DIVISION 5
2003 ANNUAL REPORT

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ANNUAL REPORT
WATER DIVISION 5
2003 IRRIGATION YEAR

Water Division 5 is the Colorado River mainstem. 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, 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 2003 irrigation year continued a 20-year trend reducing basin-wide irrigated acres. This trend is the result of continued urbanization of agricultural land. The 1980's began with 360,000 acres irrigated. This 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. The below average runoff in 2003 produced diversions well below average. For hydroelectric power generation 1.76M AF, for transmountain diversions 483,292AF, for irrigation diversions were 1.88M AF resulting in depletions of approximately 510,000AF.

I. 2003 WATER YEAR ACCOMPLISHMENTS AND EVENTS

A. WATER ADMINISTRATION AND RUNOFF CONDITIONS

- **Runoff Conditions**

With above average precipitation in October and November, the December 1, 2002 basin-wide forecast began with promise. Two dry months later the February 1, 2003 runoff forecast had reached 75% of normal. Average snowfall in February, a series of heavy storms in March, and a significant storm in April improved the forecast each month, reached a basin wide high of 95% by May 1, 2003. The snow pack was generally much better along the Continental Divide, particularly in the northern reaches of the Colorado River Basin. The western drainages did not fare as well. For example, the June 1st forecasted inflow to Lake Granby was 111% of average; for the Colorado River near Dotsero 97%; for the Colorado River below Glenwood Springs 90%; and for the Colorado River near Cameo 89%.

However, SNOTEL sites were completely dry two to three weeks ahead of normal, and actual undepleted runoff was lower than forecasted. Reservoir storage was 25% of normal on May 1st and 50% of normal on June 1st, creating a larger differential between undepleted and gaged flow for these runoff conditions.

Unlike 2002 when none of the major reservoirs filled, several filled in 2003. Both Williams Fork and Dillon Reservoirs filled, and on the day before the river call was to curtail Green Mountain Reservoir, it reached a physical fill. Ruedi Reservoir was near full at the end of the storage season. However, Granby, Wolford Mountain, and Homestake were considerably below full when they began to be drawn upon.

In 2002, the mainstem call of June 12th was the earliest on record. For 2003 the call occurred on July 9th. A very early date based on historic call but nearly a month of relief beyond 2002. The USFWS maintained low target flows for the endangered fish in the 15-mile reach, which was combined with several significant and timely rainfall events, such as end of July, third week of August, and first week of September to delay demand on the west slope reservoirs. With the West Slope Historic Users Pool above the drawdown band on until August 22nd, major releases from Green Mountain to Cameo did not commence until September 17th and continued until the entire 66,000AF pool was drained on October 31, 2003.

Due to the extreme drawdown of Green Mountain and Dillon Reservoirs in 2002, end-of-month storage targets were not attained throughout the winter, though only a minimum bypasses were released. Blue River Basin remained below normal all winter.

- **Dillon to Williams Fork and Moffat Tunnel Exchange**

Pursuant to C.R.S. 37-80-120 and 37-83-104, approval was given to operate the undecreed Dillon Reservoir to Moffat Tunnel and Dillon Reservoir to Williams Fork Reservoir exchanges. Dillon's outflow included replacement for Moffat Tunnel diversions, snowmaking depletions, Dillon's inflows and a partial release of Williams Fork's inflow. During the operation of this undecreed exchange Williams Fork continued to make replacement releases only for Henderson Mill depletions. These exchanges did reduce the Colorado River between the confluence of the Williams Fork and Blue Rivers to flows below the in-stream flow held by the CWCB. The CWCB and the DOW were consulted and determined they would not call out these exchanges, though they reserved the right to call them out at any time. The approval was for the period of January 23, 2003 through April 1, 2003. This exchange was operated to maintain the 7,000 AF remaining in Williams Fork Reservoir, protecting the Kokanee fishery in the reservoir that would take many years to re-establish.

- **Relaxed Shoshone Power Plant Call**

As with 2002, Xcel Energy reduced its Shoshone Power Plant call through a power interference agreement with the major upstream water users. For 2003 the call was reduced from 1408cfs to 700cfs (one turbine) from March 13, 2003 through May 6, 2003. Most reservoirs upstream of the power plant were drawn down in 2002 to their lowest levels since initial filling. This call reduction during the early spring is credited with the recovery of storage in the basin. A total of 50,463AF was conserved upstream as a result of the relaxed call. The beneficiaries of this operation were Green Mountain Reservoir, Denver Water, Colorado Springs, Windy Gap, and Wolford Mountain Reservoir. The beneficiaries and corresponding conserved flows are listed in **Appendix A.**

- **Grand River Ditch Failure**

On May 30, 2003 the north (main) branch of the Grand River Ditch failed. The ditch, owned by Water Supply and Storage Company (WSSC), diverts water from the North Fork of the Colorado River over La Poudre Pass into Long Draw, a tributary of the Cache La Poudre River in Water Division 1. This transmountain diversion diverts up to 525cfs, and is the primary source of supply for WSSC, and is the oldest of the large transmountain diversions taking water out of the Colorado River. Until repaired, water flowing through the breach was diverted by Adams Tunnel or stored in Granby Reservoir. Following a series of meetings negotiating the details, a substitute supply plan was submitted to the State Engineer and approved on July 17, 2003. The plan allowed water that flowed through the breach to be delivered by CBT facilities—Granby Reservoir, Adams Tunnel, Horsetooth Reservoir, and Hansen Supply Canal—to a location on the Cache La Poudre River 1.5 miles above the Larimer County Canal for delivery to the shareholders in the WSSC. The water was not measured at the breach but a correlation of flows at the Colorado River below Baker Gulch, and historic diversion by the Grand River Ditch was developed and accepted by the State and Division Engineers,

U S Bureau of Reclamation, Northern Colorado Water Conservancy District, and the Middle Park Water Conservancy District. Because 1.5 miles of the North Ditch and the entire South Ditch continued to divert, daily reporting was necessary. The Substitute Supply Plan, and the USBR-CBT carriage contract expired on September 30, 2003.

- **Green Mountain Ring Seal Project Delayed Again**

Work on the outlet ring seals at Green Mountain Reservoir was once again delayed until next year. The work remains in the second year of what was once a three-year project, and is now going into the fourth year. The plan continues to replace the second ring seal with the first reconditioned ring seal, and would limit releases to one of two outlet tunnels plus flows through the spillway radial gates for the top 42,000AF in the reservoir. The projected inflow, lake levels, and demands for CBT project replacement and downstream users were judged to leave insufficient head to provide releases needed with the constraints of the ring seal replacement project. For 2003, the lake levels did not reach an elevation to provide any releases through the radial gates, and one outlet tube was deemed insufficient.

- **Coordinated Reservoir Operations Called Off**

2003 marked the seventh year of Coordinated Reservoir Operations under the Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River. Unfortunately, it was also the sixth consecutive year of below-average precipitation. The objective of the program is to coordinate operations of and releases from various reservoirs to enhance habitat in the 15-Mile Reach~~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 Cameo gage. Co-operators limit such bypasses to amounts that would spill after the Cameo gage peaks. The minimum projected flow to trigger operation is 12,900cfs in the ~~15-Mile Reach~~15-Mile-Reach, determined to be the minimum needed to provide habitat maintenance and enhancement, without exceeding 26,600cfs at Cameo.

A committee of several governmental agencies and water user groups oversees the Coordinated Reservoir Operations. Division 5 staff serve on the committee along with representatives of the United States Fish and Wildlife Service (USFWS), National Weather Service (NWS), United States Bureau of Reclamation (USBR), Colorado River Water Conservation District (CRWCD), Denver Water, Grand Valley Water Users Association (GVWUA), City of Colorado Springs, Orchard Mesa Irrigation District (OMID), and Grand Valley Irrigation Company (GVIC). Division 5 staff is charged with the responsibility to determine in consultation with the USFWS when it is appropriate to begin and end the releases, and to maintain accounting records of the operation.

Discussion of reservoir re-operation for endangered fish habitat enhancement was tabled for the fourth consecutive year. None of the participating reservoirs were projected to spill or release storable inflow, and in May further CROS discussions were cancelled. Unlike 2002, the projected and actual peak flows at the Colorado River near Cameo were sufficient to trigger re-operation.

- **Substitution and Administration of the Blue River Decrees**

From the start of fill of Green Mountain Reservoir until the reservoir fill, 2003 was expected to be a substitution year. With replacement supplies in place Denver Water and Colorado Springs Utilities diverted. However, the day before Green Mountain Reservoir was to go out of priority, it filled and substitution did not occur.

The consolidated Blue River Decrees settled the relative priorities of the rights of the United States Bureau of Reclamation, Denver Water, and the City of Colorado Springs, and provided for the terms that allowed depletions upstream of Green Mountain Reservoir prior to the filling of Green Mountain Reservoir. Prior to a paper fill, transmountain diversions by Denver and

Colorado Springs are limited to the amount of storage each has on hand in the Blue and Williams Fork Rivers and is necessary to fill Green Mountain Reservoir. The Secretary of Interior must notify these water users as to when the start of fill date occurred (between April 1st and May ~~15~~ 15th), the amount needed to fill, whether or not Green Mountain will fill, and if there is water available for upstream depletion. A substitution year occurs when Green Mountain does not fill and Denver Water or Colorado Springs opt to use Williams Fork Reservoir in lieu of releasing Dillon Reservoir storage owed to Green Mountain Reservoir storage. In 91CW252 Denver Water added Wolford Mountain Reservoir as a source of substitution with strict terms and conditions. The years 1977, 1981 and 1990 were substitution years pre-dating the decree in 91CW252. Since that time 1994, 2001, and now 2002 were substitution years.

- **Colorado Springs Exchange on Blue River**

The Blue River Decrees provide for exchanges to Dillon Reservoir and to the Con-Hoosier Project. Denver Water has operated such an exchange since the construction of Dillon Reservoir. Because the Blue River Decrees allow the replacement source to be only on the Blue or Williams Fork River, Colorado Springs has not had the ability to operate an exchange. The Division Engineer's Office was prepared to approve and administer an exchange from Homestake Reservoir subject to approval by the Secretary of Interior. In 2003 the approval was obtained, with terms that used a combination of Wolford Mountain and Homestake Reservoirs. Colorado Springs provided to the Colorado River Water Conservation District 250AF in Upper Blue Reservoir for 250AF in Wolford Mountain Reservoir. The replacement release occurred from July 8th through July 22, 2003. The 250AF was held in Upper Blue Reservoir for fall snowmaking season.

- **The HUP Managing Entities**

The HUP Managing Entities include the USBR, Grand Valley Water Users Association, Orchard Mesa Irrigation District, Grand Valley Irrigation Company, DWR, CWCB, and USFWS, as defined in paragraph 3.d. of the Stipulation and Agreement for 91CW247, the Orchard Mesa Check Case. The meetings generally include the NWS, CRWCD and other major water users in the basin. The kick-off meeting was held on June 25th in at the Bureau's Grand Junction Projects office. Prior to the HUP kick-off meeting, weekly state-of-the-river meetings modeled around the HUP meeting had been held from early March through May 21 in preparation for the continuation of the drought, and to monitor savings from the Shoshone Power Plant call reduction. The HUP meetings were held weekly and occasionally biweekly into November. The primary purpose of the meetings is to manage the Historic Users Pool in Green Mountain Reservoir, declare a surplus at Green Mountain, and integrate the most efficient use of RIPRAP releases into river administration. Results of HUP Managing Entity Meetings are found under sections titled "Cameo Operations" and "RIPRAP" that follow.

- **Cameo Operations**

The summation of the water rights diverted at the Government Highline Canal Roller Dam and the Grand Valley Canal is known as the Cameo demand. During the irrigation season it totals 2260cfs, but is limited to 1950cfs in 91CW247, the "Orchard Mesa Check Case." A call at Cameo was not issued until July 31, 2003. Rainstorms in late August removed the call for two weeks. The call was back on in early September but a major storm, that left 6-10 inches of snow in the mountains and heavy rain in the valleys, removed the Cameo demand from September 8th-21st. Though the Shoshone call remained on for both these periods, upstream storage was conserved. The amount of storage in the Green Mountain Historic Users Pool was slightly below the upper limit of the drawdown band until August 23rd (See Graph Appendix B). For the next four weeks the gap between the upper limit and the amount in the Historic Users Pool widened through September 21st. On August 27th a surplus was declared in the Green Mountain HUP, and releases of surplus water commenced. Throughout the irrigation season Cameo was managed for flows no less than 2200cfs, though they briefly dropped to

1900cfs in mid-August. A table summarizing the mainstem river calls is in **Appendix C**.

- **RIPRAP (Recovery Implementation Program)**

With the projected water supply extremely low, the target flows at the Colorado River at Palisade were set at 250cfs -- well below the dry year target of 810cfs as set in the Programmatic Biological Opinion. The targets were raised on August 6th to 450cfs. On August 27th with an improved water supply, the Green Mountain Reservoir's HUP was declared to have a surplus, and small (50cfs) surplus releases were instated. At that time the 15-Mile-Reach target flows were increased to 810cfs. The water supply continued to improve and on September 17th the targets were increased to 1240cfs, and large surplus releases began.

The US Fish and Wildlife Service has three pools in Ruedi Reservoir for the Recovery Program: 10,825AF; 5,000AF four out of five years; and 5,000AF of contract water. All 20,825AF was available in 2003, and 20,632AF was released. The pool in Wolford Mountain Reservoir for the recovery program can be up to 5412AF and is based on the carryover and storage in current year. For 2003 Wolford Mountain had 2966AF available but only 286AF was released. Concern that Wolford Mountain would not have any water for the fish in 2004 was the primary purpose for releasing so little of this pool. The pool in Williams Fork Reservoir for the recovery program can also be up to 5412AF and is based on system-wide water supply conditions for Denver Water. For 2003 the 5412AF was reduced 30% to 3788AF. Williams Fork released all 3788AF. Therefore, a total of 27,579AF was available to the program and 24,706AF was released. Additionally, the HUP surplus declaration allowed 47,526AF of Green Mountain water to be released for Power at the Palisade Power Plant and for Municipal/Recreation contracts. These releases benefit the 15-Mile-Reach, providing total releases of 72,232AF. After assessment of transit losses, the total benefit from reservoir releases to the 15-Mile-Reach was 62,590AF. The graph and table in **Appendix D** summarize the contributions made by each reservoir and graphically depict the impact of those releases as shown on the flows at the Palisade stream flow gage.

The Grand Valley Management Project provides additional augmentation of fish flows through operation of automated check dams within the canal and operation spills at the Palisade Pipeline, which is ahead of the 15-Mile-Reach. Historic operational spills occurred below the confluence of the Colorado and Gunnison Rivers. The Grand Valley Management Project reduced demands at the roller dam by 50- to 200cfs from late August through October. The project also spilled 20- to 100cfs from mid-August through October. The total volumetric benefit to the endangered fish for 2003 was not available as of this writing.

~~Palisade gage vs. Cameo gage~~

- **Ruedi Over Release**

On September 3, 2003 the U S Bureau of Reclamation intended to increase the outflow of Ruedi Reservoir from 250cfs to 300cfs but inadvertently increased the outflow to 720cfs for several hours. The safe channel capacity of the Fryingpan River is considered to be 1100 cfs, therefore, no property damage occurred. However, the wading limit for the river is considered to be 350cfs. Therefore, a number of fishermen were stranded. No injuries were reported.

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B. DAM SAFETY

The year 2003 brought a rapid but short runoff due to heavy spring snowstorms followed by very warm weather at the end of May. This caused many of the smaller reservoirs to fill very quickly after they had been drained so long during the drought conditions of 2002. With dry embankments suddenly asked to store water, 10 incidents occurred. This, along with the dam safety engineer having to catch up on inspections

missed during the last three years due to his accident, taxed the dam safety engineer's workload significantly throughout the inspection season. However, the fact that his physical status was improved enough to perform his duties at near 100% allowed for him to function through this period and almost get caught up in his duties.

Also, during this year, the Dam Safety Branch was reorganized, which allowed for the transfer of a dam safety engineer from Division 2 to Grand Junction to help both in Divisions 5 and 4 and the new dam safety engineer in Division 6 was assigned to perform inspections in Grand County. These additions helped tremendously in reducing the inspection backlog and allowed the other Division 5 personnel to do less dam safety work and more water administration duties. This also allowed for the completion of 10 hazard evaluations, 4 hydrology studies, and 5 other technical evaluations. With the newly acquired dam safety engineers being fully established, a greater reduction on the main dam safety engineer's inspection workload in the future is expected, which should help allow for the reduction in the hazard evaluation backlog. For these reasons, this reorganization can be considered as a *significant dam safety highlight.*

With the dam safety operations now being very functional and with all the incidents that occurred, the total number of inspections performed in Division 5 in 2003 increased significantly to **156** (59 more than last year), which consisted of the following:

103 Inspections Performed by the Division 5 Dam Safety Engineer:
- 30 Class 1 regular
- 20 Class 2 regular
- 16 Class 2 regular
- 0 Class 4 regular
- 2 Construction
- 33 Follow-up
- 2 Outlet

18 Inspections Performed by the Division 6 Dam Safety Engineer
- 3 Class 1 regular
- 6 Class 2 regular
- 8 Class 3 regular
- 0 Class 4 regular
- 1 Follow-up
- 0 Construction

12 Inspections by the Grand Junction Dam Safety Engineer:
- 3 Class 1 regular
- 2 Class 2 regular
- 2 Class 3 regular
- 2 Follow-up
- 2 Construction
- 1 Outlet

2 Inspections by federal entities and DOW:
- 1 Class 1 regular
- 0 Class 2 regular
- 1 Class 3 regular

21 Water Commissioner Observations:
- 11 "Off-year" Class 2
- 10 Follow-up

- **Dam Safety Incidents and Restrictions Imposed – 10 incidents with 4 restrictions:**

1. *Y T Ranch Dam - a class 3 dam located in District 72 (reevaluated to be class 1).* Owner Illegally repaired the dam crest and backfilled the main spillway. This caused an abnormally high reservoir level and an increase in the seepage. A restriction of 6 feet below the dam crest was imposed.
2. *Western Hillside – a class 1 dam located in District 37.* A snow slide knocked the top two sections of the standpipe spillway out of alignment creating a hole in the dam down to the outlet. This dam was inspected and the reservoir lowered to below the damaged joints without the imposition of a restriction.
3. *Ivanhoe – a class 3 dam located in District 38.* Large point seepage developed at the toe of the dam on its left side after a rapid fill after the reservoir had been low for over a year. Dam was inspected and an emergency bentonite repair performed, which only stopped the seepage for a short time. The reservoir was then drained. All this was accomplished without the imposition of a restriction.

4. *Grimes Brooks – a class 1 dam located in District 53.* Significant increase in the seepage from the left abutment. Dam was inspected and the monitoring increased during the irrigation draw down to pinpoint the seepage source. A temporary repair was made and its performance with be re-evaluated in 2004. All this was accomplished without the imposition of a restriction.
5. *Scholl – a class 2 dam located in District 51.* Heavy seepage occurred with an illegal fill of a reservoir with a zero storage restriction. Dam was inspected and a monitoring program established while the reservoir was drained back to zero storage. The storage restriction will be re-evaluated after a review of the monitoring results. Owner's engineer will be submitting plans and specifications to alleviate the problem.
6. *Alsbury – a class 3 dam located in District 45 (reevaluated to be class 1).* Increase in seepage from the left abutment. Dam was inspected and monitoring increased. Geotechnical engineer hired to investigate seepage problem and design a solution. The need for a restriction will be analyzed in 2004.
7. *Long Slough - a class 3 dam located in District 72.* An internal inspection of the outlet showed a badly deteriorated pipe with a large rock obstruction. A zero storage restriction was imposed and the dam was breached in the fall.
8. *Encana GRS Pond - a class 3 dam located in District 45.* Was illegally built as a jurisdictional dam with no spillway. A zero storage restriction was imposed. A spillway was constructed in the fall of 2003 making the dam non jurisdictional.
9. *Hawxhurst - a class 3 dam located in District 72.* A large hole was discovered in the upstream slope. A restriction of 6 feet below the spillway was imposed.
10. *Crescent Lake #1 - a very low hazard class 3 dam located in District 53.* Outlet deterioration occurred. A temporary repair was made with the plan to replace the outlet in the near future.

