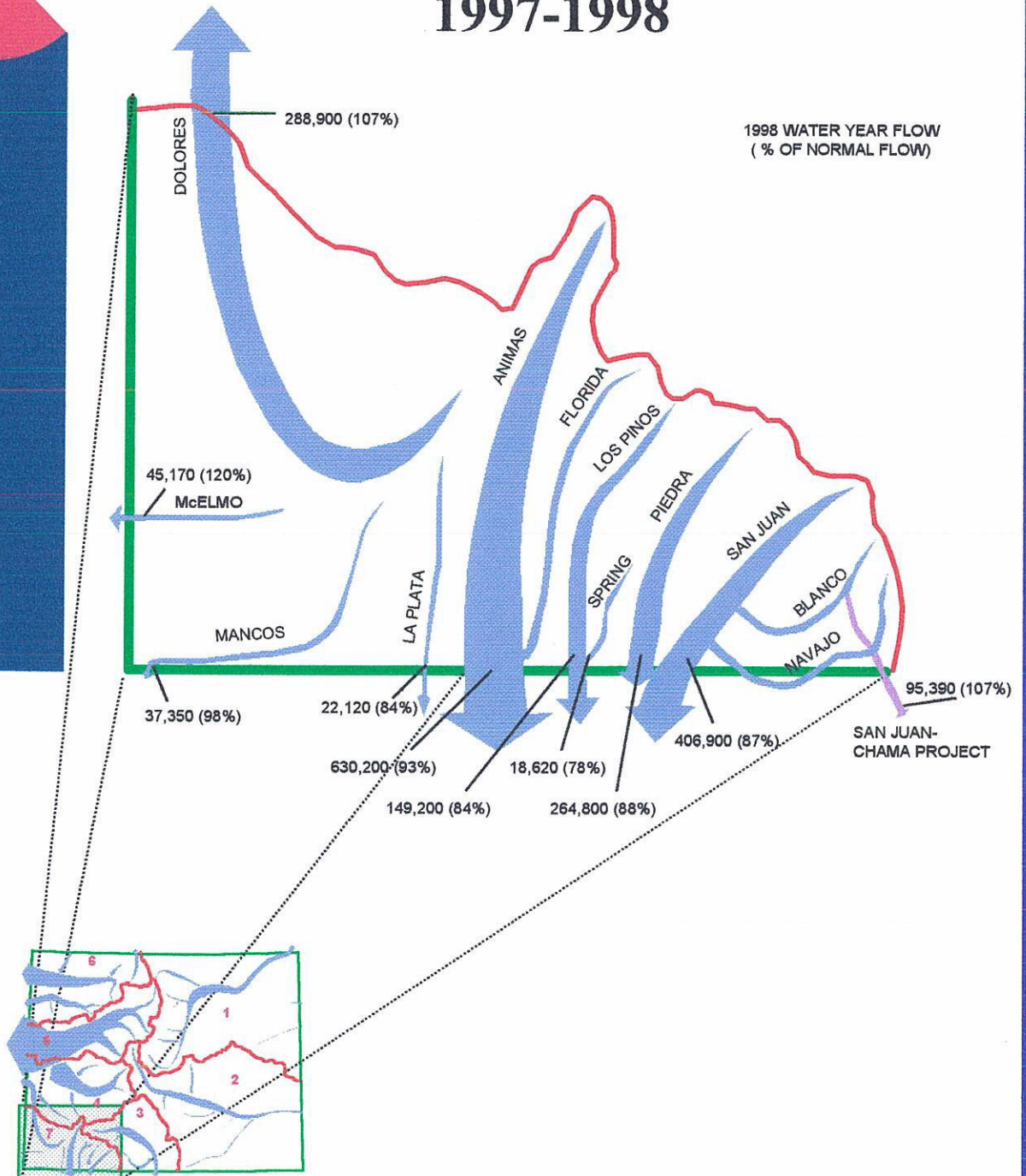




DIVISION OF WATER RESOURCES

DIVISION VII ANNUAL REPORT

1997-1998



Ken Beegles
Division Engineer

copy for
Will Burt,
Deputy State Engineer



Division 7 Staff

January 29, 1999

Back Row L-R: Val Valentine, Bruce Whitehead, Marty Robbins, Hal Pierce
Middle Row L-R: John Taylor, Ken Beegles, Robert Daniels, David Nelson, Frank Kugel, Robert Becker, Matthew Schmitt, Harold Baxstrom
Front Row L-R: Shari Titus, Sherry Schutz, Scott Birnton
Not Pictured: Glen Humiston

INDEX

	<u>PAGE</u>
<u>CURRENT WATER YEAR</u>	1
<u>UPCOMING WATER YEAR</u>	18
<u>DIVISION 7 ORGANIZATIONAL CHART</u>	24
<u>DIVISION 7 MAP</u>	25
<u>STATISTICAL INFORMATION</u>	
TRANSMOUNTAIN DIVERSIONS	26
RESERVOIR STORAGE SUMMARIES	27
WATER DIVERSION SUMMARIES BY DISTRICT	37
WEATHER CHARTS FOR DURANGO (1998 WATER YEAR)	
- AVERAGE TEMPERATURES	40
- CUMULATIVE PRECIPITATION	41
STREAMFLOW HYDROGRAPHS	
- ANIMAS AT DURANGO	42
- LA PLATA RIVER COMPACT	43
COMPACT DELIVERIES	
- LA PLATA COMPACT ADMINISTRATIVE SUMMARY	44
- SAN JUAN - CHAMA DIVERSIONS	45
ACTIVITY SUMMARY FY 1998	46
- PUBLIC CONTACTS 1986 - 1998	47
WATER COURT ACTIVITIES CALENDAR YEAR 1998	48
OFFICE ADMINISTRATION FY 1998	49
BUDGET SUMMARY FY 1998	49a
DIVISION RIVER CALLS IY 1998	50
WELL PERMIT ACTIVITY 1980 - 1998	51
<u>APPENDIX - WATER DISTRICT SUMMARIES</u>	
DISTRICT 29	52
DISTRICT 30	53
DISTRICT 31	54
DISTRICT 32	55
DISTRICT 33	56
DISTRICT 34	57
DISTRICT 46	58
DISTRICT 69	59
DISTRICT 71	60
DISTRICT 77	61
DISTRICT 78	62

A. CURRENT WATER YEAR

The 1997-1998 water year seemed like an average water year, according to year-end statistics. In reality, the year was characterized by extremes in precipitation. October precipitation exceeded 5 inches in Durango and led to improved soil moisture going into the winter months. Typical of recent years, the late season snowpack was only about 80% of normal, and was followed by a cool snowmelt period. The runoff was delayed and extended because of the cool weather, allowing a longer period of use of the direct flows of river water. The summer months were generally dry with sporadic rain showers. July provided significant moisture, but the remainder of the summer demonstrated the need for diversion of streams to keep crops growing.

The El Niño effect of 1997-1998 did not result in heavy precipitation as expected. Area water users were fortunate that plans to draw down the large Federal reservoirs were modified at the last moment by the US Bureau of Reclamation and water was retained for use during the summer of 1998. Every major reservoir filled and served the irrigators with water to the extent necessary for the season.

The Animas River peaked at 4040 cfs on June 3, the same day the Dolores River reached 2620 cfs at Dolores (peak flow 3290, May 22, 1998) and the San Juan River reached 2295 cfs at Pagosa Springs. Other area rivers topped out that same day as the middle elevation snow combined with some of the upper basin snowmelt to produce a respectably high flow for an 80% snowpack.

Cool temperatures in the spring allowed for excellent growth of grasses and hay was cut early. The second cutting was also good and those who waited for the second crop to start cutting had much work to do to get the thick crop baled. Application of irrigation water returned to normal figures in many areas after being low in 1997 (below 3' per acre). This was especially noticeable on the east side of the division. Less water was placed into storage this year, reflecting better carryover in the reservoirs from the previous season.

ACCOMPLISHMENTS

The following are a few of the high priority division goals that were achieved this year in terms of projects or issues needing to be addressed in water administration or office work. Some had a long history of work or negotiation that prevented earlier resolution of the problem. These are individually summarized below:

Mountain Valley Ranch, 90CW61 The well moratorium from 1996 remained in effect for much of the summer. Early in August, the Homeowners gathered to discuss alternatives with assistance from the Water Commissioner and Division Engineer. The developer was contacted and discussed litigation as one of the options. He came to Durango a few weeks later and a hastily organized meeting with him led to agreements on several points. The Division Engineer lifted the moratorium after reviewing the release numbers and the agreements. Several new well permits were promptly issued.

Litigation The Krings litigation was finalized and the Sierra Verde Estate case came very close to closure after flumes/headgates were installed and a substitute supply plan was tested. Dams on three ponds were repaired or strengthened by September and a new substitute supply plan was submitted.

Florida Pond Administration The Florida River was successfully administered this year. Project storage water continued to be diverted by downstream landowners into ponds constructed on their properties. The District 30 water commissioner on the Florida, Harold Baxstrom, successfully regulated the ponds and augmentation plans through the critical reach bringing several pond areas into compliance. The Division Engineer worked with members of the Florida Conservancy District to provide input to the county planning process so that irrigation water would continue to be used for irrigation on the Florida Mesa.

Stollsteimer Creek The low flow of Stollsteimer Creek convinced the Radcliff family to complete work on repairing the Dyke No. 1 Ditch in District 78. This created the possibility

of an administrative requirement. Junior water rights, including commercial uses, were threatened by this development. The water commissioner, Val Valentine, took steps to require meters and alert juniors of the call potential. Most residents consulted their attorneys but complied with the requirements. The San Juan Conservancy District then offered to commit some of the excess return flows from Pagosa-Fairfield to a substitute supply plan. This was not formalized as a substitute supply. Radcliff's did not place a call this year, but next year the requirement for delivery may need to be addressed again.

Dolese / Fairfield Cases The oldest cases in the division, W-1075-73 & W-1097-73, were resolved after agreement by the opposing parties. The Division Engineer was not ready to recommend approval when the judge signed the cases. With assistance from the Attorney General's office, Colorado succeeded in convincing the judge to reopen the cases. However, after several negotiation sessions and a field investigation by the parties, an agreement was achieved to allow for a large spring flow decree trans-district to Fairfield reservoirs as well as to the Dolese property for spring irrigation from the Dutton Ditch. Measuring conditions were placed on the ditch operators.

Pine Ridge Ditch – WD 33 The division staff, including Daniels, Whitehead, Beegles and Kennedy, worked to develop a computer spreadsheet that would address the requirements of decrees changing the use of the La Plata River Pine Ridge Ditch to domestic and commercial uses in the Lake Durango area and the Shenandoah subdivision. The result was a complex spreadsheet program that provided excellent results in handling many diversion permutations and provided a 10-year running summary for the applicants to help in their planning. It marked an occasion where commissioners and ditch owners became much more actively involved in ditch administration. One of the benefits of the greater use scrutiny on the ditch was that water not needed was left available to the La Plata River users, where previously the decreed amount may have run for longer periods with much more depletion.

WORK IN PROGRESS

1. Lack of sufficient staff time prevented major work from being done collecting GPS data. However, training was received and the benefits of obtaining data in this manner were acknowledged by all. Dam Safety Engineer Kugel provided assistance in initiating the program.
2. Minimum bypass releases required by federal regulation of the San Juan-Chama Project were not achieved this year. However, Colorado officials were able to reach an agreement to address future deficiencies in meeting the minimum flow decree held by the Colorado Water Conservation Board. These deficiencies would be handled by making a formal call to the Division Engineer to enforce the senior right.
3. The Spencer Reservoir enforcement action was delayed because of confusion as to whether the US Forest Service would assume control and responsibility for the reservoir or require the current owners to do this. The outlet pipe is inoperable and no augmentation plan is in effect.
4. Records were requested for the newly decreed springs in the Mesa Verde National Park. Although the request was resisted at first, the regional park officials agreed that records would need to be obtained and while records were not complete this year, the division was confident of better results in the future.
5. In District 33, Red Mesa Ward Reservoir had not started construction on the approved enlargement. Nor has the winter stock water issue been totally resolved. Meetings were held in the division office as agreed and agreements made concerning operation of the diversion. The baseflow was enough during the winter '97-'98 that the stream remained wet and the reservoir could fill when the early snowmelt came. During the summer, repair work was carried out on the gate tower, providing the first physical efforts in many years at improving the carryover capabilities of the Reservoir.

6. The geothermal aquifer conflict in Pagosa Springs went through another year without resolution of multiple water cases beginning with 81CW160 and 89CW19. Return flow was delivered by contract from water the Town previously wasted back to the river over the new footbridge to the Spring Inn. Water was available to other users but they were still concerned about the loss of pressure and injury to their senior rights. Therefore, no agreement could be concluded and parties were preparing to go to trial in 1999, if no further progress was made.

ACTIVITIES

1. Forest Service Reserved Rights Negotiations were losing momentum near the beginning of the season (late in 1997) because of difficulties in the technical team subcommittee efforts to resolve issues related to the negotiation stance. When the State and Water Users held meetings with the public across the division, much opposition was encountered especially in the Montezuma-Dolores area where landowners formed an alliance, which was insistent that the larger agenda of the federal government was in question and pushed to stop the negotiations. Further meetings sponsored by the Dolores Water Conservancy District brought in high level officials including Jim Webb, USFS Supervisor, David Robbins, water attorney, and Gale Norton, Attorney General for Colorado. Some of the public disenchantment diminished with the very informative approach these speakers took, and subsequent negotiations proceeded with some success, although issues such as the question of certainty or finality of the decree were serious potential problems in achieving final agreement.

2. Rio Blanco River Project The San Juan Citizens advisory group had hoped to begin work on a demonstration river restoration project this year. A grant from the EPA matched by assistance from water agencies and special interest groups provided enough money to work on a mile section of the river. The San Juan Conservancy District sponsored the project. However as the time approached to begin work several citizens became alarmed and voiced concern that the project was not sound and would affect their groundwater supplies. Enough opposition mounted that the District decided to wait another year before continuing.

This office assisted with the education process, collection of temperature data, negotiation for additional stream flows and acted as general resource for the public in studying the issues.

3. San Juan RIP This was the seventh year in the study period designated by the MOU signed by the states and federal agencies in order to provide the “reasonable and prudent” alternative to the Animas la Plata Project. During the past few years the water administrators from the tribes and states worked very hard to develop a working model for depletion in the basin. For a time, it appeared that there would be a flow recommendation that the Biology Committee could use to benefit the squawfish and endangered fish species leaving close to 300,000 acre-feet of depletion available. However, the weak point in the several requirements was the 10,000 cfs flushing flow required at Bluff. Since this could be met once in 5 years on the average, it did not pose a problem until the Biology Committee decided to add the restriction that the frequency could be no less than once in 10 years. In the past a fifteen-year cycle in the 1950’s and ‘60 has witnessed a period where the highest flow was around 9,500 cfs. With the new constraint, as well as many conclusions based on assumptions that could not be scientifically verified, the Coordination Committee voted to accept the Biology Committee report. This left only 122,000-acre feet of new depletion, enough for the remaining NIIP depletion for the Navajos and the 57,100 already approved for Animas La Plata.

