue involves the determination of a reservoir paper fill. Is the Green Mountain storage right satisfied with upstream out-of-priority junior storage in Dillon and Upper Blue Reservoirs? Green Mountain has a1935 storage and power right, while upstream is the Continental Hoosier System with a 1948 right and Dillon Reservoir with a 1946 right. Both upstream junior rights are allowed to store and divert prior to the filling of Green Mountain to the extent that water is on hand for the lesser of replacing diversions or filling Green Mountain. The Blue River Decree was originally adjudicated in federal court and affirmed in state court prior to the upstream storage statute but operates in a similar manner. The issue arises when a call downstream of Green Mountain causes administration of these rights.

The SEO interim Green Mountain Fill Policy is the expected method by the parties to the Blue River Decree, and the United States Bureau of Reclamation has developed an accounting procedure to implement the policy. The accounting has been modified as necessary to accommodate changes in the past to the policy. However, for 2008 no changes were necessary.

- **Green Mountain HUP Limits and the 1977- 1984 "Slot Group"**

As with other basin wide negotiations in the Division, resolution of the Slot Group continues on hold, as many East and West Slope water users in the basin work on the "Global Settlement." Recent discussion of a joint use reservoir for both East and West Slope users has considered providing a pool for the Slot Group. A recap of where the project rest is as follows. After considerable effort in 2005 by the Division to refine the list of potential water users and associated volume of water, in 2006 said refinement was concluded. A final list of these users rests on the upper limit of the pre-1977 preferred beneficiaries of the Green Mountain Historic Users Pool ("HUP"). By defining this upper limit, those that fit in the "slot" perfected between 1977 and 1984 can be determined. A draft policy has been offered and is supported by the majority of the beneficiaries of the pre-'77 users and the slot group. A major hurdle to resolution comes from water users with very large demands within the parameters of the slot group. Another hurdle is the large number of conditional rights that pre-date 1977 whose holders are not inclined to give up their perceived status as beneficiaries of

Green Mountain. Pending resolution, the Board of the Colorado River Water Conservation District continues to offer 200AF in Wolford Mountain Reservoir to prevent curtailment of the smaller users in this group.

- **Summit County Well Enforcement**

Efforts continued to field inspect the more than 2000 wells in Summit County that may not be in compliance with their well permits and/or conditions of their decree. In late August of 2008 Division 5 staff gathered in District 36 to re-inspect 167 wells that were found to be out of compliance from the previous year plus an additional 300-500 individual residential wells. To date the Division 5 staff has inspected 991 wells in total and currently have 150 wells that have yet to come into compliance.

In addition to tagging the well in the field the Division 5 staff has worked with the Attorney General's office to develop a protocol for follow up enforcement including injunctive relief. This has created a significant workload as a result of mailing the violations via a certified mail and addressing all of the follow up correspondence and telephone calls.

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L. WATER COURT

- **Water Court Statistics**

The number of new applications continues to decrease in Division 5 but, as competition for water supplies increase, applications become more complex; thus, litigation continues to dominate the workload of the Division's personnel. A total of 235 applications and amended applications were filed in Division 5 Water Court during the calendar year 2008 with 29 amended, 182 new applications, and a total of 24 applications filed for the White River to be administered by Division 6. Division 5 litigated 211 total applications, where 182 were new and 29 were amended. In 2008 Division 5 litigated 286 total applications, where 238 were new and 48 were amended. The State and Division Engineers formally objected in 12 cases and filed 12 Motions to Intervene. These statistics do not reflect the many conditional rights cancelled for lack of diligence under the original case number or changes in water rights. (See Appendix G)

- **Supreme Court Water Court Committee**

Chief Justice Mary Mullarkey established a Water Court Committee of the Colorado Supreme Court by order dated December 4, 2007, and requested its report by August 1, 2008. The committee's principal charge was to review the water court process and identify possible ways through rule and/or statutory changes to achieve efficiencies in water court cases while still protecting the quality of outcomes, and to ensure the highest level of competence in water court case participants. Under the Chief Justice's order, the committee could not alter or impair existing water use rights of any public agency or private person. The committee was lead by Justice Hobbs, and includes Justice Bender, a sitting and a retired water court judge, a water court referee, the State Engineer, the Division Engineer for Division 2, representatives of the AGO, CWCB, and EDO. Others on the committee are water attorneys, engineers, and water users. The Water Court Committee's report to the Chief Justice contained ten principal recommendations for timely, fair and effective water court proceedings.

Among the results of this process is the removal of the White River from the Water Division 5 Water Court and into Division 6. This was accomplished by statutory change.

A recommendation regarding filing and service involved both a rule change and a statutory change, allowing mail filings to no longer be filed in quadruplicate, and requiring summaries of consultation to be directly served by the Division Engineer.

The biggest change was to proceedings before the Water Referee. The goal is to compress the amount of time an application takes to reach a decree of the court. Applicants will be required to provide proposed rulings of the referee in unopposed cases within 60 days after the close of the statement of opposition period. In opposed cases, a status conference within this 60 day period will be held and case management plan will be implemented to reach a decree with 12 months. Otherwise, the case will be immediately re-referred to the Water Judge during this initial status conference.

The remaining recommendations that were implemented merely required rule changes. Details of these changes can be found at the Supreme Courts web site, or in articles written for the Colorado Lawyer and other Journals.

- **The following Water Court cases or issues are of special note:**

1. ***City of Golden v. Hal Simpson, State Engineer, and Alan Martellaro, Division Engineer for Division 5 (Dismissed).***

The case is detailed in the 2004 Annual Report; in summary, it is a complaint by the City of Golden against the Division Engineer regarding the administration of its rights at Vidler Tunnel. After advancing numerous ever changing arguments between July 28th and August 13th of 2003, Golden filed a complaint on August 13, 2003 for 5.2AF due to the State's senior first policy. The State's response noted that the Plaintiff had no claim of injury for even the Plaintiff admitted to diverting the 5.2AF. Even though Golden admitted it was not injured, they asked the Court to rule on all its other arguments,

After years of litigation, mediation, and attempts to resolve the case, Judge Petre dismissed the case with prejudice. Though we did not recover costs, the result is a clear victory for the Division of Water Resources.

2. Town of Minturn 05CW262 (pending).

The application includes a change of water rights to move wells to upstream locations within 100 feet of the stream and in the alluvium, and to move the Minturn Town Ditch. Several water users filed statements of opposition, including the Upper Eagle Regional Water Authority, Eagle River Water and Sanitation District, and Vail Associates. Initially, the State was not a formal party to the case and filed a summary of consultation. Ultimately, we filed a motion to intervene. The case is highly visible due the to the potential annexation of the Ginn Project, which will not only triple the size of the town, but also add several golf courses and snowmaking to the system.

At issue is whether the changes in points of diversion by a municipality require a historic use analysis, and limits on future diversions based on that analysis, or if a showing that future annexation was contemplated at the time of appropriation makes the historic use analysis unnecessary.

3. Upper Eagle Regional Water Authority, 02CW403 Miller Ranch (pending), and 03CW078 Village at Avon (appealed 2006, Supreme Court decision 2007, and invoked retained jurisdiction 2007), 98CW205 Eagle Park and 98CW270 Homestake (invoke retained jurisdiction 2007), and 06CW097Flattops (pending).

The cases continued in 2008 without resolution, and the text from the 2007 report is repeated below. One change did occur, when the Authority dropped is Flattops water from its portfolio, and is now working to incorporate Wolford Mountain water into pending plans that used Flattops water without an amended application.

The primary theme in all of these Upper Eagle Regional Water Authority cases involves a table of monthly depletion factors. The table was approved by the Court in 03CW078, which the Supreme Court confirmed, apparently because the case only involved 10.4AF of the 4000AF in the Authorities portfolio of water rights. In 02CW376, we were successful in removing the table. The table first appeared as a result of a stipulation with the Public Service Company in 98CW205, and in 98CW270 it was included in the Authority's engineering report but was not mentioned in the decree. Though decreed reference to the table

states the table does not modify the nine decrees it claims to represent, but is merely a summation of those decrees, the Authority believes the table is controlling and that it is "stuck" with it. The Authority claims it must also use the table for all of the plans approved before and after the Authority formed in 1984.

The Authority did assess actual depletions in 1994 and again in 2005 but not only did they fail to produce the results, they attempted to conceal that the later assessment had occurred. Therefore, the Court has not been presented with evidence of its actual ongoing depletions for comparison to the monthly depletion rates in the disputed table, and the accuracy or lack of accuracy has never been demonstrated to the Water Court. DWR subpoenaed the Authority's customer water meter data for all of the relevant service areas for 2001 through 2005. Using a methodology similar to the Authority's, Division 5 then completed a comparison of the winter in-building water demands with the summer in-building and irrigation water demands to obtain a reasonable estimate of the Authority's summer irrigation water demand for each year for each service area. Both Division 5 and the Water Authority assessments have similar results. The table is not accurate, and underestimates the Authority's true replacement obligations.

Because use of the table results in injury, we invoked the retained jurisdiction of 03CW078, 98CW270 and 98CW270, and continue to seek to consolidate these actions with the pending cases in 02CW403, and 06CW97, because of the common factual and legal issues. The court has yet to rule on this motion.

We continue to be willing to settle the controversy with use of a table of depletion factors similar to the disputed table, where the depletion factors are the result of assessment of actual depletions completed every 5 or 10 years. Unfortunately, the Authority has been unwilling to agree to such periodic assessments. It appears the Authority is concerned that irrigation use has greatly exceeded their past expectations and is likely to increase their replacement obligations going forward.

4. Upper Eagle Regional Water Authority, 04CW236,Cordillera (pending).

The application seeks to make absolute a junior water right, where a considerable amount of water with senior rights is already absolute at the same locations. The "senior's first" rule when previously at issue was settled through stipulation. This case may ultimately be settled by stipulation, but such cases will continue to be opposed until we have direction from the court.

5. Eagle River Water and Sanitation District, 05CW105, known as, the Ford and Donovan Parks case (pending).

Similar to the Minturn case, it involves the change of a municipal water right to a new point of diversion. The District and Town of Vail currently divert raw water for these two parks, and propose to change both absolute and conditional rights to these two new points of diversion. The parks were formerly irrigated with treated water and accounted under the Districts augmentation plan. The change of the absolute right involves, like Minturn, the standards of historic use. The change of the conditional right, invokes the Great and Growing Cities Doctrine and the limits on that doctrine implemented by *Pagosa Area Water and Sanitation District v. Trout Unlimited*.

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M. TABULATION

Division 5 continues to receive 300-350 new decrees each year that need to be incorporated into the tabulation. With the help of water commissioners, Division 5 is currently up to date with tabulating new decrees each year. The backlog of decrees that had not been incorporated into the tabulation has been eliminated in 10 of the

11 Districts. There remains a small backlog in District 36 due to the complexity of the decrees. Due to the tabulation backlog being eliminated in the past few years, Division 5 was able to take on a number of projects to clean up the water rights, structure information and contact information in the *Hydrobase* database.

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N. ABANDONMENT LISTS

2001 Revised Abandonment List – Case No. 01CW337

There were 158 water rights placed on the Revised Abandonment List that was published in the December resume in 2001. Protests to the revised abandonment list were to be filed by June 30, 2002. There were 28 protests filed with the court during 2002 that protested the inclusion of 40 water rights on the Revised Abandonment List. In May 2005, Judge Craven granted Pitkin Exchange Holdings a Motion to Intervene in Case 01CW337 in order to protest the inclusion of one additional water right on the Revised Abandonment List. In June 2007, Grand Creek Ranch and John and Sharna Coors filed a Petition for Leave to File Untimely Protest of Abandonment regarding the Bohm Ditch's inclusion in the Revised Abandonment List. The court allowed the untimely protest and removed the water right from the abandonment list and ordered the abandonment of the water right be dealt with in Case No. 07CW215. Stipulations were entered into in all 29 of the protests and a final decree in Case No. 01CW337 (the mother case) was entered by the water court on June 6, 2008.

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O. PERSONNEL AND BUDGET ISSUES

- **Personnel**

Retirements and filling of positions with internal promotions continue the vacancy trend in Water Division 5 that has become the norm for several years. The turnover of employees in 2008 slowed down from previous years and allowed Division 5 to be fully staffed for the first time in almost a decade.

The promotion of Steve Pope to the Augmentation Plan Coordinator position in March 2007, created a vacancy in his previous position as the District 72 Lead Water Commissioner. The District 72 Lead Water Commissioner position was filled with Scott Hummer in May 2007. Due to personal reasons, Scott asked to be placed back in his previous position as the District 36 Water Commissioner. The District 72 position remained vacant for the remainder of 2007 until it was filled with Jim Lemon in March 2008. Jim was looking for a new challenge after working in District 39 and 45 for the better part of 30 years.

The promotion of Jim Lemon to the District 72 Lead Water Commissioner position left a big hole in Districts 39 and 45. That hole was made larger with the retirement of Mike Mello in the spring of 2008. With the departure of both Jim Lemon and Mike Mello from Districts 39 and 45, Division 5 took the opportunity to evaluate the duties in both districts and align our resources with the current demands of the districts. Bill West and Eddie Rubin were hired to fill the District 45 and District 39 positions in August of 2008 and for a brief period, Division 5 was fully staffed.

- **Impact of the Budgets on Operations**

Division 5 Operating Budget, Including Mileage

Division 5 continues to spend approximately 70 - 80% of primary and secondary operating budgets on mileage. The

spending on mileage is currently about 70% fleet charges and 30% private vehicle reimbursement. The last two years we have seen a shift from about a 50/50 split to the current 70/30 split due to the increase in number of fleet vehicles due to hold-over and temporary assignments. This shift towards fleet mileage charges has helped Division 5 offset the increased reimbursement rates for private vehicle mileage. This trend will more than likely reverse in the next couple of years as the number of replacement vehicles will decrease as the Division 5 fleet becomes newer.

Overtime Budget,

The Division 5 overtime budget was slightly under spent in 2008, largely due to an adequate snowpack and water supply and a continuing trend of agricultural water users no longer making a living with agriculture. Agriculture water users also do not place the same demands on the water commissioner as the water use is not as critical, or it has become more critical and they have built infrastructure to buffer stream fluctuations. However, field staff is experiencing new demands to oversee augmentation plan administration that will require overtime.

Division 5 Personnel Budget

Division 5 was successful in obtaining 10 additional man-months starting in FY07-08. The man-months were obtained to increase staffing in both the field and the Glenwood Springs office. Five man-months were added to the Administrative Assistant II position in the Glenwood Springs office to make that position a full time position to help out with increased administrative and general office workload. One man-month was added to the District 37 Water Commissioner position to make it a full time position and four man-months were added to the District 52/53 Water Commissioner position (see Appendix H)

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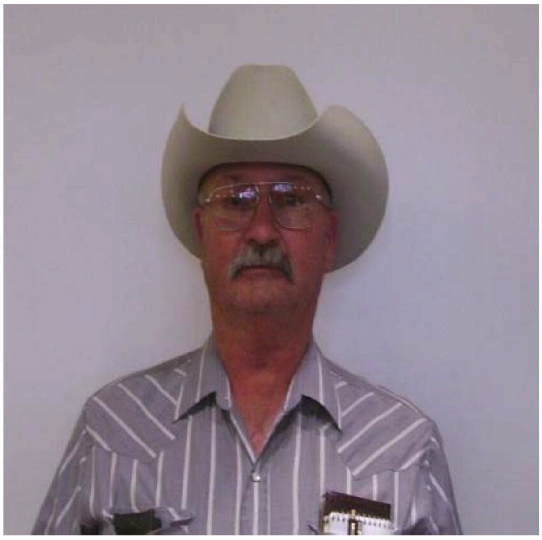
P. PERSONNEL AWARDS

- **Jim Lemon, Division 5 Water Commissioner of the Year**



Jim Lemon is the lead Water Commisioner in Water District 72. His duties are primarily the administration and supervision of four deputy Water Commissioners in Plateau Creek drainage, and the administration of the Grand Valley. Jim had many years of experience and excellent service as Water Commissioner in Water District 39 prior to his work in District 72. His skill in the administration of over-appropriated streams was and remains obvious. He has taken on with tremendous success the new challenge of managing and supervising some independent employees, while satisfying some of Division 5's toughest water users. Through some reorganization and acquisition of previously unfound co-operation the District operates much more efficiently and his deputies are in position to succeed. This has all been accomplished in a relatively short one season of water administration. The Water Users of Division 5 will benefit from this effort for many years to come.

- **Brian Epstein, Division 5 Tarnished Shovel Award**

The Tarnished Shovel is a traveling award. A shovel found near the dam of Clinton Gulch Reservoir, rusted and corroded by exposure and acidic mine waste, has come to represent a shovel worn from excessive use to recognize the efforts of an individual digging up previously unknown information, or outstanding effort in normal everyday duties. Brian Epstein in a few seasons has raised the bar for what can be accomplished by a Water Commissioner. The Division continues to hire new staff with greater technical skills. Brian not only has technical skills related to our digital age and a strong background in hydrology and hydraulics, but was able to integrate that knowledge and skill into everyday use for the administration of a water district with more work to be done and places to be than possible without innovation.