- **Rehabilitations:**

1. *Western Hillside – a class 1 dam located in District 37.* The spillway and surrounding embankment material that suffered damage from a snow slide was repaired.
2. *Ivanhoe – a class 3 dam located in District 38.* Installing a sophisticated liner on the upstream slope and constructing an upstream toe cutoff trench repaired the seepage problem.
3. *Battlement #1 – a class 3 dam in District 45* on Battlement Mesa was rehabilitated to a non-jurisdictional fish and recreation reservoir.
4. *Battlement #2 – a class 3 dam in District 45* on Battlement Mesa was rehabilitated to a non-jurisdictional flood detention and wetlands mitigation structure.

- **Enlargements and New Dams:**

The Barton Porter – a class 3 soon to be class 1 dam in District 45. Continued work on the enlargement of this dam occurred. The project is not yet completed.

~~•Help from Denver, Divisions 1, 2, & 4 + ADE John, Judy, George + creative scheduling by John Blair (off of 1-2-6) = survival---NANCY, if John's write-up doesn't cover this we need to put something together to show our appreciation for all the help.~~

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C. ~~C~~ GROUNDWATER AND WELL PERMITTING

Strong economic conditions could be seen during the year 2003 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.

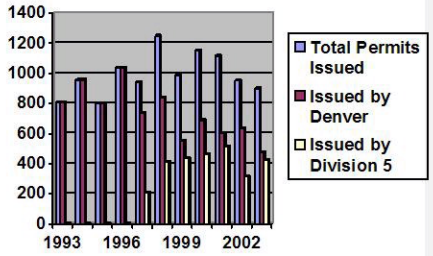
During calendar year 2003 a total of 900 permits were approved for Division 5 --a decrease by 1.5 % from 2002. Additionally ground water forms such as SBU's, Change in Ownership, and certain types of permits not reviewed by the Division office were pre-processed and forwarded to Denver for review.

A breakdown of permits processed includes:

611 Exempt Permits
199 Non- Exempt Permits
10 Geothermal Permits (excluded from total count)
81 Exempt Replacements
9 Non – Exempt Replacements
16 Late Registrations (included in exempt count)

With the decentralized well permitting process in place a total of 424 permits (357 Exempt and 67 Non-Exempt) or 47% were issued at the Division level. In addition, 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.

Well Permits for Water Division 5 1993 through 2003:



Because of State budget shortfalls and drought conditions during 2002, several water related bills were presented during the 2003 legislative session. Senate Bill 03-181 increased water well permit application filing fees from $60 to $440 effective March 6, 2003, which created cash funding for the water well permitting program. Furthermore, Senate Bill 03-045 added an additional $40 filing fee, effective July 7, 2003, creating funding for a new water well inspection program.

Implementation of technology in the area of GIS, using data acquired from counties and using the Internet sites such as Colorado Counties Inc., determining ownership and parcel information are valuable tools and used daily during the well permitting process with excellent results.

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D. D HYDROGRAPHIC PROGRAM

The Division 5 Hydrographer is responsible for the following:

- Measuring, recording and publishing the streamflows above Ruedi Reservoir associated with transmountain diversions for the Frying Pan-Arkansas Project. There are 4 manual and 4 satellite stations.
- Measuring, recording and publishing the streamflows for the Blue River below Breckenridge station for the Colorado Water Conservation Board for minimum streamflow compliance.
- Measuring, recording and publishing the streamflows for the Roaring Fork River below Maroon Creek station for the Aspen Consolidated District for permit compliance.
- Measuring and recording the streamflows for the Snake River at the Keystone Ski Area for the Colorado Water Conservation Board for minimum streamflow compliance.
- Measuring and recording the streamflows for Snowmass Creek below the Snowmass Water & Sanitation District diversion for the Colorado Water Conservation Board for minimum streamflow compliance. A new compound control was installed at the station this year, requiring rating measurements and the development of new rating tables.

- Measuring, recording and completing the streamflow record for the Government Highline Canal near Cameo.
- Measuring and recording the streamflow records for Bull Creek and Big Creek in District 72 for reservoir release/water administration purposes.
- Measuring diversions and/or bypass flows for water commissioners for administration.
- Providing finished record for approximately 3 streamflow stations and 6 reservoir elevation stations, as input to diversion records.
- Responding to data requests from Division 5 staff and the general public.
- Maintaining 24 satellite stations used for administrative purposes and monitoring 43 stations that are operated by other entities.
- Maintaining 3 satellite monitoring streamflow stations for the Colorado Water Conservation Board.

Division 5 Hydrographer George Wear, made 68 river discharge measurements (including 41 measurements for the Fry-Ark Project) and 14 ditch/canal discharge measurements during the 2003 hydrographic Water Year.

Three gaging stations in Division 5 were upgraded with SatLink DCP's and high data rate GOES radio transmitters in WY2003. Approximately 10 stream gages in Division 5 are now part of the new DWR ALERT system, including 7 high-flow stations and 3 low-flow stations. DCP's for the high-flow alert stations were reprogrammed for the specific thresholds desired, but the value of this system hasn't been confirmed since high flows have not been experienced yet on these streams. For low-flow alert stations, the ALERT system has had to utilize self-timed transmissions and will probably change from gage height parameter data to discharge data to eliminate changing shift revisions.

Other Stream Gage Improvements in WY2003 include:

- Rating extension work was performed by the USGS for one station: Rifle Creek below Rifle Gap Reservoir. The final rating has not been released.
- Trees in the vicinity of the cableway at the Roaring Fork River below Maroon Creek station were removed. A recent cableway inspection had recommended this maintenance item.
- A new water administration satellite monitoring station was installed at a parshall flume for a trans-district ditch, which diverts water from District 38 and transports to District 45.
- Permanent NEMA boxes and masts were installed at 2 water administration satellite monitoring stations, in order to facilitate faster setups for the brief diversion seasons at these stations.
- Planning was completed for a new gaging station on the Government Highline Canal in District 72, necessitated by the installation of a fish screen in the canal. When constructed by the spring of 2004, it will be operated in tandem with the old station for WY2004 in order to confirm the rating at the new station.
- Coordinated with multiple agencies in the planning of electric power installation to the Blue River at Highway 9 Bridge gaging station.

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E. WATER RECORDS AND INFORMATION

Diversion records were processed, completed and signed in record time this year. The deadline for signing was early February that was accomplished by most of the districts. The early deadline successfully allowed staff and water commissioners more time for tabulation, field inspections and leftover water issues from years gone by.

Aggressive record maintenance will give the commissioners more time for these issues and opportunities that seem to pile up faster than we can get to them.

This year we pushed the more multifaceted water users (USBR, Denver Water and the Colorado River District) to populate and critique their data in our spreadsheets. These users have more "colors of water" to account, making their records much more involved. The push is to give ownership to these users (as well as more in the future), allowing staff to concentrate on other users in the system. The use of *Excel* spreadsheets is overwhelmingly helpful to get the data from the more complex water users into diversion records.

Although not a record year for precipitation or snowpack, this was a banner year for diversions to storage, totaling over 890,000AF. This is the greatest diversion to storage in, at least, the past 10 years.

The structures with no data (see Appendix K Water Diversion Summaries/No Information Avail-able and No Record) have steadily increased over the years. This is most likely due to the increased number of decrees tabulated while the corresponding structures and records have yet to be coordinated between the water commissioner and water user.

The cross sectional workload of the water commissioner may be represented by structures reporting versus the number of visits to the structures (again, see Appendix K Water Diversion Summaries/ Structures Reporting and Estimated Number of Visits to Structure). The structures reporting have steadily decreased, 40% in the past 10 years, while the number of visits to structures has nearly tripled in the 10-year period. The commissioners are in the field, as evidenced by the increased number of visits to the structures. In the same breath, though, fewer structures are reporting. One might presume that administration is becoming much more involved and time consuming.

The Shoshone Hydro Power Plant call was on for 75% of the year while the Grand Valley water rights had a call on for 30% of its irrigation year, making record keeping a challenge.

- ~~Diversion Record Spreadsheets~~

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F. INFORMATION TECHNOLOGIES

PC Status – In 2003, our water commissioners were updated to have at least 256MB RAM, and at least an 8GB hard drive. Everyone in our Division now has Windows 2000 operating system and a speed of 500MHz or greater. Our backups are done on tapes that are changed out in the server. There's been no change in the amount of computer questions and/or problems in the last couple of years. Listed below is Division 5's computer/hardware inventory.

Name	PC Type	HD Size	Speed	Monitor	GPS MAKE	Camera Make	PDA Make
Alan Martellaro	GX150	9.3	933	DELL 15"			Palm130
Brian Romig	EVO	18.6	1800	7500			Axim X5
Dwight Whitehead	DP EN	18.6	1000	S720 15"	Garmin XL		
George Wear	GX150	9.3	933	VX900 17"	Garmin XL		Palm130
GIS Machine	DP WS	37.2	1700	S920 19"			
John Blair	EVO	18.6	1800	Coloreal 7500			Palm130
John Sikora	GX150	9.3	933	DELL 15"	GPS Map76		Palm130
Judy Sappington	DP EN	18.6	933	S720 17"			Palm130
Kasi Rishel	DP EN	18.6	1000	S720 17"			
Kyle Whitaker	EVO	18.6	1800	DELL 15"	GPS Map76		Palm130
Nancy Hitchcock	DP EN	18.6	1000	S720 17"			
Public Machine	GX150	9.29	933	DELL 15"			
Water Commissioner 1	E-4200	12.7	500	VIVITRON 15"			
Water Commissioner 2	E-4200	12.7	500	EV 910 17"			
Water Commissioner 3	E-4200	7.86	400	VIVITRON 15"			
Alan Comerer	E-4200	12.7	800	VIVITRON 17"			
Bill Blakeslee	E-4200	17	500	VIVITRON 15"	Garmin XL	DC3800	
Bill McEwen	EVO	18.6	1800	Coloreal 17"	Garmin XL		
Bill Thompson	GX150	9.3	933	VIVITRON 15"	Garmin XL		
Don Mackey	E-4200	12.6	500	EV700 17"	Garmin XL	DC3800	Axim X5
Frank Schaffner	DIV 6	DIV 6	DIV6	DIV6	Garmin XL		Axim X5
Jim Daxton	EVO	38	2.4GHz	Coloreal 17"	Garmin XL		
Jim Lemon	E-4200	8'	550	VIVITRON 17"	Garmin XL		
Larry Gepfert	EVO	38	2.4GHz	Coloreal 17"			
Michael Craig	DP EN	9.3	933	VX900	Garmin XL	DC3800	
Ron Greene	E4200	18.9	500	VIVITRON 15"			
Scott Hummer	EVO	18.6	500	Coloreal 17"	Garmin XL	DC3800	
Steve Pope	GP7-550	19.1	550	VIVITRON 15"	Garmin XL		
Tom Brigham	GP7-550	18.6	550	VIVITRON 17"			
Tom Cox	EVO	18.6	1800	Coloreal 17"	Garmin XL		
Grand Junction Office	GTWY	9.53	800	EV700 17"			
Laptop - Alan Martellaro	LAT D600	18.5	1600	LAPTOP			
Laptop - George Wear	LAT D600	18.5	1600	LAPTOP			
Laptop - John Blair	Insp 3800	9.22	600	LAPTOP			
Laptop - Office	Omni 6100	18.5	1000	LAPTOP			

Hardware/Software – We now have nine PDA's in the Division. Two of them were handed out to water commissioners to test the feasibility of using them for our diversion records. The results weren't positive since the PDA's couldn't handle data that could be directly inserted into *HydroBase*. The commissioners found themselves just putting the data on paper anyway. The office PDA's are used quite frequently, mostly for calendar and note purposes. All of our commissioners were upgraded to HP V40xi printers or better. We have a lot less printing problems since accomplishing this feat. We want to replace or fix our flat bed scanner/printer in the office since it's not functioning as needed. We are still looking to improve our mapping analysis with the purchase of Spatial Analyst. *ArcInfo* was available to us this year and we used it in coordination with our digitizer to locate our structures (headgates, reservoirs, wells, etc.) on our maps. Only four districts – 36, 37, 38, and 39 were determined to be in disarray enough to spend the time needed for digitization. We are planning on using the digitizer for hydro records and other mapping needs in the future. We are slowly accomplishing our goal of getting all of our structures in digital format via digitizing, GPS, and hand entering data.

Training - For training in-house, we brought in guest speakers attorney Barbara Kozelka on "Living Wills," author and historian Jim Nelson on the "History of Glenwood Springs," DWR's Lori Torikai on "LT Tools," DWR's Dick Wolfe on "Water Rights Mixed with Oil and Gas," and NRCS director Doug Dennison on "Oil and Gas Drilling." Division 5 staff trained our employees in Senate Bill 278, GIS Digitizing,

GPS Point Gathering, VOIP (new Cisco phone system), and Content Manager, among other topics. We also toured the Glenwood Caverns and the new fish ladder project at Cameo.

Web Page – The Division 5 website continues to be updated about twice a month and is a very useful tool. Contained within our website are phone numbers for all Division employees, river calls, organizational chart, frequently asked questions, news, important meetings and functions, and calendar of events.

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G. GIS PROJECTS

- **A/B Area Mapping**

Major GIS projects include the mapping of the A/B boundary, water commissioner maps, and maps to assist the public. The A/B boundary mapping consists of using USGS quad maps to outline the A/B area. Using the contour lines on the map, the A/B boundary goes along ridgelines and connects with key calling structures on tributaries of the Colorado River. All the Districts have been completed and are waiting to be approved and finalized.

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. *Spatial Analyst* will let us do major drainage basin studies. Updating our USGS quads, using GPS to locate all structures, map indexes and updating are all on the agenda. *TOPO* software will allow us to calculate areas for field inspections as well as locate structures easily. Also, we are working on a process of *Visual Basic* tools for various projects to have all of our data in digital format. This is a major undertaking and the reason why we purchased the digitizer last year.

Also, new 1:24,000 maps will be produced for the water commissioners for their entire district or area of coverage

Pictured on the next page is the A/B line for the entire Division completed March 15, 2004. The A/B line is displayed in green. The yellow area represents special Division 5 districts.

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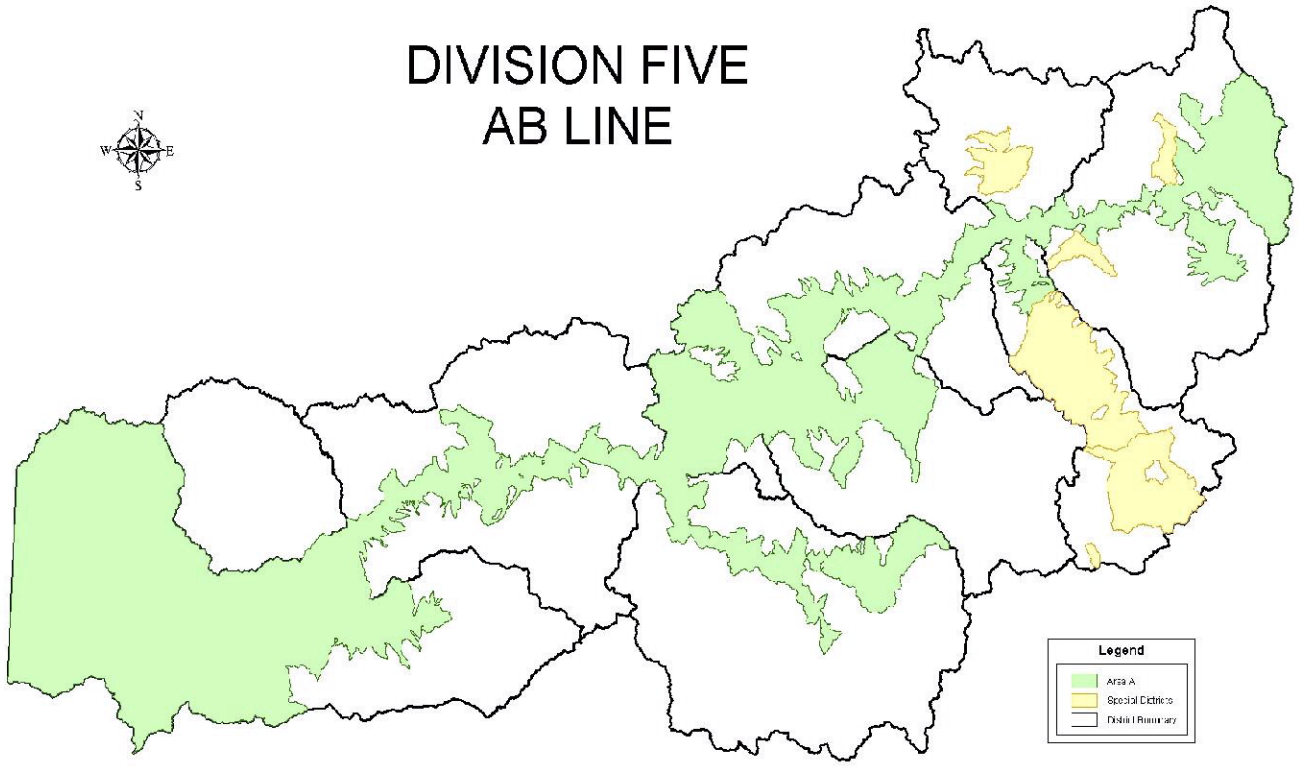
- Diversion Record Spreadsheets
- Diversion Record Spreadsheets


DIVISION FIVE
AB LINE
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Legend
Area A
Special Districts
District Boundary

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H. SUBSTITUTE SUPPLY PLANS

A number of Substitute Supply Plans were approved in 2003 pursuant to CRS 37-92-308. Plans can be approved under -308(4) where the plan is no less restrictive than a pending water court application with notification to objectors to the water court application, or -308(5) where the depletions are for less than 5 years with notification to the Substitute Supply Plans notification list, and -308(7) under a public health and safety emergency for up to 90 days with no notification.

In 2003, a total of eight substitute supply plans were approved:

- Three were approved for the West Divide Water Conservancy District and one for the Basalt Water Conservancy District. These substitute supply plans are for umbrella plans for the district contractors.
- In Water District 70 one was approved for #10 Enterprises.
- In Water District 51 two were approved. The first was to allow the Grand River Ditch to deliver water through Adams Tunnel until a breach in the ditch could be prepared. The other was for Interwest/Winter Park Recreation Association.
- In Water District 38, one Substitute Supply Plan was approved for the Pine Creek Cookhouse.

In 2003 two Substitute Supply Plans were denied or not acted upon:

- the first was for Gary Miller in District 36;
- the other was for the Lost Basin Ranch in District 38.

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I. SPECIAL PROJECTS AND ISSUES

- **Transit Losses**

Assessment of non-irrigation season transit loss continued to be disputed by water users. The need for empirical studies of the problem may be the only means to resolve the issue. Unfortunately, the economics of such studies to water users remains elusive. A few water users maintain it is a legislative mandate that the State Engineer perform such studies before transit losses can be charged; others continue to assert, in the case of augmentation plans, that the plans find no injury though transit losses are not covered.

