

ANNUAL REPORT

1987 - Water Year

Irrigation Division No. Four

ROY ROMER  
Governor



JERIS A. DANIELSON  
State Engineer

**DIVISION OF WATER RESOURCES**  
WATER DIVISION IV

Thomas A. Kelly  
Division Engineer  
P.O. Box 456  
Montrose, Colorado 81402  
(303) 249-6622

January 19, 1988

Mr. Jeris A. Danielson, State Engineer  
Division of Water Resources  
1313 Sherman Street, Room 818  
Denver, Colorado 80203

Dear Mr. Danielson:

On behalf of the office and field personnel of Irrigation Division Four, I submit herewith the Annual Report for 1987. It is important to give special recognition to the water officials and staff of Irrigation Division Four who have attended to their responsibilities as employees of the Division of Water Resources in a highly professional manner.

It is important to emphasize that this is the second year in which the total annual diversion records were generated within the division office, and I am pleased to report that the activities necessary to generate these records continue to indicate a tremendous potential for the use of the computers assigned to Division Four.

Respectfully submitted,

Thomas A. Kelly  
Division Engineer

TAK: jk

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ANNUAL DIVISION ENGINEER'S REPORT

IRRIGATION DIVISION FOUR

CURRENT WATER YEAR:

This report outlines Irrigation Division Four's water administration activities for the 1987 irrigation year. This report also speaks to routine and anticipated new water administration activities for 1988. The 1987 report is intended to highlight various functions that are considered beyond the normal day-to-day responsibilities of Division Four staff. During 1987, water administration and all associated activities were met or attended to in such a way to meet the overall duties of the division.

There are several highlights that will be identified as special accomplishments for the 1987 season. These paragraphs briefly speak to these items. Again, as in 1986, one of the highlights of the 1987 season is the emphasis that has been placed by the water users and the division personnel on the upgrading of jurisdictional dams within Division Four. These activities involve special repair and rehabilitation work in nearly every district of the division. In some cases an all-out effort of the water users and significant participation of the Denver dam safety office staff allowed dams to be repaired in an acceptable manner with a minimum amount of red tape. The first reservoir that is noted in this area is the Gurley Reservoir. It developed serious problems that warranted immediate attention. During the winter months, the Gurley Reservoir people were able to work with the Water Conservation Board's private consultants and the dam safety staff in such a way that they were able to make initial repairs, and were allowed to fill their reservoir during the runoff season. This was critical to the farmlands served by the Gurley Reservoir which are the hay and small grain fields from Norwood to Naturita, Colorado. This structure will be needing additional attention, but this is a great step toward improving the structure, and generating a much safer and more usable reservoir. In addition to this, all of the work on the Overland Reservoir was completed in 1987, and it should be ready for full storage for the 1988 irrigation season. Additional reservoirs where work has been completed involves Lake Brennand (Lake Irwin) and the Spring Creek Reservoir. Both of these are located in Water District 59.

During 1987, many of the reservoir companies or ditch and reservoir associations were involved in high hazard dam inspections and repair needs were shown from these inspections. The Leroux Creek Water Users Association worked during the entire season with maintenance and repair of many of their structures, and have spent in excess of \$30,000 in improvement to their reservoirs. This in itself is not a large amount of money, however, they have hired a licensed engineer to work with them in the rehabilitation of their structures, and have probably exceeded their annual expenses by five to seven times in this one year, and have indicated an intent to rehabilitate their many old reservoirs (some more than 80 years old).

stations, eleven of which are operated by the Division Four staff, and the rest of them in cooperation with the U. S. Weather Bureau, U.S. Geological Survey and the U. S. Bureau of Reclamation. The problems that plagued this system in the earlier days have pretty well been taken care of and normally, the data that is accessed off the satellite system is not only real time, but accurate data for flows at these different locations. The training of at least one water commissioner in using the computer is going as planned. It is hoped that at least one or two additional office personnel will do some of the more elementary activities concerning the computer systems. All of this year's diversion records have been processed on the computer, and all the computations and records have been completed with the exception of District 40. Because of the enormous amount of data that is involved in District 40, these were sent to Denver for processing and have been returned to the Montrose office for final editing and signing.

An additional highlight that should be identified for accomplishments for the 1987 season, was the transfer of Keith Kepler from the Denver office to the Division Four office as Assistant Division Engineer. Keith has been responsible for all the record keeping as far as the diversion records are concerned, and as he becomes better acquainted with what is necessary, we will have an outstanding diversion report resulting. The Denver office continues to make changes in the computer programs and it is necessary that adjustments be made as we complete the 1987 year; however, there seems to be less frustration on the part of the staff involved in this work. The computers have become an integral part of the office equipment and considered a valuable tool in terms of the overall activities of the division office.