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II. 2009 WATER YEAR

Above Average Runoff Expected for the Spring of 2009

Impressive storms in December 2008 overcame a relatively dry October and November, leaving January 1st snow pack measurements well above normal at a basin-wide 127%. It was the fourth consecutive year that January 1st snow pack was above normal. However, as of January 1st runoff forecasts were much less impressive, ranging from 92% on Muddy Creek to 110% on the Colorado at Cameo. The exception was the Roaring Fork River where the forecast was 116% of normal.

January 2008 precipitation was slightly above average, while February precipitation was much below average. By March 1st basin wide snowpack varied from a low of 95% on Plateau Creek to a high of 123% on the Roaring Fork. The basin-wide average was 115%. The runoff for the Colorado River at Cameo was 112%.

April 2009 precipitation continued the March trend at well below average. Runoff forecasts continue to decline yet generally remain slightly above average, ranging from 98% to 105% of normal. See Appendix M.

Though the 90-day weather forecast (May-July) is calling for near to below average precipitation, and above average temperatures, all reservoirs are expected to physically fill with the exception of Granby Reservoir for 2009. The paper fill accounting for Green Mountain will be kept but should not have an administrative consequence as the physical fill should occur prior to a main stem river call, and thus 2009 is not expected to be a substitution year.

A. BASE OBJECTIVES

The everyday operations of Division 5 Water Resources will continue to include:

- Administration of water rights and augmentation plans
- Collecting and recording diversion data
- Collecting data regarding irrigated acres, structure locations, and augmentation plan compliance
- Maintenance of gaging stations and satellite monitoring equipment
- Other hydrographic duties including rating of administrative measuring devices
- Tabulating water rights
- Permitting wells
- Performing well inspections
- Inspecting dams and reservoirs
- Reviewing water rights applications and litigating cases to ensure statutory compliance and no injury in changes of water rights
- Informing the public
- Attending Water Conservancy District meetings and other water user meetings
- Contacting water users

B. GOALS FOR 2009

1. Survive Budget Crisis
2. Improve litigation tracking process
3. Include the ADE and PEII in Consultation with Water Court
4. GPS all structures we visit that have yet to be GPS'ed

5. Summit County well enforcement—inspect a similar number of wells as done in 2007, issue orders where appropriate, and follow-up
6. Improved augmentation plan enforcement
7. Support Inter-basin Compact Committees (IBCC) roundtable
8. Issue 2009 Interim or final policy for the administration of the Blue River Decrees
9. Continue purging closed court case files

C. SPECIAL PROJECTS AND WORK ITEMS FOR 2009

• Paperless Water Court Case Filing

In 2007 Division 5 began planning and preparation to reduce the paper generated in our office by eliminating paper copies of digital documents. This includes all documents on LexisNexis, Water Commissioner field inspections, emails, and any email attachment for a water court application, including engineering reports, maps, and correspondence.

The plan was implemented on January 1, 2008. In 2008 a paper file was maintained to accommodate anything not e-filed with the court. Beginning in 2009, no paper files will be established. All paper documents and notes will be scanned and digitally saved. Off-site meetings require making a paper copy for such events. These paper files will be destroyed upon final decree.

• Williams Fork Outlet Repair

Denver Water plans major repair work beginning in the Fall of 2009 through 2010 to the outlet works at Williams Fork Reservoir. When below the spillway, this work will limit releases to 125cfs, leaving Denver Water at risk of making releases from Dillon Reservoir to satisfy the fill of Green Mountain Reservoir should 2010 be a substitution year. With constraints on use of Wolford Mountain Reservoir water and a limited ability to release water from Williams Fork, a substitution obligation might necessitate large direct releases from Dillon Reservoir to Green Mountain Reservoir.

During the summer of 2009, Denver Water, Division 5, the Bureau of Reclamation, and the Colorado River Water Conservation District will work on an agreement to allow temporary Williams Fork storage in Green Mountain by exchange. The agreement should be modeled after one that allowed Green Mountain Reservoir to accomplish its ring seal work in 2000, 2003, and 2006. The temporary storage will reduce any substitution required by Williams Fork to satisfy Green Mountains 2010 fill, by making Williams Fork releases prior to the 2010 fill season for Green Mountain beneficiaries.

• Green Mountain Fill Committee

Resolution of accounting of the senior storage right and the power right at Green Mountain Reservoir continues to be the most significant issue in Water Division 5. The strategy for moving forward continues to rely on collaboration through the Green Mountain Fill Committee meetings and, until final resolution, the State and Division Engineers will exercise their administration authority in the fill accounting of Green Mountain and Dillon Reservoirs through an Interim Policy for fill accounting of Green Mountain and Dillon Reservoirs that will expire before the beginning of the next fill season. Once again, considerable runoff is expected, and 2009 should not be a substitution year; therefore, the adoption of a 2009 fill policy will have no practical impact on the fill of Green Mountain and Dillon Reservoir, or on any junior rights in the basin. However, a policy will be issued in May and will likely have no modifications from the previous year, with the exception of the effective dates.

The fill committee has not met since 2006, and no meetings are scheduled as of this writing. Many entities impacted by the Green Mountain Fill accounting continue to work on settlement of a number of mostly east-west slope issues, commonly referred to as the Global settlement. Though the Bureau of Reclamation and Division of Water Resources are not involved in the Global settlement, Blue River issues are among issues considered. This process and consecutive good water years have put final resolution of the Green Mountain fill accounting on hold.

- **Hydrographic Program**

The Hydrographic Program in Division 5 was fully staffed for the entire 2008 irrigation year. The staff consists of a full-time hydrographer and a half-time hydrographer who also serves a half-time augmentation plan coordinator. For 2009, the program should continue to be fully staffed.

Discussions continue with potential cooperators to expand the operation of the stations on the Crystal River above the Division of Wildlife fish hatchery and the Roaring Fork River above the Fryingpan River from seasonal administration-only stations to seasonal (i.e., no winter estimating) published record stations. New cooperators have promised to contribute to the annual O&M for the stations. Currently, the estimated additional O&M will be $3700 per gage.

Division 5 will continue replacement of Data Collection Platforms, upgrading them to the standard High Data Rate DCP's.

- **Summit County Well Enforcement**

There are an estimated 1500+ wells in Summit County that are not in compliance with their well permits and/or the conditions of their decree. Of these, 1200 are estimated to be exempt household use only wells, while nearly 300 are augmented household use only wells, and a few are wells that are augmented for uses other than household use only. Through the Summit County and Vidler Water Company Umbrella Plans, contracting and review procedures are in place. With the budget crisis limiting operating, particularly travel, progress in 2009 will be limited to follow-up on previously issued orders.

- **Colorado River Basin Roundtable**

The Division of Water Resources serves as technical support of the HB1177 roundtables. Through the Inter-Basin Compact Committee (IBCC) and the 9 basin roundtables HB1177 seeks collaboration and solution to state-wide issues and particularly to inter-basin transfers of water. The Colorado River Basin Roundtable holds meetings the fourth Monday of every month. The Division Engineer continues to support the Colorado River Basin Roundtable through input at monthly meetings.

- **GPS Diversion Structures**

Division 5 has 19,640 total structures. Of these, nearly 9,125 are exempt wells, small springs or other insignificant structures for domestic, stock or wildlife uses, leaving a goal of 10,515 significant structures which we intend to acquire GPS locations. Through 2008 25.3% of our significant structures have been GPS'ed. We plan to acquire locations for 10% of our active significant structures each year

D. PERSONNEL, BUDGET AND OPERATIONS

- **Personnel**

With the exception of a Well Inspector position that is not funded at this time, Division 5 was fully staffed at the end of 2008 for the first time in almost 10 years. Unfortunately, it appears that it won't last for long. Division 5 expects to see a couple of

retirements during 2009 and with the economic uncertainty and the potential budget impacts, the possibility of remaining fully staffed or timely filling vacancies appears unlikely. The retirements will most likely affect field positions and will likely require the re-allocation of resources and repositioning of staff to cover the duties of vacant positions.

- **Budgets**

Division 5 Operating Budget

Division 5 spent approximately 70 - 80% of primary and secondary operating budgets on mileage in 2008. The spending on mileage in 2008 was about 70% fleet charges and 30% private vehicle reimbursement. The last two years we have seen a shift from about a 50/50 split to the current 70/30 split due to the increase in number of fleet vehicles due to hold-over and temporary assignments. This shift towards fleet mileage charges has helped Division 5 offset the increased reimbursement rates for private vehicle mileage. It appears that this trend has come to an end and private vehicle mileage will become a larger part of the budget in 2009. With only two vehicles scheduled for replacement in 2009 and the loss of the ability to retain hold-over vehicles for an additional year as a temporary assignment, Division 5 will have 2 or 3 fewer fleet vehicles in use in 2009. This loss of the 2-3 fleet vehicles will have an approximate $3000 - $4000 impact on our operating budgets.

Division 5 Overtime Budget

The Division 5 overtime budget was underspent in 2008 for a number of reasons, but in part due to management of the overtime budget. In the recent past, Division 5 has tried to reserve approximately ½ of our overtime budget for use in the spring and early summer (April – June). In years when there is an adequate snow pack and average to above average run-off, the need for overtime is reduced. The uncertainty regarding climatic conditions coupled with the changes to the majority of time worked in June for both monthly and bi-weekly employees being paid from the next fiscal year's budget has led Division 5 to re-evaluate the management of the overtime budget. As a result, Division 5 will consider spending a larger portion of the overtime budget in the early part of the 09-10 Fiscal Year if conditions and administrative demands warrant this expenditure and not reserve quite as large of an amount for the end of the 09-10 Fiscal Year.

E. DAM SAFETY ISSUES FOR THE FUTURE

The Grand Junction Dam Safety Engineer and the Division 6 Dam Safety Engineer being fully responsible for dam safety activity for the dams in District 50, 51, and the west areas of District 72 helps offset workload problems. Also, implementing the risk based procedure for determining inspection frequency has helped reduce the inspection workload. However, the future workload will still be very full for the following reasons:

- With increases in population, gas well development, and increases in recreation, there has been an increase of about 30 significant and high hazard dams in Division 5 since 2000. This offsets the inspection workload decreases by having more Division 5 dam safety FTEs in Grand Junction and Division 6.

- Except during drought years, the trend of reservoirs in Division 5 to remain full for longer periods of time continues as less water is used for irrigation and more for recreation. Many of these dams are old and were designed and built for irrigation. As a result, the trend for an increase in dam safety problems will continue to increase the dam safety workload.

- With past drought years comes the increased desire to enlarge or rehabilitate existing dams. This will increase the amount of time to review the designs, plans and specifications submitted for these enlargements or rehabilitations. The Dam Safety Branch statewide is understaffed, which will cause the Grand Junction-based Dam Safety Engineer to be needed for design review in other Divisions. This in turn will leave more design review for the Division 5 Dam Safety Engineer stationed in Glenwood Springs to do.

- The Extreme Precipitation Analysis Tool (EPAT) for designing regional and local rainfall amounts in the mountains and on the western slope has been completed and adopted and the basin response study is complete and adopted. This now means that approximately 55 Class 1 and 2 dams will have to have a hydrology study performed. This will take another 40(+) man-weeks to accomplish.

- Over the past year, there has been a dent made in the large backlog of hazard evaluations that need to be done. However, it is still estimated that over 30 evaluations need to be performed and each year more evaluations are discovered needing to be performed. With the need to perform hydrology studies for high elevation dams, these hazard evaluations are becoming more important. It is estimated that it will take over 30 man-weeks to accomplish these. This does not include training time if other personnel are to be used. The Dam Safety Branch is presently reviewing and developing criteria and methodology for performing these evaluations. The Glenwood and Grand Junction Dam Safety Engineers are heavily involved in this activity, which is taking significant time, but in the long run should smooth out the procedure.

2008 ANNUAL REPORT APPENDIX

(control and click on links below to get electronic file)

A. Administration of Green Mountain Reservoir for 2008 – Interim Policy

B. Graph 2008 Green Mountain Reservoir HUP Operations

C. Table: Mainstream River Calls for 2008

D. CROS

E. RIPAP
Table: Reservoir Releases & 15 Mile Reach Flows
Graph: Impact of Late Irrigation Season Reservoir Releases in the 15-Mile Reach

F. Div 5 Historic & Projected Reservoir Levels

G. Water Court Activities

H. Division 5 Organizational Chart

I. Office Administration and Workload Measures
Personnel/Reimbursable Mileage
Water Commissioner Activity Summary

J. Transmountain Diversion – Inflows and Outflows

K. Reservoir Storage Water Summaries by District

L. Water Diversion Summaries

M. Snow Water Equivalent and Runoff
Map: Colorado Streamflow Forecast
Graphs: Arrow Snotel SWE
Hoosier Snotel SWE
Scofield Pass Snotell SWE
Vail Mountain Snotell SWE

Appendix A

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF WATER RESOURCES

Bill Ritter, Jr.
Governor

Harris D. Sherman
Executive Director

Dick Wolfe, P.E.
Director/State Engineer

May 29, 2008

Administration of Green Mountain Reservoir for 2008

Interim Policy

The fill season for the Green Mountain Reservoir first fill storage right (priority date August 1, 1935) is initiated by declaration by the Secretary of the Interior between April 1 and May 15 (para. 3, 1964 Blue River Decree). The start of fill for 2008 was declared on April 24th. Green Mountain Reservoir is projected to paper fill in early June 2008 and is projected to physically fill by late June or early July 2008. The purpose of the 2008 Policy is for accounting of the paper fill for the first fill right of Green Mountain Reservoir and the initiation of the power call. The fill season for the senior Green Mountain Reservoir storage right ends upon completion of fill (first fill right deemed satisfied), either by a physical fill or a paper fill as defined below.

Physical Fill

The 1935 Green Mountain Reservoir first fill right is deemed satisfied when the total amount of water retained is equal to the total physical storage capacity in Green Mountain Reservoir.

Paper Fill

The Green Mountain Reservoir 1935 first fill storage right is deemed satisfied with respect to Colorado River administration when the sum of storage at the initiation of the fill season at Green Mountain + physical storage in Green Mountain Reservoir since the initiation of the start of fill + all outflow in excess of 60 cfs or the demand of a downstream call from a water right senior to August 1, 1935 + upstream Denver and Colorado Springs owed to Green Mountain Reservoir accounts + other upstream depletions by Green Mountain beneficiaries junior to Green Mountain Reservoir equals 154,645 acre-feet ("paper fill"). Following the paper fill and using an October 5, 1955 priority date, Green Mountain shall continue to store tributary inflow when in priority until upstream Denver and Colorado Springs owed to Green Mountain Reservoir accounts are zero. The amount of water stored in Green Mountain Reservoir pursuant to the October 5, 1955 priority date shall reduce amounts Denver and Colorado Springs owe to Green Mountain Reservoir for upstream out-of-priority diversions under the terms of the Blue River Decree.