Generally, the losses are separated into permanent and temporary losses. The estimated permanent losses are very small. Temporary losses include in-channel storage, bank storage, and transient ice storage. On most occasions the temporary losses in the winter are also very small. However, occasionally these temporary losses can be extreme. For example, late fall to early winter many streams experience a series of days where major icing events occur. This may also occur in mid-winter when a stream freezes from the bottom up. In another example, Eagle Park Reservoir releases did not reach the Eagle River, as they overflowed the East Fork channel and covered a large area at the eastern edge of Camp Hale with ice. In all these situations, it is unlikely the temporary losses will return to the river without injuring a senior right.

Keystone International provided a study on the Snake River that monitored Montezuma Vent deliveries to their snowmaking system. This study had several major deficiencies including:

- No monitoring of Snake River flows at Vent discharge point.

- No monitoring of North Fork Snake River flows into the main stem.
- Two days of Vent pumping is far too short a period of study. The study was generally too short to provide any data, let alone be conclusive.
- USGS Montezuma gage data is suspect during the study period because of control tampering.

The USGS proposed a study with 60% water user cost sharing. The original project was considered too expensive. A scaled down study that focused on the transient storage of water in ice was proposed and also rejected by the water users. Objections to the study included cost but also the legal positions previously noted.

At the start of the 2004 irrigation year and the 2003-04 snowmaking seasons, the method of triggering assessment and the amount assessed temporary transit losses remained unresolved.

- **CRDSS - (Colorado River Decision Support System)**

The Division 5 Workbook, from the CRDSS project, was used this past year. The Workbook was used in tandem with a parallel spreadsheet to administer the Colorado River on a daily basis. Data from the four water users - Colorado River Water Conservation District, Colorado Springs, Denver Water and the USBR – was submitted electronically at regular intervals to an *ftp* site and then populated into the Workbook. Once populated with data, the Workbook was posted to our Internet site that could then be downloaded to anyone's computer. Once on an individual computer, the water user can conduct "what if" scenarios.

The interface between the Workbook and diversion record database has not been implemented. Continuous editing and updates to *HydroBase* remain prior to completion of this link. The Workbook does not collect all data necessary for diversion record calculations and fails to account for recent changes to the River system, such as the Palisade Pipeline returns, Colorado Springs' substitution, and numerous exchanges.

A laundry list of issues with the Workbook was submitted to the IT section on July 28, 2003. The list includes programming problems, incorrect assumptions, changes in river operations, and improvements. There is no plan to resolve these issues.

- **SWSI**

The Statewide Water Supply Initiative under the guidance of the Colorado Water Conservation Board was initiated this year. The initiative is a reconnaissance level study with a 30-year planning horizon. The initiative is intended to provide an understanding of supplies and needs, and identify the gap between the supplies and needs, allowing providers and policy makers to make informed decisions. The anticipated completion of the project is November 2004. The project includes public meetings and Basin Roundtable Technical Meetings. Division Engineers from each division participated as technical advisors to the Basin Roundtable participants. The first Colorado River Basin Roundtable Technical Meeting was held in Grand Junction on September 24, 2003. Three additional meetings are scheduled for Glenwood Springs between January and August 2004.

- **SWAT**

Division 5 staff participated in one "SWAT" meeting during 2003. The team consists of representatives of major water users and city, county, state, and federal officials. Originally formed as a technical advisory committee to the litigants in a heavily contested water court case, the SWAT team concept continues today as a forum to resolve some of the major issues regarding Colorado River administration, and to maintain an open dialogue between the Division of Water Resources, and the major water users of the river from both sides of the Continental Divide. The meetings are generally scheduled on an as-needed basis. Many issues such as the Blue River Decrees, reservoir accounting, Annual Operational Plans of the major water users, CROS, RIPRAP, and reservoir maintenance are topics for discussion and coordination for the group.

The only meeting for 2003 was held on July 18th in Breckenridge. The meeting

focused on only one issue, a carryover from the previous three years. The issue is the accounting of Green Mountain's first fill, and when the August 1, 1935 priority of Green Mountain is satisfied. The point of the meeting was to avoid the inevitable dispute of the issue: when the call was placed on the river.

- **GM HUP Limits and the 1977-1984 "Slot Group" ~~and '77-'84 slot~~**

Green Mountain Reservoir was constructed on the Blue River in Summit County with a capacity of 152,000 AF, of which 52,000 AF was allocated to provide replacement water to ~~W~~western ~~S~~slope water users from CBT diversions and 100,000 AF was allocated for power purposes and to provide compensatory storage to benefit the ~~W~~western ~~S~~slope. In the 100,000 AF pool, ~~there~~ there exist several "sub-pools," one of which is the Historic Users Pool (HUP) for 66,000 AF. Currently, this pool is used to replace depletions from historic beneficiaries to the Shoshone and Cameo calls, direct flow for irrigation of the GVIC and GVWUA, and surplus release to support flows above 1950cfs at Cameo pursuant to the Check Case, 91CW247.

The Operating Policy for Green Mountain Reservoir became effective January 22, 1984. It clearly indicates that the Historic Users Pool protects only rights perfected by use prior to October 15, 1977, and it clarifies what the preferred uses are. The Operating Policy provides that 66,000 AF "shall be deemed adequate to satisfy water rights perfected by use on or before October 15, 1977." There has been much debate as to the fairness a strict interpretation of this policy gives users with rights perfected by use between 1977 and 1984. This group of users is labeled as the "slot group." In 1996 the State Engineer issued a letter whereby October 15, 1977 is the date by which irrigation and domestic water rights had to be perfected by use to be entitled to protection from the HUP pool. The amount of water required to satisfy the consumptive use that falls within the slot group has been debated for years. The Division Engineer's position has historically been that the number is considerably less than previous studies indicated. In recent years, the Division Engineer, in coordination with the Colorado River Water Conservationncy District, has made efforts to quantify the amount of these rights. At present there is a rough estimate of 350 AF, excluding Ute Water Conservancy District's conditional water rights, and excluding unadjudicated rights. The River District has allocated and released 200 AF in Wolford Mountain Reservoir for 2000, 2001, 2002 and again for this year, 2003, to cover the estimated depletions of the slot group. Note previous estimates placed the need at less than 200AF. It is the desire of the Division Engineer to develop a permanent legal solution to replace out-of-priority diversions by these rights.

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The major issue that needs to be resolved to define the HUP beneficiaries is the Ute Water Conservancy District's Plateau Valley rights. The Ute Water Conservancy District diversions are above the structures that make up the Cameo Demand, and therefore are 100% consumed below these structures. The 50 year projection of demands in the District will be covered by existing rights, and are approximately 25,000AF above current demands. Based on rough estimates, the amount of diversions potentially to be augmented by Green Mountain is approximately 5,000AF. The right has been made absolute but never been perfected by use.

Ute Water Conservancy District's potential large demand is one major stumbling block to resolution; another is the water users who dispute their depletions with HUP beneficiary status are limited to actual use on or before October 15, 1977.

The Division of Water Resources and the Colorado River Water Conservation District held several technical meetings, but no progress occurred in the resolution of the "Slot Group" matter in 2003.

- **CFOPS (Coordinated Facilities Operations)**

Phase 2 of the Coordinated Facilities Water Availability Study for the endangered fish of the upper Colorado River was completed in September 2003. The purpose of Phase 2 was to investigate the feasibility of 19 alternatives developed in Phase 1 of the study. The goal was to supply 20,000AF to

the15-mile reach15-Mile-Reach during the 10 -days of the peak of the run-off-season. Generally, it is to be in addition to water supplied by CROS. The alternatives include; an expanded version of CROS, new storage projects, new efficiencies of existing distribution facilities, and a change in scheduling of Power Plant operations. The Division participated in one3 CFOPS executive committee meeting during the 2003 irrigation year, and provided input to several drafts of the final report.

The final report found 7 of the 19 alternatives to be feasible economically and from an engineering perspective. The executive committee recommendations were:

- The primary spring peak augmentation should continue to be CROS.
- Release of 20,000AF of storage from existing reservoirs, using an insurance pool from existing Environmental Pools in Ruedi, Green Mountain, Wolford Mountain, and Williams Fork Reservoirs. Should the release of this 20,000AF cause loss of yield the insurance pool would be used. The insurance pool is storage the USFWS uses for late summer flow augmentation.
- New storage at Webster Hill, where the 20,000AF is part of a multi-purpose reservoir that includes at least peak-flow augmentation, hydroelectric power generation, and recreation.

- **SB-278, Water Administration Fee**

SB-278 was passed in the 2003 legislative session to provide cash funding for the Division of Water Resources faced with major budget reductions. The reductions would have reduced DWR staff by nearly 30 FTE. To implement the program SB-278 funded 3 staff in Denver and 2.7 FTE spread throughout the Division offices. Of the 2.7 FTE Division 5 was given four man-months. For planning the implementation of the program it was estimated that Division 5 had 4069 water rights that would be subjected to the fee. Our tabulation catch-up program added a considerable number of rights to the fee program. Fortunately, these rights did not require any ownership research.

The fee was limited to absolute rights only. The fee was also limited to direct flow rights greater than 1cfs, and storage rights greater than 100AF. Agricultural direct flow rights were assessed a fee of $10 while all other direct flow rights were $250. For storage it was $25 and $100.

Division 5 took the lead on this project from the beginning, completing a majority of the preparation, research, and data entry before the summer ended. Our experience and solutions set the standards and processes that were used by the remainder of the state. The billing was timely; staff was involved in resolution of complaints or mistaken billings; and fees were being paid when the Governor signed HB 04-1402 on April 12, 2004. This bill repealed SB-278, and required refunding of all fees collected to date.

J. WATER COURT

Litigation continues to dominate the workload of the Division's personnel. A total of 337 new water right applications were filed in Division 5 Water Court during calendar year 2003 – 314 for the Colorado River administered by Div. 5 Water Resources and 23 for the White River administered by Div. 6 Water Resources. Of the 314 applications, 50 were applications involving new augmentation plans and 4 were to amend existing aug plans. The State and Division Engineers formally objected in 6 cases and entered 1 protest to referee rulings. 101 amended applications were also published in the résumé. Though the number of applications continues the trend of only slight annual increases, the number has not reached cases of the middle to late 1980's. Yet the workload exceeds

any previous year because the complexity of the average case continues to increase.

The following ~~???~~cases or issues are of special note:

1. Miners Creek

Filed by the Town of Breckenridge as application 97CW283, the case went to trial on July 2, 2003. At trial, after only a half-day of testimony the State and the Town asked the court for several hours to negotiate a settlement. The final decree found:

- The appropriation date to be based on this filing;
- Miners Creek deliveries to North Barton are not foreign water;
- Transit losses can be assessed;
- Credit for diversions on the Upper Blue are limited to the amount of water that reaches the Blue River from the Miners Creek Ditch;
- The water right is a conditional right, and has not been put to beneficial use, and is also therefore not a beneficiary of the Green Mountain HUP.

Simply, the State prevailed on all issues.

2. The Summit County and Vidler Water Company Plans for Augmentation 95CW122 and 97CW035, respectively)

These are known as the umbrella plans and are the first of their kind in Water Division 5. These plans arose out of the identification by the Vidler Water Company of 1700 wells in Summit County that were out of compliance. Vidler's basis was that any well with a single-family dwelling household-use-only limitation must be out of compliance with either its permit conditions or its augmentation plan limitations, or both. Obviously, not all the identified wells will be found to be out of compliance, though it is likely a substantial portion are. Division 5 has been active in pursuit of a solution for Summit County long before the State and Division Engineers became parties to the water court applications. We developed the GIS mapping of critical structures and stream reaches throughout the Blue River Basin and worked with both entities to develop limits and administrative strategies for operation of the eventual plans. In August 2003 the court decreed the Vidler Water Company Umbrella Plan. A decree for the Summit County plan was expected in the fall of 2003, but was not signed as of submittal of this report in May 2004.

3. Bruce D Benson, 01CW287. Application was for change of water rights and plan for augmentation. The application failed to fully state the nature of the change of water right, and failed to fully augment out-of-priority depletions. Though not a party to the application, the Division Engineer was deposed in the case. The deposition covered many issues, including the necessity of a definitive amount in the direct flow to be changed based on the historic diversions and irrigated area, and the decreed amounts; augmentation of all depletions including evaporation outside the irrigation season and transit losses along the delivery ditch and return ditch. The case was eventually resolved, providing a decree that could be administered by the Water Commissioner.

4. Elk Dance Colorado LLC, 00CW302. The single disputed issue in this case was retained jurisdiction. The case involves an old augmentation plan that was never implemented, but the retained jurisdiction expiration was based on the date of decree, which had long since passed. Not only was the original plan was substantially modified as a result of this application, but the source of diversion and location return flows were also modified. The State insisted on meaningful augmentation; the predecessor of the present plan evidenced the need of something meaningful. The applicant maintained it had already run its course. The case was poised for trial. Depositions were taken. Eventually, the applicant settled on a retained jurisdiction of 75% build-out of the new development.

5. Flattops Land Company and Eagle River Water and Sanitation District, 03CW159. The application changes the use of water historically imported from the Yampa River Basin for irrigation by the Stillwater Ditch in the Egeria Creek drainage near Toponas. Both the return flows from lands irrigated by the water rights and water first used for the new uses are considered in the change. The changed water may be used directly, by direct augmentation, or stored in several local ponds for later use. The issues of concern in Water Division 5 include control,

identification, and delivery of this water to the new uses. The issues of concern in Water Division 6 include enlargement of historic use, seepage returns to the Yampa, change in irrigation practice to emphasize use in Division 5, separation of Upper Yampa Water Conservancy District water, and use of storage rights delivered through the Stillwater Ditch. In 95CW133, Upper Yampa decreed a similar change of water rights but limited its water available for augmentation to the return flows of water first used for the previously decreed purposes within the Conservancy District. The Upper Yampa case took six years to be resolved. The Flattops case is more complicated, but does have the Upper Yampa decree as a template. In October 2003 the applicant and interested parties met on site to tour the area of historic use and the structures involved.

6. Blue River Consolidated Decrees, Heeney Slide. The Colorado River Water Conservation District filed suit to reopen the Blue River Decrees for consideration of the loss of storage in Green Mountain Reservoir lost due to the landslide at Heeney. The attorneys for the USBR immediately requested USBR staff to not discuss any issue on the Blue River, which impacted the open dialogue necessary in the daily administration of the Colorado River. The State of Colorado filed a motion to intervene, which is to be heard before Judge Nottingham at the end of April 2004.

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K. TABULATION

Division 5 Tabulation Backlog

Water District	Backlog As Of 12/31/00	New Decrees As of 12/31/01	Total Untabulated Decrees	Decrees Tabulated As of 12/31/01	Remaining Untabulated Decrees
36	258	31	289	91	198
37	219	52	271	0	271
38	834	47	881	141	740
39	44	8	52	40	12
45	32	17	49	0	49
50	3	7	10	0	10
51	61	13	74	74	0
52	2	2	4	4	0
53	34	4	38	38	0
70	9	2	11	11	0
72	103	16	119	119	0
Total	**1599**	**199**	**1798**	**518**	**1280**

The Division 5 tabulation remains to be a priority. The backlog has been decreased from 700 decrees in 2000 to approximately 700 decrees at the end of 2003. Division 5 continues to receive 300-350 new decrees each year that will be incorporated into the tabulation. With the help of water commissioners the tabulation backlog continues to decrease and districts in which the backlog has been eliminated are being kept current. Currently 8 of the 11 districts in Division 5 are current and, at the current rate, the backlog should be eliminated by 2006.

Division 5 Tabulation

Water District	Backlog on 1/1/2003	New Decrees in 2003*	Total Untabulated Decrees	Decrees Tabulated as of 12/31/03	Remaining Untabulated Decrees
36	92	57	149	63	86
37	309	57	366	84	282
38	588	82	670	240	330
39	24	23	47	47	0
45	46	21	67	67	0
50	1	2	3	3	0
51	10	26	36	36	0
52	0	3	3	3	0
53	5	4	9	9	0
70	0	2	2	2	0
72	26	42	68	68	0
Total	**1101**	**319**	**1420**	**622**	**698**

* Includes Court Orders

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L. 2001 REVISED ABANDONMENT LIST - 01CW337

The Division Engineer's Revised 2001 Abandonment List was submitted to the Water Court before December 31, 2001 as required by law with 152 water rights of the 201 water rights on the initial filing of the 2000 Abandonment List. The protest period for the revised list ended on July 1, 2002 having a total of 58 protests filed.

All of the original 201 rights were field-inspected by Water Commissioners. For the initial filing of the Abandonment List, our abandonment coordinator assembled all the relevant information and prepared a report to make the case for abandonment to the Division Engineer. In preparation for litigation on the next level, engineers from the Division 5 office field-inspected all the rights protested. These inspections were conducted in late summer and early fall of 2002. They required three to four hours each of field time for both the Water Commissioner and staff engineer, and two to three hours of research and report preparation by the staff engineer. In 2002, 42 cases were settled wherein 5 rights were part abandoned and part deleted from the list, and 9 rights were totally deleted from the list.

At the beginning of the 2003 irrigation season, 16 protests of 32 rights were unresolved. By the end of October 2003, only 4 cases with 5 rights remained. Two of the 4 cases were poised for trial but all had settled in the spring of 2004.

Unfortunately, two cases involving the 84CW218 abandonment list were opened. One case is a request to remove from the 1984 abandonment list three water rights where the owner claims insufficient notice. The other action is an error by the State where a stipulation removed a right from the 1984 list, but the right was inadvertently included in the final order.

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M. PERSONNEL AND BUDGET ISSUES

- **Staffing Changes**

Division 5 was not fully staffed in 2003 due to vacancies in District 38 and promotions. Division 5 began November 2002 with a vacancy due to Steve Pope being promoted

into the supervisory position in District 72 which left a vacancy in District 45 and well permitting commissioner in the Glenwood office. We had hired a temporary employee as a water commissioner in District 38 but in October 2002 we laid off the temporary employee due to budget constraints. In April 2003 we hired two employees to fill these positions.

We hired Michael Craig to fill the water commissioner position in District 45 and the well commissioner position. We rehired Larry Gepfert.. Larry had previously been the water commissioner in District 38 but had left for a position with the Division of Wildlife.

The demand on the Glenwood office for water administrative duties and training of new employees in District 38 has taken away from many other duties.

- **Impact of the Budgets on Operations**

Division 5 Operating Budget

The budget crisis, vacancies and drought have resulted in Division 5 doing more with less resources. Computer, time management, and personnel management training is extremely important in enabling the employees to handle difficult situations brought on by budget cuts.

Overtime Budget

Historically, Division 5 has addressed the shortage of permanent man-months for water commissioners through use of overtime. Division 5 is at least one full-time water commissioner short when fully staffed to address the existing water commissioner duties. These man-months would not be used to hire an additional employee but to make existing water commissioners full time. Division 5 is experiencing a transformation from rural to urban areas. This transformation from rural to urban has resulted in approximately 300 to 400 new water rights each year and the duties of the water commissioner have increased from the traditional irrigation months of May through October to year-round administration. Division 5 has not received any additional man-months for water commissioners since 1993 and has seen an increase in approximately 3,000 new water rights.

