

# DIVISION 5 WATER RESOURCES

## 2006

### ANNUAL REPORT

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## ANNUAL REPORT WATER DIVISION 5 2006 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 2006 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 was 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 2006 for conversion of agricultural lands to municipal land. The total irrigated lands for 2006 was 208,522 acres. Irrigation diversions were down in 2006 to 1,758,768AF from 1,917,301AF in the previous year due to both decreased supply and irrigated acreage. The resulting irrigation depletions were approximately 420,000AF. Current irrigation year hydroelectric power generation was 2,076,777 compared to 1,517,618 the previous year. Most of this increase is attributable to the power plant at Palisade, while some increases were seen in all reservoir outflows. Transmountain diversions were 693,080AF in 2006 a 44% increase above diversions in the previous year. Municipal diversions continue to increase in the Colorado River Basin and were 59,741AF compared to a previous year total of 50,889AF (excludes domestic and household use only rights).

### I. 2006 WATER YEAR ACCOMPLISHMENTS AND EVENTS

#### A. RUNOFF CONDITIONS AND WATER ADMINISTRATION

##### • **Runoff Conditions**

The 2006 irrigation season began with snow accumulations through the end of December 2005 well above average. November and December produces on average 32% of the annual snow pack accumulation. However, this year, an accumulation of 48% of the

average annual snow pack occurred. January 1, 2006 measurements show the basin was 133% of average overall. With reservoir storage near normal, runoff was forecast to range from 113% of average for the Lake Granby inflow up to 134% of average for the Eagle River below Gypsum. This positive beginning deteriorated but

remained above average with the March 1, 2006 basin-wide snow pack at 115% of average. This was 17% higher than last year, and was the first March 1<sup>st</sup> snow pack to be above average since 1997. The forecast continued to diminish in March, April, and May. Additionally, the SNOTEL sites reached their seasonal maximums eight days earlier than average, with a basin-wide peak on April 8<sup>th</sup>. By May 1<sup>st</sup> runoff was projected to be slightly above average, and on June 1<sup>st</sup> runoff was projected to be slightly below average. As of June 1<sup>st</sup>, the April-July runoff for the Colorado River at Dotsero, at Glenwood, and at Cameo was expected to be 97% of average at all three sites, while the tributaries varied from 75% of average for the Willow Creek Reservoir inflow to 113% for the Green Mountain Reservoir inflow and the Eagle River below Gypsum.

Reservoir storage for the major reservoirs in Water Division 5 on January 1, 2006 was 25% greater than January 1, 2005 and 101% of normal storage. See Appendix D. On February 1<sup>st</sup> reservoir storage conditions continued to improve with 106% of normal and 136% of last year's. With favorable snow pack discretionary releases were made for power generation and the storage content on March 1<sup>st</sup> dropped to 103% of average but continued above the March 1, 2005 contents. Before the start of fill for the major reservoirs in the basin on April 1<sup>st</sup>, storage continued at 103% of average and 33% above April 1, 2005. With runoff underway the storage conditions continued to improve through April and June with 106% and 107% of average and 30% and 18% of the previous year.

As with 2005, by early July 2006 all reservoirs in the basin had filled with the exception of Granby and Homestake Reservoirs. Both Granby and Homestake continued to increase storage through late July, when the reservoir level at Homestake was less than 0.7ft of the spillway and Granby was 109,000AF below the spillway. Maximum storage at both Homestake and Granby Reservoirs was slightly less than in 2005.

As usual, the 2005-2006 winter river operations were controlled by the normal

Shoshone and Green Mountain power operations. As has been customary, Shoshone reduced the winter call to 700cfs to perform maintenance on the two units, one at a time. However, the maintenance occurred over an unusually lengthy period, extending from January 4<sup>th</sup> through May 1<sup>st</sup>. This extended maintenance period contributed to positive storage conditions. By May 2<sup>nd</sup> both turbines were on line with a demand of 1408cfs; however, runoff exceeded this demand and a call by Shoshone was not placed until July 23<sup>rd</sup> following the snowmelt runoff. Natural flow at the Colorado River near Cameo and management of storage for the endangered fish resulted in a Cameo call never being placed in 2006.

The U S Fish and Wildlife Service set the target flows for the Colorado River at Palisade gage at 1240cfs in June, which is the target for average years, and maintained that target through August 24<sup>th</sup>, when the target flows were increased to 1400cfs through August 31<sup>st</sup>, attributable to temporary above average natural flow, sufficient storage in various Fish and Wildlife pools, and a growing surplus in Green Mountain's Historic Users Pool ("HUP"). The target was then dropped back to 1240cfs for the first week of September, and dropped again to 1040cfs for the second week in September. On September 14<sup>th</sup> the target was raised to 1240cfs, where it remained through the end of the irrigation season. Flow at this gage generally ran 100- to 200cfs below targets until early September, when record flows were well above the targets for the remainder of the year.

Green Mountain Reservoir did reach a paper fill on May 28, 2006, and a physical fill on June 20, 2006, reflecting the near average run-off conditions. Releases at Green Mountain were on pace to completely deplete the West Slope HUP by the end of the irrigation season. The declaration of a surplus and management of the HUP resulted in no demands on Green Mountain from the major users of the Grand Valley irrigation canals, but was offset by the releases for endangered fish. However, as occurred last year sustained September and early October rains increased river flows and

Green Mountain releases were reduced. Due to continued rainfall, on September 24<sup>th</sup> releases to the 15-Mile Reach ceased, leaving only minor releases for HUP beneficiaries above the Shoshone power plant. The result left 36,296AF in the HUP.

See [Appendix B](#).

- **Labor Day Weekend Colorado River Flows in Middle Park Raise Concerns**

Granby Reservoir outflows dropped on September 1<sup>st</sup> from summer releases of 75cfs below the Coffee McQueary Ditch to 20cfs at the Granby Reservoir outlet above the Coffee McQueary Ditch. Also, at the same time Dillon Reservoir passed inflows and made replacement releases for Moffat Tunnel. This decreased Williams Fork Reservoir outflow to 49cfs. Flows in the Colorado River dropped dramatically below Windy Gap down to Kremmling. Irrigators below the Williams Fork could not get their irrigation water out of the river, while irrigators above the Williams Fork ceased diversions to maintain flow in the Colorado River with the hope of preventing damage to the fishery. Many of these properties lease fishing access. The complaint was first noted at the September 6, 2006 HUP meeting, and immediately the releases at Dillon were decreased and releases at Williams Fork were increased to mitigate the problem below the confluence with the Williams Fork River. However, nothing immediate could be done for the Colorado River above the Williams Fork. After the end of the irrigation season, Grand County, Middle Park Water Conservancy District, Colorado River Water Conservation District, and local landowners met with Reclamation, Denver Water, and Division 5 staff to discuss the operation of the Colorado-Big Thompson Project and Senate Document 80 to search for options to mitigate future low flows.

- **Water Administration**

Excluding two days in November, the Shoshone Hydro Power Plant had its senior call of 1250cfs on from November 1, 2005 through January 4, 2006. Beginning on January 4<sup>th</sup> and ending May 1<sup>st</sup> the power plant operated with only one turbine for normal maintenance. During this period river flows were sufficient to satisfy demands

and the water users operated under free river conditions. On May 2<sup>nd</sup> the power plant was back to full operation but by then spring runoff had commenced and free river conditions continued. The main stem operated without a call until July 24<sup>th</sup> when the junior (158cfs) Shoshone right called for 1408cfs. This junior call was replaced on August 10<sup>th</sup> with the senior (1250cfs) call, which remained on through the end of the irrigation season. See [Appendix C](#) for summary of main stem calls.

The Grand Valley irrigators (and the power plant) did not place a call during 2006. Operations were normal and a full supply of water was available to the Grand Valley Water Users Association, the Grand Valley Irrigation Canal, and the Orchard Mesa Irrigation Company.

Green Mountain declared April 21<sup>st</sup> as start of fill and achieved paper fill of its 1935 first fill right on May 28, 2006. Actual storage in the reservoir on the date of paper fill was 99,274AF. For the third consecutive year, Green Mountain was administered pursuant to an Interim Policy, see [Appendix A](#). The policy allowed Green Mountain to store by exchange with a 1955 priority after a paper fill. Green Mountain continued to store under the Interim Policy until June 20<sup>th</sup>, when a physical fill occurred at 153,576AF, which satisfied the 154,645AF decree for the first fill right. The storage of 55,371AF under the interim policy offset all water stored and owed to Green Mountain at Dillon and Upper Blue Reservoirs prior to Green Mountain's paper fill, thus eliminating the need for substitution administration. Also, on June 21<sup>st</sup> the power plant was taken off-line and therefore, a free river was declared on the Blue River. The power plant was back on-line August 5<sup>th</sup> and Reclamation placed a call for Green Mountain's power right and its 1935 refill right.

The Colorado Water Conservation Board ("CWCB") did not place a Division-wide call for their minimum stream flows in 2006 as they did in 2005. The CWCB did place specific calls for administration this past year at two new locations: (1) the Colorado River below Windy Gap to the confluence with the Williams Fork River for 90cfs; and (2) Beaver Creek near Avon for 12cfs.

Administration of instream flows continue at many locations including Snowmass Creek, Ten Mile Creek, the Blue River above Dillon, and the Snake River. For the purposes of instream flow administration, negotiation for the construction and operation of two new gages for the Roaring Fork River above the confluence with the Fryingpan River and for the Crystal River above Carbondale was accomplished in 2006. The gages were constructed in the fall of 2006 including some initial current meter measurements to begin developing a stage-discharge relationship.

Transmountain diversions ("TMD") totaled 693,080AF for the 2006 irrigation year -- an increase of 178,572AF over the average for the past ten years. This not only reflects an improved water supply over the previous five years but also available storage space on the East Slope and increased demands. Roberts Tunnel and Homestake Tunnel increased diversions over the 10-year average by 30,000- and 31,000AF, respectively, largely due to increased demands. Adams Tunnel diversions increased by 52,000AF, because vacant space in Horsetooth Reservoir was now available due to repairs to one of its dams. Diversions at nearly all other TMD's was the result of improved water supply.

Releases for the endangered fish in the 15-Mile Reach were near normal and a 4% increase over last year. The endangered fish include the Colorado pike minnow, humpback chub, bonytail chub, and razorback sucker. The 15 Mile Reach is on the main stem and extends from Palisade to the confluence with the Gunnison. The Managing Entities declared a surplus to the Green Mountain HUP on August 18<sup>th</sup>. This declaration allows surplus water from Green Mountain's 66,000AF HUP to be made available to the municipal/recreational contract, which indirectly benefits the flows in the 15- Mile Reach. Water is also available from contracts from Williams Fork, Wolford and Ruedi Reservoirs. All reservoirs with endangered fish pools filled, as did Green Mountain, which assured flexibility in managing the accounts and the likelihood that target flows would reflect at least average year conditions. The targets were set at 1240cfs and were maintained

throughout most of the summer. The target went to 1420cfs for a week in late August and down to 1040cfs for a week in mid-September. This year 61,034AF was released from the reservoirs for the benefit of these fish, and of that amount 55,477AF was delivered to the 15-Mile Reach for flow enhancement. See [Appendix B](#) for details on the release and delivery schedule.

- **Green Mountain Ring Seal Project Finished in 2006**

Work on the outlet ring seals at Green Mountain Reservoir continued as planned in 2006. The second ring seal was reinstalled after it was reconditioned, and both power units were on line by August 21, 2006. With the removal of the bulkhead from the front of the second outlet tunnel, releases were no longer limited to one tunnel plus flows through the spillway radial gates for the top 42,000AF in the reservoir. Initially a three-year project begun in 2001, the untimely drought stopped work from 2002 through 2004, extending the project to six years.

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

2006 marked the 10-year anniversary of the program. The spring runoff in 2006 ended six consecutive years of not implementing the Coordinated Reservoir Operations 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 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.

Reservoir re-operation for endangered fish habitat enhanced flows at Cameo by 29,516AF between May 20<sup>th</sup> and May 31<sup>st</sup>, with a maximum direct flow enhancement of

2,391cfs on May 24<sup>th</sup>. The Colorado River at Palisade gage is at the head of the 15-Mile Reach and on May 24<sup>th</sup> the daily average flow was 16,500cfs. The peak daily average for the gage occurred on May 23<sup>rd</sup> at 16,600cfs. Therefore, forecasting and reservoir re-operation efforts were very successful in maximizing the benefit of the program in 2006. See [Appendix B](#)

- **Shadow Mountain Reservoir Release**  
Normal operations for Shadow Mountain Reservoir provide an outflow of 50cfs for the short reach downstream to Granby Reservoir, unless inflows are more than 50cfs greater than diversions through Adams Tunnel. Between October 15<sup>th</sup> and October 31<sup>st</sup>, 2006 the project took the unusual step of releasing up to 800cfs for channel maintenance. Releases totaled over 13,000 AF. The releases did not reduce the yield of the project for they were pumped back upstream through the Granby Pump Canal.



**B. DAM SAFETY**

The year 2006 brought a very high snow pack in the northeast part of the Division. With a dry April, the snowmelt runoff was not as significant as anticipated. However there were several dam safety incidents and adverse changes mostly related to the aging dams or changes in the dams' operations that kept the dam safety staff very busy. There were a record number of restrictions imposed or increased this year (6 restrictions with almost 800AF of lost storage), which is considered a most significant concern.

One significant item, which can be considered the most significant dam safety highlight, was an incident that occurred at the high-hazard Goose Pasture Tarn. With a heavier than normal spring runoff locally above the dam and a deterioration of the embankment under the dam, seepage exited out of the roller-compacted concrete emergency spillway possibly transporting fines under significant uplift pressures. With quick response and cooperation between the Town of Breckenridge, the water

commissioner, and the dam safety engineer, this incident was properly addressed by monitoring and lowering the reservoir before significant problems occurred. Also, with approved plans, specifications and necessary change orders due to the incident, the problems were physically addressed in the summer and fall so that there should not be any problems this next year. Many construction inspections and other follow-up was needed to address the issues regarding this dam.

Due to the ever increasing demand for water with rapid growth, there continues to be a growing desire by dam owners to rehabilitate and enlarge existing dams. Seven significant projects were reviewed by the dam safety staff: three by the Glenwood Springs ("GWS") dam safety engineer and four by the Grand Junction ("GJ") dam safety engineer. Four dams were rehabilitated and one new dam was constructed.

In January 2006 oversight of the dams in Water Districts 50 and 51 was fully and permanently assigned to the dam safety engineer for Water Division 6 in order to better balance the dam safety work load statewide. The dam safety engineers in Grand Junction and in Division 6 are now fully established to oversee all dam safety aspects in Water Districts 50, 51, and the western portion of Water District 72. All activities associated with this change were successfully performed with minimal assistance from the GWS dam safety engineer.

Water Districts 50 and 51 contain 4 high-hazard dams (plus 3 Reclamation high-hazard dams), 11 significant-hazard dams, and 24 low-hazard dams that were organized into a long-range inspection schedule. During 2006 the Division 6 Dam Safety Engineer inspected all 4 high-hazard dams, 6 significant-hazard dams, and 6 low-hazard dams in Division 6 plus an interim inspection was completed on 1 other low-hazard dam and 2 non-jurisdictional dams were evaluated for size and safety issues. In addition, Federal Energy Regulatory Commission engineers completed an independent review of the high-hazard power-generating Williams Fork Dam separate from this Division's safety inspection.

During the inspections, significant problems were noted at 1 high-hazard dam, 3 significant-hazard dams, and 1 low-hazard dam. Seepage issues at 2 of the significant-hazard dams and at the 1 low-hazard dam have progressed to the point where new or additional restrictions may need to be imposed at these structures if the owners do not address the problems in a timely manner. The high-hazard dam was not being properly monitored and changes appeared to be occurring in the seepage flows with no record for tracking. The remaining significant hazard dam was experiencing seepage at low water levels with no monitoring being conducted. Each of these situations will require follow-up action in the coming year.

The Division 6 dam safety engineer completed the review of the Hydrology and Hazard Report for the Grand County Water

& Sanitation District's plan to convert 3 old wastewater treatment lagoons into 2 augmentation ponds along the Fraser River in Grand County. The final design for the Grand County Reservoirs No.1 and No.2 was submitted to the Division and will be reviewed by the GJ dam safety engineer and mostly responsible for design reviews on the Western Slope. The GJ dam safety engineer also completed the review of designs for the repair of 1 significant-hazard dam and 2 low-hazard dams in Districts 50 and 51 with the majority of the construction inspections being completed by the Division 6 dam safety engineer. The repairs on the significant-hazard dam were completed during the fall construction season, 1 of the low hazard dams was substantially completed, and the final dam was breached and protected from erosion damage until funding can be obtained to finish the repair project.

The total number of inspections performed in Division 5 in 2006 was 180. This was significantly more than usual because of the large number of follow-up inspections needed for the incidents that occurred and the resulting construction activity. The breakdown of the inspections performed is as follows:

113 inspections performed by John G. Blair, Division 5 GWS dam safety engineer:

- 27 High-hazard regular
- 10 Significant-hazard regular
- 11 Significant-hazard interim
- 17 Low-hazard regular
- 0 No public hazard regular
- 22 Follow-up
- 24 Construction
- 2 Outlet

33 inspections performed by Garrett Jackson, Division 5 GJ dam safety engineer:

- 5 High-hazard regular
- 6 Significant-hazard regular
- 0 Significant-hazard interim
- 1 Low-hazard regular
- 0 No public hazard regular
- 12 Follow-up
- 6 Construction
- 3 Outlet

20 inspections performed by John R. Blair,  
Division 6 dam safety engineer:

- 4 High-hazard regular
- 6 Significant-hazard regular
- 0 Significant-hazard interim
- 6 Low-hazard regular
- 0 No public hazard regular
- 3 Follow-up
- 1 Construction
- 0 Outlet

14 water commissioner observations:

- 6 Significant-hazard interim
- 8 Follow-up

A Division 2 dam safety engineer performed  
1 high hazard regular inspection of a  
Colorado Springs-owned dam in District 36.