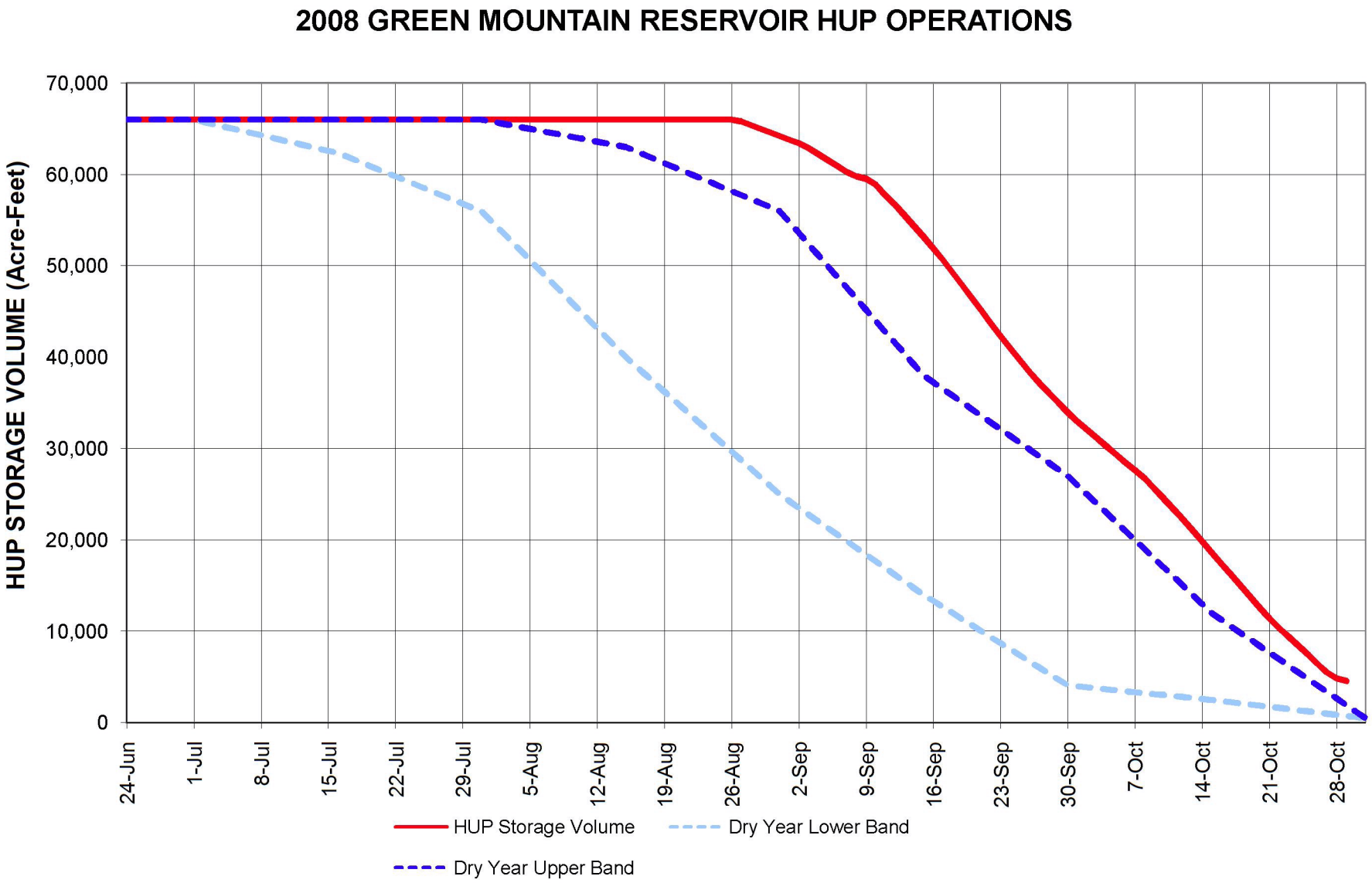
Limited Applicability of this Policy

The State Engineer adopted this policy in order to give water users certainty about administrative and accounting principles concerning Green Mountain Reservoir during the 2008 fill season. The State Engineer does not intend that this interim policy create any precedent binding on the Division of Water Resources, the U.S. Bureau of Reclamation, or any other water user in a future year (whether or not the factual situation in the future is the same or similar to the 2008 fill season). The State Engineer has consulted with numerous water users prior to adopting this policy and understands that there is not basin-wide consensus about the administrative and accounting principles included in the interim policy. The State Engineer does not intend that this policy change, limit, or in any way affect the future positions of the Division of Water Resources, U.S. Bureau of Reclamation, or any other water user. The State Engineer will not construe acquiescence to the 2008 interim policy to be an admission, estoppel, or waiver nor will he argue that the failure to challenge this interim policy is a failure to exhaust administrative remedies. The parties interested in Green Mountain Reservoir administration and accounting will continue to meet with Division of Water Resources staff and discuss a permanent resolution to these issues in order to suggest a final policy to the State Engineer.

Dick Wolfe, Director/State Engineer, P.E.

5/29/2008
Date

Appendix B


2008 GREEN MOUNTAIN RESERVOIR HUP OPERATIONS
HUP STORAGE VOLUME (Acre-Feet)
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
24-Jun
1-Jul
8-Jul
15-Jul
22-Jul
29-Jul
5-Aug
12-Aug
19-Aug
26-Aug
2-Sep
9-Sep
16-Sep
23-Sep
30-Sep
7-Oct
14-Oct
21-Oct
28-Oct
HUP Storage Volume
Dry Year Lower Band
Dry Year Upper Band

Appendix C

SUMMARY OF COLORADO RIVER MAIN STEM CALLS
2008 IRRIGATION YEAR

STATUS OF CALL AT THE SHOSHONE POWER PLANT
(As determined using the Colorado River near Dotsero gage)

DATE ON	THRU	NO. DAYS CALL ON/OFF	CALLING STRUCTURE	DECREE AMT.	SWING PRIORITY	SWING PRIORITY ADMIN. NO.	COMMENTS
11.01.07	10.05.08	340	Free River	---	---	---	
10.06.08	10.09.08	4	Shoshone Power Plant	1,250 CFS	Shoshone	20427.18999	
10.10.08	10.20.08	11	Free River	---	---	---	
10.21.08	10.31.08	11	Shoshone Power Plant	1,250 CFS	Shoshone	20427.18999	

STATUS OF CALL IN THE GRAND VALLEY
(As determined using the Colorado River near Cameo gage)

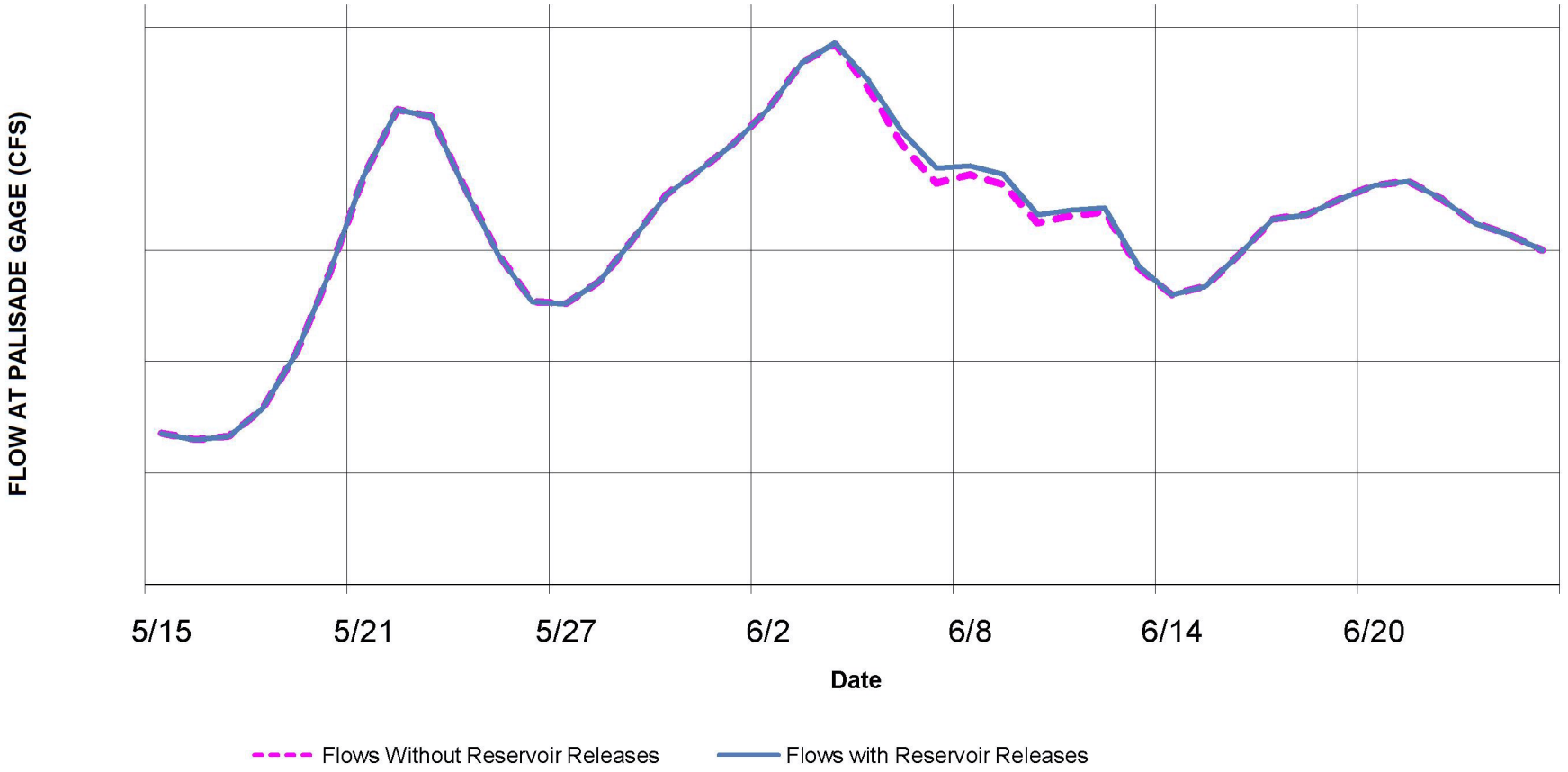
DATE ON	THRU	NO. DAYS CALL ON/OFF	CALLING STRUCTURE	DECREE AMT.	SWING PRIORITY	SWING PRIORITY ADMIN. NO.	COMMENTS
11.01.07	10.31.08	366	Free River	---	---	---	

SWING PRIORITY = MOST JUNIOR WATER RIGHT, EITHER TOTALLY OR PARTIALLY IN PRIORITY, U/S OF THE CALLING STRUCTURE

10/23/09

Appendix D

IMPACT OF EARLY IRRIGATION SEASON RESERVOIR RELEASES IN THE 15 MILE REACH
(As Measured at the Colorado River at Palisade Gage)
2008 EARLY SUMMER/



Appendix E

Reservoir Releases and 15 Mile Reach Flows

2008	RELEASES TO 15 MILE REACH (CFS)									DELIVERIES AT 15 MILE REACH AFTER TRANSPORT LAGS AND LOSSES(CFS)							Palisade Bypass	15-Mile Reach Flow		Target Flows Met?			
																		WITH	WITHOUT				
	Green Mtn		Ruedi	Wolford		Williams Fk		Granby	Willow	Green Mtn	Ruedi	Wolford	Williams Fl	Granby	Willow	TOTAL	Pipeline	Deliveries	Deliveries	1 = yes; 0 = no		day	Target line
2008		12,000 AF			2,500 AF		5,861 AF	--	Creek						Creek	(CFS)	(CFS)	(CFS)	(CFS)			count	for graph
	66,000 AF		20,825 AF	11,412 AF		5,412 AF		--	--	3-day, 10%	2-day, 7.5%	3-day, 10%	3-day, 10%	3-day, 10%	3-day, 10%					w/deliver	w/o deliveries		
8/10/2008																0	30	2850	2820				
8/11/2008																0	45	2660	2615				
8/12/2008			0								0					0	60	2680	2620				
8/13/2008			9								0					0	60	2350	2290	1	1	1	1,640
8/14/2008			59	0							0					0	60	2060	2000	1	1	2	1,640
8/15/2008			100	13							8					8	60	1850	1782	1	1	3	1,640
8/16/2008			100	100							55	0				55	60	1720	1605	1	0	4	1,640
8/17/2008			100	100							93	0				93	60	1765	1613	1	0	5	1,640
8/18/2008			100	100							93	12				104	60	1932	1768	1	1	6	1,640
8/19/2008			100	100							93	90				183	45	1980	1753	1	1	7	1,640
8/20/2008			100	100		0					93	90				183	35	1709	1492	1	0	8	1,640
8/21/2008			186	131		33					93	90	0			183	0	1489	1307	0	0	9	1,640
8/22/2008			186	200		100					93	90	0			183	0	1360	1178	0	0	10	1,640
8/23/2008			195	200		100					172	90	0			262	0	1322	1060	0	0	11	1,640
8/24/2008			190	200		100					172	118	30			319	0	1420	1101	0	0	12	1,640
8/25/2008			180	200		100					181	180	90			451	0	1471	1020	0	0	13	1,640
8/26/2008	0	0	198	200	0	100					175	180	90			445	0	1441	996	0	0	14	1,640
8/27/2008	100	155	193	175	25	100				0	166	180	90			436	0	1418	982	0	0	15	1,640
8/28/2008	200	203	207	175	25	100				0	184	180	90			454	0	1425	971	0	0	16	1,640
8/29/2008	200	201	210	175	25	100				0	178	180	90			448	0	1419	971	0	0	17	1,640
8/30/2008	200	221	206	175	25	100				230	192	180	90			691	0	1547	856	0	0	18	1,640
8/31/2008	200	199	210	175	25	100	0			363	194	180	90			826	40	1690	824	1	0	19	1,640
9/1/2008	200	215	209	175	25	50	45			361	191	180	90			822	60	1856	974	1	0	20	1,640
9/2/2008	200	215	204	175	25	50	61			379	194	180	90			843	100	1809	866	1	0	21	1,640
9/3/2008	265	128	209	167	25	50	69			359	194	180	90			823	120	1838	895	1	0	22	1,640
9/4/2008	330	71	210	125	25	84	58			374	189	180	86			828	120	1766	818	1	0	23	1,640
9/5/2008	330	132	211	125	25	150	62			374	193	180	100			846	120	1662	696	1	0	24	1,640
9/6/2008	330	220	213	125	25	150	62			354	194	173	107			827	120	1553	606	0	0	25	1,640
9/7/2008	330	208	215	158	25	150	60	0		361	195	135	128	0		818	120	1549	611	0	0	26	1,640
9/8/2008	238	196	215	225	25	150	67	12		416	197	135	191	0		939	120	1629	570	0	0	27	1,640
9/9/2008	130	173	215	225	25	150	58	25		495	199	135	191	0		1020	110	1620	490	0	0	28	1,640
9/10/2008	321	90	214	125	25	150	27	25		484	199	165	189	0		1036	100	1610	474	0	0	29	1,640
9/11/2008	600	29	212	75	25	54	0	25		391	199	225	195	11		1020	100	1556	436	0	0	30	1,640
9/12/2008	506	0	180	41	25	25	52	25		273	198	225	187	23		905	110	1724	709	1	0	31	1,640
9/13/2008	600	23	192	0	25	47	52	25		370	196	135	159	23		883	120	2073	1070	1	0	32	1,640
9/14/2008	600	28	208	0	25	86	52	25		566	166	90	49	23		893	120	2147	1134	1	0	33	1,640
9/15/2008	600	55	211	0	25	78	52	25		455	178	59	69	23		784	120	1927	1023	1	0	34	1,640
9/16/2008	600	70	211	0	25	100	60	25		561	192	23	89	23		887	120	1796	789	1	0	35	1,640
9/17/2008	650	102	212	0	25	50	18	25		565	196	23	124	23		930	120	1732	682	1	0	36	1,640
9/18/2008	700	95	213	0	25	50	3	8		590	195	23	117	23		947	120	1652	585	1	0	37	1,640
9/19/2008	700	117	210	0	25	25	20	17		603	196	23	144	23		988	120	1681	573	1	0	38	1,640
9/20/2008	700	92	209	0	25	24	37	25		677	197	23	61	23		980	120	1717	617	1	0	39	1,640
9/21/2008	700	67	209	0	22	0	7	25		716	194	23	48	7		987	120	1724	617	1	0	40	1,640
9/22/2008	700	108	208	0	0		7	25		735	194	23	41	15		1007	120	1726	599	1	0	41	1,640
9/23/2008	700	100	208	0	0		61	25		712	193	23	55	23		1006	120	1716	590	1	0	42	1,640
9/24/2008	675	117	204	0	0		45	25		690	192	20	6	23		931	120	1640	589	1	0	43	1,500
9/25/2008	650	162	181	0	15		45	25		727	192	0	6	23		948	120	1598	530	1	0	44	1,500
9/26/2008	650	181	134	0	25		61	16		720	189	0	55	23		986	120	1586	480	1	0	45	1,500
9/27/2008	600	171	119	0	25		53	0		713	168	0	41	23		943	120	1557	494	1	0	46	1,500
9/28/2008	550	213	118	0	25		67			731	124	14	41	23		931	120	1555	504	1	0	47	1,500
9/29/2008	550	196	118	0	25		37			748	110	23	55	14		950	100	1529	479	1	0	48	1,500
9/30/2008	550	214	119	0	25		45			693	109	23	48	0		873	90	1556	593	1	0	49	1,500
10/1/2008	500	186	118	0	25		68			686	109	23	60			878	90	1539	571	1	0	50	1,150
10/2/2008	450	94	118	0	25		45			671	110	23	33			837	80	1522	605	1	0	51	1,150
10/3/2008	450	91	120	0	25		60			687	109	23	41			859	60	1457	538	1	0	52	1,150
10/4/2008	450	95	119	0	25		37			618	109	23	61			810	60	1387	517	1	0	53	1,150
10/5/2008	450	63	120	0	25		52			490	111	23	41			663	60	1597	874	1	0	54	1,150
10/6/2008	460	0	119	15	10		0			487	110	23	54			673	90	1671	908	1	0	55	1,400

