DIVISION FIVE

DIVISION OF WATER RESOURCES

2000 ANNUAL REPORT

RIFLE FALLS, RIFLE, CO

STATE OF COLORADO

DIVISION OF WATER RESOURCES
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March 16, 2001

Mr. Hal Simpson
State Engineer
Division of Water Resources
1313 Sherman St, Rm. 818
Denver, CO 80103

Dear Hal,

On behalf of the Division 5 staff, I submit the Division 5 Annual Report for the 2000 Irrigation Year.

The efforts to successfully complete a year in our profession are rewarding, yet often unnoticed. For the entire staff, who routinely goes beyond the call of duty, I express my sincere gratitude. Thank you Hal for your support, and the support of your staff.

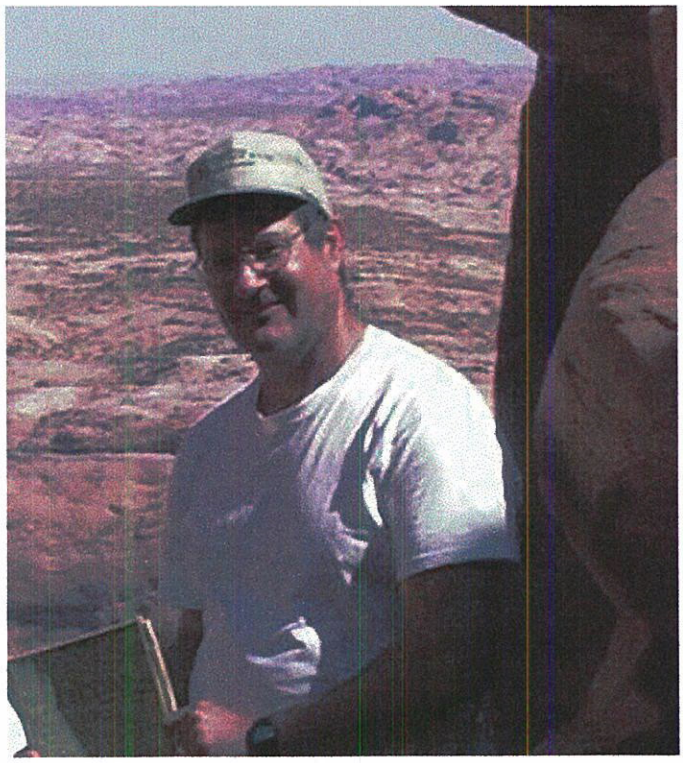
Respectfully submitted,

Alan C. Martellaro

Alan C Martellaro
Division Engineer

Division Engineer Retires

As the end of 2000 irrigation year neared Orlyn Bell retired after 17 years as the Division Engineer for Water Division 5. Through his tenure many changes in river administration, technology, and staffing occurred. The primary river administration change was the adoption of the Green Mountain Operating Policy during Orlyn's first full year as Division Engineer. The implementation of this policy, the accounting of beneficiaries of Green Mountain Reservoir, and the tightening of exchange administration spawned the Green Mountain exchange case and the Orchard Mesa Check case. As Orlyn began his service as Division Engineer coding sheets were mailed for transmittal of data to the CSU CYBER, river administration decisions were made through information obtained by phone call to water users or by on-site inspection. In 1985 Division 5 got its first personal computer. Today all division staff have PC's networked to access Satellite Monitoring Data and Decision Support Tools. Likewise the division staff has grown in number and skill. Through Orlyn's vision Division 5 has not only survived these changes, but has led the Colorado River water using community to this new age.



Thanks Orlyn for the years of service, leadership, and friendship from the staff of Division 5.

2000

ANNUAL REPORT

DIVISION 5

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WATER DIVISION 5

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 as it crosses the Colorado-Utah state line, excluding the Gunnison River Basin. The average annual precipitation in Water Division 5 varies from less than 9.0 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 3.6 million AF/yr. The primary uses of this water are approximately 500,000 AF/yr of transmountain diversions to Eastern Colorado, and agriculture within the basin consuming approximately 600,000AF/yr.

I. 2000 WATER YEAR ACCOMPLISHMENTS

A. Water Administration and Runoff Conditions

Mid-winter snowpack was well below normal, then by April 1, 2000 runoff forecasts approached normal conditions, with 99% of normal at the Colorado River at Dotsero, and 96% of normal at the Colorado River near Cameo. Following this forecast precipitation was generally below normal, and as the runoff progressed, hope of a good season dimmed (see Graph p.31).

Discussion of reservoir re-operation for endangered fish habitat enhancement (CROS) was tabled in early June when it became clear that and the projected peak combined with re-operations would be insufficient to provide any benefit to the endangered fish. Work on the outlet at Green Mountain Reservoir became the topic of discussion. Until the work was completed, Green Mountain storage releases were limited to the 42,000 AF of storage above on the spillway radial gates. Contingency plans were made to use Wolford Mountain and Williams Fork Reservoir releases should the demands exceed the maximum rate of release the head on the spillway sill would allow, or the volume available. Neither problem materialized.

With higher than average flows on the mainstem and maintenance at the Shoshone Powerplant, the winter season began and nearly ended without a call. A call from the Powerplant extended for only one week, and ended at the onset of the snowmelt run-off. But the 2000 irrigation year was a summer of shortages not seen since 1989. Many over-appropriated tributaries were on call before the end of June, then were limited to water available to one or two water rights for the remainder of the season. The mainstem and tributaries not subject to local calls went on call during the 3rd week of July. Administration of water rights continued until October 16, 2000 above the Grand Valley, and through the end of the irrigation year above the Shoshone Powerplant (see Graphs pages 31, 33 & 34).

In addition to calls by these major rights, the Orchard Mesa Check was operated for three days in early October, exchanging diversions upstream to the Government Highline Roller Dam for the benefit of the Orchard Mesa Powerplant. This is the first time the check operated since the 1991 application of the Orchard Mesa Check Case was decreed in 1996. The 2000 irrigation year is also the first year a Cameo Call was administered since the settlement of this case. It was also the first time since 1989 that the entire 66,000 AF Historic Users Pool in Green Mountain Reservoir was depleted (see Graph page 35).

B. Dam Safety

The year 2000 brought a below-average snowpack basin-wide. This meant that there were less runoff-related incidents than in past years. There was only one reported incident which involved a non-jurisdictional dam that threatened a campground with seepage and an inadequately constructed crest and spillway. With adequate persuasive communication to the dam owner, this problem was resolved without a dam failure or significant damage to the campground. The lack of incidents or an increase in dam safety problems this year were very timely as our dam safety engineer was seriously injured in an automobile accident while *en route* from a dam inspection. This abruptly ended his inspection season in mid-August and made it necessary for other Division 5 personnel and dam safety engineers from other Divisions to complete the regular inspections scheduled this year, and reduced the number of planned follow-up and construction inspections accomplished. With the Division 5 hydrographer coordinating dam safety activities late in the season, there was great cooperation and teamwork used to complete the inspections.

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 our dam safety engineer's workload, as he has had to funnel more time and expertise into resolving problems and less on "routine" work tasks.

This year there were two significant rehabilitation projects reviewed by our Division 5 Dam Safety Engineer John Blair and Alan Pearson, the principal of the Dam Safety Branch from Denver. The highlights of the major projects are as follows:

- After the 1996 slope failure of the Sylvan Reservoir Dam in District 51, the new owner decided to rehabilitate this dam. The plans and specifications submitted involved installing a blanket drain in the downstream slope and rehabilitating the slope; replacing the deteriorated outlet which was inadequately lined in the 1970's; raising the crest of the dam and opening the spillway to ensure its adequacy; and rehabilitating the upstream slope with adequate riprap. This major rehabilitation project was almost completed except for the upstream slope, which will be completed next year.
- A new outlet was installed in the Hughes Reservoir Dam to replace the outlet that was accidentally grouted shut in 1999.

Another significant accomplishment in 2000 was extensive training for all Division 5 personnel put on by John Blair in the spring. This training involved an informal classroom session and the inspection of 4 dams in different areas of the Division to accommodate the water commissioners. Most of the Division 5 personnel expected to inspect dams participated. This training turned out to be very timely – providing needed support and field data to accomplish the primary goal of the Dam Safety Branch.

In summary, the total number of inspections performed in Division 5 in 2000 = ***145***, which consisted of the following:

51 Inspections performed by the Dam Safety Engineer before his accident:
- 0 Class 4 regular inspections
- 15 Class 1 regular inspections
- 10 Class 2 regular inspections
- 6 Class 3 regular inspections
- 5 Construction inspections
- 14 Follow-up inspections
- 2 Outlet inspections

29 Inspections performed by other Dam Safety engineers after the Division 5 Dam Safety Engineer's accident:
- 0 Class 4 regular inspections
- 9 Class 1 regular inspections
- 8 Class 2 regular inspections
- 4 Class 3 regular inspections
- 8 Construction inspections

21 Inspections by other Division 5 staff engineers:
- 5 Class 1
- 4 Class 2
- 10 Class 3
- 2 Follow-up
- 0 Outlet inspections

7 Inspections by federal entities:
- 4 Class 1
- 0 Class 2
- 3 Class 3

37 Inspections by Water Commissioners:
- 12 "Off-year" Class 2
- 25 Follow-up

C. Ground Water and Well Permitting

Strong economic conditions and rapid growth continued throughout Colorado which kept the Division 5 staff busy in the areas of ground water and well permitting along with research regarding water well ownership for real estate transactions and general public assistance.

During calendar year 2000 a total of **1151 permits were approved** for Division 5 --an increase by **17 % from 1999.** Additionally the number of Monitoring Hole Notices (MH) received by the Division also decreased **by 98%** from 369 in 1999 to 4 in 2000. This decrease can be attributed to eliminating the ability of converting monitoring and observation holes to production wells, per new Well Construction Rules effective June 1, 2000. 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.

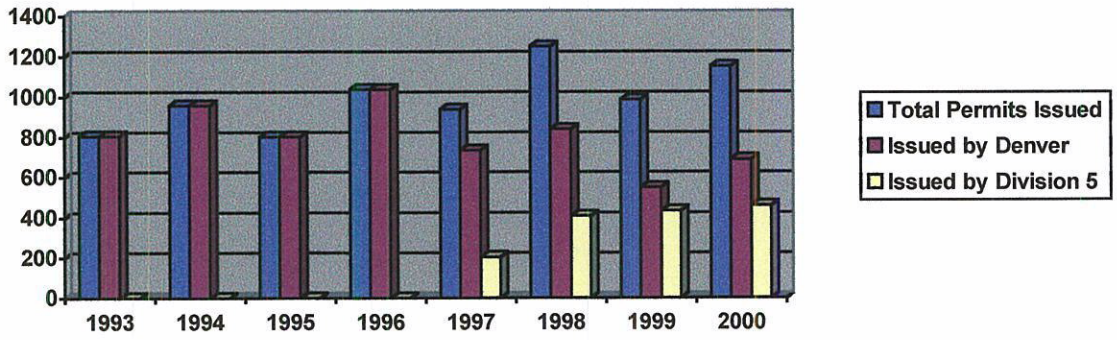
A breakdown of permits processed includes:

791 Exempt Permits
271 Non-Exempt Permits
2 Geothermal Permits

79 Exempt Replacements
8 Non-Exempt Replacements
31 Late Registrations

With the decentralized well permitting process in place, a total of **462 permits** (396 Exempt and 66 Non-Exempt) **or 40% 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 pre-processed and forwarded to the Denver office.

Well Permits for Water Division 5 1993 through 2000:



Effective June 1, 2000 *Amended Rules and Regulations for the Board of Examiners of Water Well Contractors and Pump Installation Contractors* were implemented. One major change was regarding Rule 14.2 (Monitoring and Observation Hole/Wells) which eliminated the possibility of converting Monitoring and Observation holes to production wells. Although upon obtaining a permit, Monitoring and Observation Holes may be converted to monitoring and observation wells, recovery wells for remediation, or dewatering wells.

Guidelines were issued by the State Engineer on September 21, 2000 regarding flexibility when determining well location on certain type of permits where the well location can be determined after well construction pursuant to Rule 6.2.3 and Rule 17.3 regarding state plane coordinate or GPS location.

There was no major legislation that affected Division 5 regarding ground water and well permitting during 2000.

Division 5 is still implementing the well construction and completion observation program by conducting random inspections by water commissioners and completing reports, which are forwarded to the Board of Examiners for review.

A well tagging program was implemented by Division 5 identifying wells which are junior to a river call but not covered by Green Mountain Reservoir Historic Users Pool, perfected by use prior to October 15, 1977.

Advances in technology are being used in the area of GIS by using data acquired from counties and using the Internet site "Colorado Counties Inc." regarding Assessor Parcel data in verifying well location, parcel size. and proof of parcel creation. Additionally, GPS location was used in the well tagging program noted above.

D. Hydrographic Program

The Division 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 6 manual and 2 satellite stations.
- Measuring, recording and publishing the streamflows for the Blue River below Breckenridge for the Colorado Water Conservation Board for minimum streamflow compliance.
- Measuring, recording and publishing the streamflows for the Roaring Fork River below Maroon Creek for the Aspen Consolidation 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 W&S District diversion for the Colorado Water Conservation Board for minimum streamflow compliance. Also, measuring the streamflows and rating the staff gage for Snowmass Creek at the Wildcat Bridge for minimum streamflow compliance.
- Measuring diversions and/or bypass flows for water commissioners for administration. Providing satellite monitoring data for diversion record purposes.
- Responding to data requests from Division 5 staff and the general public.
- Maintaining 27 satellite stations used for administrative purposes and monitoring 43 stations that are operated by other entities.
- Maintaining 3 satellite stations for the Colorado Water Conservation Board.

The responsibility of maintaining the station on Snowmass Creek was added this year. The Colorado Water Conservation District holds a minimum streamflow water right below the Snowmass W&S District's diversion that varies based on index streamflow measurements made each year by the hydrographer over a five day period (Oct. 11-15). The satellite monitoring station helps ensure that the Snowmass Ski Area's snowmaking diversion does not drop the creek below that year's minimum flow levels. In addition to this station on Snowmass Creek, the Division 5 hydrographer now must regularly measure and rate a staff gage downstream at the Wildcat Bridge to help the CWCB maintain minimum streamflows in this lower reach of Snowmass Creek.

Construction work on the cableway at the Government Highline Canal was completed this year. The bank-operated cableway was used successfully throughout the year to obtain canal flow measurements, providing an improved station discharge rating.

Division 5 hydrographers made 82 river measurements (including 32 measurements for the Fry-Ark Project) and 38 ditch/canal measurements during the 2000 hydrographic water year.

E. Water Records and Information

- **Augmentation Plan Administration**

We met with Basalt Water Conservancy District and West Divide Water Conservancy District personnel to improve data quality. With both organizations we are in the beginning stages of developing direct links of their data to our databases. We improved overall record-keeping for major augmentation plans or reservoir replacement release programs by refining water rights tabulation, e.g., assigning new administrative structure ID's to help keep track of replacement pools. Very few of the aug plan improvements or developments occurred in 2000, such as new spreadsheets and previously unobtained data, due to the dry year workload.

- **Diversion Records**

Diversion records were completed and all statistical data prepared for inclusion in the annual report. Spreadsheets continue to be used extensively by both the Glenwood staff and the water commissioners for our complex diversion systems. Due to the extensive call scenario on the mainstem and the reduced availability of staff , the diversion record workload required a substantial effort, including paid overtime, on everyone's part. The volume of data in the final reports increased nearly 50% as a result of the river calls.

- **Diversion Record Spreadsheets**

Over the past three years, all spreadsheets generating diversion records for large water users in Division 5 have been converted to MS EXCEL and standardized in several ways. These improvements have led to better quality control, faster data transfer, and a more even-handed approach to reporting reservoir and daily records for large water systems.

