



Division of Water Resources

Annual Report Water Division IV 1997

STATE OF COLORADO

**DIVISION OF WATER RESOURCES
WATER DIVISION FOUR**

Office of the State Engineer
Department of Natural Resources

1540 E. Niagara
P.O. Box 456
Montrose, Colorado 81402
Phone (970) 249-6622
Fax (970) 249-8728



Roy Romer
Governor

James S. Lochhead
Executive Director

Hal D. Simpson
State Engineer

Kenneth W. Knox
Division Engineer

March 11, 1998

Mr. Hal Simpson, State Engineer
Division of Water Resources
1313 Sherman, Room 818
Denver, Colorado 81401

Dear Hal,

On behalf of the staff of Division IV, submitted herewith is the Annual Report for 1997.

Sincere appreciation is extended to yourself, your staff in Denver, and Division IV for the support and dedication provided in fulfillment of our statutory and professional duties.

Sincerely,

A handwritten signature in cursive script, appearing to read 'Kenneth W. Knox'.

Kenneth W. Knox
Division Engineer

KWK:jk
Enc.



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CURRENT WATER YEAR

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Current Water Year

ACCOMPLISHMENTS

Water Administration

The Gunnison River Basin enjoyed a plenteous water supply during 1997. High mountain snowpack was more than sufficient to fill all reservoirs and storage basins. Flooding during high spring runoff was virtually nonexistent. Cool temperatures extended the duration of the spring melt and slowed the swelling peak river flows to containment within existing streambanks. During the irrigation season, the Gunnison and Uncompahgre River valleys received high levels of precipitation from gentle and repetitive rain showers that are reminiscent of weather patterns in the Pacific Northwest. The consistent and abundant water supply partially altered the historic duties of the water administrators. Curtailment of water rights to meet the demand of senior appropriators was minimal throughout the Division. This year we were able to place additional emphasis on customer service to the water users and increasing the frequency and scope of diversion observations. The unanimous statement shared by all Division IV water commissioners was "1997 was the best water year I ever had"!

The San Miguel River watershed savored the same prosperity in water supplies. For the first time in his 24+ years as the administrator of the San Miguel River and its tributaries, Senior Water Commissioner Lyman Campbell did not receive a "river call" by a vested water right that required curtailment of junior appropriators to satisfy or fulfill its decree.

Water users on the south side of Grand Mesa also took full advantage of the water bonanza. Atypical of the historic practice, river administration was limited to only a few tributaries that have minimal watersheds. Direct streamflows were sufficient to meet most of the irrigation demand this year. It is estimated the average reservoir storage carried forward into the next irrigation year is 70 percent of capacity.

Neither the Uncompahgre River mainstem, nor its tributaries, required administrative curtailment. Although water distribution began in late March, the base river flows were supplemented with sufficient storage releases from Ridgway Reservoir to meet the irrigation demand of the 85,000+ acres in the Uncompahgre Valley. Appreciation is extended to the Uncompahgre Valley Water Users Association (UVWUA) and Tri-County Water Conservation District for their water management assistance. These agencies continue to collaborate with this office to "operate" the river in a timely manner in an attempt to satisfy the demands of all water users in the Uncompahgre River watershed.

Personnel/Budget

Sincere gratitude is extended to Division IV personnel for their dedication and creativity in duty. They provide the highest standard of professional service to our customers in a courteous and exuberant work environment. Appreciation is also extended to the State Engineer and his staff for their collaborative efforts and support.

Division IV welcomed one new water commissioner in 1997. Water District 59 Commissioner George Wear transferred to Water Division V to gain full-time employment and pursue advanced responsibilities. We were fortunate to replace George with the services of Mr. Richard Rozman. Richard is an exceptional individual who has an extensive technical background and a lengthy tenure in the East and Taylor River watersheds in Water District 59.

Last summer we extended our participation in the Youth in Natural Resources program. Mr. Jacob Swanson and Ms. Amber Skiff provided many hours of valuable assistance to all staff in Montrose, with significant dedication to the groundwater well permitting, hydrography, and dam safety areas. We wish both Jacob and Amber well during their pursuit of higher education at the collegiate level.

Hydrography

Hydrographic records compiled in Division IV were submitted to the Chief Hydrographer in Denver for publication in Streamflow Data for Colorado 1996 Water Year. Six records were published, three of which were used in the 1997 annual diversion records; the AB Lateral and South Canal in Water District 41, and Redlands Power Canal in Water District 42.

We continue our efforts to broaden the scope of our Hydrography program to meet the needs of local water commissioners. Open channel measurements in ditches and calibrating Parshall flumes has a positive and long-term affect in increasing our water distribution accuracy. The efforts of hydrographers Jerry Thrush and Steve Tuck are certainly appreciated. Their common practice is to work well into the evening in the attempt to measure as many structures as possible in a Water District or stream system to aid the local commissioner.

New construction this year includes the installation of a gaging station and continuous recorder at the Fairview diversion from the South Canal. This diversion structure is a principle source of municipal water supply to the City of Montrose and other local communities. A new continuous recorder and remote satellite monitoring equipment was installed on the Highline Canal diversion from Leroux Creek near Hotchkiss, Colorado.

The satellite monitoring system again proved invaluable in providing streamflow conditions necessary in accurate and timely water administration. The hydrographic staff

is commended for keeping the system fully operational during critical times of spring runoff and irrigation season demands. Assistance was also obtained from the United States Geologic Survey for their collaborative efforts to provide current streamflow measurement and shift information to this office on a near real-time basis.

Dam Safety

Resident Dam Safety Engineer Jim Norfleet performed quality dam safety inspections on all scheduled dams in the 1-2-6 inspection time format. Water commissioner expertise was again utilized in formal inspection of Class III dams and through continued observance of all dams within their water administrative purview. Their vigilance is quite beneficial by extending critical observations of the dam structures throughout the irrigation season for the entire division.

Five dams in Water Division IV underwent major repairs this year. Beaver Reservoir is a large Class I dam located above Paonia, Colorado. For the past several years large sinkholes developed on both abutments near the dam that threatened the integrity of the structure. Both abutments were covered with an impervious geomembrane liner and soil/rip-rap. Another significant repair completed was to Vouga Dam located on Razor Creek, approximately 17 miles southeast of Gunnison, Colorado was the largest construction project. The dam was breached two years prior due to a failing outlet structure. Repairs included replacement of the outlet in conjunction with new construction of a drop inlet service spillway. The outlet gate was closed on February 7, 1997 and the reservoir began conditional storage of its 920 af water right. The other three structures include Arch Slough Reservoir (new outlet, spillway, and embankment reinforcement), Twin Reservoir #1 (new outlet), and Big Battlement Reservoir (breached in October 1997 in preparation of a new outlet and foundation work).

Comprehensive review of plans and specification for new structures and/or major repairs was performed on three dam structures. Mr. Norfleet's efforts are certainly valued. Review of the plans and specifications by the resident dam safety engineer has proven to provide the best service to dam owners seeking to build, repair, or rehabilitate dams. Upon gaining final approval by the State Engineer, this format encourages construction of the best and safest structure within prevalent economic conditions. It also dramatically lessens the review time step and accommodates the need to address minor changes that inevitably occur during construction.



Progress continues in achieving dam safety program goals. Three new comprehensive hydrology studies were completed this year. Outlet inspections using the camera mounted inspection device (SLED) were performed on Lone Star #1 and Garnet Mesa Reservoirs. Mr. Norfleet continues to share his professional expertise through his participation on a national dam safety officials committee that is researching and

publishing a professional paper on the merits and applications of dam monitoring activities. The dams database maintained in Division IV is both current and complete.

Groundwater

In Division IV we process, approve, and issue well permits for exempt domestic, livestock, and household-use-only permits, late registrations, replacements, non-exempt household and domestic/livestock wells that are incorporated within an approved plan for augmentation or substitute supply plan, and change of locations. Giving authority and responsibility to issue final groundwater permits to Division IV has proven to be a resounding success and achievement for two principle reasons:

1. The public receives courteous information and assistance without delay. Further, by providing the forum\ability for a client to have personal interaction with a State employee, it shifts the public's perception of DWR as bureaucracy toward a connotation of professional competency and service.
2. Turn-around time for the typical exempt well permit is 2 days. It is not uncommon for a client to receive same-day service.

Implementation of the plan to decentralize well permitting approval to division offices has satisfied these DWR goals:

- ◇ To improve the service of well permitting by placing the processing of certain types of permits at locations that are more convenient to the permit customers.
- ◇ To provide no greater than 7-day turn-around on certain types of well permit applications.
- ◇ To improve our public image by providing local and prompt response to the public.
- ◇ To allow for effective and timely well permitting for those processes which remain centralized, by distributing a portion of the workload into certain Division offices.

Records and Information

Annual diversion records and reservoir reports for Water Year 1997 were timely completed with the exception of Water District 68. Due to a change in personnel, we anticipate completion of all records by April 1, 1998. Assistant Division Engineer Wayne Schieldt continues to work with lead Water Commissioners to obtain the highest quality of published annual records. Our program is based upon a perpetual effort to 1) identify appropriate diversion structures necessary for inclusion in the annual records, 2) establish an observation schedule for the individual structures, 3) implement proper diversion record coding that accurately reflects actual diversion amounts and use(s) in conformance with the adjudicated water right, and 4) reclassify and adjust coding for those structures no longer active.