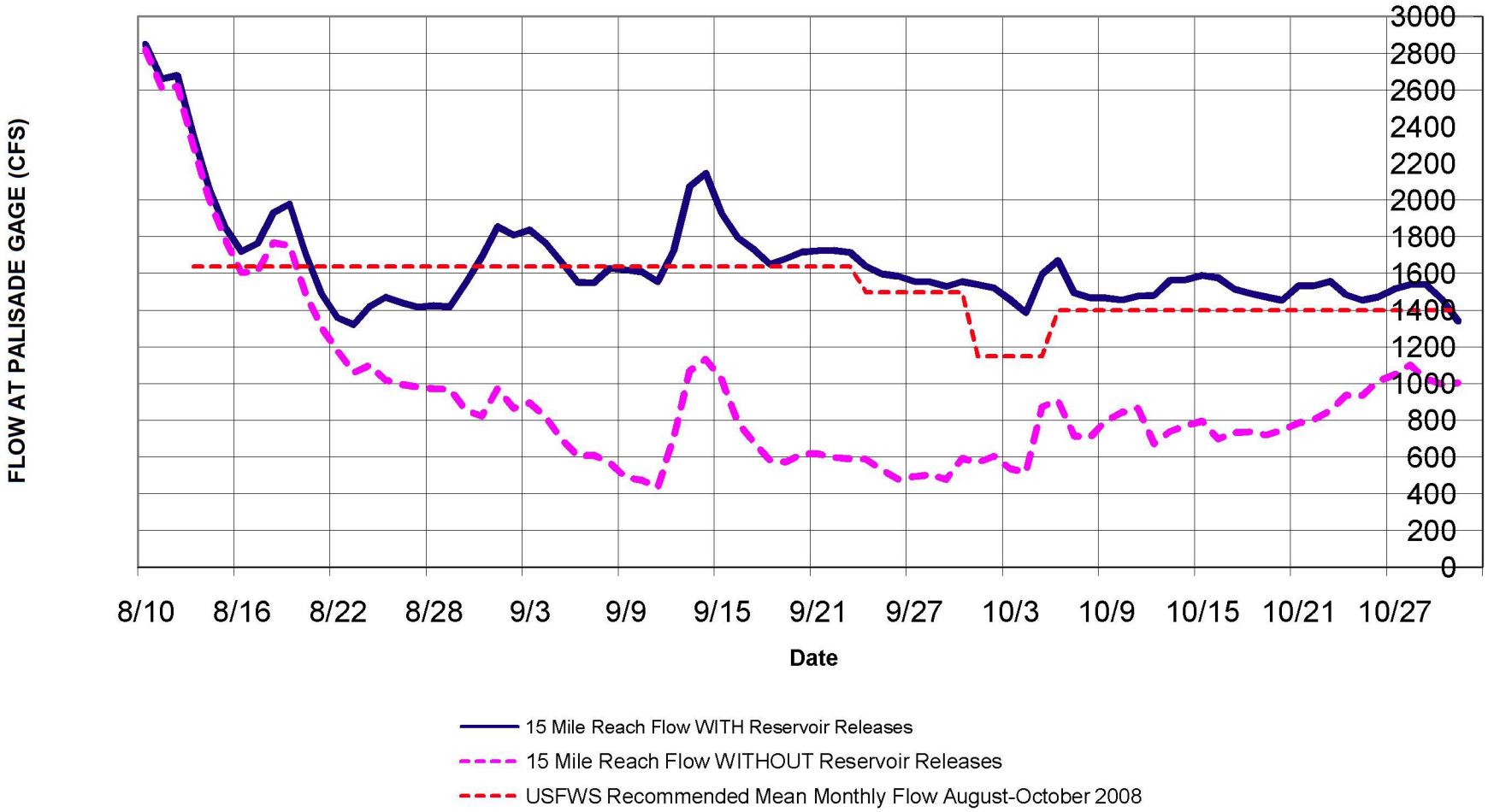
Reservoir Releases and 15 Mile Reach Flows

2008	RELEASES TO 15 MILE REACH (CFS)									DELIVERIES AT 15 MILE REACH AFTER TRANSPORT LAGS AND LOSSES(CFS)							Palisade Bypass	15-Mile Reach Flow WITH	15-Mile Reach Flow WITHOUT	Target Flows Met?			
	Green Mtn		Ruedi	Wolford		Williams Fk		Granby	Willow	Green Mtn	Ruedi	Wolford	Williams Fk	Granby	Willow	TOTAL	Pipeline	Deliveries	Deliveries	1 = yes; 0 = no		day	Target line
2008		12,000 AF			2,500 AF		5,861 AF	--	Creek						Creek	(CFS)	(CFS)	(CFS)	(CFS)			count	for graph
	66,000 AF		20,825 AF	11,412 AF		5,412 AF		--	--	3-day, 10%	2-day, 7.5%	3-day, 10%	3-day, 10%	3-day, 10%	3-day, 10%					w/deliver	w/o deliveries		
10/7/2008	431	0	119	25	0		1			491	111	23	33			657	120	1493	716	1	0	56	1,400
10/8/2008	430	0	121	25			0			461	110	23	47			641	120	1468	707	1	0	57	1,400
10/9/2008	566	0	121	12			97			414	110	23	0			547	120	1466	799	1	0	58	1,400
10/10/2008	562	50	120	0			81			388	112	23	1			523	90	1456	843	1	0	59	1,400
10/11/2008	569	50	119				45			387	112	23	0			521	90	1477	866	1	0	60	1,400
10/12/2008	564	50	117				51			510	111	11	87			718	90	1481	673	1	0	61	1,400
10/13/2008	604	50	116				111			550	110	0	73			733	90	1563	740	1	0	62	1,400
10/14/2008	612	50	108				81			557	108	0	41			705	90	1567	772	1	0	63	1,400
10/15/2008	620	50	27				67			552	107		46			705	90	1591	796	1	0	64	1,400
10/16/2008	619	50	0				88			588	100		100			788	90	1577	699	1	0	65	1,400
10/17/2008	605	50					66			595	25		73			694	90	1516	732	1	0	66	1,400
10/18/2008	613	50					66			603	0		60			663	90	1491	738	1	0	67	1,400
10/19/2008	613	50					80			602	0		79			681	70	1472	721	1	0	68	1,400
10/20/2008	606	50					74			590			59			649	60	1454	745	1	0	69	1,400
10/21/2008	563	0					13			597			59			656	90	1532	786	1	0	70	1,400
10/22/2008	543						0			597			72			669	60	1534	805	1	0	71	1,400
10/23/2008	478									591			67			657	45	1557	855	1	0	72	1,400
10/24/2008	502									507			12			518	30	1484	936	1	0	73	1,400
10/25/2008	487									489			0			489	30	1455	936	1	0	74	1,400
10/26/2008	525									430			0			430	30	1473	1013	1	0	75	1,400
10/27/2008	471									452						452	15	1515	1048	1	0	76	1,400
10/28/2008	329									438						438	0	1540	1102	1	0	77	1,400
10/29/2008	146									472						472	40	1540	1028	1	0	78	1,400
10/30/2008	0									424						424	40	1460	996	1	0	79	1,400
10/31/2008										296						296	40	1340	1004	0	0	80	1,400
11/1/2008										132													
										0													
TOTAL CFS	30,972	5,844	10,297	4,337	922	2,706	2,526	428	0	33,134	9,524	4,733	4,709	385	0	52,354	6,185	137,317	78,778	63	5		
TOTAL AF	61,433	11,591	20,423	8,602	1,829	5,367	5,010	849	0	65,722	18,892	9,389	9,340	764	0	103,845	12,268	272,368	156,256				

Releases from Granby Reservoir were made under an agreement between the Municiapl Subdistrict of Northern Water, Grand County and the GVWUA, and indirectly benefitted the flows in the 15 Mile Reach.

The shaded area in the Wolford column represents supplemental and protected releases to help meet the recovery goals for the 15 Mile Reach of the Colorado River. In addition to the Wolford releases, unprotected yet supplementary releases were made from Green Mountain (11,591 AF) and Williams Fork (5,010 AF).

IMPACT OF LATE IRRIGATION SEASON RESERVOIR RELEASES IN THE 15 MILE REACH
(As Measured at the Colorado River at Palisade Gage)
2008 LATE SUMMER/FALL



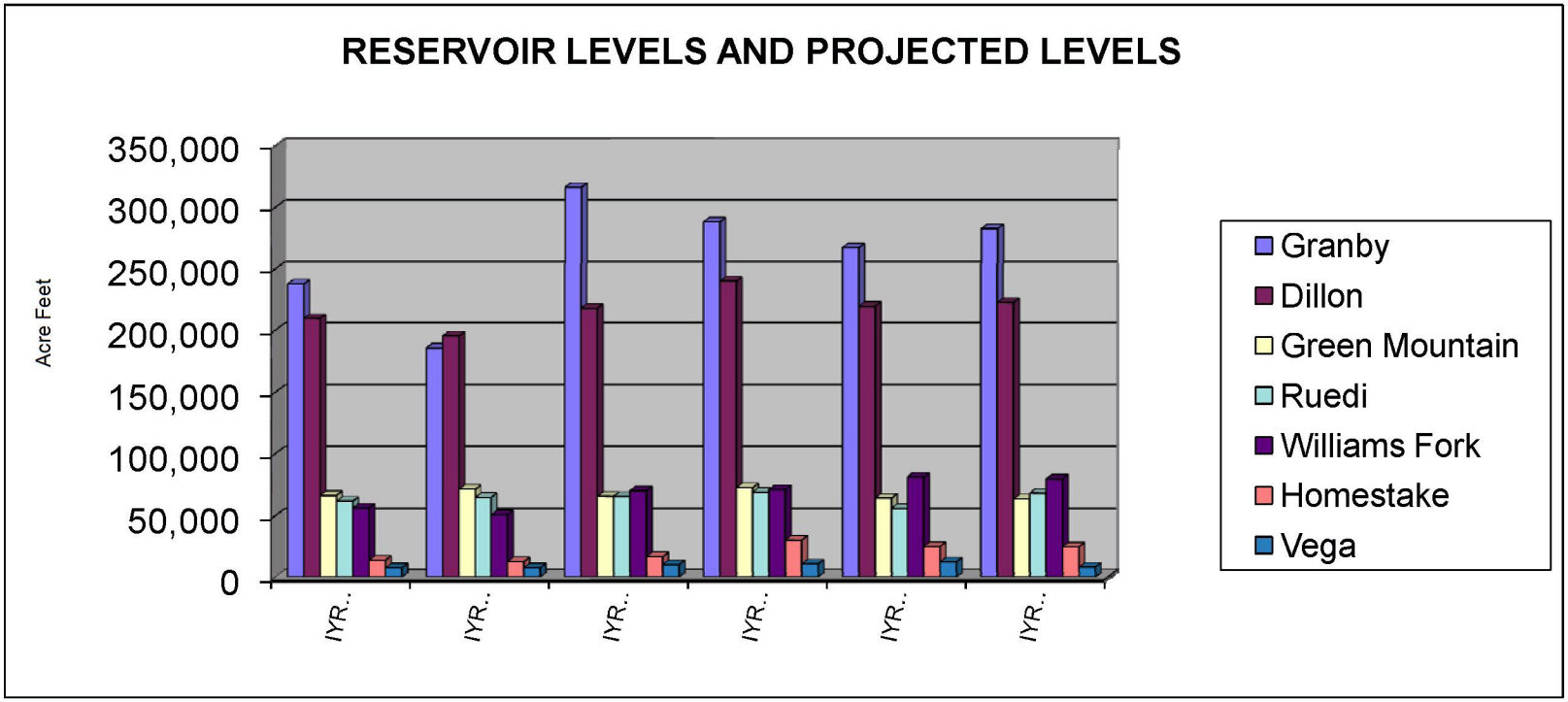
Appendix F

DIVISION 5 HISTORIC & PROJECTED RESERVOIR LEVELS

Reservoir	Decreed Capacity	Dead Storage	IYR 2004 Minimum Storage	IYR 2005 Minimum Storage	IYR 2006 Minimum Storage	IYR 2007 Minimum Storage	IYR 2008 Minimum Storage	IYR 2009 Projected Storage
Granby	543,758	74,190	237,651	185,712	316,315	288,308	267,033	282,828
Dillon	252,678	3,269	209,595	195,385	218,205	240,050	219,792	222,794
Green Mountain	154,645	26,860	66,285	71,212	65,513	72,371	64,124	63,330
Ruedi	102,369	61	61,599	64,686	65,443	68,835	55,822	68,062
Williams Fork	93,637	0	56,155	50,737	70,020	70,885	81,151	79,568
Wolford	65,993	0	29,444	28,092	54,121	48,527	50,994	51,800
Homestake	43,504	0	13,549	12,337	16,396	29,737	24,597	24,343
Vega	33,500	823	7,465	7,465	10,107	10,492	12,122	7,960

Notes: Green Moutain Reservoir dead storage includes 20,000 AF of "stranded" Storage. IYR 2009 Projections are based on April 1st Data.

This data taken from hydrobase's end of month values to determine minimum storage. Previous annual reports reflected data from daily values from spreadsheets to determine minimum storage.


RESERVOIR LEVELS AND PROJECTED LEVELS
Acre Feet
350,000
300,000
250,000
200,000
150,000
100,000
50,000
0
IYR..
IYR..
IYR..
IYR..
IYR..
IYR..
Granby
Dillon
Green Mountain
Ruedi
Williams Fork
Homestake
Vega

APPENDIX G: WATER COURT ACTIVITIES

CALENDAR YEAR 2008

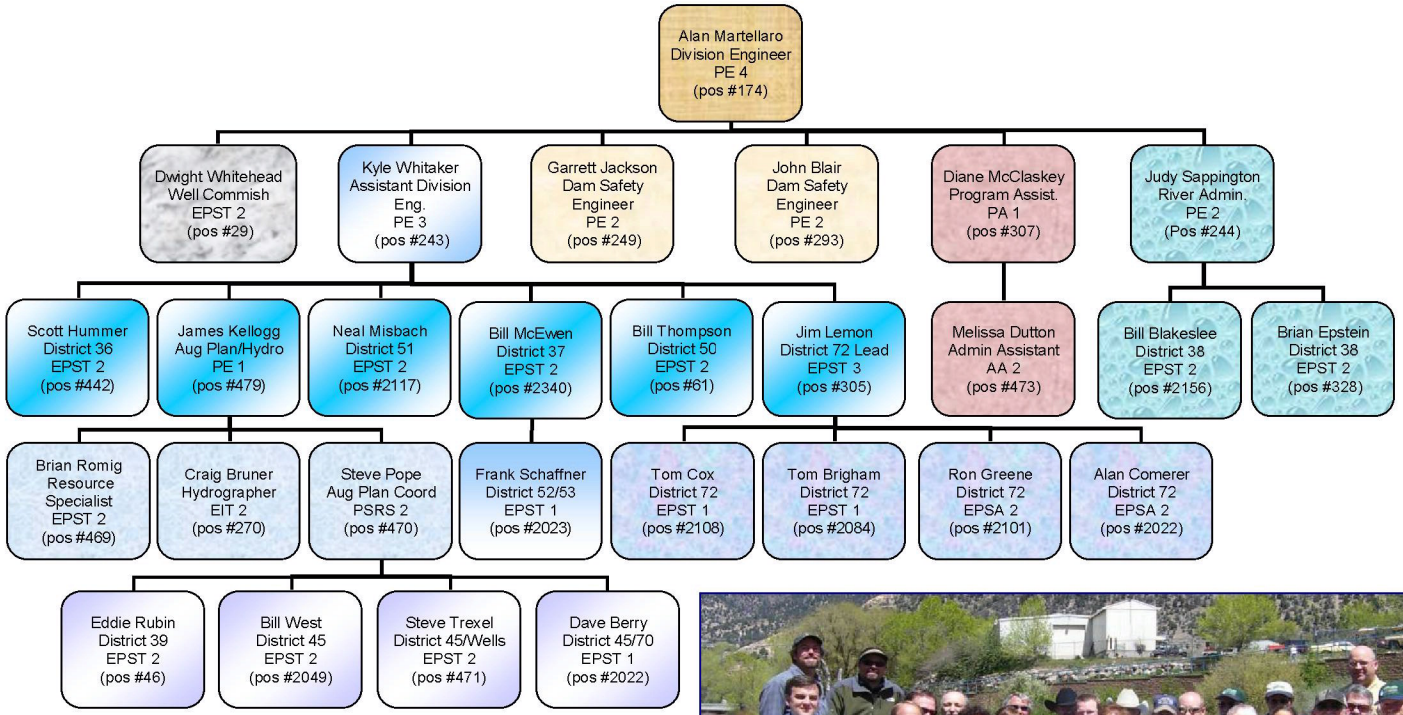
Applications Made to Water Court…(08CW...)……..	208
Div 5 DWR – Colorado River……...	182
Div 6 DWR – White River……..	24
Amended Applications – Div 5 Colorado River…….	29
No. of Consultations With Referee……	169
No. of Complaints……	6
No. of Withdrawn Cases or Dismissed Cases……	29
No. of Denials……	N/A

NO. OF CASES DECREED BY WATER COURT FOR DIVISION 5 = 228

Type of Decree	# Cases	# Structures
Findings of Diligence on Conditional Rights	70	102
Cancellations of Conditional Rights (includes “Orphan” Cases)	20	51
Conditional Rights Made Absolute	40	47
Surface Water Rights Adjudicated	44	67
Underground Water Rights Adjudicated	31	41
Water Storage Rights Adjudicated	36	73
Plans for Augmentation Adjudicate	44	55
Change of Water Rights (includes location, use, amount, alternate points of diversion, change points of diversion)	40	65
Instream Flow Rights Adjudicated	0	0
Exchanges	3	3