Standard Division 5 EXCEL diversion record spreadsheets consist of an input data sheet, monthly data sheets, a storage sheet, and output sheets. The input data sheet is often linked to user supplied spreadsheet(s) and may contain manual input. Monthly data sheets are linked to the input sheet and compute diversion amounts. Storage data sheets compute daily and monthly reservoir fills, releases, evaporation, and days released. Spreadsheets also contain graphs of reservoir storage, a comment sheet showing formulas and comments for all monthly columns, and a flow diagram of the water system. Output sheets are linked to the monthly and storage sheets, and facilitate transfer of diversions to the database. The input and output data transfer sheets will be modified to match data transfer needs of HYDROBASE.

F. Information Technologies

PC Status - In 2000, we've updated all but two water commissioners to 128 RAM, and everyone has at least an 8 GB hard drive. Three systems were updated in the field but we are looking to get one more updated for this fiscal year. These field PCs were 500 MHz or better. We also updated the printers in the field by getting 4 Canon C3500 and HPOJ520s. The backup exec is working fairly well, with an occasional failure. CD ROM backups are being done quarterly.

DIVISION 5 INVENTORY

Water Commissioner	PC type	RAM	HARD DRIVE	Windows	Monitor	Printer
Bergquist	GW P5-120	64	2G+1G	95	15"	HPOJ520
Brigham	GP7-550	128	20G	98	15"	HPOJ520
Comerer	GW P5-200	128	10G	98	15"	HPOJ520
Cox	E3000 - 166	32	8.4G	98	15"	HPOJ520
Daxton	GW P5-200	64	10G	98	15"	HPOJ520
Gepfert	GW E-4200 400	128	8.1G	98	17"	HPOJ600
Greene	P5 - 133	16	8.4G	98	15"	CANON C3500
Hummer (SVT Office)	GW E-4200 400	128	8.1G	95	17"	HPOJC2890A
Klenda	GW E-4200 400	128	8.1G	95	17"	HPOJ520
Lemon	EV - 500	128	20G	98	17"	CANON C3500
Mackey	P5-100	64	10G	98	15"	HPOJ520
McEwen	GW P5-200	64	13G	98	15"	HPOJ520
Schaffner (Div 6)	GW E-3000 550	128	10G	98	15"	HPOJ520
Thompson	GW P5-200	64	10G	95	15"	HPOJ520
Wells (GJ Office)	GP7-800	128	10G	98	17"	HPOJ-R40
Office						
Martellaro	GP7-550	128	20G	98	19"	N/A
Blair	E4200 500	256	13G	98	19"	line printer
Hitchcock	GP7-550	128	20G	98	19"	Laserjet 4
Martellaro	AMD-K6 3D+	256	19G	98	19"	N/A
Pope	E3000 200	128	13G	95	17"	N/A
Rishel	P5-90 200	64	1.6 & 2G	95	15"	N/A
Romig	E4200 500	256	18G	NT	19"	HP Plotter
Wear	Omni 2100	32	4G	95	17"	N/A
Sappington	E4200 400	128	14G	98	19"	N/A
Whitaker	E4200 400	256	10.6G	95	17"	N/A
Whitehead	E4200 400	128	8.4G	95	17"	N/A
Misc/Extras						
Conference Room	P5-133	32	1G	95	17"	HP OfficeJet 1150C
Public	P5-90	32	0.73G	95	15"	N/A
Servers						
Glenwood1	DELL 4300	512M	4G+13G	NT		
Glenwood2	GW P5-133	96M	2G+2G			
Grand Junction	GW P5-133	64M	2G			HPOJ Pro 1170cxi
Silverthorne						

Hardware - We are still in need of a digitizer for about a year to handle archiving the decreed structure locations that have been hand-plotted on our master topo maps. We currently have 12 Garmin GPS units that were passed out to each district and have one for the office, and since the selected differential has been turned off, these units are accurate enough for our use.

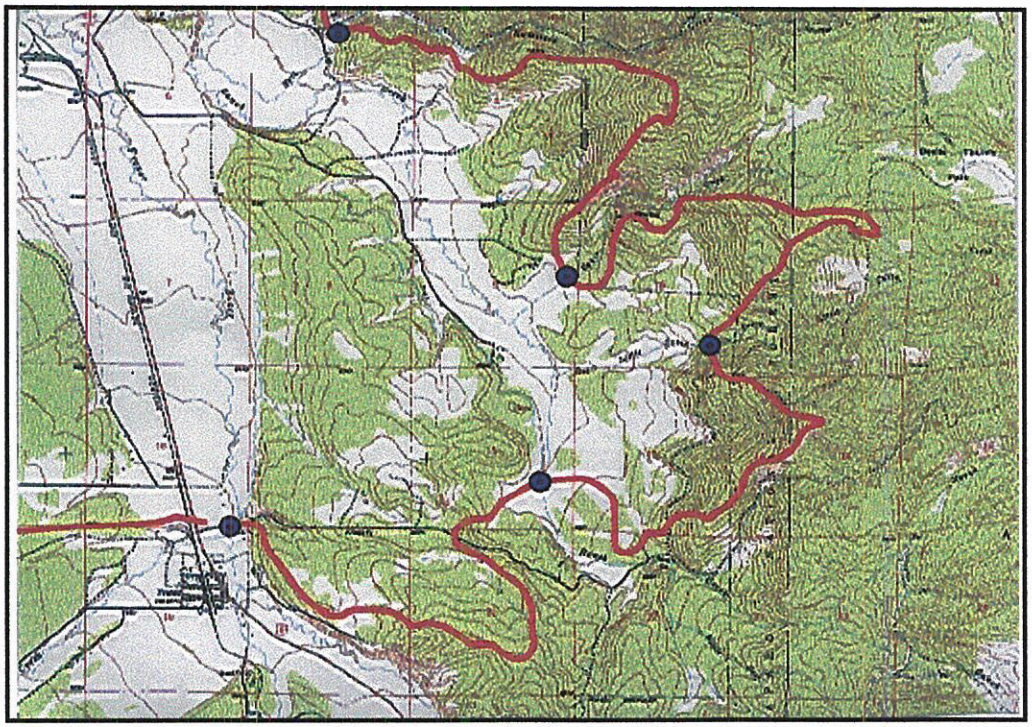
Training - Our training budget will be fully used. We have sent our personnel to training classes that include such things as PC Troubleshooting, Managerial Training, Visual Basic, and GIS seminars as well as text books and other reading material. We have set up a committee to evaluate and overlook the training budget so that we assure that our dollars are spent to best meet the needs of Division 5. We have also incorporated by-laws to follow and have sent up agendas for training each month by either in-house or guest speakers. These training sessions include everything from directory management to how to use different programs (i.e., EXCEL). We have surveys to find out what our personnel require and want to learn about as well as to post training to find out what they have learned which will be posted to our web site.

Web Page - Division 5 is in its initial stage on creating an internal web page mainly for the entire division to use. Located at " //Glenwood1/div/webpge/div5.htm " it has links to commonly used sites. It also contains information on Frequently Asked Questions as well as a place to download our various forms. It will have a section on GIS information and a page to disseminate various helpful general information. It will contain a calendar of events for scheduling purposes. River Call information will be real time on our River Call web page.

G. GIS Projects

- **A/B Area Mapping**

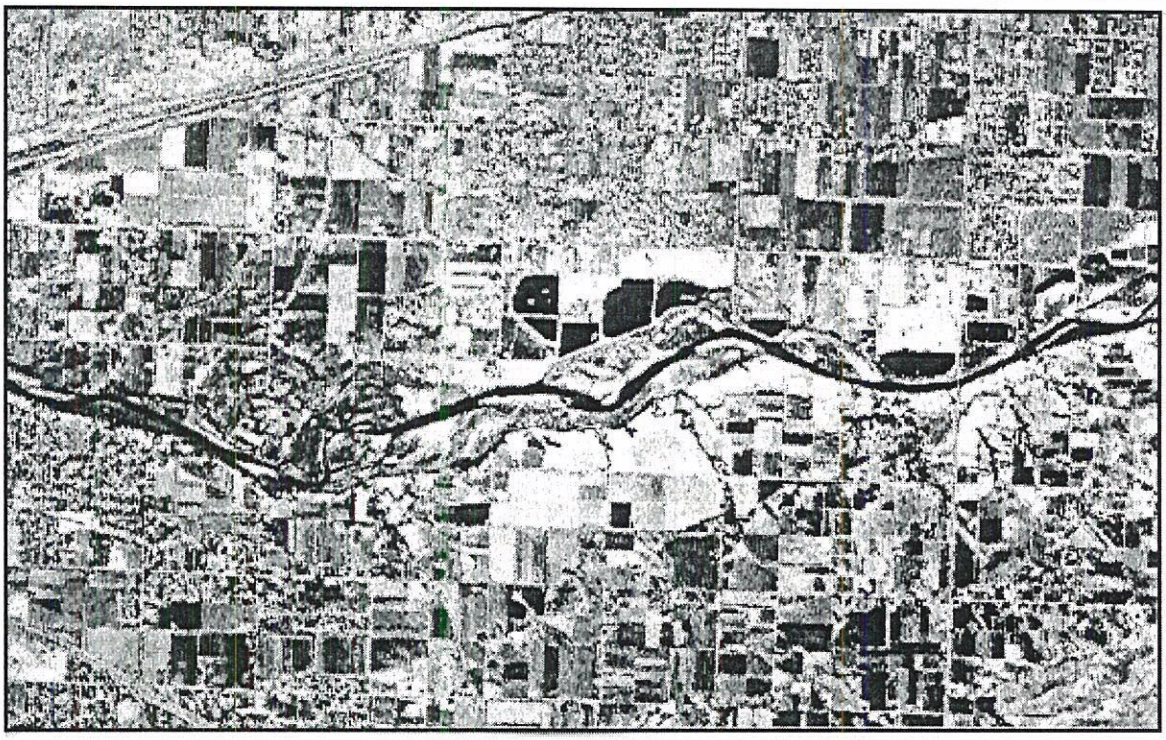
Among the major GIS projects is the mapping of our A/B boundary, water commissioner maps, and public assisted maps. The A/B boundary mapping consist of using USGS quad maps to outline the A/B area. Using the contours lines on the map, the A/B boundary goes along ridge lines and connects with key calling structures on tributaries of the Colorado River. However, our largest and most time consuming maps were done for the Irrigated Acres Project on the Western Slope in cooperation with the CWCB and USBR.



Area A lies downstream of the key calling structures, Area B is above.

- **Irrigated Acres Pilot Project**

This pilot project was initiated by CWCB to help define the methodology that the State could use to periodically update irrigated acres on a five year rotating basis. Images and Digital Orthophotographic Quarter Quadrants (DOQQs) were obtained from the USBR. The area of interest included the Clifton and Grand Junction quads. After obtaining the Multi-Spectral Sensor (MSS) imagery, it was projected into UTM, Zone 13, NAD27, Meters, and Clarke1866 along with all the shapefiles and Arc/Info coverages associated with the project.



DOQQ - 4 meter data supplied by the USBR

A Principal Component Analysis was done, which took the 6 bands of information and converted it to 2 main "principal" components. From this analysis, crop type could be determined by using ERDAS Imagine 8.4. Our training fields included 50 unsupervised and 62 supervised classes to determine about 20 different crop/non crop fields. We used the Tasseled Cap approach to determine whether a field was irrigated or not. This Tasseled Cap transformation analog highlights bands 2 & 3 which proportionately correspond to wetness and greenness values, making everything that is green and white appear white (or bright) on the image.

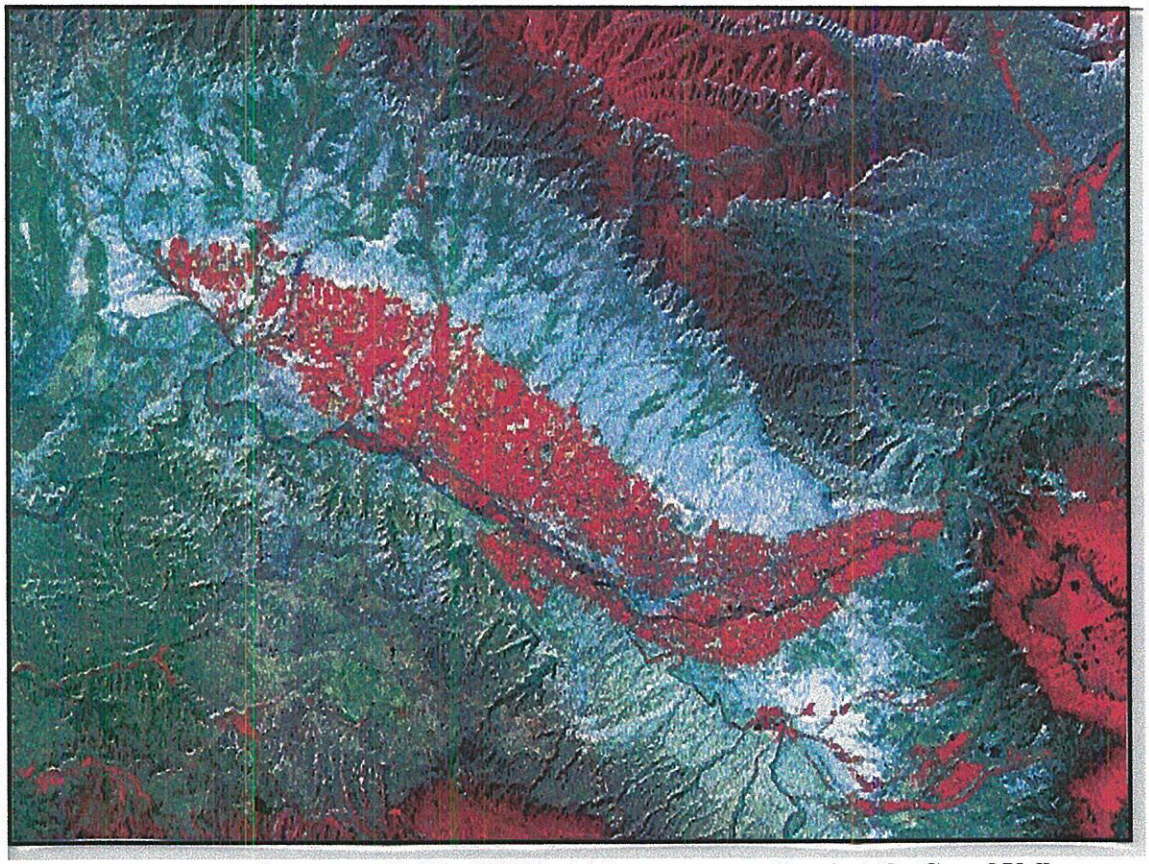
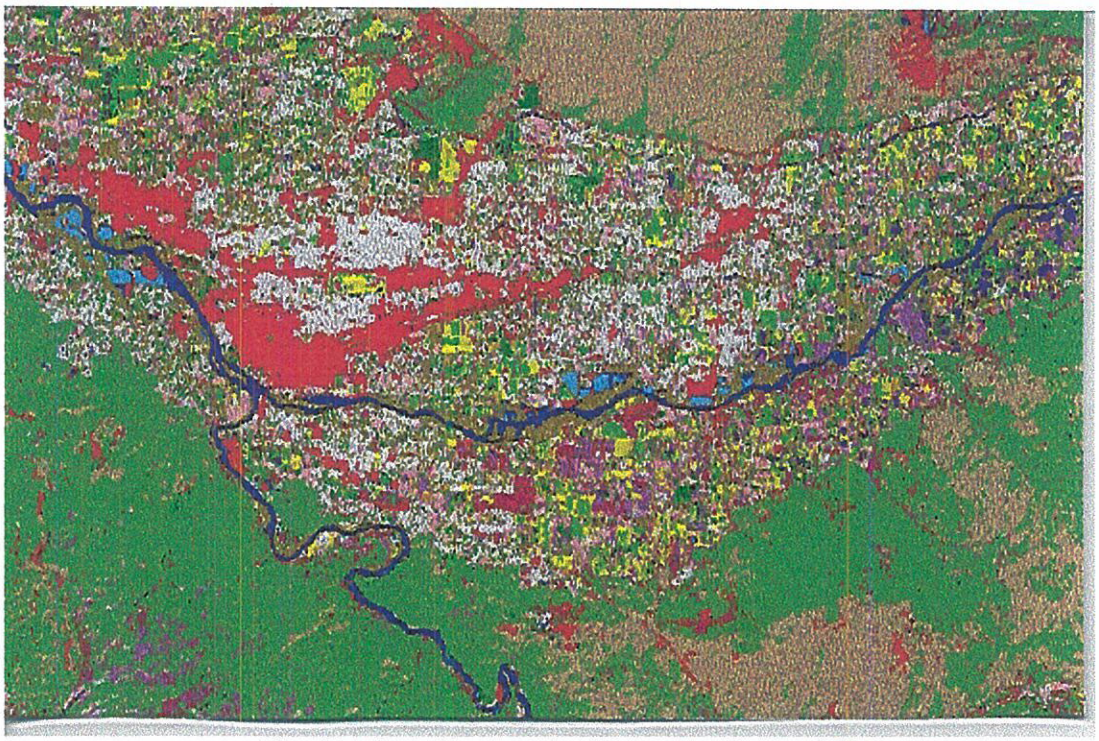


Image supplied by USBR which covers more than just the Grand Valley.