There were over 400 new water right applications in 2002 in Division 5 water court. There is increasing level of complexity in water right applications due to transfer of water from rural to urban uses. We have estimated we spend approximately 10 man-hours per application on consultation with the court and applicants and 2 man-hours on tabulating signed rulings. To address the increasing water court application workload, Division 5 requires approximately 4,800 man-hours per year. Assuming 1800 man-hours in a year, Division 5 requires over 2.67 FTE employees to address the litigation workload. Currently, Alan Martellaro, John Sikora and Kyle Whitaker each devote 0.5 man-years to litigation thus leaving over 1 FTE employee necessary to address the litigation workload. As a result of lack of a full time equivalent (FTE) to address litigation, Alan normally exceeds the statutory limit on Summaries of Consultation, and John and Kyle are more than 4 months behind in addressing proposed rulings of the referee. In 2003, there were a record number of applications that were signed by the referee that did not address the concerns in the Summary of Consultation. We are spending our budget on the Attorney General's Office for assistance instead of being more proactive with engineering-related solutions.

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II. 2004 WATER YEAR

At the beginning of the 2004 runoff season the snow pack is once again below average. As of May 1, 2004 the Colorado River is a basin-wide 61% of normal.

For 2004 Green Mountain Reservoir is expected to fill on paper, but 20,000AF of that storage will reside in Dillon Reservoir. Therefore, Dillon is not expected to fill and 2004 will be a substitution

year. None of the other major reservoirs in the basin are projected to fill. (See Graph **Appendix E)**

A. BASE OBJECTIVES

The everyday operations of Division 5 Water Resources will continue to include:
Administration of water rights,
Collecting and recording diversion data,
Tabulation of water rights,
~~Preparation of a decennial abandonment list,~~
Performing well inspections,
Inspecting dams and reservoirs,
Reviewing water rights applications,.
Informing public,
Attending Water Conservancy District meetings,
Contacting water users.

B. SPECIAL PROJECTS AND WORK ITEMS FOR 2004

- **Green Mountain First Fill Accounting**

Resolution of accounting of the senior storage right and the power right at Green Mountain Reservoir is the most significant issue in Water Division 5.

Denver Water owns and operates the Blue River Diversion Project, which includes Dillon Reservoir and Roberts Tunnel, a/k/a Montezuma Tunnel. The senior storage right for the reservoir, and the direct flow right for the Tunnel both have priority dates of 1946, which are junior to the August 1, 1935 priority date of Green Mountain Reservoir and Green Mountain Power Plant. Pursuant to the upstream storage statute and the Blue River Decrees, Dillon Reservoir is allow to store prior to the filling of Green Mountain Reservoir. Roberts Tunnel is allow to divert prior to Green Mountain Reservoir's fill, provided storage in Dillon or replacement in Williams Fork or Wolford Mountain Reservoirs is on hand prior to such diversions. Depletions by the Dillon Reservoir and Roberts Tunnel are also obligated to provide for power interference to the extent such depletions would have gone through the power plant at Green Mountain Reservoir. Prior to Green Mountain's fill, water is stored in Dillon Reservoir under Dillon's 1946 priority, but is kept in an account that is owed to Green Mountain to the extent it is needed to fill Green Mountain. This account also includes diversions by Roberts Tunnel that may be owed to Green Mountain.

The dispute centers on the accounting method used to determine when the 1935 storage right at Green Mountain Reservoir has been satisfied. It is the Division Engineer's position that once the combination of the physical amount in storage, plus the amount of bypass at Green Mountain that was storable inflow after the start of fill, plus the amount of depletions upstream and junior to Green Mountain equals 154,645AF--the capacity of Green Mountain Reservoir--the 1935 right has been satisfied.

It is the position of Denver Water that the 1935 priority is not satisfied until physically full, or has a paper fill and a call from the mainstem causes the most junior priority diverting to be senior to Green Mountain's priority. Therefore, Green Mountain storage is curtailed only when the call curtails all rights junior to 1935.

Our position allows Green Mountain to continue storing after its right has been satisfied, either with an unadjudicated right or the junior refill right, but curtails such storage prior to any decreed right once a mainstem call occurs. The Denver Water

position allows Green Mountain to continue storing until all water rights junior to 1935 have been satisfied.

Generally, the impact is during dry years that are known as "Substitution Years." Since the 1963 completion of Dillon Reservoir, these years include 1977, 1994, 2001, and 2002. The focus is on storable inflows at Green Mountain that originate below Dillon Reservoir.

- **Hydrographic Records Backlog**

At the end of 2002, the backlog of records had grown to 28 records. Even with a Technician helping the Hydrographer, only 5 of 10 records were completed by the end of 2003. However, work will continue on the other five WY2003 records, shooting for completion by the end of the 2004 Water Year (i.e., before work begins on the 2004 records.) This will prevent any further growth in the backlog for the first time since 1997. Refer to "Section C. Personnel Budget & Operations" below for details on the hydrography workload shortfall, showing why the backlog has grown, and why it is difficult to reduce the backlog.

An engineer in the Denver office is still working to complete 8 of the backlog records sometime in the future. In addition, Division 5 staff have completed most of the chart work required for the entire backlog of records. With significant help from other Division 5 staff each year, the Hydrographer could be able to manage publication of the full 10 records each year forward, but the backlog will remain unreduced.

- **Augmentation Plans**

Division 5 will:

- Investigate several major augmentation plans located throughout the Division. An established team approach will continue to be used, where augmentation plan coordinator staff and water commissioners will share in the research and administration planning duties.
- Fine-tune the existing system where water commissioners regularly administer small pond releases associated with small augmentation plans.
- Continue to develop augmentation plan accounting templates and standardized water user correspondence needed to assist in augmentation plan administration.
- Continue to utilize administrative-only structure ID's for reservoir pool releases or exchange pools in diversion record keeping.

The CDSS Division 5 Workbook will collect input via E-mail from the four largest water users in Water Division 5. During 2001 the Workbook should become operational. Once operational we will link data from the Workbook to the Division 5 diversion record spreadsheets. After we acquire some experience in this area, we will investigate developing a system to obtain data for all our spreadsheet input that relies on user-supplied data. Such a system has many benefits; the greatest benefits are improved efficiencies and the use of the same data by all.

- **CRDSS Workbook**

The Division 5 Workbook became operational in 2002. No improvements were made to the Workbook in 2003. The task remains to make this tool more effective in the administration of the river, more functional for our water users, and to integrate its output seamlessly into our diversion records. Until the Information Technology section completes water rights and diversion record upgrades to *HydroBase*, it is unlikely that the Workbook will receive any attention.

- **Transit Loss Litigation**

The issue continues to be a major point of dispute with a handful of water users. In the litigation of augmentation plans, it has been the position of the State and Division Engineers to not include locked-in amounts for transit losses within a decree. This has created a concern expressed by attorneys that their clients expect certainty in the final decree. Winter transit losses are a particularly difficult topic. In late 2003 the Attorney General's office offered a legal opinion that generally supports the position of the Division of Water Resources. As noted elsewhere in this report, the USGS offered two study proposals that were rejected due to costs. With no unbiased study on the horizon, DWR will need to

develop the means to get cooperation from the water users, or firmly assess the losses and prepare for litigation.

- **Heeney Slide**

Studies of the slide area allowed the USBR to modify its position on this issue. Previously, the USBR's position created a 27,000AF of dead storage (20,000AF on top of the actual dead 7,000AF of "stranded" storage due to the Heeney slide). Prior to the need for Green Mountain Reservoir releases in 2003. the USBR declared the 20,000AF of stranded water releasable but the reservoir now has limits on the drawdown rates. A summary of the report released by the USBR is as follows:

- Report conclusions include the need to continue to gather more data to assess whether there is any correlation between reservoir operations and slide movement

- Recommended drawdown rates for the reservoir based upon the report findings are:
–@7880' (49,508 acft) 1.5'/day (690 cfs- 620 cfs)
–@7870' (40,845 acft) 1.0'/day (405 cfs – 380 cfs)
–@7865' (36,957 acft) 0.5'/day (187 cfs and below)

- [The cfs rates are only rates of stored water release, inflows to reservoir would be added to these rates.]

- USBR will operate the reservoir below 7865 feet.

- Should there be slide movement, USBR will evaluate the situation at the time.

Senate Document 80 required the USBR to construct a reservoir of at least 152,000AF on the Blue River. The USBR believes that removing the drawdown limit meets that obligation. West Slope entities believe that the limited rate of drawdown prevents use of the storage when needed.

The Colorado River Water Conservation District and the Grand Valley entities filed suit in Federal District Court to open the consolidated Blue River Decrees in the summer of 2003. At the end of April 2004 the court allowed the State of Colorado to intervene. As a party to this case we can monitor the litigation to ensure the results comport with Colorado Water Law.

- **Slot Group and the Green Mountain HUP Policy**

A draft policy to be signed by the State Engineer has been proposed that will define the upper limits of the beneficiaries of the Green Mountain HUP. By defining this upper limit, those that fit in the "slot" perfected between 1977 and 1984 can be determined. The Division of Water Resources has taken the lead in these critical discussions. The majority of users represented in previous discussions endorse the policy as drafted. The biggest hurdle to resolution is a few users with larger demands than previously considered, and a few users with large conditional rights that pre-date 1977 that are not inclined to give up status as a beneficiary of Green Mountain Reservoir. Finding replacement for these uses may prevent simple resolution. As with the previous two years, last year's more pressing issues took center stage. With discussion/negotiation of this issue proving unproductive in the middle of this drought, we can only continue to work on firming the amount of water involved. For now we will continue to use the 200AF set aside in Wolford Mountain annually by the Board of the Colorado River Water Conservation District as adequate to augment this group of water users, as defined by DWR, without curtailment.

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C. PERSONNEL, BUDGET, AND OPERATIONS

- **Personnel**

We continue to have a backlog of unpublished hydrographer records. The backlog is due to lack of adequate time for the hydrographer to perform all of the duties of the Division 5 hydrographer. We have estimated the amount of time that is required

to perform all of the duties of the hydrographer:

- Publishing 10 stations: 480 man-hrs
- Streamflow measurements at the 10 published stations: 120 measurements @ 4 hrs per measurement avg (incl. drive time) = 480 man-hrs
- Station repairs (excl. satellite monitoring) & running levels at the 10 published stations: 120 man-hrs
- Measurements at other permanent stations: 40 measurements @ 4 hrs each=160 man-hrs
- Station repairs (excl. satellite monitoring) & running levels at other permanent stations=48 man-hrs
- Measurements for flume/weir rating for water administration: 30 measurements @ 4 hrs each=120 man-hrs
- Satellite monitoring systems at 25 permanent stations require annual maintenance, upgrades, monitoring: average 12 hrs each per year = 300 man-hrs
- Satellite monitoring systems at 12 stations with shared maintenance responsibilities with cooperators: average 8 hrs each per year=96 man-hrs
- Division 5 "Lead Hydrographer" responsibilities including coordinating with cooperator agencies, planning, budgeting, attending management meetings, etc.=300 man-hrs
- Staff duties, including training, equipment maintenance, ordering supplies, vehicle maintenance, personnel administration, etc.=140 man-hrs
- Data requests from within DWR and from the public=200 man-hrs
- Gaging record input into Division 5 diversion records, including records for 6 reservoirs, 2 canals, and collecting transmountain data from other Divisions = 120 man-hrs

Total current hydrographer demand = 2564 man-hrs. Assuming 1,800 man-hrs per year, we are approximately 5 man-months short of performing the duties of the job.

- **Operations**

HydroBase

There are several improvements to *HydroBase* that would significantly reduce our workload producing records. There is still no way to print directly from *HydroBase*. There are several steps to transfer the data to *DBase* and print from *DBase*. This has led to several database file errors.

HydroBase should also be programmed to accept river calls and automatically assign diversion records to Green Mountain protection. Our water commissioners spend a significant amount of time entering diversion records with Green Mountain protection. With some simple programming, the water commissioners could simply enter total water through the structure and thus eliminate creating multiple records.

The Division Engineer is responsible for releasing water from Green Mountain Reservoir to protect out-of-priority diversion from Historic Users Pool (HUP) beneficiaries. The HUP beneficiaries group was defined by the USBR in January 1984 as the water rights that were perfected by use prior to October 15, 1977. No one has produced guidance on how the water is to be released from Green Mountain. Past Green Mountain administration has relied on Rule Curves that were developed based on practice on the River being "on call" in mid-July. Recent droughts have made these Rule Curves obsolete. We need to develop a consumptive use model to estimate the amount of depletions from HUP beneficiaries to better represent the depletions to downstream senior rights and to better manage the releases from Green Mountain.

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D. DAM SAFETY ISSUES FOR THE FUTURE

After the 2003 inspection season the additional help from the Division 6 Dam Safety Engineer and the Division 5 Grand Junction-stationed Dam Safety Engineer will most likely have more of an impact on the dam safety workload. There is still a backlog of inspections left over from when the Division 5 Glenwood Springs-stationed Dam Safety Engineer was injured in 2000-2002, but this backlog is not as significant as in 2003. In 2004 it will be necessary to inspect 85 dams total just to meet the 1-2-6-inspection frequency. However, with the additional help, the Glenwood Springs-based Dam Safety Engineer will have to inspect a more manageable 54 dams. The Division 6 Dam Safety Engineer and the Grand Junction-based Dam Safety Engineer will be assigned 14 and 17 dams, respectively. to meet the 1-2-6 frequency. Of course there will be more inspections due to unexpected developments and necessary construction and follow-up inspections. Also, a risk assessment *ACCESS*-based computer program will be finalized this year and will be used for decision making and determining the inspection frequency in future years. Initially this process will increase the dam safety workload in 2004.

With this redistribution the future workload will more be manageable but still will be very full for the following reasons:

- Except for during drought years, the trend of reservoirs remaining full for a longer period of time continues as less water is used from the reservoirs in Division 5 due to the ever-continuing change in usage from irrigation to 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 the drought 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 Grand Junction-based Dam Safety Engineer will help with this, but the main Division 5 Dam Safety Engineer stationed in Glenwood Springs will be dealing with much of this.
- Another dam safety issue that will have an effect on the future workload 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 and we have little quality control over the construction of these ponds.
- Even though the Dam Safety Engineers were able to accomplish 10 hazard evaluations in 2003, there is still a large backlog of 39 hazard evaluations that need to be done. As the risk assessment approach becomes more of a reality, accomplishing the hazard evaluations will become a higher priority. It is estimated that it will take about 30 to 40 man-weeks to accomplish these. This does not include training time if other personnel are to be used.
- The extreme precipitation study for designing rainfall amounts above 7500ft. elevation is near completion. When the methodology is finally completed, it will mean approximately 50 Class 1 and 2 dams will have to have a hydrology study performed. This will take another 40(+) man-weeks to accomplish.

2003 APPENDIX FOLLOWING

(click on link below to get electronic file)