Significant progress continues in our computer/electronic capabilities. This fall we were able to purchase a color plotter. The plotter is used to produce quality maps that illustrate topographic features, locations of diversion structures, well, irrigated acreage, etc. These topographic maps are quite persuasive and useful in water court actions and in public education forums. Our appreciation is also extended to Steve Nold, Deb Bell, and Diana Melaragno for their installation of the Remote Access Server in Division IV. Division staff, regardless of location, are now able to access and use streamflow, climatological, and other information available through the Internet.

Special Projects

Gunnison River and Aspinall Reservoir Unit Accounting Spreadsheet:

Active water administration and public scrutiny of government actions that affect the mainstem of the Gunnison River and its tributaries continues to escalate. Compounding the complexity of daily river management is the need to document and quantify the different storage and reservoir release accounts in the Aspinall Unit (Crystal, Morrow Point, and Blue Mesa Reservoirs). Said Gunnison River and Aspinall Unit accounting spreadsheet was completed this year. The accounting is based upon a daily time step and is used to classify water according to different types of water stored in the Aspinall Unit and against the appropriate storage priority. It also tracks the "1975 Exchange" water with Taylor Park Reservoir and all releases designated for protection of endangered fish species and habitat preservation in the lower Gunnison River. In addition to providing a daily record, the spreadsheet provides planning and proactive river management capabilities. Through coordination with UVWUA, Bureau of Reclamation, and the Upper Gunnison Water Conservancy District we are better able to forecast demands through the end of the irrigation season and deplete available storage accounts in a manner that effectively satisfies the water demands of senior water rights.

Quality Assurance/Quality Control

Data review and correction for historic water diversions and annual reservoir reports has been extended to include the years 1970 through 1974. In a pursuit toward continual data improvement, the Assistant Division Engineer and lead water commissioners continue to review court decrees and other appurtenant information to upgrade the quality of our water rights tabulation. We anticipate a continued dedication of wintertime work using all full-time commissioners and two part-time staff toward this effort as time and river conditions permit.

Water Right Database



Assistant Division Engineer Wayne Schieldt continued working with Leah Lewis (Denver) to establish a protocol which converts water right files through the Access program for assimilation within DWR's relational database management system referred to as Hydrobase. All Water Districts in Division IV were used as a trial in the conversion process. Results of the test proved conducive for three reasons:

1. The process verified Access is viable as a conversion program.
2. It established a uniform protocol to convert existing water rights files to a relational database.
3. The conversion process identified numerical errors and coding inconsistencies in the data that were subsequently corrected.

SIGNIFICANT WATER ISSUES

Subordination Contract

The Wayne N. Aspinall Unit is a federal project that is composed of three on-channel reservoirs that capture and use the Gunnison River for the purpose of regulating flows in perspective of the Colorado River Compact, flood control, irrigation, and hydroelectric power generation among other beneficial uses. The three reservoirs are Crystal Reservoir (30,000 af), Morrow Point Reservoir (114,706 af), and Blue Mesa Reservoir (939,204 af) and they are located between Montrose and Gunnison, Colorado. As part of the 1959 Economic Justification Report, the Bureau of Reclamation recognized the potential that up to 60,000 acre-feet of in-basin depletions could occur upstream of the Aspinall Unit without affecting the feasibility of the project. This depletion allowance reflects a commitment by the United States, prior to construction of the Aspinall Unit, to allow said junior upstream in-basin water use(s) to continue without curtailment. Since completion of the reservoirs and subsequent storage, the depletion allowance has been in effect on an informal basis.

During the course of this year, Division IV and counsel from the Attorney General's Office led negotiations to formalize the depletion allowance commitment into a written contract. The other parties include the United States Bureau of Reclamation, the Colorado Water Conservation District, and the Upper Gunnison River Water Conservancy District. We are continuing our collaborative efforts and appear very near our goal to formalize the informal commitment that has been in effect for close to four decades. The perseverance of all individuals involved is critical and appreciated.

City of Grand Junction versus Juniata Ditch Company

The City of Grand Junction obtains its principle source of municipal water supply from the headwaters of Kannah Creek in Water District 42. They own and operate an elaborate water supply system that includes multiple reservoirs on top of Grand Mesa, two large holding reservoirs downstream, pipelines, and numerous canals and ditches. Their water rights portfolio includes multiple direct flow and water storage priorities – including the #1 priority in Kannah Creek for 7.81 cubic feet per second for municipal use.

Juniata Ditch is a junior downstream water right that is entitled to irrigation, domestic, and stockwater when there is sufficient water available in priority to its multiple decrees. During the early winter months, the base flow of Kannah Creek drops sufficiently that there is not an adequate supply to satisfy both the senior water rights owned by Grand Junction and the junior domestic and stockwater priorities in the Juniata Ditch. Unfortunately, this situation developed into a contentious quarrel between the two parties.

On May 15, 1997 the Division Engineer met with the Mayor of Grand Junction, the City Manager, and other city officials whom sought assistance by the Division of Water Resources to act as a formal mediator between both parties and to develop an equitable resolution. Officers representing the Juniata Ditch Company fully endorsed our participation. Upon review of historic streamflow and diversion records, baseline water needs, operating criteria for both parties, and applicable court decrees, a cooperative operating agreement was drafted. The definitive criteria in the agreement includes:

- ◆ Confirmation the City of Grand Junction retains full and complete authority to exercise its water rights for their decreed use(s).
- ◆ The City may elect to bypass water at its municipal diversion without initiating an intent to abandon its water right.
- ◆ Once water bypasses the municipal diversion, said water is available for appropriation in Kannah Creek within the priority system. Juniata Ditch, Priority #611, is the most senior water right downstream of the municipal diversion structure during the non-irrigation season. Water made available to Juniata Ditch through this operating agreement does not constitute a selective subordination.
- ◆ The election to forego water at the municipal diversion is a cooperative exercise that seeks to meet the needs of other water rights in the Kannah Creek watershed. The operating agreement is not binding nor is the City of Grand Junction required to continue foregoing diversions in time or amount in the future.
- ◆ Administration of the bypass is under the jurisdiction of the Division Engineer and is carried out in conformance with all prescribed statutory duties. Water Commissioner Lynne Bixler coordinates the elective bypass with representatives from the City of Grand Junction and Juniata Ditch Company.

The cooperative agreement went into effect on October 27, 1997. To date, the agreement is operational and has been effectively applied to provide sufficient water to meet the needs of all parties involved.

INVOLVEMENT WITH THE COMMUNITY

Division IV continues in its role as an active leader within the water user community and the general public. We routinely attend invitations to regularly scheduled meetings held by mutual ditch companies, water user associations, and conservation districts within the Gunnison and San Miguel River basins. Division personnel continue to meet with county commissioners and local planning departments to foster a conducive and open working relationship. Presentations are given on specific topics to applicable forums or special interest groups upon request (example: presentation by the Division Engineer to the Colorado Bar on water administration and well permitting during the annual Agriculture and Rural Law Conference). Division staff make additional efforts to educate the state's youth in water resource issues through participation at local water festivals and speaking upon request at local classrooms. Individual contact and assistance by water commissioners to local water users is continuous throughout their daily activities and forms the foundation of our public service.

Coming Water Year



KEY OBJECTIVES

Quality of effective service to the public rests upon the competency and attitude of DWR personnel. Continuous effort will be made to create a positive and supportive work environment that provides new training and career opportunities to every employee.

Obtain a written contract for the 60,000 acre-foot depletion allowance for in-basin water depletions above the Aspinall Unit. Continue negotiations with the United States Bureau of Reclamation, the Colorado Water Conservation District, and the Upper Gunnison River Water Conservancy District in regard to a comprehensive plan for augmentation in the Upper Gunnison Basin and the Taylor Park Reservoir Management Agreement.

Complete a comprehensive consumptive use study that utilizes the Colorado River Decision Support System (CRDSS) computer model to define the amount, timing, and location of water depletions in the Upper Gunnison River Basin. Continue to work with representatives from the Upper Gunnison and Colorado River Districts, the UVWUA, and Bureau of Reclamation in this endeavor.

Hydrographic duties will continue to expand by aiding the public in site selection and calibration of Parshall Measuring Flumes. Staff will continue to schedule and perform streamflow measurements throughout Division IV to provide the highest quality streamflow information. Discharge shifts will be timely updated and satellite monitoring system maintained to provide continued water administrative accuracy.

Dam Safety will continue to be service oriented. The Dam Safety Engineer has increased reservoir owner education and confidence in the State Engineer's Office by assisting dam owners in the review of plans submitted for repair of dam structures or operating facilities and visual inspection of outlets using the SLED device.