These images were vectorized and assigned a crop type or irrigation status based on the image analysis. Arc Macro Language (AML) was written to accomplish this task. New fields were created by using four meter DOQQs and hand digitizing all the fields in these two quad maps. Although all fields were created, arc lines were labeled split, reshaped, added or deleted based on how the 1993 data differed from the current data. Due to the fact that the DOQQs are topologically rectified, this process will not need to be repeated because it would be easier then to actually correct existing lines on the new database, rather than re-create it. The Arc command "Identity" then was used to bring over valuable information from the 1993 data such as Structure Number.



Classification of image using 50 unsupervised and 62 supervised classes.

After this work was completed, nine plots were created along with the methodology and suggestions for the upcoming RFP that is to go out this year. During our analysis it was determined that in these two quads 92.33% of all arcs were reshaped or adjusted to the image. 5.39% of all arcs were split to make new polygons and 2.28% of arcs were added to create new fields. There was a 36% reduction of acreage and a 14% reduction in number of fields for these two quads. However, it must be noted that the analysis was done more for defining the methodology rather than getting an accurate assessment of the area. After completion of this pilot project, Brian Romig, visited Divisions 2, 4, 5, and 7 and explained the issues and methodology for determining irrigated acres on the Western Slope.

H. Substitute Supply Plans

Twelve requests were made for approval of a substitute water supply plan during irrigation year 2000. Of these twelve requests:

- Ten were approved, and two were denied.

- Approved new requests included snowmaking use for Winter Park Ski Area, tree watering use in Summit County, increasing exchange capacity in the Blue River below Goose Pasture Tarn for the Town of Breckenridge, gas drilling uses in Garfield County for Barrett Resources, highway construction uses in Mesa County, and church building uses in Grand County;

- The Rifle Correctional Center plan was renewed;
- One new gravel pit plan was approved in Garfield County;
- Two plans were renewed for municipal use through Conservancy Districts – West Divide and Basalt Water Conservancy Districts.

I. Special Projects and Issues

CRDSS - (Colorado River Decision Support System)
The CRDSS special project for Water Division 5 is known as the Division 5 Workbook. The workbook will be the primary tool used to administer the Colorado River and for river accounting. A summary of the workbook's functions is:

1. Determine undepleted natural flow of the Colorado River.
2. Distribute the natural flow to water users in priority.
3. Determine the Colorado River call and calculate replacement releases from Green Mountain Reservoir.
4. Revise and update the Colorado River Accounting spreadsheets currently produced on a daily basis by the U.S. Bureau of Reclamation (USBR) to include new projects such as Wolford Mountain Reservoir and new water rights such as Second Fill rights at Green Mountain and Dillon Reservoirs. Integrate the revised Colorado River Accounting spreadsheet into the CRDSS workbook.
5. Maintain "owed to the river" accounting for certain specified water projects.
6. Automate the worksheet so that data from water users, water commissioners, streamflow gages, and other sources will be automatically linked to the Workbook. This will minimize the manual entry of data that now occurs. Operators of key water diversion projects will e-mail water user information to the central database on a daily basis or other time period established by the Division Engineer.
7. Upload the results of the Workbook to an FTP site, providing near real-time data to anyone interested.
8. Export diversion and storage data directly from the Workbook into the State's diversion record database without the need to keypunch the data.

During 2000 the Division 5 Workbook slowly continued its ascent into reality. Real-time electronic data - such as streamflow data from the USGS and DWR, and e-mail from four large water users (Colorado River Water Conservation District, Colorado Springs, Denver Water and the USBR) - can be accepted into the Workbook. Delays to the implementation of the Workbook for this year were encountered due to the replacement of the satellite monitoring system and the migration from Informix to Sequel Server. Once the data transfer is ready, the importer will link the data to the Workbook. Due to the heavy demands on the Information Technology group in our Denver office, deadline schedules have been modified. It is anticipated that the Workbook will be available, with provisional data during the first trial year, for water year 2001.

SWAT

Division 5 staff continued to participate in the "SWAT" team discussions involving Colorado River administration. The team consists of city, county, state, and federal officials, and was originally formed for settlement of 88CW382 as a discussion group to resolve administration of Green Mountain and other large reservoir issues. The SWAT team meetings continue as a forum to resolve some of the major issues regarding Colorado River administration, and to maintain an open dialog between the Division of Water Resources, and the major water users of the river. The meetings are generally scheduled on an as-needed basis. Many issues such as CROS, RIPRAP and Green Mountain's ring seal project were topics for discussion and coordination for the group. In addition to the informal meetings, the SWAT team co-hosted a forecasting workshop with NOAA's Diagonstic Climate Center in Boulder. Mike Gross, one of the founding fathers of the group, took the same path as Orlyn Bell and decided to try his hand at retirement.

RIPRAP (Recovery Implementation Program)

The initial operational meeting for the season was June 27th to discuss Green Mountain's HUP operations for the year. The group used the recommendation by the USFWS to set the target flows in the 15 Mile Reach at a 1240cfs monthly average. In mid-July the target flow was dropped to a monthly average of 810cfs and remained at this level for the remainder of the season. Target flows, based on the monthly averages, were met throughout the summer. The table and graph (See Appendix Outline) summarize the contributions made by each reservoir and graphically depict the impact of those releases as shown on the flows at the Palisade streamflow gage (see Graph p. 36).

In addition to releasing water for the endangered fish in the Grand Valley's 15 Mile Reach, releases were made to try and match the 1993 flows for USFWS photography of the river channel between Rifle and the State line. Based on 1993 data, flows were targeted at 1100cfs during late summer. Releases were made from Wolford and Green Mountain Reservoirs. The USFWS concluded that the enhanced flows released for this project enabled them to take photographs relative to the flows of 1993, enabling them to make relative comparisons for the fish study.

CROS (Coordinated Reservoir Operations Study)

2000 marked the fourth year of Coordinated Reservoir Operations under the Recovery Implementation Program for Endangered Fish Species in the Upper Colorado River. The objective of the program is to coordinate operations of and releases from various reservoirs to enhance habitat in the 15-Mile Reach of the Colorado River below the Grand Valley Irrigation Canal for the benefit of endangered fish species. The minimum projected flow to trigger operation is 12,900cfs in the 15-Mile Reach, determined to be the minimum needed to provide habitat maintenance/enhancement, without exceeding 26,600cfs at Cameo.

A committee was formed of several governmental agencies and water user groups in order to oversee the Coordinated Reservoir Operations. Division 5 staff serve on the committee along with

representatives of the US Fish and Wildlife Service (USFWS), National Weather Service (NWS), US 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.

The committee began meeting in April to assess spring streamflow, weather, and snowpack conditions and evaluate the potential for augmenting peak flows. Runoff forecasted on April 1st for the Colorado River near Cameo was 96% of normal. At that time conditions appeared to be favorable to enhance peak flows in the Colorado River. By late May the committee dropped plans to re-operate the reservoirs, as projected peak flows plus benefits from CROS for the 15-Mile Reach.

GVWMS (Grand Valley Water Management Study)

During each irrigation season, demands for water from the 55-mile-long Highline Canal change daily based on crop needs, irrigators' schedules, and weather. Water in the canal that is not delivered to customers is "administratively spilled" into numerous natural washes in the valley, which carry the water back to the Colorado River. Near the end of the irrigation season overall demands drop, yet many laterals need a near full canal to divert out of the canal. Studies show spills in August, September, and October average 31,400AF. The goal of the project is to significantly reduce these spills, while maintaining the ability to deliver a reliable supply of irrigation water.

The project, when constructed, will conserve Grand Valley Project water by improving efficiency of Government Highline Canal operations without interfering with delivery of irrigation water. Structural improvements to save water in the canal include piping laterals and lining the main canal as a result of the salinity control project, the construction of seven check dams in the main canal, and a bypass pipeline. These dams raise the water level in the canal, maintaining a constant operating level in the canal under varying flows. This allows deliveries to all laterals without a fully charged canal. In late summer the Palisade Pipeline - an administrative spill point - will deliver some savings to the Colorado River above the Palisade gage, approximately 9 miles down-ditch. The savings is intended to help recover endangered fish by increasing flows in this critical reach of river, or by increasing surplus water in Green Mountain Reservoir.

The Grand Valley Water Management Study (GVWMS) achieved a milestone by completing the design and specifications for the seven check structures for the Government Highline Canal and the Palisade Pipeline. The USBR in Grand Junction awarded the contract for the check structures in November 2000 and the pipeline contract was awarded in December 2000. The check structures are scheduled for completion in March 2001. When all facilities are in place, the Bureau calculated a savings of approximately 28,000AF annually. During the first year of operation in 2001, they anticipate saving half of the 28,000AF.

J. Water Court

A total of 307 water right applications were filed in Division 5 Water Court during calendar year 2000 -- 288 for the Colorado River administered by Div. 5 Water Resources and 19 for the White River administered by Div. 6 Water Resources. Of those 307 applications, 48 were applications involving new augmentation plans and 6 were to amend existing aug plans. The State and Division Engineers formally objected in 7 cases; entered 4 protests to referee rulings; and were petitioners in 1 case.

The following three cases are of special note:

1. Miners Creek
Filed by the Town of Breckenridge as Case 97CW283, resolution remained elusive this year.

The application involves a ditch that diverts from Miners Creek, a tributary of the Blue River above Dillon Reservoir. This ditch delivers water to North Barton Creek, which then flows into the Blue River at the upstream terminus of the upper Blue's instream flow. Due to the needs of three transmountain diversion, snowmaking at four ski areas, heavy resort development and minimum streamflows, the flow of the Blue River above Dillon Reservoir is the most sought water in the Colorado River Basin. By importing water into the upper Blue from Miners Creek, the minimum streamflows that limit exchanges in this area may be mitigated.

This case has some very interesting issues concerning the appropriation of minimum streamflows, including which flows can be considered for determination [CRS37-92-102 (3)] "...to preserve the natural environment to a reasonable degree...any such appropriation shall be subject to the present uses...whether or not previously confirmed by court order or decree." The CWCB asserts the flows were in the Blue River gage unused at the time of the instream flow appropriation, and would prefer the diversion continue to augment the flows of the upper Blue. The applicant's positions remain that the diversion pre-dates the Miners Creek ISF, and therefore is a pre-existing condition on Miners Creek, and yet believes the diversions don't belong to the ISF at the Blue River gage. The Division of Water Resources maintains the Miners Creek diversion is out of priority and must be returned to Miners Creek unless an exchange is decreed together with an appropriate replacement or augmentation source.

The CWCB and Breckenridge are working on a stipulation that must be acceptable to the State and Division Engineers.

2. In the Matter of the United States of America for Reserved Rights in Rocky Mountain National Park in Grand County.
The Final Decree, signed on October 8, 2000 by Judge Ossola, grants reserved rights for the purposes of the National Park reservation for virtually all possible uses within the park boundaries.

The rights were broken down into three types: (a) Diversions and Impoundments cover three structures that relate back to 1915 and have traditionally defined water rights. (b) The second group is Future Diversions, which is limited to 100AF of total diversions. Prior to any diversion or use of any future diversion, the Park Service is required to submit to the State Engineer information required of a surface water application or well permit. (c) The third group is In-Place Uses, including all surface and ground water for the purposes of maintaining the Park in its natural condition. These are basically instream flows, minimum lake levels, protection of wetlands, etc.... The amount appropriated is all the unappropriated waters of the Park at the time of the various reservations set-aside for the Park (four reservations from 1915 through 1980).

3. State Engineer and Deak Price v. Sunlight Water Company, et al.

In this case the State Engineer filed a petition to set aside decreed water rights based on fraud. The central issue was to remove water rights that were granted for the purposes of speculation. The water rights include a 444AF storage decree and a 2cfs direct flow right to import water into the heavily overappropriated Four Mile Creek near Glenwood Springs. The owners acquired these rights for use on their own property as well as for sale for augmentation and direct flow purposes. An order by Judge Doucette was signed on May 17, 2000, accepting a motion to dismiss and implementation of a stipulation by the parties. The stipulation limited use of the right in the Four Mile Basin to 1cfs for stock and irrigation on 20 acres owned by the applicants and for existing contracts. All decreed uses were retained for the Three Mile Basin, but were limited to the 120 acres owned by the applicants.

K. Tabulation

The tabulation backlog has steadily grown over the past few years. The tabulation backlog was in excess of 1600 decrees by the end of the year in 2000. With allocated funds, Division 5 was able to provide winter work for a few of the part time water commissioners to assist with the tabulation. Due to the dedication of the water commissioners who have assisted with this project, the backlog has been reduced to under 1300 decrees. To date there have been over 500 decrees tabulated during this period which started in mid-January. We anticipate that this process will continue into May and that additional progress will be made towards eliminating the tabulation backlog. The goals for this period have been to completely eliminate backlog in Districts 39, 45, 50, 51, 52, 53, 70, and 72. In addition to eliminating the backlog in these eight Districts, we would like to reduce the backlog in Districts 36, 37, and 38 by half. We anticipate the majority of the water commissioners assisting in this project in the next two months.

The following table summarizes the existing backlog and the progress that has been made to this point.

Division 5 Tabulation Backlog

Water District	Backlog As Of 12/1/00	New Decrees As of 3/1/01	Total Untabulated Decrees	Decrees Tabulated As of 3/1/01	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**

L. Abandonment List 2000

As required by statute, Division 5 prepared and submitted to the Water Court our 2000 Abandonment List. A total of 201 Water Rights were placed on the 2000 Abandonment List with Return Receipt Certified Mail being sent to 177 last known owners of record for water rights on the list. Several FTE hours were used researching structures with no historic records, queries of current-in-use codes, ownership research, field inspections verifying locations, photographs and non-use.

M. Personnel and Budget Issues

a. Staffing Changes

Many personnel changes occurred in calendar year 2000, which are outlined below:

- Feb 7 – Brian Romig transferred into Tech II GIS/Computer position from Denver DWR.
- Mar 21 – Larry Gepfert promoted to Tech II from Div. 5 Tech I Wtr Commissioner, District 38.
- Mar 21 – Nancy Hitchcock promoted to Program Asst I from Admin Asst III.
- May 16 – Judy Sappington promoted to PE II River Administrator from PE I Div 5 Hydro.
- May 16 – Joe Bergquist, Tech II Wtr Commissioner, District 38, went on medical leave.
- May 17 – Kasi Rishel hired to part-time Admin Asst I position.
- Aug 1 – Sam Neth hired as temporary Water Commissioner in District 38.