2003 APPENDIX.doc

APPENDIX linked to the 2003 Annual Report

A P P E N D I X

A. Table: Savings From a Relaxed Shoshone Call

B. Graph: 2003 Green Mtn Res HUP Operations

C. Table: Mainstem River Calls

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

E. Div 5 Historic & Projected Reservoir Levels .

F. Water Court Activities .

G. Division 5 Organizational Chart

H. Office Administration and Workload Measures

I. Transmountain Diversions - Inflows and Outflows

J. Reservoir Storage Water Summaries By District

K. Water Diversion Summaries

SAVINGS FROM A RELAXED SHOSHONE CALL

1=In Priority, .5=Swing, 0=out of priority AGAINST SHOSHONE

Date	Con Hoosier 1929 (cfs)	Priority	Moffat incl. Jones Pass (cfs)	Priority	Green Mtn/C-I (cfs)	Priority	Willams Fk 35 (cfs)	Priority	Roberts (cfs)	Priority	Dillon (cfs)	Priority	Con Hoosier 1948 (cfs)	Priority	Homestake (cfs)	Priority	Wolford (cfs)	Priority	Windy Gap (cfs)	Priority	USGS @Dotsero Admin flow (cfs)	(cfs)	Swing
3/13/2003	0	0	0	0.0	0	0.0	0	0.0	0	0	0	0	na	0	0	0	0	0	0	0	831	831	1250 none
3/14/2003	0	1	8	1.0	68	1.0	10	0.5	9	0	0	0	na	0	0	0	0	0	0	0	879	974	700 Williams Fork
3/15/2003	0	1	9	1.0	138	1.0	8	0.5	39	0	0	0	na	0	0	0	0	0	0	0	889	1083	700 Williams Fork
3/16/2003	0	1	9	1.0	170	1.0	29	0.5	30	0	0	0	na	0	0	0	0	0	0	0	768	1006	700 Williams Fork
3/17/2003	0	1	9	1.0	238	1.0	1	0.5	90	0	0	0	na	0	0	0	0	0	0	0	714	1052	700 Williams Fork
3/18/2003	0	1	6	1.0	475	0.5	0	0	22	0	48	0	na	0	0	0	0	0	0	0	729	1280	700 Green Mt
3/19/2003	0	1	6	1.0	287	0.5	0	0	0	0	39	0	na	0	0	0	0	0	0	0	690	1022	700 Green Mt
3/20/2003	0	1	8	1.0	69	0.5	0	0	0	0	22	0	na	0	0	0	0	0	0	0	646	745	700 Green Mt
3/21/2003	0	1	9	1.0	0	0.5	0	0	0	0	40	0	na	0	0	0	0	0	0	0	634	683	700 Green Mt
3/22/2003	0	1	9	1.0	0	0.5	0	0	0	0	14	0	na	0	0	0	0	0	0	0	705	728	700 Green Mt
3/23/2003	0	1	9	1.0	0	0.5	0	0	0	0	31	0	na	0	0	0	0	0	0	0	802	842	700 Green Mt
3/24/2003	0	1	8	0.5	0	0	0	0	0	0	7	0	na	0	0	0	0	0	0	0	839	854	700 Moffat
3/25/2003	0	1	7	0.5	0	0	0	0	0	0	0	0	na	0	0	0	0	0	0	0	841	848	700 Moffat
3/26/2003	0	1	6	0.5	0	0	0	0	0	0	0	0	na	0	0	0	0	0	0	0	718	724	700 Moffat
3/27/2003	0	1	6	0.5	0	0	0	0	0	0	0	0	na	0	0	0	0	0	0	0	719	725	700 Moffat
3/28/2003	0	1	6	1	37	0.5	0	0	0	0	0	0	na	0	0	0	0	0	0	0	680	723	700 Green Mt
3/29/2003	0	1	7	1	35	0.5	0	0	0	0	0	0	na	0	0	0	0	0	0	0	627	669	700 Green Mt
3/30/2003	0	0	0	0	0	0	0	0	0	0	0	0	na	0	0	0	0	0	0	0	638	638	700 none
3/31/2003	0	0	0	0	0	0	0	0	0	0	0	0	na	0	0	0	0	0	0	0	640	640	700 none
4/1/2003	0	0	0	0	0	0	0	0	0	0	0	0	na	0	0	0	0	0	0	0	690	690	700 none
4/2/2003	0	1	9	0.5	0	0	0	0	0	0	0	0	na	0	0	0	0	0	0	0	759	768	700 Moffat
4/3/2003	0	1	9	1	176	0.5	0	0	0	0	4	0	na	0	0	0	0	0	0	0	827	1016	700 Green Mt
4/4/2003	0	1	8	1	189	1.0	15	0.5	0	0	2	0	na	0	0	0	0	0	0	0	835	1049	700 Williams Fork
4/5/2003	0	1	7	1	202	1.0	12	0.5	0	0	50	0	na	0	0	0	0	0	0	0	743	1014	700 Williams Fork
4/6/2003	0	1	7	1	144	0.5	0	0	0	0	32	0	na	0	0	0	0	0	0	0	688	871	700 Green Mt
4/7/2003	0.00	1	7	1	53	0.5	0	0	0	0	16	0	na	0	0	0	0	0	0	0	646	722	700 Green Mt
4/8/2003	0.08	1	7	1	12	0.5	0	0	0	0	33	0	na	0	0	0	0	0	0	0	657	709	700 Green Mt
4/9/2003	0.18	1	8	1	61	0.5	0	0	0	0	32	0	na	0	0	0	0	0	0	0	715	816	700 Green Mt
4/10/2003	0.37	1	10	1	189	0.5	0	0	88	0	31	0	na	0	0	0	0	0	0	0	773	1091	700 Green Mt
4/11/2003	0.41	1	10	1	300	1	177	1	47	1	85	1	na	1	10.7	1	12	1	0	1	821	1463	700 Free
4/12/2003	0.44	1	10	1	353	1	96	1	0	1	25	1	na	1	10.7	1	30	1	0	1	898	1423	700 Free
4/13/2003	0.54	1	13	1	475	1	101	1	73	1	35	1	na	1	10.7	1	37	1	0	1	912	1657	700 Free
4/14/2003	0.55	1	16	1	491	1	113	1	7	1	59	1	na	1	10.7	1	60	1	69	1	1060	1886	700 Free
4/15/2003	0.55	1	16	1	756	1	133	1	0	1	43	1	na	1	10.7	1	73	1	184	1	1280	2496	700 Free
4/16/2003	0.50	1	13	1	582	1	107	1	0	1	85	1	na	1	8.6	1	89	1	172	1	1210	2267	700 Free
4/17/2003	0.51	1	12	1	514	1	98	1	0	1	85	1	na	1	0	1	53	1	184	1	1050	1997	700 Free
4/18/2003	0.51	1	13	1	643	1	95	1	76	1	67	1	na	1	0	1	63	1	184	1	994	2136	700 Free
4/19/2003	0.49	1	12	1	441	1	84	1	41	1	85	1	na	1	0	1	60	1	146	1	951	1821	700 Free
4/20/2003	0.50	1	11	1	409	1	77	1	7	1	76	1	na	1	0	1	40	1	46	1	877	1544	700 Free
4/21/2003	0.48	1	12	1	393	1	82	1	6	1	77	1	na	1	0	1	40	1	115	1	823	1549	700 Free
4/22/2003	0.48	1	12	1	516	1	101	1	5	1	120	1	na	1	2	1	51	1	123	1	861	1791	700 Free
4/23/2003	0.48	1	10	1	645	1	122	1	5	1	138	1	na	1	7.5	1	74	1	184	1	1030	2216	700 Free
4/24/2003	0.48	1	10	1	576	1	90	1	5	1	86	1	na	1	7.5	1	90	1	184	1	1070	2119	700 Free
4/25/2003	0.53	1	15	1	474	1	111	1	1	1	95	1	na	1	6.4	1	62	1	115	1	1040	1920	700 Free
4/26/2003	0.67	1	19	1	567	1	124	1	0	1	129	1	na	1	4.3	1	75	1	184	1	1130	2233	700 Free
4/27/2003	0.74	1	21	1	718	1	152	1	0	1	173	1	na	1	4.3	1	107	1	184	1	1419	2779	700 Free
4/28/2003	0.72	1	20	1	778	1	144	1	0	1	173	1	na	1	12.9	1	111	1	285	1	1610	3135	700 Free
4/29/2003	0.77	1	21	1		1	187	1	0	1	191	1	na	1	10.7	1		1	357	1	1700	2467	700 Free
4/30/2003	0.77	1	20	1		1	145	1	0	1	200	1	na	1	10.7	1		1	357	1	1650	2383	700 Free
5/1/2003	0.80	1	19	1		1	156	1	0	1	104	1		1	21.5	1		1	357	1	1500	2158	700 Free
5/2/2003	0.81	1	18	1		1	130	1	0	1	174	1		1	21.5	1		1	357	1	1340	2041	700 Free
5/3/2003	0.81	1	18	1		1	141	1	0	1	193	1		1	21.6	1		1	214	1	1240	1828	700 Free
5/4/2003	0.83	1	19	1		1	153	1	0	1	201	1		1	21.6	1		1	357	1	1320	2072	700 Free
5/5/2003	0.66	1	17	1		1	138	1	0	1	175	1		1	21.6	1		1		1	1390	1742	700 Free
5/6/2003																							
5/7/2003																							
Total	15.66		571		12174		3132		551		3275		0		236.2		1128.3		4358				

SAVINGS

Con Hoosier 1929	:	31
Moffat	:	1133
Green Mtn	:	24147
Williams Fk 1935	:	6212
Roberts	:	1093
Dillon*	:	6496
Con Hoosier 1948	:	0
Homestake	:	469
Wolford	:	2238
Windy Gap	:	8644
Total	:	50463 af

ASSUMES GREEN Mtn DOES NOT PAPER FILL

Shoshone power intrf'r =	Total		-	GM	-	Robt.	- Dillon	+	MC
=	50463		-	24147	-	1093	- 6496	+	440
=		19167	af x $4/af						
=		$76,666							

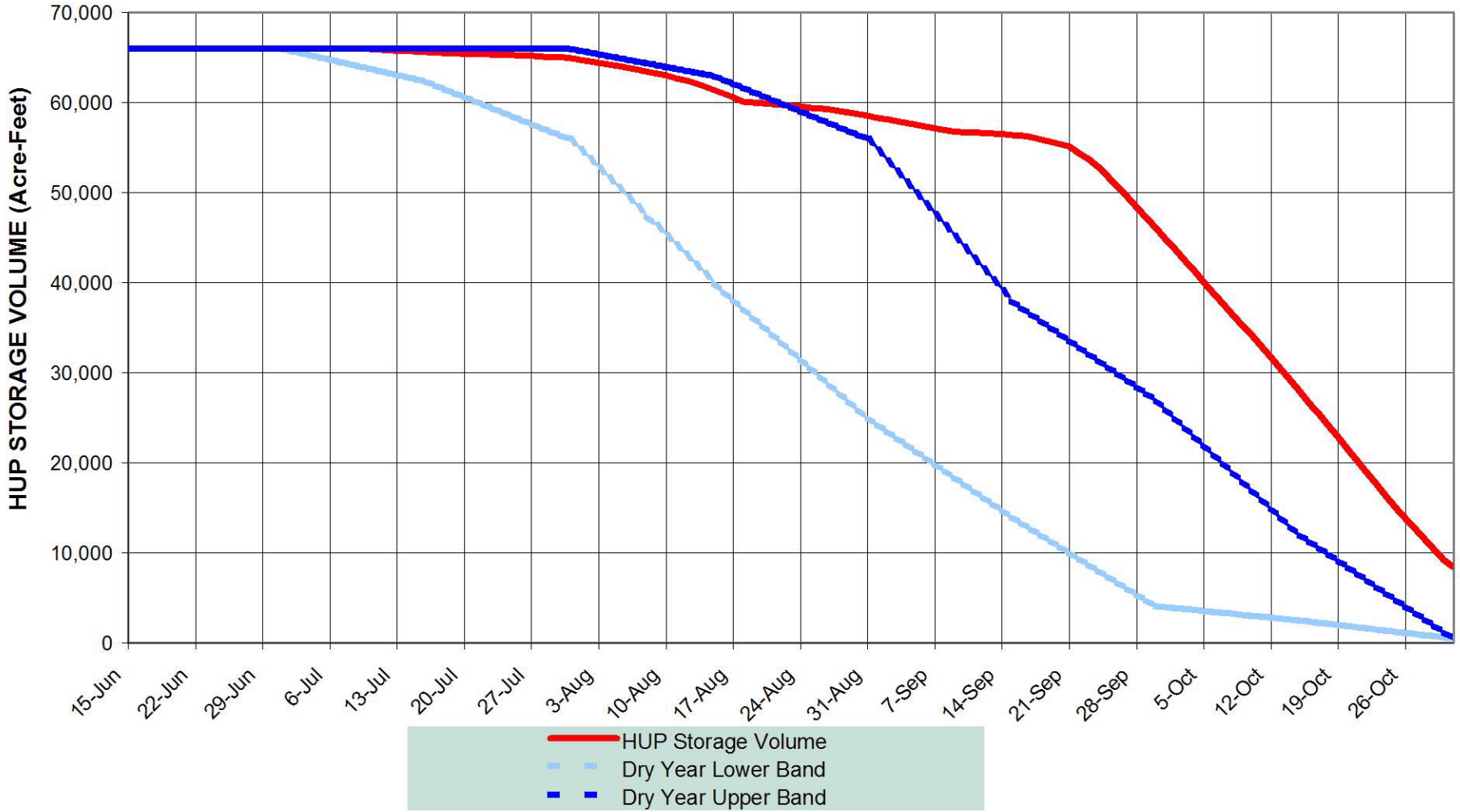
West Slope Benefit =	Moffat		+	WF	+	MC
=	1133		+	6212	+	440
=		7785	af			
10% Water =		778	af			

Does not incl water stored in Dillon owed to GM

Meadow Ck = 440 af

* Doesn't incl. authorized daily inflow = 3 cfs from Climax

2003 GREEN MOUNTAIN RESERVOIR HUP OPERATIONS



APPENDIX C: SUMMARY OF COLORADO RIVER MAINSTEM CALLS
2003 IRRIGATION YEAR

STAUS 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**	**Decreed Amount**	**Swing Priority**	**Swing Priority Admin No**	**Comments**
11.01.02	03.13.03	133	Shoshone Power Plant	1250 cfs	None	20427.18999	
03.14.03	03.17.03	4	"	"	Williams Fork	31359.00000	Shoshone admin. at 700 cfs
03.18.03	03.23.03	6	"	"	Green Mtn	31258.00000	"
03.24.03	03.27.03	4	"	"	Moffat	30870.26117	"
03.28.03	03.29.03	2	"	"	Green Mtn	31258.00000	"
03.30.03	04.01.03	3	"	"	None	20427.18999	"
04.02.03	04.02.03	1	"	"	Moffat	30870.26117	"
04.03.03	04.03.03	1	"	"	Green Mtn	31258.00000	"
04.04.03	04.05.03	2	"	"	Williams Fork	31359.00000	"
04.06.03	04.10.03	5	"	"	Green Mtn	31258.00000	"
04.11.03	05.08.03	28	None	---	No curtailment of jr/undecreed rights; free river; Shoshone admin @ 700		
05.09.03	05.09.03	1	Shoshone Power Plant	158	Homestake	38753.37520	
05.10.03	05.11.03	2	"	"	Windy Gap	43621.42906	Free river abv WG for non-industrial uses
05.12.03	07.09.03	59	None	---	---	---	Free river
07.10.03	07.11.03	2	Shoshone Power Plant	158	Dillon	35238.00000	
07.12.03	07.20.03	9	"	"	None	33023.28989	
07.21.03	07.21.03	1	"	"	Dillon	35238.00000	
07.22.03	07.22.03	1	None	---	---	---	Free river
07.23.03	07.31.03	9	Shoshone Power Plant	158	Dillon	35238.00000	
08.01.03	08.07.03	7	"	1250	Grn Mtn	31258.00000	
08.08.03	08.10.03	3	"	"	Moffat	30870.26117	
08.11.03	08.17.03	7	"	"	None	20427.18999	
08.18.03	08.18.03	1	"	"	Moffat	30870.26117	
08.19.03	09.10.03	23	"	"	Grn Mtn	31258.00000	
09.11.03	09.11.03	1	"	158	Dillon	35238.00000	
09.12.03	09.21.03	10	"	1250	Grn Mtn	31258.00000	
09.22.03	10.24.03	33	"	1250	None	20427.18999	
10.25.03	10.29.03	5	None	---	---	----	See Grand Valley Call
10.30.03	10.31.03	2	Shoshone Power Plant	1250	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**	**Decreed Amount**	**Swing Priority**	**Swing Priority Admin No**	**Comments**
07.31.03	08.10.03	11	GVIC	119	Grn Mtn	31258.00000	
08.11.03	08.12.03	2	GVIC	119	None	30895.23491	
08.13.03	08.17.03	5	GVWUA	730	None	22729.21241	
08.18.03	08.18.03	1	GVWUA	730	Moffat	30870.26117	
08.19.03	09.02.03	15	None	---	---	---	Free river below Shoshone
09.03.03	09.07.03	5	GVWUA	730	Grn Mtn	31258.00000	
09.08.03	09.2103	14	None	---	---	---	Free river below Shoshone
09.22.03	10.31.03	40	Grand Valley Power	400	---	30895.21241	

SWING PRIORITY = MOST JUNIOR WATER RIGHT EITHER TOTALLY OR PARTIALLY IN PRIORITY UPSTREAM OF THE CALLING STRUCTURE

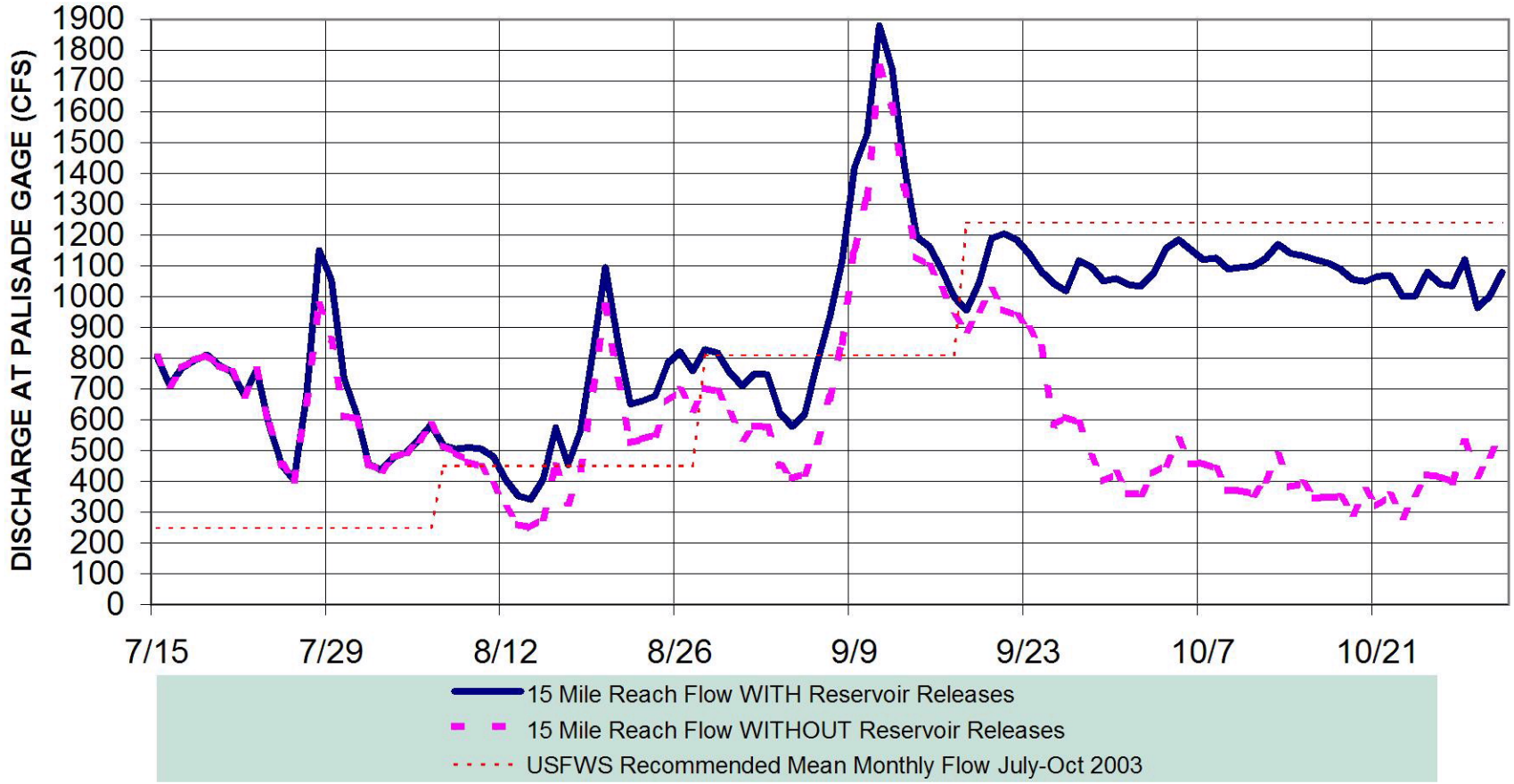
RESERVOIR RELEASES AND 15 MILE REACH FLOWS