During the study, it was found that Navajo Reservoir could actually release 6,000 cfs rather than the presumed 5,000, which was the reported minimum. This difference could have been significant except that diversion structures and general encroachment on the channel downstream might have been damaged by the one or two week release. The public outcry was great and plans to test this release were canceled. However, future -funding requests may address this issue if the flow requirement holds.

4. La Plata River Compact The La Plata River was carefully administered to meet the requirements of the compact. By the middle of June, the river was being curtailed significantly. Shortly thereafter, the river went dry below Hesperus and was administered under return flows only. These were significant enough to supply the compact requirements

throughout the summer leaving a little to the use of the downstream diverters. A few substitution plans were authorized by releasing Red Mesa Reservoir water to the stream. The New Mexico State Engineers or ISC representative insisted on the incorporation of the Keller Ditch into the computation and generally scrutinized the diversions, question decisions made and requesting more information to answer other questions. Colorado officials resisted changing the customary practice of excluding the Keller Ditch since return flows were measured by other stations. Further discussions were to be scheduled to try to work out these differences.

5. Animas La Plata Project Although earlier in the year it appeared that the Animas-La Plata "Lite" would be successful in being funded, Secretary of Interior Bruce Babbitt did not endorse the funding. Instead, he proposed a further reduction in size, allowing storage of the 57,100 acre feet, that was to be used only for tribal claims and little was left for Non-Indians. This left project proponents on the Animas-La Plata Board in a quandary as to what action to take. Although the Indian Settlement Agreement had become an integral part of the project, after that negotiation, the primary original purpose to bring Animas River water to the La Plata drainage for irrigation was on the brink of failure. The Board acquired the old mill-tailing site, which is where the pump to Ridges Basin is planned, and was looking at ways to use it.

6. Pine River Domestic Pipeline The Pine River Irrigation District took steps to form a rural-domestic water supply system. Many local residents supported this effort and the county commissioners approved the plan. However, much local opposition above Vallecito Reservoir developed on the basis of mistrust or misunderstanding as to what eventual changes would be brought to their area. The US Bureau of Reclamation also resisted since they believed that use of the facility in this manner for storage would require a new contract. The District was able to come to an agreement with the Bureau to assume control and purchase the facilities. However, the legislation in Washington was tabled at the end of the congressional session and not acted upon this year. A large loan was secured and plans were proceeding toward development of a water treatment facility near Bayfield.

Watershed Groups Various watershed groups formed during the year. This office has been remotely active with the San Juan County-Animas River Watershed Forum. The success of that group may have helped encourage those on the Dolores River and Los Pinos to set up groups to study various water issues in those drainages and proposing projects or means of improving the water quality or management of reservoir storage.

Water Court Under Judge Timothy Patalan, the water court cases proceeded steadily. Many long and complicated cases were resolved during his tenure without one trial being held. The Division Engineer gained more ability to affect the outcome of cases and influence the final decree. As a result, many cases were resolved to better enable the commissioners and engineer to apply water use and appropriation doctrine to the streams. Judge Patalan retired in October and Judge Greg Lyman assumed the job as water judge. Although this office continued to struggle with timing, the cases were addressed more timely than in the past. The number of filings was lower and since there was some relief from other activities, water court cases could be effectively tabulated, distributed, and incorporated into the Division Seven indexing database for quick reference. The tabulation was produced as required for publication. With the new Park Service rights and tribal rights it has grown significantly in size. During the year, meetings were held and plans initiated to copy the records and testimony into computer accessible format (CD) to provide a better reference capability.

Water Administration and Enforcement After the Krings case (two years old), the Corlies Case (three years old), and the Cordalis well permits (twelve years old) were resolved, the largest enforcement action was in Sierra Verde Estates. The developer hired an engineer and efforts were made to bring the system up to requirements. A substitute supply plan was used and a new one prepared. Still at issue are the distribution of consumptive use credits from the F-10 water and which evaporation numbers to use.

Legal action was avoided at least temporarily at several pond sites on the Florida as well as surface diversions on Stollsteimer Creek. Ponds in the Mancos, Junction Creek and La Plata River drainages, were addressed as the problems arose. It appeared that further action would

be required in certain areas of Montezuma County where commercial uses have been allowed to develop wells and ponds that are depleting out of priority.

In May one well driller was ordered to cease and desist after he was found drilling without a bond. He complied and is now drilling conditionally again. The US Forest Service drilled test holes in areas that were not approved and their intent to complete for commercial use was presenting a potential conflict. Wells involved were near Rico, near McPhee reservoir and near Vallecito Reservoir.

CRDSS Modeling was used to compare with efforts by the USBR and the modeling subcommittee of the SJRIP to establish a better baseline. Final corrections were made to data which seemed to help the water balance discrepancies in the Montezuma Valley. Computers from the program were extensively used by field commissioners to access satellite transmissions and utilize spreadsheet programs. There was going to be an effort needed to determine if irrigated acreage would need to be modified.

Reservoirs Several improvements were made at area reservoirs. Pastorius was repaired by installation of a new control gate and lined outlet. At McPhee Reservoir, work was finished on the outlet gates. Repairs or installations on smaller ponds such as the Barrett Pond in District 29 and Arnaout Pond in District 33 were addressed. Summit Irrigation Company completed reservoir outlet repairs at Summit Reservoir and was able to store in season. Hurst Reservoir was found with no water as it had completely failed from outlet failure. The new Norton Pond, District 30 was believed to be nearly jurisdictional and there was a considerable delay in convincing the contractor to install an access ramp so that it could be measured. Hatch's lower three reservoirs were improved under the supervision of the dam safety engineer. New construction proceeded at the Mountain View Dam in Water District 29.

Public Relations The office participated in the two children water festivals in Montezuma County and La Plata County. Efforts were made to help with classroom discussions on water

issues and college classes that were visiting the area. A Colorado College class in economics spent a field session studying Animas-La Plata and generally found that the reduced project (Lite) was the most recommended version. Many misconceptions of the practice of water appropriation and use are found to be in the general knowledge of the public. However, people are very interested in the field of work and are eager to listen.

Water Commissioners Notes

Following are individual area comments from commissioners working in those districts:

District 29, San Juan River / Val Valentine

Late snows increased the snow pack from about 62% in February to near normal by April. However, the wet late winter also had its impact on some larger diversion structures. Four Mile Ditch started irrigating late for the second consecutive year. A wintertime break in the Dutton Ditch is said to have caused a mudslide into the Four Mile Ditch. As a result both ditches required extensive maintenance. Four Mile Ditch finally began diverting on July 5th, immediately calling out all of the junior water of the Mesa Ditch. By the time repairs were completed on the Dutton Ditch their water rights were out of priority and were not available for irrigation or storage until October 9th.

For the first time since the early 1960's, water use was administrated on Stollsteimer Creek. The Dyke No. 1 Ditch, the most senior of active structures on the creek, was put back in service by construction of a 17-inch pipeline across Aspen Springs Subdivision. Water rights associated with this structure exceed 3.5 cfs of a stream where the average July-August flows can be less than $\frac{3}{4}$ cfs. In anticipation of a potential call the Division Engineer ordered meters and well permit compliance on existing commercial wells; ordered flow meters and measuring devices to all other surface water users, and regularly informed junior appropriators, through the Water Commissioner of their priority status. Water users, looking at the prospect of being totally dry for the first time, were courteous and understanding of the circumstances. In all, the groundwork was completed for river calls that will surely come in future years.

District 30, Animas River / David Nelson

Cool spring weather caused a delay in run-off and the beginning of the irrigation season. Elbert creek was on call for 76 days beginning July 21, 1998. Augmentation releases were made from all applicable structures. Most reservoirs had water released to compensate the stream system for evaporative losses. The new gauging station on Elbert Creek above Cascade Reservoir was installed by Public Service of Colorado as required. The recording and satellite reporting equipment will be installed in the spring of 1999. Junction Creek was on call for 4 days beginning July 20, 1998. Junior upstream ditches were allowed to take water beginning July 24, 1998 after the owner of the calling structure reported that efforts to get water to his ditch heading were failing and agreed that others should use water if able.

Able assistance we provided by returning deputy, Agnes Suazo, who worked the period, May through August. She helped in the office with steady flow of well permits, administration, hydrographic measurements and office duties.

Water Diversion spreadsheets that had been developed previously were fine-tuned with computer assistance from Bob Daniels. A significant number of new water rights were filed for this year with a large amount of time spent on USFS filings (42 locations) for multiple uses at spring sources with no diversion mechanisms.

District 30, Florida River / Harold Baxstrom

1998 Spring snow pack was less than normal. Rainfall during irrigation season was very low but higher than normal immediately after the growing season. Water storage management started with a November 1, 1997 Lemon Reservoir content of 30,350 acre feet. Normal livestock run started November 1 and used about 500 acre-feet. Reservoir full rose to the seasons high of 39,247 acre-feet on June 8. Irrigation releases started on May 4 and spring run-off flows decreased rapidly to less than irrigation demands. A call was placed on the river on June 19. There was very little summer rain and irrigation demands left Lemon Reservoir fill level at 13,681 acre-feet on October 25 for a net decrease of 25,566 acre-feet.

After being drained for outlet repairs during the winter, Pastorius Reservoir changed from empty on May 1 to full before May 18, and remained at canal release level at year-end.

Administrative releases were made from 20 small ponds to augment the river system in exchange for out-of-priority diversions. Call period evaporation was calculated at 11.99 inches over a period of 118 days. Small pond releases repaid 17.4 acre-feet to the river system during the months of August and September.

Comparisons with 1997:

Precipitation was near normal, but timing was erratic.

The starting level in Lemon Reservoir was 22,000 acre-feet higher.

The ending reservoir level was 16,400 acre-feet lower.

Irrigation releases started 9 days earlier.

The 118-day "call period" started 15 days earlier and ran 39 days longer.

Districts 31, 46, Pine River & Siembritas Arroyo/ Hal Pierce & Robert Daniels

Water District 31 and 46 had a normal administrative year. We went on call June 30, 1998 and went off call October 19, 1998. The most senior structure curtailed was P-1 structures and only for one day. Most of the year we were in priority P-26. We closed the season with just below normal storage in the reservoir and have since recovered to a normal winter full pool. Water disputes were at a minimum and records went smoothly this year. Nothing unusual happened in water district 46.

District 32, McElmo Creek / Marty Robbins

District 32 experienced a very good summer. There was plenty of water to accommodate all water users. Due to the increase of subdivision and growth throughout the district, changes occurred in historical water flow patterns. The development of historically irrigated lands and the surrounding areas has resulted in increased complaints by people claiming property damage.

Numerous notices of intent pond permits were submitted due to an increase in development of this area. People want ponds for aesthetic purposes on any size of acreage and they want to fill these ponds with water that has been decreed for irrigation and domestic uses.

In the past three years, the district has experienced a 50% increase in new water filings compared to the previous three-year period. The number of personal contacts and increased water user conflicts has affected the amount of time allocated to water administration.

District 34, Mancos River / Glen Humiston

Water year 1997/98 in Water District No. 34 was a relatively good, but somewhat unusual year. The snow pack was not up to what I consider a comfortable level on the Mancos River Drainage. However, due to the cool days and cooler nights, the spring runoff lasted until very nearly the end of June. It was June 26th when the first regulation and curtailment of diversions occurred. In short, with the river flows holding up well, all storage Reservoirs having a full supply and rains coming at opportune times, the Mancos drainage faired very well. In fact, for the first time since at least 1970, the Sheek Ditch did not call storage water from Jackson Gulch Reservoir.

It was questionable whether Jackson Gulch Reservoir would fill this year. Somewhere around the 80% level the Inlet Canal started experiencing a major slippage of the downstream berm. Due to early detection and reduction of flows by Gary Kennedy, the Conservancy District Manager, a total slip was avoided and the reservoir was slowly brought up to full capacity. Damage has been repaired and the canal is again carrying water to storage.

The Park Service recently received a decree on approximately 10 springs within the boundaries of Mesa Verde National Park. They were extremely surprised and upset when they found out that they were required to keep and submit use or non-use records for each decreed spring and that it would be required every year.

The staff of the Cortez field office has participated in identifying stream flows and amounts relative to the USFS reserved claims under the 1897 Organic Act.

69, Disappointment Creek / Robert Becker

The 1998 irrigation year began with marginal snow and moisture content, which would have adversely affected crop production under normal conditions. The earlier part of the season saw cooler daytime temperatures and colder nights which delayed the normal runoff period and extended the irrigation season by approximately 20 days in the upper valley and 30 days in the lower valley.

District 71, Dolores River / Robert Becker

The irrigation season on the Dolores also started with marginal snow and moisture content, which could have had adverse effects on crop production under normal conditions. However, the cooler daytime temperatures and colder nights during May and first part of June delayed normal runoff patterns and actually enhanced water availability throughout the basin. Complex water rights transfers involving the Italian Ditch and the Illinois/New Ditch were completed and approved this year.

Well applications in the Cortez/Dolores area were down from the previous year but there was a substantial increase in public assistance inquiries regarding groundwater, pond applications, and water filings.

With the forthcoming approval of DWCD's Water Court filings concerning augmentation and exchanges, the District will see a substantial increase in water administration and accountability.

District 78 & 29, Upper Piedra & Upper San Juan / John Taylor

1. A cold wet spring caused irrigators to start using their water later than usual.
2. The same conditions extended the runoff in these districts longer than anticipated.
3. The Lindner Ranches hired a new manager and irrigators, which required an extra amount of time acquainting those persons with ditches, volumes, priorities, etc.

4. New land ownership resulted in non-use of some water rights.
5. The poor livestock economy caused the delay of repairs for some irrigation structures.
6. The transmountain diversions on the Piedra River were never placed in operation (the need did not exist.)
7. There was considerable maintenance work performed on the ditches on the East Fork of the San Juan River by Mr. Dan McCarthy.
8. I spent more time on records in October and November than in past years, and feel good about the results of that work.
9. Coal Creek was the only stream under my jurisdiction that has a call place on it.
10. From my standpoint, I think we had a successful irrigation year.

Hydrographic Report/ Scott Brinton

Streamflow was slightly above normal for the year. Streamflow records for the 1997 Water Year were completed and delivered to the chief hydrographer for publication. Four records were published by the USGS. Twenty-two records were published in the Colorado Division of Water Resources yearly publication.

The Division 7 hydrographer made 117 river measurements and 19 ditch measurements this year. Water commissioners and other engineers in Division 7 made 83 river measurements and 25 ditch measurements.

No new construction projects were undertaken this year in Division Seven. The hydrographer assisted in record preparation and review after the retirement of the lead hydrographer in Division Two.