INFLUENTIAL CASE LAW, STATUTES, PROJECTS

Application for Water Rights by the Arapahoe County Board of Commissioners

Upon remand from the Colorado Supreme Court, Case 88CW178 was reheard before Division IV Water Court Judge Robert Brown in Gunnison, Colorado from October 20 through 24, 1997. The intent of this action is Arapahoe County is seeking a conditional storage water right, referred to as Union Park Reservoir, that will capture Gunnison River headwaters to export across the Continental Divide for use in the Front Range of Colorado. In an earlier judicial action, the case was bifurcated into two parts commonly referred to as the water availability and permitting issues phases respectively. To date, the focus of litigation has been limited to the water availability issue.

In an attempt to prove there is sufficient water to satisfy their demands, Arapahoe County provided expert witnesses and computer modeling that represented an average of 113,000 acre-feet of water available annually to Union Park Reservoir. For comparative purposes, in the first water availability trial Judge Brown found "that there is not more than 20,000 acre-feet of unappropriated water physically and legally available on an annual average basis" (Judgement & Decree for Case 88CW178, p. 78, October 21, 1991). Contested issues of law include:

- ❑ A determination whether or not transbasin water exports upstream of the Aspinall Unit are considered depletions that are entitled to the same privilege awarded to in-basin depletions in terms of the annual 60,000 acre-foot subordination or depletion allowance.
- ❑ Quantification of the subordination or depletion allowance. Arapahoe County alleges the 60,000 acre-foot annual depletion is not a maximum quantity available for upstream development, rather it is a minimum allowance.
- ❑ The applicability and/or requirements to have water service contracts between the United States and private entities in relation to the annual depletion allowance.
- ❑ The impact of transbasin water diversions upon water availability in Colorado in perspective of the Colorado River Compact, the Upper Colorado River Basin

Compact, the Colorado River Storage Project Act, and other congressional actions.

We anticipate a decision and ruling on this case from Judge Brown by the end of March 1998. An appeal to the Colorado Supreme Court is expected to be timely filed by one or more parties to the case.

A. TRANSMOUNTAIN DIVERSION SUMMARY -- INFLOWS

RECIPIENT		SOURCE									
10-YR AVERAGE CURRENT YR											
WD	ID	NAME	STREAM	AF	DAYS	AF	DAYS	WD	ID	STREAM	
68	N/A	Carbon Lake D	Uncompahgre	**** 307	* 91	625	135	30	4665	Animas R.	
68	N/A	Mineral Pt D	Uncompahgre	*** 195	* 57	168	57	30	4661	Animas R.	
68	N/A	Red Mountain	Uncompahgre	**** 84	* 50	256	93	30	4662	Animas R.	
40	N/A	Leon Lk Tunl	Surface Cr	1463	* 63	1402	54	72	4520	Leon Cr.	

B. TRANSMOUNTAIN DIVERSION SUMMARY -- OUTFLOWS

17	N/A	Larkspur D	Arkansas R	128	81	184	89	28	4655	Tomichi C
26	N/A	Tarbell D	Saguache Cr	252	44	809	109	28	4656	Cochetopa
20	N/A	Tabor D	Clear Cr	791	151	1410	170	62	774	Cebolla C
45	577	Divide C Hi	Divide Cr	1191	*42	666	44	40	4657	Cl Fk Mud
72	N/A	City Pipeline	Colorado R	2280	*362	5899	365	42	4710	Kannah Cr
72	N/A	Hollenbeck R	Colorado R	4407	*363	5711	365	42	3618	Kannah Cr
72	N/A	Redlands Can	Colorado R	531615	**354	558680	351	42	4713	Gunnison
72	N/A	Fruita Pl	Colorado R	****				73	4712	East Cr

*5 year average, **Days average based on past 6 years,
 *** 7 year average, ****9 year average, *****Water taken, no data available

RESERVOIR STORAGE SUMMARY
IRRIGATION YEAR - 1997

AMOUNT OF STORAGE									
MINIMUM					MAXIMUM				
WD	ID	RESERVOIR NAME	SOURCE STREAM	AF	DATE	AF	DATE	END YR	
28	3590	Hot Sprgs R	Hot Springs Cr	51.00	11/01/96	526.00	06/04/97	157.00	
28	3591	McDonough #1	Los Finos Cr	36.00	11/01/96	805.00	06/01/97	547.00	
28	3592	McDonough #2	Los Finos Cr	20.00	11/01/96	887.00	06/01/97	812.00	
28	3593	Needle Creek	Needle Cr	38.50	11/01/96	793.00	06/04/97	594.00	
28	3594	Upper Dome R	Cochetopa Cr	454.00	06/08/97	880.00	10/31/97	880.00	
28	3595	Vouga Res	Razor Cr	0.00	11/01/96	930.00	06/08/97	840.00	
40	3412	Ault Res	Muddy Cr	0.00	09/01/97	116.00	05/25/97	0.00	
40	3414	East Beckwith	Anthracite	305.00	11/01/96	368.90	07/14/97	368.90	
40	3413	Bruce Park Res	Hubbard Cr	0.00	11/01/96	556.00	05/19/97	162.20	
40	3399	Overland Res 1	Muddy Cr	0.00	11/01/96	6198.00	06/04/97	0.00	
40	3416	Paonia Res	Muddy Cr	1340.0	11/01/96	17461.0	06/02/97	4736.00	
40	3417	Spatafora Res	Muddy Cr	25.00	11/01/96	100.00	05/25/97	100.00	
40	3418	Tomahawk Res	Muddy Cr	43.00	11/01/96	87.30	06/24/97	87.30	
40	3419	Williams Cr R	Muddy Cr	50.00	11/01/96	100.00	06/24/97	100.00	
40	3391	Bald Mt Res	Crystal Cr	0.00	11/01/96	120.00	06/30/97	5.00	
40	3394	Don Meek 1	Crystal Cr	0.00	11/01/96	45.00	05/28/97	0.00	

RESERVOIR STORAGE SUMMARY
IRRIGATION YEAR - 1997

AMOUNT OF STORAGE											
WD	ID	RESERVOIR NAME	SOURCE STREAM	MINIMUM				MAXIMUM			
				AF	DATE	AF	DATE	AF	DATE	AF	END YR
40	3395	Fruitland Res	Crystal Cr	192.40	11/01/96	9039.00	06/16/97	1564.00			
40	3392	Bottle Stomp R	Iron Cr	0.00	11/01/96	17.00	05/30/97	0.00			
40	3553	Crawford Res	Iron Cr	421.00	11/01/96	14633.0	04/30/97	8531.00			
40	3397	Meek Res	Iron Cr	5.00	08/29/97	29.30	05/28/97	5.00			
40	3401	Rockwell 1 R	Iron Cr	59.50	08/29/97	119.00	05/28/97	100.00			
40	3403	Tyler Res	Iron Cr	45.00	11/01/96	169.30	05/28/97	85.00			
40	3400	Poison Spr Res	Gunnison R	80.00	11/01/96	123.00	05/29/97	90.00			
40	3402	Todd Res	McDonald Cr	0.00	11/01/96	240.00	07/30/97	240.0			
40	3420	Bailey Res	Leroux Cr	130.00	11/01/96	423.00	05/05/97	423.00			
40	3421	Brockman 1 R	Leroux Cr	0.00	11/01/96	16.00	05/05/97	0.00			
40	3422	Brockman 2 R	Leroux Cr	0.00	11/01/96	41.00	05/05/97	0.00			
40	3423	Carl Smith R	Leroux Cr	375.00	07/31/97	780.00	04/30/97	780.00			
40	3424	Dog Fish Res	Leroux Cr	0.00	11/01/96	243.00	05/31/97	0.00			
40	3425	Dowdy Res	Leroux Cr	264.00	11/01/96	264.00	05/05/97	264.00			
40	3426	Ella Res	Leroux Cr	98.00	11/01/96	98.00	05/30/97	0.00			
40	3427	Elk Wallows R	Leroux Cr	218.00	11/01/96	218.00	06/06/97	0.00			