Appendix H

2008 DIVISION FIVE ORGANIZATIONAL CHART



March 10, 2009

COLORADO DIVISION OF WATER RESOURCES
DEPARTMENT OF NATURAL RESOURCES

Updated: March 10, 2009

APPRENDIX I: OFFICE ADMINISTRATION & WORKLOAD MEASURES

PERSONNEL/REIMBURSABLE MILEAGE

Name	Working Title Fiscal Year 2008	Office or WD	Fiscal Year 7/1/07 - 06/30/08		Fiscal Year 7/1/07 - 6/30/08 Reimbursable Miles		Irrigation Year 11/1/07 - 10/31/08 Reimbursable Miles		Calendar Year 1/1/08 - 12/31/08 Reimbursable Miles	
			Budgeted	Worked	2 W	4 W	2 W	4 W	2 W	4 W
OFFICE STAFF										
John G. Blair	PE II Dam Safety Engineer	Office	12	12	0	0	0	0	0	0
Craig Bruner	Engineer-In-Training I / Hydrographer	Office	12	12	0	0	0	0	0	0
Melissa Dutton	AA II Administrative Assistant	Office	12	12	0	0	320	0	320	0
Garrett Jackson	PE II Dam Safety Engineer	GJ Ofc	12	12	0	101	0	101	0	101
James Kellogg	PE I Hydrographer /Augmentation Coordinator	Office	12	12	0	0	0	0	0	0
Jim Lemon	EPST III Engineering Physical Science Tech III (promoted 3-1-08)	GJ Ofc	12	4	0	0	0	0	0	0
Alan Martellaro	PE IV Division Engineer	Office	12	12	485	0	485	0	485	0
Diane McClaskey	PA I Program Assistant	Office	12	12	430	0	0	0	0	0
Steve Pope	PSRS II Augmentation Plan Coordinator	GJ Ofc	12	12	382	0	382	0	382	0
Brian Romig	EPST II Engineering Physical Science Tech II	Office	12	12	50	0	211	0	211	0
Judy Sappington	PE II Colorado River Administrator	Office	12	12	0	0	0	0	0	0
Kyle Whitaker	PE III Asst. Division Engineer	Office	12	12	3,028	435	2,613	390	3,462	390
Dwight Whitehead	EPST II Well and Water Commissioner	Office	12	12	250	0	0	0	0	0
Subtotal Budgeted Worker Months (Office Staff):			**156**							
Subtotal Total Months Worked (Office Staff):			**148**							
FULL TIME FIELD STAFF										
Bill Blakeslee	EPST II Water Commissioner	38	12	12	0	443	0	129	0	66
Brian Epstein	EPSTII Water Commissioner	38	12	12	3,061	41	1,371	0	851	0
Scott Hummer	EPST II Water Commissioner	36	12	12	156	560	156	560	216	940
Jim Lemon	EPST II Water Commissioner	39/45	12	12	0	0	0	0	0	0
Bill McEwen	EPST II Water Commissioner	37	12	12	0	8,616	0	8,232	0	8,002
Neal Misbach	EPST II Water Commissioner	51	12	12	0	725	0	745	0	860
Eddie Rubin	EPST II Water Commissioner	39	0	0	0	0	0	2,543	0	3,313
Frank Schaffner	EPST I Water Commissioner	52/53	12	12	0	2,932	0	5,447	0	6,061
Bill Thompson	EPST III Water Commissioner	36/50/51/53	12	12	0	874	0	976	0	976
Steve Trexel	EPST II Water Commissioner	45	12	12	0	8,479	0	11,012	0	10,163
Bill West	EPST II Water Commissioner	45	0	0	0	0	0	466	0	466
Subtotal Budgeted Worker Months (FT Field Staff):			**108**							
Subtotal Total Months Worked (FT Field Staff):			**108**							
PERMANENT PART TIME FIELD STAFF										
David Berry	EPST I Water Commissioner	70	8	9	174	6,206	0	6,357	0	6,477
Tom Brigham	EPST I Water Commissioner	72	10	12	762	5,231	762	9,937	732	9,123
Tom Cox	EPSA III Water Commissioner	72	9	11	1,122	4,325	909	6,474	909	6,474
Alan Comerer	EPSA II Water Commissioner	72	6	6	4,509	2,306	2,220	3,355	2,220	3,355
Ron Greene	EPSA III Water Commissioner	72	6	6	595	2,167	1,449	2,602	1,449	2,650
Subtotal Budgeted Worker Months (Perm. PT Field Staff):			**39**							
Subtotal Total Months Worked (Perm. PT Field Staff):			**44**							
TEMPORARY PART TIME FIELD STAFF										
Mike Mello	EPST II Water Commissioner	45	2.5	2.5	0	4,766	79	1,982	79	1,000
Subtotal Budgeted Worker Months (Temp. PT Field Staff):			**2.5**							
Subtotal Total Months Worked (Temp. PT Field Staff):			**2.5**							
2008 Total FY Budgeted Worker Months:			**303**		**303 Months = 25.25 FTE**					
2008 Total FY Months Worked:			**300**		**300 Months = 25.00 FTE**					
Subtotal Reinbursable Miles Driven:					15,004	48,207	10,957	61,308	11,316	60,417
Total Reinbursable Miles Driven per Period:					63,211		72,265		71,733	
Computed Miles/Rate:										
(July-Dec 07': 2W = .39 per mile, 4W = .41 per mile)					$3,028.74	$9,874.03	$214.50	$1,684.69		
(Jan-Dec 08': 2W = .46 per mile, 4W = .48 per mile)					$3,329.48	$11,579.52	$3,329.48	$11,579.52	$3,329.48	$11,579.52
(Jul-Dec 08': 2W = .53 per mile, 4W = .56 per mile)							$1,679.57	$18,522.00	$2,161.34	$20,324.08
Subtotal Money per Specified Period:					$6,358.22	$21,453.55	$5,223.55	$31,786.21	$5,490.82	$31,903.60
Total Money per Specified Period:					$27,811.77		$37,009.76		$37,394.42	

APPENDIX I: OFFICE ADMINISTRATION AND WORKLOAD MEASURES

WATER COMMISSIONER ACTIVITY SUMMARY: CALENDAR YEAR 2008

ACTIVITY	TOTALS
Professional and Technical Staff (FTE)	13
Clerical Staff (FTE)	2
Water Commissioner (FTE)	Part Time = 5 Full Time = 11
Surface Rights Administered (Site Visits - Water Commissioners)	11,307
Consultations With Referee	169
Water Court Appearances (Water Commissioners)	0
Meetings With Water Users (Public Meetings - Water Commissioners)	174
Contacts to Give Public Assistance on Water Matters (Water Commissioners)	Total Contacts = 9,437 Field = 2,979 Office = 848 Phone = 5,610
Dams Visited (Water Commissioners)	1,247
Wells Visited (Water Commissioners)	592
Surface Structures Administered by Phone (Water Commissioners)	1,211

**All "(Water Commissioners)" figures taken from Water Commissioner Activity Summary reports

Appendix J

2008 Transmountain Diversions - Inflows

RECIPIENT								SOURCE		
WD	ID	Name	Stream	10-Year Average		Current Year		WD	ID	Stream
				AF	Days	AF	Days			
36	4677	ARKANSAS WELL	TENMILE CREEK	203.9	365	296.0	366.0	11		ARKANSAS RIVER
38	4682	ROARING FORK BYPASS	ROARING FORK RIVER	1,968.6	276	711.0	106.0	11		TWIN LAKES
45	4657	DIVIDE-HIGHLINE FEEDER	DIVIDE CREEK	968.7	42	726.0	31.0	40		CLEAR FORK MUDDY
50	4600	SARVIS CREEK DITCH	RED DIRT CREEK	451.5	78	1,194.0	78.0	58		SARVIS CREEK
53	4716	DOME CREEK DITCH	EGERIA CREEK	123.3	69	81.0	43.0	58		BEAR CREEK
53	4715	STILLWATER DITCH	EGERIA CREEK	1,675.7	94	1,061.0	69.0	58		BEAR CREEK
72	4713	REDLANDS POWER CANAL	COLORADO RIVER	461,846.9	324	274,738.0	366.0	42		GUNNISON RIVER
72	4711	GRAND JUNCTION	COLORADO RIVER	5,124.5	366	0.0	0.0	42		KANNAH CREEK
					TOTAL:	278,807.0				

Transmountain Diversions Inflows - 10 Year Running Average

			2008		2007		2006		2005		2004		2003		2002		2001		2000		1999		10 YR AVG	
		id no	AF	days	AF	days	AF	days	AF	days	AF	days	AF	days	AF	days	AF	days	AF	days	AF	days	AF	DAYS
36	stevens & lieter	4905																					0.0	0.0
36	arkansas well/ten mi crk	4677	296	365	173	365	161	365	156	365	141	366	228	365	244	365	228	365	200	365	212	365	203.9	365.1
37	arkansas well/east fk																						0.0	0.0
37	arkansas well/eagle river																						0.0	0.0
38	roaring fk bypass flow	4682	711	106	751	122	3026	365	2885	365	3098	236	2085	320	1307.3	232	1907	324	1580	362	2336	330	1,968.6	276.2
45	divide-highline feeder	4657	726	31	991	45	1115	38	423	20	1141	46	1197	43	709.12	49	1049	44	751	26	1585	82	968.7	42.4
50	sarvis creek ditch	4600					485	47	561	79	444	258	708	112	175.94	42	470	62	26	26	0	0	358.7	78.3
53	dome creek ditch	4716	81	43	45	43	78	65	99.69	117	132	66	99	59	36.93	49	157	53	213	75	292	115	123.3	68.5
53	stillwater ditch	4715	1061	69	1283	118	2220	119	2213	65	1325	114	1794	118	724.95	78	1727	120	3072	81	1337	59	1,675.7	94.1
72	relands power canal	4713	274738	366	573659	363	559090	362	327654	205	451540	313	305147	220	504678	356	534712	348	557536	361	529715	349	461,846.9	324.3
72	grand juction municiple	4711																	5086	366	5163	365	5,124.5	365.5
72	fruita water works	4712																					0.0	0.0

Appendix J

2008 Transmountain Diversions - Outflows

RECIPIENT								SOURCE		
WD	ID	Name	Stream	10-Year Average		Current Year		WD	ID	Stream
				AF	Days	AF	Days			
7	4658	STRAIGHT CREEK	CLEAR CREEK	187.5	365	124.0	366	36		STRAIGHT CREEK
7	4626	VIDLER TUNNEL	CLEAR CREEK	542.9	73	1,061.0	77	36		SNAKE RIVER
23	4685	BOREAS PASS DITCH	TARRYALL CREEK	151.6	64	169.0	69	36		BLUE RIVER
23	4699	HOOSIER TUNNEL	MAIN FORK OF SO. PLATTE	9,432.2	155	25,071.0	214	36		BLUE RIVER
80	4684	ROBERTS TUNNEL	MAIN FORK OF SO. PLATTE	82,746.2	320	84,257.0	268	36		BLUE RIVER
11	4641	COLUMBINE DITCH	TENNESSEE CREEK	1,381.4	90	107.0	103	37		SO. FORK OF EAGLE
11	4642	EWING DITCH	TENNESSEE CREEK	852.0	120	1,449.0	139	37		SO. FORK OF EAGLE
11	4614	HOMESTAKE TUNNEL	SO. PLATTE VIA ARKANSAS	30,695.0	72	26,533.0	58	37		HOMESTAKE CREEK
11	4648	WURTZ DITCH	TENNESSEE CREEK	1,954.7	108	1,279.0	131	37		SO. FORK OF EAGLE
11	4625	BOUSTEAD TUNNEL	LAKE FORK CREEK	50,953.7	365	90,706.0	366	38		FRYING PAN RIVER
11	4613	BUSK-IVANHOE	LAKE FORK CREEK	4,692.8	287	4,861.0	366	38		FRYING PAN RIVER
11	4617	TWIN LAKES TUNNEL	LAKE FORK CREEK	42,935.1	364	63,661.0	366	38		ROARING FORK RIVER
3	4601	GRAND RIVER DITCH	CACHE LA POUDRE RIVER	16,747.2	159	22,419.0	162	51		NO. FORK COLORADO
4	4602	EUREKA DITCH	CACHE LA POUDRE RIVER	0.0	0	0.0	0	51		NO. FORK COLORADO
4	4634	ALVA B ADAMS	BIG THOMPSON RIVER	233,584.0	338	308,506.0	366	51		NO. FORK COLORADO
6	4655	MOFFAT TUNNEL	BOULDER CREEK	58,474.2	365	70,511.0	366	51		FRASER RIVER
7	4625	BERTHOUD PASS	CLEAR CREEK	486.1	66	701.0	105	51		FRASER RIVER
6	505	AUGUST P GUMLICK	BOULDER CREEK VIA FRASER	INCLUSIVE IN MOFFAT TUNNEL				51		WILLIAMS FORK RIVER
6	4603	VASQUEZ PIPELINE	BOULDER CREEK VIA FRASER	INCLUSIVE IN MOFFAT TUNNEL				51		WILLIAMS FORK RIVER
40	758	LEON TUNNEL CANAL	SURFACE CREEK	967.6	82	697	60	72		LEON CREEK
					TOTAL:	702,112.0				

Transmountain Diversions Outflows - 10 Year Running Average

			2008		2007		2006		2005		2004		2003		2002		2001		2000		1999		10 yr avg	
wd	name	id	AF	days	AF	days	AF	days	AF	days	AF	days	AF	days	AF	days	AF	days	AF	days	AF	days	AF	DAYS
36	straight creek tunnel	4658	124	366	134	365	206	365	214	365	196	366	222	365	131.98	365	193.1	365	220	366	234	365	187.5	365.3
36	vidler tunnel	4626	1061	77	715	51	646	41	517	81	424	50	432	52	352.15	164	369.5	75	332	67	580	68	542.9	72.6
36	boreas pass ditch	4685	169	69	187	56	186	72	133	68	55	67	193	63	29.24	71	189.0	61	124	43	251	67	151.6	63.7
36	hoosier tunnel	4683	25071	214	6023	183	11357	175	10502	168	5333	155	8020	192	2361.54	79	6057.7	179	9295	34	10302	168	9432.2	154.7
36	roberts tunnel	4684	84257	268	37847	364	109622	364	61832	280	79804	353	80453	365	122372	357	116419.2	348	94768	304	40088	195	82746.2	319.8
37	columbine ditch	4641	107	103	1830	87	1942	90	1530	90	1212	85	1949	105	780.17	56	1788.8	111	1742	82	933	95	1381.4	90.4
37	ewing ditch	4642	1449	139	1042	99	963	115	784	125	499	103	1013	148	178.24	68	949.9	164	1024	99	618	135	852	119.5
37	homestake tunnel	4614	26533	58	20793	39	63796	64	46402	46	9156	24	22735	147	24954.59	81	37018.1	72	24137	81	31425	111	30695	72.3
37	wurtz ditch	4648	1279	131	2338	99	2945	121	2298	114	1585	90	2388	119	646.05	63	2230.7	117	2603	97	1234	131	1954.7	108.2
38	boustead tunnel	4625	90706	365	55285	365	61913	365	55351	365	28135	365	57940	365	15862.05	365	50512.8	365	50681	366	43151	365	50953.7	365.1
38	busk-ivanhoe tunnel	4613	4861	365	4238	365	4439	365	4931	365	5069	365	4999	365	2711.01	197	5313.2	163	5208	169	5159	148	4692.8	286.7
38	twin lakes tunnel	4617	63661	365	52565	351	56488	365	51382	365	36103	365	44632	365	20497.63	365	45745.1	365	41854	366	16423	365	42935.1	363.7
51	grand river ditch	4601	22419	162	20673	181	19749	177	21171	175	14832	176	4648	120	9430.69	176	16432.5	157	18673	165	19444	99	16747.2	158.8
51	eureka ditch	4602																					0	0
51	alva b adams ditch	4634	308506	365	234255	322	273976	322	169841	311	242237	340	177626	365	250085.3	324	269611.4	358	245602	364	164100	310	233584	338.1
51	moffat tunnel	4655	70511	366	44770	364	83384	365	57321	364	60794	366	74123	365	32327.88	365	67464.8	365	57450	366	36596	365	58474.2	365.1
51	berthoud pass ditch	4625	701	105	719	95	839	115	801	75	432	71	591	94	246.95	36	531.5	67	0	0	0	0	486.1	65.8
72	leon tunnel canal	4715	697	60	1072	92	629	48	100	13	937	113	1328	146	728	86	1614.0	94	1560	102	1011	70	967.6	82.4

Appendix K

RESERVOIR STORAGE SUMMARIES BY DISTRICT

2008				AMOUNT IN STORAGE (AF)				
WD	ID	RESERVOIR NAME	SOURCE STREAM	Minimum		Maximum		End Of Year
				AF	Date	AF	Date	
36				291,185.90		418,335.10		330,122.50
37				28,385.40		48,465.40		46,944.20
38				58,770.00		104,538.00		77,962.00
39				7,276.40		19,045.40		7,514.40
45				192.80		1,543.90		347.80
50				52,926.00		76,288.00		55,865.00
51				375,079.00		570,279.00		492,067.00
52				267.50		390.70		284.40
53				4,715.20		6,723.90		4,736.80
70				0.00		95.50		0.00
72				27,535.50		62,961.40		32,376.40
		GRAND TOTAL FOR DIVISION 5		846,333.70		1,308,666.30		1,048,220.50