- Aug 22 – George Wear promoted to PE I Hydro position from EIT-1 Div 5 Aug Plan Coordinator.
- Sept 20 – Kyle Whitaker hired to Aug Plan Coordinator from Denver private firm.
- Sept 30 – Orlyn Bell, Division Engineer, promoted to retirement from Div. 5 office.
- Nov 21 – Alan Martellaro promoted to Division Engineer from Div 5 Assistant Div Engineer.

This list represents a significant change in an organization of our size. These changes do cause a loss of institutional knowledge and experience but are usually offset by new energy attacking the challenge and by professional growth. The larger issue is the lengthy process to fill vacant positions, creating demands on the remaining staff, which often places our operation in a crisis mode—dealing with the urgent and important issues only. This builds a backlog of projects and tasks that are very important, but at the time don't appear urgent.

b. Impact of the Budgets on Operations

An increase in operating to offset last year's increase in private vehicle mileage was approved. This addition along with operating fund adjustments from the hydrographic allocation, the groundwater management fund, and the operation of gages in Aspen and Summit County continue to provide adequate operating funds for the Division. The impacts of a dry year can be stretched over two fiscal years. Belt tightening may occur in FY2001, if below average precipitation persists.

Dam safety expenditures continue to grow above the $2600 amount originally transferred to the Division 5 operating budget when Dam Safety was decentralized.

For the third consecutive year, the Division 5 Water Commissioner overtime budget was fully spent during FY2000. The use of comp time provides the cushion needed to comply with the Fair Labor Standards Act. In most cases the comp time is a deserved reprieve for overworked employees, but often the time-and-a-half off is self defeating, and may create the need for additional overtime in the future.

c. Operational Concerns

Training for technical operations relating to computer hardware and commercial software among Division staff is adequate. The Division has not provided adequate training for agency specific tasks. The resources have simply not been set-aside, from either a shortage of personnel or from the operating budget. Through planning and possibly the cooperation of other Divisions and the Denver office, this training must be provided.

Quality control and data handling capability with systems designed for user-supplied data is becoming increasingly important. As previously noted, obtaining user-supplied data from small water user groups is problematic but is equally difficult to obtain the data timely from the larger and more sophisticated water users. Developing methods and systems to overcome these issues is one of our challenges ahead.

Continued growth in the basin continues to multiply the number of small tracts. These tracts often are tied to plans of augmentation that place special demands on our Water Commissioners. Numerous water users now irrigate on smaller and smaller pastures where the large field was once irrigated by a single farmer. The irrigation may be through the original ditch where each irrigator demands the time of the Water Commissioner once demanded by the lone farmer. But often the irrigation is accomplished through transfers or alternate points to a pump on the lot owner's property, redoubling the Water Commissioners' workload.

II. 2001 WATER YEAR

Following a moderately dry year, and with snowpack throughout the winter never reaching 80% of normal, the Division 5 staff and water users are bracing for shortages. Without above normal precipitation in the coming months, it is unlikely that CROS will be operated, and RIPRAP target flows in the 15-Mile Reach will be in the 810cfs range of late summer 2000. We are expecting a heavy workload early in our normally over-appropriated stream. This will reduce dramatically as flows in these streams drop in early summer. At this time the workload will pick-up in areas not normally heavily administered.

Green Mountain Reservoir went through Year One of a three year project to renovate the two ring seal gates at the dam. From mid-July through mid-August work was successfully completed on removing one ring seal and sent to Grand Coulee for repair. During the summer of 2001 this renovated ring seal gate will replace the second gate which will be sent out for repair. The project is anticipated for completion in summer 2002 when the second gate is re-installed. The time schedule for each year is dependent on fill conditions for Green Mountain. In 2000, the Colorado River Water Conservation District with Wolford Mountain and Denver Water with Williams Fork Reservoir agreed to provide backup storage in the event the ring seal work prevents Green Mountain from meeting its obligations to the West Slope. The projects for 2001 to date indicate that Williams Fork may not fill. This may block a similar agreement in the coming summer. During the construction period, the Green Mountain power call is not in effect but the Blue River is still subject to calls from the mainstem of the Colorado River.

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 decenennial abandonment list,
Performing well inspections,
Inspecting dams and reservoirs,
Reviewing water rights applications.

B. Special Projects and Work Items for 2001

- **Spreadsheets**

The existing diversion record spreadsheets have been modified to follow a consistent format to allow data transfer from HYDROBASE via the CDSS Division 5 Workbook. Neither HYDROBASE nor the Workbook is functioning. Once completed, the link between them and the spreadsheets will be developed.

- **Large User Accounting**

Many large water users provide diversion and reservoir information in formats or based on assumptions that require major adjustments before diversion/reservoir records are finalized. In a continuing effort, water user meetings will be scheduled so that required data attributes and formats can be established with negotiations required in some cases. CDSS and HYDROBASE are both somewhat dependent on this happening. The CDSS workbook will require Denver and the US Bureau of Reclamation to enter diversion and storage data into a template which is compatible with our diversion record format.

- **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.

- **Diversion Records**

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.

The collection of timely and accurate user-supplied data is one of the most difficult and time-consuming issues involving diversion records. Many of the records are collected from small water

user groups such as homeowners associations or loosely tied neighbors with well-sharing or augmentation-source-sharing agreements. These small groups tend to often change ownership or at least the person in charge. Continual introduction and training place heavy demands on our Water Commissioners. During this coming year we will begin a brainstorming/training process to improve our effectiveness in making requests of all water users. We hope to develop some innovative approaches to this problem.

- **Abandonment List**

Protests to the 2000 abandonment list must be reviewed and follow-up field inspections conducted in preparation of submitting the revised Abandonment List to the Water Court on December 31, 2001. Division 5 staff are compiling data and making revisions. Many follow-up inspections must wait until summer. A revised Abandonment List will be timely submitted to the Court.

C. Personnel, Budget, and Operations

The reliance on technology to keep up with an ever increasing workload continues to require more in-time desktop support, network administration, hardware and software replacement, training, and specific software skills. The demands make it imperative that Division 5 staff consist of at least a full-time IT professional.

HYDROBASE awaits the development of the Data Entry Tools. Until they are developed staff time will be consumed QC'ing data to be ported into HYDROBASE. This data is used by the CDSS tools and is incomplete almost before it is available. This discourages the use of the CDSS tools, and will require retraining of these tools when HYDROBASE has real-time data.

Development of higher top end steps in the career path for our top technicians would improve employee job satisfaction. A common suggestion is to develop Physical/Science Researcher Scientist positions, tailored for Water Commissioners ready for advancement in the Water Resource field but lacking an Engineering or Geologist degree that generally allow the advancement in the Division of Water Resources.

Information technology has increased the man-hours needed for computer support within the Division office. Currently the Division has that support through an Engineering Phy/Sci Tech II position. With more in-house computer expertise, there has been less reliance on Denver computer support staff. The concern is retaining or future recruitment of similar high quality expertise. The Division devotes a fair amount of resources training all new employees and, therefore, is very interested in retaining them.

D. Dam Safety Items of Concern for the Future

The trend for an increase in dam safety problems has decreased the amount of time the Dam Safety Engineer can spend on other needed dam safety work. Also, the other staff members to a major degree and the Dam Safety Engineer to a minor degree have been needed on other work items in the Division at an increasing rate, such as the tabulation, augmentation plans, and the abandonment list. As a result, about 30 dams identified over the last several years as needing their hazard ratings checked have not been done. It is estimated that it will take about 25 to 30 man-weeks to accomplish this. This does not include training time if other personnel are to be used. Also, a legislative audit recommended that designated recreational areas should be considered in the hazard ratings. **This will increase** the number of hazard evaluations to do dramatically. **This will also increase the number of inspections to do as the hazard rating is increased.** This last year, only one hazard evaluation was accomplished and this was in conjunction with the one incident that occurred and was not even on the aforementioned list.

Another recommendation by the legislative audit was to curtail routine inspections of dams inspected by the federal government and the Denver Water Board. This was intended to decrease the Dam Safety Engineer's workload but in reality has increased it. We have not regularly inspected the dams owned by the Bureau of Reclamation, Bureau of Land Management, and the Denver Water Board in the past, so there is little impact by not doing these. The Bureau of Reclamation, as an indirect response to the audit because they do not *own* the Collbran Project Dams, has relinquished their past inspection responsibilities of these dams to us. *This suddenly places an additional inspection burden in Division 5 of 9 class1, 1 class 2, and 5 class 3 dams associated with this project.* In addition, many of these dams are very old and will likely develop problems in the future. Many will also need outlet inspections, hazard evaluations, and other engineering studies as the Bureau has maintained different standards for these dams for several years now.

Another item of concern is the health and recovery of our Dam Safety Engineer John Blair after his vehicular accident. It is unknown at this time if he will be able to perform all inspection duties in the future. It is certain he will not be able to do all the normal duties this next year. This will put an additional burden on other Division 5 personnel and other dam safety engineers.

APPENDICES

WATER COURT ACTIVITIES

CALENDAR YEAR 2000

Applications Made to Water Court...(00CW...).	307
Div 5 DWR - Colorado River.....	288
Div 6 DWR - White River.....	19
No. of Consultations With Referee.....	293
No. of Complaints.....	0
No. of Withdrawn Cases.....	6
No. of Dismissals.....	7
No. of Denials.....	0
No. of Deletions From 1990 Abandonment List	1
No. of Protests To 1990 Abandonment List.....	0
No. of Protests To 2000 Abandonment List.....	18

NO. OF CASES DECREED BY WATER COURT 217 (see breakdown below)

TYPE OF DECREE	# Cases (excluding combinations)	# Structures (excluding combinations)
Findings of Diligence on Conditional Rights	47	62
Cancellations of Conditional Rights	13	12
Conditional Rights Made Absolute	11	12
Surface Water Rights Adjudicated	23	37
Underground Water Rights Adjudicated	10	14
Water Storage Rights Adjudicated	13	25
Plans for Augmentation Adjudicated	5	11
Changes of Water Right Adjudicated (includes location, use, and/or amount)	24	61
Instream Flow Rights Adjudicated	4	4
Amend Augmentation Plans	1	144
Confirm Water Rights	2	3
Exchanges	1	7
Combination Cases (includes combinations of above)	62	194
U S of America Reserved Rights - CA-1768	1	Innumerable*
Total:	**217**	**586**

* not included in Total

RIVER CALLS

SUMMARY OF COLORADO RIVER CALLS

2000 WATER YEAR

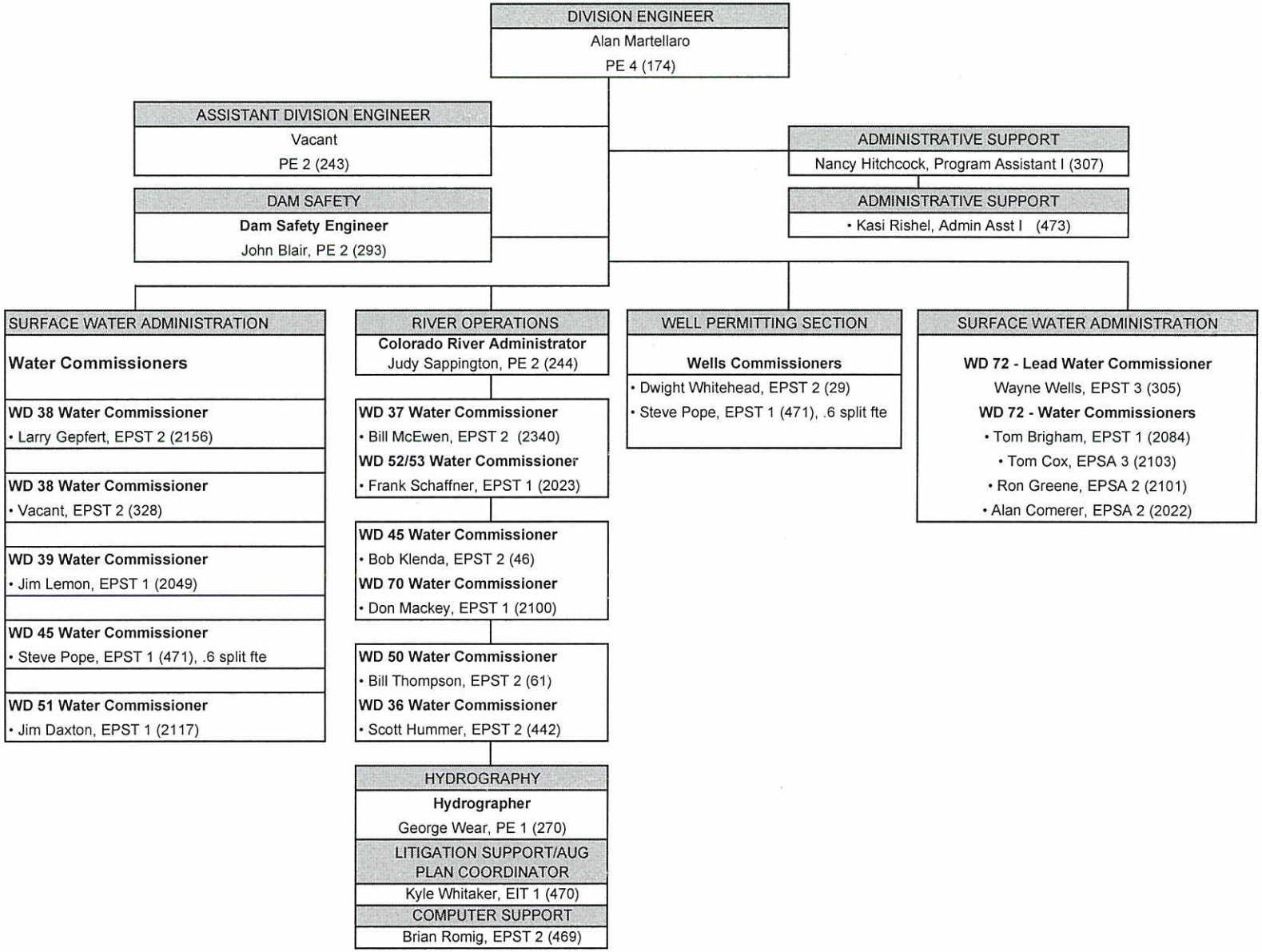
COLORADO RIVER MAINSTEM
GOVERNING CALL ABOVE
SHOSHONE POWER PLANT
(DISTRICTS 36, 37, 50, 51, 52, 53)

DATE ON	DATE OFF	NO. DAYS CALL ON	CALLING WATER RIGHT	DECREED AMOUNT	ADMINISTRATIVE NUMBER
04/03/00	04/07/00	4	Shoshone Power Plant	1250 cfs	20427.18999
04/07/00	04/10/00	3	Shoshone Power Plant	158 cfs	33023.28989
07/20/00	08/02/00	13	Shoshone Power Plant	158 cfs	33023.28989
08/02/00	08/19/00	17	Shoshone Power Plant	1250 cfs	20427.18999
08/19/00	08/23/00	4	Shoshone Power Plant	158 cfs	33023.28989
08/23/00	08/28/00	5	Shoshone Power Plant	1250 cfs	20427.18999
08/28/00	09/08/00	11	Shoshone Power Plant	158 cfs	33023.28989
09/08/00	09/23/00	15	Shoshone Power Plant	1250 cfs	20427.18999
09/27/00	10/30/00	34	Shoshone Power Plant	1250 cfs	20427.18999

COLORADO RIVER MAINSTEM
GOVERNING CALL ABOVE CAMEO DIVERSIONS
AND BELOW SHOSHONE POWER PLANT
(DISTRICTS 38, 39, 45, 70, 72)