Division Four continues to meet the necessary deadlines as required by the Water Court and is usually able to respond in a timely manner to all requests from the State Engineer's office, private consultants, attorneys and water users. The association with the Division Four Water Court remains at a high level of cooperation. Judge Robert Brown, and the Water Referee Aaron Clay, receive our comments well and generally consider them when issuing water rights.

In 1986 the City of Aurora filed a transmountain diversion for a large amount of Upper Gunnison Basin water. This application is slowly working its way through the Water Court. Initially, the Water Referee held two informal conferences but by the end of the second conference, it was evident that the various parties to the case were going to ask the Water Judge to take jurisdiction, and this took place during the winter of 1987. The Water Judge has had two hearings, and at the present time, there are motions back and forth by the applicants and the objectors, and this may continue for another year or so. It is my opinion that the Water Judge will handle this matter to its conclusion and is going to try to have some sort of evidentiary hearing possibly by early 1989. Another aspect of this transmountain diversion is the water right applications by Natural Energy Resource Company (NECO), a holder of a large conditional storage right in the Upper Gunnison Basin near the proposed high reservoir filed on by Aurora. NECO has submitted that this particular project would be an alternative for the Two-Forks Dam on the front range, and volumes of communications have been sent back and forth between these adversarial parties.

During the 1987 irrigation season, the needs of the division water users were handled without a great deal of difficulty and without too many problems.

The Leroux Creek Water Users Association, at their annual meeting, committed approximately \$50,000 for rehabilitation and maintenance for additional reservoirs located in their system. It is interesting to point out that most of these reservoirs were built in the early 1900's, and many were built with a wooden box culvert as their outlet system. These wooden culvert outlet systems are finally wearing out and are beginning to cave in. The Leroux Creek Water Users Association is located on the south side of Grand Mesa and toward the eastern part. Additionally, the reservoirs located in the Surface Creek drainage area (south side of Grand Mesa) have similar concerns and are beginning to experience the same types of problems.

Many of the rehabilitation projects that were begun in 1986 are now complete. For instance, Miramonte Reservoir, Meridian Lake, Grand Mesa #8 Reservoir, and Buckeye Reservoir. Several small reservoirs chose to allow zero storage, or in some cases a non-jurisdictional storage, in order to evaluate whether or not they should be repaired or abandoned. It should also be noted that the Juniata Reservoir, a large reservoir used for the City of Grand Junction, relined their intake and outlet pipe at the beginning of spring of this year, and were able to store water during the runoff season.

The division has several licensed engineers who are helping in the repair; however, on major projects where the Water Conservation Board is involved, engineering companies from Denver with specific specialties are involved in the repair work. The trend that was begun in 1986, as far as repair to division reservoirs continues, and it is anticipated this will slowly put the majority of the reservoirs back in acceptable condition. The division still has approximately 50 reservoirs that are under restriction and in general, during the year, these restrictions were maintained without a great deal of difficulty.

Another matter relative to the reservoir safety concerns the establishment of the resident Dam Safety Engineer, Jim Norfleet. The assignment of this resident engineer has not been without some controversy; however, the goals for the resident engineer are already being identified and realized. These being a consistency in attention with all the jurisdictional structures in Division Four, and also to review and work with the water users toward better dams. The dam improvements are a significant highlight of Division Four activities. This is a complete turn-around of the direction and attitude of the water users and also water officials within the division. There have been some concerns, and public meetings have taken place trying to answer some of these concerns of the water users. Additional activities will be necessary in order to gain better cooperation. Even with the great start and rehabilitation and repair of jurisdictional structures in Division Four, it is anticipated that it is a project that will continue on for many years. With the present farm/ranch economy, it will be a difficult financial task for these reservoir owners.

An additional accomplishment in Division Four in 1987 concerns the ongoing use of the Division Four personal computer. Division Four now has all the responsibility of diversion records, tabulation, satellite monitoring, and budget activities to work through the division computer. The division computer was augmented by a second computer in October of 1987 and at this time of year, both computers are being used on a regular basis eight hours a day or more. The division office continues to monitor 26 satellite monitoring

Water supplies in 1987 in many locations turned out to be somewhat less than an average runoff year with water supply not generally reaching 100 per cent of normal. There was sufficient water stored for irrigation, and most areas were able to receive water for their agricultural needs. More streams were placed "on call" or administered by agreement among the water users; however, there was no great controversy generated due to this type of water administration. At this writing, the snowshed areas for Division Four and all the reservoirs are looking much below normal, and there is concern about what may happen if it continues this way for the remainder of this winter season.