RESERVOIR STORAGE SUMMARIES - DISTRICT 36

2008				AMOUNT IN STORAGE (AF)				
	ID	RESERVOIR NAME	SOURCE STREAM	Minimum		Maximum		End Of Year
				AF	Date	AF	Date	
36	3533	BLACK LAKE	BLACK CREEK	1,997.2	11/01/07	1,997.2	10/31/08	1,997.2
	3535	BUFFEHR ENLG RESERVOIR	TENMILE CREEK	No Information Available				
	3538	CATARACT LAKE	CATARACT CREEK	1,652.8	11/01/07	1,652.8	10/31/08	1,652.8
	3575	CLINTON GULCH RESERVOIR	TENMILE CREEK	2,940.8	05/31/08	4,545.4	07/31/08	4,268.8
	4512	DILLON RESERVOIR BRDP	BLUE RIVER	219,792.0	05/31/08	257,649.0	06/30/08	245,541.0
	3542	GOOSE PASTURE TARN	BLUE RIVER	482.2	12/31/07	811.8	10/31/08	811.8
	3543	GREEN MOUNTAIN RES	BLUE RIVER	64,124.0	03/31/08	151,440.0	07/31/08	75,649.0
	3548	HOAGLAND RESERVOIR NO 1	ELLIOTT CREEK	50.0	11/01/07	50.0	10/31/08	50.0
	3643	KEYSTONE POND	SNAKE RIVER	No Information Available				
	3606	OFFICER GULCH POND	TENMILE CREEK	No Information Available				
	3565	REYNOLDS RESERVOIR	SODA CREEK	No Information Available				
	3569	UPPER BLACK CREEK RES	BLACK CREEK	No Information Available				
	3570	UPPER BLUE LAKE RES	BLUE RIVER	No Information Available				
	3571	WAY RESERVOIR	BEAVER CREEK	58.0	11/01/07	90.0	05/13/08	59.0
	3544	GRIGGS RESERVOIR	BEAVER CREEK	No Information Available				
36		Total of All Others < 50 AF		88.9		98.9		92.9
36		Total For District 36		291,185.9		418,335.1		330,122.5

RESERVOIR STORAGE SUMMARIES BY DISTRICT

2006				AMOUNT IN STORAGE (AF)				
WD	ID	RESERVOIR NAME	SOURCE STREAM	Minimum		Maximum		End Of Year
				AF	Date	AF	Date	
37	3600	BENCHMARK LAKE	EAGLE RIVER	125.0	11/01/05	125.0	06/05/06	125.0
	3608	BLACK LAKE	GORE CREEK	132.9	03/01/06	361.2	12/01/05	360.9
	3510	BLACK LAKE NO 2	GORE CREEK	51.8	04/01/06	127.4	06/01/06	114.8
	3698	BOLTS LAKE	CROSS CREEK	0.0		0.0		0.0
	3544	CAMP HALE POND	YODER CREEK	0.0		0.0		0.0
	3513	CHALK MOUNTAIN RESERVOIR	EAGLE RIVER	229.3	11/01/05	231.5	07/01/06	231.0
	3699	CLIMAX MOLY NO 4 RES	EAGLE RIVER	2,238.3	05/01/06	3,070.7	10/01/06	3,064.8
	4516	HOMESTAKE RESERVOIR	HOMESTAKE CREEK	24,597.0	04/30/08	42,903.0	07/31/08	42,014.0
	3520	L E D E RESERVOIR	GYPSUM CREEK	350.0	11/01/06	390.0	06/06/06	350.0
	3522	NOECKER RESERVOIR	EBY CREEK	0.0	11/01/05	159.0	06/17/06	0.0
	3524	O Z LAKE (aka Sylvan Lake)	BRUSH CREEK	452.0	11/01/05	452.0	07/10/06	452.0
	3527	ROBINSON RESERVOIR	EAGLE RIVER	129.1	10/01/06	540.6	07/01/06	151.7
	3530	WELSH RESERVOIR	ALKALI CREEK	80.0	06/27/06	105.0	11/01/05	80.0
37		Total of All Others < 50 AF						
37		Total for District 37		28,385.4		48,465.4		46,944.2

RESERVOIR STORAGE SUMMARIES - DISTRICT 38

2008				AMOUNT IN STORAGE (AF)				
WD	ID	RESERVOIR NAME	SOURCE STREAM	Minimum		Maximum		End Of Year
				AF	Date	AF	Date	
38	3711	ALICIA LAKE RESERVOIR	LIME CREEK	No Information				
	4000	BEAVER LAKE	CRYSTAL RIVER	73.0		73.0		73.0
	3722	CONSOLIDATED RESERVOIR	WEST COULTER CREEK	904.0	06/01/08	97.0	09/02/08	160.0
	3774	CRAWFORD DAM NO 1	BLUE CREEK	0.0		0.0		0.0
	3773	CRAWFORD DAM NO 2	BLUE CREEK	35.0		35.0		35.0
	3721	CROOKED CREEK RES	LIME CREEK	No Information				
	4087	CRYSTAL SPRING LAKE	CRYSTAL SPRING			72.0	10/17/09	72.0
	4095	FLANNERY RESERVOIR	THREE MILE CREEK			300.0	06/04/08	
	3779	GRIZZLY RESERVOIR	LINCOLN CREEK	80.0	11/01/07	80.0	06/20/08	80.0
	3727	HIMMELAND LAKE	FRYING PAN RIVER	0.0	08/10/08	80.0	06/10/08	80.0
	3729	HUGHES RESERVOIR	THREE MILE CREEK	88.0		88.0		88.0
	3732	IVANHOE RESERVOIR	FRYING PAN RIVER	No Information				
	3832	JACOBSON LAKES & PONDS	ROARING FORK RIVER	No Information				
	4154	KODIAK LAKE & WETLANDS	ROARING FORK			57.0		
	3736	LAKE ANN RESERVOIR	SOPRIS CREEK	90.0	11/01/07	436.0	06/30/08	90.0
	3955	MCNULTY RESERVOIR #2	SHIPPEE RUN CREEK	No Information				
	3740	RALSTON RESERVOIR	COULTER CREEK	0.0		0.0		0.0
	3713	RUEDI RESERVOIR	FRYING PAN RIVER	55,822.0	04/30/08	101,407.0	07/31/08	76,983.0
	3744	SPRING PARK RESERVOIR	CATTLE CREEK	1,678.0	06/21/08	301.0	10/16/08	301.0
	3747	THOMAS RESERVOIR	THOMAS CREEK			150.0		
	3753	UPPER CHAPMAN RES	FRYINGPAN RIVER	No Information				
	3750	VAN-CLEVE FISHER RES	MESA CREEK			552.0	05/28/08	
	3759	WILDCAT RESERVOIR	SNOWMASS CREEK	No Information				
	3760	WOODS LAKE RESERVOIR	LIME CREEK	No Information				
38		Total of All Others < 50 AF				810.0		
38		Total for District 38		58,770.0		104,538.0		77,962.0

RESERVOIR STORAGE SUMMARIES - DISTRICT 39

2008				AMOUNT IN STORAGE (AF)				
WD	ID	RESERVOIR NAME	SOURCE STREAM	Minimum		Maximum		End Of Year
				AF	Date	AF	Date	
39	3505	GRASS VALLEY RESERVOIR	RIFLE CREEK	1,976.0	11/01/07	5,341.0	05/04/08	1,976.0
39	3506	HARRIS RESERVOIR	WEST RIFLE CREEK	160.0	11/01/07	200.0	5\29\08	160.0
39	3940	MEADOW CREEK RESERVOIR	ELK CREEK	856.0	11/01/07	984.0	6\10\08	900.0
39	3941	MIDDLE FORK RESERVOIR	PARACHUTE CREEK	130.0	11/01/07	140.0	5\20\08	140.0
39	3507	PARK RESERVOIR	WEST ELK CREEK	0.0	10/31/08	476.0	6\01\08	0.0
39	3508	RIFLE GAP RESERVOIR	RIFLE CREEK	4,097.0	11/01/07	11,601.0	05/01/08	4,097.0
39		Total of All Others < 50 AF		57.4		303.4		241.4
39		TOTAL FOR DISTRICT 39		7,276.4		19,045.4		7,514.4

RESERVOIR STORAGE SUMMARIES - DISTRICT 45

2008				AMOUNT IN STORAGE (AF)				
WD	ID	RESERVOIR NAME	SOURCE STREAM	Minimum		Maximum		End Of Year
				AF	Date	AF	Date	
45	3603	PORTER RESERVOIR	EAST AKALI CREEK	155.0	04/01/08	1,113.0	06/10/08	310.0
45	3695	ALSBURY RESERVOIR	EAST DIVIDE CREEK	37.8	10/31/08	185.0	06/03/08	37.8
45		Total of All Others < 50 AF				245.9		
45		TOTAL FOR DISTRICT 45		192.8		1,543.9		347.8

RESERVOIR STORAGE SUMMARIES - DISTRICT 50

2008				AMOUNT IN STORAGE (AF)				
WD	ID	RESERVOIR NAME	SOURCE STREAM	Minimum		Maximum		End Of Year
				AF	Date	AF	Date	
50	3644	ALBERT RESERVOIR	ALBERT CREEK	0.0	10/31/08	60.0	05/28/08	0.0
	3606	ANTELOPE RESERVOIR	ANTELOPE CREEK	38.0	07/19/08	346.0	05/17/08	70.0
	3651	BASIN RESERVOIR	MUDDY CREEK	40.0	11/01/08	115.0	06/10/08	60.0
	3645	BINCO RESERVOIR	ALBERT CREEK	0.0	11/01/08	516.0	05/28/08	60.0
	3616	HEINI RESERVOIR	PINTO CREEK	10.0	06/23/08	47.0	06/03/08	45.0
	3618	HINMAN RESERVOIR	PASS CREEK	350.0	07/21/08	611.0	05/13/08	375.0
	3623	LAKE AGNES	MUDDY CREEK	348.0	11/01/08	431.0	06/20/08	400.0
	3646	MARTIN RESERVOIR	COLBURN CREEK	55.0	07/16/08	216.0	05/28/08	75.0
	3625	MATHESON RESERVOIR	TROUBLESOME CREEK	110.0	07/14/08	1,073.0	06/06/08	200.0
	3627	MC ELROY RESERVOIR	PASS CREEK	0.0	10/31/08	240.0	05/13/08	0.0
	3629	MC MAHON RESERVOIR NO 2	RED DIRT CREEK	525.0	11/01/08	3,500.0	05/28/08	1,000.0
	3655	MILK CREEK RESERVOIR	MILK CREEK	23.0	11/01/08	105.0	05/28/08	55.0
	3656	NORTH MEADOW RESERVOIR (aka Martin	MUDDY CREEK	35.0	11/01/07	60.0	06/01/08	35.0
	3631	OAKS RESERVOIR	MILK CREEK	35.0	07/21/08	75.0	06/10/08	38.0
	3632	PARSONS RESERVOIR	CARTER CREEK	27.0	07/15/08	107.0	05/20/08	50.0
	3642	WHITELEY PEAK RESERVOIR	DIAMOND CREEK	148.0	11/01/08	773.0	06/03/08	260.0
	3668	WOLFORD MOUNTAIN RESERVOIR	MUDDY CREEK	50,994.0	03/31/08	67,548.0	05/31/08	52,859.0
	3643	WOODS RESERVOIR	DUNNING CREEK	27.0	11/01/07	66.0	06/10/08	53.0
50		Total of All Others < 50 AF		161.0		399.0		230.0
50		TOTAL FOR DISTRICT 50		52,926.0		76,288.0		55,865.0

RESERVOIR STORAGE SUMMARIES - DISTRICT 51

2008				AMOUNT IN STORAGE (AF)				
WD	ID	RESERVOIR NAME	SOURCE STREAM	Minimum		Maximum		End Of Year
				AF	Date	AF	Date	
51	4006	BULL RUN CREEK RESERVOIR	BULL RUN CREEK	110.0	11/01/07	125.0	07/07/08	111.0
	4055	CBT GRANBY RESERVOIR	COLORADO RIVER	267,033.0	04/30/08	437,128.0	07/31/08	380,252.0
	3695	CBT SHADOW MOUNTAIN GRAND LAKE	NO. FORK OF COLO RIVER	17,332.0	05/31/08	17,889.0	06/30/08	17,816.0
	3710	CBT WILLOW CREEK RESERVOIR	WILLOW CREEK	5,902.0	10/31/08	9,240.0	07/31/08	5,902.0
	4012	COTTONWOOD RESERVOIR	GARDINER CREEK	100.0	11/01/07	120.0	07/30/08	100.0
	3715	EAST BRANCH RESERVOIR	UTE CREEK	No Data Available				
	3660	F W LINKE NO 2 RESERVOIR	TEN MILE CREEK	15.0	11/01/07	60.0	07/15/08	15.0
	3568	GCWSD WATER STORAGE RES 1	FRASER RIVER	0.0	05/08/08	90.0	08/18/08	80.0
	3569	GCWSD WATER STORAGE RES 2	FRASER RIVER	0.0	05/08/08	70.0	06/26/08	60.0
	3552	GRAND ELK POND A	TEN MILE CREEK	45.0	11/01/07	65.0	05/31/08	47.0
	3665	HANKINSON RESERVOIR	FRASER RIVER	95.0	11/01/07	110.0	05/27/08	95.0
	4009	JACK ORR RESERVOIR	COLORADO RIVER	structure not built				
	3752	KINGS RESERVOIR	BUFFALO CREEK	256.0	11/01/07	611.0	06/09/08	256.0
	3679	LANGHOLEN RESERVOIR	BATTLE CREEK	10.0	11/01/07	65.0	05/14/08	20.0
	3686	MEADOW CREEK RESERVOIR	MEADOW CREEK	2,312.0	11/01/07	5,512.0	06/30/08	2,584.0
	3687	MOORE RESERVOIR	WILLIAMS FORK RIVER	40.0	08/15/08	90.0	06/06/08	41.0
	3688	MUSGRAVE RESERVOIR	ROCK CREEK	0.0	11/01/07	340.0	06/06/08	0.0
	3745	POLE CR MEADOWS RES NO 1	POLE CREEK	5.0	05/08/08	50.0	06/24/08	50.0
	3693	ROCK CREEK RESERVOIR	ROCK CREEK	0.0	11/01/07	0.0	10/31/08	0.0
	3694	SCHOLL RESERVOIR	CORRAL CREEK	0.0	11/01/07	320.0	06/06/08	0.0
	3732	GAYLORD RESERVOIR	POLE CREEK	145.0	11/01/07	160.0	06/15/08	145.0
	4051	SUN VALLEY RESERVOIR	NO. FORK OF COLO RIVER	60.0	11/01/07	60.0	06/30/08	60.0
	3701	SYLVAN RESERVOIR	LITTLE MUDDY CREEK	100.0	11/01/07	1,130.0	06/02/08	120.0
	3738	UTE CREEK RESERVOIR	UTE CREEK	95.0	11/01/07	100.0	06/02/08	95.0
	3709	WILLIAMS FORK RES	WILLIAMS FORK RIVER	81,151.0	04/30/08	96,562.0	06/30/08	83,945.0
51		Total of All Other Reservoirs Less Than 50 AF		273.0		382.0		273.0
51		TOTAL FOR DISTRICT 51		375,079.0		570,279.0		492,067.0

RESERVOIR STORAGE SUMMARIES - DISTRICT 52

2008				AMOUNT IN STORAGE (AF)				
WD	ID	RESERVOIR NAME	SOURCE STREAM	Minimum		Maximum		End Of Year
				AF	Date	AF	Date	
52	3940	JONES RESERVOIR	HENRY CREEK	42.5	11/01/07	69.2	05/29/08	42.5
	3982	MARMA LAKE	PINEY RIVER	63.0	11/01/07	63.0	11/01/07	63.0
	3946	OXFORD RESERVOIR	COLORADO RIVER	20.0	10/31/08	60.0	06/07/08	20.0
	3949	ROCK GAP DAM	HARTMAN GULCH	44.8	11/01/07	51.7	5/29/208	51.7
52		Total of All Others < 50 AF		97.2		146.8		107.2
52		TOTAL FOR DISTRICT 52		267.5		390.7		284.4