The GWS dam safety engineer also  
completed:

- 10 hazard evaluations,
- 10 hydrology studies, and
- 7 other technical evaluations.

#### **Dam Safety Incidents and Restrictions Imposed – 4 incidents and 6 restrictions**

Besides the Goose Pasture Tarn incident  
described above, the following additional  
incidents occurred with resulting restrictions  
being imposed:

Barton Porter Reservoir in District 45 -  
earthquake nearby. An earthquake located  
near New Castle in February caused  
concern for Barton Porter Reservoir and  
Harvey Gap Reservoir. These dams were  
promptly inspected and no significant  
problems were found. An increase in  
seepage occurred later from the right  
abutment of the Barton Porter, which may  
have been augmented by the earthquake.  
The increase was not viewed as significant  
enough to warrant a restriction with the daily  
monitoring that occurred.

Valana K Reservoir – a significant-hazard  
dam located in District 38. A new owner  
backfilled the emergency spillway for this  
dam with a 20-square-mile drainage basin.  
After some educational lecturing, he hired  
an engineer and had a temporary  
emergency spillway constructed to alleviate  
the overtopping and head cutting potential  
for a few years until a permanent spillway  
can be designed and constructed. With this

work, no restriction was imposed and it  
appears that the permanent spillway will be  
constructed this year.

Newton Gulch Reservoir – a significant-  
hazard dam located in District 53. Due to  
changes in operational practices by the new  
owner, this reservoir filled well above the  
restricted level for the second year in a row  
causing an increase in the seepage. A zero  
storage restriction was imposed as well as  
an order to breach the dam by October 2007  
if a repair is not performed. This has  
resulted in a loss of storage volume of about  
571AF.

McElroy Reservoir – a low-hazard dam in  
District 50. The outlet failed for this dam in  
June creating a large sinkhole that severely  
compromised the safety of the structure.  
Large pumps were used to drain the  
reservoir and the dam was breached to  
remove the outlet. It is expected to  
rehabilitate the dam this next year. Volume  
lost with this incident is about 240AF.

Kelly Reservoir – a low-hazard dam located  
in District 53. With the dam owner raising  
the pipe service spillway and ignoring the  
historic restriction, excessive seepage and  
possible slope stability problems occurred.  
The reservoir was restricted to 3.5 ft. below  
the service spillway crest resulting in a lost  
volume of 84AF.

Holden Reservoir – a low-hazard dam  
located in District 53. This dam has the  
same owner as Kelly Reservoir. In June it  
was revealed that this newly discovered  
dam had an inadequate spillway and  
extensive badger activity on the crest. It  
was restricted to 4 ft. below the emergency  
spillway resulting in a lost volume of 20AF.  
In August, with the restriction being ignored,  
seepage was discovered exiting the  
downstream slope around the pipe service  
spillway. A zero storage restriction was  
imposed resulting in a lost volume of 31AF.

Welsh Reservoir – a low- but potentially  
significant-hazard dam in District 37. In July  
a saturated area was discovered around the  
outlet. This along with no maintenance on  
the dam warranted a zero storage restriction  
resulting in a lost volume of 105AF.

7W Guest Ranch Pond – a potentially  
significant-hazard dam in District 53. In  
October it was revealed that this newly



discovered dam had an inadequate spillway. It was restricted to 3 ft. below the dam crest resulting in a lost storage volume of 5.5AF.

**Rehabilitations and Restrictions Lifted or Avoided**

Consolidated Reservoir – a high-hazard dam in District 38. A new chimney drain and stability berm was proactively constructed this fall; this made it so that a restriction could be avoided, which would have been a lost volume of about 200AF.

Goose Pasture Tarn - a high-hazard dam located in District 36. As previously mentioned, the spillway was rehabilitated with adequate drainage and the voids under the spillway slab were grouted. This project alleviates the problems discovered during the incident this year and made it so that a restriction could be avoided, which would

have been a lost volume of about 300AF of storage.

Scholl Reservoir – a significant-hazard dam in District 51. The repair of several sinkholes was performed this year, which may alleviate the past seepage problems. It appears that the restriction to gage 18 will be lifted, but this has not occurred yet.

Sawmill Reservoir - a significant-hazard dam in District 36. The downstream slope and outlet was rehabilitated for the long-term safety of the dam. This work is not yet complete, but should be finished in 2007.

**Enlargements and/or New Dams**

Cow Camp – a low-hazard dam in District 38. This is a new augmentation pond, which was completed this year. It will store about 13AF.



**C. GROUNDWATER AND WELL PERMITTING**

Continued growth and strong economic conditions were seen during the year 2006 which kept the Division 5 staff 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.

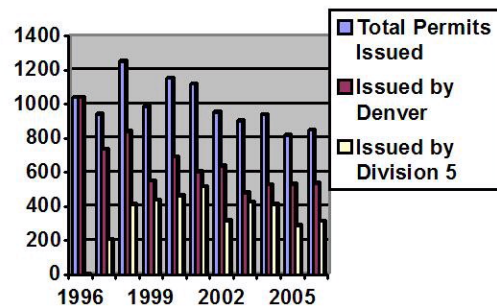
During calendar year 2006 a total of **847 permits were approved** for Division 5 - an increase of **3.5% from 2005**. Additionally, ground water forms such as “Change in Ownership” and certain types of permits not reviewed by the Division office were preprocessed and forwarded to Denver for review.

A breakdown of permits processed includes:

Exempt permits	582
Non-exempt permits	197
Geothermal permits (excluded from total count)	19
Exempt replacements	62
Non-exempt replacements	6
Late registrations (included in exempt count)	20

With the decentralized well permitting process in place, a total of **313 permits** (248 exempt and 65 non-exempt) **or 37% 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 to 2006:



No major water well related bills were approved during the 2006 legislative session affecting ground water in Division 5.

However, the sunset provision in Senate Bill 03-181 (SB 03-181) changed (reduced) the well permit filing fees, effective July 1, 2006.

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#### **D. WELL INSPECTION PROGRAM**

The Well Inspection Program made it through a year with no changes in personnel. 185 site inspections were performed in Division 5 over the past year. That is an increase of 7% over 2005. The majority of the inspections in Division 5 were in Summit, Grand, and Garfield counties with 4 contractor violations. Violations included constructing wells over 200 ft. from the permitted location, too close to existing leach field, and unlicensed contractors. Three of these allegations are still pending settlement.

Continuing Education is still a concern of the contractors and the absence of approved programs in the later months of the year. DWR is proposing to provide Continuing Ed programs for 3 to 4 hours of CE credit in the Western Divisions of the state in October or November. These programs are still in the planning stages. There is a lot of interest in more GPS education.

Violations did not increase in 2006 and the inspection program is growing in acceptance among the contractors of the Division. 2007 should be another busy year for the inspection program.

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#### **E. HYDROGRAPHIC PROGRAM**

The following hydrographic duties and projects were completed in Division 5 in WY2006:

- Measuring, recording and publishing streamflows for 8 bypass flow gaging stations associated with transmountain diversions of the Frying Pan-Arkansas Project, all located at or above Ruedi Reservoir,
- Measuring, recording and publishing streamflow for the Blue River below Breckenridge station for minimum streamflow compliance; five cooperators pay for operation of this station,
- Measuring, recording and publishing streamflow for the Roaring Fork River below Maroon Creek station for the Aspen Consolidated District for permit compliance,
- Measuring, recording, and publishing seasonal (i.e., no winter estimating) streamflow for West Divide Creek near Raven to assist with water administration,
- Measuring and recording winter streamflow for the Snake River at the Keystone Ski Area for minimum

streamflow compliance for which Vail Associates Inc. pays for its seasonal operation,

- Recording streamflows for Snowmass Creek below the Snowmass Water & Sanitation District diversion for the CWCB for minimum streamflow compliance,
- Measuring, recording and completing the diversion records for the Government Highline Canal and the Grand Valley Canal near Palisade,
- Measuring and recording streamflow records for Bull Creek and Big Creek in District 72 for reservoir release/water administration purposes,
- Recording and completing records for four transdistrict/transbasin diversions into District 45,
- Measuring diversions and/or bypass flows for water commissioners for administration and flume shifts,
- Responding to data requests from Division 5 staff and the general public,
- Operating and maintaining 45 DWR satellite stations used for administrative and hydrographic record purposes,

- Monitoring 70 stations that are operated by other entities in Division 5,
- Maintaining 3 satellite monitoring streamflow stations for the Colorado Water Conservation Board.

In the 2006 hydrographic water year, the Division 5 hydrographer made 120 discharge measurements associated with stream gaging stations (including 68 measurements for the Fry-Ark Project) and another 13 stream or ditch discharge measurements for water administration purposes.

The backlog of discharge records for Division 5 gaging stations was completed in 2006 with help from temporary employee Ed Wilson, Water Commissioner Steve Pope, and Chief Hydrographer Tom Ley.

High data rate (HDR) transmission upgrades were made to the satellite gaging station on Snowmass Creek below the Snowmass

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Water and Sanitation diversion. Senior Satellite Monitoring Technician David Hutchens was the lead on this project.

Other stream gage improvements in WY2006 include:

- Adding a new satellite monitoring station on the Crystal River above the Div of Wildlife fish hatchery
- Adding a new satellite monitoring station on the Roaring Fork River above the Fryingpan
- SUTRON stage-discharge recorders were installed on all four of the upper gaging stations that Division 5 operates and maintains for the Fryingpan-Arkansas Project.
- A SUTRON AccuBubble sensor was installed at the gaging station on West Divide Creek near Raven after construction of a bridge isolated the well from the stream.

## **F. WATER RECORDS AND INFORMATION**

Diversion records were a new experience for all the water commissioners and staff this year using the improved *HydroBase* program distributed by the Information Technology section. With the learning curve a bit low and lots to learn and absorb, records were not completed until mid-April; regardless, the user-supplied data and water commissioner observations were all tallied. There were over 34,000 estimated number of visits to structures spread among 15 water commissioners in 11 districts. That

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could amount to over 2,200 visits per commissioner – if all the districts were 'equal!' (We've tried to keep the spreadsheets to 'user-supplied data' so as not to skew this statistic.)

Over 572,000AF went to storage with 70% of that occurring in the headwaters in Districts 36 and 51. The average acre-feet (AF) per acres amounted to 8.44 on 208,522 acres of observed irrigated land.

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## **G. INFORMATION TECHNOLOGIES**

**PC Status** – This year we were able to upgrade with laptops for Water Commissioners Neal Misbach, Frank Schaffner, and Steve Pope, Assistant Division Engineer Kyle Whitaker, and Hydrographer Engineer George Wear. We still have quite a few machines that we want to upgrade. Our wish list includes a laptop for IT/GIS Analyst Brian Romig and Division

Engineer Alan Martellaro. We also have quite a few machines we need to upgrade to *Windows XP*. We hope to replace at least 5 computers in 2007. We moved to the new *NatureNet* domain this year and, although there were some problems, it was mostly a rather smooth transition for us. All of our computers were also renamed to the new standard of naming conventions. We now have two public machines in order to better

access the move to digital data from that of hard copy.

**Hardware/Software** – We purchased an HP ScanJet 8270. This scanner has helped immensely in day-to-day operations. Beginning in 2007 we will start scanning missing court documents and the rest of the decrees into *LaserFiche*. We also purchased an HP OfficeJet 7310, which has been particularly useful in printing dam safety maps. The quality and resolution is much better than our plotter; also, we hope to get a better resolution plotter in the near future. We are working to improve our mapping analysis with the purchase of *Spatial Analyst* and possibly *3D Analyst*. The dam safety branch has purchased ESRI's *Spatial Analyst* for their *EPAT* software. The purchase of *XTools Pro* is also on the possible list of tools needed to increase the efficient use of *ArcGIS*. We are looking into the possibility of supplying the water commissioners with the use of high speed internet from their homes. In some cases,

this might require wireless network hardware but for the most part no extra hardware is needed in this area. We also were able to purchase three HP 2610 printers for some water commissioners and eventually hope to upgrade the rest of the V-40 printers this year.

**Training** – Our training this year has focused on diversion record completions, safety, court workings, well drilling, and water quality. The training budget funded some water commissioners' expenses to the Gunnison Water Workshop and to the Colorado Water Officials Assn conference in Steamboat Springs.

**Web Page** – The Division 5 website continues to be a very useful tool. Our website contains phone numbers for all Division employees, river calls, an organizational chart, frequently asked questions, news, important meetings and functions, and calendar of events.

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## H. GIS PROJECTS

The A/B boundary was adjusted this year to the inlet at Ruedi Reservoir in District 38.

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. Also, we are working on a process of *Visual Basic* tools for various projects to have all of our data in digital format. Along with that we have created a new program to keep record of and track our administrative orders, although currently it's not entirely complete.

We've acquired 1-meter resolution imagery and this is helping us solve the irrigated

acres problem (see picture below). Our goal is to redo field boundaries and crop type for the Division. The plan is to have our GIS person sit down with each commissioner to go over the boundaries. We hope to have all data digitally entered. We are also hoping to print out a complete set of quad maps in the upcoming year.

We have 13,317 structures currently that we want to GPS. Of these, 1,263 or roughly 9.5% have been 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 now. This data will be extremely beneficial for well enforcement, particularly in Summit County.

### COMMISSIONERS AREAS

Name	Approx. # of Structures	GPS'd Since	GPS'd CIU A	Total GPS	Total To GPS	% Complete	Bad Locations with CIU = A
Hummer	633	38	185	211	456	29.2%	11
Thompson 36	100	0	13	13	79	13.0%	
McEwen	1296	35	91	95	1205	7.0%	28
Blakeslee	1403	41	204	278	1199	14.5%	53
Other 38	1300	24	188	133	1112	14.5%	
Lemon	933	18	62	68	871	6.6%	22
Mello	179	53	85	97	122	47.5%	
Trexel	414	61	75	74	315	18.1%	35
Berry 45	207	25	25	25	178	12.1%	
Thompson 50	283	48	98	105	185	34.6%	6
Thompson 51	214	33	59	64	155	27.6%	14
Misbach	857	107	164	187	693	19.1%	
Schaffner 52	294	17	79	82	215	26.9%	11
Schaffner 53	543	13	173	193	370	31.9%	31
Thompson 53	40	0	2	2	38	5.0%	
Berry 70	347	46	46	47	301	13.3%	3
Brigham	494	0	246	426	248	49.8%	
Comerer	113	48	40	48	73	35.4%	
Cox	426	20	110	103	316	25.8%	39
Greene	168	40	45	40	123	26.8%	
Pope	300	0	98	0	202	32.7%	
	10797	667	2088	2291	8456	19.3%	253

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#### I. SUBSTITUTE SUPPLY PLANS

There were nine approvals given for substitute water supply plans for calendar year 2006. The number of approvals and type are as follows:

*District 37* had 1 renewal for municipal (Town of Gypsum);

*District 38* had 5 approvals: 2 new for evaporation (Bierne and Braun), 1 new for evaporation/irrigation (Bishop), 1 renewal for irrigation/miscellaneous (Basalt Water

Conservancy District), and 1 new evaporation and domestic (Morningstar Preserve);

*District 39* had 2 renewals for irrigation/miscellaneous (West Divide Water Conservancy District: Silt Mesa) and industrial (Encana);

*District 70* had 1 renewal for evaporation and domestic (#10 Enterprises).

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#### J. SPECIAL PROJECTS AND ISSUES

- Green Mountain Reservoir Fill Committee and SEO Interim Fill 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 a 1935 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.

During 2006 Reclamation continued to push its Active Management Plan for the filling of Green Mountain and power production as resolution of the problem. Under the Active Management Plan, Reclamation assesses the runoff forecast and determines the amount of that forecast needed for storage and the amount needed for power. As the runoff forecast changes and storage targets change, the amounts of Blue River runoff allocated to storage and power changes. Any water intercepted by Denver and

Colorado Springs that is part of Reclamation’s storage allocation (or any other storage the Cities have on hand) must be available for later release should Green Mountain not fill. However, any water Reclamation has allocated to power—at the time of each forecast—intercepted by the Cities may be kept by the Cities. Should Green Mountain not fill, Reclamation is at risk and this water does not need to be released. The Blue River Decree states the Secretary of Interior shall offer a plan and that plan can change from time to time.

Prior to start of fill in the spring we presented a new Interim Fill Policy for 2006 with minor revisions of the 2005 policy for comment. The few comments that were returned noted acceptance of the document as an interim policy but registered continued disagreement in interpretation of the Blue River Decree. The final “Administration of Green Mountain Reservoir for 2006 Interim Policy” was issued on May 15, 2006. See [Appendix A](#) for a copy of the policy.

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

Following a 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.

## **K. WATER COURT**

- **Judge T. Peter Craven Passes Away**

Newly appointed Water Court and Chief Judge of the 9th Judicial District Peter Craven died June 20, 2006 of a heart attack. Judge Craven was initially appointed to the district court bench in January 1991. He was appointed as the Division 5 water judge in addition to his appointment as chief judge in October of 2004. Before becoming a judge, he was a trial lawyer in Glenwood Springs and Denver, served as Glenwood Springs' city attorney, town attorney for Carbondale and Basalt, and as the 9<sup>th</sup> Judicial District's first public defender. District Court Judge James Boyd was appointed in August to replace Judge Craven as chief judge.

- **Judge Daniel B Petre Appointed Water Court Judge**

Judge Petre was appointed in September to replace Judge Craven as water court judge. Chief Judge for the 9<sup>th</sup> Judicial District, Judge Boyd, will serve as the alternate water court judge. Judge Petre was initially appointed to the bench as a 9<sup>th</sup> Judicial District Court judge in 2002, and since 2004 has served as the alternate water court judge in Water Division 5. Prior to appointment to the bench he served as juvenile court magistrate, and as water court referee beginning in 2000.