Dam Safety / Frank Kugel

Dams were inspected according to the normal schedule, with follow-up visits made as necessary. Eighteen of 20 Class II dams were inspected this year. Division 7 Water Commissioners completed eleven Dam Observation Reports for Class III dams. Construction continued on a new Class I structure, Mountain View Dam. This project is located upstream of the Town of Pagosa Springs. Progress on the structure has been slowed

by difficult foundation conditions. The embankment footprint is founded on sharply dipping Mancos shale. Treating the joints and vertical faces in this formation has delayed construction. The outlet conduit was constructed and about one-fourth of the embankment fill placed before adverse winter conditions arrived in early November.

A major outlet modification was completed at Summit Dam, a Class I dam near Dolores. A cast-in-place liner was installed in 1997. This past year saw the replacement of the 60-year-old outlet gate. The existing gate was extensively pitted and was unable to completely seal off outlet flows. The owner installed a new 30-inch slide gate and operator system that eliminated the extensive gate leakage.

Another outlet modification took place at Pastorius Dam, a Class II structure southeast of Durango. This canal stabilization structure was constructed in 1923. The original outlet system consisted of two 12-inch vitrified clay tile pipes with valves located in the center of the earthen embankment. An internal inspection raised concerns about the safety of pressurizing the upstream half of these conduits. As a result, the owner modified the concrete intake structure to accept one 24-inch slide gate. This new gate was much easier to operate and secure against vandals, and eliminated the unsafe pressurized outlet condition.

A failure of an outlet system occurred at Hurst Dam, a Class III dam north of Mancos. The 12-inch corrugated metal pipe experienced severe corrosion immediately downstream of the gated upstream end. Rust perforations resulted, allowing the reservoir contents to drain into the outlet conduit and pass downstream. The maximum discharge was estimated to be 10 cfs, and did not cause any damage downstream.

Pargin Dam, also known as Lake Capote Dam, is a Class II structure located on the Southern Ute Indian Reservation. Past inspections have revealed safety concerns centering on the worrisome condition of the outlet works. The original 12-inch steel outlet included a valve at the center of the embankment. This valve had not been operational for several years. Since the dam is on Tribal land, our agency has had difficulty in requiring repair of this potentially dangerous condition. After repeated diplomatic efforts, the Southern Ute Tribe hired an

engineer to review the situation and design repairs. Based upon the engineering recommendations, the dam was completely breached at the outlet. Installation of a new outlet system is tentatively scheduled for the year 2001.

A circumstance affecting the Dam Safety Branch was the Legislative Audit. A major recommendation of the audit was to eliminate duplication of inspections by qualified state, federal, and private engineers. The initial impact of this recommendation was to change our policy regarding routine inspections of federally licensed or owned dams. In Division 7, this resulted in five Class I and two Class III dams being removed from our routine inspection schedule.

Another factor affecting the Dam Safety program is the ongoing proceedings of the Extreme Precipitation Committee. This committee is developing new standards for modeling extreme precipitation for elevations above 7500 feet. Hydrology studies on existing Class I and II dam spillways are being postponed pending the outcome of this committee.

CURRENT YEAR OFFICE REPORT

The continued decentralization of duties from Denver led to the Division office assuming responsibility for the budget-processing program called COFRS. The complex computer entry program allowed the division administrative assistant to process bills timely avoiding one turnaround by the central office. Internally developed programs were still necessary to keep up with the day-to-day status.

Staff The staff was fully occupied and all positions were filled. A total of 15.42 FTE were used this year after distributing some extra time from the Satellite Monitoring/Hydro program. This allowed the hydrographic engineer to perform extra statewide training. He also worked on development of the hydrographic safety standards. Overtime was utilized to its maximum. Five field vehicles were provided and used effectively by the field staff. The division office shared the sixth vehicle with the dam safety engineer.

Budget The budget was spent on travel and operating expenses as required. Training money was entirely used and most of the groundwater funds for decentralization were used. More money was spent on the dam safety program than was allocated for the fifth straight year. The division operating funds compensated for this. The overall division budget was less than \$500 over the allocation or about 1% of the total. There was less flexibility in spending this year due to increased costs as well as more requirements for travel to Denver.

Personnel Changes There were no changes in personnel this year.

Computers Water Commissioners were trained and given the tools to use the Remote Access capability provided to the Durango office. Later, field offices were brought into this upgrade. This has greatly increased the power of the field machine and commissioners are increasing their use and reliance on the new communications capabilities provided. Commissioners Pierce and Daniels acquired copies of La Plata and Archuleta County assessors database and created a reference program for use in doing well permitting research. The "RAS" allowed all of the staff to access this program on the Network.

B. UPCOMING YEAR

Interdivisional, Tribal or Interstate Issues:

- San Juan-Chama Project This year should determine whether the San Juan – Chama releases can be increased to the 29 cfs CWCB instream flow or whether an informal agreement can be reached to accomplish the same.
- La Plata River Compact As part of the Long-Range Plan developed by the State Engineer, the La Plata Compact Administration needs to be reviewed with New Mexico officials to see if conflicts, which may date from early in the administration, could be addressed. The Keller Ditch inclusion is of particular importance.

- San Juan Recovery Program Results of the Endangered Species Recovery Program will be seen. A key to future development will be how the different parities adapt the requirements of flow to the overall plan. If money is appropriated for help in constructing the “non-flow” features and efforts can be made to reduce or isolate non-native species, the squawfish may be recoverable in the San Juan Basin.

An essential item in interstate politics is how California will respond to the demand for a reduction of diversion to their compact entitlement. As Nevada continues to draw water and reaches its entitlement, the lower basin pressures could easily spread to upper basin states. Pressures to allow interstate transfers may occur. These issues will continue to dominate many of the southwestern water conferences.

The Navajo Nation has indicated an interest in settling tribal claims that have been as high as the entire flow of the river. However, with the Recovery Program being operated based on an existing baseline of depletions it is in everyone’s interest to quantify the tribal claims. Although working through a political solution may be difficult, it is a sign of progress to be able to take a step toward that quantification.

- Paradox Basin Project The Paradox Basin project needs to make releases from McPhee Reservoir to account for the augmentation of depletions occurring in Division 4. The exact amount of the release and means of recording it may be issues for the division to work out. Also, the question of beneficial use of transmountain diversion taking water form the San Juan Drainage to other divisions could be subject of action this year. Records used to be submitted timely and consistently. There may be a need for satellite monitoring and structure gate controls on these diversions.

Divisional Issues:

- Geothermal Issues: The geothermal cases in Pagosa Springs are set to go to trial in March. Much study and gathering of material will be required to prepare for the case.

- Abandonment List: The Abandonment List will be prepared this year. Individual meetings will need to be conducted for this as our goal would be not to overlook structures that have been missed in previous lists.
- Animas-La Plata Project: The status of the Animas La Plata Project will be more established by the end of the year. The rural determination may change institutional associations this office has such as those with the US Bureau of Reclamation and the Ute Indian Settlement Agreement.
- USFS Reserved Rights: Forest Service Reserved Rights negotiations should proceed on track with the schedule prepared by the negotiating team.
- Evaporation Injury: The pond and reservoir construction and use of water in those structures will continue to be an action item. More enforcement procedures may be required on the Florida River.
- Bureau of Land Management: The BLM wilderness area proposal will bring about another request for reserved rights. This may be a contentious issue as it is currently unlikely that the state would support reserved rights there as water use was not the primary purpose of the original reservation.
- La Plata Stockwater: The La Plata River administration procedures should continue. The 1996 MOU will be utilized to help adjust flows for winter use. 1999 demonstrated that with a little advanced planning and higher base flows, water supplies could be well managed.
- Ownership of Water or Shares: The question of ownership of transferred rights remains an issue after at least three cases where the water rights case were approved and subsequently apparently valid claims of ownership by other parties have surfaced. Although this is not an administrative issue and should be resolved in civil court, the outcome could affect a development of water and impact security of drinking water supplies for subdivision.

The issue of duplicative filings for junior water rights on previously irrigated land has become a serious concern. Especially on the Pine River, the effect of people holding water not being used is causing a potential expansion of the water right, if not outright speculation. The reservoir storage is increased in use in order to serve the junior right while the speculators are either using too much and wasting their supplies, or allowing their water to be measured into the ditch and used or run through without reaching their land. The division office will be working with some of the ditches to try to address this activity and obtain irrigated land maps.

- Water Court: The Division Seven water court will be taking on a short-term quick project to image all the court records on CD. Since the court does not have staff time to help do this, the Southwestern Water Conservation District combined with any spare time the division engineer's office can afford will be combined to assist in completion of this project.
- Florida River District: The Florida Water Conservancy District has received funds to establish five new stream ditch flow gages. These will be installed with Division Seven assistance and include satellite monitoring on the Durango City Pipeline.
- DWCD: The Dolores Water Conservancy District proceeds with the WETPACK proposal, a plan to develop additional lands to irrigate as well as provide more water for recreational and fish flows on the Dolores River. Participating in this planning process will be one of the continuing efforts of Division Seven.

Water Administration Impact

Following are issues, cases and statutes that we see as having a significant impact on division operations in 1998.

- A. San Juan Basin Recovery Implementing Program
- B. Indian Water Rights Settlement

- C. Animas-La Plata Project
- D. Endangered Species Act
- E. Clean Water Act
- F. Groundwater Case Law
- G. FLSA
- H. Groundwater regulations & Policies
- I. Changing growth trends in the State
- J. Colorado River Storage Act
- K. La Plata River Compact
- L. Animas-La Plata Compact

INVOLVEMENT WITH WATER USER COMMUNITY

Last year our office participated in program efforts to provide children's water programs in both Montezuma and La Plata Counties. Public informational meetings were organized or supported for organizing the Forest Service reserved rights negotiations. A tabletop three-dimensional display is being built by Marty Robbins for future use. Other educational programs were supported and individual talks were made before several organizations or classes.

Groups that the division office was involved with were:

Agencies involved with:

- Dolores Watershed Group
- Pine River Watershed Group
- Durango City Water Board
- Southwestern Water Conservation District
- Animas-La Plata River Conservancy District
- La Plata River Conservancy District
- Dolores Water Conservancy District
- Mancos Water Conservancy District
- San Juan RIP-Hydrology Committee

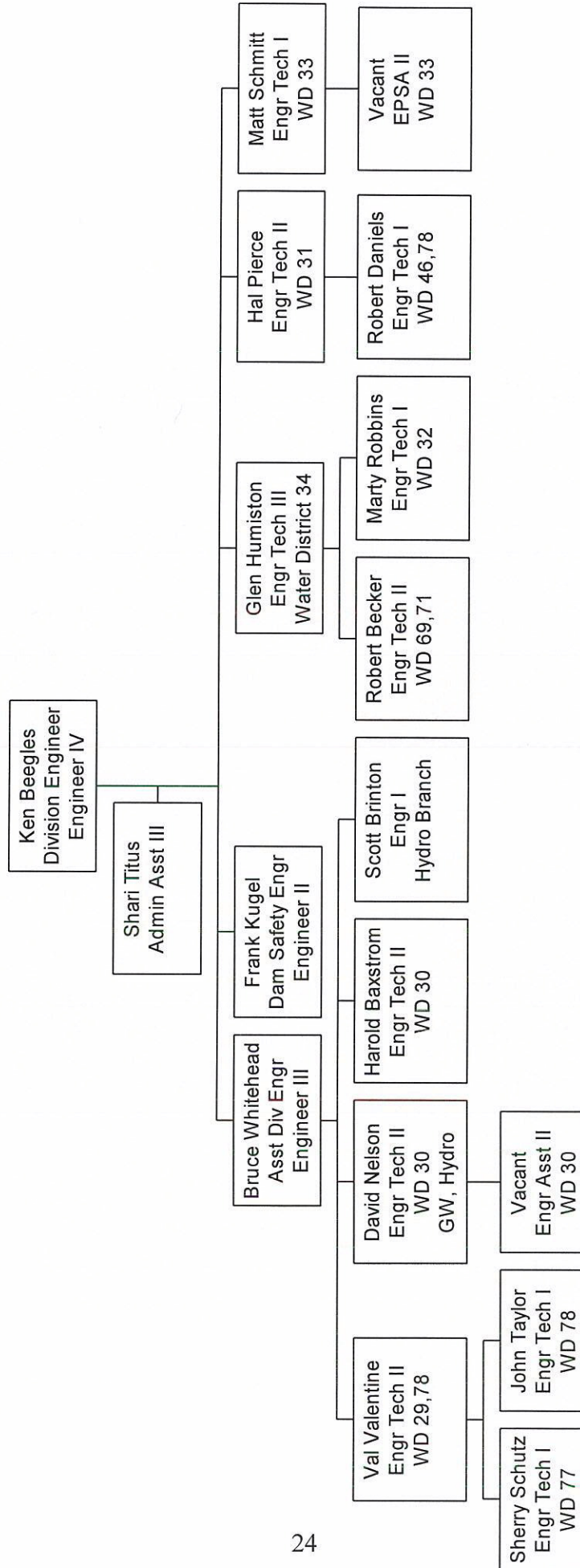
Pine River Irrigation District
Geothermal Users Group-Pagosa Springs
San Juan Water Conservancy District
Water Information Program-SWWCD
Rio Blanco Advisory Group
San Juan – Upper Animas Watershed Group

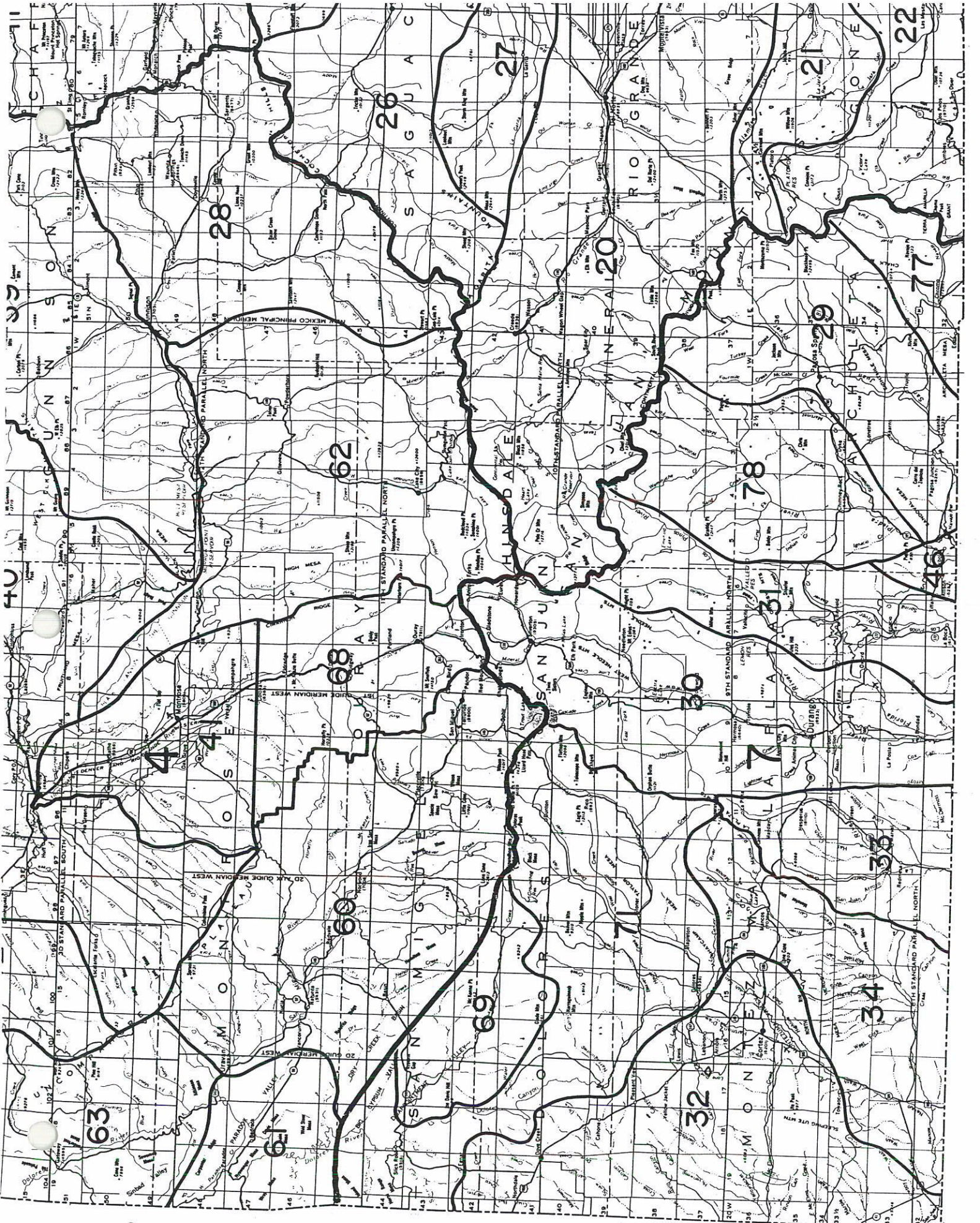
State Organizations:

CAPE
Colorado Water Officials Association
DWR Employees Council
Leadership Planning Group
Training Steering Committee
Long Range Plan Development Group

The staff provided capable assistance toward achieving goals and providing apt public service in Division Seven. Residents rely on the service the local office has to supply since the remoteness of the office makes difficult the option of referring people to Denver. The staff is to be commended for their results. The support of the State Engineer and his staff as well as the Water Conservation Board and Attorney General have been especially helpful this year.