The Division Four office is the principal source for diversion data and water decree information. Water user groups, conservancy districts, large canal companies, state and federal governments, land developers, attorneys, and consulting engineers are regular visitors to the field commissioner homes and the division office. Their requests concern all aspects of water administration and water use throughout the division. The division staff is involved in "water meetings" with various entities concerning administration, dam safety, groundwater needs, water diversion control structures, and other miscellaneous activities.

The association with the Division Water Court continues to require considerable time, mileage, and effort on the part of the division staff in order to evaluate and make recommendations through the consultation process. This year's caseload has approximately 300 cases and this has been the long range average of water right cases in the division court. The caseload is up approximately one-third from 1986 and the Water Court relies strongly on the recommendations of the field water officials. The Water Court normally accepts this office's recommendations without reservation. Again, as in years past, the importance of good, accurate diversion records are emphasized. This need is very important relative to the change of water rights and plans of augmentation reviewed by the Water Court.

It is impossible to visit all diversion structures during the irrigation season. It is necessary that water user reports be identified as an official record, and in some instances, the water official must make choices as it relates to securing diversion records, or attention to other water administrative concerns. Water Commissioners continue to experience increased demands, and very often, insufficient time to attend to all the responsibilities of their jobs. The water-using public is requiring better diversion records, and in some cases, due to personnel and time limitations, little improvement in overall water diversion records was noted in 1987. During 1987, the division was not able to make progress in the mapping of irrigated acreage. However, an inventory of the amount of irrigated acreage was made and the division is close to completion in a number of water districts. The new Assistant Division Engineer is responsible for this activity during the winter of 1987-88, and it is anticipated that several irrigation districts and drainages may be ready to calculate consumptive use for the fall of 1988.

Again, as in past years, the water commissioners were requested to continue identifying new decrees and diversion records. In 1987, there were modest increases in various districts. However, many of the water rights have only a minimal type of diversion record. From 1982 to 1986, average, or above average, water supply was available. Early or late administration needs were during the dryer years. The 1987 season water supply was less than 1986;

however, when the season ended, we found there was sufficient personnel resources to complete the year without any undue hardship. In the event of a much less-than-average year, certain adjustments would be necessary to manage the responsibilities of the division and also remain within the allocations for Division Four. Division Four experienced the retirement of two employees during 1987. Mack Gorrod, a very valuable commissioner on Grand Mesa, retired mid summer, and Charley Woolley, a long-time water commissioner, retired at the end of the irrigation season. In addition to that, Tim Crosby submitted his resignation and it became necessary to find two replacements in the spring and additional replacements for 1988. At the present time, these positions have been advertised and it is anticipated that a list will be available before the beginning of the 1988 irrigation season. It should be noted that vacancies developed during 1987 were filled by temporary appointments and these are being reviewed for better usage of manpower of the individual resources.

### 1988 WATER YEAR

Water right filings continue to have time and budget impact throughout Division Four. This is not considered a negative impact; however, it requires planning and setting of work priorities by all employees. These activities affect the majority of the division staff and require additional field attention in the areas where heavy filings take place, i.e., Upper Gunnison Basin, parts of San Miguel drainage (Telluride area), upper Uncompahgre drainage, and many areas throughout District 40. The required special attention and administration of water right augmentation plans are adding additional workload to field personnel and division office staff.

The completion of Ridgway Dam and Reservoir was an administrative concern last year that continues to be considered a problem. The Bureau of Reclamation indicated they would be allowing access to a satellite system in which we could determine the flows from Ridgway Reservoir. For many reasons this has not taken place, and it appears it will not at this time. The most recent contact with the U. S. Bureau of Reclamation indicates they are contracting with the Geological Survey to build a gaging station downstream from the reservoir. This gaging station would be operated by the U.S.G.S. and would have one of our satellite data collection platforms installed. This is considered an important point for the administration of the Uncompahgre River and their most recent estimate is to have this in operation by fall of 1988. This office will continue to keep in touch with this particular need as it is considered important for administration purposes on the Uncompahgre River. A special note concerning Ridgway Reservoir, it is the last major project to be built by the U.S.B.R. in Montrose area.