DATE ON	DATE OFF	NO. DAYS CALL ON	CALLING WATER RIGHT	DECREED AMOUNT	ADMINISTRATIVE NUMBER
07/29/00	08/09/00	11	Grand Valley Irrigation Co	119.47 cfs	30895.23491
08/09/00	08/19/00	10	Grand Valley Water Users Assn	730.0 cfs	22729.21241
08/19/00	08/28/00	9	Grand Valley Irrigation Co	119.47 cfs	30895.23491
09/08/00	09/13/00	5	Grand Valley Irrigation Co	119.47 cfs	30895.23491
09/13/00	09/23/00	10	Grand Valley Water Users Assn	730.0 cfs	22729.21241
10/03/00	10/16/00	13	Grand Valley Water Users Assn	730.0 cfs	22729.21241

Colorado Division of Water Resources
Division 5 Organizational Chart
03/19/2001



OFFICE ADMINISTRATION AND WORKLOAD MEASURES

PERSONNEL

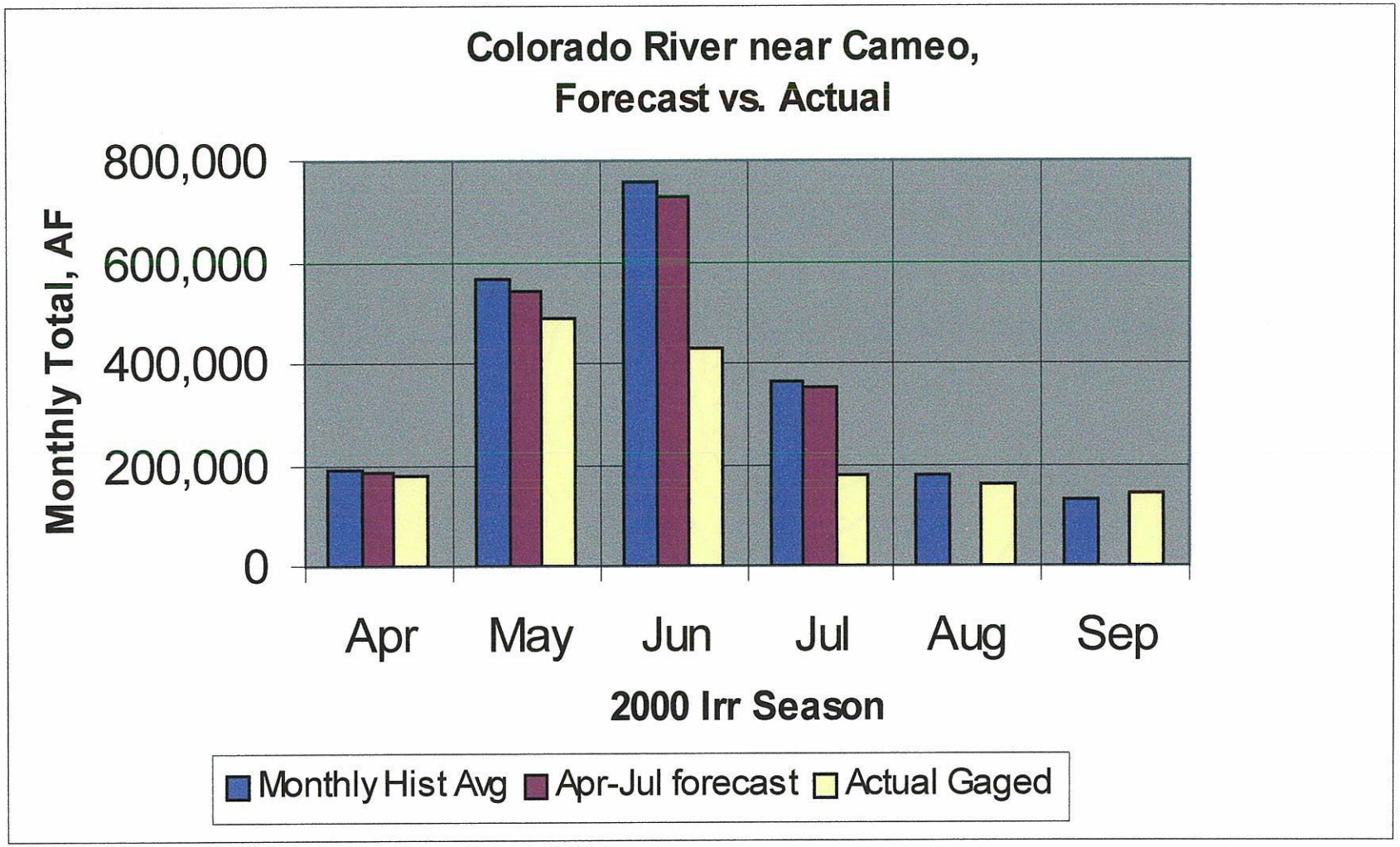
NAME	WORKING TITLE FY 2000	DISTRICT	FY 00 MONTHS 7/1/99 - 6/30/00		FY 00 MILES DRIVEN	
OFFICE STAFF			Budgeted	Worked	2 wheel	4 wheel
Orlyn Bell	PE IV Division Engineer		12	12		
Alan Martellaro	PE III Assistant Division Engineer		12	12	973	
Bob McCabe	PE II River Administrator, retired 12/13/99		12	4.5		389
Judy Sappington	PE I Hydro/PE II River Administrator 5/16/00		12	12		
John Blair	PE II Dam Safety Engineer		12	12	389	
Dwight Whitehead	EPST II Wells Commissioner		12	12	401	
Steve Pope	EPST I Wells & Wtr Commissioner	Office/45	12	12	7634	1612
Brian Romig	EPST II GIS and IT Support 2/7/00		12	12	955	
George Wear	EIT-1 Aug Plan Coordinator		12	12	362	
Nancy Hitchcock	PA I Program Assistant		12	12	413	
Bonnie Mills	AA I Admin Asst 12/15/99-3/29/00		12	3.5		
Kasi Rishel	AA I Admin Asst 5/17/00			1.5		
FULL TIME EMPLOYEES IN THE FIELD						
Scott Hummer	EPST II Water Commissioner	36	12	12		
Joe Bergquist	EPST II Water Commissioner	38	12	6.25	1457	
Larry Gepfert	EPST II Water Commissioner	38	12	12	5058	1008
Bob Klenda	EPST II Water Commissioner	45	12	12	226	5
Bill Thompson	EPST II Water Commissioner	50	12	12	3070	4498
Wayne Wells	EPST III Water Commissioner	72	12	12		
PERMANENT PART TIME EMPLOYEES IN THE FIELD						
Bill McEwen	EPST II Water Commissioner	37	11	11	3994	328
Jim Lemon	EPST I Water Commissioner	39	9	9	8138	
Jim Daxton	EPST I Water Commissioner	51	8	8	10364	725
Frank Schaffner	EPST I Water Commissioner	52/53	8	8	6086	2009
Don Mackey	EPST I Water Commissioner	70	8	8	10699	646
Tom Brigham	EPST I Water Commissioner	72	10	10	2951	11699
Alan Comerer	EPSA II Water Commissioner	72	6	6	3188	2274
Tom Cox	EPSA III Water Commissioner	72	9	9	581	6064
Ron Greene	EPSA II Water Commissioner	72	6	6	3969	3382
	Total Worker Months:		**279**	**258.75**		
	Total FTE:					
	Subtotal Reimbursable Miles Driven:				**70908**	**34639**

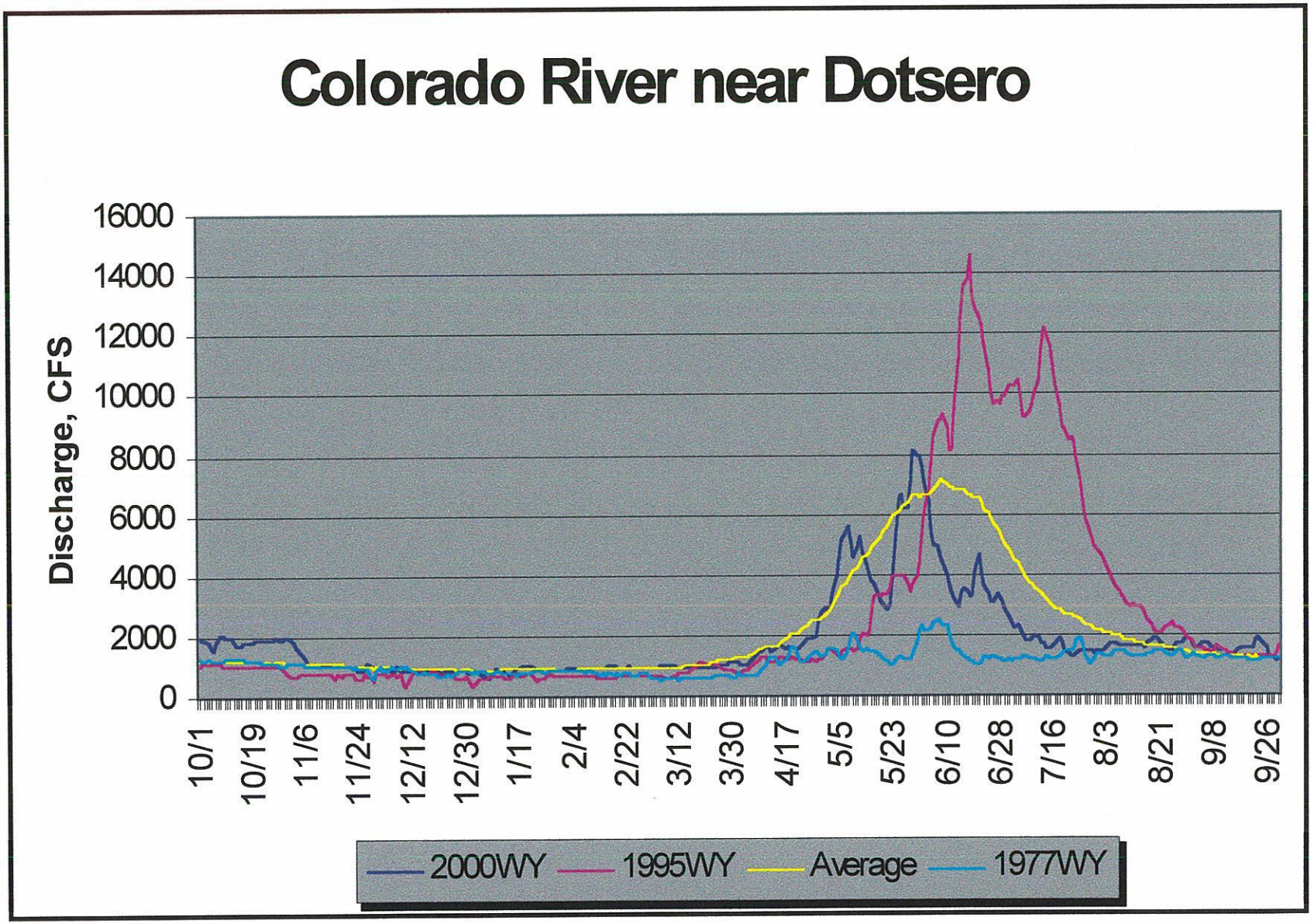
ACTIVITY SUMMARY

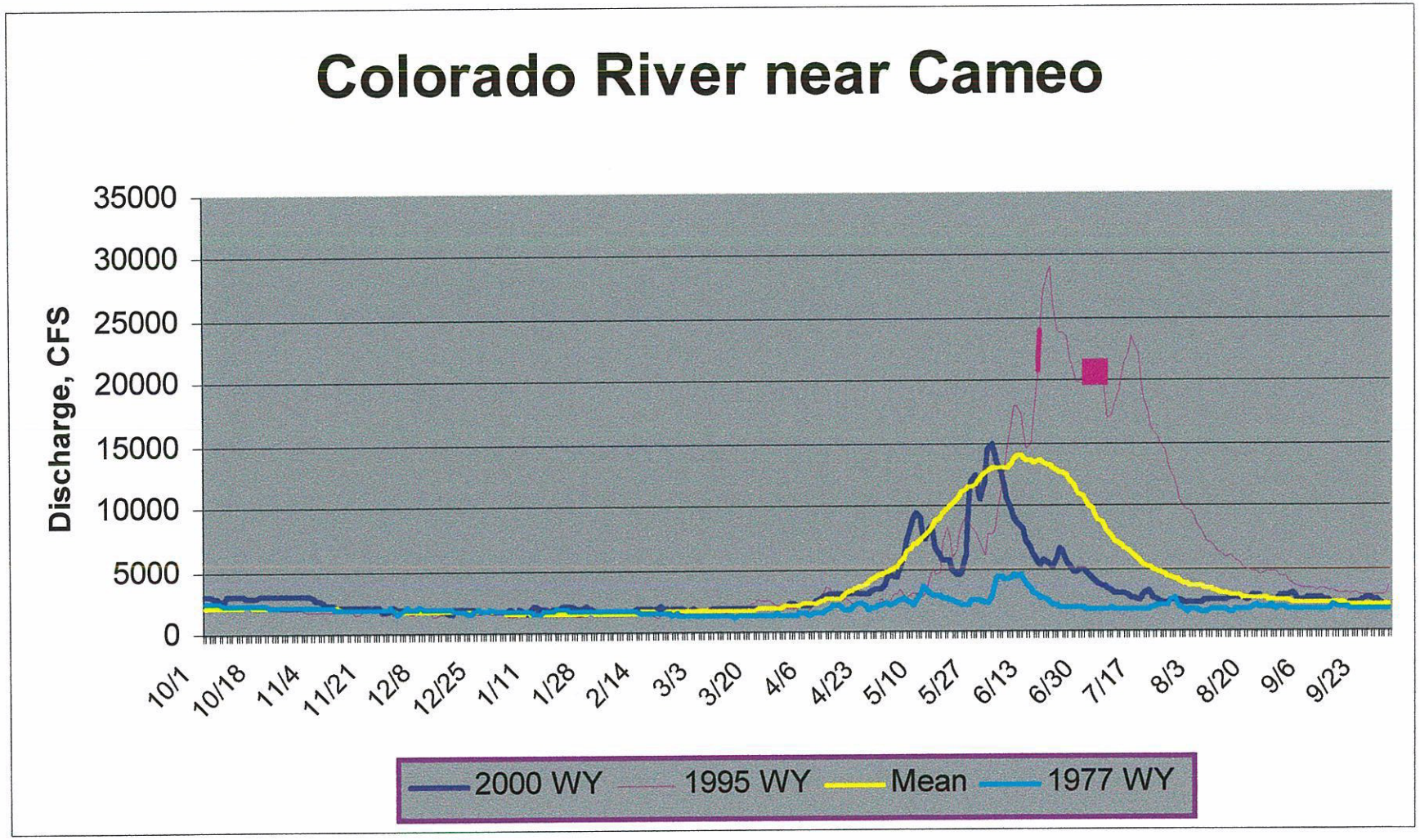
CALENDAR YEAR 2000

ACTIVITY	TOTALS
Professional and Technical Staff (FTE)	5.0
Clerical Staff (FTE)	1.575
Water Commissioner FTE (Full/Part Time)	6 / 9.25
Decreed Surface Water Structures	
Surface Rights Administered (Site Visits) (from time sheets)	14,054
Number of Decreed Wells	
Consultations With Referee	293
Water Court Appearances (from time sheets)	0
Meetings With Water Users (Public Meetings) (from time sheets)	120
Meetings To Resolve Water Related Disputes	Not on time sheets
Contacts to Give Public Assistance on Water Matters ** (from time sheets)	Total Contacts** (7,027 personal contacts) (16,637 phone/letter/FAX)
Dams Visited (from time sheets)	1,794
Wells Visited (from time sheets)	320
Surface Structures Administered by Phone (from time sheets)	281

** Contacts - Excludes Office Exempt Staff and 3 Office Tech Positions


Colorado River near Cameo,
Forecast vs. Actual
Monthly Total, AF
800,000
600,000
400,000
200,000
0
Apr
May
Jun
Jul
Aug
Sep
2000 Irr Season
Monthly Hist Avg
Apr-Jul forecast
Actual Gaged