2003	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?	
	Green Mtn	Ruedi	Wolford	Williams Fk	Granby	Willow Ck	Green Mtn	Ruedi	Wolford	Williams Fk	Granby	Willow Ck	TOTAL (CFS)	WITH Deliveries	WITHOUT Deliveries	1=yes,0 = no	
		20,825 AF	2,966 AF	3,788 AF	0 AF	0 AF	3-day, 10%	2-day, 7.5%	3-day, 10%	3-day, 10%	3-day, 10%	3-day, 10%				w/deliverie	w/o delive
7/15/2003	0	0	0	0	0	0	0	0	0	0	0	0	0	803	803	1	1
7/16/2003	0	0	0	0	0	0	0	0	0	0	0	0	0	713	713	1	1
7/17/2003	0	0	0	0	0	0	0	0	0	0	0	0	0	768	768	1	1
7/18/2003	0	0	0	0	0	0	0	0	0	0	0	0	0	793	793	1	1
7/19/2003	0	0	0	0	0	0	0	0	0	0	0	0	0	811	811	1	1
7/20/2003	0	0	0	0	0	0	0	0	0	0	0	0	0	777	777	1	1
7/21/2003	0	0	0	0	0	0	0	0	0	0	0	0	0	756	756	1	1
7/22/2003	0	0	0	0	0	0	0	0	0	0	0	0	0	680	680	1	1
7/23/2003	0	0	0	0	0	0	0	0	0	0	0	0	0	762	762	1	1
7/24/2003	0	0	0	0	0	0	0	0	0	0	0	0	0	582	582	1	1
7/25/2003	0	25	25	44	0	0	0	0	0	0	0	0	0	455	455	1	1
7/26/2003	0	125	50	50	0	0	0	0	0	0	0	0	0	405	405	1	1
7/27/2003	0	112.5	50	50	0	0	0	23	0	0	0	0	23	678	655	1	1
7/28/2003	0	37.5	19	0	0	0	0	116	23	40	0	0	178	1150	972	1	1
7/29/2003	0	0	0	0	0	0	0	104	45	45	0	0	194	1055	861	1	1
7/30/2003	0	0	0	0	0	0	0	35	45	45	0	0	125	738	613	1	1
7/31/2003	0	0	0	0	0	0	0	0	17	0	0	0	17	621	604	1	1
8/1/2003	0	0	0	0	0	0	0	0	0	0	0	0	0	457	457	1	1
8/2/2003	0	0	0	0	0	0	0	0	0	0	0	0	0	437	437	1	1
8/3/2003	0	0	0	0	0	0	0	0	0	0	0	0	0	478	478	1	1
8/4/2003	0	0	0	0	0	0	0	0	0	0	0	0	0	495	495	1	1
8/5/2003	0	0	0	0	0	0	0	0	0	0	0	0	0	535	535	1	1
8/6/2003	0	13	0	0	0	0	0	0	0	0	0	0	0	583	583	1	1
8/7/2003	0	50	0	0	0	0	0	0	0	0	0	0	0	517	517	1	1
8/8/2003	0	63	0	0	0	0	0	12	0	0	0	0	12	506	494	1	1
8/9/2003	0	100	0	0	0	0	0	46	0	0	0	0	46	510	464	1	1
8/10/2003	0	100	0	0	0	0	0	58	0	0	0	0	58	507	449	1	0
8/11/2003	0	100	0	0	0	0	0	93	0	0	0	0	93	481	389	1	0
8/12/2003	0	100	0	0	0	0	0	93	0	0	0	0	93	405	313	0	0
8/13/2003	0	135	0	0	0	0	0	93	0	0	0	0	93	353	261	0	0
8/14/2003	0	135	0	0	0	0	0	93	0	0	0	0	93	342	250	0	0
8/15/2003	0	135	0	0	0	0	0	125	0	0	0	0	125	408	283	0	0
8/16/2003	0	135	0	0	0	0	0	125	0	0	0	0	125	575	450	1	1
8/17/2003	0	135	0	0	0	0	0	125	0	0	0	0	125	454	329	1	0
8/18/2003	0	135	0	0	0	0	0	125	0	0	0	0	125	565	440	1	0
8/19/2003	0	135	0	0	0	0	0	125	0	0	0	0	125	825	700	1	1
8/20/2003	0	135	0	0	0	0	0	125	0	0	0	0	125	1095	970	1	1
8/21/2003	0	135	0	0	0	0	0	125	0	0	0	0	125	853	728	1	1
8/22/2003	0	135	0	0	0	0	0	125	0	0	0	0	125	651	526	1	1
8/23/2003	0	135	0	0	0	0	0	125	0	0	0	0	125	662	537	1	1
8/24/2003	0	135	0	0	0	0	0	125	0	0	0	0	125	678	553	1	1
8/25/2003	0	135	0	0	0	0	0	125	0	0	0	0	125	784	659	1	1
8/26/2003	0	135	0	0	0	0	0	125	0	0	0	0	125	821	696	1	1
8/27/2003	10	135	0	0	0	0	0	125	0	0	0	0	125	759	634	1	1
8/28/2003	50	135	0	0	0	0	0	125	0	0	0	0	125	828	703	1	0
8/29/2003	50	135	0	0	0	0	0	125	0	0	0	0	125	817	692	1	0
8/30/2003	50	135	0	0	0	0	9	125	0	0	0	0	134	752	618	0	0
8/31/2003	50	135	0	0	0	0	45	125	0	0	0	0	170	710	540	0	0
9/1/2003	50	135	0	0	0	0	45	125	0	0	0	0	170	750	580	0	0
9/2/2003	50	135	0	0	0	0	45	125	0	0	0	0	170	747	577	0	0
9/3/2003	50	160	0	42	0	0	45	125	0	0	0	0	170	622	452	0	0
9/4/2003	50	185	0	50	0	0	45	125	0	0	0	0	170	579	409	0	0
9/5/2003	50	185	0	50	0	0	45	148	0	0	0	0	193	619	426	0	0
9/6/2003	50	185	0	50	0	0	45	171	0	38	0	0	254	784	530	0	0
9/7/2003	50	185	0	50	0	0	45	171	0	45	0	0	261	933	672	1	0
9/8/2003	50	125	0	50	0	0	45	171	0	45	0	0	261	1114	853	1	1
9/9/2003	50	50	0	50	0	0	45	171	0	45	0	0	261	1420	1159	1	1
9/10/2003	0	35	0	38	0	0	45	116	0	45	0	0	206	1527	1321	1	1
9/11/2003	0	35	0	35	0	0	45	46	0	45	0	0	136	1880	1744	1	1

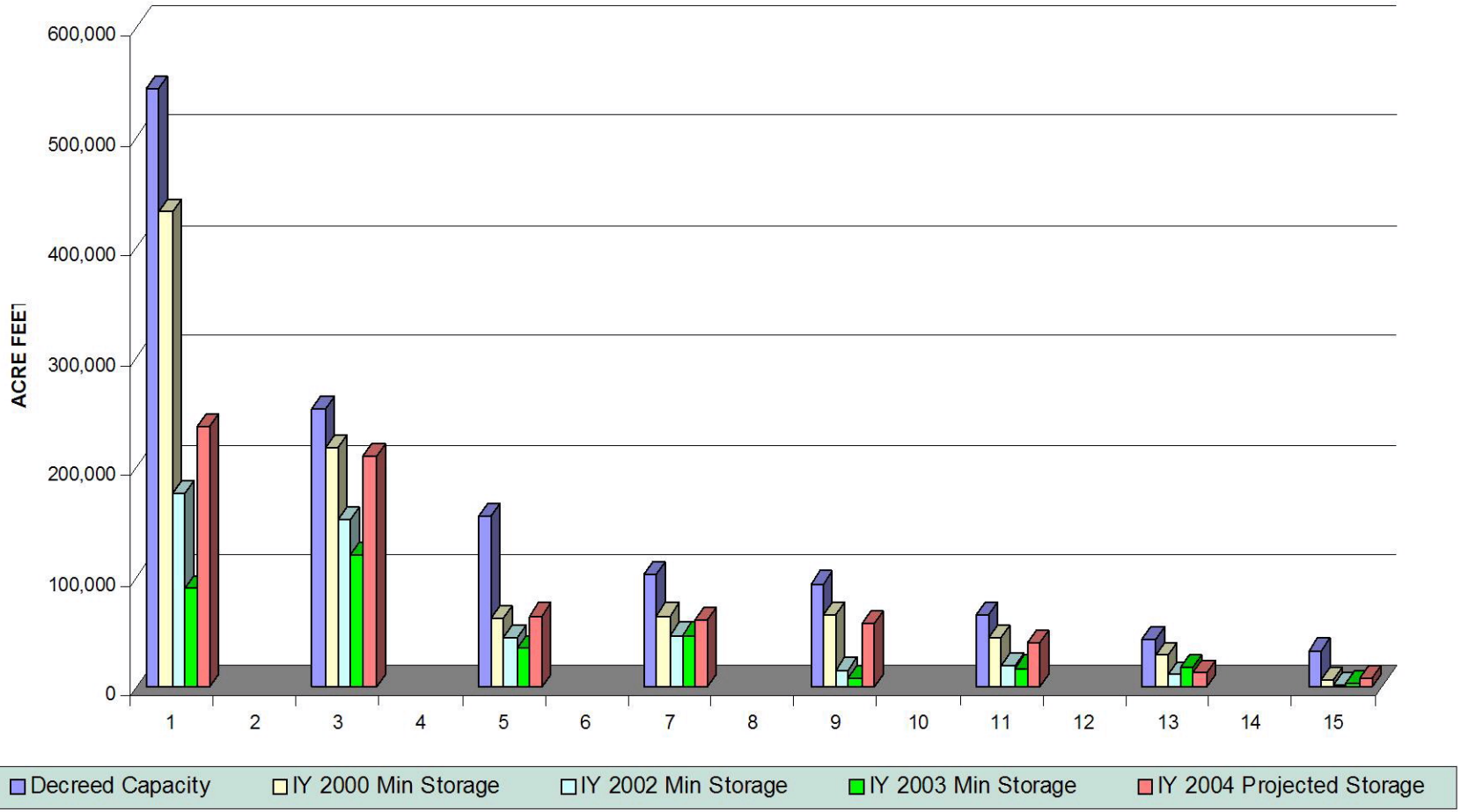
2003	RELEASES TO 15 MILE REACH (CFS)						DELIVERIES AT 15 MILE REACH AFTER TRANSPORT LAGS AND LOSSES(CFS)							15-Mile Reach Flow (cfs		Target Flows Met?	
														WITH	WITHOUT		
	Green Mtn	Ruedi	Wolford	Williams Fk	Granby	Willow Ck	Green Mtn	Ruedi	Wolford	Williams Fk	Granby	Willow Ck	TOTAL (CFS)	Deliveries	Deliveries	1=yes,0 = no	
		20,825 AF	2,966 AF	3,788 AF	0 AF	0 AF	3-day, 10%	2-day, 7.5%	3-day, 10%	3-day, 10%	3-day, 10%	3-day, 10%				w/deliverie	w/o delive
9/12/2003	0	35	0	35	0	0	45	32	0	45	0	0	122	1741	1619	1	1
9/13/2003	0	35	0	35	0	0	0	32	0	34	0	0	67	1418	1351	1	1
9/14/2003	0	35	0	35	0	0	0	32	0	32	0	0	64	1194	1130	1	1
9/15/2003	0	35	0	35	0	0	0	32	0	32	0	0	64	1162	1098	1	1
9/16/2003	0	35	0	35	0	0	0	32	0	32	0	0	64	1087	1023	1	1
9/17/2003	50	60	0	35	0	0	0	32	0	32	0	0	64	999	935	1	1
9/18/2003	100	100	0	35	0	0	0	32	0	32	0	0	64	956	892	0	0
9/19/2003	100	135	0	35	0	0	0	56	0	32	0	0	87	1046	959	0	0
9/20/2003	100	135	0	35	0	0	45	93	0	32	0	0	169	1189	1020	0	0
9/21/2003	100	135	0	35	0	0	90	125	0	32	0	0	246	1204	958	0	0
9/22/2003	336	135	0	35	0	0	90	125	0	32	0	0	246	1184	938	0	0
9/23/2003	280	135	0	35	0	0	90	125	0	32	0	0	246	1140	894	0	0
9/24/2003	411	135	0	35	0	0	90	125	0	32	0	0	246	1081	835	0	0
9/25/2003	511	135	0	35	0	0	302	125	0	32	0	0	459	1042	583	0	0
9/26/2003	548	135	0	35	0	0	252	125	0	32	0	0	408	1018	610	0	0
9/27/2003	529	135	0	35	0	0	370	125	0	32	0	0	526	1117	591	0	0
9/28/2003	578	135	0	35	0	0	460	125	0	32	0	0	616	1097	481	0	0
9/29/2003	575	135	0	35	0	0	493	125	0	32	0	0	650	1050	400	0	0
9/30/2003	547	135	0	35	0	0	476	125	0	32	0	0	632	1059	427	0	0
10/1/2003	603	135	0	35	0	0	520	125	0	32	0	0	677	1038	361	0	0
10/2/2003	546	135	0	35	0	0	518	125	0	32	0	0	674	1034	360	0	0
10/3/2003	599	135	0	35	0	0	492	125	0	32	0	0	649	1074	425	0	0
10/4/2003	559	135	0	35	0	0	543	125	0	32	0	0	699	1156	457	0	0
10/5/2003	581	135	0	35	0	0	491	125	0	32	0	0	648	1184	536	0	0
10/6/2003	601	140	0	35	0	0	539	125	0	32	0	0	695	1152	457	0	0
10/7/2003	600	156	0	35	0	0	503	125	0	32	0	0	659	1120	461	0	0
10/8/2003	595	165	0	35	0	0	523	130	0	32	0	0	684	1125	441	0	0
10/9/2003	572	185	0	35	0	0	541	144	0	32	0	0	717	1089	372	0	0
10/10/2003	534	185	0	35	0	0	540	153	0	32	0	0	724	1095	371	0	0
10/11/2003	616	185	0	35	0	0	536	171	0	32	0	0	738	1098	360	0	0
10/12/2003	596	185	0	35	0	0	515	171	0	32	0	0	717	1123	406	0	0
10/13/2003	634	185	0	35	0	0	481	171	0	32	0	0	683	1170	487	0	0
10/14/2003	619	185	0	35	0	0	554	171	0	32	0	0	757	1140	383	0	0
10/15/2003	632	185	0	35	0	0	536	171	0	32	0	0	739	1133	394	0	0
10/16/2003	669	150	0	35	0	0	571	171	0	32	0	0	773	1120	347	0	0
10/17/2003	581	135	0	35	0	0	557	171	0	32	0	0	760	1109	349	0	0
10/18/2003	654	135	0	35	0	0	569	139	0	32	0	0	739	1089	350	0	0
10/19/2003	618	135	0	35	0	0	602	125	0	32	0	0	758	1055	297	0	0
10/20/2003	669	135	0	5	0	0	523	125	0	32	0	0	679	1049	370	0	0
10/21/2003	628	115	0	0	0	0	589	125	0	32	0	0	745	1066	321	0	0
10/22/2003	649	80	0	0	0	0	556	125	0	32	0	0	713	1068	355	0	0
10/23/2003	636	80	0	0	0	0	602	106	0	5	0	0	713	1000	287	0	0
10/24/2003	676	55	0	0	0	0	565	74	0	0	0	0	639	1001	362	0	0
10/25/2003	627	30	0	0	0	0	584	74	0	0	0	0	658	1080	422	0	0
10/26/2003	573	30	0	0	0	0	572	51	0	0	0	0	623	1040	417	0	0
10/27/2003	572	30	0	0	0	0	608	28	0	0	0	0	636	1035	399	0	0
10/28/2003	572	0	0	0	0	0	564	28	0	0	0	0	592	1121	529	0	0
10/29/2003	569	0	0	0	0	0	516	28	0	0	0	0	543	963	420	0	0
10/30/2003	584	0	0	0	0	0	515	0	0	0	0	0	515	1001	486	0	0
10/31/2003	372	0	0	0	0	0	515	0	0	0	0	0	515	1079	564	0	0
TOTAL CFS	23,961	10,302	144	1,894	0	0	20192	9529	130	1705	0	0	31556	97,756	66,200	53	46
TOTAL AF	47,526	20,434	286	3,757	0	0	40051	18901	257	3381	0	0	62590	193896	131306		

Ruedi released 50 cfs (4/12 - 4/13) for a total release of 20,632 AF.

IMPACT OF LATE IRRIGATION SEASON RESERVOIR RELEASES IN THE 15 MILE REACH
(As Measured at the Colorado River at Palisade Gage)
2003 LATE SUMMER/FALL



DIVISION FIVE HISTORIC & PROJECTED RESERVOIR LEVELS



APPENDIX F: WATER COURT ACTIVITIES

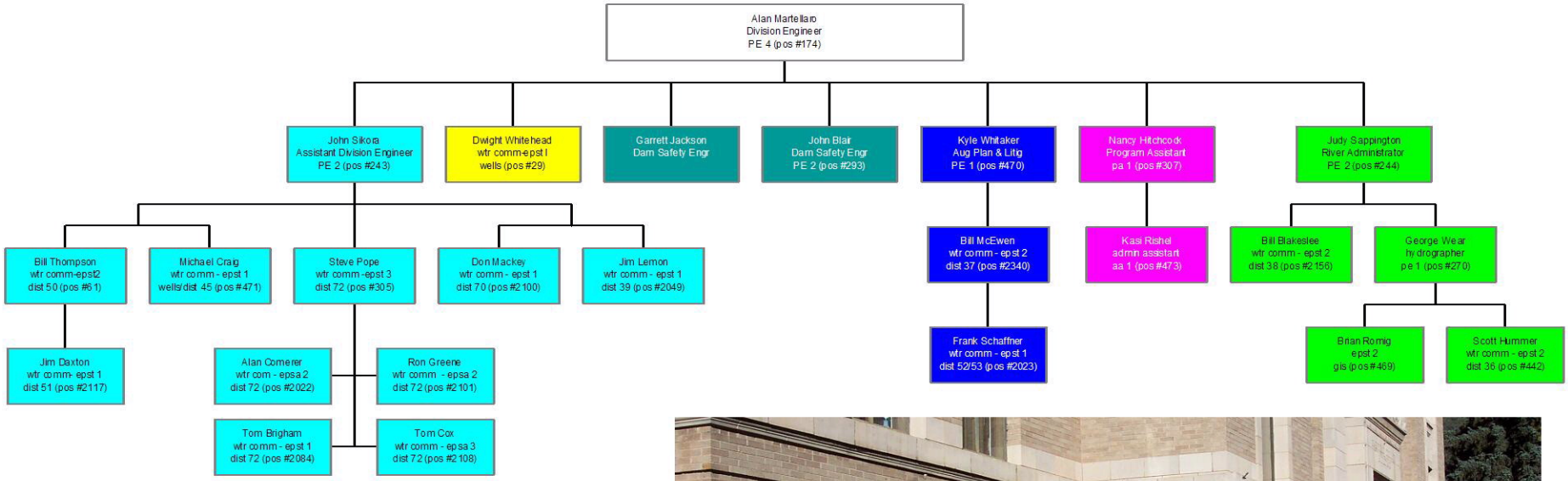
CALENDAR YEAR 2003

Applications Made to Water Court…(03CW...)……..	337
Div 5 DWR – Colorado River……..	314
(Div 6 DWR) – White River……..	23
Amended Applications – Div 5 Colorado River……	101
No. of Consultations With Referee……	449
No. of Complaints……	1
No. of Withdrawn Cases……	8
No. of Dismissals……	20
No. of Denials……	0

NO. OF CASES DECREED BY WATER COURT **244** (see breakdown below)

TYPE OF DECREE	# Cases	# Structures
Findings of Diligence on Conditional Rights	106	313
Cancellations of Conditional Rights	40	57
Conditional Rights Made Absolute	17	53
Surface Water Rights Adjudicated	21	58
Underground Water Rights Adjudicated	7	45
Water Storage Rights Adjudicated	6	36
Plans for Augmentation Adjudicated	35	
Structures Augmented in Combination Cases		163
Change of Water Rights (includes location, use, amount, alt pts dvr, chg pts dvr)	5	95
Instream Flow Rights Adjudicated	1	n/a
Amend Augmentation Plans	1	n/a
Exchanges	11	n/a
Combination Cases (includes combinations of above not otherwise tallied, e.g., surface/storage/-aug plan OR underground/change pt dvr/aug plan, etc.)	104	itemized in structures above
Total:		**767**

Division Five Organization Chart



STATE OF COLORADO

DIVISION OF WATER RESOURCES

GLENWOOD SPRINGS, CO

May 4, 2004

COLORADO DIVISION OF WATER RESOURCES

DEPARTMENT OF NATURAL RESOURCES

APPENDIX H: OFFICE ADMINISTRATION & WORKLOAD MEASURES

Personnel:

Name	Working title FY 2003	Office Or WD	FY 03 7/1/02-6/30/03		Fiscal Yr 03 7/1/02-6/30/03 Reimbursable Miles		Irrig Yr 03 11/1/02-10/31/03 Reimbursable Miles		Calendar Yr 1/1-12/31/03 Reimbursable Miles	
Full time Office Staff			Budgeted	Worked	2 W	4 W	2 W	4 w	2 W	4 W
Alan Martellaro	PE IV Division Engineer	Office	12	12	366		254		292	0
John Sikora	PE III Asst Division Engineer	Office	12	12	2160		2725		2805	0
Judy Sappington	PE II Colo River Administrator	Office	12	12	0		0		0	0
John G Blair	PE II Dam Safety Engineer	Office	12	12	107		107		107	0
Garrett Jackson	PE II Dam Safety Engineer (TF Div 2, new position - started 6/15/03)	GJ Ofc	6	6	0	0	0	0	0	0
George Wear	PE I Hydrographer	Office	12	12	0		0		0	0
Kyle Whitaker	EIT I Aug Plan Coordinator & Litigation Promoted to PE I 12/1/03	Office	12	12		2450	675	2450	675	2450
Brian Romig	EPST II: GIS and IT Support	Office	12	12	311	358		358		358
Dwight Whitehead	EPST II Wells Commissioner & Water Commissioner	Office	12	12	265		527		527	0
Nancy Hitchcock	PA I Program Assistant	Office	12	12	0		0		0	0
Kasi Rishel	AA I Administrative Assistant	Office	7.2	7.2	0		0		0	0
Full time Field Staff										
Scott Hummer	EPST II Water Commissioner	36	12	12	0		0		0	0
Bill Blakeslee	EPST II Water Commissioner	38	12	12	430		1494		3862	0
**Vacant	EPST II Water Commissioner	38	12	<8.5>						0
**Larry Gepfert	EPST II Water Commissioner (rehired 6/1/03)	38	Allocated from Vacant	1	814	95	3683	437	3904	437
**Michael Craig	EPST II Wells Commissioner (6 mos) & Water Commissioner (hired 4/16/03)	Office 38 45	Allocated from Vacant	2.5	7527	302	9980	417	10161	417
Bob Klenda	EPST II Water Commissioner	45	12	12	0	378	2157	378	4214	378
Bill Thompson	EPST II Water Commissioner	50	12	12	480	4333	450	3735	699	4025
Steve Pope	EPST III Water Commissioner	72	12	12	0		0		0	0
Permanent Part-Time Field Staff										
Bill McEwen	EPST II Water Commissioner	37	11	11		4597		3326		3326
Jim Lemon	EPST I Water Commissioner	39	9	9	7142	4681	11350		11903	0
Jim Daxton	EPST I Water Commissioner	51	8	8	9776	1359	8838	1050	10098	1380
Frank Schaffner	EPST I Water Commissioner	52/53	8	8		9378		7590		7590
Don Mackey	EPST I Water Commissioner	70	8	8		6249		6815		6526
Tom Brigham	EPST I Water Commissioner	72	10	10	507	14332	507	14046	507	13937
Tom Cox	EPSA III Water Commissioner	72	9	9		4922	1517	5666	1517	5666
Alan Comerer	EPSA II Water Commissioner	72	6	6		5836		5275		5275
Ron Greene	EPSA II Water Commissioner	72	6	6	1854	4149	154	5481	154	5571
Temporary Part-Time Field Staff										
**Patrick Murphy	EPST I Water Commissioner (7/1-10/1/02)	38	Allocated from Vacant	3	3041					
	Total Worker Months:			**242.2**						
	Total FTE:			**20.18**						
	Total Reimbursable Miles Driven:				**34780**	**63419**	**44418**	**57018**	**51425**	**57336**
	Subtotal $$ for Reimbursable Miles 2w=.28, 4w=.32				**$9738**	**$20294**	**$12437**	**$18246**	**$14399**	**$18348**
	Total $$ for Reimbursable Miles Driven Period				**$30,032**		**$30,683**		**$32,747**	

****Vacant position:** These man-months split into months for:
Temp Patrick Murphy (3 months),
Full Time Larry Gepfert (1 month this fiscal year), and
Full Time Michael Craig (2.5 months this fiscal year).
Beginning 7/1/03, the hours were reallocated.