RESERVOIR STORAGE SUMMARIES - DISTRICT 53

2008				AMOUNT IN STORAGE (AF)				
WD	ID	RESERVOIR NAME	SOURCE STREAM	Minimum		Maximum		End Of Year
				AF	Date	AF	Date	
53	3959	CLYDE RESERVOIR	EGERIA CREEK	30.0	10/31/09	66.0	06/26/09	30.0
	3960	CRESENT LAKE RESERVOIR	DERBY CREEK	0.0	10/31/09	237.0	07/15/09	0.0
	3961	ED W HARPER RESERVOIR	EGERIA CREEK	0.0	10/23/09	194.0	06/26/09	0.0
	3962	EGERIA RESERVOIR	EGERIA CREEK	0.0	10/31/09	107.0	06/09/09	0.0
	3966	GRIMES BROOKS RESERVOIR	RED DIRT CREEK	129.0	10/31/09	409.0	07/12/09	129.0
	3971	HEART LAKE RESERVOIR	DEEP CREEK	3,255.0	06/24/09	3,255.0	06/24/09	3,255.0
	3972	HIDDEN SPRINGS RESERVOIR	HORSE CREEK	50.0	10/31/09	50.0	06/17/09	50.0
	3974	JONES NO 1 RESERVOIR	SHEEP CREEK NO 2	70.0	07/14/09	240.0	05/21/09	80.0
	3975	JONES NO 2 RESERVOIR	SHEEP CREEK NO 2	340.0	10/31/09	530.0	05/29/09	340.0
	3978	KELLY RESERVOIR	EGERIA CREEK	96.0	07/16/09	96.9	08/12/09	96.6
	3982	LUARK RESERVOIR	SPRING CREEK	36.0	10/31/09	80.0	06/12/09	36.0
	4020	MACKINAW LAKE RES NO 2	DERBY CREEK	23.0	10/31/09	79.0	07/15/09	23.0
	3986	MORRIS RESERVOIR	TOPONAS CREEK	0.0	06/30/09	45.6	05/27/09	0.0
	3988	NEWTON GULCH RES	KING CREEK	0.0	08/07/09	155.0	06/09/09	0.0
	3992	REID NO 3 RESERVOIR	EGERIA CREEK	86.0	06/26/09	86.0	10/31/09	86.0
	3995	STERNER RESERVOIR	EGERIA CREEK	49.0	10/31/09	195.0	06/26/09	49.0
	3997	SWEETWATER RESERVOIR	SWEETWATER CREEK	0.0	10/31/09	64.0	06/15/09	0.0
	3999	TONIER GULCH RES	TOPONAS CREEK	97.0	10/31/09	196.0	05/28/09	97.0
	4001	TOPONAS ROCK NO 2 RES	TOPONAS CREEK	36.7	10/31/09	76.7	05/20/09	36.7
	4004	WOHLER RESERVOIR	ELK CREEK	100.0	10/31/09	110.0	06/12/09	100.0
53		Total of All Others < 50 AF		317.5		451.7		328.5
53		TOTAL FOR DISTRICT 53		4,715.2		6,723.9		4,736.8

RESERVOIR STORAGE SUMMARIES - DISTRICT 70

2008				AMOUNT IN STORAGE (AF)				
WD	ID	RESERVOIR NAME	SOURCE STREAM	Minimum		Maximum		End Of Year
				AF	Date	AF	Date	
70		Total of All Others < 50 AF			11/01/07	95.5	10/30/08	
70		TOTAL FOR DISTRICT 70		0.0		95.5		0.0

RESERVOIR STORAGE SUMMARIES - DISTRICT 72

2008				AMOUNT IN STORAGE (AF)				
WD	ID	RESERVOIR NAME	SOURCE STREAM	Minimum		Maximum		End Of Year
				AF	Date	AF	Date	
72	3833	ANDERSON BROS RES NO 1	LEON CREEK	216.0	06/01/08	216.0	10/31/08	216.0
	3887	BIG BEAVER RESERVOIR	BULL CREEK	0.0	08/20/08	121.8	07/15/08	0.0
	3904	BIG CREEK NO 1 RESERVOIR	BIG CREEK	0.0	05/12/08	763.9	03/03/08	0.0
	3905	BIG CREEK NO 3 RESERVOIR	BIG CREEK	300.0	05/14/08	2,261.0	08/11/08	523.7
	3906	BIG CREEK NO 4 RESERVOIR	BIG CREEK	0.0		0.0		0.0
	3907	BIG CREEK NO 5 RESERVOIR	BIG CREEK	0.0	12/18/07	104.6	06/15/08	104.6
	3909	BIG CREEK NO 7 RESERVOIR	BIG CREEK	507.8	05/28/08	1,222.6	02/06/08	1,562.0
	3841	BOB MC KELVIE RESERVOIR	PLATEAU CREEK	81.0	10/31/08	309.0	06/15/08	81.0
	3888	BULL BASIN NO 1 RES	BULL CREEK	116.3	11/01/07	116.3	10/31/08	116.3
	3889	BULL BASIN NO 2 RES	BULL CREEK	0.0	09/01/08	96.1	06/15/08	0.0
	3890	BULL CREEK NO 1 RES	BULL CREEK	0.0	09/10/08	77.9	06/15/08	0.0
	3891	BULL CREEK NO 2 RES	BULL CREEK	0.0	09/20/08	68.0	06/15/08	0.0
	3892	BULL CREEK NO 3 RES	BULL CREEK	0.0	10/01/08	59.2	06/15/08	0.0
	3893	BULL CREEK NO 4 RES	BULL CREEK	0.0		0.0		0.0
	3894	BULL CREEK NO 5 RES	BULL CREEK	250.0	06/15/08	250.0	10/31/08	250.0
	3834	COLBY HORSE PARK RES	LEON CREEK	466.0	06/15/08	466.0	10/31/08	466.0
	3883	COON CREEK NO 1 RES	COON CREEK	313.0	10/31/08	504.0	07/15/08	313.0
	3884	COON CREEK NO 2 RES	COON CREEK	0.0	08/12/08	145.0	06/20/08	0.0
	3885	COON CREEK NO 3 RES	COON CREEK	0.0	07/15/08	151.5	06/20/08	0.0
	3923	COTTONWOOD LAKES RES NO 1	COTTONWOOD CREEK	1,869.0	10/31/08	2,774.0	06/30/08	1,869.0
	3924	COTTONWOOD LAKES RES NO 2	COTTONWOOD CREEK	0.0	10/31/08	220.0	06/30/08	0.0
	3925	COTTONWOOD LAKES RES NO 4	COTTONWOOD CREEK	222.0	11/10/07	310.0	06/15/08	290.0
	3926	COTTONWOOD LAKES RES NO 5	COTTONWOOD CREEK	214.0	12/15/07	340.0	06/20/08	340.0
	4065	CURRIER RESERVOIR NO 2	BUZZARD CREEK	145.0	11/01/07	222.0	07/01/08	192.0
	3910	DAWSON RESERVOIR	BIG CREEK	143.0	10/16/08	213.0	04/30/08	143.0
	3920	ECHO LAKE RESERVOIR	BIG SALT WASH	25.0	09/18/08	241.0	05/14/08	25.0
	3914	GROVE CREEK RESERVOIR NO 1	GROVE CREEK	0.0	09/10/08	251.0	06/20/08	0.0
	3915	GROVE CREEK RESERVOIR NO 2	GROVE CREEK	0.0	08/21/08	75.0	06/15/08	0.0
72		Subtotal This Page		4,868.2		11,578.9		6,491.7

RESERVOIR STORAGE SUMMARIES - DISTRICT 72

2008				AMOUNT IN STORAGE (AF)				
WD	ID	RESERVOIR NAME	SOURCE STREAM	Minimum		Maximum		End Of Year
				AF	Date	AF	Date	
72	3849	HAWXHURST RESERVOIR	HAWXHURST CREEK	NO	STORAGE			
	3957	HIGHLINE RESERVOIR	COLORADO RIVER	3,280.0	11/01/07	3,280.0	10/31/08	3,280.0
	3929	JENSEN RESERVOIR	COTTONWOOD CREEK	0.0	10/31/08	90.0	08/30/08	0.0
	3961	JERRY CREEK RESERVOIR NO 1	PLATEAU CREEK	265.1	02/21/08	1,161.7	06/26/08	514.7
	3962	JERRY CREEK RESERVOIR NO 2	PLATEAU CREEK	4,031.7	02/08/08	6,496.9	09/04/08	6,421.5
	3837	KENDALL RESERVOIR	LEON CREEK	NO	INFO			
	3838	KIRKENDALL RESERVOIR	LEON CREEK	100.0	11/01/07	100.0	10/31/08	100.0
	3839	LEON LAKE RESERVOIR	LEON CREEK	600.0	11/01/07	1,270.0	07/05/08	600.0
	3895	LOST LAKE RESERVOIR	BULL CREEK	0.0	08/10/08	86.0	06/15/08	0.0
	3871	MESA CREEK NO 1 RESERVOIR	MESA CREEK	280.0	11/01/07	280.0	10/31/08	280.0
	3872	MESA CREEK NO 2 RESERVOIR	MESA CREEK	42.2	11/01/07	42.2	10/31/08	42.2
	3873	MESA CREEK NO 3 RESERVOIR	MESA CREEK	121.0	10/31/07	181.0	06/15/08	121.0
	3874	MESA CREEK NO 4 RESERVOIR	MESA CREEK	0.0	10/31/08	216.0	06/15/08	0.0
	3842	MONUMENT NO 1 RESERVOIR	LEON CREEK	465.0	10/31/08	575.0	07/01/08	465.0
	3843	MONUMENT NO 2 RESERVOIR	LEON CREEK	125.0	10/31/08	254.0	07/01/08	125.0
	3854	PALISADE CABIN RESERVOIR	RAPID CREEK	763.0	10/31/08	1,018.0	06/15/08	861.0
	3932	PARKER BASIN RESERVOIR NO 1	COTTONWOOD CREEK	241.3	10/31/08	325.0	06/30/08	241.3
	3933	PARKER BASIN RESERVOIR NO 2	COTTONWOOD CREEK	NO	INFO			
	3934	PARKER BASIN RESERVOIR NO 3	COTTONWOOD CREEK	NO	INFO			
	3858	RAPID CREEK NO 1 RESERVOIR	RAPID CREEK	0.0	10/31/08	540.0	06/30/08	0.0
	3859	RAPID CREEK NO 2 RESERVOIR	RAPID CREEK	0.0	09/01/08	387.0	07/01/08	0.0
	3901	STUBB McKINNEY CLARK RESERVOIR	SPRING CREEK	136.0	10/31/08	300.0	07/15/08	136.0
	3931	T E KITSON RESERVOIR	COTTONWOOD CREEK	NO	INFO			
	3902	TWIN BASIN RESERVOIR	BULL CREEK	0.0	08/20/08	129.0	07/01/08	0.0
	3844	VEGA RESERVOIR	PLATEAU CREEK	12,122.0	09/30/08	33,839.0	06/30/08	12,122.0
	3919	Y T RESERVOIR	GROVE CREEK	95.0	11/01/07	575.0	10/31/08	575.0
72		Subtotal This Page		22,667.3		51,145.9		25,884.7
72		Subtotal Previous Page(s)		4,868.2		11,578.9		6,491.7
72		Total of All Other Reservoirs Less Than 50 AF		0.0		236.7		0.0
72		TOTAL FOR DISTRICT 72		27,535.5		62,961.4		32,376.4

Appendix L

2008 WATER DIVERSION SUMMARIES TO VARIOUS USES

WD	TRANS MOUNTAIN OUTFLOW	TRANS-BASIN OUTFLOW	EXPORT FROM STATE	MUNICIPAL	COMMERCIAL	INDUSTRIAL	RECREATION	FISHERY	FIRE	DOMESTIC	HOUSEHOLD USE ONLY	STOCK
36	110702	0	0	8609	27	310	684	133652	0	43	0	758
38	159228	3812	0	5274	10	0	453	64697	0	1295	0	698
39	0	0	0	4358	220	188	0	13074	0	894	0	2612
45	0	0	0	563	1	246	0	0	0	212	1	2819
50	0	0	0	0	0	0	0	10431	0	2	0	1
51	402137	6792	0	2253	24	3429	823	6533	0	106	0	77
52	0	817	0	0	346	0	0	0	0	0	0	0
53	0	0	0	8282	3231	0	0	4594	0	0	0	0
70	0	0	0	112	0	110	0	18	0	5	0	1577
72	1393	1144	0	28034	29	4753	265	53041	1626	721	0	16958
TOTAL	673460	12565	0	57484	3888	9035	2226	286040	1626	3279	1	25501

WD	AUGMENTATION	EVAPORATION	FEDERAL RESERVE	GEOTHERMAL	SNOWMAKING	MIN STREAMFLOW	POWER GENERATION	WILDLIFE	RECHARGES	OTHER	ALL BENEFICIAL USE
36	2637	11587	0	0	1334	0	441330	0	0	79	0
38	0	2660	0	0	186	2815	106325	0	0	7738	0
39	0	1643	0	0	0	0	0	0	0	0	0
45	0	197	0	0	0	0	90	0	0	0	0
50	123	4081	0	0	0	2561	0	0	0	568	0
51	116	25350	0	0	290	0	94286	0	0	0	0
52	0	40	0	0	0	0	0	0	0	0	0
53	23	184	0	0	0	0	169214	0	0	0	0
70	0	44	0	0	0	0	0	0	0	0	0
72	271	2583	0	0	27	0	456989	0	297	0	0
TOTAL	3171	48367	0	0	1838	5376	1268234	0	297	8385	0

Report Date:4/16/2009

2008 WATER DIVERSION SUMMARIES

	STRUCTURES REPORTING				ALL STRUCTURES						TO IRRIGATION	
WD	With Record (1)	No Water Avail. (2)	No water taken (3)	No Info Avail. (4)	Estimated # of recorded readings at Structure	Total Diversions (AF)	Total Surface Diversions (AF)	Total Groundwater Diversions (AF)	Total Diversions to Storage (AF)	Total Diversions to Irrigation (AF)	Number of Acres Irrigated	Average AF Per Acre
36	270	1	148	557	5,540	919,525	916,654	2,870	185,568	72,886	7,643	9.54
37	171	0	317	738	2,872	142,238	141,770	469	24,963	76,384	7,335	10.41
38	289	0	415	2,421	8,203	627,313	624,815	2,498	51,171	218,012	22,122	9.85
39	150	45	196	577	497	146,544	146,084	461	10,717	108,793	17,368	6.26
45	282	12	171	440	1,215	105,572	105,303	269	1,150	97,811	30,942	3.16
50	200	0	15	97	2,576	120,909	120,908	1	26,298	88,158	16,718	5.27
51	432	6	265	673	9,644	1,259,898	1,258,542	1,356	241,608	141,213	22,645	6.24
52	140	3	43	137	269	17,176	17,176	0	139	14,657	2,815	5.21
53	360	6	80	257	1,775	258,143	257,816	327	2,646	59,631	14,681	4.06
70	112	20	82	142	199	43,533	43,268	265	107	39,508	6,311	6.26
72	876	13	152	643	19,166	1,565,873	1,565,534	339	48,100	858,436	89,165	9.63
TOTAL	3,282	106	1,884	6,682	51,956	5,206,724	5,197,870	8,855	592,467	1,775,489	237,745	7.47

Definitions:

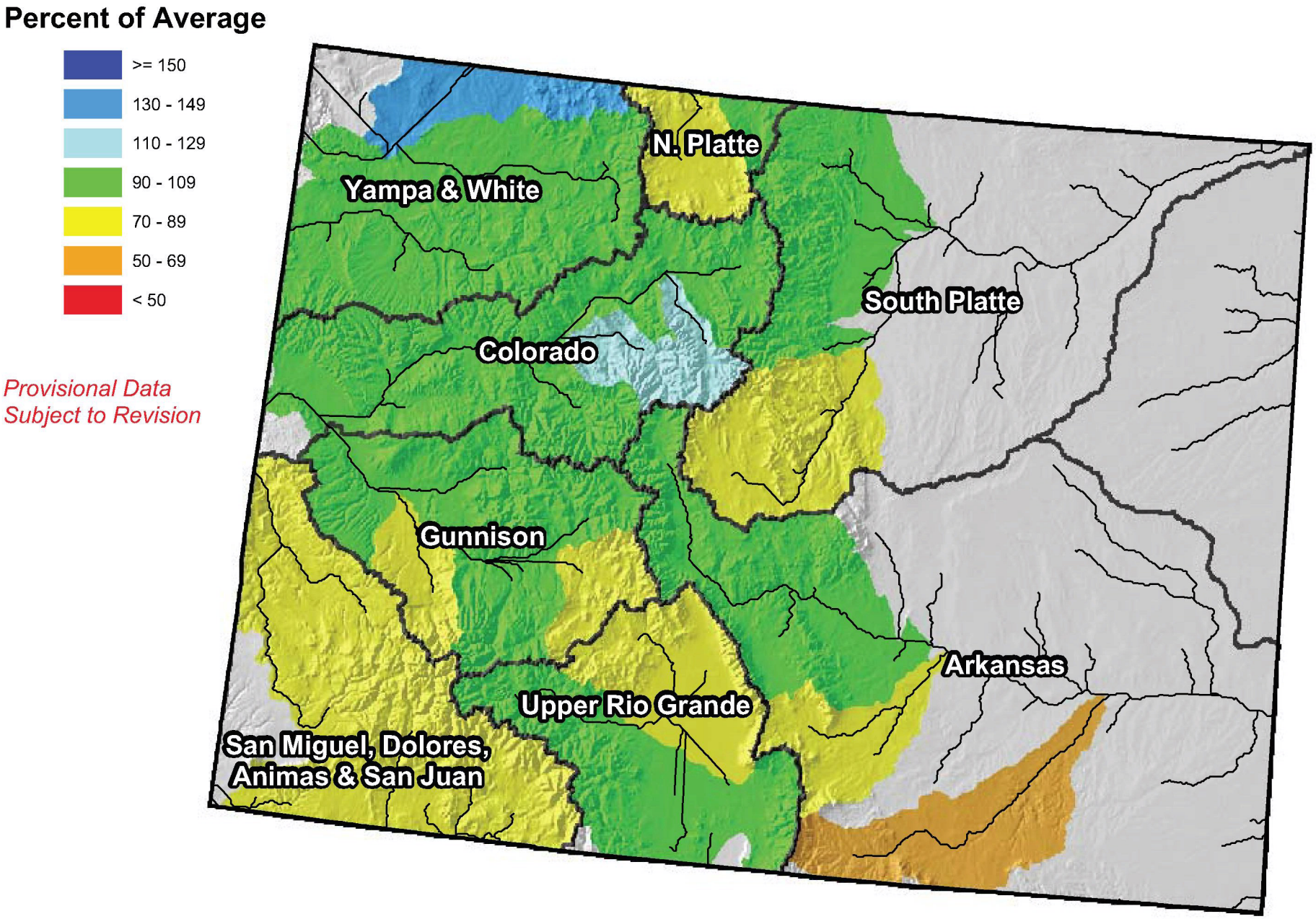
(1) Count of structures with daily or infrequent diversion records