Division 7 Organizational Chart





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TRANSMOUNTAIN DIVERSION SUMMARY ----- OUTFLOWS

		SOURCE					RECIPIENT				
WD	ID	NAME	STREAM	10-YEAR AVG.		CURRENT YEAR		WD	ID	STREAM	
				AF	DAYS	AF	DAYS				
29	4669	TREASURE PASS DITCH	SAN JUAN RIVER	98.74	28.4	223	63	20	921	RIO GRANDE RIVER	
30	4660	CARBON LAKE DITCH	ANIMAS RIVER	283.7	95.1	226	97	68	692	UNCOMPAGHGRE RIVER	
30	4661	MINERAL POINT DITCH	ANIMAS RIVER	98.04	49.7	188	63	68	609	UNCOMPAGHGRE RIVER	
30	4662	RED MOUNTAIN DITCH	ANIMAS RIVER	62.27	52	67	100	68,41	604,549	UNCOMPAGHGRE RIVER	
31	4638	PINE RIVER-WEMINUCHE PASS D.	PINE RIVER	475.69	68.5	375	44	20	919	RIO GRANDE RIVER	
31	4637	WEMINUCHE PASS DITCH	PINE RIVER	665.9	41.4	459	21	20	922	RIO GRANDE RIVER	
78	4672	WILLIAMS CREEK-SQUAW PASS D.	PIEDRA RIVER	302.18	68.7	289	102	20	923	RIO GRANDE RIVER	
78	4670	DON LA FONT #1 (S RIVER PEAK)	PIEDRA RIVER	46.84	37.7	0	0	20	917	RIO GRANDE RIVER	
78	4671	DON LA FONT #2 (PIEDRA PASS D.)	PIEDRA RIVER	230.03	76.8	0	0	20	918	RIO GRANDE RIVER	

RESERVOIR STORAGE SUMMARIES BY DISTRICT

WD	ID	RESERVOIR	SOURCE STREAM	AMOUNT IN STORAGE (AF)						End of Year
				Minimum		Maximum		Date	Date	
				AF	Date	AF	Date			
29	3654	Echo Canyon Reservoir	Echo Creek	2,148.8	11/1/97	2,148.8	10/22/98	2,148.8	2,148.8	
29	3644	Borns Lake Reservoir	West Fk. San Juan R.	67.9	11/1/97	67.9	10/31/98	67.9	67.9	
29	3682	Thomas Reservoir	San Juan R.	20.0	11/1/97	58.0	10/30/98	58.0	58.0	
		Total of all < 50 AF		160.7		195.5		160.7		
		Total for District 29		2,397.4		2,470.2		2,435.4		

RESERVOIR STORAGE SUMMARIES BY DISTRICT

WD	ID	RESERVOIR	SOURCE STREAM	AMOUNT IN STORAGE (AF)						End of Year
				Minimum		Maximum		Date	Date	
				AF	Date	AF	Date			
30	3534	Andrews Lake	Lime Creek	131.0	11/1/97	131.0	10/22/98	131.0	131.0	
30	3536	Cascade	Elbert Creek	12,167.0	4/28/98	22,636.0	7/2/98	20,332.0	20,332.0	
30	3540	Haviland Lake	Elbert Creek	486.0	9/28/98	526.0	11/1/97	526.0	526.0	
30	3546	Ice Lake	Elbert Creek	416.0	11/1/97	416.0	10/30/98	416.0	416.0	
30	3547	Keeler Lake	Elbert Creek	479.9	9/25/98	488.0	11/1/97	488.0	488.0	
30	3548	Lake of the Pines	Little Cascade Creek	114.0	11/1/97	114.0	10/30/98	114.0	114.0	
30	3560	Turner Ponds	Animas River	84.0	11/1/97	84.0	10/30/98	84.0	84.0	
30	3561	Turner Reservoir	Waterfall Creek	356.0	10/29/98	472.0	11/19/97	356.0	356.0	
30	3576	Florida Canal and Res	Florida River	0.0	1/13/98	117.0	5/22/98	73.2	73.2	
30	3581	Lemon Reservoir	Florida River	13,336.0	10/15/98	39,118.0	6/1/98	14,857.0	14,857.0	
30	3622	Henderson Lake	Animas River	58.0	11/1/97	58.0	10/30/98	58.0	58.0	
30	3625	Naegelin Lake	Junction Creek	225.0	10/29/98	300.0	11/1/97	225.0	225.0	
30	3630	Twilight Lake	Purgatory Creek	60.0	11/1/97	60.0	10/30/98	60.0	60.0	
30	3707	Johnson Reservoir	Coal Creek	838.0	10/29/98	1,023.0	6/19/98	838.0	838.0	
30	3724	Johnson Lake #2	Wildcat Canyon	125.0	11/1/97	150.0	5/18/98	130.0	130.0	
		Total of all < 50 AF		297.4		367.9		330.3	330.3	
		Total for District 30		29,173.3		66,060.9		39,018.5	39,018.5	

RESERVOIR STORAGE SUMMARIES BY DISTRICT

WD	ID	RESERVOIR	SOURCE STREAM	AMOUNT IN STORAGE (AF)						End of Year
				Minimum		Maximum		Date	Date	
				AF	Date	AF	Date			
31	3518	Vallecito Reservoir	Pine River	59,523.8	10/19/98	120,098.0	6/23/98	65,157.7		
31	3617	Wommer Reservoir	Little Bear Creek	180.5	10/21/98	208.5	11/1/97	208.5		
31	3805	Gosney Gravel Pit	Pine River	122.2	11/1/97	122.2	10/31/98	122.2		
		Total of all < 50 AF		0.0		0.0		0.0		
		Total for District 31		59,826.5		120,428.7		65,488.4		

RESERVOIR STORAGE SUMMARIES BY DISTRICT

WD	ID	RESERVOIR	SOURCE STREAM	AMOUNT IN STORAGE (AF)					
				Minimum		Maximum		End of Year	
				AF	Date	AF	Date		
32	3601	Totten Reservoir	Transbasin Water	2,169.0	9/4/98	2,718.0	6/8/98	2,169.0	
32	3602	Narraguinnep Reservoir	Transbasin Water	15,093.4	6/4/98	18,672.6	6/24/98	17,985.2	
32	3603	A M Puett Reservoir	Transbasin Water	469.0	10/31/98	2,208.4	5/20/98	469.0	
		Total of all < 50 AF		90.7		90.7		90.7	
		Total for District 32		17,822.1		23,689.7		20,713.9	

RESERVOIR STORAGE SUMMARIES BY DISTRICT

WD	ID	RESERVOIR	SOURCE STREAM	AMOUNT IN STORAGE (AF)						End of Year
				Minimum		Maximum		Date	Date	
				AF	Date	AF	Date			
33	3522	Red Mesa Ward Reservoir	Hay Gulch	192.0	9/24/98	1,176.0	3/25/98		345.0	
33	3523	Taylor Reservoir	La Plata River	85.6	5/1/98	85.6	10/31/98		85.6	
		Total of all < 50 AF		0.0		0.0			0.0	
		Total for District 33		277.6		1,261.6			430.6	

RESERVOIR STORAGE SUMMARIES BY DISTRICT

WD	ID	RESERVOIR	SOURCE STREAM	AMOUNT IN STORAGE (AF)						End of Year
				Minimum		Maximum		Date	Date	
				AF	Date	AF	Date			
34	3585	Bauer Reservoir No 1	Crystal Creek	90.0	11/1/97	357.0	4/20/98	125.0		
34	3586	Bauer Reservoir No 2	Chicken Creek	798.2	9/15/98	1,532.9	4/1/98	1,054.1		
34	3589	Jackson Gulch Reservoir	West Fork Mancos R	3,996.0	10/22/98	9,977.0	5/19/98	4,151.0		
34	3590	L A Bar Reservoir	Chicken Creek	0.0	7/20/98	73.3	5/20/98	8.6		
34	3592	Sellers & McClane Res	Mud Creek	20.6	10/8/98	52.1	11/1/97	20.6		
34	3594	Weber	Middle Fork Mancos R	220.0	10/6/98	441.9	4/27/98	220.0		
		Total of all < 50 AF		44.7		56.4		48.3		
		Total for District 34		5,169.5		12,490.6		5,627.6		

RESERVOIR STORAGE SUMMARIES BY DISTRICT

WD	ID	RESERVOIR	SOURCE STREAM	AMOUNT IN STORAGE (AF)						End of Year
				Minimum		Maximum		Date	Date	
				AF	Date	AF	Date			
69	3529	Belmar Lake Reservoir	Rincon Creek	273.8	11/1/97	408.6	4/23/98	300.0		
69	3530	Dunham Reservoir	Disappointment Creek	78.8	11/1/97	78.8	11/1/97	78.8		
69	3532	Morrison Reservoir	Morrison Creek	86.3	7/12/98	116.3	5/1/98	116.3		
		Total of all < 50 AF		17.7		50.6		30.2		
		Total for District 69		456.6		654.3		525.3		

RESERVOIR STORAGE SUMMARIES BY DISTRICT

WD	ID	RESERVOIR	SOURCE STREAM	AMOUNT IN STORAGE (AF)						End of Year
				Minimum		Maximum		Date	Date	
				AF	Date	AF	Date			
71	3606	Big Pine Reservoir	Lost Canyon	5.7	9/22/98	259.0	3/26/98	14.4		
71	3607	Buck Pasture Reservoir	Beaver Creek	0.0	8/20/98	53.0	11/1/97	20.1		
71	3610	Ethel Belnear Reservoir	Beaver Creek	73.8	9/23/98	87.3	11/1/97	87.3		
71	3612	Groundhog Reservoir	Groundhog Creek	15,940.0	9/18/98	21,710.0	6/9/98	16,346.0		
71	3613	Lost Canyon Lake	Lost Canyon	106.2	11/1/97	106.2	10/31/98	106.2		
71	3614	McPhee Reservoir	Dolores River	255,835.0	10/24/98	381,967.0	6/3/98	258,226.0		
71	3619	Summit Reservoir	Lost Canyon	194.0	9/22/98	4,723.0	5/18/98	194.0		
		Total of all < 50 AF		11.7		16.2		11.7		
		Total for District 71		272,166.4		408,921.7		275,005.7		

RESERVOIR STORAGE SUMMARIES BY DISTRICT

WD	ID	RESERVOIR	SOURCE STREAM	AMOUNT IN STORAGE (AF)					End of Year
				Minimum		Maximum		Date	
				AF	Date	AF	Date		
77	3512	Spence Reservoir	Coyote Creek	350.0	8/31/98	441.0	11/1/97	350.0	
77	3696	Sappington Reservoir	Coyote Creek	201.0	11/1/97	332.0	5/21/98	234.0	
		Total of all < 50 AF		15.4		15.4		15.4	
		Total for District 77		566.4		788.4		599.4	

RESERVOIR STORAGE SUMMARIES BY DISTRICT

WD	ID	RESERVOIR	SOURCE STREAM	AMOUNT IN STORAGE (AF)						End of Year
				Minimum		Maximum		Date	Date	
				AF	Date	AF	Date			
78	3624	Dunagan Reservoir	Stollsteimer Creek	1.6	8/28/98	93.4	4/21/98		6.3	
78	3626	G S Hatcher	Stollsteimer Creek	1209.8	9/30/98	1,735.0	11/1/97		1250.0	
78	3629	Linn and Clark Reservoir	Dutton Creek	1050.5	9/30/98	1,230.0	11/1/97		1109.0	
78	3633	Pargin Reservoir	Stollsteimer Creek	0.0	7/1/98	531.0	11/1/97		0.0	
78	3636	Pinon Lake	Dutton Creek	54.0	9/30/98	162.0	2/2/98		89.2	
78	3642	Williams Creek Reservoir	Williams Creek	10,084.0	11/1/97	10,084.0	10/29/98		10,084.0	
78	3644	Lake Forest	Dutton Creek	360.0	9/30/98	465.0	3/2/98		401.7	
78	3645	Stevens Reservoir	Dutton Creek	379.8	9/30/98	635.0	11/1/97		470.3	
78	3646	Town Center Lake	Dutton Creek	212.5	9/30/98	630.0	4/6/98		347.5	
78	3650	Palisade Lake	Middle Fork Piedra R	50.0	11/1/97	50.0	10/29/98		50.0	
		Total of all < 50 AF		104.8		151.0			109.6	
		Total for District 78		13,507		15,766.4			13,917.6	

1998 WATER DIVERSION SUMMARIES

WD	STRUCTURES REPORTING			ALL OTHER STRUCTURES		ESTIMATED NUMBER OF VISITS TO STRUCTURE	TOTAL DIVERSIONS (ACRE-FEET)	TOTAL DIVERSIONS TO STORAGE (ACRE-FEET)	TOTAL DIVERSIONS (ACRE-FEET)	TO IRRIGATION	
	WITH RECORD (1)	NO WATER AVAILABLE (2)	NO WATER TAKEN (3)	NO INFORMATION AVAILABLE (4)	NO RECORD (5)					TOTAL DIVERSIONS (ACRE-FEET)	NUMBER OF ACRES IRRIGATED
29	310	8	186	9	0	3,659	101,627	70	40,471	11,263	3.59
30	879	30	456	2	0	9,953	293,397	15,814	165,871	31,903	5.20
31	265	39	179	5	0	9,315	528,288	57,180	225,104	48,251	4.67
32 *	312	1	164	26	0	3,426	334,181	9,825	247,188	70,783	3.49
33	142	56	61	0	0	6,702	32,964	789	25,251	12,325	2.05
34 **	132	28	42	116	0	1,814	51,538	7,250	37,723	11,646	3.24
46	47	7	9	0	0	830	6,364	0	3,699	930	3.98
69	32	0	13	0	0	286	5,708	282	4,938	1,359	3.63
71	140	0	81	0	0	4,313	379,007	80,037	12,693	2,037	6.23
77	115	0	38	0	0	1,750	62,000	131	12,425	1,823	6.82
78	175	5	64	4	0	1,933	32,614	1,176	25,297	5,874	4.31
TOTAL	2,549	174	1,293	162	0	43,981	1,827,688	172,554	800,660	198,194	4.04

Definitions:

- (1) Count of structures with CIU=A and NUC=blank
- (2) Count of structures with CIU=A and NUC=B
- (3) Count of structures with CIU=A and NUC={A,C,D} + CIU=I
- (4) Count of structures with CIU=A and NUC={E,F}
- (5) Count of structures with CIU=U

* Total Deliveries from Dolores River Basin, Dist. 71, 211,624 A.F. of which 195,607 were for irrigation.