Colorado River near Dotsero
Discharge, CFS
16000
14000
12000
10000
8000
6000
4000
2000
0
10/1
10/19
11/6
11/24
12/12
12/30
1/17
2/4
2/22
3/12
3/30
4/17
5/5
5/23
6/10
6/28
7/16
8/3
8/21
9/8
9/26
2000WY
1995WY
Average
1977WY


Colorado River near Cameo
Discharge, CFS
35000
30000
25000
20000
15000
10000
5000
0
10/1
10/18
11/4
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7/17
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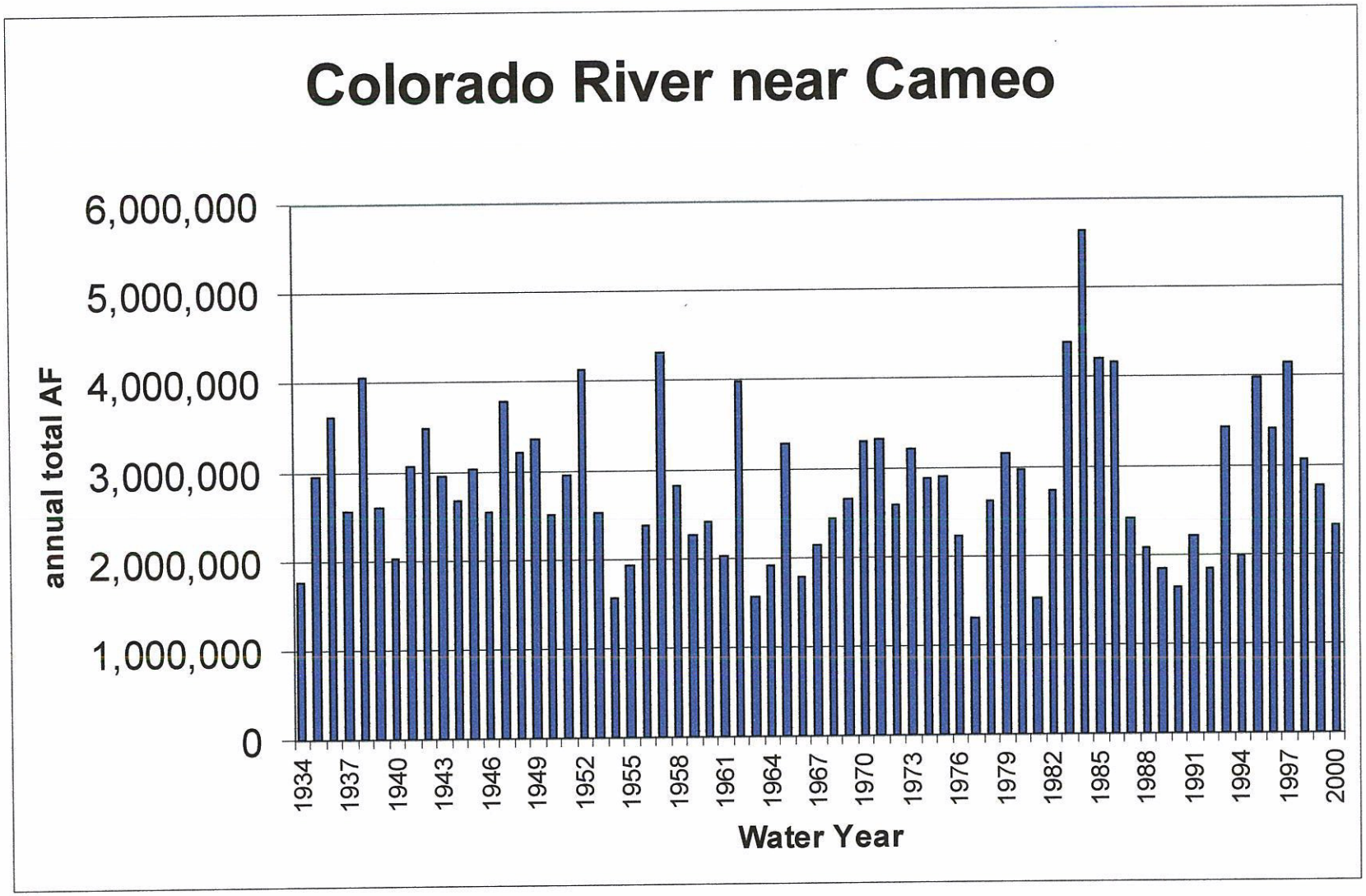
9/23
2000 WY
1995 WY
Mean
1977 WY


Colorado River near Cameo
annual total AF
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1934
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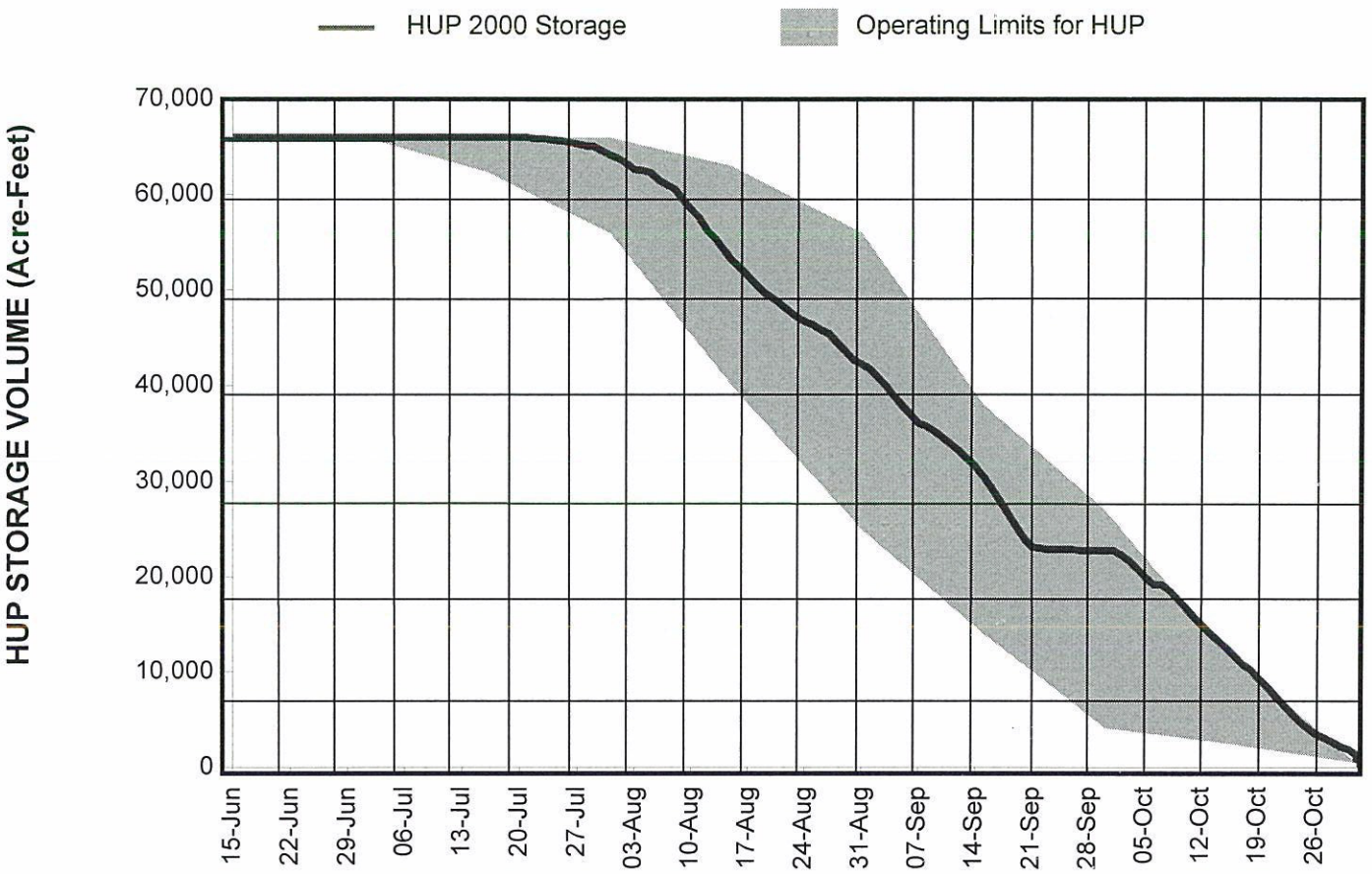
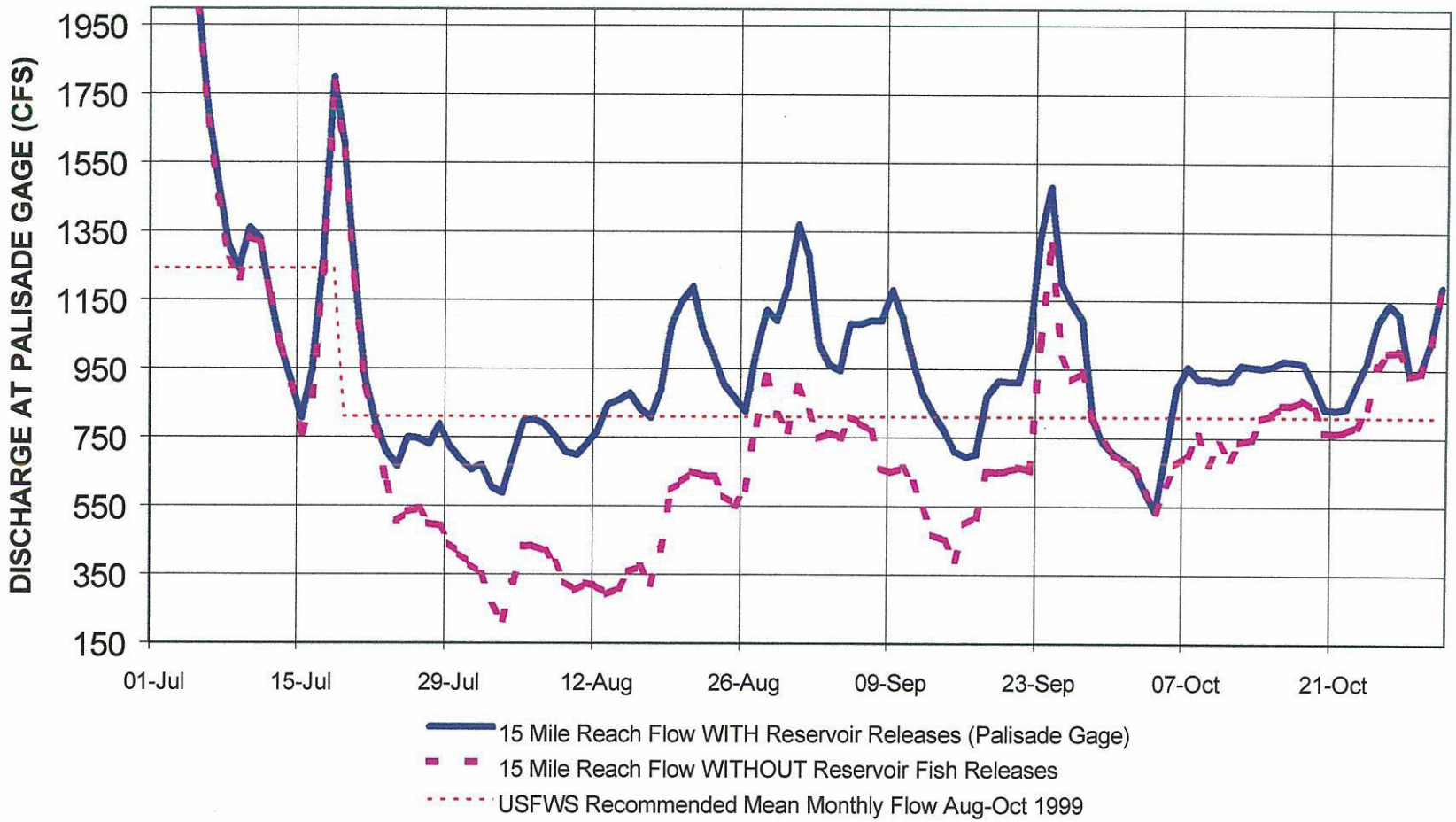
2000
Water Year

2000 GREEN MOUNTAIN RESERVOIR HUP OPERATIONS



IMPACT OF LATE IRRIGATION SEASON RESERVOIR RELEASES IN THE 15 MILE REACH
(As Measured at the Colorado River at Palisade Gage)
2000 LATE SUMMER/FALL



2000 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	249.5	348.7	200	365	11		ARKANSAS RIVER
38	4682	ROARING FORK BYPASS	ROARING FORK	1846.6	341.3	1580	362	11		TWIN LAKES
45	4657	DIVIDE-HIGHLINE	DIVIDE CREEK	941.5	44.6	751	26	40		CLEAR FORK MUDDY
50	4600	SARVIS CREEK DITCH	RED DIRT CREEK	781.4	92.5	26	26	58		SARVIS CREEK
53	4716	DOME CREEK DITCH	EGERIA CREEK	291.8	75	213	75	58		BEAR CREEK
53	4715	STILLWATER DITCH	EGERIA CREEK	1908.7	102.5	3072	81	58		BEAR CREEK
72	4713	REDLANDS POWER	COLORADO RIVER	542004.7	356	557536	361	42		GUNNISON RIVER
72	4711	GRAND JUNCTION	COLORADO RIVER	6307	362.5	10249	366	42		KANNAH CREEK
72	4712	FRUITA WATER WORKS	COLORADO RIVER	0	0	0	0	73		LITTLE DOLORES
					TOTAL:	573627				

2000 TRANS MOUNTAIN DIVERSIONS - OUTFLOWS

RECIPIENT								SOURCE		
WD	ID	Name	Stream	10-Year Average		Current Year		WD	ID	Stream
				AF	Days	AF	Days			
7	4658	STRAIGHT CREEK	CLEAR CREEK	289.4	365.3	220	366	36		STRAIGHT CREEK
7	4626	VIDLER TUNNEL	CLEAR CREEK	637.7	69.4	332	67	36		SNAKE RIVER
23	4685	BOREAS PASS DITCH	TARRYALL CREEK	167	57.3	124	43	36		BLUE RIVER
23	4699	HOOSIER TUNNEL	MAIN FORK OF SO. PLATTE	9325.5	139.3	9295	34	36		BLUE RIVER
80	4684	ROBERTS TUNNEL	MAIN FORK OF SO. PLATTE	64689	252.1	94768	304	36		BLUE RIVER
11	4641	COLUMBINE DITCH	TENNESSEE CREEK	1811.9	99.3	1742	82	37		SO. FORK OF EAGLE
11	4642	EWING DITCH	TENNESSEE CREEK	1083.1	131.4	1024	99	37		SO. FORK OF EAGLE
11	4614	HOMESTAKE TUNNEL	SO. PLATTE VIA ARKANSAS	27333	95.6	24137	81	37		HOMESTAKE CREEK
11	4648	WURTZ DITCH	TENNESSEE CREEK	2853.7	112.5	2603	97	37		SO. FORK OF EAGLE
11	4625	BOUSTEAD TUNNEL	LAKE FORK CREEK	61859	363.5	50681	366	38		FRYING PAN RIVER
11	4613	BUSK-IVANHOE TUNNEL	LAKE FORK CREEK	4736.4	193.3	5208	169	38		FRYING PAN RIVER
11	4617	TWIN LAKES TUNNEL	LAKE FORK CREEK	39795	363.7	41854	366	38		ROARING FORK RIVER
3	4601	GRAND RIVER DITCH	CACHE LA POUDRE RIVER	17968	111.9	18673	165	51		NO. FORK COLORADO
4	4602	EUREKA DITCH	CACHE LA POUDRE RIVER	25.3	19.3	0	0	51		NO. FORK COLORADO
4	4634	ALVA B ADAMS TUNNEL	BIG THOMPSON RIVER	200664	352	245602	364	51		NO. FORK COLORADO
6	4655	MOFFAT TUNNEL	BOULDER CREEK	45085	344	57450	366	51		FRASER RIVER
7	4625	BERTHOUD PASS DITCH	CLEAR CREEK	871.2	77.4	0	0	51		FRASER RIVER
6	505	AUGUST P GUMLICK	BOULDER CREEK VIA	INCLUSIVE IN MOFFAT TUNNEL				51		WILLIAMS FORK RIVER
6	4603	VASQUEZ PIPELINE	BOULDER CREEK VIA	INCLUSIVE IN MOFFAT TUNNEL				51		WILLIAMS FORK RIVER
40	758	LEON TUNNEL CANAL	SURFACE CREEK	1572.3	78.2	1560	102	72		LEON CREEK
					TOTAL:	555273				