At the end of 1987, one of the more significant concerns of Division Four is the overall dam safety program. As indicated in the earlier part of this report, the activities that have transpired concerning the dam safety work still remain a highlight of 1987. However, there are still nearly 50 reservoirs that are under restriction and this office is regularly monitoring all these reservoirs. The division is concerned with the enforcement of the restrictions, the communications with the reservoir owners, and the correction of the deficiencies in these reservoirs. In most instances, the reservoir owners are willing to make repairs and rehabilitation plans. Also, the reservoir owners are finishing many years of poor revenues and they have had



difficult times in raising the resources in order to make the necessary repairs. It is understood that the safety of the dam is not affected by the inability of the owner to pay for the repair work; however, in some instances, it is recommended that the dam safety inspectors could prioritize their restricted reservoirs in such a way that the most critical structures be attended to as a first priority. The addition of a new resident field engineer for dam safety has certainly been a welcome addition to the division staff. Reservoir safety in Division Four is one of the more significant concerns, and will be a high priority effort on the part of all the division staff in 1988. Emphasis will be placed on establishing good communications with all the reservoir owners and developing respect of the water users for the dam safety activities of the State Engineer. The impact of having good relations with the majority of the division reservoir owners will make everybody's job easier to perform, besides the most important part, a good beginning of rehabilitation and an overall improvement of the safety of the reservoir systems. This will require ongoing communication with the water users. Public meetings are necessary, especially in locations of Water District 40. We plan to develop specific training sessions and meetings with the District 40 staff in order to set goals that will help to achieve this particular objective.

An always present concern is the ongoing improvements of diversion records, measuring devices and diversion structures. Improvement seems to be appropriate in some areas throughout the division, and as a higher quality of diversion records are demanded, upgrading of these structures becomes more important. Winter diversion records will only be attended to on an as-needed or minimal basis. Hopefully, they will continue to improve. However, due to budget restraints and the lack of work-time for many of the division employees, winter administration activities will continue to be very limited. Other proposed winter activities, including the consummative-use mapping and the checking and entering of new water rights into the tabulation, will be attended to as time and resources are available with the greater priority given to updating the Water Rights Tabulation.

Division Four will continue to work toward improvement of water administration and diversion record-keeping throughout the 1987 season; to keep as current as possible in the ongoing review and consultations of new water right applications with the Water Court; to pick up and conclude water right cases that are outstanding; to continue an ongoing instruction process with field personnel concerning their water administrative and record-keeping responsibilities; and to be sensitive to the public concerns as they relate to the water user, and respond in an accurate and timely fashion.

During 1987, the office had two general staff meetings of the full time, and near full time employees. These were held in a private environment and each individual was encouraged to be very candid in all aspects of the discussion. A fifteen or twenty item agenda was developed by myself and all of the water commissioners were encouraged to participate in every aspect of this particular meeting. The input that was given through this type of meeting has been extremely useful in planning and weeding out certain thoughts and ideas in instituting new directions and programs. The division will continue this type of meeting with the thought of having one prior to the beginning of the irrigation season, and at the conclusion of the irrigation season.

As indicated in the 1986 report, several of the personnel changes during 1987 involve the resignation of Tim Bacon/Crosby who worked in the Smith Fork drainage in and around the Crawford Reservoir, the retirement of Charley Woolley who worked in the lower reaches of the Surface Creek Valley, and also Mack Gorrod's retirement. Tim Crosby did not begin work, resigning before the irrigation season. Mack Gorrod's retirement was effective July 1st, and Charley Woolley's retirement was effective at the end of the irrigation season. Temporary appointments were made to replace Tim Crosby and Mack Gorrod, and the examination announcements are pending at this time. Mack Gorrod and Charley Woolley represent nearly 50 years of outstanding service. Mack Gorrod is considered one of the more knowledgeable persons on the reservoirs on Grand Mesa. Charley Woolley works in a number of areas and has done an excellent job in all locations. The position that was vacated by Gorrod's retirement was filled by lateral transfer of Albert Mahannah from the Ward Creek Reservoir system to the Surface Creek Reservoir system. We believe this will work out quite well. Replacement for Tim Crosby was a temporary appointment, and our selection hopefully will qualify in the examinations, as his first year was outstanding in terms of care and attention to the area. Charley Woolley's job is going to be abolished and will be combined with Chuck Stein's. This is the lower Surface Creek area, and also down the Gunnison River to the point where Water District 42 picks up the Gunnison into Grand Junction. It is anticipated that this will affect some savings, and also it is considered that this will be a better use of manpower in that particular location. In addition to these retirements in 1988, Willard Bull in District 40 has indicated the desire to retire by mid summer. John Garber of District 28 will be retiring at the end of the irrigation season, and I have also been advised that Ed Hofmann will retire at the end of 1988. This will involve approximately 50 per cent of the part-time field commissioners before the total changes are made. Retirements are based primarily on age and desire rather than on the prospects for better jobs. The economy in Division Four still remains very poor and the turnover of water commissioners is very low. It should also be noted that with the combination of the Charley Woolley and Chuck Stein jobs, and the change of Albert Mahannah, the division has been able to generate additional man-months of which we have committed six to a part-time secretary to assist in the office secretarial duties. In addition to all the above personnel activities, the division was pleased to have appointed a new Assistant Division Engineer, Keith Kepler, who began work the first part of August. And also, the locating of a resident Dam Safety Inspector, Jim Norfleet who began work early in the season, but was formally transferred the first of July. These two additional employees have greatly enhanced the overall effectiveness of Division Four.