**All DWR *Temporary* Part Time positions were terminated 10/1/02, thereby losing Patrick Murphy in this position.

APPENDIX H: OFFICE ADMINISTRATION AND WORKLOAD MEASURES (continued)

ACTIVITY SUMMARY

CALENDAR YEAR 2003

ACTIVITY	TOTALS
Professional and Technical Staff (FTE)	6.0
Clerical Staff (FTE)	1.6
Water Commissioner FTE (Full/Part Time)	8.6/6.5
Decreed Surface Water Structures (cumulative)	To be determined when tabulation complete
Surface Rights Administered (Site Visits) (water commissioners)	11,294
Number of Decreed Wells (cumulative)	To be determined when tabulation complete
Consultations With Referee	449
Water Court Appearances (water commissioners)	1
Meetings With Water Users (Public Meetings) (water commissioners)	126
Meetings To Resolve Water Related Disputes	Not on time sheets
Contacts to Give Public Assistance on Water Matters (water commissioners)	Total Contacts (4,856 personal contacts) (8,882 phone)
Dams Visited (water commissioners)	1,858
Wells Visited (water commissioners)	366
Surface Structures Administered by Phone (water commissioners)	829

2003 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	264.7	365	228.0	365.0	11		ARKANSAS RIVER
38	4682	ROARING FORK BYPASS FLOW	ROARING FORK RIVER	1,873.6	319	2,085.0	320.0	11		TWIN LAKES
45	4657	DIVIDE - HIGHLINE FEEDER	DIVIDE CREEK	974.0	43	1,197.0	43.0	40		CLEAR FORK MUDDY CREEK
50	4600	SARVIS CREEK DITCH	RED DIRT CREEK	546.1	63	708.0	112.0	58		SARVIS CREEK
53	4716	DOVE CREEK DITCH	EGERIA CREEK	256.4	73	99.0	59.0	58		BEAR CREEK
53	4715	STILL WATER DITCH	EGERIA CREEK	1,900.9	97	1,794.0	118.0	58		BEAR CREEK
72	4713	REDLANDS POWER CANAL	COLORADO RIVER	515,821.4	340	305,147.0	220.0	42		GUNNISON RIVER
72	4711	GRAND JUNCTION MUNICIPAL	COLORADO RIVER	4,855.9	289	0.0	0.0	42		KANNAH CREEK
					TOTAL:	311,258.0				

2003 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	242.0	365	222.0	365	36		STRAIGHT CREEK
7	4626	VIDLER TUNNEL	CLEAR CREEK	440.4	67	432.0	52	36		SNAKE RIVER
23	4685	BOREAS PASS DITCH	TARRYALL CREEK	155.2	55	193.0	63	36		BLUE RIVER
23	4699	HOOSIER TUNNEL	MAIN FORK OF SO. PLATTE RIVER	7,283.5	138	8,020.0	192	36		BLUE RIVER
80	4684	ROBERTS TUNNEL	MAIN FORK OF SO. PLATTE RIVER	68,806.0	264	80,453.0	365	36		BLUE RIVER
11	4641	COLUMBINE DITCH	TENNESSEE CREEK	1,694.6	88	1,949.0	105	37		SO. FORK OF EAGLE RIVER
11	4642	EWING DITCH	TENNESSEE CREEK	955.3	124	1,013.0	148	37		SO. FORK OF EAGLE RIVER
11	4614	HOMESTAKE TUNNEL	SO. PLATTE VIA ARKANSAS RIVER	28,095.5	100	22,735.0	147	37		HOMESTAKE CREEK
11	4648	WURTZ DITCH	TENNESSEE CREEK	2,587.8	104	2,388.0	119	37		SO. FORK OF EAGLE RIVER
11	4625	BOUSTEAD TUNNEL	LAKE FORK CREEK	53,661.4	363	57,940.0	365	38		FRYING PAN RIVER
11	4613	BUSK-IVANHOE TUNNEL	LAKE FORK CREEK	4,460.9	220	4,999.0	365	38		FRYING PAN RIVER
11	4617	TWIN LAKES TUNNEL	LAKE FORK CREEK	36,087.8	364	44,632.0	365	38		ROARING FORK RIVER
3	4601	GRAND RIVER DITCH	CACHE LA POUDRE RIVER	14,564.5	116	4,648.0	120	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	210,144.5	349	177,626.0	365	51		NO. FORK COLORADO RIVER
6	4655	MOFFAT TUNNEL	BOULDER CREEK	47,674.2	364	74,123.0	365	51		FRASER RIVER
7	4625	BERTHOUD PASS DITCH	CLEAR CREEK	719.9	61	591.0	94	51		FRASER RIVER
6	505	AUGUST P GUMLICK 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	1,269.5	82	1328	146	72		LEON CREEK
					TOTAL:	483,292.0				

RESERVOIR STORAGE SUMMARIES BY DISTRICT

2003				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	11/01/02	1,997.2	10/31/03	1,997.2
	3535	BUFFEHR ENLG RESERVOIR	TENMILE CREEK	na		na		na
	3538	CATARACT LAKE	CATARACT CREEK	1,652.8	11/01/02	1,652.8	10/31/03	1,652.8
	3575	CLINTON GULCH RESERVOIR	TENMILE CREEK	3,671.1	05/25/03	4,492.3	06/20/03	4,354.9
	4512	DILLON RESERVOIR BRDP	BLUE RIVER	120,377.0	05/17/03	253,613.0	07/16/03	231,266.0
	3542	GOOSE PASTURE TARN	BLUE RIVER	637.9	12/31/02	796.0	03/31/03	740.8
	3543	GREEN MOUNTAIN RES	BLUE RIVER	35,941.0	04/02/03	152,751.0	07/31/03	75,983.0
	3548	HOAGLAND RESERVOIR NO 1	ELLIOTT CREEK	50.0	10/31/03	110.0	06/01/03	50.0
	3643	KEYSTONE POND	SNAKE RIVER	100.0	11/01/02	100.0	10/31/03	100.0
	3606	OFFICER GULCH POND	TENMILE CREEK	na		na		na
	3565	REYNOLDS RESERVOIR	SODA CREEK	na		na		na
	3569	UPPER BLACK CREEK RES	BLACK CREEK	273.0	11/01/02	273.0	10/31/03	273.0
	3570	UPPER BLUE LAKE RES	BLUE RIVER	0.0	11/29/02	2,124.0	06/30/03	304.0
	3571	WAY RESERVOIR	BEAVER CREEK	65.0	11/01/02	90.0	05/23/03	69.0
36		Total of All Others < 50 AF		157.0		263.2		219.8
36		Total For District 36		164,922.0		418,262.5		317,010.5

RESERVOIR STORAGE SUMMARIES BY DISTRICT

2003				AMOUNT IN STORAGE (AF)				
WD	ID	RESERVOIR NAME	SOURCE STREAM	Minimum		Maximum		End Of Year
				AF	Date	AF	Date	
37	3600	BENCHMARK LAKE	EAGLE RIVER	125.0		125.0		125.0
	3608	BLACK LAKE	GORE CREEK	139.1	04/01/03	361.9	11/01/02	361.9
	3510	BLACK LAKE NO 2	GORE CREEK	25.5	04/01/03	113.6	11/01/02	113.6
	3698	BOLTS LAKE	CROSS CREEK	0.0		0.0		0.0
	3513	CHALK MOUNTAIN RESERVOIR	EAGLE RIVER	192.8	11/01/02	270.2	06/01/03	224.5
	3699	CLIMAX MOLY NO 4 RES	EAGLE RIVER	2,299.5	04/01/03	3,148.3	07/01/03	3,130.3
	4516	HOMESTAKE RESERVOIR	HOMESTAKE CREEK	17,054.9	11/30/02	35,985.8	07/31/03	21,810.5
	3520	L E D E RESERVOIR	GYPSUM CREEK	3.0	11/01/02	267.0	07/03/03	100.0
	3522	NOECKER RESERVOIR	EBY CREEK	0.0	11/01/02	109.0	06/25/03	14.0
	3524	O Z LAKE (aka Sylvan Lake)	BRUSH CREEK	160.0	11/01/02	452.0	05/30/03	452.0
	3527	ROBINSON RESERVOIR	EAGLE RIVER	0.0	09/01/03	321.7	06/01/03	1.0
	3530	WELSH RESERVOIR	ALKALI CREEK	30.0	11/01/02	34.0	07/01/03	30.0
37		Total of All Others < 50 AF		80.0		120.0		90.0
37		Total for District 37		20,109.8		41,308.5		26,452.8

RESERVOIR STORAGE SUMMARIES BY DISTRICT

2003				AMOUNT IN STORAGE (AF)				
WD	ID	RESERVOIR NAME	SOURCE STREAM	Minimum		Maximum		End Of Year
				AF	Date	AF	Date	
38	3711	ALICIA LAKE RESERVOIR	LIME CREEK	673.0	11/01/02	673.0	06/15/03	673.0
	4000	BEAVER LAKE	CRYSTAL RIVER	72.5	11/01/02	72.5	06/15/03	72.5
	3722	CONSOLIDATED RESERVOIR	WEST COULTER CREEK	0.0	11/01/02	620.0	06/15/03	0.0
	3774	CRAWFORD DAM NO 1	BLUE CREEK	10.0	11/01/02	10.0	06/15/03	10.0
	3773	CRAWFORD DAM NO 2	BLUE CREEK	15.0	11/01/02	15.0	06/15/03	15.0
	3721	CROOKED CREEK RES	LIME CREEK	38.0	11/01/02	41.0	06/15/03	38.0
	4087	CRYSTAL SPRING LAKE	CRYSTAL SPRING	70.0	11/01/02	80.0	06/15/03	80.0
	4095	FLANNERY RESERVOIR	THREE MILE CREEK	24.0	11/01/02	72.0	06/15/03	32.0
	3779	GRIZZLY RESERVOIR	LINCOLN CREEK	100.0	11/01/02	400.0	06/15/03	100.0
	3727	HIMMELAND LAKE	FRYING PAN RIVER	90.0	11/01/02	105.0	06/15/03	90.0
	3729	HUGHES RESERVOIR	THREE MILE CREEK	25.0	11/01/02	40.0	06/15/03	30.0
	3732	IVANHOE RESERVOIR	FRYING PAN RIVER	200.0	11/01/02	350.0	06/15/03	200.0
	3832	JACOBSON LAKES & PONDS	ROARING FORK RIVER	225.0	11/01/02	225.0	06/15/03	225.0
	4154	KODIAK LAKE & WETLANDS	ROARING FORK	50.0	11/01/02	60.0	06/15/03	60.0
	3736	LAKE ANN RESERVOIR	SOPRIS CREEK	60.0	11/01/02	400.0	06/15/03	60.0
	3955	MC NULTY RESERVOIR # 1	SHIPPEE RUN CREEK	0.0	11/01/02	0.0	06/15/03	0.0
	3740	RALSTON RESERVOIR	COULTER CREEK	0.0	11/01/02	0.0	06/15/03	0.0
	3713	RUEDI RESERVOIR	FRYING PAN RIVER	47,344.0	11/01/02	97,194.0	07/03/03	74,411.1
	3744	SPRING PARK RESERVOIR	CATTLE CREEK	120.5	11/01/02	1,570.0	06/03/03	120.5
	3747	THOMAS RESERVOIR	THOMAS CREEK	160.0	11/01/02	160.0	06/15/03	160.0
	3753	UPPER CHAPMAN RES	FRYINGPAN RIVER	50.0	11/01/02	60.0	06/15/03	50.0
	3750	VAN-CLEVE FISHER RES	MESA CREEK	0.0	11/01/02	225.0	06/03/03	0.0
	3759	WILDCAT RESERVOIR	SNOWMASS CREEK	1,100.0	11/01/02	1,100.0	06/15/03	1,100.0
	3760	WOODS LAKE RESERVOIR	LIME CREEK	300.0	11/01/02	300.0	06/15/03	300.0
38		Total of All Others < 50 AF		1,014.0	11/01/02	2,136.0	06/15/03	1,664.0
38		Total for District 38		51,741.0		105,908.5		79,491.1

RESERVOIR STORAGE SUMMARIES BY DISTRICT

2003				AMOUNT IN STORAGE (AF)				
WD	ID	RESERVOIR NAME	SOURCE STREAM	Minimum		Maximum		End Of Year
				AF	Date	AF	Date	
39	3999	CHAMBERS POND NO 1	COLORADO RIVER	100.0	11.01.02	137.0	04.15.03	100.0
	4000	CHAMBERS POND NO 2	COLORADO RIVER	200.0	11.01.02	239.0	05.01.03	200.0
	4002	CHAMBERS POND NO 4	COLORADO RIVER	170.0	11.01.02	180.0	06.15.03	170.0
	3927	CITY OF RIFLE POND NO 1	COLORADO RIVER	0.0	01/00/00	0.0	01/00/00	0.0
	3505	GRASS VALLEY RESERVOIR	RIFLE CREEK	907.0	09.30.03	6,023.0	04.15.03	1,004.0
	3506	HARRIS RESERVOIR	WEST RIFLE CREEK	6.8	11.26.02	30.0	04.15.03	20.0
	3940	MEADOW CREEK RESERVOIR	ELK CREEK	885.6	11.01.02	984.0	06.01.03	885.6
	3941	MIDDLE FORK RESERVOIR	PARACHUTE CREEK	85.0	11.01.02	100.0	06.01.03	85.0
	3507	PARK RESERVOIR	WEST ELK CREEK	8.2	11.01.02	90.6	05.16.03	19.0
	3508	RIFLE GAP RESERVOIR	RIFLE CREEK	1,416.0	09.30.03	6,815.0	04.15.03	1,960.0
	3732	RIFLE FALLS HATCH AUG PONDS	RIFLE CREEK	39.9	04.30.03	63.7	07.30.03	56.4
		Total of All Others < 50 AF		33.3		128.6		54.6
39		TOTAL FOR DISTRICT 39		3,851.8		14,790.9		4,554.6

RESERVOIR STORAGE SUMMARIES BY DISTRICT

2003				AMOUNT IN STORAGE (AF)				
WD	ID	RESERVOIR NAME	SOURCE STREAM	Minimum		Maximum		End Of Year
				AF	Date	AF	Date	
45	3603	PORTER RESERVOIR	EAST AKALI CREEK	0.0	11/02/02	356.0	05/03/03	0.0
	3695	ALSBURY RESERVOIR	EAST DIVIDE CREEK	50.0	11/02/02	261.0	06/03/03	50.0
45		Total of All Others < 50 AF	300 estimated	75.0		300.0		75.0
45		TOTAL FOR DISTRICT 45		125.0		917.0		125.0

RESERVOIR STORAGE SUMMARIES BY DISTRICT

2003				AMOUNT IN STORAGE (AF)				
WD	ID	RESERVOIR NAME	SOURCE STREAM	Minimum		Maximum		End Of Year
				AF	Date	AF	Date	
50	3644	ALBERT RESERVOIR	ALBERT CREEK	0.0	11/01/02	100.0	06/09/03	0.0
	3606	ANTELOPE RESERVOIR	ANTELOPE CREEK	10.0	07/03/03	340.0	03/28/03	10.0
	3651	BASIN RESERVOIR	MUDDY CREEK	10.0	11/01/02	115.0	04/29/03	25.0
	3645	BINCO RESERVOIR	ALBERT CREEK	0.0	11/01/02	478.0	06/09/03	0.0
	3618	HINMAN RESERVOIR	PASS CREEK	275.0	11/01/02	611.0	05/14/03	275.0
	3623	LAKE AGNES	MUDDY CREEK	225.0	11/01/02	400.0	06/03/03	300.0
	3646	MARTIN RESERVOIR	COLBURN CREEK	20.0	08/08/03	180.0	04/29/03	30.0
	3625	MATHESON RESERVOIR	TROUBLESOME CREEK	0.0	11/01/02	1,073.0	05/19/03	99.0
	3627	MC ELROY RESERVOIR	PASS CREEK	0.0	11/01/02	240.0	04/29/03	0.0
	3629	MC MAHON RESERVOIR NO 2	RED DIRT CREEK	8.0	11/01/02	3,500.0	05/28/03	50.0
	3655	MILK CREEK RESERVOIR	MILK CREEK	0.0	11/01/02	105.0	04/29/03	0.0
	3656	NORTH MEADOW RESERVOIR (aka Martin	MUDDY CREEK	0.0	11/01/02	250.0	06/03/03	0.0
	3631	OAKS RESERVOIR	HILL CREEK	4.0	11/01/02	21.0	06/16/03	19.0
	3632	PARSONS RESERVOIR	CARTER CREEK	15.0	07/09/03	107.0	04/28/03	15.0
	3642	WHITELEY PEAK RESERVOIR	DIAMOND CREEK	70.0	08/11/03	773.0	04/29/03	70.0
	3657	WOLFORD MOUNTAIN RESERVOIR	MUDDY CREEK	16,849.3	02/28/03	45,137.9	06/30/03	40,524.5
	3643	WOODS RESERVOIR	DUNNING CREEK	3.0	11/01/02	28.0	06/16/03	11.0
	3666	DUMONT LAKE	MUDDY CREEK	200.0	11/01/02	220.0	05/14/03	215.0
50		Total of All Others < 50 AF						250.0
50		TOTAL FOR DISTRICT 50		17,689.3		53,678.9		41,893.5