- **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 339 applications and amended applications were filed in Division 5 Water Court during calendar year 2006 with 58 amended and 281 new applications. Of those totals, 22 new and 7 amended were filed for the White River to be administered by DWR Water Division 6. Therefore, DWR Water Division 5 litigated 310 total applications, where 259 were new and 51 were amended. Last year DWR Water Division 5 litigated 342 total applications, where 282 were new

and 60 were amended. Of the 259 applications, 30 were applications involving new augmentation plans and 1 new application to amend an existing augmentation plan, which compares to the previous year with 48 and 1. The State and Division Engineers formally objected in 7 cases, filed 2 Motions to Intervene where cases were re-referred, and entered 1 protest to a referee ruling. These statistics do not reflect the many conditional rights cancelled for lack of diligence under the original case number, and a change of water right on a Water Division 5 water right filed in Water Division 4 in 2002 and noticed in Water Division 5 in 2006.

- **Water Division 5 Bench Bar Meeting**

Judge Craven convened a Bench Bar subcommittee meeting to develop an agenda and set rules of conduct for the Bench Bar meeting. A Bench Bar meeting was held May 8, 2006 in Glenwood Springs. The meetings are intended to develop a dialogue between judges, referee, engineers and attorneys, and not provide advisory opinions. Any potential solutions or ideas are to be sent to the subcommittee for presentation to Justice Hobbs. In the past, these meetings have resulted in new legislation and policy. After the referee presented her philosophy of the role of the referee and listed some issues applicants must address, several attorneys (nominated by the Water Bar to represent anonymous complaints) presented their issues. Among the issues discussed:

- The Bar is concerned with dialogue between the Referee and Division Engineer after the consultation has been issued as continuing the formal Summary of Consultation.
- The Division Engineer should be limited in the number of opportunities to comment on an application, or be limited to a certain date in the process.
- The Bar believes the Division Engineer should not list legal issues in the consultation, unless the Attorney General's office has provided them.

- The Bar complained about the Court's issuance of ULR 6 letters, when the consultations raise too many issues to expediently process the application.
- The Bar believes the standards for filing Motions to Intervene should be higher for the Division of Water Resources.
- Several stated that if the consultations include the Water Referee's comments, the comments of the Applicant should be included in the Summary of Consultation.
- The Summary of Consultation should list the Referee's comments separate from the Division Engineer's.
- The Bar did suggest that resolution of the definition of "who is a Green Mountain preferred beneficiary," either as pre-1977 or the slot group, is important.
- Concern was raised that the Court is requiring changes of water rights in diligence cases. For example, the conditional water right is decreed with a bad location and the Court requests it be cleaned up.

As expected, the theme of the Bench Bar meeting was an attempt by the Bar to limit the State and Division Engineers' input and effectiveness in the adjudication process. Judge Craven passed away a month after the meeting and any momentum he started was lost. Judges Boyd and Petre have expressed a desire to press forward with this process in 2007.

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

1. Leon Lake Reservoir and Tunnel Company, Division 4 Case No. 02CW26.

This change of water right application for a transmountain diversion was resolved in 2006 by stipulation after it was published in the Water Division 5 resume. The stipulation focused on measurement of the Division 5 structures and the ability to make out-of-priority releases from Leon Lake Reservoir. The reservoir does not have an outlet to Leon Creek and, should Colby Horse Park Reservoir not be sufficient to provide all replacement, Leon Lake Reservoir will maintain near the dam a

portable pre-tested siphon system. Writing the measurement requirements and siphon into the decree allowed settlement to go forward. The Company will work with Division 5 DWR to install the equipment in 2007.

2. Historic Rights That Remain Conditional Without A Diligence Filing, aka The "Orphan" Rights.

In 2005 Division 5 DWR approached the Court with a list of conditional rights that are not on a diligence track. The majority of the rights pre-date the 1969 Water Rights Determination and Administration Act. The rights have fallen through the cracks of the adjudication process for they were never given a date that a filing for reasonable diligence or to make absolute must be filed, nor have they been given a pre-cancellation notice by the Court. The Court is generally unaware of the ownership or existence particularly because many of these rights have changed ownership and were decreed prior to the implementation of ULR 9; therefore, they have been deemed the "orphan" rights. A similar list was submitted to the Court in the early 1990's but the Court declined to send out notices because the Court's budget could not pay for it. With witnesses and applicants aging, the concern that evidence and testimony would become insufficient to attest to diligent development and continuous use led Division 5 to once again approach the Court. Judge Craven was very supportive but requested that Division 5 develop the list of owners and addresses. In January 2006 the Court began mailing pre-cancellation notices. The notices would be sent out to owners within two districts per month with a 60-day deadline to file an application to make absolute. Claims of a finding of diligence and to maintain as conditional were denied.

Division 5 submitted to the Court 373 pre-'69 conditional rights found in 144 decreed water court cases and 81 post-'69 conditional water rights in 30 decreed cases, totaling 454 rights. The Court sent out notices via Certified Mail covering 150 cases. Of the 63 applications received to make some water rights absolute, 58 cases' rights were abandoned by the Court and pre-cancellation notices were withdrawn in 9 cases. This process will continue in 2007.



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

The case is detailed in the 2004 Annual Report; in summary, it is a complaint by the City of Golden regarding the administration of its rights at Vidler Tunnel. Issues include seniors first; a stipulation with Denver that allows injury to the Green Mountain Reservoir and selective subordination by Denver Water; whether a stipulation not incorporated into a decree must be enforced by DWR or just a contract among two parties; whether a power interference agreement with Vidler Water Tunnel could be assigned to Golden without Reclamation's approval; terms and conditions of a decreed change of water right; and after-the-fact accounting to reallocate diversions to make best use of each water right.

After advancing numerous arguments between July 28<sup>th</sup> and August 13<sup>th</sup> of 2003, changing the amount of claimed injury each time, 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. Golden then asked the Court to rule on all its other arguments, though the complaint is that Golden was injured by the Division Engineer's administration of its rights and they admit no injury occurred.

A partial stipulation regarding the seniors first issue was entered, where Golden must give prior notice should they desire to divert the junior right before the senior is satisfied. Golden has given up its claim that the Rice Ranch rights, which were decreed to be diverted in May through July, could be diverted in any other month.

The case will be turned over for Alternate Dispute Resolution with Judge Thomas Ossola as mediator. However, the issues relating to selective subordination, compelling the State and Division Engineers to administer a stipulation not incorporated into a decree, and settlement of dispute of the interpretation of the stipulation with a proposal that is a plan for augmentation without public notice, are threshold issues

that we will not negotiate. Trial is currently set for May 2007.

4. *Upper Eagle Regional Water Authority, 02CW376 Donovan Parcel (settled 2006), 02CW403 Miller Ranch (pending), and 03CW078 Village at Avon (appealed 2006 and invoked retained jurisdiction), 98CW205 Eagle Park and 98CW270 Homestake (in both DWR has filed to invoke retained jurisdiction), and 06CW097Flattops (pending).*

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 has been appealed. 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, 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 assessment showed the same thing. The table is not

accurate, and underestimates the Authority's true replacement obligations.

We have appealed the ruling in 03CW078, and invoked the retained jurisdiction of 03CW078, 98CW270 and 98CW270, and now seek to consolidate these actions with the pending case in 02CW403, because of the common factual and legal issues.

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.

5. Copper Mountain, Change of Rights and Amended Plan for Augmentation 01CW304 (pending).

The dispute focuses on the ongoing debate in the water community whether augmentation and recharge are beneficial uses that must be decreed under an appropriative water right, and whether using a water right not decreed for such uses requires a change of water right decree. Copper Mountain's Ten Mile Pipeline is decreed for recharge, while wells that benefit from that recharge are decreed for the ultimate uses. Copper Mountain seeks to change the Ten Mile Pipeline to a new point of diversion and directly use the diversions for the purposes of the wells without changing wells. Copper Mountain also seeks to use Clinton Reservoir as a source of augmentation, where Clinton's first fill right is decreed for industrial purposes on the Climax Mine property, and its second fill (deemed a use enlargement) is decreed for uses including augmentation for the purposes of the shareholders, of which Copper Mountain is a shareholder.

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**L. TABULATION**

Division 5 is currently up to date with tabulating new decrees each year in 8 of the 11 Districts. There remains a small backlog in Districts 36 and 37 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 and structure information in the *Hydrobase* database. Below is a summary table of the current status of the tabulation for Division 5.:

Water District	Backlog on 3/1/06	New Decrees in 2006	Total Decrees Untabulated	Decrees Tabulated as of 3/1/07	Remaining Decrees Untabulated
36	45	18	63	20	43
37	24	31	55	35	20
38	30	65	95	95	0
39	0	22	22	22	0
45	0	14	14	14	0
50	0	4	4	4	0
51	0	28	28	28	0
52	0	5	5	5	0
53	0	13	13	13	0
70	0	5	5	5	0
72	0	37	37	37	0
<b>Total</b>	<b>99</b>	<b>242</b>	<b>341</b>	<b>278</b>	<b>63</b>

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**M. 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 abandonment list were to be filed by June 30, 2002. There were 40 water rights that were protested during 2002. On May 26, 2005, Judge Craven granted Pitkin Exchange Holdings a Motion to Intervene in Case 01CW337 in order to protest the inclusion of the Syphon Ditch on the Revised Abandonment List. To date we have agreed in principle on a stipulation to remove the Syphon Ditch from the abandonment list but have not executed a final stipulation.

▪ **1984 Abandonment List - Case No. 84CW218 Returns to Closed Case Status**

The Homestake Ditch Nos. 1, 2 and 3 in Water District 37, decreed for 0.6cfs, 0.3cfs, and 0.3cfs, respectively, for irrigation, were put on the 1980 Abandonment List and were abandoned by the Court. The Applicant filed a Motion for Summary Judgment with the Court to remove these water rights from the abandonment list because of inadequate notice. A settlement was reached by stipulation in February 2006. The settlement left one of the water rights abandoned and removed the others from the Abandonment List provided that a change of water rights application be filed by the end of November 2006. The change was filed consistent with the stipulation, and the 1984 Abandonment List was once again closed.

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**N. PERSONNEL AND BUDGET ISSUES**

• **Personnel**

Resignations in the Division office and Water Districts 38 and 70 continue the vacancy trend in Water Division 5 that has become the norm for several years. The turnover of employees in 2006 will spill over into 2007 and will then, hopefully, have passed its peak.

After 5 years of outstanding service to the State of Colorado, Assistant Division Engineer John Sikora resigned on May 23, 2006 to open a Glenwood Springs office for his former employer URS. The position remained vacant until the appointment of Kyle Whitaker in July 2006, leaving a PE I position in the Glenwood Springs office vacant. That position remained vacant through the end of the 2006 irrigation season.

The new Aug Plan/Hydro position was filled and re-filled in March 2006 and again in June 2006, but vacant by August 2006. Adjusting to the cost of housing in the Glenwood area was cited as the primary

problem. The position was again filled in December 2006 with James Kellogg.

Kathleen Albritton resigned as our Administrative Assistant II to move to Grand Junction and work for the Grand Valley Water Users Association. The position was filled by temp worker Candy Argueta through December 2006, when it was re-filled by permanent part-timer Michelle Fite. Michelle comes to us from the Colorado Division of Labor and Employment.

Michael Craig, District 38 Water Commissioner, resigned on July 6, 2006. The position remained vacant through the end of the 2006 season. Duties of administration of several very critical streams, among the many other demands of a water commissioner, were split between office staff and Bill Blakeslee, District 38 water commissioner for the Upper Roaring Fork.

Don Mackey resigned his position as District 70 water commissioner on December 15, 2005 to work as a contractor for the gas well

drilling industry. The position was filled by David Berry as a temp employee on April 5<sup>th</sup>, and then on July 1<sup>st</sup> Dave was hired as a permanent employee.

Additional temporary man-months were again allocated to Division 5 to work on the Water Rights Tabulation. The additional time was given to two part-time water commissioners, who have worked on this project with this temporary allocation for several years. Five years of focus on the elimination of the backlog of untabulated water rights decrees have paid off.

- **Impact of the Budgets on Operations**

*Division 5 Operating Budget, including Mileage*

At the beginning of the irrigation season the private vehicle reimbursement rate of 28 cents per mile for 2WD mileage and 32 cents per for 4WD mileage was significantly below the cost of operating vehicles. Legislation passed in the spring of 2006 phased in an increase and tied future mileage rates to a percentage of the federal rate. On July 1, 2006 the rate increased to \$0.33/mile for 2WD and \$0.36/mile for 4WD. The rate increase was unfunded by the legislature with expected efficiency savings to pay for it. Cuts in plans for the secondary

- **Nancy Hitchcock Retirement**



budget and reduced mileage paid for the increased costs in 2006. [See Appendix G.](#)

*Overtime Budget*

The Division 5 overtime budget was under spent in 2006, largely due to an adequate water supply but also due to a change in the level of service on several streams, and the construction of automatic diversion structures on another stream. Another change is that on many streams water users are no longer making a living with agriculture and do not place the same demands on the water commissioner because either 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 are experiencing new demands to oversee augmentation plans that will require overtime.

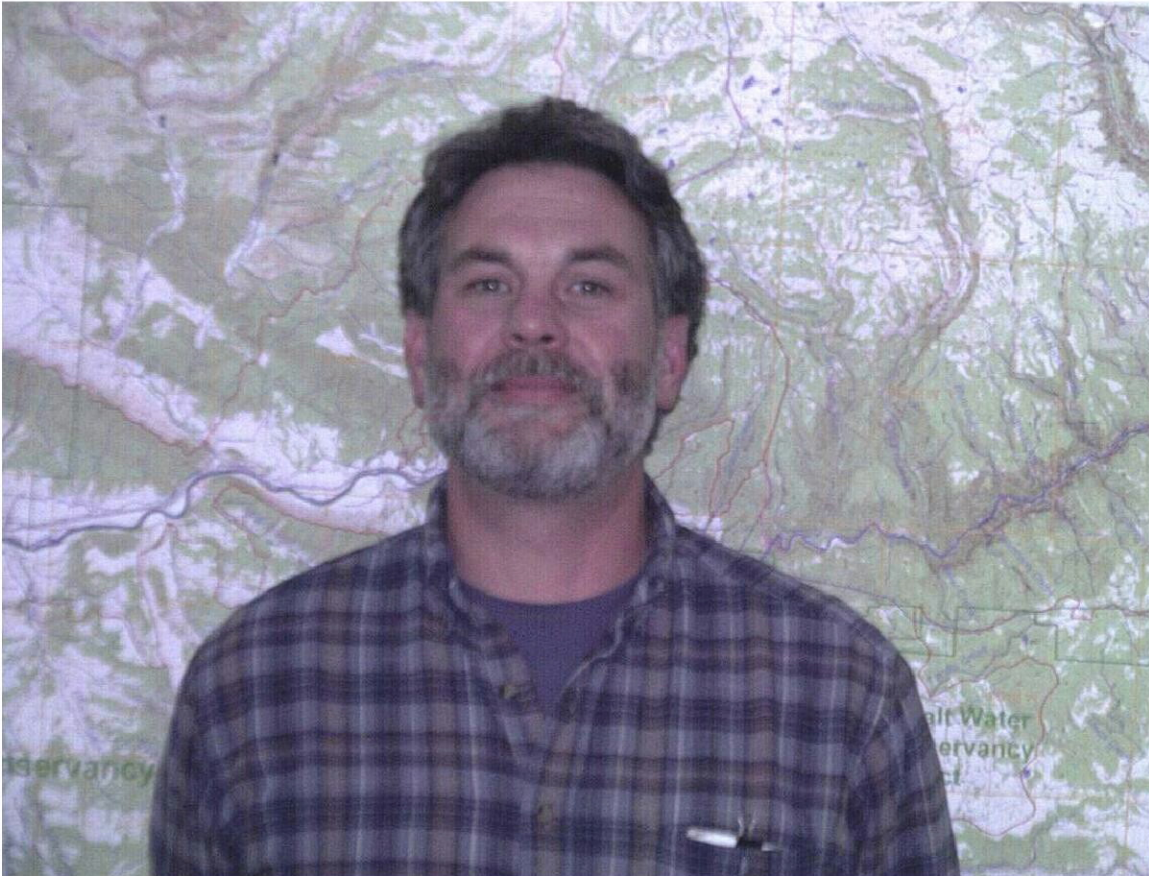
*Division 5 Personnel Budget*

Division 5 has been successful in obtaining a new FTE to shore-up shortages in hydrographic work and augmentation plan administration. Workload exceeds staffing in several other areas that the Division has sought to fill with a decision item for 4 man-months in the field and 5 man-months in the Glenwood Springs office.

Nancy Hitchcock, Division 5's Program Assistant, retired on November 30, 2006. Nancy began working for the Division on June 26, 1986. At that time the Division had 4 office staff and 17 field staff. At the time of her retirement the Division had grown to 11 office staff and 18 field staff. During Nancy's tenure the job changed from primarily typist/receptionist to a position of management, supervision, researcher, and public advisor. The changes were the result of technological advances, the addition of an admin assistant position, and Nancy's growth as a professional. She was responsible for the development of the Division 5 staff into a team. Nancy will be missed for her dedication to Water Resources, and her cheerful always helpful attitude.

## **2006 PERSONNEL AWARDS**

- **Scott Hummer, Division 5 Water Commissioner of the Year**



Scott Hummer administers Water District 36, which is the Blue River drainage. The basin includes transmountain diversions such as the Roberts, Hoosier, and Vidler Tunnels, and the Boreas Pass and East Hoosier Ditches. Two of the most critical reservoirs in the Colorado River basin, Dillon and Green Mountain, are also in the Blue River drainage. The administration of the water district is the most complex in Water Division 5 through the Summit County Agreement, the Clinton-Fraser Agreement, the Summit County and Vidler Umbrella Augmentation Plans, and a considerable number of augmentation plans that operate only through one or more of these agreements or other arrangements that

provide a water supply in a drainage that is over-appropriated except briefly in above-average runoff years. Scott has managed this district with the professionalism of the experienced veteran he is. He has a reputation with the press as the person to whom to go when they need an interview, a quote or information for a story on water-related matters. Scott has done an outstanding job working with Summit County and Vidler Water Company to develop plans to resolve the out-of-compliance well permits, in addition to his regular work with some of the most complex decrees and most sophisticated water user entities in Colorado.