RESERVOIR STORAGE SUMMARIES BY DISTRICT

2000				AMOUNT IN STORAGE (AF)				
WD	ID	RESERVOIR NAME	SOURCE STREAM	Minimum		Maximum		End Of Year
				AF	Date	AF	Date	
36				290,185.9		419,548.4		314,157.2
37				31,774.0		48,230.0		46,995.7
38				69,511.1		110,905.0		84,848.7
39				4,124.7		19,868.2		4,467.1
45				386.8		1,004.2		395.2
50				46,524.7		75,375.4		47,515.2
51				523,584.5		670,191.6		551,132.2
52				108.3		154.3		113.3
53				3,902.7		6,684.0		4,182.7
70				77.0		86.0		77.0
72				21,263.9		61,293.2		25,935.4
		GRAND TOTAL FOR DIVISION 5		991,443.6		1,413,340.3		1,079,819.7

RESERVOIR STORAGE SUMMARIES BY DISTRICT

2000				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	11/01/99	1,997.2	10/31/00	1,997.2
	3535	BUFFEHR ENLG RESERVOIR	TENMILE CREEK	49.7	04/30/00	98.6	05/31/00	71.2
	3538	CATARACT LAKE	CATARACT CREEK	1,652.8	11/01/99	1,652.8	10/31/00	1,652.8
	3575	CLINTON GULCH RESERVOIR	TENMILE CREEK	4,184.0	05/15/00	4,384.0	10/31/00	4,384.0
	4512	DILLON RESERVOIR BRDP	BLUE RIVER	218,205.0	03/31/00	258,779.0	05/31/00	242,269.0
	3542	GOOSE PASTURE TARN	BLUE RIVER	661.2	12/31/99	891.0	10/31/00	891.0
	3543	GREEN MOUNTAIN RES	BLUE RIVER	62,119.0	10/31/00	148,826.0	07/31/00	62,119.0
	3548	HOAGLAND RESERVOIR NO 1	ELLIOTT CREEK	45.0	10/31/00	110.0	08/01/00	45.0
	3643	KEYSTONE POND	SNAKE RIVER	100.0	11/01/99	100.0	10/31/00	100.0
	3606	OFFICER GULCH POND	TENMILE CREEK	100.0	11/01/99	100.0	10/31/00	100.0
	3565	REYNOLDS RESERVOIR	SODA CREEK					
	3569	UPPER BLACK CREEK RES	BLACK CREEK	273.0	11/01/99	273.0	10/31/00	273.0
	3570	UPPER BLUE LAKE RES	BLUE RIVER	550.9	05/31/00	2,010.3	06/30/00	0.0
	3571	WAY RESERVOIR	BEAVER CREEK	62.0	07/19/00	93.0	05/26/00	62.0
36		Total of All Others < 50 AF		186.1		233.5		193.0
36		Total For District 36		290,185.9		419,548.4		314,157.2

RESERVOIR STORAGE SUMMARIES BY DISTRICT

2000				AMOUNT IN STORAGE (AF)				
WD	ID	RESERVOIR NAME	SOURCE STREAM	Minimum		Maximum		End Of Year
				AF	Date	AF	Date	
37	3600	BENCHMARK LAKE	EAGLE RIVER	125.0	11/01/99	125.0	10/31/00	125.0
	3608	BLACK LAKE	GORE CREEK	141.6	04/01/00	362.0	05/19/00	362.0
	3510	BLACK LAKE NO 2	GORE CREEK	72.1	04/01/00	113.6	06/01/00	113.6
	3698	BOLTS LAKE	CROSS CREEK					
	3513	CHALK MOUNTAIN RESERVOIR	EAGLE RIVER	222.0	11/01/99	222.0	10/31/00	222.0
	3699	CLIMAX MOLY NO 4 RES	EAGLE RIVER	2,143.0	03/01/00	3,169.0	07/01/00	3,145.0
	4516	HOMESTAKE RESERVOIR	HOMESTAKE CREEK	28,209.5	04/30/00	42,903.2	07/31/00	42,129.3
	3520	L E D E RESERVOIR	GYPSUM CREEK	10.0	11/01/99	278.0	07/01/00	60.0
	3522	NOECKER RESERVOIR	EBY CREEK	10.0	10/31/00	125.0	06/28/00	10.0
	3524	O Z LAKE (aka Sylvan Lake)	BRUSH CREEK	452.0	11/01/99	452.0	10/31/00	452.0
	3527	ROBINSON RESERVOIR	EAGLE RIVER	252.7	03/01/00	286.8	11/01/99	252.7
	3530	WELSH RESERVOIR	ALKALI CREEK	30.0	10/31/00	75.0	11/01/99	30.0
37		Total of All Others < 50 AF		76.1		118.4		94.1
37		Total for District 37		31,744.0		48,230.0		46,995.7

RESERVOIR STORAGE SUMMARIES BY DISTRICT

2000				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	11/01/99	673.0	10/31/00	673.0
	4000	BEAVER LAKE	CRYSTAL RIVER	72.5	11/01/99	72.5	10/31/00	72.5
	3722	CONSOLIDATED RESERVOIR	WEST COULTER CREEK	136.9	10/31/00	835.9	04/30/00	136.9
	3774	CRAWFORD DAM NO 1	BLUE CREEK	160.0	11/01/99	160.0	10/31/00	160.0
	3773	CRAWFORD DAM NO 2	BLUE CREEK	56.0	11/01/99	56.0	10/31/00	56.0
	3721	CROOKED CREEK RES	LIME CREEK					
	4087	CRYSTAL SPRING LAKE	CRYSTAL SPRING	80.0	11/01/99	80.0	10/31/00	80.0
	4095	FLANNERY RESERVOIR	THREE MILE CREEK	84.4	11/01/99	84.4	10/31/00	84.4
	3779	GRIZZLY RESERVOIR	LINCOLN CREEK	125.0	10/31/00	400.0	11/01/99	125.0
	3727	HIMMELAND LAKE	FRYING PAN RIVER	92.0	11/01/99	92.0	10/31/00	92.0
	3729	HUGHES RESERVOIR	THREE MILE CREEK	30.0	10/31/00	75.0	11/01/99	30.0
	3732	IVANHOE RESERVOIR	FRYING PAN RIVER	246.0	11/01/99	1,097.0	05/01/00	246.0
	3832	JACOBSON LAKES & PONDS	ROARING FORK RIVER	225.0	11/01/99	225.0	10/31/00	225.0
	4154	KODIAK LAKE & WETLANDS	ROARING FORK	60.0	11/01/99	60.0	10/31/00	60.0
	3736	LAKE ANN RESERVOIR	SOPRIS CREEK	0.0	11/01/99	235.0	06/01/00	0.0
	3955	MCNULTY RESERVOIR #2	SHIPPEE RUN CREEK					
	3740	RALSTON RESERVOIR	COULTER CREEK					
	3713	RUEDI RESERVOIR	FRYING PAN RIVER	64,952.6	04/30/00	103,000.0	06/30/00	80,284.2
	3744	SPRING PARK RESERVOIR	CATTLE CREEK	127.3	10/31/00	1,613.5	05/31/00	127.3
	3747	THOMAS RESERVOIR	THOMAS CREEK	160.0	11/01/99	160.0	10/31/00	160.0
	3753	UPPER CHAPMAN RES	FRYINGPAN RIVER	119.0	11/01/99	119.0	10/31/00	119.0
	3750	VAN-CLEVE FISHER RES	MESA CREEK	0.0	11/01/99	195.5	05/10/00	0.0
	3759	WILDCAT RESERVOIR	SNOWMASS CREEK	1,100.0	11/01/99	1,100.0	10/31/00	1,100.0
	3760	WOODS LAKE RESERVOIR	LIME CREEK	300.0	11/01/99	300.0	10/31/00	300.0
	3752	VON SPGS RESERVOIR	COULTER CREEK	20.0	10/31/00	65.0	05/24/00	20.0
	3835	LAKE DEBORAH RESERVOIR	SNOWMASS CREEK	57.0	11/01/99	57.0	10/31/00	57.0
38		Total of All Others < 50 AF		634.4		754.9		640.4
38		Total for District 38		69,511.1		111,510.7		84,848.7

RESERVOIR STORAGE SUMMARIES BY DISTRICT

2000				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	11/01/99	137.0	06/01/00	100.0
	4000	CHAMBERS POND NO 2	COLORADO RIVER	200.0	11/01/99	239.0	06/01/00	200.0
	4002	CHAMBERS POND NO 4	COLORADO RIVER	170.0	11/01/99	180.0	06/01/00	170.0
39	3927	CITY OF RIFLE POND NO 1	COLORADO RIVER					
	3505	GRASS VALLEY RESERVOIR	RIFLE CREEK	1,524.0	09/30/00	5,800.0	12/31/99	1,527.0
	3506	HARRIS RESERVOIR	WEST RIFLE CREEK	44.0	11/01/99	56.0	06/01/00	44.0
	3940	MEADOW CREEK RESERVOIR	ELK CREEK	885.6	11/01/99	984.0	06/01/00	885.6
	3941	MIDDLE FORK RESERVOIR	PARACHUTE CREEK	85.0	11/01/99	100.0	07/25/00	86.7
	3507	PARK RESERVOIR	WEST ELK CREEK	0.0	10/31/00	164.0	04/15/00	0.0
	3508	RIFLE GAP RESERVOIR	RIFLE CREEK	1,079.0	09/30/00	12,077.0	03/31/00	1,409.0
39		Total of All Others < 50 AF		37.1		131.2		44.8
39		TOTAL FOR DISTRICT 39		4,124.7		19,868.2		4,467.1

RESERVOIR STORAGE SUMMARIES BY DISTRICT

2000				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	20.0	11/01/99	206.0	04/30/00	25.0
45	3695	ALSBURY RESERVOIR	EAST DIVIDE CREEK	50.0	11/01/99	250.0	05/17/00	50.0
45	3524	ANDERSON POND	COLORADO RIVER	312.7	11/01/99	312.7	10/31/00	312.7
45		Total of All Others < 50 AF		4.1		235.5		7.5
45		TOTAL FOR DISTRICT 45		386.8		1,004.2		395.2

RESERVOIR STORAGE SUMMARIES BY DISTRICT

2000				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	07/28/00	125.0	05/23/00	0.0
	3606	ANTELOPE RESERVOIR	ANTELOPE CREEK	35.0	09/18/00	347.0	05/09/00	40.0
	3651	BASIN RESERVOIR	MUDDY CREEK	11.0	11/01/99	58.0	06/15/00	14.0
	3645	BINCO RESERVOIR	ALBERT CREEK	25.0	11/01/99	480.0	05/23/00	55.0
	3618	HINMAN RESERVOIR	PASS CREEK	310.0	06/25/00	611.0	05/09/00	590.0
	3623	LAKE AGNES	MUDDY CREEK	400.0	11/01/99	431.0	06/02/00	400.0
	3646	MARTIN RESERVOIR	COLBURN CREEK	20.0	07/28/00	180.0	05/23/00	75.0
	3625	MATHESON RESERVOIR	TROUBLESOME CREEK	0.0	07/06/00	1,074.0	06/02/00	0.0
	3627	MC ELROY RESERVOIR	PASS CREEK	0.0	11/01/99	240.0	06/02/00	0.0
	3629	MC MAHON RESERVOIR NO 2	RED DIRT CREEK	15.0	11/01/99	3,460.0	07/07/00	500.0
	3655	MILK CREEK RESERVOIR	MILK CREEK	50.0	11/01/99	88.0	06/02/00	70.0
	3656	NORTH MEADOW RESERVOIR (aka Martin	MUDDY CREEK	0.0	11/01/99	210.0	06/07/00	0.0
	3631	OAKS RESERVOIR	MILK CREEK	20.0	11/01/99	53.0	07/08/00	22.0
	3632	PARSONS RESERVOIR	CARTER CREEK	4.0	06/21/00	107.0	06/02/00	50.0
	3642	WHITELEY PEAK RESERVOIR	DIAMOND CREEK	247.0	10/31/00	773.0	05/25/00	247.0
	3657	WOLFORD MOUNTAIN RESERVOIR	MUDDY CREEK	44,985.2	10/31/00	66,858.4	05/31/00	44,985.2
	3643	WOODS RESERVOIR	DUNNING CREEK	0.0	08/11/00	60.0	06/15/00	0.0
	3666	DUMONT LAKE	MUDDY CREEK	213.0	10/31/00	220.0	06/13/00	213.0
	3637	RUDOLPH RESERVOIR	HILL CREEK	25.0	11/01/99	50.0	07/08/00	229.0
50		Total of All Others < 50 AF		164.5		346.8		25.0
50		TOTAL FOR DISTRICT 50		46,524.7		75,772.2		47,515.2

RESERVOIR STORAGE SUMMARIES BY DISTRICT

2000				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	121.0	11/01/99	125.0	06/07/00	122.0
	4055	CBT GRANBY RESERVOIR	COLORADO RIVER	432,359.0	04/10/00	537,441.0	06/21/00	457,012.0
	3695	CBT SHADOW MOUNTAIN GRAND LAKE	NO. FORK OF COLO RIVER	17,321.0	05/09/00	17,963.0	01/16/00	17,492.0
	3710	CBT WILLOW CREEK RESERVOIR	WILLOW CREEK	5,930.0	11/25/99	10,003.0	06/26/00	8,620.0
	4012	COTTONWOOD RESERVOIR	GARDINER CREEK	25.8	11/01/99	129.0	05/01/00	25.8
	3715	EAST BRANCH RESERVOIR	UTE CREEK	NO INFORMATION AVAILABLE				
	3660	F W LINKE NO 2 RESERVOIR	TEN MILE CREEK	11.7	08/30/00	59.7	05/15/00	11.7
	3665	HANKINSON RESERVOIR	FRASER RIVER	116.0	11/01/99	116.0	11/01/99	116.0
	4009	JACK ORR RESERVOIR	COLORADO RIVER	NO INFORMATION AVAILABLE				
	3752	KINGS RESERVOIR	BUFFALO CREEK	0.0	10/31/00	359.0	05/01/00	0.0
	3679	LANGHOLEN RESERVOIR	BATTLE CREEK	13.0	08/17/00	64.0	06/07/00	13.0
	3686	MEADOW CREEK RESERVOIR	MEADOW CREEK	1,499.0	10/31/00	5,596.0	05/31/00	1,499.0
	3687	MOORE RESERVOIR	WILLIAMS FORK RIVER	85.0	11/01/99	147.0	06/14/00	86.0
	3688	MUSGRAVE RESERVOIR	ROCK CREEK	0.0	11/01/99	249.0	06/02/00	0.0
	3755	TAUSSIG RESERVOIR NO 1	REEDER CREEK	15.0	10/31/00	80.0	06/14/00	15.0
	3694	SCHOLL RESERVOIR	CORRAL CREEK	0.0	11/01/99	235.0	06/06/00	0.0
	3732	GAYLORD RESERVOIR	POLE CREEK	135.0	09/22/00	170.0	05/31/00	135.0
	4051	SUN VALLEY RESERVOIR	NO. FORK OF COLO RIVER	72.0	11/01/99	72.0	11/01/99	72.0
	3701	SYLVAN RESERVOIR	LITTLE MUDDY CREEK	0.0	07/03/00	250.0	06/02/00	0.0
	3738	UTE CREEK RESERVOIR	UTE CREEK	93.0	11/01/99	93.0	11/01/99	93.0
	3709	WILLIAMS FORK RES	WILLIAMS FORK RIVER	65,615.0	10/31/00	96,659.0	06/27/00	65,615.0
51		Total of All Other Reservoirs Less Than 50 AF		173.0		380.9		204.7
51		TOTAL FOR DISTRICT 51		523,584.5		670,191.6		551,132.2