RESERVOIR STORAGE SUMMARY
IRRIGATION YEAR - 1997

AMOUNT OF STORAG										
MINIMUM						MAXIMUM				
WD	ID	RESERVOIR NAME	SOURCE STREAM	AF	DATE	AF	DATE	AF	DATE	END YR
40	3428	Ellington Cook	Leroux Cr	0.00	11/01/96	24.50	05/30/97	24.50	05/30/97	24.50
40	3429	Fairmont Park	Leroux Cr	0.00	11/01/96	30.00	05/30/97	30.00	05/30/97	30.00
40	3430	Fairmont Res	Leroux Cr	0.00	11/01/96	78.00	05/31/97	78.00	05/31/97	0.00
40	3431	Fisher Res	Leroux Cr	10.00	11/01/96	10.00	05/13/97	10.00	05/13/97	10.00
40	3432	Goodenough Res	Leroux Cr	0.00	11/01/96	872.00	06/05/97	872.00	06/05/97	405.00
40	3433	Gray Res	Leroux Cr	0.00	11/01/96	424.00	05/05/97	424.00	05/05/97	424.00
40	3435	Hanson 2 Res	Leroux Cr	0.00	11/01/96	225.00	05/30/97	225.00	05/30/97	0.00
40	3437	Hunt Res	Leroux Cr	10.00	11/01/96	124.00	05/21/97	124.00	05/21/97	20.00
40	3438	Lucky Find Res	Leroux Cr	0.00	11/01/96	66.00	06/05/97	66.00	06/05/97	0.00
40	3439	Miller Res	Leroux Cr	0.00	11/01/96	20.40	05/30/97	20.40	05/30/97	0.00
40	3440	Owens Res	Leroux Cr	0.00	11/01/96	92.00	05/30/97	92.00	05/30/97	0.00
40	3441	Patterson Res	Leroux Cr	0.00	11/01/96	78.00	05/05/97	78.00	05/05/97	0.00
40	3442	Patterson 2 R	Leroux Cr	151.00	11/01/96	151.00	05/30/97	151.00	05/30/97	151.00
40	3443	Pine Cone Res	Leroux Cr	0.00	11/01/96	37.00	05/30/97	37.00	05/30/97	0.00
40	3444	Reynolds Res	Leroux Cr	37.90	11/01/96	176.00	05/05/97	176.00	05/05/97	176.00
40	3446	Skim Milk	Leroux Cr	46.90	11/01/96	90.00	05/05/97	90.00	05/05/97	90.00

RESERVOIR STORAGE SUMMARY
IRRIGATION YEAR - 1997

AMOUNT OF STORAGE										
WD	ID	RESERVOIR NAME	SOURCE STREAM	MINIMUM			MAXIMUM			
				AF	DATE	AF	DATE	AF	DATE	END YR
40	3447	Wash Tub Res	Leroux Cr	0.00	11/01/96	25.00	05/30/97	25.00	05/30/97	0.00
40	3448	Water Bug R	Leroux Cr	0.00	11/01/96	40.00	05/05/97	40.00	05/05/97	0.00
40	3449	Willow Res	Leroux Cr	25.00	11/01/96	128.00	05/30/97	128.00	05/30/97	128.00
40	3406	Beaver Res	Minn Cr	0.00	11/01/96	0.00	10/31/97	0.00	10/31/97	0.00
40	3407	Lone Cabin R	Minn Cr	0.00	11/01/96	124.00	05/15/97	124.00	05/15/97	0.00
40	3408	Monument Res	Minn Cr	0.00	11/01/96	460.00	07/08/97	460.00	07/08/97	0.00
40	3410	Roeber 2 Res	Minn Cr	0.00	11/01/96	44.00	07/30/97	44.00	07/30/97	44.00
40	3411	West Res	Jay Cr	0.00	11/01/96	454.00	05/11/97	454.00	05/11/97	0.00
40	3714	Lucas Cline R	North Fork R	0.00	11/01/96	9.00	05/05/97	9.00	05/05/97	0.00
40	3409	Reynolds Res	Reynolds Cr	0.00	11/01/96	100.00	05/15/97	100.00	05/15/97	40.00
40	3436	Holy Terror R	Terror Cr	0.00	11/01/96	146.00	05/30/97	146.00	05/30/97	0.00
40	3445	Rex Res	Terror Cr	0.00	11/01/96	10.00	05/30/97	10.00	05/30/97	0.00
40	3300	Alexander Lake	Ward Creek	0.00	11/01/96	157.00	05/31/97	157.00	05/31/97	157.00
40	3302	Barren Lake	Kiser Cr	156.70	11/01/96	800.00	05/31/97	800.00	05/31/97	800.00
40	3450	Basin #1	Dirty George C	0.00	11/01/96	257.50	06/02/97	257.50	06/02/97	65.40
40	3451	Basin #2	Dirty George C	0.00	11/01/96	75.10	06/12/97	75.10	06/12/97	32.00

RESERVOIR STORAGE SUMMARY
IRRIGATION YEAR - 1997

		AMOUNT OF STORAGE						
		MINIMUM			MAXIMUM			
WD	ID	RESERVOIR NAME	SOURCE STREAM	AF	DATE	AF	DATE	END YR
40	3452	Battlement 1	Dirty George C	87.40	11/01/96	87.40	11/01/96	87.40
40	3453	Battlement 2	Dirty George C	0.00	11/01/96	427.30	08/01/97	0.00
40	3341	Bonita	Surface Cr	49.60	11/01/96	280.50	06/01/97	113.50
40	3304	Bull Finch 1	Kiser Cr	0.00	11/01/96	0.00	05/31/97	0.00
40	3305	Bull Finch 2	Kiser Cr	10.20	11/01/96	39.20	05/31/97	35.40
40	3303	Boulder Lake 1	Ward Cr	0.00	11/01/96	0.00	08/31/97	0.00
40	3342	Cabin Lake	Surface Cr	0.00	11/01/96	27.00	06/01/97	0.00
40	3378	Calumet	Surface Cr	0.00	11/01/96	16.80	05/01/97	0.00
40	3366	Carbonate Cmp 3	Surface Cr	0.00	08/01/97	13.00	05/01/97	0.00
40	3306	Carbonate Cmp 6	Youngs Cr	0.00	11/01/96	129.60	05/31/97	3.50
40	3307	Carbonate Cmp 7	Youngs Cr	0.00	11/01/96	107.60	05/31/97	6.20
40	3343	Cedar Mesa	Surface Cr	41.80	11/01/96	919.00	05/31/97	387.60
40	3379	Cole 1	Surface Cr	0.00	11/01/96	26.70	06/01/97	0.00
40	3380	Cole 2	Surface Cr	0.00	11/01/96	75.90	06/01/97	0.00
40	3381	Cole 3 (Chy Ln)	Surface Cr	0.00	11/01/96	67.50	07/01/97	0.00
40	3344	Cole 4	Surface Cr	0.00	11/01/96	1.20	11/01/96	0.00

RESERVOIR STORAGE SUMMARY
IRRIGATION YEAR - 1997

		AMOUNT OF STORAGE									
		MINIMUM					MAXIMUM				
WD	ID	RESERVOIR NAME	SOURCE STREAM	AF	DATE	AF	DATE	AF	DATE	END YR	
40	3345	Cole 5	Surface Cr	0.00	11/01/96	116.20	05/01/97	0.00	05/01/97	0.00	
40	3308	Daniels Sl	Kiser Cr	0.00	11/01/96	228.00	05/31/97	0.00	05/31/97	23.00	
40	3309	Deep Slough	Ward Cr	0.00	11/01/96	498.40	05/31/97	0.00	05/31/97	0.00	
40	3310	Deep Ward	Ward Cr	691.00	11/01/96	1700.00	05/31/97	1650.00	05/31/97	1650.00	
40	3346	Deserted Park	Surface Cr	0.00	11/01/96	37.70	06/24/97	0.00	06/24/97	0.00	
40	3311	Donnelly Sl	Kiser Cr	0.00	11/01/96	277.00	05/31/97	2.70	05/31/97	2.70	
40	3382	Doughty 1	Surface Cr	0.00	11/01/96	48.20	06/01/97	0.00	06/01/97	0.00	
40	3383	Doughty 2	Surface Cr	0.00	11/01/96	18.40	06/01/97	0.00	06/01/97	0.00	
40	3347	Dreyfus	Surface Cr	0.00	11/01/96	42.50	05/01/97	0.00	05/01/97	0.00	
40	3312	Eggleston Lake	Kiser Cr	1790.8	11/01/96	2705.00	05/31/97	2705.00	05/31/97	2705.00	
40	3348	Elk Park	Surface Cr	0.00	11/01/96	96.80	05/01/97	7.10	05/01/97	7.10	
40	3549	Eureka 1	Youngs Cr	0.00	11/01/96	27.10	06/01/97	0.00	06/01/97	0.00	
40	3349	Eureka 2	Youngs Cr	0.00	11/01/96	53.50	06/01/97	0.00	06/01/97	0.00	
40	3350	Fish Lake	Surface Cr	0.00	11/01/96	76.90	06/01/97	0.00	06/01/97	0.00	
40	3313	Forrest	Ward Cr	0.00	11/01/96	85.70	05/31/97	7.00	05/31/97	7.00	
40	3314	Goodenough	Kiser Cr	0.00	11/01/96	152.00	05/31/97	152.00	05/31/97	152.00	