- **Dwight Whitehead, 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. Dwight was honored in 2006 for several reasons. His effort for many years has provided the public with a very positive view of the Division of Water Resources. Many of our satisfied customers are the

result of contact with Dwight. For a couple of years Dwight has not had a second well permit in the Division office and a backlog of well permit applications and other tasks stacked up on his desk. Denver staff did provide a lot of support to keep this from total chaos. In 2006 Dwight focused on catching up with past due permit applications and other tasks. Permits past the 45-day limit have been eliminated and many other files on his desk have been processed. For the first time in a couple of years, we can see his desk.

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## II. 2007 WATER YEAR

On January 1<sup>st</sup> snow pack measurements indicated the basin was 102% of normal. Though it was only the second year since 1997 that January 1<sup>st</sup> snow pack was above normal, it was well below the January 2006 snow pack. Precipitation as of January 1, 2007 varied across the basin from 82% to 124% of average with the drainages along the Continental Divide faring better. Reservoir storage for the entire drainage on January 1, 2007 is near normal at 101% of average, which was slightly below January 1, 2006.

With January 2007 precipitation 60% of average and February near average, the March 1<sup>st</sup> snow surveys --the latest reports for this writing-- show the basin snow pack is currently at 95% of average. This is the ninth March 1<sup>st</sup> snow pack to be below average in the last 10 years. Only 2006 was an exception. The Grand Mesa continues to be in the worst shape with 69% of normal snow pack, while the Upper Colorado River drainages are near normal. March 1<sup>st</sup>

reservoir storage was 103% of average, which is slightly below 2006. Storage and snow pack conditions have combined into a near average to slightly below average outlook for the basin, with a few exceptions. Once again, Plateau Creek will have local shortages for some irrigators, and Muddy Creek inflow to Wolford Mountain Reservoir will likely barely fill the reservoir, and also experience shortages for some local irrigators. However, 90-day weather forecasts are calling for below average precipitation and above average temperatures that could modify the near normal outlook.

For 2007 all reservoirs are expected to physically fill with the exception of Granby Reservoir. 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 2007 should not 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 2007

1. Finish litigation of conditional rights without a diligence track;
2. Work with court to convene a 2007 Bench Bar meeting;
3. GPS all structures we visit that have yet to be GPS'ed;
4. Summit County well enforcement;
5. Improved augmentation plan enforcement;
6. Support Inter-basin Compact Committees (IBCC) roundtable;
7. Tabulation—prepare for publication on July 1, 2008;
8. Issue 2007 Interim or final policy for the administration of the Blue River Decrees;
9. Finalize 2000 Abandonment List (one unresolved cases);
10. Purge closed court case files and other preparation for move to new office;
11. Keep co-location building project moving forward;
12. Negotiate lease extension for Grand Junction office;
13. Fill vacancies for program assistant, admin assistant, Dist 38 water commissioner, PE I aug plan coordinator/hydro (all completed as of this writing), and then Dist 72 lead water commissioner, and EIT II hydrographer;
14. Seek Decision Item for 2 fleet vehicles (hydro/aug plan engineer, and water commissioner);
15. Seek additional operating funds.

### **C. SPECIAL PROJECTS AND WORK ITEMS FOR 2007**

- **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. Concerns with the 2006 policy were raised by Colorado Springs Utilities and Denver Water. Their concerns will be considered before a 2007 policy is adopted but may not be resolved. Though the runoff forecast is for below average conditions, the fill of Green Mountain is forecasted without substitution, reducing the criticalness of a policy. However, a policy will be issued and will likely have only minor modifications to the 2006 policy. No meetings are scheduled as of this writing.
- **Hydrographic Program**

When fully staffed, Division 5 has a full-time hydrographer and a part-time hydrographer who also serves as the augmentation plan coordinator. The full-time position is currently vacant due to the retirement of George Wear. James Kellogg is the hydrographer/-augmentation plan coordinator. Since becoming vacant, the full-time hydrographer position was changed from PE I to an EIT level. The hydrographer/-augmentation plan coordinator remains a PE I level position with supervisory duties over the full-time hydrographer position. It is expected that a new full-time hydrographer will be hired by the end of June 2007. In the meantime, James will perform full-time hydro duties.

The operation of the stations on the Crystal River above the Div of Wildlife fish hatchery and the Roaring Fork River above the Fryingpan will be upgraded in 2007 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.

A wire weight gage will be installed at the Crystal River above the Div of Wildlife fish hatchery station in 2007. Cantilever chain gages are planned at the Roaring Fork River above the Fryingpan and West Divide Creek near Raven.

New instrumentation will be installed at three locations for the Leon Lake Tunnel System on Grand Mesa in 2007. No satellite equipment is planned.

Plans are to upgrade the station at the Thompson Creek Feeder Ditch with HDR satellite transmission capability. This ditch provides import water to the Multa-Trina Ditch in District 45 which was provided with satellite transmitting capability in 2006.

- **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 300 are augmented household use only wells. With the Summit County and Vidler Water Company Umbrella Plans, contracting and review procedures are in place, notices were sent in 2005 to the first 50 well owners. The initial plan was to focus on wells tributary to the Blue River above Dillon Reservoir. The Colorado Water Conservation Board has protested the issuance of well permits to applicants who are tied to a central sewer. With this development additional notices were delayed; the issue has yet to be resolved. With no foreseeable resolution of the problem, we began sending notices to all apparent out-of-compliance wells, whether on central sewer or hooked to

on-lot septic. We hope to issue 1000 orders in 2007 at a rate of approximately 100 per month. Following the issuance of orders, enforcement actions will be pursued, as necessary. Additionally field proofing is necessary and will continue until all wells are inspected and found to be in compliance.

- **Interbasin Compact Committees ("IBCC")**

HB1177 created nine Basin Roundtables delineated by the major basins in the state plus one roundtable for the Denver Metro area. The Division of Water Resources is to serve as technical support of these roundtables. The purpose of the IBCC is to seek collaboration to basin-wide solutions and to facilitate discussion between basins in the resolution of statewide issues and interbasin transfers. The Colorado River Basin Roundtable holds meetings the fourth Monday of every month. This roundtable was presented with eight projects seeking HB-1177 funding; the roundtable approved six to be submitted to pursue funding. The projects include watershed studies, and physical construction.

- **GPS Diversion Structures**

Division 5 has nearly 19,500 structures. Of these nearly 8,500 are exempt wells, small springs or other insignificant structures for domestic, stock or wildlife uses. Currently we have GPS'ed 19% of our significant structures, with plans to GPS at least 10% of existing significant structures. We continue to consider acquisition of GPS coordinates for all active significant structures and active structures, as well as all structures field inspected for water court applications in 2007 as a high priority.

- **Reconciliation of Irrigated Acres**

Very minor progress was made on this project in 2006 yet it remains important to litigation of future change cases and the administration of water rights in this Division. The problem involves two projects. The first is the GPS'ing of irrigated acreage under ditches with numerous change cases where dry-up is used for consumptive use credits in plans for augmentation. Many of the older change cases do not include maps of the dry-up, and we have found some cases where new dry-up claims are overlapping with old claims. This effort

is very labor intensive and only a few can be done each year. It is very important to develop this data to ensure augmentation plans that rely on dry-up have been properly implemented, and to ensure the historic lands are not claimed in subsequent cases. The second project involves the reconciliation of the Colorado River Decision Support System ("CRDSS") irrigated acreage project with acreage claimed in the annual diversion records for the eventual use of the CRDSS acreage in the official diversion records.

## **D. PERSONNEL, BUDGET AND OPERATIONS**

### **• Personnel**

The ability to recruit and retain employees has risen to a critical concern for Division 5. The high cost of living and, in particular, housing has made it difficult encourage state employees to transfer and non-state employees to seek jobs in the Roaring Fork Valley and the Glenwood Springs area. Housing is generally beyond the means of wages offered, and inventory is very low. Further, the oil drilling, construction, and reviving oil shale industries offer opportunities that are providing increasingly difficult competition. In spite of these difficulties, we believe that by July 2007 Division 5 will be fully staffed for the first time in many years.

### **• Budget**

The Division 5 operating budget continues to be squeezed by the increased and unfunded private vehicle mileage rate, fleet management rates, and increased use of cell phones. The January 1, 2007 rate increase for private vehicles was planned to occur but, because it was tied to the federal rate, the increase was unexpectedly high as the federal rate also increased. As of January 1, 2007 the rate for 2WD mileage is \$0.39/mile and 4WD mileage is \$0.41/mile. Because mileage can be 70- to 75% of the Division 5 operating budget, budget

efficiencies will not be enough to cover this increase. Either DWR will need to be successful with a 2008 decision item to increase the operating budget or major purchases of equipment will need to be put off.

Division 5 relies on two strategies to control spending on private vehicle mileage. First, vehicles are assigned to field staff for a season (summer vs. winter) and are subject to reassignment based on most miles driven, and all vehicles assigned to the office pool are used by field staff days, weeks, or months they are underutilized. Second, vehicles replaced are reassigned to other staff until they are due to be turned in to Fleet Management. This can be 6 to 18 months. We also ask to keep replaced vehicles that other Divisions or Branches do not need. This can be a boom or bust, and is dependent on the number of vehicles replaced and their condition. To stabilize these costs Division 5 could use 2 to 3 fleet vehicles.

### **• Operations**

For 2007 Division 5 will develop a plan to eliminate our Remote Access System ("RAS") lines, converting those Internet connections to high speed for all field staff. The RAS lines are dial-up connections to our server and are used

by field staff to email, do timesheets, check stream gages, and do research. The connection is extremely slow—much slower than commercial dial-up. This plan is a part of the larger plan to migrate toward a paperless operation. With high speed, field inspections with large picture fields can be transmitted digitally and field staff can use *LaserFiche* to access documents such as decrees and well permit files. This should reduce costs for paper, certain supplies, long-distance calls, and postage.

Division 5 continues to work on a long-term solution to our office space. Division offices are required by statute to be located in the town of the individual Division's Water Court. The cost of all real estate in the Glenwood Springs area

continues to outpace the rest of the state. With limited land for future growth, we anticipate the difficulty of affording commercial space will only increase. The Division of Water Resources is currently engaged in a plan with the Department of Transportation (DOT), State Patrol, Division of Wildlife, Department of Motor Vehicles, Labor and Employment, and Telecommunications to build a co-location project on DOT property. All agencies have signed an Inter-Governmental Agreement with an estimate of costs and space. An architect should be on board in 2007 and details of the building layout and costs will be finalized for seeking a builder. The lease agreement for the current Division 5 space expires June 2008. We will likely seek a one- to two-year extension.

## **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 and having recently been assigned total responsibility for the dams in Districts 50, 51, and the west areas of District 72 should help offset some workload problems. Also, implementing a new risk-based procedure for determining inspection frequency as opposed to hazard rating may alleviate workload problems. However, the future workload will still be very full for the following reasons:

- Except for 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 to be performed for the main Division 5 dam safety engineer stationed in Glenwood Springs.

- Another dam safety issue that will have an effect on the future workload on all Division 5 staff is the proliferation of non-jurisdictional dams being built in the Division. As more people move into the area, more want to build a small recreational pond. Also with more development there is an increasing need for augmentation plans, which usually require augmentation ponds. Reviewing the "Notice of Intent to Construct," these non-jurisdictional dams will have some impact on the workload but the big concern is the public safety risks and potential incidents that will occur as the population grows. With this in mind, the review of plans and specifications for the

construction of significant-hazard non-jurisdictional sized dams will be required with the proposed new rules and regulations, which will require additional design review time.

- Even though the dam safety engineers were able to accomplish 10 hazard evaluations in 2005, there is still a large backlog of about 40 hazard evaluations that need to be done and this number grows faster than the ability to accomplish them. With the risk assessment to inspection frequency, accomplishing the hazard evaluations will

become a higher priority. It is estimated that it will take over 40 man-weeks to accomplish these. This does not include training time if other personnel are to be used.

- An *Extreme Precipitation Analysis Tool (EPAT)* for designing regional and local rainfall amounts in the mountains and on the Western Slope is near completion. When the methodology is finally completed, it will mean approximately 55 Class 1 and 2 dams will have to have a hydrology study performed. This will take another 40+ man-weeks to accomplish.

Continue past here to the Appendix

# 2006 ANNUAL REPORT APPENDIX

(click on links below to get electronic file)

- A. [INTERIM POLICY: ADMINISTRATION OF GREEN MTN RES FOR 2006](#)
- B. [RIPRAP](#)  
*TABLE: RESERVOIR RELEASES & 15-MILE REACH FLOWS*  
*GRAPH: IMPACT OF LATE IRRIGATION SEASON RESERVOIR RELEASES IN THE 15-MILE REACH*  
*GRAPH: CROS IMPACTS AT COLORADO RIVER NEAR CAMEO*  
*GRAPH: CROS IMPACTS AT COLORADO RIVER NEAR PALISADE*
- C. [TABLE: MAINSTEM RIVER CALLS](#)
- D. [DIV 5 HISTORIC & PROJECTED RESERVOIR LEVELS](#)
- E. [WATER COURT ACTIVITIES](#)
- F. [DIVISION 5 ORGANIZATIONAL CHART](#)
- G. [OFFICE ADMINISTRATION AND WORKLOAD MEASURES](#)
- H. [TRANSMOUNTAIN DIVERSIONS - INFLOWS AND OUTFLOWS](#)
- I. [RESERVOIR STORAGE WATER SUMMARIES BY DISTRICT](#)
- J. [WATER DIVERSION SUMMARIES](#)

May 15, 2006

## **Administration of Green Mountain Reservoir for 2006**

### **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 purpose of this Policy is to address three potential accounting scenarios to administer the first fill of Green Mountain Reservoir with respect to administration of the call on the mainstem of the Colorado River. 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, or when the first fill storage water right is curtailed to satisfy a legal river call by a downstream senior water right prior to completion of a physical or paper fill.

#### **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 60cfs or the demand of a downstream call from a water right senior to August 1, 1935 + out-of-priority depletions of West Slope beneficiaries of Senate Document No. 80, including contractors, that are upstream of Green Mountain Reservoir and junior to the May 13, 1948 priority of the Continental Hoosier System + upstream Denver and Colorado Springs owed to Green Mountain Reservoir accounts 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 it physically fills. 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.

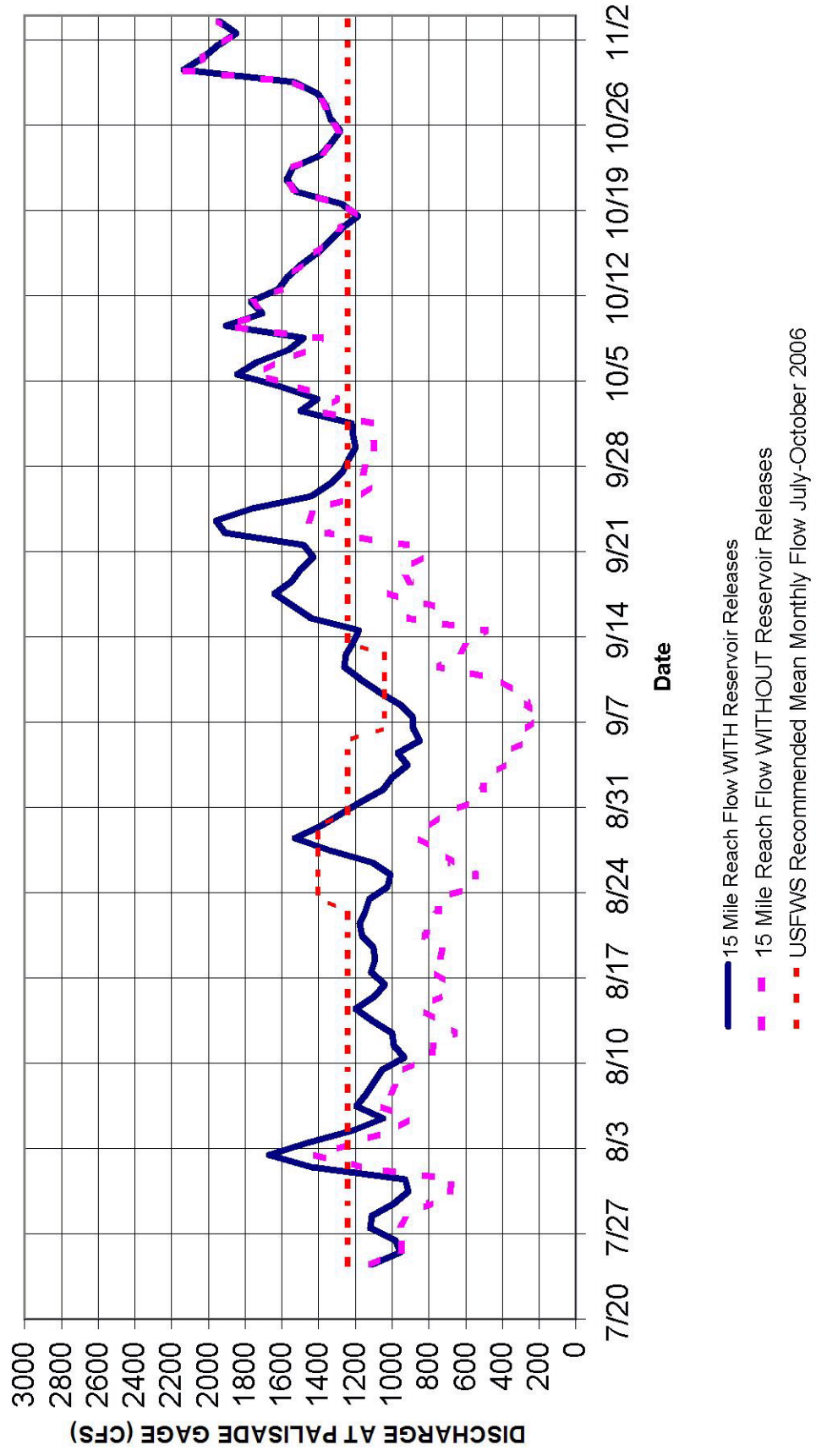
## **No Paper Fill**

If a paper fill of Green Mountain Reservoir has not occurred prior to a Colorado River mainstem call senior to the Green Mountain Reservoir 1935 storage right, the upstream out-of-priority depletions of West Slope beneficiaries of Senate Document No. 80, including contractors, and other rights junior to the 1935 Green Mountain first fill right will be counted against the fill of the 1935 Green Mountain Storage right. The out of priority depletions will be computed for the period from the start of the fill declaration by the Secretary of Interior until receipt of the senior water right call.