(2) Count of structures with NUC=B

(3) Count of structures with NUC=(A,C,D)

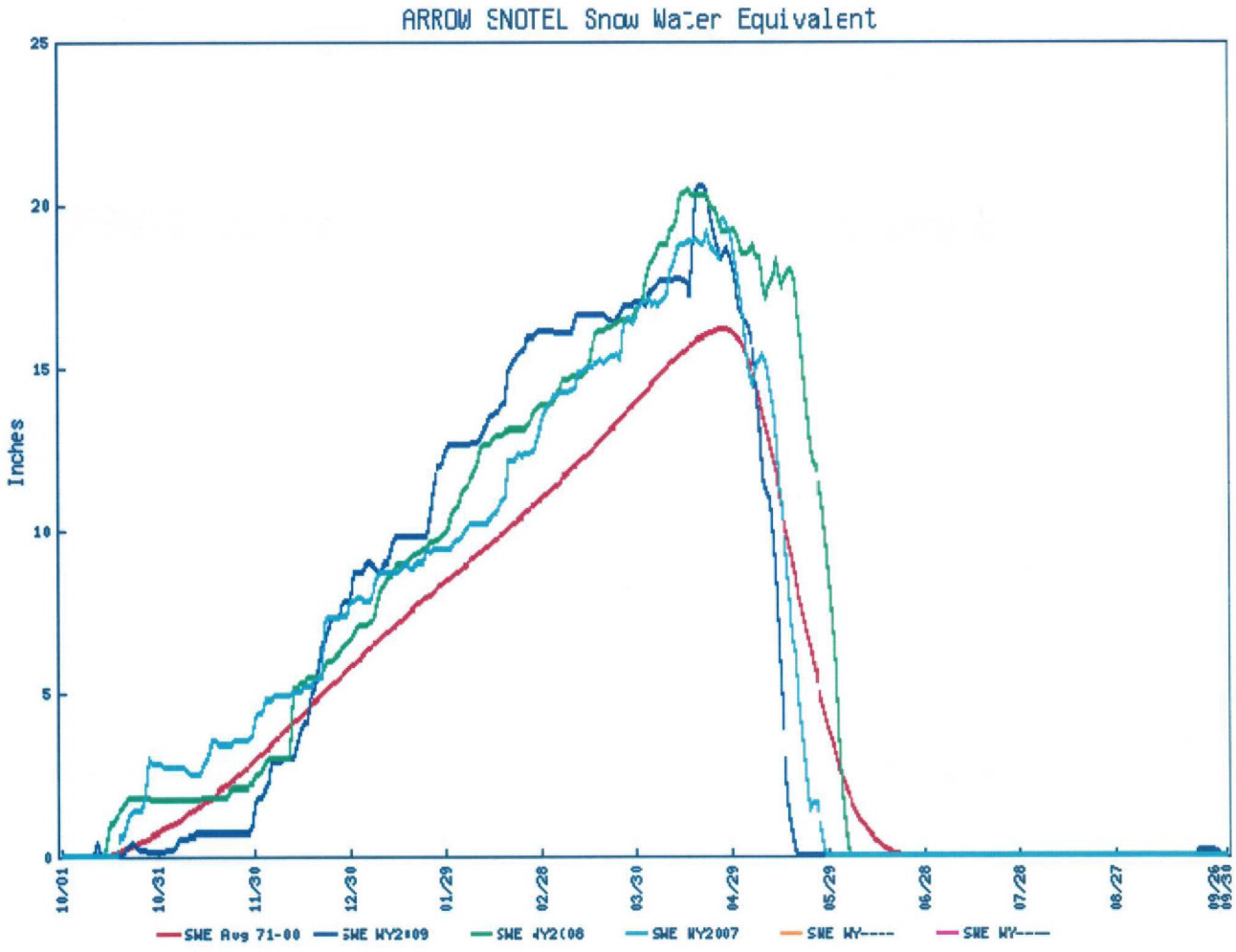
(4) Count of structures with NUC=(E,F)

Colorado Streamflow Forecast Map



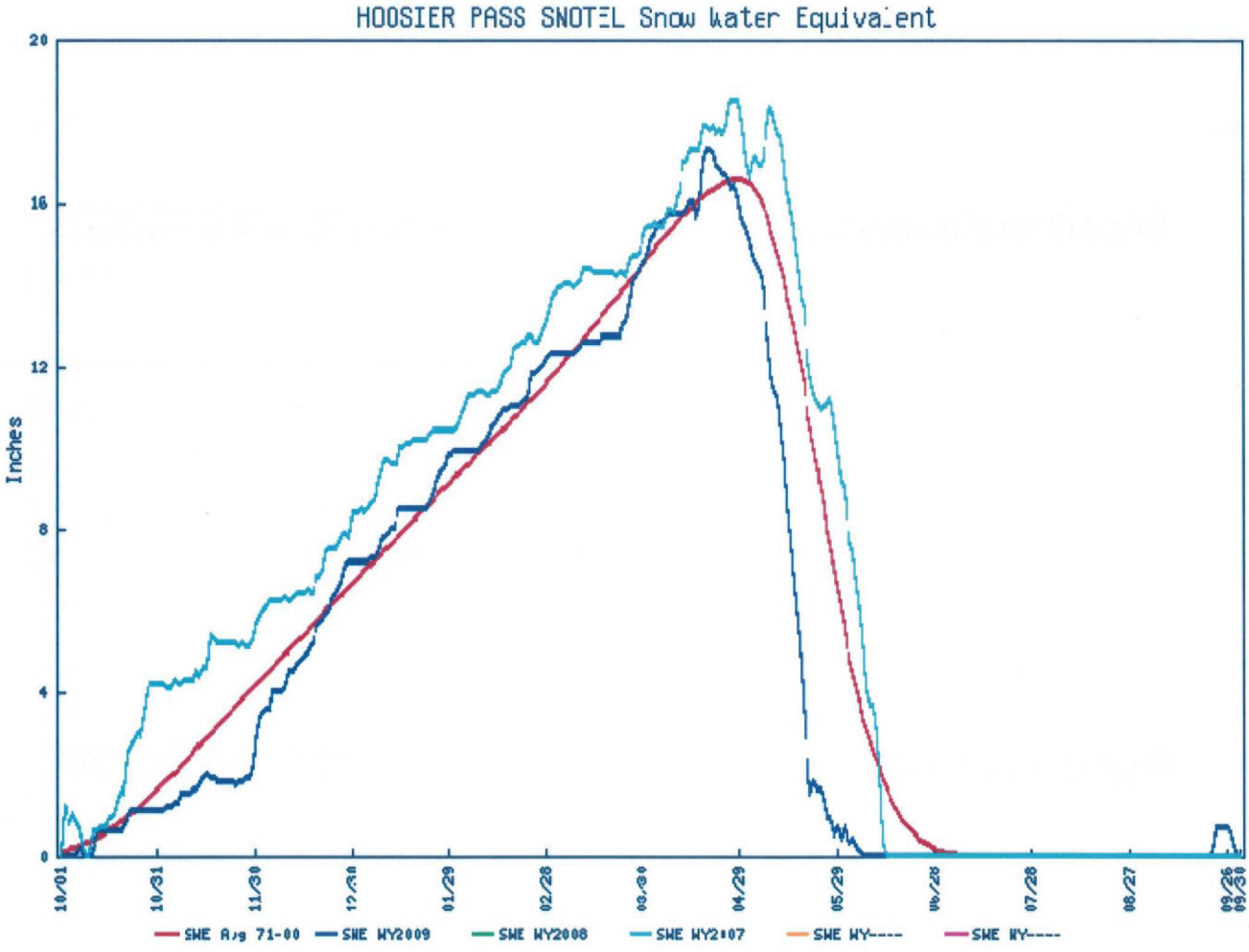
Current as of May 1, 2009

ARROW SNOTEL Snow Water Equivalent Graph



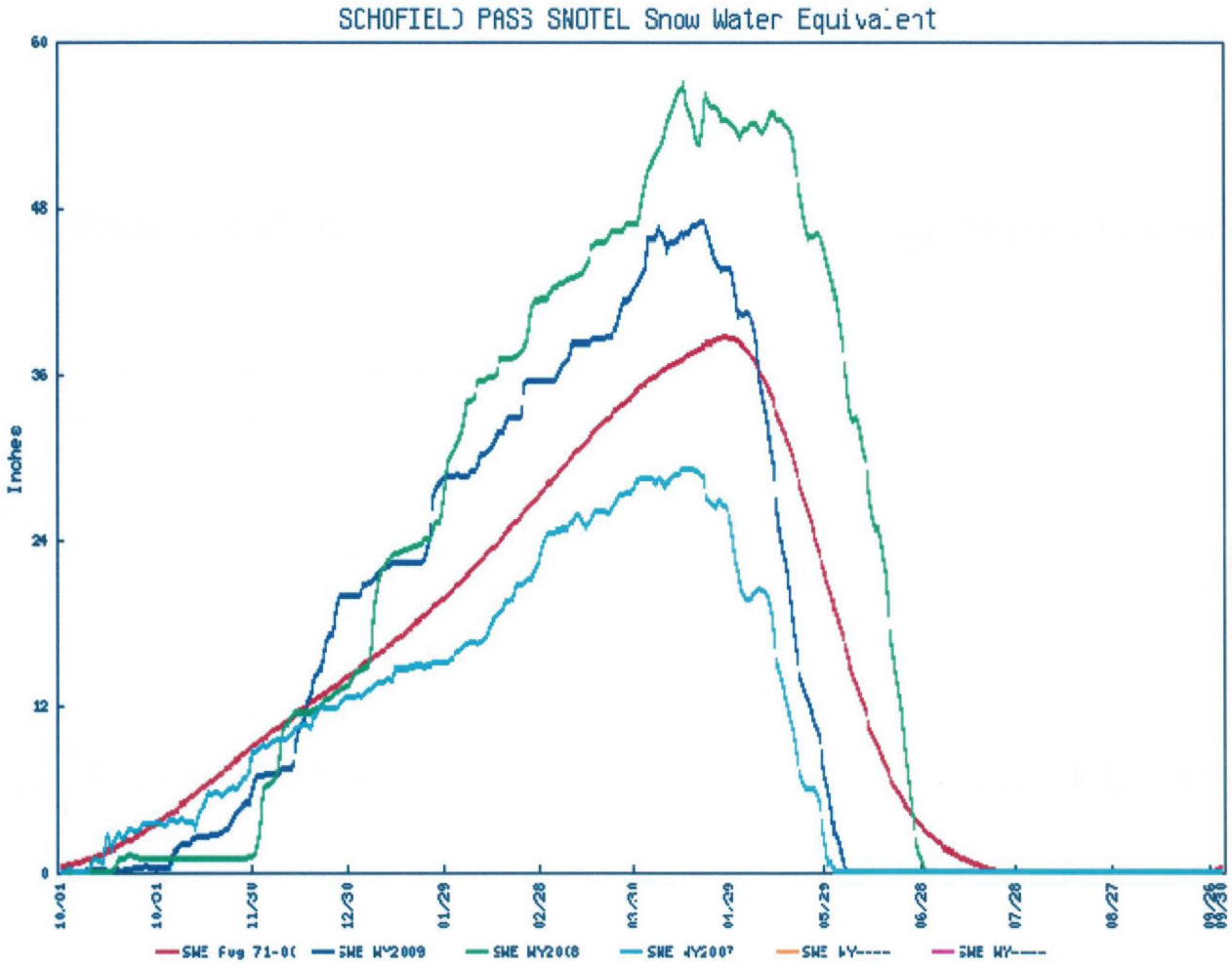
Appendix M

HOOSIER PASS SNOTEL Snow Water Equivalent Graph



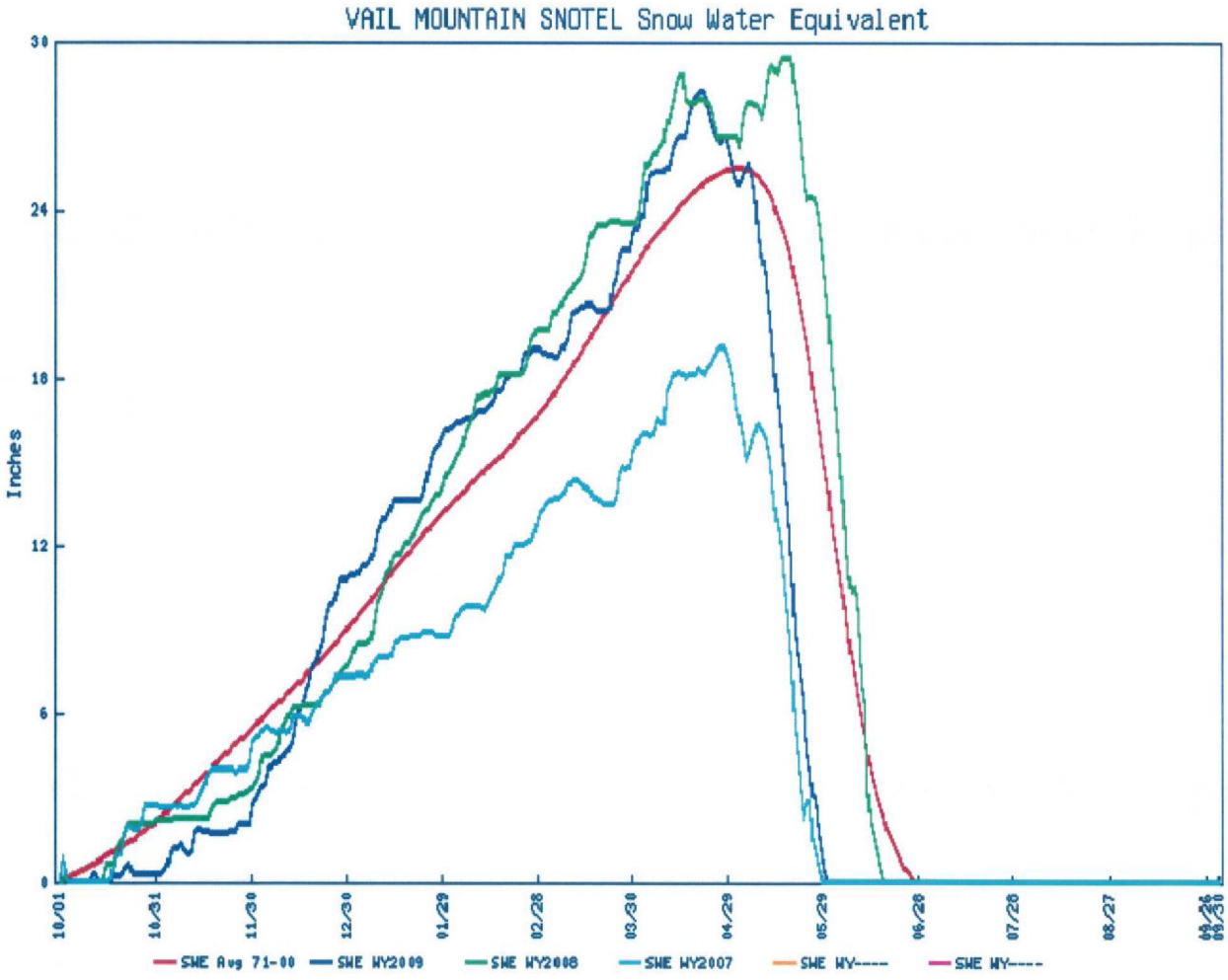
Appendix M

SCHOFIELD PASS SNOTEL Snow Water Equivalent Graph



Appendix M

VAIL MOUNTAIN SNOTEL Snow Water Equivalent Graph



Appendix M