RESERVOIR STORAGE SUMMARY
IRRIGATION YEAR - 1997

AMOUNT OF STORAGE									
MINIMUM					MAXIMUM				
WD	ID	RESERVOIR NAME	SOURCE STREAM	AF	DATE	AF	DATE	END YR	
40	3455	Granby 6	Dirty George C	28.80	11/01/96	46.00	05/05/97	46.00	
40	3456	Granby 7	Dirty George C	35.40	09/01/97	76.10	05/05/97	35.40	
40	3457	Granby 8	Dirty George C	0.00	11/01/96	13.30	05/26/97	0.00	
40	3458	Granby 9	Dirty George C	61.60	11/01/96	72.00	05/05/97	70.20	
40	3454	Granby 5-11	Dirty George C	433.80	11/01/96	775.00	06/02/97	495.00	
40	3459	Granby 12	Dirty George C	287.20	11/01/96	523.00	05/15/97	434.90	
40	3351	Greenwood	Surface Cr	0.00	11/01/96	0.00	11/01/96	0.00	
40	3384	Hale	Surface Cr	0.00	11/01/96	26.30	07/01/97	0.00	
40	3315	Hotel Twin L	Ward Creek	495.00	09/30/97	548.70	11/01/96	548.70	
40	3316	Howard	Kiser Cr	20.60	11/01/96	61.40	10/31/97	61.40	
40	3317	Island Lake	Ward Cr	907.80	11/01/96	1426.0	05/31/97	1426.00	
40	3352	Kehmeier	Surface Cr	0.00	11/01/96	298.90	06/01/97	42.80	
40	3319	Kiser Slough	Surface Cr	61.60	09/30/97	512.00	05/31/97	182.30	
40	3318	Kennicott Sl	Kiser Cr	0.00	11/01/96	811.50	06/30/97	28.60	
40	3353	Knox	Surface Cr	22.70	11/01/96	216.30	06/01/97	53.30	
40	4520	Leon Lake	Leon Cr	147.50	11/01/96	2164.1	07/28/97	1226.10	

RESERVOIR STORAGE SUMMARY
IRRIGATION YEAR - 1997

AMOUNT OF STORAGE									
MINIMUM					MAXIMUM				
WD	ID	RESERVOIR NAME	SOURCE STREAM	AF	DATE	AF	DATE	END YR	END YR
40	3385	Leon Park	Surface Cr	0.00	11/01/96	147.90	07/01/97	0.00	0.00
40	3320	Lilly Pad	Youngs Cr	0.00	11/01/96	0.00	11/01/96	0.00	0.00
40	3386	Little Giant 1	Surface Cr	0.00	11/01/96	0.00	11/01/96	0.00	0.00
40	3387	Little Giant 2	Surface Cr	0.00	11/01/96	12.00	06/01/97	0.00	0.00
40	3322	Little Grouse	Youngs Cr	0.00	11/01/96	52.50	05/31/97	52.50	52.50
40	3321	Little Gem	Ward Cr	57.70	11/01/96	219.00	05/31/97	219.00	219.00
40	3388	Marcott	Surface Cr	0.00	11/01/96	448.00	06/01/97	0.00	0.00
40	3323	McKoon	Youngs Cr	116.60	11/01/96	147.90	05/31/97	132.40	132.40
40	3354	Military	Surface Cr	0.00	11/01/96	236.60	06/01/97	0.00	0.00
40	3355	Park	Surface Cr	937.60	11/01/96	3383.40	06/01/97	2066.40	2066.40
40	3324	P C & G 1	Kiser Cr	17.00	11/01/96	19.40	05/31/97	19.40	19.40
40	3325	Pedro	Youngs Cr	0.00	11/01/96	194.90	05/31/97	21.30	21.30
40	3326	Pine	Youngs Cr	0.00	11/01/96	11.10	06/30/97	0.00	0.00
40	3327	Prebble	Youngs Cr	80.90	11/01/96	193.10	05/31/97	174.80	174.80
40	3328	Rim Rock Lake	Ward Cr	0.00	11/01/96	107.90	05/31/97	50.10	50.10
40	3329	Rock Lake Res	Ward Cr	0.00	11/01/96	0.00	11/01/96	0.00	0.00

RESERVOIR STORAGE SUMMARY
IRRIGATION YEAR - 1997

		AMOUNT OF STORAGE									
		MINIMUM					MAXIMUM				
WD	ID	RESERVOIR NAME	SOURCE STREAM	AF	DATE	AF	DATE	AF	DATE	END YR	
40	3356	Round Lake	Surface Cr	0.00	11/01/96	14.50	07/01/97	0.00		0.00	
40	3330	Ryan	Youngs Cr	40.30	11/01/96	40.30	11/01/96	40.30		40.30	
40	3357	Sackett	Surface Cr	38.20	11/01/96	108.00	05/01/97	58.00		58.00	
40	3331	Safety 1 & 2	Cottonwood Cr	0.00	11/01/96	15.00	05/31/97	0.70		0.70	
40	3332	Scotland Peak	Ward Cr	0.00	11/01/96	96.10	06/30/97	0.00		0.00	
40	3333	Sheep Lake	Ward Cr	0.00	11/01/96	154.00	05/31/97	154.00		154.00	
40	3358	Stell	Surface Cr	0.00	11/01/96	65.00	07/01/97	15.00		15.00	
40	3389	Trickle	Surface Cr	0.00	11/01/96	32.70	05/01/97	0.00		0.00	
40	3359	Trio	Surface Cr	46.70	08/01/97	164.30	06/01/97	46.70		46.70	
40	3360	Twin Lake 1	Surface Cr	0.00	11/01/96	0.00	11/01/96	0.00		0.00	
40	3361	Twin Lake 2	Surface Cr	0.00	11/01/96	120.80	06/13/97	7.00		7.00	
40	3334	Upper Hotel L	Ward Cr	90.30	11/01/96	106.00	05/31/97	106.00		106.00	
40	3362	Vela	Surface Cr	38.20	11/01/96	436.60	05/01/97	215.30		215.30	
40	3335	Ward Cr	Ward Cr	18.90	09/30/97	284.40	05/31/97	106.70		106.70	
40	3363	Weir/Johnson 2	Surface Cr	185.40	11/01/96	593.90	07/01/97	263.90		263.90	
40	3364	Weir Park	Surface Cr	0.00	11/01/96	40.70	06/01/97	0.00		0.00	

RESERVOIR STORAGE SUMMARY
IRRIGATION YEAR - 1997

AMOUNT OF STORAGE										
WD	ID	RESERVOIR NAME	SOURCE STREAM	MINIMUM			MAXIMUM			END YR
				AF	DATE	AF	DATE	AF	DATE	
40	3336	Womack 1	Ward Cr	0.00	11/01/96	202.40	05/31/97	21.70		
40	3337	Womack 2 & 3	Cottonwood Cr	9.40	11/01/96	101.50	05/31/97	101.50		
40	3340	Womack 5	Cottonwood Cr	0.00	11/01/96	18.50	05/31/97	0.40		
40	3338	Young Cr 1 & 2	Youngs Cr	173.50	09/30/97	796.90	06/30/97	206.70		
40	3339	Youngs Cr 3	Youngs Cr	0.00	11/01/96	200.60	05/31/97	200.60		
40	3390	Y & S	Surface Cr	32.10	11/01/96	190.00	06/01/97	48.30		
40	3365	Fruitgrowers	Alfalfa Run	1621.8	08/29/97	4451.6	04/01/97	2026.90		
40	3368	Beaver Dam	Escalante Cr	0.00	11/01/96	396.50	06/26/97	0.00		
40	3370	Clark Res	Oak Cr	11.00	11/01/96	50.80	05/05/97	22.90		
40	3373	Dugger Res	Oak Cr	195.00	11/01/96	212.10	05/19/97	195.00		
40	3374	Morris 2	Oak Cr	16.30	11/01/96	16.30	11/01/96	16.30		
40	3375	Pitcarin Res	Doughspoon Cr	51.00	11/01/96	76.00	05/19/97	51.00		
40	3376	Porter 1	Oak Cr	139.20	08/06/97	214.80	11/01/96	214.80		
40	3377	Porter 4	Oak Cr	38.00	11/01/96	38.00	11/01/96	38.00		
40	2301	Arch Slough	Ward Cr	0.00	08/31/97	120.00	05/31/97	0.00		

RESERVOIR STORAGE SUMMARY
IRRIGATION YEAR - 1997

AMOUNT OF STORAGE											
MINIMUM						MAXIMUM					
WD	ID	RESERVOIR NAME	SOURCE STREAM	AF	DATE	AF	DATE	AF	DATE	END YR	
42	3600	Anderson R 1	Kannah Cr	0.00	11/01/96	521.00	07/01/97	267.00			
42	3601	Anderson R 2	Kannah Cr	0.00	11/01/96	612.00	07/01/97	281.00			
42	3630	Anderson R 6	Kannah Cr	0.00	11/01/96	98.00	07/01/97	0.00			
42	3602	Bolen AJ R	Kannah Cr	0.00	11/01/96	240.00	06/01/97	0.00			
42	3603	Bolen Res	Kannah Cr	0.00	11/01/96	499.00	07/01/97	32.00			
42	3604	Carson Lake	Kannah Cr	480.00	11/01/96	637.00	06/01/97	637.00			
42	3606	Deep Cr R 2	Kannah Cr	0.00	11/01/96	362.00	07/01/97	112.00			
42	3607	Dry Cr R Sup	Kannah Cr	0.00	11/01/96	208.00	07/01/97	0.00			
42	3608	Flowing Pk R	Kannah Cr	359.00	11/01/96	781.00	07/01/97	359.00			
42	3609	Fruita Res 1	East Cr	38.10	11/01/96	132.00	06/01/97	40.70			
42	3610	Fruita Res 2	East Cr	49.50	11/01/96	168.00	06/01/97	53.10			
42	3614	Grand Mesa R 1	Kannah Cr	135.00	10/01/97	585.00	07/01/97	135.00			
42	3615	Grand Mesa R 6	Kannah Cr	0.00	11/01/96	172.00	07/01/97	0.00			
42	3616	Grand Mesa R 8	Kannah Cr	0.00	11/01/96	379.00	07/01/97	0.00			
42	3617	Grand Mesa R 9	Kannah Cr	0.00	11/01/96	141.00	07/01/97	0.00			
42	3618	Hallenbeck R 1	Kannah Cr	408.00	04/01/97	709.40	09/11/97	547.00			