Attention has been placed on the PACE evaluation system for Division Four. Each employee of the division was evaluated, and various suggestions as far as the improvement and work schedule for 1987 work year was identified. This process still is somewhat cumbersome and is a difficult tool for evaluation. Perhaps with the assignment of the Assistant Division Engineer and the sharing of this responsibility, this may become a more effective tool toward management of the division personnel.

#### RECOMMENDATIONS:

For several years Division Four has recommended the funding to the division be increased based on the fact that the actual funding is not identified to the

real needs. It should be noted during this time the division has experienced average, or much better than average, water seasons and late and early attention to water administration has not been necessary. The budget at this time still does not allow for any additional needs such as special work during the winter season, or early spring or late fall administration. However, due to re-evaluation of many of the positions assigned to Division Four, I have been able to make some adjustments that have allowed more attention to division needs with the annual budget allocations. If the division can expect allocations similar to the past year or two. I believe that there will be sufficient funding to attend to the average, or better than average, years. The division full time staff is now better utilized and many of the responsibilities that haven't been met in the past are now being taken care of.

Pending potential personnel changes in the division: Recommendations will be made for the beginning of 1989 which will further consolidate some of the water commissioner positions and will involve the assignment of a state vehicle to the recipient of the consolidation. This individual is now driving an "elderly" Dodge pickup and we would ask that consideration be made in early 1989 to replace this pickup for a new state vehicle. The pickup that is now being driven has in excess of 120,000 miles on it. This office is using commissioner labor and the purchase of vehicle parts to keep one or two of the old vehicles in operation. The pickup stationed at Paradox is regularly repaired by the water commissioner and the division office has purchased parts necessary to make these repairs which should allow overall utilization to the maximum.

#### LITIGATION:

Division Four's policy is to minimize the necessity of litigation as much as possible through communication with the State Engineer's office, the Water Court, and various water user applicants. Again, as in past years, it is anticipated that only a few cases during 1988 may be subject to the needs of the Attorney General in litigation. The filings of the City of Aurora's transmountain diversions will require some attention from the Attorney General's office, and a filing that was received on the last day of 1986 concerning the Natural Energy Resources Company also proposes transmountain diversions which may require additional Attorney General attention. There continues to be some increase in the number of protests to the Referee's Rulings and in a few cases it will be necessary to request the Attorney General to represent the Division Engineer in these matters. The Water Judge has allowed the Division Engineer to represent the Division of Water Resources in some of these hearings; however, he continues to strongly urge the Division Engineer to be represented by the Attorney General in any matter that is considered legally complex.

#### MISCELLANEOUS:

It was identified in an earlier part of this report that there will be considerable activity concerning the retirement of past and future water commissioners in Division Four. It is anticipated by the end of the 1988 irrigation season, there will be three additional employees retire and the replacement of these positions will be a concern during the 1988 season. Willard Bull who works in Water District 40 on Surface Creek system will be

retiring in June, John Garber, Water Commissioner for Water District 28 requests retirement at the end of the irrigation season, and Ed Hofmann, Water Commissioner for Water District 62, also has indicated he plans to retire January 1 of 1989. It will be recommended that some of these positions be combined at that time.

For the past several years, the Division Four office has been in contact intermittently with the Department of Administration concerning the construction or leasing of a state office building in Montrose. Numerous meetings have taken place, the outcome of which has been no activity whatsoever. Due to the absence of any attention in this matter, in early spring I contacted the Montrose County Commissioners concerning some remodeling work in our division office in the Montrose County courthouse. The County Commissioners were receptive to the requests that were made, and some major remodeling was accomplished this past summer. There is additional work yet to be done and I understand they will be considering that in their next fiscal year's budget. The office has been rearranged to the point that I think, at least for the next few years, we can find it adequate for the needs of Division Four. Office rent in the courthouse is \$5.50 per square foot and this is considered a reasonable cost for office space in Montrose. I have indicated in past reports we anticipate the growth and need of additional office space; however, this is not seen as necessary in the near future, and I am pleased to note this concern is no longer a high priority of Division Four.