## **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 2006 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 2006 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 2006 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.

**IMPACT OF LATE IRRIGATION SEASON RESERVOIR RELEASES IN THE 15 MILE REACH  
(As Measured at the Colorado River at Palisade Gage)  
2006 LATE SUMMER/FALL**





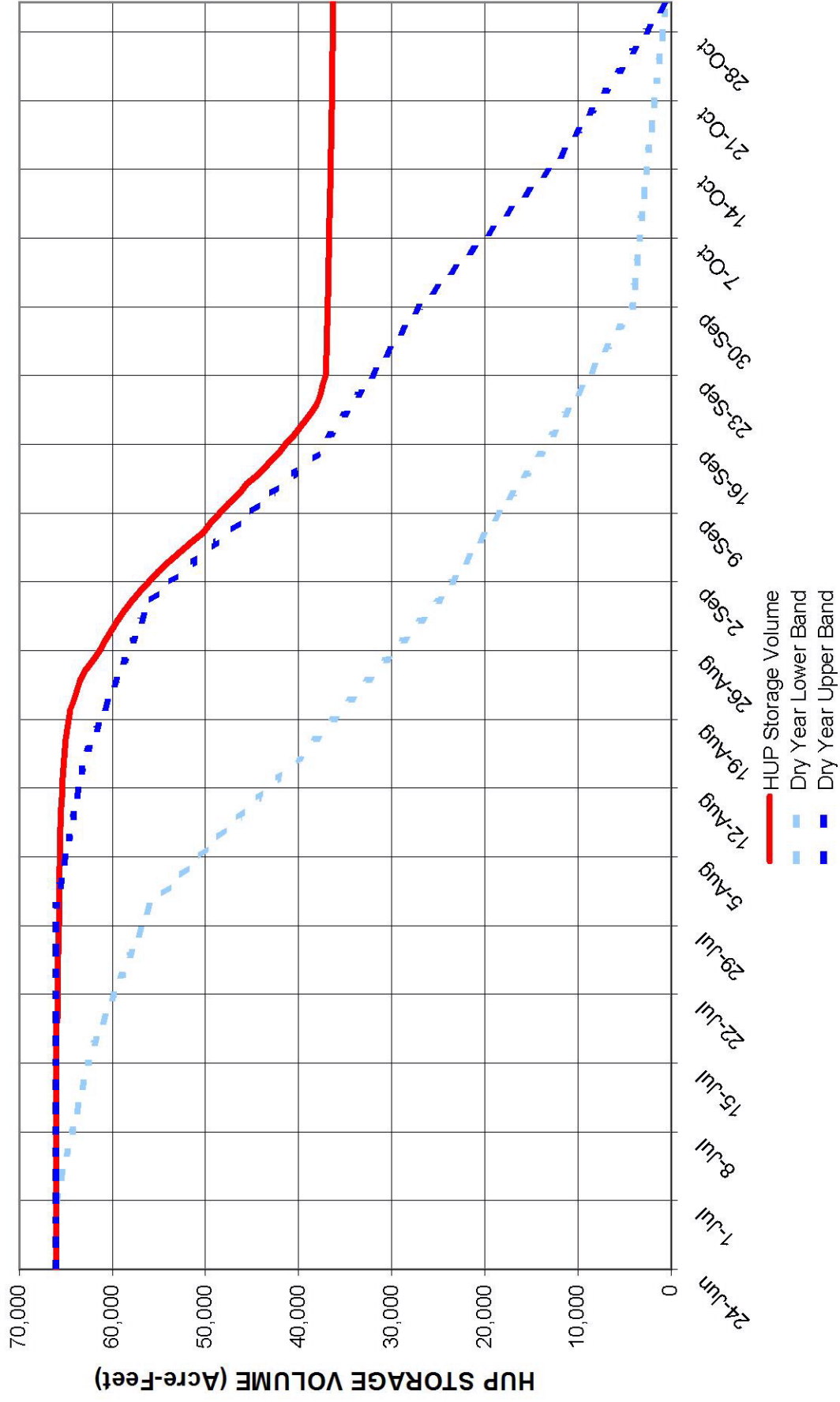
# Reservoir Releases and 15 Mile Reach

2006	RELEASES TO 15 MILE REACH (CFS)				DELIVERIES AT 15 MILE REACH AFTER TRANSPORT LAGS AND LOSSES (CFS)				15-Mile Reach Flow (cfs)				Target Flows Met? 1 = yes; 0 = no	day count for graph
	Green Mtn	Ruedi	Williams Fk	Granby	Willow Ck	Green Mtn	Ruedi	Williams Fk	Granby	Willow Ck	WITH Deliveries	WITHOUT Deliveries		
	66,000	20,825 AF	11,412	5,412 AF	0 AF	0 AF								
7/20/2006											1595	1595	1	1
7/21/2006											1365	1365	1	1
7/22/2006											1355	1355	1	1
7/23/2006											1243	1243	1	1
7/24/2006											1110	1110	0	0
7/25/2006											955	955	0	0
7/26/2006											982	944	0	0
7/27/2006											1120	968	0	0
7/28/2006											1110	913	0	0
7/29/2006											992	795	0	0
7/30/2006											910	687	0	0
7/31/2006											931	674	0	0
8/1/2006											1438	1180	1	0
8/2/2006											1673	1416	1	1
8/3/2006											1459	1203	1	0
8/4/2006											1215	986	0	0
8/5/2006											1050	902	0	0
8/6/2006											1194	1065	0	0
8/7/2006											1141	1012	0	0
8/8/2006											1098	970	0	0
8/9/2006											1054	926	0	0
8/10/2006											932	788	0	0
8/11/2006											992	777	0	0
8/12/2006											989	660	0	0
8/13/2006											1107	757	0	0
8/14/2006											1198	848	0	0
8/15/2006											1095	745	0	0
8/16/2006											1041	692	0	0
8/17/2006											1116	768	0	0
8/18/2006											1092	744	0	0
8/19/2006											1103	725	0	0
8/20/2006											1165	818	0	0
8/21/2006											1177	804	0	0
8/22/2006											1146	745	0	0
8/23/2006											1124	747	0	0
8/24/2006											1028	553	0	0
8/25/2006											1011	546	0	0
8/26/2006											1104	677	0	0
8/27/2006											1338	757	0	0
8/28/2006											1530	852	1	0
8/29/2006											1390	786	0	0
8/30/2006											1280	719	1	0
8/31/2006											1170	552	0	0
9/1/2006											1050	506	0	0
9/2/2006											1000	495	0	0
9/3/2006											917	396	0	0
9/4/2006											969	380	0	0
9/5/2006											851	257	0	0
9/6/2006											883	256	0	0
9/7/2006											890	190	0	0
9/8/2006											959	262	0	0
9/9/2006											1070	336	1	0
9/10/2006											1170	415	1	0
9/11/2006											1260	737	1	0
9/12/2006											1250	639	1	0
9/13/2006											1210	587	0	0
9/14/2006											1180	493	0	0

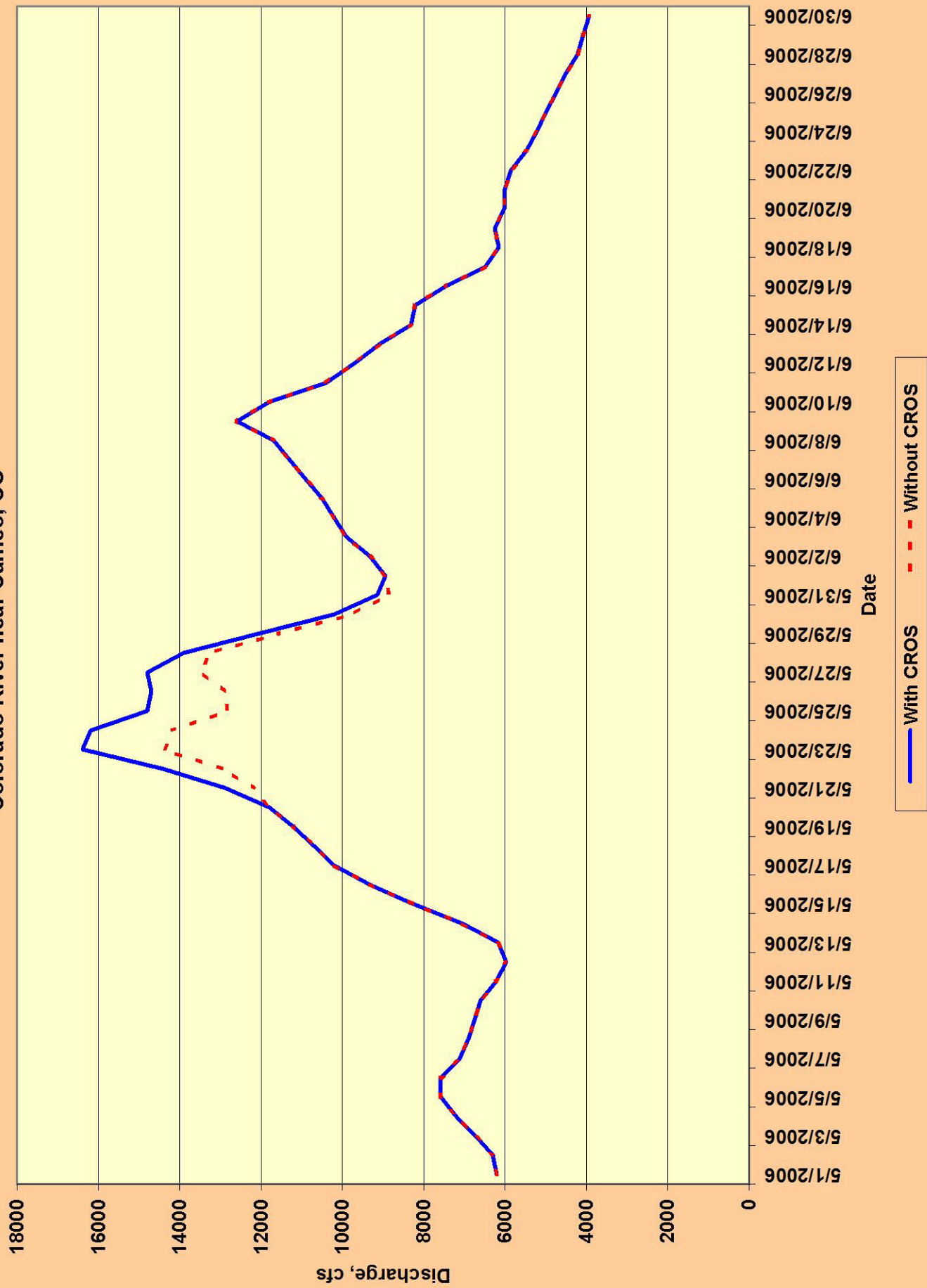
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2006	RELEASES TO 15 MILE REACH (CFS)				DELIVERIES AT 15 MILE REACH AFTER TRANSPORT LAGS AND LOSSES (CFS)				15-Mile Reach Flow (cfs)				Target Flows Met? 1 = yes, 0 = no	day count	Target line for graph				
	Green Mtn	Ruedi	Wolford	Williams Fk	Granby	Willow Ck	Green Mtn	Ruedi	Wolford	Williams Fk	Granby	Willow Ck				TOTAL (CFS)	WITH Deliveries	WITHOUT Deliveries	
9/15/2006	66,000	20,825 AF	11,412	5,412 AF	0 AF	0 AF	336	112	90				538	1440	902	1	0	54	1,240
9/16/2006	499	121	100				564	112	90				756	1540	784	1	0	55	1,240
9/17/2006	436	120	100				432	112	90				634	1640	1006	1	0	56	1,240
9/18/2006	400	120	100				449	112	90				651	1550	899	1	0	57	1,240
9/19/2006	398	120	100				345	111	90				546	1500	954	1	0	58	1,240
9/20/2006	332	121	100				392	111	90				593	1430	837	1	0	59	1,240
9/21/2006	144	125	100				360	111	90				561	1480	919	1	0	60	1,240
9/22/2006	144	125	33				358	112	90				560	1910	1350	1	1	61	1,240
9/23/2006	144	120					299	115	90				504	1960	1456	1	1	62	1,240
9/24/2006	0	120					130	115	90				335	1760	1425	1	1	63	1,240
9/25/2006		120					130	111	30				271	1440	1169	1	0	64	1,240
9/26/2006		114					130	111	0				241	1340	1099	1	0	65	1,240
9/27/2006		112					0	111					111	1270	1159	1	0	66	1,240
9/28/2006		110						105					105	1240	1135	1	0	67	1,240
9/29/2006		111						104					104	1200	1086	0	0	68	1,240
9/30/2006		111						102					102	1210	1108	0	0	69	1,240
10/1/2006		111						103					103	1220	1117	0	0	70	1,240
10/2/2006		111						103					103	1500	1397	1	1	71	1,240
10/3/2006		112						103					103	1406	1303	1	1	72	1,240
10/4/2006		111						103					103	1604	1501	1	1	73	1,240
10/5/2006		112						103					103	1844	1741	1	1	74	1,240
10/6/2006		99						103					103	1739	1636	1	1	75	1,240
10/7/2006		8						103					103	1565	1462	1	1	76	1,240
10/8/2006		9						92					92	1482	1390	1	1	77	1,240
10/9/2006		9						8					8	1905	1897	1	1	78	1,240
10/10/2006		9						8					8	1708	1700	1	1	79	1,240
10/11/2006		0						8					8	1770	1762	1	1	80	1,240
10/12/2006								9					9	1620	1611	1	1	81	1,240
10/13/2006								0					0	1571	1571	1	1		1,240
10/14/2006													0	1494	1494	1	1		1,240
10/15/2006													0	1408	1408	1	1		1,240
10/16/2006													0	1334	1334	1	1		1,240
10/17/2006													0	1276	1276	1	1		1,240
10/18/2006													0	1184	1184	0	0		1,240
10/19/2006													0	1273	1273	1	1		1,240
10/20/2006													0	1523	1523	1	1		1,240
10/21/2006													0	1576	1576	1	1		1,240
10/22/2006													0	1541	1541	1	1		1,240
10/23/2006													0	1389	1389	1	1		1,240
10/24/2006													0	1332	1332	1	1		1,240
10/25/2006													0	1284	1284	1	1		1,240
10/26/2006													0	1337	1337	1	1		1,240
10/27/2006													0	1357	1357	1	1		1,240
10/28/2006													0	1402	1402	1	1		1,240
10/29/2006													0	1531	1531	1	1		1,240
10/30/2006													0	2137	2137	1	1		1,240
10/31/2006													0	2030	2030	1	1		1,240
11/1/2006													0	1950	1950	1	1		1,240
11/2/2006													0	1850	1850	1	1		1,240
11/3/2006													0	1940	1940	1	1		1,240
TOTAL CFS	12,785	9,922	5,366	2,729	0	0	11,506	9,178	4,830	2,456	0	0	27,969	136,221	102,512	52	33		
TOTAL AF	25,358	19,680	10,644	5,412	0	0	22,822	18,204	9,580	4,871	0	0	55,477	270,194	203,332				

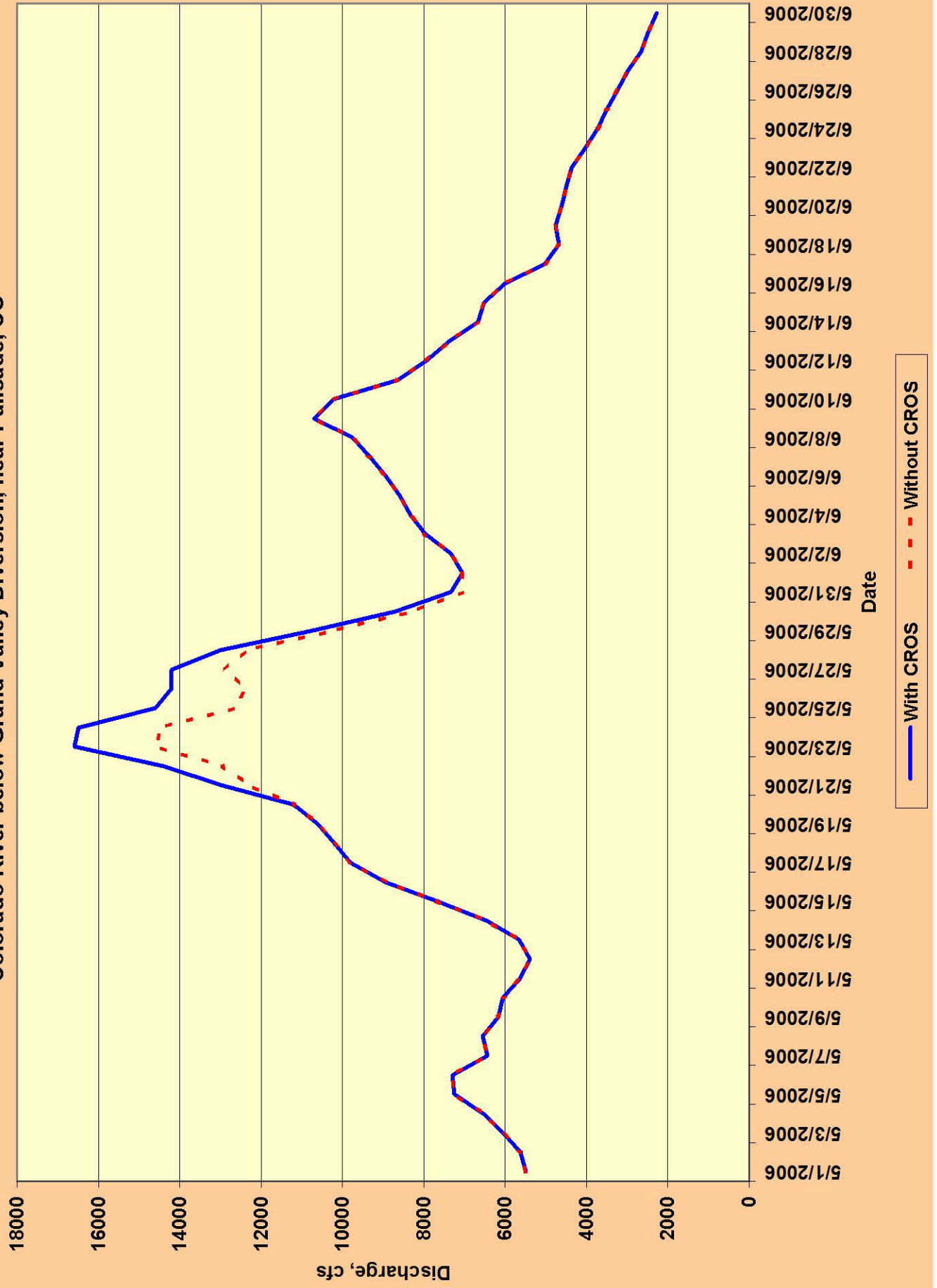
# 2006 GREEN MOUNTAIN RESERVOIR HUP OPERATIONS