RESERVOIR STORAGE SUMMARY
IRRIGATION YEAR - 1997

AMOUNT OF STORAGE											
WD	ID	RESERVOIR NAME	SOURCE STREAM	MINIMUM				MAXIMUM			
				AF	DATE	AF	DATE	AF	DATE	AF	END YR
42	3619	Hallenbeck R 2	Kannah Cr	0.00	11/01/96	434.00	07/01/97	210.00			
42	3620	Juniata Res	Kannah Cr	4629.0	11/01/96	5928.00	06/01/97	5928.00			
42	3623	Scales Res 1	Kannah CR	0.00	11/01/96	0.00	07/01/97	0.00			
42	3624	Scales Res 3	Kannah Cr	0.00	11/01/96	0.00	07/01/97	0.00			
42	3625	Somerville R 1	Whitewater Cr	0.00	11/01/96	0.00	07/01/97	0.00			
59	3665	Spring Creek	Taylor River	N/A	Staff	broken					
59	3666	Taylor Park	Taylor River	48103.	05/03/97	102082.	06/29/97	75330.00			
59	3684	Lake Grant	Slate River	256.00	11/01/96	256.00	06/10/97	256.00			
59	2689	Meridian Lk Pk	Slate River	123.00	11/01/96	123.00	06/11/97	123.00			
60	3507	Gurley R	Beaver Cr	3156.0	11/01/96	9103.00	06/23/97	3985.00			
60	3511	Lone Cone R	Bennet Cr	295.00	11/01/96	1804.00	03/06/97	365.00			
60	3510	Lilylands	Naturita Cr	41.00	11/01/96	494.00	06/01/97	54.00			
60	3512	Miramonte	W Naturita Cr	4301.0	11/01/96	6851.00	05/01/97	6851.00			
60	3519	Paxton Res	Horsefly Cr	558.00	11/01/96	898.00	06/01/97	643.00			

RESERVOIR STORAGE SUMMARY
IRRIGATION YEAR - 1997

		AMOUNT OF STORAGE									
		MINIMUM					MAXIMUM				
WD	ID	RESERVOIR NAME	SOURCE STREAM	AF	DATE	AF	DATE	AF	DATE	END YR	
60	3509	Lake Hope Res	Lake Fork	201.00	01/01/97	2310.0	11/01/96	2310.00		2310.00	
60	3527	Trout Lake Res	Lake Fork	1265.0	04/01/97	3314.0	05/21/97	3034.00		3034.00	
60	3556	Hofmann Res #12	Horsefly Cr	45.00	10/31/97	50.00	06/01/97	45.00		45.00	
61	3541	Buckeye R	W Paradox Cr	190.00	11/01/96	2412.0	05/20/97	1813.00		1813.00	
62	3552	Blue Mesa	Gunnison R	298343	04/17/97	816279	07/01/97	664148.00		664148.00	
62	3578	Crystal	Gunnison R	13608.	01/31/97	18346.	06/30/97	16353.00		16353.00	
62	3545	Morrow Pt	Gunnison R	104772	03/18/97	116082	06/24/97	111413.00		111413.00	
62	3548	Silverjack	Big Cimarron	4804.0	11/01/96	13742.	06/30/97	8906.00		8906.00	
63	3640	Craig Res 2	West Cr	50.00	11/01/96	544.00	06/01/97	114.00		114.00	
63	3641	Burg Res	West Cr	0.00	11/01/96	191.00	05/31/97	0.00		0.00	
63	3642	Casement Res	West Cr	90.00	11/01/96	155.00	05/31/97	155.00		155.00	
63	3643	Casto Res	West Cr	52.00	11/01/96	802.00	06/01/97	121.00		121.00	
63	3644	Craig Res 1	West Cr	25.00	11/01/96	525.00	05/06/97	258.00		258.00	
68	3675	Ridgway	Uncompahgre R	52433.	05/13/97	83563.	08/11/97	61570.00		61570.00	
73	3621	Fruita Res 3	Chiquito Dol.	10.00	11/01/96	45.90	05/31/97	12.80		12.80	

1997

WATER DIVERSION SUMMARIES TO VARIOUS USES

WD	TRANS MOUNTAIN OUTFLOW	TRANS BASIN OUTFLOW	MUNIC- IPAL	COMMER- CIAL	INDUS- TRIAL	RECRE- ATION	FISH- ERY	DOMES/ HOUSE- HOLD	STOCK
28	994	0	0	0	0	0	0	0	1,470
40	811	0	4,716	0	472	0	10,254	933	16,693
41	0	0	8,540	0	0	0	1,448	0	464
42	565,184	681	298	0	532	0	0	10	157
59	0	253	2,638	0	0	12,093	180,303	0	1,267
60	0	0	1,626	22,713	0	394	1,327	463	457
61	0	0	50	0	0	0	0	33	976
62	1,412	268,794	0	0	0	0	8,519	0	0
63	0	0	0	0	0	0	0	11	1,375
68									
73	0	0	0	0	0	0	0	0	6
TOT									

WATER DIVERSION SUMMARIES TO VARIOUS USES, continued

WD	AUG- MENTA- TION	EVAPO- RATION	GEO- THER- MAL	SNOW MAKING	MIN STREAM FLOW	POWER GENERA- TION	WILD- LIFE	RE- CHARG- ES	OTHER
28	0	0	0	0	0	0	0	0	0
40	30	1,897	0	0	0	0	0	0	1,405
41	0	0	0	0	0	0	0	0	173,813
42	0	2,143	0	0	0	0	0	0	0
59	0	2,626	0	96	0	0	0	0	0
60	0	0	0	0	0	0	0	0	0
61	0	0	0	0	0	0	0	376	0
62	0	55,022	0	0	217,193	3,945,182	0	0	0
63	0	204	0	0	0	32	0	0	81
68									
73	0	12	0	0	0	0	0	0	0
TOT									

WATER DIVERSION SUMMARIES

WD	STRUCTURES REPORTING			ALL OTHER STRUCTURES						TO IRRIGATION		
	With Record (1)	No Water Avail. (2)	No Water Taken (3)	No Info Avail. (4)	No Record (5)	Estimate # Visits Structure	Total Diversions AF	Total Diversions to Storage AF	Total Diversions AF	Total Diversions AF	Number of Acres Irrigated	Average AF Per Acre
28	195	4	13	70	325	1,338	278,483	0	276,019	23,710	11.64	
40	820	2	228	325	1,064	14,727	611,428	87,208	487,009	109,005	4.47	
41	73	1	23	35	443	2,165	788,318	0	604,053	71,294	8.47	
42	65	1	31	147	225	2,799	623,879	24,766	30,108	5,517	5.46	
59	198	0	22	153	973	2,701	580,051	56,161	324,614	31,527	10.30	
60	280	5	80	93	906	1,725	171,263	17,640	126,643	30,774	4.12	
61	45	0	23	5	19	1,870	19,193	8,421	9,337	3,383	2.76	
62	179	0	34	86	843	4,931	6,029,070	1,390,883	142,065	12,512	11.35	
63	63	0	36	67	147	1,715	28,190	2,105	24,382	2,590	9.41	
68										15,808		
73	28	0	13	60	100	383	8,480	98	8,364	3,048	2.74	
TL										309,138		

Definitions: (1)Count of structures with CIU=A and NUC=B

(3) Count of structures with CIU=A and NUC=(E,F)

(2) Count of structures with CIU=A and NUC=(A,C,D)=CIU=I

(4) Count of structures with CIU=U

1997
WATER COURT ACTIVITIES

Applications for Decrees	246
Consultations with Referee	255
Decrees Issued by Water Court	283
Dismissals	4
Complaints	0

	<u>Struc.</u>	<u>Cases</u>
New Conditional Water Rights		62
Diligence on Conditional Rights		48
Cancellations of Conditional Rights		28
Conditional Rights Made Absolute		17
Underground Water Rights Adjudicated	158	21
Surface Water Rights Adjudicated	398	268
Water Storage Rights Adjudicated	78	37
Plans for Augmentation Adjudicated		13
Change of Water Rights/Location		13
Change of Water Rights/Use Adjudicated		9
Instream Flow Rights Adjudicated		<u>0</u>
Total		516