Efforts have been made in contacting the legislators who represent the areas of Division Four. This has been done by letters and telephone calls, attending public meetings and by the attempt of personal visits. The division office has invited all the legislators to come visit and have shown the satellite monitoring system to one interested legislator. Due to time constraints and distances between various legislators, the visiting of division offices has yet to be made by any division legislators.

OTHER:

During the past year, the division has been to a number of local meetings concerning activities of Division Four in water related matters. One meeting was held in Gunnison with a reasonable attendance of 25 or 30. An additional meeting was held in Lake City with 15 to 20 in attendance. A meeting was held in Norwood with a dozen attending, and one held in Cedaredge had an attendance of 25 to 30. The meetings in Lake City and Gunnison dealt primarily with subdivision development, well permits, augmentation plans and matters of that nature. These meetings were advertised and it was felt they were effective and produced good results. The meeting in Norwood was in combination with a meeting of the conservancy district which had a fairly wide audience, and it was a matter of answering questions basically involving the San Miguel Project, a one-time Bureau of Reclamation project which is being studied now with the Water Conservation Board and the San Miguel Conservancy District. There were some water users from the "calling ditch" on the San Miguel present, and they sought assurance that their senior water right would be protected against all the upstream development, primarily the Telluride area. The meeting in Cedaredge involved the dam safety program entirely. It was a meeting in which the Deputy State Engineer Hal Simpson attended along with the division staff and the resident dam inspector, Jim Norfleet. It generated

considerable interest and concern over the work and evaluation of dams in the Grand Mesa area. This meeting was attended by a number of the officials for the reservoir companies along with Margy Masson, a state representative of that area, and other interested water users. This meeting was intended to establish communications between the division office, dam safety, and the water users. It is believed there was a positive effect, even though there was a lot of hostility expressed during the course of this meeting. I planned a meeting for the Grand Junction/Kannah Creek area which did not take place, nor was there any meeting in the general Montrose area.

The Division Four office continues to recommend ongoing formal and informal training programs that have been conducted during the past several years. It is recommended that follow-up seminars be held in areas of dam safety, computer instruction, ground water well permits, and other technical and semi-technical areas that relate to the division responsibilities. It is also recommended that the Division of Water Resources conduct annual seminars for the division secretaries to cover particular areas of their responsibilities, afford an opportunity to have contact with the State Engineer's office staff, and spending time with those responsible for the Division of Water Resources major branches.

During 1987, additional plans of augmentation were decreed; however, because of general abundance of water supply, there was little administration of these plans throughout the division. Each water district spent some time in identifying and inventorying the metered wells within their district, and also augmentation plans. This office has the ability to begin the administration of these plans in the event of a water-short year.

During 1987, many of the tributary streams to the Gunnison River placed "calls" on their tributary systems. Specifically, the Surface Creek area and the Kannah Creek area, and individual tributaries to the Gunnison River, along the North Fork of the Gunnison, and some areas tributary to the San Miguel had "calls" on the stream system. Water administration in many cases went up to the first of November at such time as they curtailed the irrigation, and the division basically went on a non-irrigation status. River "calls" are kept individually on tributaries and a file is kept for future reference in the division office.

STATISTICAL INFORMATION

1987 TRANSMOUNTAIN DIVERSIONS SUMMARY

<u>WD</u>	<u>NAME</u>	<u>SOURCE</u>	<u>RECIPIENT AND/ OR CLAIMANT</u>	<u>AMOUNT A.F.</u>	
68	Inflow	Red Mountain Ditch	Mineral Creek	Ouray Ditch Co. Montrose, CO	No Diversion
68	Inflow	Carbon Lake Ditch	Mineral Creek	Pinon Ditch Co. Colona, CO	No Diversion
68	Inflow	St. John Ditch	E.Fk. Animas River	Charles, Gunn & Worley c/o W. Worley Olathe, CO	No Diversion Structure Not Usable
68	Inflow	Mineral Pt. Ditch	Burrows Creek, tr. N.Fk. Animas River	W. Gibbs Ouray, CO	No Diversion
40	Inflow	Leon Lake	Leon Creek	Floyd McPherson Cedaredge, CO	1,053
28	Outflow	Larkspur Ditch	Tr. Tomichi Creek Marshall Creek	Catlin Canal Co.	95.36
62	Outflow	Tabor	Tr. Cebolla Cr.	Colo.Div. Wildlife Monte Vista, CO	663
28	Outflow	Tarbell	Cochetopa	Cochetopa Land & Wtr. Saguache, CO	55
40	Outflow	Divide Cr. Highline Feeder Ditch	Clear Fk. Muddy Cr.	F.M. Starbuck, Mgr. Silt, CO	1,360
42	Outflow	City Pipeline	Kannah Creek	City Grand Junction	1,833
42	Outflow	New City Pipeline	Kannah Creek	City Grand Junction	4,971
42	Outflow	Redland Canal	Gunnison River	Redlands Water & Power	531,123