### Effect of CROS on Spring Peak Flows Colorado River near Cameo, CO



# Effect of CROS on Spring Peak Flows Colorado River below Grand Valley Diversion, near Palisade, CO



**SUMMARY OF COLORADO RIVER MAIN STEM CALLS  
2006 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	DEGREE AMT.	SWING PRIORITY	SWING PRIORITY ADMIN. NO.	COMMENTS
11.01.05	11.06.05	6	Shoshone Power Plant	1250 cfs	C-BT/GMR	31258.00000	
11.07.05	11.14.05	8	"	1250 cfs	None	20427.18999	
11.15.05	11.17.05	3	Free River	---	---	---	One turbine available
11.18.05	01.03.06	47	Shoshone Power Plant	1250 cfs	None	20427.18999	Two turbines available
01.04.06	05.01.06	118	Free River	---	---	---	One turbine available
05.02.06	07.23.06	83	Free River	---	---	---	Two turbines available
07.24.06	07.25.06	2	Shoshone Power Plant	158 cfs	Dillon/Roberts	35238.00000	
07.26.06	07.27.06	2	Shoshone Power Plant	158 cfs	Con-Hoosier	35927.00000	
07.28.06	08.04.06	8	Shoshone Power Plant	158 cfs	Dillon/Roberts	35238.00000	
08.05.06	08.09.06	5	Shoshone Power Plant	158 cfs	None	33023.28989	
08.10.06	08.14.06	5	Shoshone Power Plant	1250 cfs	C-BT/GMR	31258.00000	
08.15.06	9.21.06	38	Shoshone Power Plant	1250 cfs	None	20427.18999	
9.22.06	10.11.06	20	Shoshone Power Plant	1250 cfs	C-BT/GMR	31258.00000	
10.12.06	10.31.06	20	Shoshone Power Plant	1250 cfs	None	20427.18999	

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

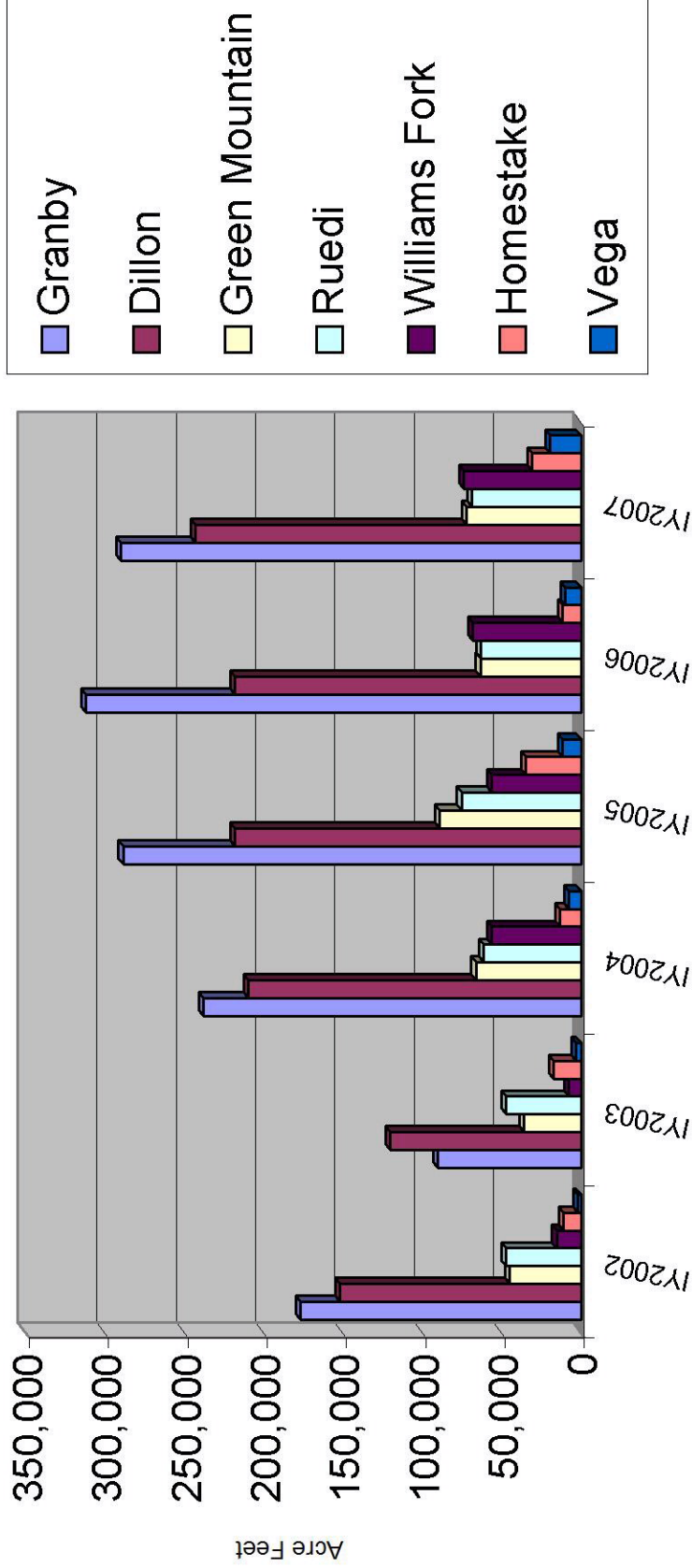
DATE ON	THRU	NO. DAYS CALL ON/OFF	CALLING STRUCTURE	DEGREE AMT.	SWING PRIORITY	SWING PRIORITY ADMIN. NO.	COMMENTS
11.01.05	10.31.06	365	NONE	---	---	---	No call fr Grand Valley in Y2006

DIVISION 5 HISTORIC & PROJECTED RESERVOIR LEVELS

Reservoir	Decreed Capacity	Dead Storage	IY2002 Minimum Storage	IY2003 Minimum Storage	IY2004 Minimum Storage	IY2005 Minimum Storage	IY2006 Minimum Storage	Actual IY2007 April 1st Storage
Granby	543,758	74,190	176,678	90,251	237,651	288,522	312,007	289,952
Dillon	252,678	3,269	152,096	120,377	209,595	218,205	218,205	243,013
Green Mountain	154,645	26,860	45,114	35,941	66,258	89,219	63,383	72,244
Ruedi	102,369	61	47,344	47,344	61,599	75,251	63,201	68,795
Williams Fork	93,637	0	15,332	7,533	56,155	56,155	68,013	73,760
Wolford	65,993	0	18,714	16,849	16,836	40,524	51,216	51,400
Homestake	43,504	0	11,289	17,055	13,549	34,928	11,765	31,050
Vega	33,500	823	2,178	3,203	7,465	11,470	10,107	19,654

Notes: Green Mountain Reservoir dead storage includes 20,000 AF of "stranded" storage.

# RESERVOIR LEVELS AND PROJECTED LEVELS





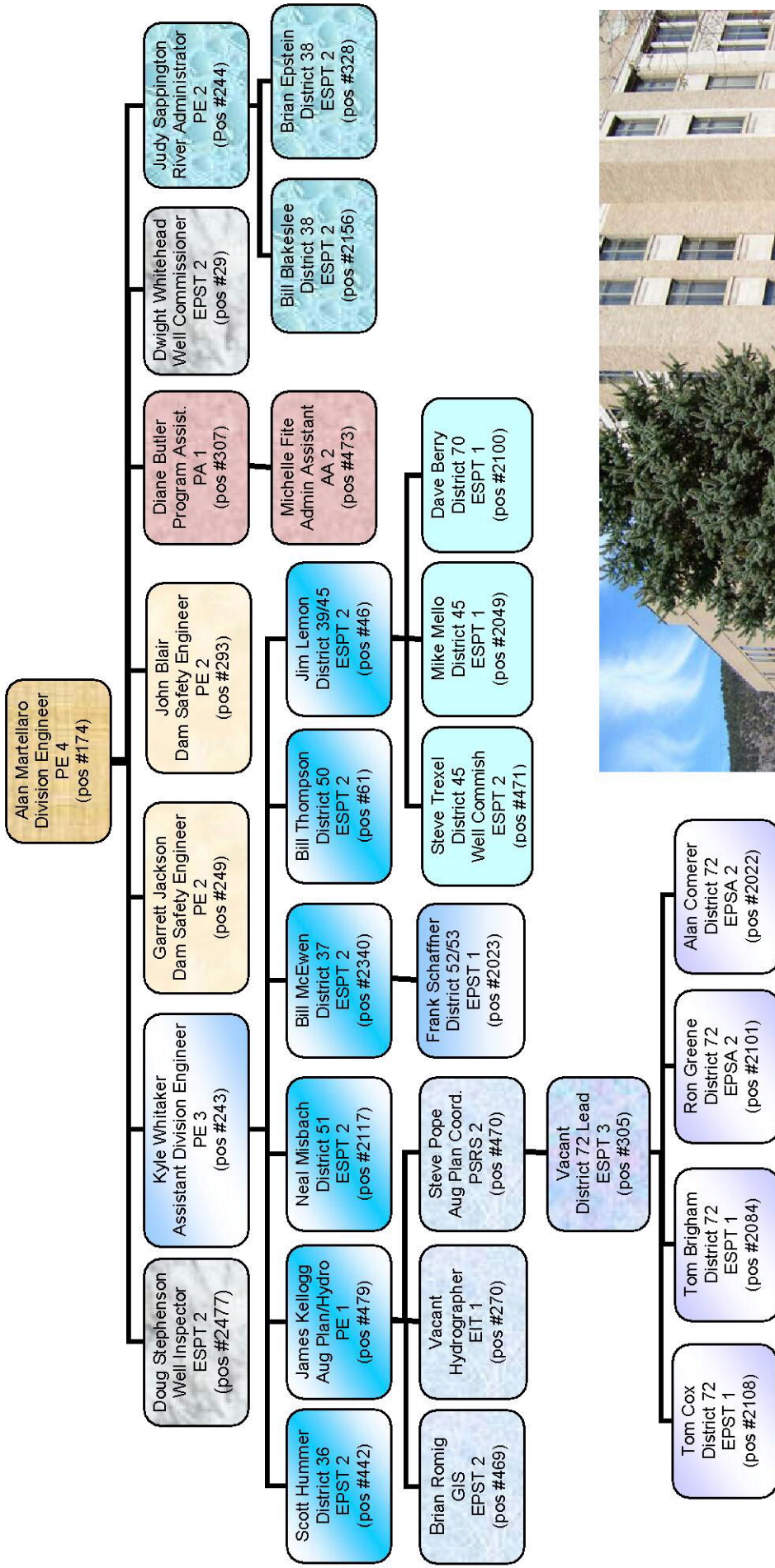
**APPENDIX E: WATER COURT ACTIVITIES**

**CALENDAR YEAR 2006**

Applications Made to Water Court...(06CW...)	281
Div 5 DWR – Colorado River	259
(Div 6 DWR) – White River	22
Amended Applications – Div 5 Colorado River	51
No. of Consultations With Referee	305
No. of Complaints	0
No. of Withdrawn Cases or Dismissed Cases	12
No. of Denials	0

NO. OF CASES DECREED BY WATER COURT FOR DIVISION 5 = 242  
 Plus Orphan Cases = 58

Type of Decree	# Cases	# Structures
Findings of Diligence on Conditional Rights	69	179
Cancellations of Conditional Rights (includes "Orphan" Cases)	77	138
Conditional Rights Made Absolute	21	35
Surface Water Rights Adjudicated	30	66
Underground Water Rights Adjudicated	11	39
Water Storage Rights Adjudicated	29	54
Plans for Augmentation Adjudicated	18	
Structures Augmented in Combination Cases		98
Change of Water Rights (includes location, use, amount, alt pts dvr, chg pts dvr)	31	80
Instream Flow Rights Adjudicated	0	n/a
Amend Augmentation Plans	2	9
Exchanges	9	n/a
Combination Cases of Diligence & Conditional To Absolute in the same application (all other combination cases itemized above)	36	180



Back Row: Bill Thompson, Scott Hummer, Doug Stephenson, Frank Schaffner, Kyle Whitaker, Brian Romig, Neal Misbach, Alan Comerer  
 Front Row: Alan Martellaro, Garrett Jackson, Hal Simpson, Steve Pope, Judy Sappington, Dave Berry, Nancy Hitchcock, Bill McEwen, Ron Greene, Dwight Whitehead, Bill Blakeslee, John Blair, Jim Lemon  
 Not Pictured: Diane Butler, Michelle Fite, Brian Epstein, James Kellogg, Tom Cox, Tom Brigham



**STATE OF COLORADO  
 DIVISION OF WATER RESOURCES  
 GLENWOOD SPRINGS, CO**

**March 20, 2007**

**APPENDIX G: OFFICE ADMINISTRATION & WORKLOAD MEASURES**

**Personnel:**

Name	Working Title FY 2006	Office Or WD	FY 06 7/1/05-6/30/06		Fiscal Yr 06 7/1/05-6/30/06 Reimbursable Miles		Irrig Yr 06 11/1/05-10/31/06 Reimbursable Miles		Calendar Yr 1/1-12/31/06 Reimbursable Miles	
			Budgeted	Worked	2 W	4 W	2 W	4 w	2 W	4 W
<b>Office Staff</b>										
Alan Martellaro	PE IV Division Engineer	Office	12	12	283	0	283	0	283	0
John Sikora	PE II Asst Division Engineer (resigned 5/23/06)	Office	12	11	4,009	135	2,392	0	2,015	0
Kyle Whitaker	PE I Aug Plans /Tabulation /Litigation PE II Asst Division Engineer (promoted 7/10/06)	Office	12	12	6,710	1,220	5,945	980	5,425	615
Judy Sappington	PE II Colo River Administrator	Office	12	12	915	0	713	0	589	0
Jean M. Ray	PE I Aug Plan Coordinator/Hydro (new position) hired 7/10/06 transferred to Div 6 8/17/06	Office/ Field	FY 07		0	0	330	0	330	0
John G Blair	PE II Dam Safety Engineer	Office	12	12	0	0				
Garrett Jackson	PE II Dam Safety Engineer	GJ Ofc	12	12	0	25				
George Wear	PE I Hydrographer	Office	12	12	0	0				
Brian Romig	EPST II: GIS and IT Support	Office	12	12	180	0	764	97	764	97
Dwight Whitehead	EPST II Wells/Water Commissioner	Office	12	12	0	0				
Doug Stephenson	EPST II Well Inspector for Div 4,5,6	Office	12	12	0	0				
Nancy Hitchcock	PA I Program Assistant (retired 12/1/06)	Office	12	12	0	0	128	0	128	0
Diane Butler	PA I Program Assistant (hired 2/05/07)	Office	FY 07							
Kasi Rishel	AA I Administrative Assistant (resigned 7/22/05)	Office	7.2	0.75	0	0				
Kathleen Albritton	AA 1 Administrative Assistant (temp 11/19/05-2/19/06) - Promoted to AA II Perm Pt Time 2/20/06 (resigned 6/2/06)	Office	(6)	(4)						
Michelle Fite	AA II Admin Asst (hired 12/5/06)	Office								
<b>Full time Field Staff</b>										
Scott Hummer	EPST II Wtr Commissioner	36	12	12	0	0	528	0	528	0
Bill Blakeslee	EPST II Wtr Commissioner	38	12	12	15,935	227	11,609	3,582	9,586	5,427
Michael Craig	EPST II Water Commissioner (resigned 7/8/06)	38	12	0.25	6,280	482	4,212	339	3,800	339
Jim Lemon	EPST II Wtr Commissioner	39/45	12	12	0	0				
Steve Trexel	EPST II Wtr Commissioner	45	12	12	6,710	2,528	6,246	4,725	4,601	5,956
Bill Thompson	EPST II Wtr Commissioner	50	12	12	6,539	3,713	2,909	2,645	2,909	2,927
Neal Misbach	EPST I Wtr Commissioner	51	12	12	13,593	2,581	7,842	3,001	6,315	2,802
Steve Pope	EPST III Wtr Commissioner	72	12	12	0	0				
<b>Permanent Part-Time Field Staff</b>										
Bill McEwen	EPST II Wtr Commissioner	37	11	11	706	2,380	706	1,489	706	1,232
Mike Mello	EPST I Wtr Commissioner	45	9	9	7,742	1,996	3,513	6,379	2,301	6,753
Frank Schaffner	EPST I Wtr Commissioner	52/53	8	8	0	6,434	0	4,283	0	4,283
Don Mackey	EPST I Wtr Commissioner (resigned 12/15/05)	70	8	5.5	0	8,941	0	1,399		
David Berry	EPST I Wtr Commissioner (hired as temp 4/5/06-7/26/06) EPST I Perm Pt Time (7/27/06-present)	70	(6)	(3)	915	3,303	915	6,167	915	6,167
Tom Brigham	EPST I Wtr Commissioner	72	10	10	865	12,849	865	13,350	1,135	13,030
Tom Cox	EPSA III Wtr Commissioner	72	9	9	2,300	4,710	2,132	6,327	2,443	6,327
Alan Comerer	EPSA II Wtr Commissioner	72	6	6	120	4,260	777	8,977	777	8,977
Ron Greene	EPSA II Wtr Commissioner	72	6	6	2,348	774	1,318	1,245	1,318	1,245
<b>Temporary Part-Time Field Staff</b>										
Eddie Wilson	EPST II (Div 5=11/22/05-4/24/06)	HYDRO	(6)	(5)	0	0	0	0	0	0
Candy Argueta	AA I Admin Asst (7/6/06-12/31/06)	OFFICE	(6)	(6)	0	0	0	0	0	0
<b>2006 FY Budgeted Worker Months:</b>			<b>302.26 months = 25.188 FTE</b>							
<b>2006 FY Total Months Worked:</b>			<b>284.0 months =23.66FTE</b>							
<b>Total Reimbursable Miles Driven:</b>					<b>80,170</b>	<b>56,558</b>	<b>54,317</b>	<b>64,985</b>	<b>47,058</b>	<b>66,177</b>
<b>Subtotal \$\$ for Miles (prior-Jun 06= 2w .28 4w .32, Jul-Dec 06= 2w .33 4w=.36) using avg 2w=.31, 4w=.325</b>					<b>24,853</b>	<b>18,381</b>	<b>16,838</b>	<b>21,120</b>	<b>15,180</b>	<b>21,507</b>
<b>Total Reimbursed Miles Driven Per Specified Period</b>					<b>136,728 = \$43,234</b>		<b>119,302 = \$37,958</b>		<b>113,235 = \$36,687</b>	