** Total Deliveries from Dolores River Basin, Dist. 71, 736 A.F. of which 721 were for irrigation.

1998 WATER DIVERSION SUMMARIES TO VARIOUS USES

WD	TRANSMOUNTAIN OUTFLOW	TRANSBASIN OUTFLOW	MUNICIPAL	COMMERCIAL	INDUSTRIAL	RECREATION	FISHERY	DOMESTIC & HOUSEHOLD	STOCK
29	223	4,073	951	752	0	0	5,028	101	2,952
30	482	0	5,768	1,053	420	444	13,790	496	21,227
31	834	0	962	165	4	144	4,442	86	563
32 *	0	0	5,748	3	0	0	0	5	779
33	0	727	1	5	24	0	0	34	4,441
34	0	0	1,230	2	0	0	1,101	14	3,919
46	0	0	0	0	0	528	0	0	31
69	0	0	0	0	0	0	362	0	77
71 **	219,789	0	506	2	4	18	10,955	15	262
77	0	0	0	2	0	0	1,323	55	369
78	289	0	1,164	37	0	0	1,698	86	2,839
TOTAL	221,617	4,800	16,330	2,021	452	1,134	38,699	892	37,459

* Municipal Use in Dist. 32 delivered from Transbasin - Dist. 71.

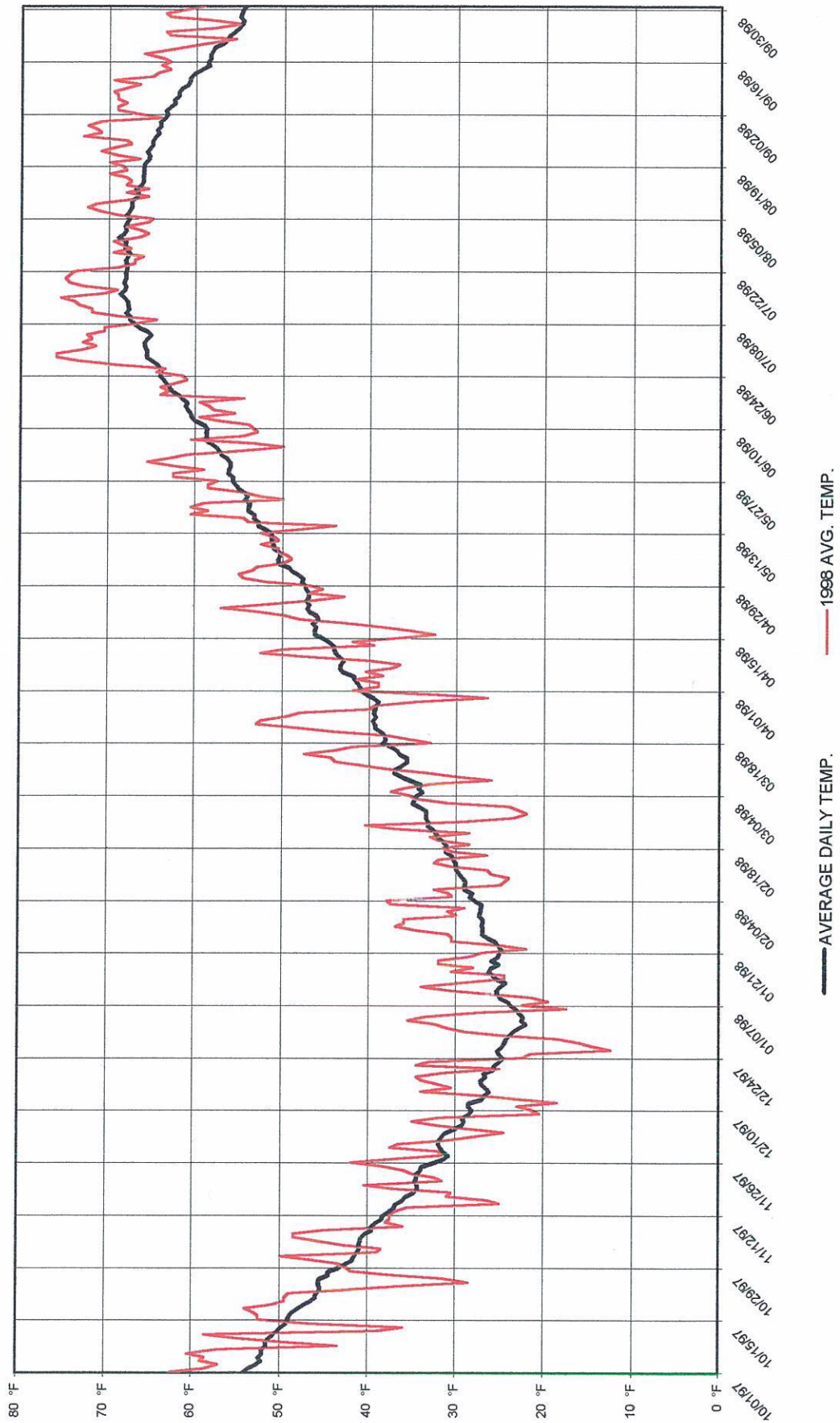
** Transbasin outflow in Dist. 71 diverted to Dist. 32 and Dist. 34.

1998 WATER DIVERSION SUMMARIES TO VARIOUS USES (CONTINUED)

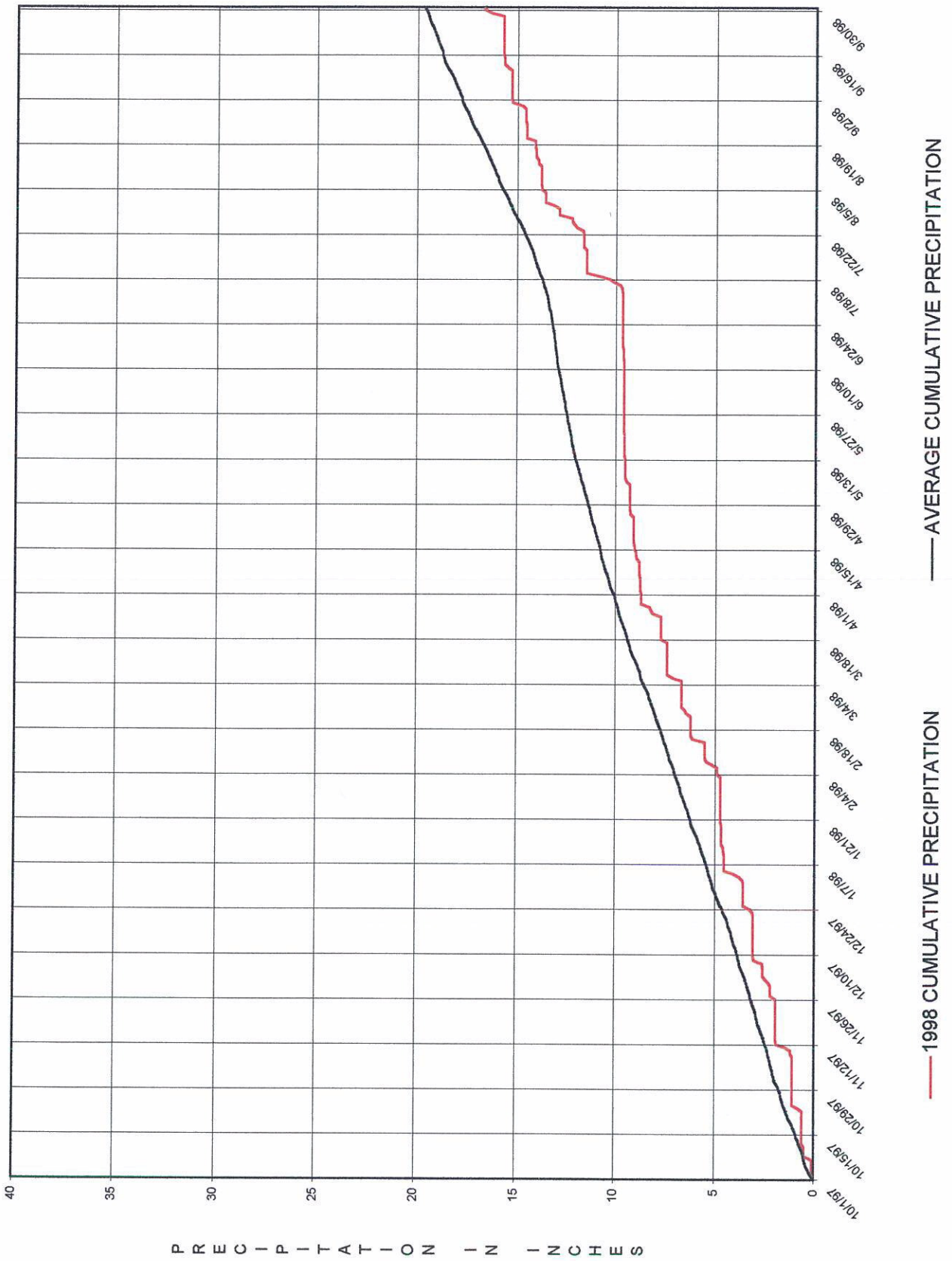
WD	AUGMENTATION	EVAPORATION	GEOTHERMAL *	SNOWMAKING	MINIMUM STREAMFLOW	POWER GENERATION	WILDLIFE	RECHARGES	OTHER
29	18	0	0	0	0	0	0	0	0
30	241	605	0	78	0	53,742	0	28	0
31	193	3,934	0	0	0	234,865	0	0	0
32	39	0	0	0	0	0	1	0	0
33	12	0	0	0	0	0	0	1	278
34	0	0	0	0	0	0	0	20	0
46	0	0	0	0	0	0	0	0	0
69	0	0	0	0	0	0	1	0	0
71	50	0	0	0	0	0	0	0	0
77	0	0	0	0	0	0	0	0	0
78	0	0	0	0	0	0	0	0	0
TOTAL	553	4,539	0	78	0	288,607	2	49	278

* Geothermal water included in Commercial, Municipal, and Recreation categories.