WATER DIVISION FOUR IRRIGATION SUMMARY 1987

W D	STREAM TO STORAGE (1)	STREAM TO IRRIGATION	STORAGE TO IRRIGATION	ALL OTHER SOURCES TO IRRIGATION	TOTAL TO IRRIGATION	ESTIMATED ACREAGE	AVERAGE AF PER ACRE
28	1829	177504	0	0	177504	34391	5.16
40	34057	405930	64531	2	470463	120210	3.91
41	0	664186(4)	486	0	664672	109890	6.05
42	6575	23640	1571	0	25211	8352	3.02
59	98804(2)	230793	1406	0	232199	35220	6.59
60	13213	101492	10790	1301	113583	29750	3.82
61	3492	17998	435	801	19234	3644	5.28
62	581026(3)	133026	18641	24	151691	39250	3.86
63	0	23900	72	0	23972	2887	8.30
68	792	140013	0	3916	143929	23686	6.08
73	0	9464	0	0	9464	2553	3.71
TOTALS	739788	1927946	97932	6044	2031922	409833	5.07

1. Includes storage for all uses.

2. Primary storage facility is Taylor Park Reservoir, releases not charged to irrigation in Water District 59.

3. Includes storage in Curecanti Unit.

4. Includes water delivered through Gunnison tunnel.

DIVISION FOUR NON - IRRIGATION SUMMARY 1987

W D	STREAM OR RESERVOIR TO MUNICIPAL	GROUNDWATER TO MUNICIPAL	GROUNDWATER OR IND COMPL.	STREAM OR RESERVOIR TO COML. OR IND	GROUNDWATER TO IND.	STREAM TO POWER	RESERVOIR TO POWER	STREAM TO OTHER USES	OTHER SOURCES TO ALL USES
28	0	0	0	0	0	0	0	0	0
40	5095	0	91	7	0	0	55665	1713	1713
41	3793	0	0	0	0	0	19305	352365	352365
42	58	0	664	0	0	0	535229	0	0
59	180	1500	770	0	0	0	0	0	0
60	3590	356	7820	511	0	0	2636	1491	1491
61	0	0	0	0	0	0	1239	1533	1533
62	181	0	0	0	0	1776094	639714	1429	602
63	0	0	40	0	0	0	0	1965	0
68	255	0	72	0	0	0	0	1542	2830
73	0	0	37	0	0	0	0	191	0
TOTAL	13152	1856	9494	518	1776094	639714	619201	360534	360534



WATER DIVISION FOUR

SUMMARY OF VISITATIONS AND STRUCTURES

WATER DISTRICT	NUMBER OF OBSERVATIONS	TOTAL STRUCTURES	ACTIVE STRUCTURES RECORD IS MAINTAINED	ACTIVE STRUCTURES RECORD NOT MAINTAINED	INACTIVE, HISTORIC STRUCTURES
28	1,872	786	221	197	365
40	27,491	2,375	1,129	568	674
41	4,392	567	94	211	253
42	6,027	299	71	160	68
59	2,043	1,041	224	667	148
60	2,070	1,083	382	564	121
61	1,212	171	132	11	25
62	*4,019	936	295	544	96
63	1,011	176	54	73	47
68	1,060	858	169	477	208
73	183	120	28	75	17
TOTALS	51,380	8,412	2,799	3,547	2,022

\*Includes U.S.B.R. records for Curecanti Units

WATER COURT ACTIVITIES

No. Applications for Decrees	313
No. Consultations with Referee	360
No. Decrees Issued by Water Court	309

Type of Decree

Surface Water	201
Ground Water	46
Reservoir	34
Transfer	0
Alternate Point	3
Change of Use	0
Plan Augmentation	10
In-Stream Flow	7
Cancelled	54