**APPENDIX G: OFFICE ADMINISTRATION AND WORKLOAD MEASURES (continued)**

**ACTIVITY SUMMARY**

**CALENDAR YEAR 2006**

ACTIVITY	TOTALS
Professional and Technical Staff (FTE)	9.04
Clerical Staff (FTE)	1.29 ( + 0.62 temp)
Water Commissioner FTE (Full/Part Time)	7.02 / 5.37 ( + 0.66 temp)
Decreed Surface Water Structures (cumulative)	11,479
Surface Rights Administered (Site Visits) (water commissioners)	12,260
Number of Decreed Wells (cumulative)	6,844
Consultations With Referee	
Water Court Appearances (water commissioners)	1
Meetings With Water Users (Public Meetings) (water commissioners)	171
Meetings To Resolve Water Related Disputes	Not on activity summary
Contacts to Give Public Assistance on Water Matters (water commissioners)	Total Contacts = 10,160 ( 3,483 Field 826 Office (5,851 Phone)
Dams Visited (water commissioners)	2,134
Wells Visited (water commissioners)	600
Surface Structures Administered by Phone (water commissioners)	715

\*\*All "(water commissioners)" figures taken from Water Commissioner Activity Summary reports

2006 TRANSMOUNTAIN DIVERSION - 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		237.3	365	161.0	365.0	11	ARKANSAS RIVER
38	4682 ROARING FORK BYPASS FLOW	ROARING FORK RIVER		2,253.8	323	3,026.0	365.0	11	TWIN LAKES
45	4657 DIVIDE-HIGHLINE FEEDER	DIVIDE CREEK		961.6	43	1,115.0	38.0	40	CLEAR FORK MUDDY CREEK
50	4600 SARVIS CREEK DITCH	RED DIRT CREEK		510.6	74	485.0	47.0	58	SARVIS CREEK
53	4716 DOME CREEK DITCH	EGERIA CREEK		155.0	77	78.0	65.0	58	BEAR CREEK
53	4715 STILLWATER DITCH	EGERIA CREEK		1,921.6	95	2,220.0	119.0	58	BEAR CREEK
72	4713 REDLANDS POWER CANAL	COLORADO RIVER		488,139.9	322	559,090.0	362.0	42	GUNNISON RIVER
72	4711 GRAND JUNCTION MUNICIPAL	COLORADO RIVER		3,509.0	216	0.0	0.0	42	KANNAH CREEK
			TOTAL:		566,175.0				

2006 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 TUNNEL	CLEAR CREEK	214.8	365	206.0	365	36	STRAIGHT CREEK
7	4626 VIDLER TUNNEL	CLEAR CREEK	449.8	71	646.0	41	36	SNAKE RIVER
23	4685 BOREAS PASS DITCH	TARRYALL CREEK	162.7	66	186.0	72	36	BLUE RIVER
23	4699 HOOSIER TUNNEL	MAIN FORK OF SO. PLATTE RIVER	8,131.2	146	11,357.0	175	36	BLUE RIVER
80	4684 ROBERTS TUNNEL	MAIN FORK OF SO. PLATTE RIVER	79,096.9	292	109,622.0	364	36	BLUE RIVER
11	4641 COLUMBINE DITCH	TENNESSEE CREEK	1,827.2	93	1,942.0	90	37	SO. FORK OF EAGLE RIVER
11	4642 EWING DITCH	TENNESSEE CREEK	815.3	121	963.0	115	37	SO. FORK OF EAGLE RIVER
11	4614 HOMESTAKE TUNNEL	SO. PLATTE VIA ARKANSAS RIVER	32,165.4	86	63,796.0	64	37	HOMESTAKE CREEK
11	4648 WURTZ DITCH	TENNESSEE CREEK	2,218.2	110	2,945.0	121	37	SO. FORK OF EAGLE RIVER
11	4625 BOUTSTEAD TUNNEL	LAKE FORK CREEK	49,711.7	363	61,913.0	365	38	FRYING PAN RIVER
11	4613 BUSK-IVANHOE TUNNEL	LAKE FORK CREEK	4,662.5	260	4,439.0	365	38	FRYING PAN RIVER
11	4617 TWIN LAKES TUNNEL	LAKE FORK CREEK	39,554.0	364	56,488.0	365	38	ROARING FORK RIVER
3	4601 GRAND RIVER DITCH	CACHE LA POUDRE RIVER	16,345.4	145	19,749.0	177	51	NO. FORK COLORADO RIVER
4	4602 EUREKA DITCH	CACHE LA POUDRE RIVER	0.0	0	0.0	0	51	NO. FORK COLORADO RIVER
4	4634 ALVA B ADAMS TUNNEL	BIG THOMPSON RIVER	221,935.3	340	273,976.0	322	51	NO. FORK COLORADO RIVER
6	4655 MOFFAT TUNNEL	BOULDER CREEK	55,792.2	363	83,384.0	365	51	FRASER RIVER
7	4625 BERTHOUD PASS DITCH	CLEAR CREEK	760.1	70	839.0	115	51	FRASER RIVER
6	505 AUGUST P GUMLUCK TUNNEL	BOULDER CREEK VIA FRASER RIVER	INCLUSIVE IN MOFFAT TUNNEL				51	WILLIAMS FORK RIVER
6	4603 VASQUEZ PIPELINE	BOULDER CREEK VIA FRASER RIVER	INCLUSIVE IN MOFFAT TUNNEL				51	WILLIAMS FORK RIVER
40	758 LEON TUNNEL CANAL	SURFACE CREEK	965.0	90	629	48	72	LEON CREEK
						TOTAL:	633,080.0	

RESERVOIR STORAGE SUMMARIES BY DISTRICT

2006		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	11/01/05	1,997.2	10/31/06	1,997.2	
	3535 BUFFEHR ENLG RESERVOIR	TENMILE CREEK	No Information Available					
	3538 CATARACT LAKE	CATARACT CREEK	1,652.8	11/01/05	1,652.8	10/31/06	1,652.8	
	3575 CLINTON GULCH RESERVOIR	TENMILE CREEK	3,149.3	05/15/06	4,389.9	06/30/06	4,198.8	
	4512 DILLON RESERVOIR	BLUE RIVER	218,205.0	11/01/05	253,646.0	06/30/06	246,421.0	
	3542 GOOSE PASTURE TARN	BLUE RIVER	492.1	08/31/06	795.7	05/31/06	664.0	
	3543 GREEN MOUNTAIN RES	BLUE RIVER	65,513.0	03/31/06	152,687.0	06/30/06	108,746.0	
	3544 GRIGGS RESERVOIR	BEAVER CREEK	34.0	11/01/05	71.0	07/07/06	68.0	
	3548 HOAGLAND RESERVOIR NO 1	ELLIOTT CREEK	50.0	10/31/06	110.0	06/15/06	50.0	
	3606 OFFICER GULCH POND	TENMILE CREEK	No Information Available					
	3565 REYNOLDS RESERVOIR	SODA CREEK	No Information Available					
	3569 UPPER BLACK CREEK RES	BLACK CREEK	273.0	11/01/05	273.0	10/31/06	273.0	
	3570 UPPER BLUE LAKE RES	BLUE RIVER	0.0	11/30/05	2,124.0	06/30/06	292.0	
	3571 WAY RESERVOIR	BEAVER CREEK	58.0	11/01/05	90.0	06/02/06	58.0	
36	Total of All Others < 50 AF		105.1		192.6		108.4	
36	Total For District 36		291,529.5		418,029.2		364,529.2	

RESERVOIR STORAGE SUMMARIES BY DISTRICT

2006		RESERVOIR NAME		SOURCE STREAM		AMOUNT IN STORAGE (AF)					
WD	ID	AF	Minimum	Date	AF	Maximum	Date	End Of Year			
									AF	Date	
	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	
	3513		CHALK MOUNTAIN RESERVOIR	EAGLE RIVER	229.3	11/01/05	231.5	07/01/06		231.0	
	3699		EAGLE PARK RESERVOIR	EAGLE RIVER	2,238.3	05/01/06	3,070.7	10/01/06		3,064.8	
	4516		HOMESTAKE RESERVOIR	HOMESTAKE CREEK	16,395.0	04/30/06	41,254.0	09/30/06		41,188.0	
	3520		LEDE 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		OZ 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		20,183.4		46,816.4			46,118.2	



RESERVOIR STORAGE SUMMARIES BY DISTRICT

WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)					
				Minimum		Maximum		End Of Year	
				AF	Date	AF	Date		
38	3711	ALICIA LAKE RESERVOIR	LIME CREEK	633.0	11/04/05	673.0	06/10/06		653.0
	4000	BEAVER LAKE	CRYSTAL RIVER		No Information Available				
	3722	CONSOLIDATED RESERVOIR	WEST COULTER CREEK	0.0	11/01/05	866.0	05/17/06		37.0
	3774	CRAWFORD DAM NO 1	BLUE CREEK		No Information Available				
	3773	CRAWFORD DAM NO 2	BLUE CREEK		No Information Available				
	3721	CROOKED CREEK RES	LIME CREEK	32.0	11/01/05	38.0	06/10/06		35.0
	4087	CRYSTAL SPRING LAKE	CRYSTAL SPRING	55.0	11/01/05	65.0	05/10/06		60.0
	4095	FLANNERY RESERVOIR	THREE MILE CREEK		No Information Available				
	4062	GALENA LAKE	CRYSTAL RIVER		No Information Available				
	3779	GRIZZLY RESERVOIR	LINCOLN CREEK	385.0	11/01/05	400.0	06/10/06		390.0
	3727	HIMMELAND LAKE	FRYING PAN RIVER	92.0	11/01/05	92.0	06/15/06		92.0
	3738	HOPKINS RESERVOIR	LANDIS CREEK	50.0	11/01/05	60.0	06/10/06		55.0
	3729	HUGHES RESERVOIR	THREE MILE CREEK		No Information Available				
	3732	IVANHOE RESERVOIR	FRYING PAN RIVER		No Information Available				
	3832	JACOBSON LAKES & PONDS	ROARING FORK RIVER	150.0	11/01/05	200.0	05/10/06		175.0
	4154	KODIAK LAKE & WETLANDS	ROARING FORK	46.0	11/01/05	56.0	05/10/06		50.0
	3736	LAKE ANN RESERVOIR	SOPRIS CREEK	120.0	11/04/05	342.0	05/26/06		120.0
	3955	MCNULTY RESERVOIR #2	SHIPPEE RUN CREEK	0.0	11/01/05	70.0	06/10/06		0.0
	3740	RALSTON RESERVOIR	COULTER CREEK	0.0	11/04/05	50.0	05/17/06		0.0
	3713	RUEDI RESERVOIR	FRYING PAN RIVER	81,365.0	10/31/06	99,360.0	07/31/06		81,365.0
	3742	SMITH PARK RESERVOIR	SHIPPEE RUN CREEK	10.0	11/01/05	60.0	06/10/06		10.0
	3744	SPRING PARK RESERVOIR	CATTLE CREEK	74.0	11/01/05	1,655.0	05/02/06		123.0
	3747	THOMAS RESERVOIR	THOMAS CREEK	62.0	11/01/05	80.0	05/10/06		71.0
	3753	UPPER CHAPMAN RES	FRYING PAN RIVER		No Information Available				
	3750	VAN-CLEVE FISHER RES	MESA CREEK	0.0	11/04/05	135.0	06/01/06		0.0
	3759	WILDCAT RESERVOIR	SNOWMASS CREEK	940.0	11/01/05	1,140.0	06/10/06		1,040.0
	3760	WOODS LAKE RESERVOIR	LIME CREEK		No Information Available				
38		Total of All Others < 50 AF							97.8
38		Total for District 38		84,014.0		105,342.0			84,276.0

RESERVOIR STORAGE SUMMARIES BY DISTRICT

2006		AMOUNT IN STORAGE (AF)											
WD	ID	RESERVOIR NAME	SOURCE STREAM	Minimum		Maximum		Date	End Of Year	AF	Date	AF	Date
				AF	Date	AF	Date						
39	3505	GRASS VALLEY RESERVOIR	RIFLE CREEK	1,746.0	11/01/05	5,196.0	04/01/06		2,489.0				
39	3506	HARRIS RESERVOIR	WEST RIFLE CREEK	36.0	11/01/05	56.0	04/01/06		36.0				
39	3940	MEADOW CREEK RESERVOIR	ELK CREEK	885.0	11/01/05	984.0	05/15/06		885.0				
39	3941	MIDDLE FORK RESERVOIR	PARACHUTE CREEK	85.0	11/01/05	100.0	05/01/06		85.0				
39	3507	PARK RESERVOIR	WEST ELK CREEK	53.0	11/01/05	160.0	05/01/06		0.0				
39	3508	RIFLE GAP RESERVOIR	RIFLE CREEK	1,127.0	11/01/05	12,348.0	05/15/06		5,183.0				
39		Total of All Others < 50 AF		25.0	11/01/05	101.0	06/01/06		30.0				
39		TOTAL FOR DISTRICT 39		3,957.0		18,795.0			8,707.0				

RESERVOIR STORAGE SUMMARIES BY DISTRICT

2006		RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)					
WD	ID			Minimum		Maximum		End Of Year	
				AF	Date	AF	Date		
45	3603	PORTER RESERVOIR	EAST AKALI CREEK	450.0	11/01/05	1,118.0	06/28/06	470.0	
45	3695	ALSBURY RESERVOIR	EAST DIVIDE CREEK	42.3	11/01/05	185.0	05/01/06	40.0	
45		Total of All Others < 50 AF		25.0		25.0		25.0	
45		TOTAL FOR DISTRICT 45		517.3		1,328.0		535.0	

RESERVOIR STORAGE SUMMARIES BY DISTRICT

2006		RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)					
WD	ID			Minimum		Maximum		End Of Year	
				AF	Date	AF	Date		
	50	3644	ALBERT RESERVOIR	0.0	11/01/05	82.0	06/05/06	0.0	
		3606	ANTELOPE RESERVOIR	0.0	07/08/06	347.0	05/02/06	29.0	
		3651	BASIN RESERVOIR	26.0	11/01/05	118.0	05/02/06	45.0	
		3645	BINCO RESERVOIR	0.0	07/03/06	515.0	06/05/06	0.0	
		3618	HINMAN RESERVOIR	300.0	11/01/05	611.0	04/29/06	315.0	
		3623	LAKE AGNES	320.0	07/12/06	410.0	06/07/06	330.0	
		3646	MARTIN RESERVOIR	35.0	11/01/05	210.0	05/02/06	40.0	
		3625	MATHESON RESERVOIR	0.0	08/17/06	1,073.0	05/16/06	50.0	
		3627	MC ELROY RESERVOIR	0.0	09/18/06	240.0	04/14/06	0.0	
		3629	MC MAHON RESERVOIR NO 2	145.0	11/01/05	3,500.0	05/15/06	348.0	
		3655	MILK CREEK RESERVOIR	26.0	11/01/05	105.0	05/22/06	34.0	
		3656	NORTH MEADOW RESERVOIR (aka Martin)	0.0	11/01/05	75.0	06/07/06	0.0	
		3631	OAKS RESERVOIR	16.0	11/01/05	60.0	05/20/06	40.0	
		3632	PARSONS RESERVOIR	14.0	11/01/05	107.0	05/18/06	40.0	
		3642	WHITELEY PEAK RESERVOIR	120.0	07/18/06	773.0	05/10/06	170.0	
		3668	WOLFORD MOUNTAIN RESERVOIR	51,245.0	10/31/06	66,672.0	05/31/06	51,245.0	
		3643	WOODS RESERVOIR	32.0	11/01/05	55.0	05/04/06	39.0	
		3666	DUMONT LAKE	214.0	10/31/06	220.0	04/21/06	214.0	
	50		Total of All Others < 50 AF						
	50		TOTAL FOR DISTRICT 50	52,493.0		75,173.0		52,939.0	