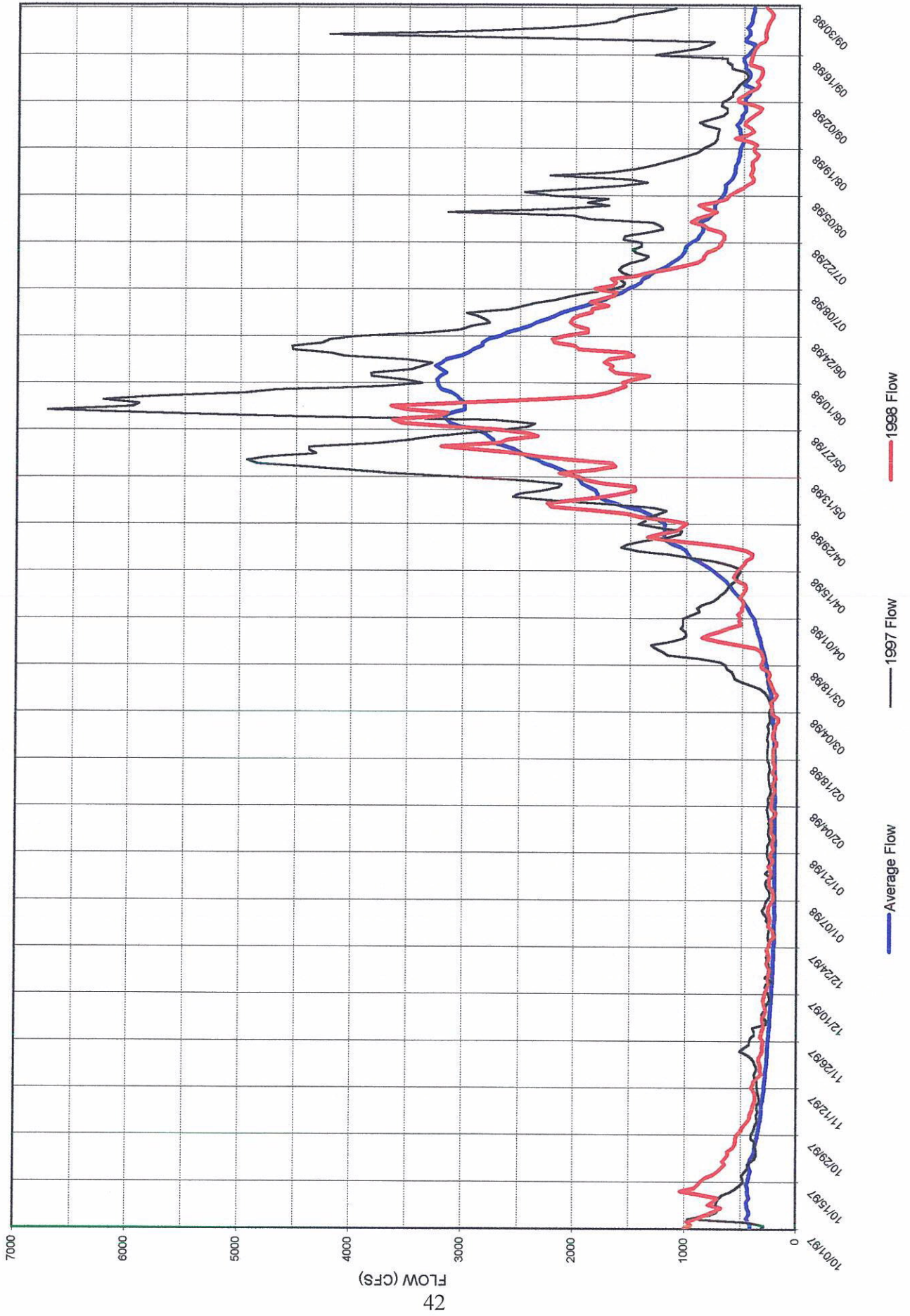
DURANGO, CO TEMPERATURES



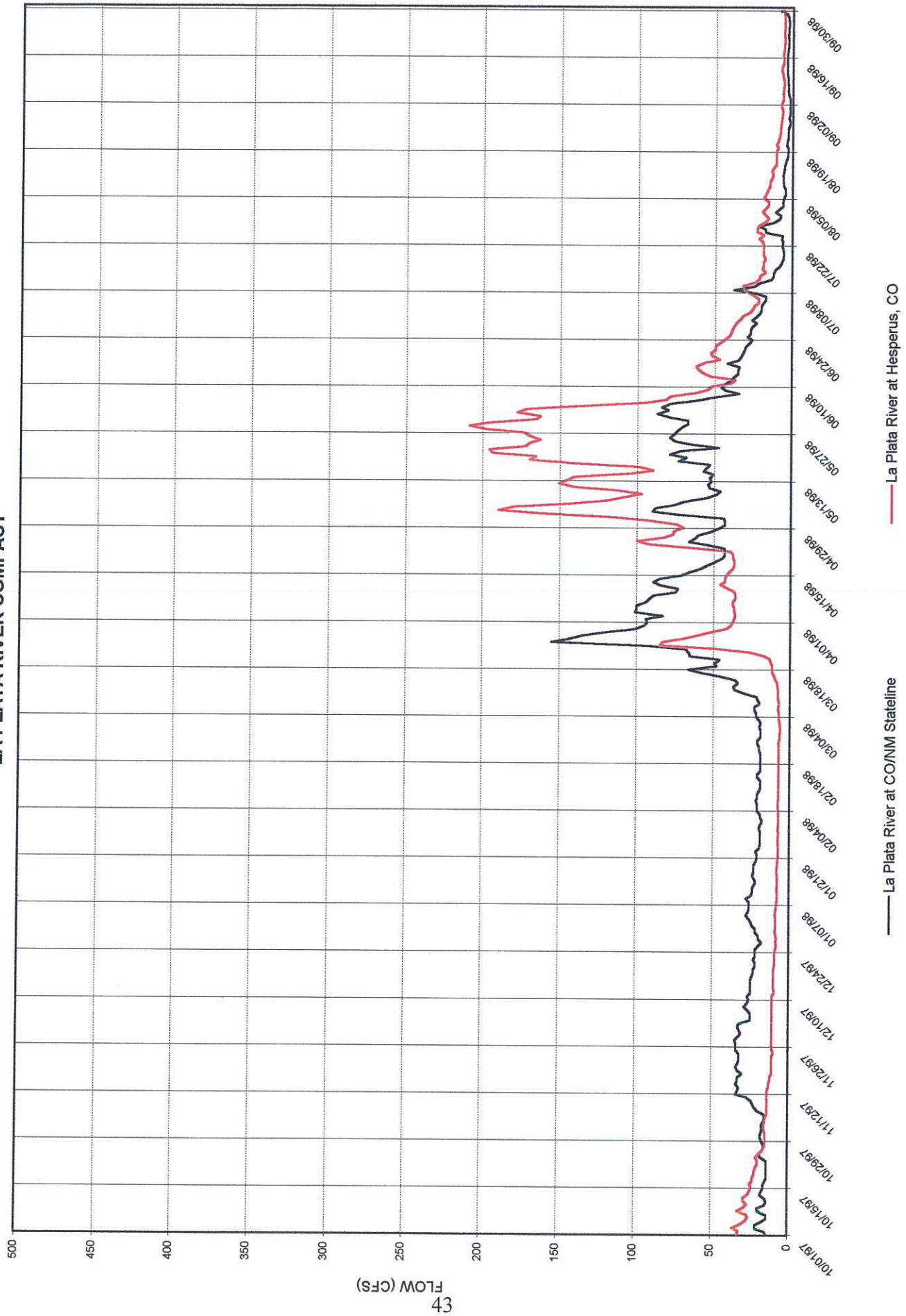
DURANGO, CO CUMULATIVE PRECIPITATION



ANIMAS RIVER AT DURANGO, CO



LA PLATA RIVER COMPACT



LA PLATA RIVER COMPACT MONTHLY ADMINISTRATIVE SUMMARY (ACRE-FEET)

MONTH	LA PLATA & CHERRY		PINE RIDGE		HESPERUS		STATE LINE		ENTERPRISE		PIONEER		DELIVERED		REQUIRED TOTAL (1/2 HESP TOTAL)
	HESPERUS STATION	CR. DITCH	RIDGE DITCH	DITCH	TOTAL	STATION	LINE	(NM)	DITCH	DITCH	STATE LINE	TOTAL	TOTAL		
DECEMBER	616.0	0.0	0.0	0.0	616.0	1500.0	0.0	0.0	0.0	0.0	1500.0	1500.0	---		
JANUARY	506.0	0.0	0.0	0.0	506.0	1410.0	0.0	0.0	0.0	0.0	1410.0	1410.0	---		
FEBRUARY	413.0	0.0	0.0	0.0	413.0	1100.0	0.0	0.0	0.0	0.0	1100.0	1100.0	---		
MARCH	1430.0	0.0	34.5	0.0	1464.5	3450.0	0.0	0.0	0.0	0.0	3450.0	3450.0	---		
APRIL	2960.0	16.1	149.0	0.0	3125.1	4180.0	0.0	0.0	85.7	0.0	4265.7	4265.7	---		
MAY	9280.0	624.0	477.0	0.0	10381.0	3920.0	144.0	242.0	0.0	0.0	4306.0	4306.0	2455.3		
JUNE	4000.0	1520.0	456.0	0.0	5976.0	2550.0	140.0	220.0	0.0	0.0	2910.0	2910.0	2964.0		
JULY	1370.0	598.0	35.8	0.0	2003.8	879.0	118.0	151.0	0.0	0.0	1148.0	1148.0	1005.1		
AUGUST	757.0	39.5	0.4	0.0	796.9	277.0	47.8	120.0	0.0	0.0	444.8	444.8	413.3		
SEPTEMBER	387.0	0.0	0.0	0.0	387.0	192.0	0.0	16.1	0.0	0.0	208.1	208.1	195.6		
OCTOBER	506.0	0.0	0.0	0.0	506.0	529.0	0.0	0.0	0.0	0.0	529.0	529.0	243.3		
NOVEMBER	758.0	0.0	0.0	0.0	758.0	899.0	0.0	0.0	0.0	0.0	899.0	899.0	---		
TOTALS *	12664.3	2767.6	846.1	0.0	16278.0	6752.4	386.1	642.9	0.0	0.0	7781.4	7781.4	7276.6		

On May 14, 1998 New Mexico requested 70 CFS

On May 24, 1998 New Mexico requested 80 CFS

On June 1, 1998 New Mexico requested 90 CFS

July 12: Lower river split -- Return flows were delivered to New Mexico up to required amount.

* TOTALS ARE FOR PERIOD OF COMPACT CALL.

UPPER BASIN COMPACT -- SAN JUAN-CHAMA DIVERSIONS

<u>WATER YEAR</u>	<u>RIO BLANCO DIVERSION</u>	<u>LITTLE OSO DIVERSION</u>	<u>OSO DIVERSION</u>	<u>TOTAL COLO. DIVERSION</u>	<u>AZOTEA TUNNEL (USGS)</u>	<u>TEN-YEAR TOTALS (USGS)</u>	<u>% DIFF</u>
1971	25,190	1,340	24,980	51,510	59,980		-16.4%
1972	28,290	1,120	24,310	53,720	58,070		-8.1%
1973	70,900	9,720	79,810	160,430	153,300		4.4%
1974	25,290	1,070	18,700	45,060	47,230		-4.8%
1975	58,780	8,120	69,200	136,100	145,100		-6.6%
1976	41,000	2,420	36,950	80,370	85,230		-6.0%
1977	13,450	37	3,930	17,417	19,390		-11.3%
1978	44,010	2,820	50,310	97,140	104,200		-7.3%
1979	60,150	8,980	87,730	156,860	164,200		-4.7%
1980	57,760	6,970	72,460	137,190	143,600	980,300	-4.7%
1981	25,690	1,640	22,260	49,590	53,960	974,280	-8.8%
1982	48,340	6,860	63,810	119,010	127,100	1,043,310	-6.8%
1983	46,960	8,110	69,680	124,750	134,300	1,024,310	-7.7%
1984	45,180	6,070	55,220	106,470	113,600	1,090,680	-6.7%
1985	32,700	9,630	44,630	86,960	91,800	1,037,380	-5.6%
1986	35,520	4,720	43,620	83,860	89,180	1,041,330	-6.3%
1987	32,120	4,380	42,360	78,860	83,050	1,104,990	-5.3%
1988	29,200	972	29,780	59,952	63,530	1,064,320	-6.0%
1989	20,400	672	26,630	47,702	48,570	948,690	-1.8%
1990	37,630	1,480	32,510	71,620	71,700	876,790	-0.1%
1991	51,730	3,930	59,780	115,440	119,400	942,230	-3.4%
1992	32,910	6,340	43,990	83,240	87,080	902,210	-4.6%
1993	34,960	6,210	52,740	93,910	98,810	866,720	-5.2%
1994	28,080	5,020	44,260	77,360	82,200	835,320	-6.3%
1995	34,980	5,220	44,840	85,040	86,270	829,790	-1.4%
1996	26,780	950	27,640	55,370	57,240	797,850	-3.4%
1997	62,320	4,450	71,470	138,240	141,200	856,000	-2.1%
1998	47,910	2,110	45,370	95,390			
AVG.	38,901	4,417	46,059	89,377	93,677	942,450	-4.8%

LIMITS: 1,350,000 ACRE-FEET IN ANY TEN CONSECUTIVE YEARS, 270,000 ACRE-FEET IN ANY YEAR

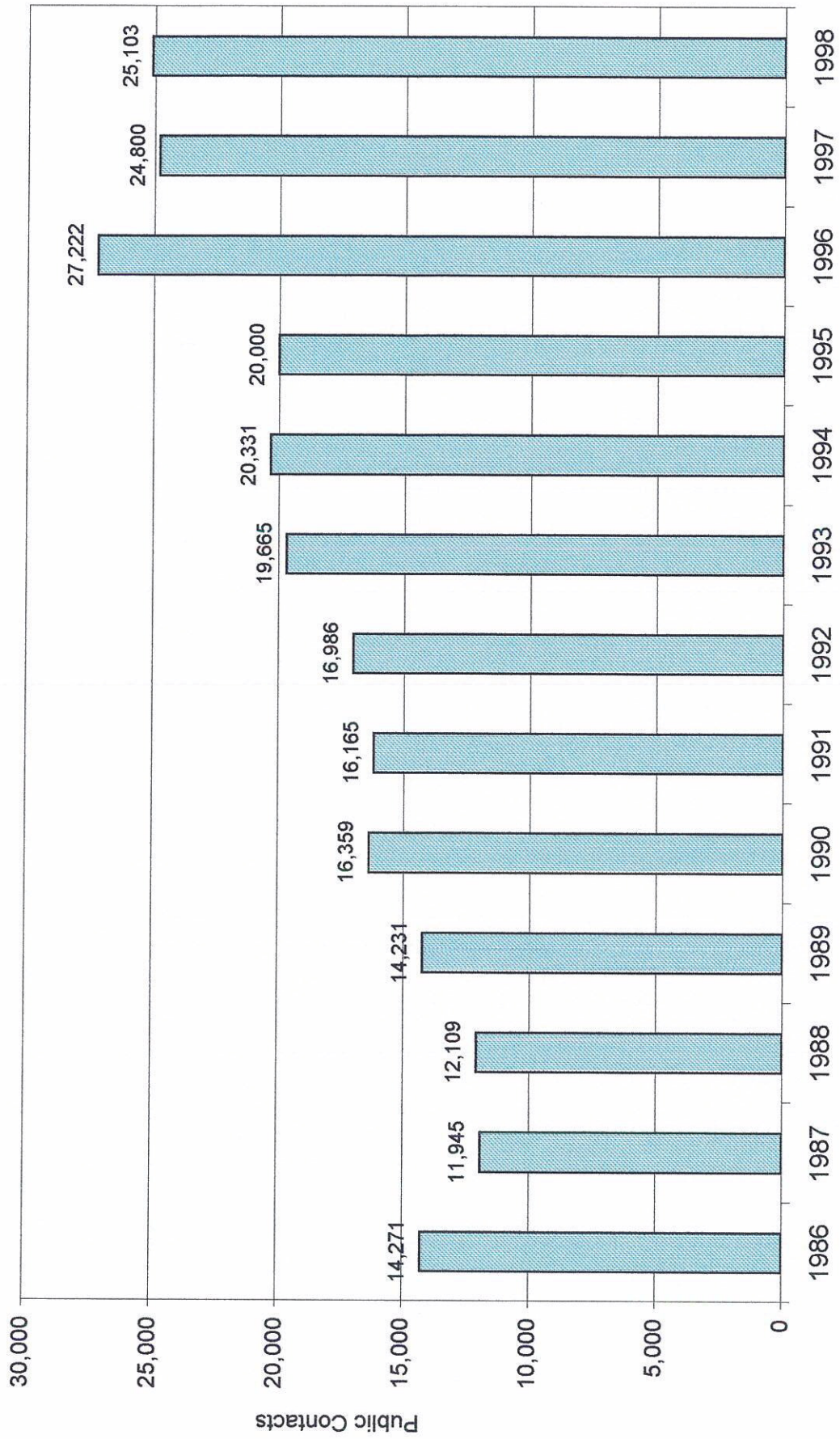
WATER DIVISION SEVEN

ACTIVITY SUMMARY

FISCAL YEAR 1998

<u>ACTIVITY</u>	<u>TOTAL</u>
NUMBER OF PROFESSIONAL & TECHNICAL STAFF	4
NUMBER OF CLERICAL STAFF	1
NUMBER OF WATER COMMISSIONER FTE ASSIGNED	15.42
NUMBER OF DECREED SURFACE RIGHTS (FOR THE CURRENT YEAR)	56
NUMBER OF SURFACE RIGHTS ADMINISTERED	20,620
NUMBER OF WELLS ADMINISTERED	1,388
NUMBER OF PLANS FOR AUGMENTATION (FOR THE CURRENT YEAR)	2
NUMBER OF CONSULTATIONS WITH REFEREE	113
NUMBER OF WATER COURT APPEARANCES	25
NUMBER OF MEETINGS W/ WATER USERS	79
NUMBER OF MEETINGS TO RESOLVE WATER RELATED DISPUTES	119
NUMBER OF PUBLIC ASSISTANCE CONTACTS ON WATER MATTERS	25,103