APPENDIX E
DIVISION IV
1997 RIVER CALLS

Water District 28

<u>STREAM AFFECTED</u>	<u>NAME OF STRUCTURE</u>	<u>ADMIN # CALL STRUC</u>	<u>DATE OF CALL</u>	<u>DURATION OF CALL</u>	<u>PERSON/ CALLING</u>
Razor Cr.	Hirdman #1 D	10743.00000	7/7/97	7/12/97	Harry Peterson
Razor Cr.	Hirdman #2 D	10743.00000	7/7/97	7/12/97	Harry Peterson
Razor Cr.	Hirdman #3D	10743.00000	7/7/97	7/12/97	Harry Peterson
Razor Cr.	Kennedy #1 D	10301.00000	7/7/97	7/12/97	Harry Peterson
Razor Cr.	Kennedy #2 D	10301.00000	7/7/97	7/12/97	Harry Peterson

Water District 40

<u>STREAM AFFECTED</u>	<u>NAME OF STRUCTURE</u>	<u>ADMIN # CALL STRUC</u>	<u>DATE OF CALL</u>	<u>DURATION OF CALL</u>	<u>PERSON/ CALLING</u>
Bell Creek	North Fork Orchard	48010.00000	7/7/97	Season	Norm Smith
Cow Creek	Larson	29260.21350	7/3/97	Season	Peter Blake
rystal Creek	CCIS Ditch	12350.00000	7/9/97	11/1/97	LeRoy McLaughlin
Deep Creek	Filmore	29260.25001	7/17/97	Season	John Lee
Dirty George	Blake Ditch	20501.13605	7/24/97	Season	Bud Hawkins
Dirty George	Eagle Ditch	21341.00000	7/8/97	Season	Stanton Green
Dirty George	Obert Ditch	21263.16102	7/8/97	Season	Bud Hawkins
Dirty George	Red Haw Ditch	29260.21275	7/3/97	Season	Stanton Green
Hubbard Creek	Deer Trail	14195.00000	7/28/97	Season	Bob Barnes
Kiser Creek	Roseberry D.	20501.13301	7/16/97	Season	Chann Fogg
Leroux Creek	Leroux Cr WUA D	12285.00000	7/8/97	Season	Tom Alvey
Leroux Creek	Highline Ditch	14413.13606	7/7/97	Season	Robert White

Water District 40 cont'd.

<u>STREAM</u> <u>AFFECTED</u>	<u>NAME OF</u> <u>STRUCTURE</u>	<u>ADMIN #</u> <u>CALL STRUC</u>	<u>DATE OF</u> <u>CALL</u>	<u>DURATION</u> <u>OF CALL</u>	<u>PERSON/</u> <u>CALLING</u>
Leroux Creek	Highline Ditch	21089.14413	7/4/97	Season	Robert White
Leroux Creek	Stull Ditch	21089.15502	6/25/97	Season	Fred Burritt
Minnesota Cr	Minnesota Canal	14413.13758	7/2/97	Season	Grant Farnsworth
Minnesota Cr	Minnesota Canal	14413.12488	8/29/97	Season	Creek flow
Muddy Creek	Ditch #3	21263.17335	8/19/96	Season	Larry McIntyre
Roatcap	Robert Stucker	25807.23557	6/26/97	Season	Steve Walcott
Smith Fork	Crawford Clipper D.	13076.00000	7/1/96	11/1/97	Bill Linman/Needle Rk.
Smith Fork	Crawford Clipper D.	13076.00000	7/1/96	11/1/97	Bill Linman/Saddle D.
Smith Fork	Crawford Clipper D.	13076.00000	7/15/96	11/1/97	Bill Linman/Virginia D.
Surface Cr.	Alfalfa Ditch	11674.00000	3/28/97	Season	W. R. England
Surface Cr.	Bonita Ditch	13514.00000	4/23/97	Season	Elmer Ferganchick
Surface Cr.	Butte Ditch	11674.00000	3/29/97	Season	Mel Schroeder
Surface Cr.	Butte Ditch	13112.00000	7/5/97	Season	Mel Schroeder
Surface Cr.	C&D Ditch	29260.16593	5/2/97	Season	Dave Gordon
Surface Cr.	Cedar Mesa	20501.16329	4/28/97	Season	Jerry Figueroa
Surface Cr.	Cedar Mesa	20501.16329	6/26/97	Season	Jerry Figueroa
Surface Cr.	Coldwater	20501.14750	5/2/97	Season	Dave Gordon
Surface Cr.	Cook Ditch	11674.00000	3/28/97	Season	Town of Cedaredge
Surface Cr.	Eric Johnson D.	13120.00000	4/23/97	Season	Gene Young
Surface Cr.	Eric Johnson D.	13120.00000	7/3/97	Season	Gene Young
Surface Cr.	Fogg Ditch	12876.00000	3/31/97	Season	Mel Schroeder
Surface Cr.	Fogg Ditch	12876.00000	7/3/97	Season	Mel Schroeder
Surface Cr.	Forest Ditch	11674.00000	3/29/97	Season	Steve Tuck
Surface Cr.	Gregg Ditch	29260.17653	4/24/97	Season	Art Behrman
Surface Cr.	Gurney Ditch	20501.15432	4/24/97	Season	Arlo Hanson
Surface Cr.	Horseshoe D.	13615.00000	4/28/97	Season	Wayne McPherson
Surface Cr.	Lone Pine Ditch	20501.17790	4/28/97	Season	Don Peterson

Water District 40 cont'd.

<u>STREAM</u> <u>AFFECTED</u>	<u>NAME OF</u> <u>STRUCTURE</u>	<u>ADMIN #</u> <u>CALL STRUC</u>	<u>DATE OF</u> <u>CALL</u>	<u>DURATION</u> <u>OF CALL</u>	<u>PERSON/</u> <u>CALLING</u>
Surface Cr.	Lone Pine Ditch	20501.17790	6/23/97	Season	Dick Jones
Surface Cr.	Metzgar Ditch	25807.25423	4/21/97	Season	Don Petersen
Surface Cr.	Old Reliable	13514.00000	4/19/97	Season	Steve Palmer
Surface Cr.	Omega	20501.13240	4/28/97	Season	Bob Hamilton
Surface Cr.	Orchard Ranch	12182.00000	4/17/97	Season	Norm Kehmier
Surface Cr.	Orchard Ranch	12182.00000	7/25/97	Season	Norm Kehmier
Surface Cr.	Paradise	20501.13331	5/13/97	Season	Bill Kissner
Surface Cr.	Paradise	20501.13331	6/30/97	Season	Bill Kissner
Surface Cr.	Rose Ditch	20501.16527	3/31/97	Season	Hans Reusch
Surface Cr.	Settle Ditch	12503.00000	3/28/97	Season	Bud Hawkins
Surface Cr.	Shepard Ditch	12717.00000	4/21/97	Season	Charles Lutje
Surface Cr.	Shepard Ditch	12717.00000	7/19/97	Season	Charles Lutje
Surface Cr.	Trickle Ditch	20501.13574	3/28/97	Season	Melva Jones
Surface Cr.	Trickle Ditch	20501.13574	3/28/97	Season	Melva Jones
Surface Cr.	Weir & Johnson	20501.13223	4/23/97	Season	Jim Vela
Surface Cr.	Wild Cherry	29260.16893	4/22/97	Season	Jerry Loucks
Surface Cr.	Wild Cherry	29260.16893	6/23/97	Season	Jerry Loucks
Surface Cr.	Zonola Pelezini	20501.15432	4/30/97	Season	Charles Lutje
Ward Creek	Wagner Waste D	46012.00000	7/28/97	Season	Douglas Frasier
Youngs Creek	Broncho Ditch	13254.00000	7/7/97	Season	Frost/Lookout #44
Youngs Creek	Broncho Ditch	13254.00000	7/7/97	Season	Frost/Cherokee#38
Youngs Creek	Cherokee Ditch	20501.16893	7/1/97	Season	Davis/Texas H77

Water District 41

<u>STREAM</u> <u>AFFECTED</u>	<u>NAME OF</u> <u>STRUCTURE</u>	<u>ADMIN #</u> <u>CALL STRUC</u>	<u>DATE OF</u> <u>CALL</u>	<u>DURATION</u> <u>OF CALL</u>	<u>PERSON/</u> <u>CALLING</u>
Horsefly	Albush Ditch	24221.22524	6/27/97	Season	Mardell Sanders
Spring Creek	Shavano Valley	12217.00000	7/7/97	Season	Wayne Brown