RESERVOIR STORAGE SUMMARIES BY DISTRICT

2000				AMOUNT IN STORAGE (AF)				
WD	ID	RESERVOIR NAME	SOURCE STREAM	Minimum		Maximum		End Of Year
				AF	Date	AF	Date	
52	3940	JONES RESERVOIR	HENRY CREEK	42.5	11/01/99	69.0	05/02/00	42.5
	3982	MARMA LAKE	PINEY RIVER	60.0	11/01/99	63.0	05/17/00	60.0
	3946	OXFORD RESERVOIR	COLORADO RIVER	38.0	11/01/99	59.0	05/17/00	49.0
	3949	ROCK GAP DAM	HARTMAN GULCH	LESS	50 AF	IN 2000		
52		Total of All Others < 50 AF		108.3		154.3		113.3
52		TOTAL FOR DISTRICT 52		248.8		345.3		264.8

RESERVOIR STORAGE SUMMARIES BY DISTRICT

2000				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	07/02/00	66.0	06/10/00	0.0
	3960	CRESENT LAKE RESERVOIR	DERBY CREEK	0.0	11/01/99	237.0	07/14/00	10.0
	3961	ED W HARPER RESERVOIR	EGERIA CREEK	1.0	10/31/00	216.0	05/25/00	1.0
	3962	EGERIA RESERVOIR	EGERIA CREEK	0.0	11/01/99	107.0	07/06/00	0.0
	3966	GRIMES BROOKS RESERVOIR	RED DIRT CREEK	91.0	11/01/99	336.0	05/24/00	222.0
	3968	HADLEY RESERVOIR	EGERIA CREEK	NO	INFO	AVAILABLE		
	3971	HEART LAKE RESERVOIR	DEEP CREEK	2,600.0	11/01/99	3,100.0	06/19/00	2,600.0
	3972	HIDDEN SPRINGS RESERVOIR	HORSE CREEK	50.0	11/01/99	50.0	05/08/00	50.0
	3974	JONES NO 1 RESERVOIR	SHEEP CREEK NO 2	27.0	11/01/99	147.0	05/16/00	53.0
	3975	JONES NO 2 RESERVOIR	SHEEP CREEK NO 2	195.0	06/14/00	390.0	05/16/00	248.0
	3978	KELLY RESERVOIR	EGERIA CREEK	71.0	11/01/99	120.0	06/15/00	120.0
	3982	LUARK RESERVOIR	SPRING CREEK	0.0	10/31/00	70.0	05/19/00	0.0
	4020	MACKINAW LAKE RES NO 2	DERBY CREEK	14.0	07/30/00	138.0	05/06/00	14.0
	3986	MORRIS RESERVOIR	TOPONAS CREEK	0.0	07/09/00	70.0	11/01/99	0.0
	3988	NEWTON GULCH RES	KING CREEK	0.0	11/01/99	93.0	05/19/00	0.0
	3992	REID NO 3 RESERVOIR	EGERIA CREEK	0.0	07/10/00	86.0	05/18/00	0.0
	3995	STERNER RESERVOIR	EGERIA CREEK	0.0	11/01/99	195.0	06/07/00	0.0
	3997	SWEETWATER RESERVOIR	SWEETWATER CREEK	490.0	11/01/99	490.0	10/30/00	490.0
	3999	TONIER GULCH RES	TOPONAS CREEK	0.0	06/29/00	64.0	05/01/00	0.0
	4001	TOPONAS ROCK NO 2 RES	TOPONAS CREEK	0.0	07/21/00	196.0	05/01/00	0.0
	4004	WOHLER RESERVOIR	ELK CREEK	74.7	10/31/00	80.0	11/01/99	74.7
53		Total of All Others < 50 AF		289.0		433.0		300.0
53		TOTAL FOR DISTRICT 53		3,902.7		6,684.0		4,182.7

RESERVOIR STORAGE SUMMARIES BY DISTRICT

2000				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	77.0	10/31/00	86.0	11/01/99	77.0
70		Total of All Others < 50 AF						
70		TOTAL FOR DISTRICT 70		77.0		86.0		77.0

RESERVOIR STORAGE SUMMARIES BY DISTRICT

2000				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	10/31/00	216.0	11/01/99	0.0
	3887	BIG BEAVER RESERVOIR	BULL CREEK	0.0	11/01/99	123.4	04/25/00	0.0
	3904	BIG CREEK NO 1 RESERVOIR	BIG CREEK	595.8	04/18/00	763.9	08/21/00	763.9
	3905	BIG CREEK NO 3 RESERVOIR	BIG CREEK	720.6	04/18/00	1,549.4	11/01/99	1,549.4
	3906	BIG CREEK NO 4 RESERVOIR	BIG CREEK	0.0	10/27/00	146.2	11/01/99	0.0
	3907	BIG CREEK NO 5 RESERVOIR	BIG CREEK	0.0	01/12/00	104.6	05/30/00	104.6
	3909	BIG CREEK NO 7 RESERVOIR	BIG CREEK	711.1	11/01/99	1,211.5	05/25/00	843.2
	3841	BOB MC KELVIE RESERVOIR	PLATEAU CREEK	NO INFORMATION AVAILABLE				
	3888	BULL BASIN NO 1 RES	BULL CREEK	8.6	09/15/00	124.4	11/01/99	12.4
	3889	BULL BASIN NO 2 RES	BULL CREEK	0.0	11/01/99	53.5	06/06/00	0.0
	3890	BULL CREEK NO 1 RES	BULL CREEK	0.0	07/28/00	60.0	11/01/99	0.0
	3891	BULL CREEK NO 2 RES	BULL CREEK	0.0	08/04/00	62.2	11/01/99	0.0
	3892	BULL CREEK NO 3 RES	BULL CREEK	0.0	11/01/99	59.2	04/17/00	0.0
	3893	BULL CREEK NO 4 RES	BULL CREEK	3.5	11/01/99	202.5	04/17/00	34.0
	3894	BULL CREEK NO 5 RES	BULL CREEK	13.1	09/12/00	247.0	04/17/00	32.7
	3834	COLBY HORSE PARK RES	LEON CREEK	87.6	10/01/00	548.8	06/01/00	87.6
	3883	COON CREEK NO 1 RES	COON CREEK	4.8	04/17/00	247.8	06/20/00	93.6
	3884	COON CREEK NO 2 RES	COON CREEK	0.0	11/01/99	36.0	05/22/00	0.0
	3885	COON CREEK NO 3 RES	COON CREEK	0.0	07/14/00	72.9	05/16/00	0.0
	3923	COTTONWOOD LAKES RES NO 1	COTTONWOOD CREEK	845.9	02/16/00	1,939.4	07/03/00	1,436.2
	3924	COTTONWOOD LAKES RES NO 2	COTTONWOOD CREEK	0.0	11/01/99	206.1	05/30/00	173.2
	3925	COTTONWOOD LAKES RES NO 4	COTTONWOOD CREEK	40.9	03/22/00	303.7	06/05/00	267.5
	3926	COTTONWOOD LAKES RES NO 5	COTTONWOOD CREEK	191.1	04/18/00	342.3	02/02/00	300.3
	4065	CURRIER RESERVOIR NO 2	BUZZARD CREEK	144.1	11/01/99	144.1	11/01/99	144.1
	3910	DAWSON RESERVOIR	BIG CREEK	14.5	11/29/99	213.4	05/25/00	187.1
	3920	ECHO LAKE RESERVOIR	BIG SALT WASH	0.0	08/01/00	68.3	05/24/00	0.0
	3914	GROVE CREEK RESERVOIR NO 1	GROVE CREEK	0.0	11/01/99	251.0	07/01/00	0.0
	3915	GROVE CREEK RESERVOIR NO 2	GROVE CREEK	0.0	11/01/99	75.5	07/01/00	0.0
72		Subtotal This Page		3,381.6		9,373.1		6,029.8

RESERVOIR STORAGE SUMMARIES BY DISTRICT

2000				AMOUNT IN STORAGE (AF)				
WD	ID	RESERVOIR NAME	SOURCE STREAM	Minimum		Maximum		End Of Year
				AF	Date	AF	Date	
72	3849	HAWXHURST RESERVOIR	HAWXHURST CREEK	NO INFORMATION AVAILABLE				
	3957	HIGHLINE RESERVOIR	COLORADO RIVER	2,885.0	03/26/00	3,400.0	11/01/99	3,400.0
	3929	JENSEN RESERVOIR	COTTONWOOD CREEK	90.7	11/01/99	90.7	11/01/99	90.7
	3961	JERRY CREEK RESERVOIR NO 1	PLATEAU CREEK	765.1	10/31/00	1,134.8	12/26/99	765.1
	3962	JERRY CREEK RESERVOIR NO 2	PLATEAU CREEK	5,408.1	12/01/99	6,472.7	06/01/00	6,002.4
	3837	KENDALL RESERVOIR	LEON CREEK	0.0	10/31/00	87.0	11/01/99	0.0
	3838	KIRKENDALL RESERVOIR	LEON CREEK	161.0	10/31/00	161.0	11/01/99	161.0
	3839	LEON LAKE RESERVOIR	LEON CREEK	122.8	10/31/00	1,471.2	07/01/00	122.8
	3895	LOST LAKE RESERVOIR	BULL CREEK	0.0	11/01/99	91.4	05/22/00	0.0
	3871	MESA CREEK NO 1 RESERVOIR	MESA CREEK	46.3	09/26/00	280.2	11/01/99	138.0
	3872	MESA CREEK NO 2 RESERVOIR	MESA CREEK	42.2	11/01/99	42.2	11/01/99	42.2
	3873	MESA CREEK NO 3 RESERVOIR	MESA CREEK	0.0	07/25/00	158.0	06/19/00	0.0
	3874	MESA CREEK NO 4 RESERVOIR	MESA CREEK	0.0	08/04/00	211.0	05/30/00	0.0
	3842	MONUMENT NO 1 RESERVOIR	LEON CREEK	0.0	10/31/00	572.0	11/01/99	0.0
	3843	MONUMENT NO 2 RESERVOIR	LEON CREEK	0.0	10/31/00	168.0	11/01/99	0.0
	3854	PALISADE CABIN RESERVOIR	RAPID CREEK	778.2	10/27/00	1,007.7	06/06/00	778.2
	3932	PARKER BASIN RESERVOIR NO 1	COTTONWOOD CREEK	46.5	03/22/00	271.6	11/01/99	245.0
	3933	PARKER BASIN RESERVOIR NO 2	COTTONWOOD CREEK	46.9	08/14/00	60.0	05/18/00	48.5
	3934	PARKER BASIN RESERVOIR NO 3	COTTONWOOD CREEK	70.4	02/28/00	163.2	05/25/00	77.4
	3858	RAPID CREEK NO 1 RESERVOIR	RAPID CREEK	85.3	10/31/00	671.0	06/06/00	85.3
	3859	RAPID CREEK NO 2 RESERVOIR	RAPID CREEK	0.0	10/31/00	476.5	06/06/00	0.0
	3901	STUBB McKINNEY CLARK RESERVOIR	SPRING CREEK	107.9	09/29/00	200.1	05/23/00	107.9
	3931	T E KITSON RESERVOIR	COTTONWOOD CREEK	38.1	04/11/00	184.3	11/01/99	184.3
	3902	TWIN BASIN RESERVOIR	BULL CREEK	0.0	06/30/00	68.1	05/30/00	0.0
	3844	VEGA RESERVOIR	PLATEAU CREEK	7,045.0	09/20/00	34,114.0	05/25/00	7,465.0
	3919	Y T RESERVOIR	GROVE CREEK	50.1	10/31/00	99.0	06/01/00	50.1
72		Subtotal This Page		17,789.6		51,655.7		19,763.9
72		Subtotal Previous Page(s)		3,381.6		9,373.1		6,029.8
72		Total of All Other Reservoirs Less Than 50 AF		92.7		264.4		141.7
72		TOTAL FOR DISTRICT 72		21,263.9		61,293.2		25,935.4

DIVISION 5 – 2000
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)	NO WATER AVAILABLE (2)	NO WATER TAKEN (3)	NO INFO AVAILABLE (4)	NO RECORD (5)				TOTAL DIVERSIONS AF	NUMBER OF ACRES IRRIGATED	AVERAGE AF PER ACRE
36	230	19	185	308	25	10,315	678,281	138,732	82,922	12,412	6.68
37	225	1	434	155	28	4,728	147,176	17,662	78,570	12,067	6.51
38	1,187	8	187	845	14	10,915	604,900	48,439	293,910	32,545	9.03
39	572	21	195	96	36	872	193,895	9,225	140,708	22,271	6.32
45	652	48	116	16	46	2,802	137,535	1,201	116,871	27,773	4.21
50	270	0	18	5	6	2,123	145,059	37,941	99,258	22,746	4.36
51	439	0	184	25	236	3,953	987,836	163,500	153,813	24,205	6.35
52	151	3	110	14	10	391	14,642	134	13,767	4,663	2.95
53	483	13	136	52	4	1,184	833,143	3,097	54,428	22,778	2.39
70	204	53	64	2	5	721	19,318	49	18,302	5,696	3.21
72	722	3	203	369	331	29,377	2,624,401	38,079	919,052	108,285	8.49
TOTAL	5,135	169	1,832	1,887	741	67,381	6,386,186	458,059	1,971,601	295,441	6.67

DIVISION 5 -- 2000
WATER DIVERSION SUMMARIES TO VARIOUS USES (AF)

WD	TRANSMOUNTAIN OUTFLOW	TRANSBASIN OUTFLOW	MUNICIPAL	COMMERCIAL	INDUSTRIAL	RECREATION	FISHERY	DOMESTIC & HOUSEHOLD	STOCK
36	104,738		8,037	197	1,415	2,684	781	275	8
37	29,506		10,953	1	378	0	292	228	779
38	97,743	340	8,810	88	78	0	15,656	3,083	3,305
39			2,883	34	118	0	30,774	3,104	2,281
45		303	1,013	1	13	0	1	201	16,963
50			448	36	0	0	64	22	39
51	321,724	3,168	2,145	219	1,364	470	1,514	37	1,508
52		75	0	35	0	0	0	54	429
53			2,755	520	0	6	265	244	354
70		21	61	0	12	0	0	18	756
72	8,264	1,348	22,356	0	0	9,628	56,118	2,155	13,591
OTAL	561,975	5,255	59,461	1,131	3,378	12,788	105,465	9,421	40,013

WD	AUGMENTATION	EVAPORATION	GEOTHERMAL	SNOWMAKING	MINIMUM STREAMFLOW	POWER GENERATION	WILDLIFE	RECHARGES	OTHER
36	5,205	11,773	0	1,167	0	320,844	0	0	4,708
37	3,018	2,179	0	318	262	1,452	0	0	4,596
38	3,155	4,822	80	0	0	124,037	205	0	4,274
39	581	1,811	0	0	0	286	1	0	2,648
45	30	271	0	0	0	203	0	0	90
50	805	3,924	0	0	0	0	0	0	3,327
51	462	26,941	0	45	0	91,699	0	0	219,683
52	21	64	0	0	0	0	82	0	2
53	4	994	0	0	0	7,611,549	0	0	8,843
70	9	49	0	0	0	0	0	0	49
72	685	2,228	0	19	0	913,142	0	0	638,508
OTAL	13,975	55,056	80	1,549	262	9,063,212	288	0	886,728

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