DIVISION 7 PUBLIC CONTACTS



WATER COURT ACTIVITIES

CALENDAR YEAR 1998

NUMBER OF APPLICATIONS FOR DECREES	89
NUMBER OF CONSULTATIONS WITH REFEREE	113
NUMBER OF DECREES ISSUED BY WATER COURT	80

TYPE OF DECREE:

SURFACE WATER	56
GROUND WATER	6
RESERVOIRS	0
TRANSFER	0
ALTERNATE POINT	2
CHANGE IN USE	7
PLANS FOR AUGMENTATION	2
IN-STREAM FLOW	0
OTHER	67

NUMBER OF STRUCTURES IN DECREES:

TYPE OF STRUCTURES:

DITCHES	26
RESERVOIRS, PONDS	21
WELLS	41
OTHER (SPRINGS, PIPELINES, PUMPS, ETC.)	133

TOTAL STRUCTURES: 221

OFFICE ADMINISTRATION FY 1998

<u>NAME</u>	<u>POSITION</u>	<u>FY MONTHS</u>		
		<u>BUDGETED</u>	<u>WORKED</u>	<u>FY MILEAGE</u>
Kenneth A. Beegles	Division Engineer	12	12	3,020
Bruce T. Whitehead	Asst. Div. Engineer	12	12	768
Scott D. Brinton	Hydrographer	12	12	13,843
Frank J. Kugel	Dam Safety Engineer	12	12	15,283
Shari Titus	Admin. Asst. III	12	12	820

FULL-TIME EMPLOYEES IN THE FIELD

<u>NAME</u>	<u>POSITION</u>	<u>DISTRICT</u>			
Harold Baxstrom	Eng Tech II	30/Florida	12	12	12,075
Robert Becker	Eng Tech II	69, 71	12	12	11,482
Glen Humiston	Eng Tech III	32,34,69,71	12	12	14,465
J. Russell Kennedy	Eng Tech II	33	12	12	11,790
David Nelson	Eng Tech II	30/Animas	12	12	6,350
Hal Pierce	Eng Tech II	31, 46	12	12	13,691
John (Val) Valentine	Eng Tech II	29,77,78	12	12	12,864

PERMANENT PART-TIME EMPLOYEES IN THE FIELD

Robert Daniels	Eng Tech I	31,46	8.5	8.5	9,687
Marty Robbins	Eng Tech I	32	9	9	11,229
Matthew Schmitt	EPS Asst II	33	4.5	4.5	3,699
Sherry Schutz	Eng Tech I	77	8	8	11,939
John Taylor	Eng Tech I	78	5	5	4,646

TEMPORARY PART-TIME EMPLOYEES IN THE OFFICE

Agnes Suazo	ESPA II	Hydro/G.W.	5	5	2,235
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SPECIAL NOTE:

3 Month of A. Suazo's time came from Groundwater Decentralization
 1 Month of A. Suazo's time came from Overtime Conversion
 1 Month of A. Suazo's time came from Hydrographic Branch

TOTAL MAN-MONTHS:	179	179	
TOTAL FTE:	15.42	15.42	
TOTAL MILES DRIVEN:			159,886

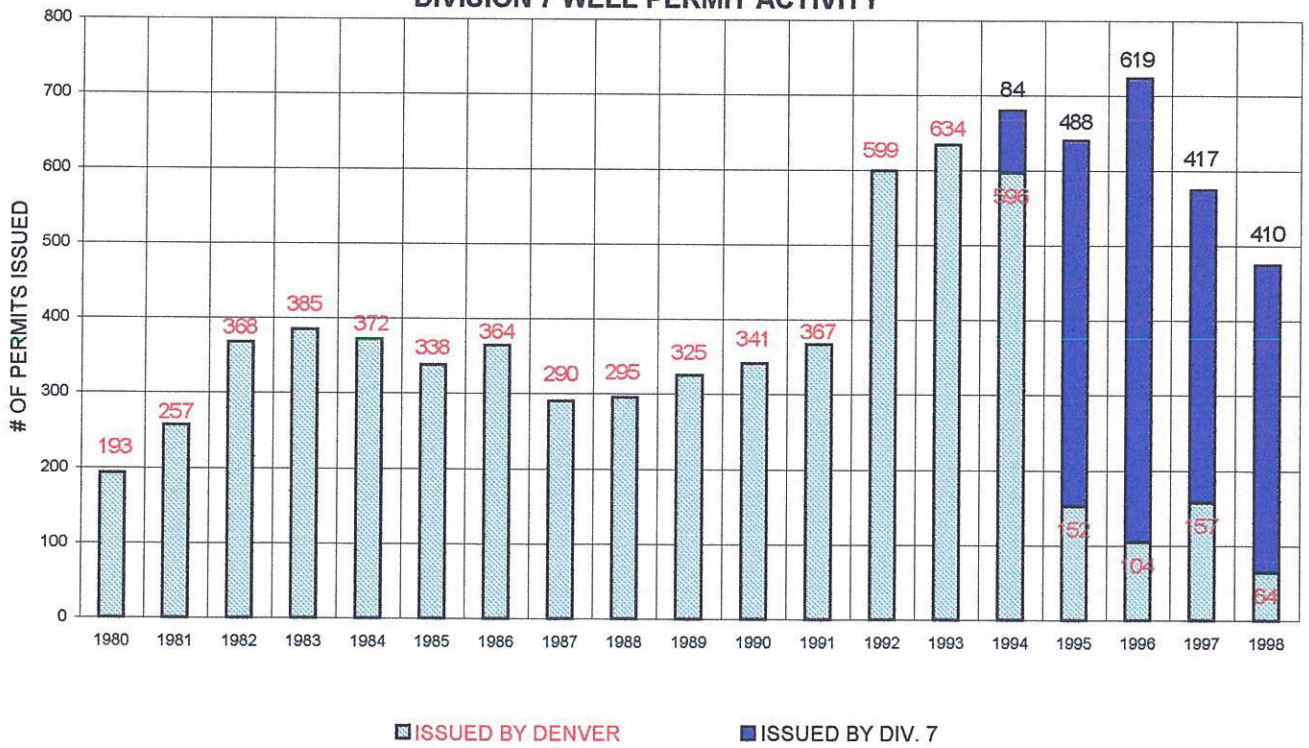
**BUDGET PROJECTIONS
DIVISION 7**

<u>MONTH</u>	<u>FY 96 -97 EXPENSES</u>	<u>PROJECTED FY 97 - 98</u>	<u>EST CUMULATIVE EXPENDITURES</u>	<u>FY 97 -98 EXPENSES</u>
JULY	4,934	5,500	5,500	3,660
AUGUST	4,476	5,500	11,000	4,462
SEPTEMBER	4,251	4,500	15,500	4,909
OCTOBER	4,523	3,200	18,700	4,133
NOVEMBER	3,074	2,500	21,200	2,021
DECEMBER	2,526	2,200	23,400	3,122
JANUARY	2,528	2,200	25,600	2,298
FEBRUARY	1,904	2,200	27,800	2,104
MARCH	3,831	3,200	31,000	2,183
APRIL	3,359	3,700	34,700	3,157
MAY	3,917	5,000	39,700	4,102
JUNE	5,696	5,700	45,400	9,733
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TOTAL REMAINING	\$45,019 -\$61	\$45,400	\$45,385 amount left->	\$45,884 -\$484

**DIVISION 7
1998 RIVER CALLS**

WD	RIVER	INITIAL CALLING STRUCTURE	PRIORITY No.	DATE ON CALL	MOST SENIOR CURTAILED STRUCTURE	PRIORITY No.	DATE OFF CALL	DAYS
29	FOUR MILE CREEK	Mesa Ditch	8	07/01/98	Mesa Ditch	3	10/20/98	111
29	RITO BLANCO	M. O. Brown Ditch	4	7/13/98	Echo Ditch (Split to Brown Ditch)	1	10/20/98	98
30	FLORIDA RIVER	Florida Farmers D.	F-84	06/19/98	Florida Canal	F-17	10/14/98	118
30	ELBERT CREEK	Conley Ditch	E-1	07/21/98	Power Canal No. 1	65-9A	10/05/98	76
30	JUNCTION CREEK	Quinn-Naegelin Ditch	J-6	07/20/98	Quinn-Naegelin Ditch	J-6	07/23/98	4
30	LITTLE CASCADE CREEK	Little Cascade Creek Canal	65-9	06/01/98	Little Cascade Creek Canal	65-9	10/31/98	153
31	PINE RIVER	Robert Morrison Ditch, King Ditch	65-22	06/30/98	Dr. Morrison Ditch, Ceanaboo Ditch, Spring Creek Ditch	P-1	10/19/98	112
33	LA PLATA RIVER (Hesperus to Cherry Creek)	Joseph Freed Ditch	65	04/27/98	Joseph Freed Ditch	64	05/15/98	16
33	LA PLATA RIVER (Hesperus to Stateline)	Warren-Vosburgh Ditch	59	05/15/98	La Plata River & Cherry Creek Ditch, Big Stick Ditch	10	07/12/98	59
33	LA PLATA RIVER (Hesperus to Breen)	Ammons	22	07/12/98	Hay Gulch Ditch	5	10/31/98	112
33	LA PLATA RIVER (Breen to Stateline)	Sooner Valley Ditch	41	07/12/98	Joseph Freed Ditch	56	07/22/98	40
33	LA PLATA RIVER (Breen to Cherry Creek)	White-Roux & Owens Ditch	45	08/01/98	White-Roux & Owens Ditch	45	10/31/98	60
33	LA PLATA RIVER (Cherry Creek to Stateline)	Sooner Valley Ditch	41	07/27/98	Chidal Ditch	20	09/30/98	66
34	MANCOS RIVER	Beaver Ditch	M-36	06/26/98	Davenport Ditch	M-9	10/01/98	95

DIVISION 7 WELL PERMIT ACTIVITY



SUMMARY OF WELL PERMITS ISSUED FOR DIVISION 7 1980 - 1998

CALENDAR YEAR	ISSUED BY DENVER	ISSUED BY DIVISION 7
1980	193	
1981	257	
1982	368	
1983	385	
1984	372	
1985	338	
1986	364	
1987	290	
1988	295	
1989	325	
1990	341	
1991	367	
1992	599	
1993	634	
1994	596	84
1995	152	488
1996	104	619
1997	157	417
1998	64	410

**1998 IRRIGATION YEAR SUMMARY
DISTRICT 29**

	ACRE-FEET
DIRECT DIVERSIONS	
IRRIGATION	37,644
STORAGE	70
STOCKWATER	2,315
MUNICIPAL	951
DOMESTIC	101
INDUSTRIAL	0
RECREATION	0
FISH	5,028
OTHER: COMMERCIAL, AUGMENTATION	752
TRANSMOUNTAIN-TRANSBASIN	4,262
INTERSTATE	45,639
TOTAL DIVERSIONS.....	96,762
DELIVERIES FROM STORAGE	
IRRIGATION	9
DOMESTIC	0
MUNICIPAL	0
STOCK	0
INDUSTRIAL	0
RECREATION	0
TRANSBASIN-TRANSMOUNTAIN	34
OTHER: AUGMENTATION, ETC.	18
TOTAL DIVERSIONS.....	61
DELIVERIES FROM TRANSBASIN	
IRRIGATION	2,818
STORAGE	0
MUNICIPAL	0
STOCK	637
TOTAL FROM TRANSBASIN.....	3,455
DUTY OF WATER:	
TOTAL TO IRRIGATION	40,471
ACRES IRRIGATED	11,263
ACRE-FEET DIVERTED PER ACRE	3.59
NUMBER OF STRUCTURES OBSERVED	511
WATER RUN-NO INFORMATION AVAILABLE (E CODE)	4
ACTIVE DIVERSIONS-DAILY	165
-INFREQUENT STRUCTURES	139
INACTIVE DIVERSIONS-NO WATER AVAILABLE (B CODE)	8
-NOT USED (A,C,D, CODES)	186
-NO INFORMATION AVAILABLE (F CODE)	9
NUMBER OF DITCHES, SURFACE RIGHTS	341
NUMBER OF RESERVOIRS	96
NUMBER OF WELLS	79
NUMBER OF OBSERVATIONS	3,659

**1998 IRRIGATION YEAR SUMMARY
DISTRICT 30**

	ACRE-FEET
DIRECT DIVERSIONS	
IRRIGATION	134,818
STORAGE	15,664
STOCKWATER	21,226
MUNICIPAL	5,768
DOMESTIC	495
INDUSTRIAL,POWER	34,429
RECREATION	405
FISH	13,790
OTHER:COMMERCIAL,RECHARGE,AUGMENTATION,etc..	824
SNOWMAKING	14
TRANSMOUNTAIN-TRANSBASIN	482
INTERSTATE	8,118
TOTAL DIVERSIONS.....	236,019
DELIVERIES FROM STORAGE	
IRRIGATION	30,174
DOMESTIC	1
MUNICIPAL	0
STOCK	1
INDUSTRIAL	19,733
RECREATION	0
TRANSBASIN-TRANSMOUNTAIN	0
OTHER:COMMERCIAL,RECHARGE,EVAP,AUGMENTATION	1,067
SNOWMAKING	64
TOTAL DIVERSIONS.....	51,040
DELIVERIES FROM TRANSBASIN	
IRRIGATION	879
STORAGE	150
MUNICIPAL	0
STOCK	0
OTHER:COMMERCIAL,etc.	36
TOTAL FROM TRANSBASIN.....	1,065
DUTY OF WATER:	
TOTAL TO IRRIGATION	165,871
ACRES IRRIGATED	31,903
ACRE-FEET DIVERTED PER ACRE	5.20
NUMBER OF STRUCTURES OBSERVED	1,375
WATER RUN-NO INFORMATION AVAILABLE (E CODE)	1
ACTIVE DIVERSIONS-DAILY	264
-INFREQUENT STRUCTURES*	622
INACTIVE DIVERSIONS-NO WATER AVAILABLE (B CODE)	30
-NOT USED (A,C,D, CODES)	456
-NO INFORMATION AVAILABLE (F CODE)	2
NUMBER OF DITCHES	770
NUMBER OF RESERVOIRS	180
NUMBER OF WELLS	456
NUMBER OF OBSERVATIONS	9,953