RESERVOIR STORAGE SUMMARIES BY DISTRICT

2003				AMOUNT IN STORAGE (AF)				
WD	ID	RESERVOIR NAME	SOURCE STREAM	Minimum		Maximum		End Of Year
				AF	Date	AF	Date	
51	4006	BULL RUN CREEK RESERVOIR	BULL RUN CREEK	105.0	11/01/02	115.0	06/11/03	105.0
	4055	CBT GRANBY RESERVOIR	COLORADO RIVER	90251.0	03/31/03	402147.0	07/31/03	370525.0
	3695	CBT SHADOW MOUNTAIN GRAND LAKE	NO. FORK OF COLO RIVER	16992.0	05/31/03	17875.0	12/31/02	17831.0
	3710	CBT WILLOW CREEK RESERVOIR	WILLOW CREEK	7631.0	04/30/03	9659.0	05/31/03	9443.0
	4012	COTTONWOOD RESERVOIR	GARDINER CREEK					
	3715	EAST BRANCH RESERVOIR	UTE CREEK					
	3660	F W LINKE NO 2 RESERVOIR	TEN MILE CREEK	15.0	10/31/03	60.0	04/03/03	15.0
	3665	HANKINSON RESERVOIR	FRASER RIVER	116.0	04/01/03	116.0	10/31/03	116.0
	4009	JACK ORR RESERVOIR	COLORADO RIVER					
	3752	KINGS RESERVOIR	BUFFALO CREEK	450.0	08/15/03	650.0	06/01/03	450.0
	3679	LANGHOLEN RESERVOIR	BATTLE CREEK	4.0	11/01/02	65.0	05/28/03	5.0
	3686	MEADOW CREEK RESERVOIR	MEADOW CREEK	11.0	11/01/02	5398.0	06/30/03	2104.0
	3687	MOORE RESERVOIR	WILLIAMS FORK RIVER	65.0	10/31/03	90.0	05/03/03	65.0
	3688	MUSGRAVE RESERVOIR	ROCK CREEK	0.0	11/01/02	325.0	06/03/03	0.0
	3693	ROCK CREEK RESERVOIR	ROCK CREEK					
	3694	SCHOLL RESERVOIR	CORRAL CREEK	0.0	11/01/02	165.0	06/06/03	0.0
	3732	GAYLORD RESERVOIR	POLE CREEK	170.0	05/01/03	170.0	10/31/03	170.0
	4051	SUN VALLEY RESERVOIR	NO. FORK OF COLO RIVER					
	3701	SYLVAN RESERVOIR	LITTLE MUDDY CREEK	6.0	11/01/02	873.0	06/11/03	45.0
	3738	UTE CREEK RESERVOIR	UTE CREEK					
	3709	WILLIAMS FORK RES	WILLIAMS FORK RIVER	7533.0	01/31/03	92458.0	06/30/03	64787.0
51		Total of All Other Reservoirs Less Than 50 AF						
51		TOTAL FOR DISTRICT 51		123,349.0		530,166.0		465,661.0

RESERVOIR STORAGE SUMMARIES BY DISTRICT

2003				AMOUNT IN STORAGE (AF)				
WD	ID	RESERVOIR NAME	SOURCE STREAM	Minimum		Maximum		End Of Year
				AF	Date	AF	Date	
52	3940	JONES RESERVOIR	HENRY CREEK	50.0	11/01/02	69.2	03/28/03	52.5
	3982	MARMA LAKE	PINEY RIVER	53.0	11/01/02	58.0	06/11/03	58.0
	3946	OXFORD RESERVOIR	COLORADO RIVER	0.0	11/01/02	60.0	05/30/03	0.0
	3949	ROCK GAP DAM	HARTMAN GULCH	18.0	11/01/02	51.0	05/28/03	38.0
52		Total of All Others < 50 AF		125.0		192.0		125.0
52		TOTAL FOR DISTRICT 52		246.0		430.2		273.5

RESERVOIR STORAGE SUMMARIES BY DISTRICT

2003				AMOUNT IN STORAGE (AF)				
WD	ID	RESERVOIR NAME	SOURCE STREAM	Minimum		Maximum		End Of Year
				AF	Date	AF	Date	
53	3959	CLYDE RESERVOIR	EGERIA CREEK	0.0	11/01/02	50.0	06/15/03	0.0
	3960	CRESENT LAKE RESERVOIR	DERBY CREEK	0.0	11/01/02	158.2	08/31/03	0.0
	3961	ED W HARPER RESERVOIR	EGERIA CREEK	0.0	11/01/02	194.0	06/09/03	0.0
	3962	EGERIA RESERVOIR	EGERIA CREEK	0.0	11/01/02	107.0	07/09/03	0.0
	3966	GRIMES BROOKS RESERVOIR	RED DIRT CREEK	42.0	11/01/02	408.0	06/26/03	42.0
	3971	HEART LAKE RESERVOIR	DEEP CREEK	2,500.0	11/01/02	2,800.0	06/16/03	2,600.0
	3972	HIDDEN SPRINGS RESERVOIR	HORSE CREEK	46.0	11/01/02	50.0	06/16/03	50.0
	3974	JONES NO 1 RESERVOIR	SHEEP CREEK NO 2	39.0	11/01/02	170.0	06/01/03	55.0
	3975	JONES NO 2 RESERVOIR	SHEEP CREEK NO 2	213.0	11/01/02	511.0	06/03/03	369.0
	3978	KELLY RESERVOIR	EGERIA CREEK	71.0	11/01/02	138.0	06/03/03	138.0
	3982	LUARK RESERVOIR	SPRING CREEK	0.0	11/01/02	45.0	06/14/03	0.0
	4020	MACKINAW LAKE RES NO 2	DERBY CREEK	0.0	11/01/02	79.0	08/31/03	15.1
	3986	MORRIS RESERVOIR	TOPONAS CREEK	0.0	11/01/02	60.0	06/10/03	0.0
	3988	NEWTON GULCH RES	KING CREEK	0.0	11/01/02	158.0	06/01/03	0.0
	3992	REID NO 3 RESERVOIR	EGERIA CREEK	16.0	11/01/02	20.0	06/07/03	20.0
	3995	STERNER RESERVOIR	EGERIA CREEK	0.0	11/01/02	126.0	06/08/03	4.4
	3997	SWEETWATER RESERVOIR	SWEETWATER CREEK	490.0	11/01/02	490.0	11/01/02	490.0
	3999	TONIER GULCH RES	TOPONAS CREEK	0.0	11/01/02	64.0	06/10/03	0.0
	4001	TOPONAS ROCK NO 2 RES	TOPONAS CREEK	0.0	11/01/02	196.9	06/06/03	53.4
	4004	WOHLER RESERVOIR	ELK CREEK	28.0	11/01/02	68.0	05/01/03	61.0
53		Total of All Others < 50 AF		200.0		380.0		230.0
53		TOTAL FOR DISTRICT 53		3,645.0		6,273.1		4,127.9

RESERVOIR STORAGE SUMMARIES BY DISTRICT

2003				AMOUNT IN STORAGE (AF)				
WD	ID	RESERVOIR NAME	SOURCE STREAM	Minimum		Maximum		End Of Year
				AF	Date	AF	Date	
70		FURR PONDS NO. 1-19	DRY FORK	0.0	07/31/03	30.0	11/01/02	0.0
70		Total of All Others < 50 AF		2.7		2.7		2.7
70		TOTAL FOR DISTRICT 70		2.7		30.0		2.7

RESERVOIR STORAGE SUMMARIES BY DISTRICT

2003				AMOUNT IN STORAGE (AF)				
WD	ID	RESERVOIR NAME	SOURCE STREAM	Minimum		Maximum		End Of Year
				AF	Date	AF	Date	
72	3833	ANDERSON BROS RES NO 1	LEON CREEK	0.0	09/20/03	215.0	06/15/03	0.0
	3887	BIG BEAVER RESERVOIR	BULL CREEK	0.0	11/01/02	123.4	06/10/03	0.0
	3904	BIG CREEK NO 1 RESERVOIR	BIG CREEK	255.5	02/26/03	763.6	05/29/03	763.6
	3905	BIG CREEK NO 3 RESERVOIR	BIG CREEK	298.8	11/19/02	1,549.6	06/02/03	975.5
	3906	BIG CREEK NO 4 RESERVOIR	BIG CREEK	32.7	11/05/02	185.2	06/03/03	117.7
	3907	BIG CREEK NO 5 RESERVOIR	BIG CREEK	5.7	02/12/03	104.6	05/22/03	104.6
	3909	BIG CREEK NO 7 RESERVOIR	BIG CREEK	504.7	03/03/03	1,222.6	05/22/03	880.7
	3841	BOB MC KELVIE RESERVOIR	PLATEAU CREEK	0.0	05/01/03	190.0	07/11/03	20.0
	3888	BULL BASIN NO 1 RES	BULL CREEK	46.1	10/04/03	124.4	06/10/03	46.1
	3889	BULL BASIN NO 2 RES	BULL CREEK	0.0	08/20/03	95.3	05/01/03	0.0
	3890	BULL CREEK NO 1 RES	BULL CREEK	0.0	09/20/03	79.3	06/10/03	0.0
	3891	BULL CREEK NO 2 RES	BULL CREEK	0.0	09/20/03	68.0	04/01/03	0.0
	3892	BULL CREEK NO 3 RES	BULL CREEK	0.0	08/15/03	59.2	04/03/01	0.0
	3893	BULL CREEK NO 4 RES	BULL CREEK	0.0	06/26/03	202.5	04/28/03	0.0
	3894	BULL CREEK NO 5 RES	BULL CREEK	18.0	11/01/02	249.1	04/03/03	55.5
	3834	COLBY HORSE PARK RES	LEON CREEK	41.6	11/02/02	570.2	06/29/04	401.7
	3883	COON CREEK NO 1 RES	COON CREEK	58.8	11/12/02	309.4	06/27/03	142.2
	3884	COON CREEK NO 2 RES	COON CREEK	0.0	11/12/02	63.7	06/03/03	33.5
	3885	COON CREEK NO 3 RES	COON CREEK	0.0	11/12/02	73.4	06/10/03	0.0
	3923	COTTONWOOD LAKES RES NO 1	COTTONWOOD CREEK	742.2	02/26/03	1,939.6	07/03/03	1,402.0
	3924	COTTONWOOD LAKES RES NO 2	COTTONWOOD CREEK	1.4	11/01/02	206.1	06/02/03	3.9
	3925	COTTONWOOD LAKES RES NO 4	COTTONWOOD CREEK	13.9	11/01/02	303.7	06/09/03	220.0
	3926	COTTONWOOD LAKES RES NO 5	COTTONWOOD CREEK	60.8	11/01/03	266.8	09/15/03	255.7
	4065	CURRIER RESERVOIR NO 2	BUZZARD CREEK	100.0	11/01/02	185.0	06/15/03	140.0
	3910	DAWSON RESERVOIR	BIG CREEK	0.0	11/01/02	0.0	11/01/02	0.0
	3920	ECHO LAKE RESERVOIR	BIG SALT WASH	0.0	11/01/02	0.0	11/01/02	0.0
	3914	GROVE CREEK RESERVOIR NO 1	GROVE CREEK	0.0	07/25/03	251.0	06/01/03	0.0
	3915	GROVE CREEK RESERVOIR NO 2	GROVE CREEK	0.0	07/02/03	75.0	06/15/03	0.0
72		Subtotal This Page		2,180.2		9,475.7		5,562.7

2003				AMOUNT IN STORAGE (AF)				
WD	ID	RESERVOIR NAME	SOURCE STREAM	Minimum		Maximum		End Of Year
				AF	Date	AF	Date	
72	3849	HAWXHURST RESERVOIR	HAWXHURST CREEK	8.0	09/15/03	283.0	06/01/03	8.0
	3957	HIGHLINE RESERVOIR	COLORADO RIVER	NO INFO		NO INFO		NO INFO
	3929	JENSEN RESERVOIR	COTTONWOOD CREEK	0.0	09/29/03	65.5	07/10/03	0.0
	3961	JERRY CREEK RESERVOIR NO 1	PLATEAU CREEK	765.1	11/01/02	1,117.7	06/30/03	1,067.2
	3962	JERRY CREEK RESERVOIR NO 2	PLATEAU CREEK	3,931.3	04/30/03	6,312.6	06/30/03	6,193.5
	3837	KENDALL RESERVOIR	LEON CREEK	43.0	08/17/03	87.0	05/01/03	43.0
	3838	KIRKENDALL RESERVOIR	LEON CREEK	NO INFO		NO INFO		NO INFO
	3839	LEON LAKE RESERVOIR	LEON CREEK	0.0	11/01/02	1,306.4	07/24/03	0.0
	3895	LOST LAKE RESERVOIR	BULL CREEK	0.0	11/01/02	0.0	11/01/02	0.0
	3871	MESA CREEK NO 1 RESERVOIR	MESA CREEK	167.8	11/01/02	280.2	11/12/02	261.6
	3872	MESA CREEK NO 2 RESERVOIR	MESA CREEK	42.2	11/01/02	42.2	10/31/03	42.2
	3873	MESA CREEK NO 3 RESERVOIR	MESA CREEK	0.0	09/12/03	200.3	06/20/03	0.0
	3874	MESA CREEK NO 4 RESERVOIR	MESA CREEK	0.0	11/11/02	296.3	06/06/03	0.0
	3842	MONUMENT NO 1 RESERVOIR	LEON CREEK	0.0	09/10/03	570.0	07/21/03	0.0
	3843	MONUMENT NO 2 RESERVOIR	LEON CREEK	0.0	08/05/03	200.0	07/01/03	0.0
	3854	PALISADE CABIN RESERVOIR	RAPID CREEK	560.4	11/01/02	988.1	06/30/03	70.6
	3932	PARKER BASIN RESERVOIR NO 1	COTTONWOOD CREEK	58.9	11/01/02	268.4	07/03/03	245.2
	3933	PARKER BASIN RESERVOIR NO 2	COTTONWOOD CREEK	53.5	11/01/02	60.7	03/24/03	59.8
	3934	PARKER BASIN RESERVOIR NO 3	COTTONWOOD CREEK	46.0	11/01/03	201.5	06/02/03	57.8
	3858	RAPID CREEK NO 1 RESERVOIR	RAPID CREEK	90.7	11/01/02	625.3	06/20/03	185.3
	3859	RAPID CREEK NO 2 RESERVOIR	RAPID CREEK	0.0	11/01/02	508.4	07/01/03	0.0
	3901	STUBB McKINNEY CLARK RESERVOIR	SPRING CREEK	0.0	11/12/02	122.2	06/10/03	0.0
	3931	T E KITSON RESERVOIR	COTTONWOOD CREEK	11.1	11/01/02	184.3	09/08/03	184.3
	3902	TWIN BASIN RESERVOIR	BULL CREEK	0.0	11/12/02	57.8	06/10/03	0.0
	3844	VEGA RESERVOIR	PLATEAU CREEK	3,203.0	11/30/02	30,046.0	05/31/03	7,935.0
	3919	Y T RESERVOIR	GROVE CREEK	0.0	09/01/03	150.0	06/30/03	0.0
72		Subtotal This Page		8,981.0		43,973.9		16,353.5
72		Subtotal Previous Page(s)		2,180.2		9,475.7		5,562.7
72		Total of All Other Reservoirs Less Than 50 AF		226.5		409.5		256.1
72		TOTAL FOR DISTRICT 72		11,387.7		53,859.1		22,172.2

DIVISION 5 -- 2003
WATER DIVERSION SUMMARIES

WD	STRUCTURES REPORTING			ALL OTHER STRUCTURES		ESTIMATED NUMBER OF VISITS TO STRUCTURE	TOTAL DIVERSIONS AF	TOTAL DIVERSIONS TO STORAGE AF	TO IRRIGATION		
	WITH RECORD (1)	IO WATE VAILABL (2)	NO WATER TAKEN (3)	NO INFO AVAILABLE (4)	NO RECORD (5)				TOTAL DIVERSIONS AF	NUMBER OF ACRES IRRIGATED	AVERAGE AF PER ACRE
36	260	9	111	226	216	13,386	703,584	261,447	82,779	9,344	8.86
37	163	4	230	200	389	6,808	134,290	22,695	69,290	10,057	6.89
38	341	27	210	1,331	641	1,849	776,450	54,211	284,480	14,351	19.82
39	426	53	182	97	352	969	143,352	12,773	107,268	18,711	5.73
45	480	38	157	83	177	3,080	105,532	881	86,589	24,875	3.48
50	171	2	16	7	44	1,433	119,460	38,085	75,720	22,537	3.36
51	319	8	232	385	416	24,089	954,637	438,099	219,966	26,830	8.20
52	97	14	94	51	98	548	22,542	223	21,046	4,110	5.12
53	225	16	127	248	150	1,688	825,999	2,928	73,360	15,793	4.65
70	182	64	33	5	111	517	10,000	55	9,169	2,766	3.31
72	383	65	152	363	374	44,274	1,672,278	58,814	855,481	88,559	9.66
TOTAL	3,047	300	1,544	2,996	2,968	98,641	5,468,124	890,211	1,885,148	237,933	7.92

DIVISION 5 -- 2003
WATER DIVERSION SUMMARIES TO VARIOUS USES (AF)

WD	TRANSMOUNTAIN OUTFLOW	TRANSBASIN OUTFLOW	MUNICIPAL	COMMERCIAL	INDUSTRIAL	RECREATION	FISHERY	DOMESTIC & HOUSEHOLD	STOCK
36	89,321	0	7,260	106	340	553	1,706	786	474
37	28,085	0	9,048	0	218	0	0	0	1,017
38	107,571	830	9,633	87	43	10,462	75,393	6,172	3,954
39	0	0	2,687	31	708	0	12,324	3,536	1,225
45	0	0	1,149	9	418	0	1	470	15,437
50	0	0	379	0	0	0	0	8	26
51	256,989	5,789	2,534	1,034	2,941	247	72	195	1,402
52	0	1,173	0	8	0	0	0	16	0
53	0	0	7,803	0	0	0	129	21	644
70	0	0	86	0	0	0	1	19	661
72	1,328	740	17,041	0	6	0	62,800	63	18,321
TOTAL	483,294	8,532	57,620	1,275	4,674	11,262	152,426	11,286	43,161

WD	AUGMENTATION	EVAPORATION	GEOTHERMAL	SNOWMAKING	MINIMUM STREAMFLOW	POWER GENERATION	WILDLIFE	RECHARGES	OTHER
36	43,812	9,927	0	1,438	0	203,704	0	0	0
37	0	1,753	0	736	0	1,448	0	0	0
38	13,177	2,438	80	141	2,085	161,619	4	0	0
39	763	1,880	0	0	0	146	1	0	0
45	144	362	0	0	0	72	0	0	0
50	2,228	3,014	0	0	0	0	0	0	0
51	12	19,962	0	0	0	5,395	0	0	0
52	18	58	0	0	0	0	0	0	0
53	32	3,841	0	0	0	737,241	0	0	0
70	0	9	0	0	0	0	0	0	0
72	402	2,165	0	4	0	655,326	307	86	12,130
TOTAL	60,588	45,409	80	2,319	2,085	1,764,951	312	86	12,130

NOTES: "Other"=fire use (Q water not included in any totals)
"Aug"=aug use+aug types (additive and non-additive)

T H E

E N D