RESERVOIR STORAGE SUMMARIES BY DISTRICT

2006 WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)					
				Minimum		Maximum		End Of Year	
				AF	Date	AF	Date	AF	Date
51	4006	BULL RUN CREEK RESERVOIR	BULL RUN CREEK	110.0	10/31/06	120.0	05/10/06	110.0	
	4055	CBT GRANBY RESERVOIR	COLORADO RIVER	316,315.0	04/30/06	428,978.0	11/30/05	389,111.0	
	3695	CBT SHADOW MOUNTAIN GRAND LAKE	NO. FORK OF COLO RIVER	4,687.0	10/31/06	17,830.0	12/31/05	4,687.0	
	3710	CBT WILLOW CREEK RESERVOIR	WILLOW CREEK	7,431.0	11/30/05	9,446.0	10/31/06	9,446.0	
	4012	COTTONWOOD RESERVOIR	GARDINER CREEK	80.0	11/01/05	100.0	06/15/06	80.0	
	3715	EAST BRANCH RESERVOIR	UTE CREEK	1,083.0	10/31/06	2,000.0	05/01/06	1,083.0	
	3660	F W LINKE NO 2 RESERVOIR	TEN MILE CREEK	13.0	11/01/05	67.0	05/31/06	12.0	
	3665	HANKINSON RESERVOIR	FRASER RIVER	100.0	11/01/05	110.0	06/30/06	100.0	
	4009	JACK ORR RESERVOIR	COLORADO RIVER						Structure Not Built
	3752	KINGS RESERVOIR	BUFFALO CREEK	350.0	11/01/05	650.0	06/30/06	350.0	
	3679	LANGHOLEN RESERVOIR	BATTLE CREEK	7.0	11/01/05	65.0	06/05/06	9.0	
	3686	MEADOW CREEK RESERVOIR	MEADOW CREEK	0.0	11/01/05	3,768.0	05/31/06	1,158.0	
	3687	MOORE RESERVOIR	WILLIAMS FORK RIVER	34.0	11/01/05	100.0	05/25/06	55.0	
	3688	MUSGRAVE RESERVOIR	ROCK CREEK	0.0	11/01/05	340.0	05/08/06	0.0	
	3745	POLE CR MEADOWS RES NO 1	POLE CREEK	20.0	11/01/05	42.0	06/30/06	20.0	
	3693	ROCK CREEK RESERVOIR	ROCK CREEK						Breached
	3694	SCHOLL RESERVOIR	CORRAL CREEK	0.0	11/01/05	200.0	06/06/06	0.0	
	3732	GAYLORD RESERVOIR	POLE CREEK	110.0	11/01/05	140.0	06/20/06	115.0	
	4051	SUN VALLEY RESERVOIR	NO. FORK OF COLO RIVER	65.0	11/01/05	70.0	06/30/06	65.0	
	3701	SYLVAN RESERVOIR	LITTLE MUDDY CREEK	55.0	11/01/05	1,133.0	06/06/06	80.0	
	3738	UTE CREEK RESERVOIR	UTE CREEK	93.0	11/01/05	93.0	10/31/06	93.0	
	3709	WILLIAMS FORK RES	WILLIAMS FORK RIVER	70,020.0	03/31/06	96,400.0	06/30/06	73,774.0	
51		Total of All Other Reservoirs Less Than 50 AF							
51		TOTAL FOR DISTRICT 51		400,573.0		561,652.0		480,348.0	



RESERVOIR STORAGE SUMMARIES BY DISTRICT

2006 WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)					
				Minimum		Maximum		End Of Year	
				AF	Date	AF	Date	AF	Date
	53	3959 CLYDE RESERVOIR	EGERIA CREEK	24.0	10/31/06	66.0	06/06/06	24.0	
		3960 CRESENT LAKE RESERVOIR	DERBY CREEK	0.0	11/01/05	237.0	07/15/06	0.0	
		3961 ED W HARPER RESERVOIR	EGERIA CREEK	0.0	10/31/06	194.0	06/06/06	0.0	
		3962 EGERIA RESERVOIR	EGERIA CREEK	0.0	11/01/05	139.0	06/01/06	0.0	
		3966 GRIMES BROOKS RESERVOIR	RED DIRT CREEK	0.0	10/31/06	370.0	06/18/06	0.0	
		3971 HEART LAKE RESERVOIR	DEEP CREEK	2,945.0	11/01/05	2,945.0	11/01/05	2,945.0	
		3972 HIDDEN SPRINGS RESERVOIR	HORSE CREEK	NO	INFO	AVAIL			
		3974 JONES NO 1 RESERVOIR	SHEEP CREEK NO 2	145.0	11/01/05	180.0	05/26/06	150.0	
		3975 JONES NO 2 RESERVOIR	SHEEP CREEK NO 2	450.0	11/01/05	578.0	05/26/06	578.0	
		3978 KELLY RESERVOIR	EGERIA CREEK	122.0	10/31/06	190.0	11/01/05	122.0	
		3982 LUARK RESERVOIR	SPRING CREEK	15.0	11/01/05	75.0	06/07/06	30.0	
		4020 MACKINAW LAKE RES NO 2	DERBY CREEK	23.0	11/01/05	79.0	07/15/06	23.0	
		3986 MORRIS RESERVOIR	TOPONAS CREEK	0.0	11/01/05	46.0	06/08/06	0.0	
		3988 NEWTON GULCH RES	KING CREEK	0.0	10/31/06	223.0	05/09/06	0.0	
		3991 REID NO 1 RESERVOIR	EGERIA CREEK	100.0	11/01/05	120.0	06/16/06	120.0	
		3992 REID NO 3 RESERVOIR	EGERIA CREEK	86.0	11/01/05	86.0	11/01/05	86.0	
		3995 STERNER RESERVOIR	EGERIA CREEK	0.0	11/01/05	195.0	06/01/06	0.0	
		3997 SWEETWATER RESERVOIR	SWEETWATER CRK	490.0	11/01/05	490.0	11/01/05	490.0	
		3999 TONIER GULCH RES	TOPONAS CREEK	0.0	11/01/05	64.0	05/25/06	0.0	
		4001 TOPONAS ROCK NO 2 RES	TOPONAS CREEK	0.0	11/01/05	197.0	05/23/06	0.0	
		4004 WOHLER RESERVOIR	ELK CREEK	46.0	11/01/05	82.0	06/18/06	82.0	
53		Total of All Others < 50 AF							
53		TOTAL FOR DISTRICT 53		4,446.0		6,556.0		4,650.0	





RESERVOIR STORAGE SUMMARIES BY DISTRICT

2006	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)					
				Minimum		Maximum		End Of Year	
				AF	Date	AF	Date	AF	Date
72	3833	ANDERSON BROS RES NO 1	LEON CREEK	0.0	08/01/06	216.0	06/10/06	0.0	0.0
	3887	BIG BEAVER RESERVOIR	BULL CREEK	0.0	09/01/06	121.8	06/10/06	0.0	0.0
	3904	BIG CREEK NO 1 RESERVOIR	BIG CREEK	359.0	04/17/06	763.6	11/07/05	763.6	763.6
	3905	BIG CREEK NO 3 RESERVOIR	BIG CREEK	262.2	04/17/06	1,549.6	05/18/06	1,420.3	1,420.3
	3906	BIG CREEK NO 4 RESERVOIR	BIG CREEK	81.0	12/06/05	188.4	05/30/06	109.6	109.6
	3907	BIG CREEK NO 5 RESERVOIR	BIG CREEK	46.4	05/18/06	104.6	06/05/06	104.6	104.6
	3909	BIG CREEK NO 7 RESERVOIR	BIG CREEK	559.6	04/17/06	1,222.6	05/04/06	1,027.1	1,027.1
	3841	BOB MC KELVIE RESERVOIR	PLATEAU CREEK	NO INFO					
	3888	BULL BASIN NO 1 RES	BULL CREEK	84.0	10/07/06	124.4	06/10/06	84.0	84.0
	3889	BULL BASIN NO 2 RES	BULL CREEK	0.0	07/20/06	90.8	06/10/06	0.0	0.0
	3890	BULL CREEK NO 1 RES	BULL CREEK	0.0	09/01/06	79.3	06/10/06	0.0	0.0
	3891	BULL CREEK NO 2 RES	BULL CREEK	0.0	09/01/06	68.0	06/10/06	0.0	0.0
	3892	BULL CREEK NO 3 RES	BULL CREEK	0.0	08/24/06	59.2	06/10/06	0.0	0.0
	3893	BULL CREEK NO 4 RES	BULL CREEK	0.0	08/05/06	117.8	06/10/06	0.0	0.0
	3894	BULL CREEK NO 5 RES	BULL CREEK	24.0	10/07/06	248.2	06/10/06	24.0	24.0
	3834	COLBY HORSE PARK RES	LEON CREEK	120.8	10/07/06	470.0	05/01/06	120.8	120.8
	3883	COON CREEK NO 1 RES	COON CREEK	218.7	10/03/06	396.0	07/07/06	246.7	246.7
	3884	COON CREEK NO 2 RES	COON CREEK	0.0	08/01/06	193.2	05/31/06	54.2	54.2
	3885	COON CREEK NO 3 RES	COON CREEK	0.0	09/15/06	151.5	06/13/06	0.0	0.0
	3923	COTTONWOOD LAKES RES NO 1	COTTONWOOD CREEK	1.1	10/04/06	45.5	05/01/06	1.1	1.1
	3924	COTTONWOOD LAKES RES NO 2	COTTONWOOD CREEK	1,116.3	04/17/06	1,939.6	06/21/06	1,958.4	1,958.4
	3925	COTTONWOOD LAKES RES NO 4	COTTONWOOD CREEK	73.0	10/03/06	206.1	05/18/06	82.8	82.8
	3926	COTTONWOOD LAKES RES NO 5	COTTONWOOD CREEK	97.3	03/06/06	303.7	05/22/06	303.7	303.7
	4065	CURRIER RESERVOIR NO 2	BUZZARD CREEK	127.3	03/23/06	342.3	06/12/06	342.3	342.3
	3910	DAWSON RESERVOIR	BIG CREEK	NO INFO					
	3920	ECHO LAKE RESERVOIR	BIG SALT WASH	26.5	12/05/05	218.0	05/18/06	60.2	60.2
	3914	GROVE CREEK RESERVOIR NO 1	GROVE CREEK	0.0	11/01/06	14.5	02/10/06	0.0	0.0
	3915	GROVE CREEK RESERVOIR NO 2	GROVE CREEK	NO INFO					
72		Subtotal This Page		3,197.2		9,234.7		6,703.4	6,703.4

RESERVOIR STORAGE SUMMARIES BY DISTRICT

WD	ID	RESERVOIR NAME	SOURCE STREAM	AMOUNT IN STORAGE (AF)						
				Minimum			Maximum			End Of Year
				AF	Date	AF	Date	AF	Date	
72	3849	HAWKHURST RESERVOIR	HAWKHURST CREEK	0.0	05/01/06	0.0	01/00/00	0.0		
	3957	HIGHLINE RESERVOIR	COLORADO RIVER	3,275.2	11/28/05	3,280.0	11/01/05	3,280.0		
	3929	JENSEN RESERVOIR	COTTONWOOD CREEK					NO INFO		
	3961	JERRY CREEK RESERVOIR NO 1	PLATEAU CREEK	1,036.3	04/30/06	1,147.3	10/31/06	1,147.3		
	3962	JERRY CREEK RESERVOIR NO 2	PLATEAU CREEK	5,773.8	05/31/06	6,505.3	11/01/05	6,391.3		
	3837	KENDALL RESERVOIR	LEON CREEK	0.0	08/01/06	87.0	08/01/06	0.0		
	3838	KIRKENDALL RESERVOIR	LEON CREEK	0.0	06/01/06	100.0	06/01/06	0.0		
	3839	LEON LAKE RESERVOIR	LEON CREEK	583.2	10/02/06	1,480.0	07/13/06	583.2		
	3895	LOST LAKE RESERVOIR	BULL CREEK	0.0	09/09/06	91.3	05/01/06	0.0		
	4077	MACK MESA RESERVOIR	MACK WASH					NO INFO		
	3871	MESA CREEK NO 1 RESERVOIR	MESA CREEK	280.2	09/24/06	280.2	06/01/06	280.2		
	3872	MESA CREEK NO 2 RESERVOIR	MESA CREEK	42.2	09/24/06	42.2	06/01/06	42.2		
	3873	MESA CREEK NO 3 RESERVOIR	MESA CREEK	204.7	06/16/06	60.1	03/06/06	88.3		
	3874	MESA CREEK NO 4 RESERVOIR	MESA CREEK	25.4	06/05/06	269.0	05/31/06	66.1		
	3842	MONUMENT NO 1 RESERVOIR	LEON CREEK	0.0	07/06/06	572.0	07/06/06	0.0		
	3843	MONUMENT NO 2 RESERVOIR	LEON CREEK	0.0	06/27/06	225.0	06/27/06	0.0		
	3854	PALISADE CABIN RESERVOIR	RAPID CREEK	858.3	10/02/06	1,018.2	07/07/06	872.2		
	3932	PARKER BASIN RESERVOIR NO 1	COTTONWOOD CREEK	90.6	12/12/05	271.6	05/25/06	196.8		
	3933	PARKER BASIN RESERVOIR NO 2	COTTONWOOD CREEK	60.7	05/01/06	60.7	10/31/06	60.7		
	3934	PARKER BASIN RESERVOIR NO 3	COTTONWOOD CREEK	118.1	09/28/06	281.5	05/25/06	140.9		
	3858	RAPID CREEK NO 1 RESERVOIR	RAPID CREEK	233.2	11/01/05	636.3	06/27/06	341.3		
	3859	RAPID CREEK NO 2 RESERVOIR	RAPID CREEK	0.0	11/01/05	508.4	05/31/06	67.2		
	4019	ROOTS RESERVOIR	MACK WASH					NO INFO		
	3921	RUBY LEE RESERVOIR	BIG SALT WASH					NO INFO		
	3901	STUBB MCKINNEY CLARK RESERVOIR	SPRING CREEK	0.0	09/08/06	152.0	06/05/06	0.0		
	3931	T E KITSON RESERVOIR	COTTONWOOD CREEK	184.3	05/01/06	184.3	10/01/06	184.3		
	3902	TWIN BASIN RESERVOIR	BULL CREEK	0.0	07/20/06	49.7	06/10/06	0.0		
	3844	VEGA RESERVOIR	PLATEAU CREEK	101,070.0	09/30/06	33,839.0	05/31/06	13,609.0		
	3919	Y T RESERVOIR	GROVE CREEK	79.0	05/01/06	79.0	10/31/06	79.0		
72		Subtotal This Page		113,915.2		51,220.1		27,430.0		
72		Subtotal Previous Page(s)		3,197.2		9,234.7		6,703.4		
72		Total of All Other Reservoirs Less Than 50 AF		96.3		277.8		107.6		
72		TOTAL FOR DISTRICT 72		117,208.7		60,732.6		34,241.0		

**2006 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	122018	0	0	7480	39	175	748	26044	0	57	0	696
37	69646	0	0	11315	8	213	0	13	0	66	0	439
38	122840	1151	0	12248	143	22	483	83552	0	2065	0	4951
39	0	0	0	1967	31	94	0	13069	0	172	0	3493
45	0	0	0	401	25	451	0	0	0	736	0	14157
50	0	0	0	0	0	0	0	20814	0	3	0	0
51	377949	11670	0	2493	66	309	0	6332	0	30	0	91
52	0	567	0	0	6	0	0	0	0	17	0	5
53	0	0	0	7453	0	0	0	116	0	0	0	0
70	0	0	0	84	11	191	0	0	0	7	0	1284
72	629	1651	0	24332	25	515	0	56242	436	285	0	10884
TOTAL	693082	15039	0	67773	353	1969	1231	206182	436	3439	0	35999

WD	AUGMENTATION	EVAPORATION	FEDERAL RESERVE	GEOTHERMAL	SNOWMAKING	MIN STREAMFLOW	POWER GENERATION	WILDLIFE	RECHARGES	OTHER	ALL BENEFICIAL USE
36	29926	16797	0	0	1455	0	227673	0	0	58	0
37	11	647	0	0	117	0	0	0	0	0	0
38	0	1879	0	0	231	3026	113038	0	0	0	0
39	22386	2511	0	0	0	0	122	0	0	0	0
45	0	252	0	0	0	0	62	0	0	0	0
50	1708	4108	0	0	0	1154	0	0	0	1300	0
51	807	25443	0	0	235	0	92032	0	0	932	0
52	11	45	0	0	0	0	0	0	0	0	0
53	19	252	0	0	0	0	696724	0	0	0	0
70	0	36	0	0	0	0	0	0	0	0	0
72	43	1527	0	0	4	0	947125	0	148	338	0
TOTAL	54912	53495	0	0	2042	4180	2076777	0	148	2628	0

## 2006 WATER DIVERSION SUMMARIES

WD	STRUCTURES REPORTING					ALL STRUCTURES				TO IRRIGATION		
	With Record (1)	No Water Avail. (2)	No Water Taken (3)	No Info Avail. (4)	No Record (5)	Estimated # Visits Structure	Total Diversions, (AF)	Total Diversions to Storage, (AF)	Total Diversions, (AF)	Number of Acres Irrigated	Average AF Per Acre	
36	293	3	146	525		4658	673382	200436	84067	9375	8.97	
37	187	1	253	763		4613	192241	35574	67551	8606	7.85	
38	373	3	398	2305		5384	658076	42926	282359	13918	20.29	
39	183	32	247	512		247	154174	13472	114270	14585	7.84	
45	308	18	203	394		1238	113204	1044	94255	26047	3.62	
50	218	0	25	78		1171	111966	23471	81164	18796	4.32	
51	526	6	145	701		5585	1159232	209399	133341	24898	5.36	
52	120	10	51	131		299	16580	174	15262	3795	4.02	
53	334	6	69	263		1645	780072	2336	58767	16074	3.66	
70	57	4	55	240		128	26158	45	23927	4457	5.37	
72	724	40	276	710		9279	1995456	43468	804235	67970	11.83	
TOTAL	3323	123	1868	6622		34247	5880542	572344	1759199	208522	8.44	

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=U