No. Structures in Decrees	715
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Types of Structures

Ditches	408
Reservoirs	87
Wells	220

TABLE OF ORGANIZATION - PERSONNEL

IRRIGATION DIVISION NO. 4

Division Engineer - Thomas A. Kelly  
Assistant Division Engineer - Keith C. Kepler  
Secretary - Jean Kurtz  
Hydrographer - Charles G. David  
Resident Dam Safety Engineer - James G. Norfleet

Water District 28

WATER COMMISSIONER  
John S. Garber

Water District 40

PR. WATER COMMISSIONER  
\*Richard L. Drexel

Water District 41

WATER COMMISSIONER  
Crandall Howard

SR. WATER COMMISSIONER  
\*Robert H. Starr

Water District 42

SR. WATER COMMISSIONER  
\*Richard Belden

WATER COMMISSIONER  
Jack Carter

WATER COMMISSIONERS

Willard N. Bull  
\*\*Merritt Denison  
Mack Gorrod  
Henry LeValley  
Albert Mahannah  
Kenneth Mahannah  
John L. McHugh  
James Miller  
\*\*Andrew Palmer  
L. Gregg Scott  
Charles E. Stein  
Stephen W. Tuck  
Charley E. Woolley

Water District 59

WATER COMMISSIONER  
Robert Drexel

Water District 60

WATER COMMISSIONER  
Lyman D. Campbell

Water District 61

WATER COMMISSIONER  
Clinton L. Oliver

Water District 62

WATER COMMISSIONER  
\*Edwin S. Hofmann

Water District 63

SR. WATER COMMISSIONER  
\*Richard Belden

Water District 68

WATER COMMISSIONER  
\*H. Roger Noble

Water District 73

SR. WATER COMMISSIONER  
\*Richard Belden

WELL COMMISSIONER  
\*Dwayne Mansker

\*Annual

\*\*Temporary part-time personnel

THE FOLLOWING IS THE SUMMARY OF DIVERSIONS FOR THE 1986 ANNUAL REPORT.

THESE WERE VOID IN 1986 DUE TO COMPUTER COMPUTATION PROBLEMS.

1986 WATER DIVERSIONS BY DISTRICT

WD	TOTAL DITCHES REPORTING			ESTIMATED NUMBER OF DITCH VISITATIONS	TOTAL DIVERSIONS - AF -	TOTAL DIVERSIONS TO STORAGE - AF -	TOTAL DIVERSIONS - AF -	IRRIGATION		
	ACTIVE WA	INACTIVE NU	NR					NUMBER OF ACRES IRRIGATED	AVERAGE AF PER ACRE	
28	487	0	52	55	1,712	203,347	3,219	206,566	34,391	6.01
40	734	0	0	1,504	17,986	417,666	94,818	512,484	120,210	4.26
41	101	0	0	302	2,614	650,348	1,016	651,364	109,890	5.93
42	133	0	0	290	2,551	30,853	2,396	35,549	8,352	4.26
59	183	0	0	853	2,275	248,954	28,082	416,036	35,220	11.81
60	269	0	0	580	1,639	136,153	11,026	147,079	29,750	4.94
61	55	0	0	143	986	17,722	1,081	18,803	3,644	5.16
62	293	0	0	556	3,096	105,392	476,779	2,919,671	39,250	74.39
63	81	0	0	96	801	30,697	48	30,745	2,887	10.65
68	150	0	0	589	1,539	155,071	3,094	128,165	23,686	5.41
73	74	0	0	49	243	10,921	0	10,921	2,553	4.28
TOTAL	2,560	0	52	5,017	35,442	2,007,124	621,559	5,077,383	409,833	12.39

1986 WY DIVERSION SUMMARIES BY DISTRICT IN ACRE FEET (Continued)

<u>WD</u>	<u>STOCK</u>	<u>MUNICIPAL</u>	<u>DOMESTIC</u>	<u>INDUSTRIAL</u>	<u>RECREATION</u>	<u>FISHERY</u>	<u>COMMERCIAL</u>
28				1,102	1,441		
40	18,696	4,668	172	89,340	5,789		
41	22,287	3,558		1,514	181		
42	1,975	1,383	176	5,118	186		1,190
59		9,442		62,484			260
60	456	3,759	459	402	24,725	1,485	10,846
61	1,009		209		1,700		
62			305		954,382		2,724,294
63	1,944		68				
68	8,811	338	11		104	177	
73	205		13				
TOTAL	55,383	23,148	1,413	402	1,140,469	9,259	2,736,590