**1998 IRRIGATION YEAR SUMMARY
DISTRICT 31**

	ACRE-FEET
DIRECT DIVERSIONS	
IRRIGATION	167,153
STORAGE	57,180
STOCKWATER	563
MUNICIPAL	764
DOMESTIC	86
POWER, INDUSTRIAL	234,869
RECREATION	144
FISH	4,442
OTHER: COMMERCIAL	165
TRANSMOUNTAIN-TRANSBASIN	834
TOTAL DIVERSIONS.....	466,200
DELIVERIES FROM STORAGE	
IRRIGATION	57,951
DOMESTIC	0
MUNICIPAL	198
STOCK	0
INDUSTRIAL	0
RECREATION	0
TRANSBASIN-TRANSMOUNTAIN	0
OTHER: EVAPORATION, AUGMENTATION	4,127
TOTAL DIVERSIONS.....	62,276
DELIVERIES FROM TRANSBASIN	
IRRIGATION	0
STORAGE	0
MUNICIPAL	0
STOCK	0
TOTAL FROM TRANSBASIN.....	0
DUTY OF WATER:	
TOTAL TO IRRIGATION	225,104
ACRES IRRIGATED	48,251
ACRE-FEET DIVERTED PER ACRE	4.67
NUMBER OF STRUCTURES OBSERVED	760
WATER RUN-NO INFORMATION AVAILABLE (E CODE)	1
ACTIVE DIVERSIONS-DAILY	124
-INFREQUENT STRUCTURES	413
INACTIVE DIVERSIONS-NO WATER AVAILABLE (B CODE)	39
-NOT USED (A, C, D, CODES)	179
-NO INFORMATION AVAILABLE (F CODE)	4
NUMBER OF DITCHES, OTHER SURFACE RIGHTS	435
NUMBER OF RESERVOIRS	40
NUMBER OF WELLS	330
NUMBER OF OBSERVATIONS	9,315

**1998 IRRIGATION YEAR SUMMARY
DISTRICT 32**

	ACRE-FEET
DIRECT DIVERSIONS	
IRRIGATION	45,404
STORAGE	0
STOCKWATER	45
MUNICIPAL	82
DOMESTIC	5
INDUSTRIAL	0
RECREATION	0
FISH	0
OTHER:COMMERCIAL	3
TRANSMOUNTAIN-TRANSBASIN	0
TOTAL DIVERSIONS.....	45,539
DELIVERIES FROM STORAGE	
IRRIGATION	6,177
DOMESTIC	0
MUNICIPAL	0
STOCK	246
INDUSTRIAL	0
RECREATION	0
TRANSBASIN-TRANSMOUNTAIN	0
OTHER:COMMERCIAL,AUGMENTATION	1
TOTAL DIVERSIONS.....	6,424
DELIVERIES FROM TRANSBASIN	
IRRIGATION	195,607
STORAGE	9,825
MUNICIPAL	5,666
STOCK	488
OTHER:AUGMENTATION	38
TOTAL FROM TRANSBASIN.....	211,624
DUTY OF WATER:	
TOTAL TO IRRIGATION	247,188
ACRES IRRIGATED	70,783
ACRE-FEET DIVERTED PER ACRE	3.49
NUMBER OF STRUCTURES OBSERVED	622
WATER RUN-NO INFORMATION AVAILABLE (E CODE)	1
ACTIVE DIVERSIONS-DAILY	200
-INFREQUENT STRUCTURES	231
INACTIVE DIVERSIONS-NO WATER AVAILABLE (B CODE)	1
-NOT USED (A,C,D, CODES)	164
-NO INFORMATION AVAILABLE (F CODE)	25
NUMBER OF DITCHES, SURFACE RIGHTS	501
NUMBER OF RESERVOIRS	20
NUMBER OF WELLS	43
NUMBER OF OBSERVATIONS	3,426

**1998 IRRIGATION YEAR SUMMARY
DISTRICT 33**

	ACRE-FEET
DIRECT DIVERSIONS	
IRRIGATION	24,363
STORAGE	786
STOCKWATER	4,421
MUNICIPAL	1
DOMESTIC	34
INDUSTRIAL	0
RECREATION	0
FISH	0
OTHER:COMMERCIAL	5
TRANSMOUNTAIN-TRANSBASIN	727
INTERSTATE	1,402
TOTAL DIVERSIONS.....	30,337
DELIVERIES FROM STORAGE	
IRRIGATION	888
DOMESTIC	0
MUNICIPAL	0
STOCK	20
INDUSTRIAL	24
RECREATION	0
TRANSBASIN-TRANSMOUNTAIN	0
OTHER:RECHARGE,AUGMENTATION	13
TOTAL DIVERSIONS.....	945
DELIVERIES FROM TRANSBASIN	
IRRIGATION	0
STORAGE	0
MUNICIPAL	0
STOCK	0
TOTAL FROM TRANSBASIN.....	0
DUTY OF WATER:	
TOTAL TO IRRIGATION	25,251
ACRES IRRIGATED	12,325
ACRE-FEET DIVERTED PER ACRE	2.05
NUMBER OF STRUCTURES OBSERVED	
WATER RUN-NO INFORMATION AVAILABLE (E CODE)	0
ACTIVE DIVERSIONS-DAILY	53
-INFREQUENT STRUCTURES	112
INACTIVE DIVERSIONS-NO WATER AVAILABLE (B CODE)	56
-NOT USED (A,C,D, CODES)	61
-NO INFORMATION AVAILABLE (F CODE)	0
NUMBER OF DITCHES, SURFACE RIGHTS	244
NUMBER OF RESERVOIRS	18
NUMBER OF WELLS	51
NUMBER OF OBSERVATIONS	6,702

**1998 IRRIGATION YEAR SUMMARY
DISTRICT 34**

	ACRE-FEET
DIRECT DIVERSIONS	
IRRIGATION	31,603
STORAGE	7,250
STOCKWATER	3,866
MUNICIPAL	970
DOMESTIC	14
RECREATION	0
FISH	1,095
OTHER:	0
TOTAL DIVERSIONS.....	44,798
DELIVERIES FROM STORAGE	
IRRIGATION	5,399
DOMESTIC	0
MUNICIPAL	260
STOCK	38
INDUSTRIAL	0
RECREATION	0
OTHER: FISHERY, COMMERCIAL, EVAPORATION	8
TOTAL DIVERSIONS.....	5,705
DELIVERIES FROM TRANSBASIN	
IRRIGATION	721
STORAGE	0
MUNICIPAL	0
STOCK	15
TOTAL FROM TRANSBASIN.....	736
DUTY OF WATER:	
TOTAL TO IRRIGATION	37,723
ACRES IRRIGATED	11,646
ACRE-FEET DIVERTED PER ACRE	3.24
NUMBER OF STRUCTURES OBSERVED	
WATER RUN-NO INFORMATION AVAILABLE (E CODE)	6
ACTIVE DIVERSIONS-DAILY	71
-INFREQUENT STRUCTURES	213
INACTIVE DIVERSIONS-NO WATER AVAILABLE (B CODE)	28
-NOT USED (A,C,D, CODES)	42
-NO INFORMATION AVAILABLE (F CODE)	110
NUMBER OF DITCHES, SURFACE RIGHTS	413
NUMBER OF RESERVOIRS	27
NUMBER OF WELLS	35
NUMBER OF OBSERVATIONS	1,814

**1998 IRRIGATION YEAR SUMMARY
DISTRICT 46**

	ACRE-FEET
DIRECT DIVERSIONS	
IRRIGATION	3,699
STORAGE	0
STOCKWATER	31
MUNICIPAL	0
DOMESTIC	0
INDUSTRIAL	0
RECREATION	528
FISH	0
OTHER:	0
INTERSTATE	2,106
TOTAL DIVERSIONS.....	6,364
 DELIVERIES FROM STORAGE	
IRRIGATION	0
DOMESTIC	0
MUNICIPAL	0
STOCK	0
OTHER:FISH	0
TOTAL DIVERSIONS.....	0
 DELIVERIES FROM TRANSBASIN	
IRRIGATION	0
STORAGE	0
MUNICIPAL	0
STOCK	0
TOTAL FROM TRANSBASIN.....	0
 DUTY OF WATER:	
TOTAL TO IRRIGATION	3,699
ACRES IRRIGATED	930
ACRE-FEET DIVERTED PER ACRE	3.98
 NUMBER OF STRUCTURES OBSERVED	
WATER RUN-NO INFORMATION AVAILABLE (E CODE)	0
ACTIVE DIVERSIONS-DAILY	39
-INFREQUENT STRUCTURES	14
INACTIVE DIVERSIONS-NO WATER AVAILABLE (B CODE)	7
-NOT USED (A,C,D, CODES)	9
-NO INFORMATION AVAILABLE (F CODE)	0
NUMBER OF DITCHES, SURFACE RIGHTS	57
NUMBER OF RESERVOIRS	9
NUMBER OF WELLS	0
NUMBER OF OBSERVATIONS	830

**1998 IRRIGATION YEAR SUMMARY
DISTRICT 69**

	ACRE-FEET
DIRECT DIVERSIONS	
IRRIGATION	4,845
STORAGE	282
STOCKWATER	74
MUNICIPAL	0
DOMESTIC	0
INDUSTRIAL	0
RECREATION	0
FISH	362
OTHER:	0
TOTAL DIVERSIONS.....	5,563
DELIVERIES FROM STORAGE	
IRRIGATION	93
DOMESTIC	0
MUNICIPAL	0
STOCK	3
OTHER:	0
TOTAL DIVERSIONS.....	96
DELIVERIES FROM TRANSBASIN	
IRRIGATION	0
STORAGE	0
MUNICIPAL	0
STOCK	0
TOTAL FROM TRANSBASIN.....	0
DUTY OF WATER:	
TOTAL TO IRRIGATION	4,938
ACRES IRRIGATED	1,359
ACRE-FEET DIVERTED PER ACRE	3.63
NUMBER OF STRUCTURES OBSERVED	
WATER RUN-NO INFORMATION AVAILABLE (E CODE)	0
ACTIVE DIVERSIONS-DAILY	21
-INFREQUENT STRUCTURES	17
INACTIVE DIVERSIONS-NO WATER AVAILABLE (B CODE)	0
-NOT USED (A,C,D, CODES)	13
-NO INFORMATION AVAILABLE (F CODE)	0
NUMBER OF DITCHES, SURFACE RIGHTS	36
NUMBER OF RESERVOIRS	8
NUMBER OF WELLS	1
NUMBER OF OBSERVATIONS	286

**1998 IRRIGATION YEAR SUMMARY
DISTRICT 71**

	ACRE-FEET
DIRECT DIVERSIONS	
IRRIGATION	12,619
STORAGE	80,037
STOCKWATER	258
MUNICIPAL	506
DOMESTIC	15
INDUSTRIAL	4
RECREATION	18
FISH	10,955
OTHER:COMMERCIAL	2
TRANSMOUNTAIN-TRANSBASIN	127,115
TOTAL DIVERSIONS.....	231,529
DELIVERIES FROM STORAGE	
IRRIGATION	74
DOMESTIC	0
MUNICIPAL	0
STOCK	4
INDUSTRIAL	0
RECREATION	0
TRANSBASIN-TRANSMOUNTAIN	92,674
OTHER:AUGMENTATION	50
TOTAL DIVERSIONS.....	92,802
DELIVERIES FROM TRANSBASIN	
IRRIGATION	0
STORAGE	0
MUNICIPAL	0
STOCK	0
TOTAL FROM TRANSBASIN.....	0
DUTY OF WATER:	
TOTAL TO IRRIGATION	12,693
ACRES IRRIGATED	2,037
ACRE-FEET DIVERTED PER ACRE	6.23
NUMBER OF STRUCTURES OBSERVED	233
WATER RUN-NO INFORMATION AVAILABLE (E CODE)	0
ACTIVE DIVERSIONS-DAILY	64
-INFREQUENT STRUCTURES	88
INACTIVE DIVERSIONS-NO WATER AVAILABLE (B CODE)	0
-NOT USED (A,C,D, CODES)	81
-NO INFORMATION AVAILABLE (F CODE)	0
NUMBER OF DITCHES, SURFACE RIGHTS	161
NUMBER OF RESERVOIRS	20
NUMBER OF WELLS	47
NUMBER OF OBSERVATIONS	4,313

**1998 IRRIGATION YEAR SUMMARY
DISTRICT 77**

	ACRE-FEET
DIRECT DIVERSIONS	
IRRIGATION	12,331
STORAGE	131
STOCKWATER	369
MUNICIPAL	0
DOMESTIC	43
INDUSTRIAL	0
RECREATION	0
FISH	1,323
OTHER:COMMERCIAL	2
INTERSTATE	47,480
TOTAL DIVERSIONS.....	61,679
DELIVERIES FROM STORAGE	
IRRIGATION	94
DOMESTIC	0
STOCK	0
INDUSTRIAL	0
RECREATION	0
OTHER:FISH	0
TOTAL DIVERSIONS.....	94
DELIVERIES FROM TRANSBASIN	
IRRIGATION	0
STORAGE	0
MUNICIPAL	0
STOCK	0
TOTAL FROM TRANSBASIN.....	0
DUTY OF WATER:	
TOTAL TO IRRIGATION	12,425
ACRES IRRIGATED	1,823
ACRE-FEET DIVERTED PER ACRE	6.82
NUMBER OF STRUCTURES OBSERVED	
WATER RUN-NO INFORMATION AVAILABLE (E CODE)	0
ACTIVE DIVERSIONS-DAILY	75
-INFREQUENT STRUCTURES	23
INACTIVE DIVERSIONS-NO WATER AVAILABLE (B CODE)	0
-NOT USED (A,C,D, CODES)	38
-NO INFORMATION AVAILABLE (F CODE)	0
NUMBER OF DITCHES, SURFACE RIGHTS	116
NUMBER OF RESERVOIRS	21
NUMBER OF WELLS	18
NUMBER OF OBSERVATIONS	1,750

**1998 IRRIGATION YEAR SUMMARY
DISTRICT 78**

	ACRE-FEET
DIRECT DIVERSIONS	
IRRIGATION	24,733
STORAGE	907
STOCKWATER	2,839
MUNICIPAL	0
DOMESTIC	86
INDUSTRIAL	0
RECREATION	0
FISH	1,698
OTHER:COMMERCIAL	36
TRANSMOUNTAIN-TRANSBASIN	289
TOTAL DIVERSIONS.....	30,588
DELIVERIES FROM STORAGE	
IRRIGATION	456
DOMESTIC	0
MUNICIPAL	1,164
STOCK	0
INDUSTRIAL	0
RECREATION	0
TRANSBASIN-TRANSMOUNTAIN	0
OTHER:COMMERCIAL	1
TOTAL DIVERSIONS.....	1,621
DELIVERIES FROM TRANSBASIN	
IRRIGATION	108
STORAGE	101
MUNICIPAL	0
STOCK	0
TOTAL FROM TRANSBASIN.....	209
DUTY OF WATER:	
TOTAL TO IRRIGATION	25,297
ACRES IRRIGATED	5,874
ACRE-FEET DIVERTED PER ACRE	4.31
NUMBER OF STRUCTURES OBSERVED	244
WATER RUN-NO INFORMATION AVAILABLE (E CODE)	2
ACTIVE DIVERSIONS-DAILY	88
-INFREQUENT STRUCTURES	83
INACTIVE DIVERSIONS-NO WATER AVAILABLE (B CODE)	5
-NOT USED (A,C,D, CODES)	64
-NO INFORMATION AVAILABLE (F CODE)	2
NUMBER OF DITCHES, SURFACE RIGHTS	166
NUMBER OF RESERVOIRS	58
NUMBER OF WELLS	27
NUMBER OF OBSERVATIONS	1,933