Water District 42

<u>STREAM</u> <u>AFFECTED</u>	<u>NAME OF</u> <u>STRUCTURE</u>	<u>ADMIN #</u> <u>CALL STRUC</u>	<u>DATE</u> <u>OF CALL</u>	<u>DURATION</u> <u>OF CALL</u>	<u>PERSON</u> <u>PLACING CALL</u>
Kannah Cr.	Bowen Private D	13121.00000	5/4/97	7/11/97	Steve Bonnell
Kannah Cr.	Bales, Wm, Morrison	12724.00000	4/17/97	10/31/97	John Carelli
Kannah Cr.	Bales, Wm, Morrison	13902.00000	4/17/97	6/30/97	John Carelli
Kannah Cr.	Black Ditch	30895.30389	4/23/97	4/26/97	Vic Jensen
Kannah Cr.	Black Ditch	44194.38137	4/23/97	4/26/97	Vic Jensen
Kannah Cr.	Black Ditch	30895.30389	6/19/97	6/23/97	Vic Jensen
Kannah Cr.	Black Ditch	44194.38137	4/23/97	6/23/97	Vic Jensen
Kannah Cr.	Black Ditch	30895.30389	4/23/97	4/26/97	Vic Jensen
Kannah Cr.	Black Ditch	44194.38137	4/23/97	4/26/97	Vic Jensen
Kannah Cr.	Brown/Campion D	12724.00000	4/28/97	9/19/97	Bill Blair
Kannah Cr.	Brown/Campion D	13102.00000	5/7/97	7/7/97	Bill Blair
Kannah Cr.	Brown/Campion D	13499.00000	5/9/97	6/14/97	Bill Blair
Kannah Cr.	Florence Berry	23490.00000	4/16/97	4/28/97	Vic Jensen
Kannah Cr.	Florence Berry	44194.38137	4/16/97	4/28/97	Vic Jensen
Kannah Cr.	Florence Berry	23490.00000	6/19/97	6/23/97	Vic Jensen
Kannah Cr.	Florence Berry	44194.38137	6/19/97	6/23/97	Vic Jensen
Kannah Cr.	Florence Berry	23490.00000	10/10/97	10/17/97	Vic Jensen
Kannah Cr.	Florence Berry	44194.38137	10/10/97	10/17/97	Vic Jensen
Kannah Cr.	Grand Jct. Fl&WW	30895.28975	10/29/96	4/1/97	Danny Vanover

Water District 42 cont'd.

<u>STREAM</u> <u>AFFECTED</u>	<u>NAME OF</u> <u>STRUCTURE</u>	<u>ADMIN #</u> <u>CALL STRUC</u>	<u>DATE</u> <u>OF CALL</u>	<u>DURATION</u> <u>OF CALL</u>	<u>PERSON</u> <u>PLACING CALL</u>
Kannah Cr.	Grand Jct. Fl&WW	11687.00000	11/1/96	10/31/97	Danny Vanover
Kannah Cr.	Juniata D. 1st Enl	30895.28975	10/29/96	4/1/97	Danny Vanover
Kannah Cr.	Juniata D. 1st Enl	34419.12419	11/1/96	4/1/97	Danny Vanover
Kannah Cr.	Juniata D. 1st Enl	32750.00000	5/8/96	5/16/97	Danny Vanover
Kannah Cr.	Juniata D. 1st Enl	52950.00000	5/8/96	5/14/97	Danny Vanover
Kannah Cr.	Kannah Cr. Ext. D	12724.00000	4/26/97	9/23/97	Ed Gardiner
Kannah Cr.	Juniata D. 1st Enl	32750.00000	5/8/96	5/16/97	Danny Vanover
Kannah Cr.	Juniata D. 1st Enl	52950.00000	5/8/96	5/14/97	Danny Vanover
Kannah Cr.	Kannah Cr. Ext. D.	12724.00000	4/26/97	9/23/97	Steve Bonnell
Kannah Cr.	Kannah Cr. Ext. D.	13904.00000	5/4/97	6/27/97	Steve Bonnell
Kannah Cr.	Kannah Cr. Ext. D.	32811.00000	5/4/97	6/11/97	Steve Bonnell
Kannah Cr.	Kannah Cr. Ext. D.	22848.21251	5/4/97	6/24/97	Steve Bonnell
Kannah Cr.	Northwestern	12724.00000	5/8/97	10/31/97	John Whiting
Kannah Cr.	Northwestern	13007.00000	5/20/97	8/1/97	John Whiting
Kannah Cr.	Northwestern	38502.00000	5/20/97	6/16/97	John Whiting
Kannah Cr.	Rober Coal Cr.	31791.00000	5/12/97	6/15/97	Nina Brouse
Kannah Cr.	Smith Ditch	12724.00000	5/8/97	10/31/97	Bud Bradbury
Kannah Cr.	Smith Ditch	13007.00000	5/8/97	7/22/97	Bud Bradbury
Kannah Cr.	Smith Ditch	13234.00000	5/8/97	7/3/97	Bud Bradbury
Kannah Cr.	Smith Ditch	13007.00000	8/1/97	10/21/97	Bud Bradbury
Kannah Cr.	Washburn/Downing	13900.00000	5/13/97	5/15/97	John Whiting
Kannah Cr.	Washburn/Downing	13900.00000	5/20/97	6/12/97	John Whiting
Kannah Cr.	Washburn/Downing	13007.00000	6/25/97	7/11/97	John Whiting
Kannah Cr.	Washburn/Downing	13234.00000	6/25/97	7/11/97	John Whiting
Kannah Cr.	Washburn/Downing	13900.00000	6/25/97	7/11/97	John Whiting
Kannah Cr.	WM. H. Williams	30895.23597	4/16/97	4/25/97	Vic Jensen
Kannah Cr.	WM. H. Williams	44194.38137	4/23/97	4/25/97	Vic Jensen

Water District 42 cont'd.

<u>STREAM</u> <u>AFFECTED</u>	<u>NAME OF</u> <u>STRUCTURE</u>	<u>ADMIN #</u> <u>CALL STRUC</u>	<u>DATE</u> <u>OF CALL</u>	<u>DURATION</u> <u>OF CALL</u>	<u>PERSON</u> <u>PLACING CALL</u>
Kannah Cr.	WM. H. Williams	30895.23597	6/20/97	6/23/97	Vic Jensen
Kannah Cr.	WM. H. Williams	44194.38137	6/20/97	6/23/97	Vic Jensen
Kannah Cr.	WM. H. Williams	30895.23597	10/10/97	10/25/97	Vic Jensen
Kannah Cr.	WM. H. Williams	44194.38137	10/10/97	10/25/97	Vic Jensen
Kannah Cr.	WM. J. Ponsford	11688.00000	5/9/97	10/14/97	Dan Brown

Water District 59

No calls

Water District 60

<u>STREAM</u> <u>AFFECTED</u>	<u>NAME OF</u> <u>STRUCTURE</u>	<u>ADMIN #</u> <u>CALL STRUC</u>	<u>DATE</u> <u>OF CALL</u>	<u>DURATION</u> <u>OF CALL</u>	<u>PERSON</u> <u>PLACING CALL</u>
Maverick- Naturita	Maverick Draw	12524.00000	7/18/96	10/4/96	Earl Reams
San Miguel R	BCD Ditch	13058.00000	8/12/96	9/12/96	Earl Reams
San Miguel R	Highline Canal	16588.00000	8/12/96	9/12/96	Bob Nyland
San Miguel R	Nucla Power Pl	13058.00000	8/12/96	9/12/96	Tri-State Power
Maverick Cr	Hankins D	23681.00000	8/16/96	10/31/96	Dale Souther

Water District 61

No calls

Water District 62

No calls

Water District 63

No calls

Water District 68

No information

Water District 73

No calls

TABLE OF ORGANIZATION - PERSONNEL
IRRIGATION DIVISION NO. IV

Division Engineer - Kenneth W. Knox
Assistant Division Engineer - Wayne Schieldt
Administrative Assistant - Jean Kurtz
Well Commissioner - LuAnn Beasley
Dam Safety Engineer - James Norfleet
Hydrographer - Jerry Thrush

Water District 28

WATER COMMISSIONER
*Paul Manning

Water District 40

PR. WATER COMMISSIONER
Jimmie Boyd

Water District 41

SR. WATER COMMISSIONER
Crandall Howard

PR. WATER COMMISSIONER
Robert Starr

Water District 42

SR. WATER COMMISSIONER
Richard Belden

WATER COMMISSIONER
Lynne Bixler

Cliff Davis
Merritt Denison
James Holiman
Henry LeValley
Albert Mahannah
Kenneth Mahannah
Jack McHugh
L. Gregg Scott
Charles Stein
Stephen Tuck

Water District 59

WATER COMMISSIONER
Richard Rozman

Water District 60

SR. WATER COMMISSIONER
Lyman Campbell

Water District 61

WATER COMMISSIONER
Clinton Oliver

Water District 62

SR. WATER COMMISSIONER
C. Crandall Howard
Carl Hurst

Water District 63

SR. WATER COMMISSIONER
Richard Belden

Water District 68

WATER COMMISSIONER
H. Roger Noble

Water District 73

SR. WATER COMMISSIONER
Richard Belden

*Temporary

OFFICE ADMINISTRATION AND WORKLOAD MEASURES

ACTIVITY SUMMARY

WATER DIVISION NO. IV

1997 CALENDAR YEAR

ACTIVITY SUMMARY

<u>ACTIVITY</u>	<u>TOTALS</u>
Professional and Technical Staff	3
Clerical Staff	1
Water Commissioners FTE (Full/Part-Time)	23
1995 Decreed Surface Rights	398
Surface Rights Administered (visits)	31,760
Storage Rights Administered (visits)	6,749
1995 Decreed Wells	158
1995 Decreed Plans of Augmentation	13
Consultations with Referee	255
Water Court Appearances	47
Meetings with Water Users	232
Contacts to Give Public Assistance	*21,891
*Includes Water Commissioner Contacts	