IRRIGATION DIVISION NO. 2

ANNUAL REPORT
1980

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INTRODUCTORY STATEMENT

ANNUAL DIVISION ENGINEERS REPORT

IRRIGATION DIVISION NO. 2

1980

IRRIGATION DIVISION NUMBER 2 CONSISTS OF ALL LANDS IRRIGATED FROM DITCHES AND CANALS DIVERTING WATER FROM THE ARKANSAS RIVER AND ITS TRIBUTARIES. THE DIVISION IS COMPOSED OF THIRTEEN WATER DISTRICTS (10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 66, 67, and 79) COMPRISING THE COUNTIES OF EL PAST, CHAFFEE, LAKE, FREMONT, CUSTER, PUEBLO, PARK, LAS ANIMAS, TELLER, CROWLEY, OTERO, BENT, PROWERS, BACA, AND KIOWA.

THE AREA THAT IS ENCOMPASSED BY IRRIGATION DIVISION NUMBER 2 MAY BE BEST DESCRIBED BY THE FOLLOWING SUMMARIZED TABLES.

APPENDICES

DIVISION ENGINEER'S COMMENTS

Snowpack was considerably above normal on both Eastern Slope and Western Slope Collection Basins (for details see page 36). Some flooding was anticipated and much ado was made of flood watches. No flooding occurred and there were no reports of significant damage due to excess flows. In the future, perhaps a calmer look at flood watches should be undertaken by the Division. The Corps of Engineers' imposed limit of 5000 c.f.s. at the Avondale Gage was reached several times and subsequently, with concurrence of the Division, raised it to 6000 c.f.s. The Corps has established a field office in Pueblo and cooperation has been excellent with the local man.

The combination of an extremely wet, cold, and late Spring caused some delay in getting crops in and stored. Early germination, the resulting shallow rooting, increased weed growth, and insect pests, caused a less than optimum yield, but on the whole, we did not have too bad a year. My prediction of increased insects last year came to pass, mainly the alfalfa webworm and grasshopper. Some farmers reported about one-half a first cutting yield. The extremely hot, dry late summer caused some burning, but all-in-all the increased storage available carried us through.

No major difficulties with dams were recorded. The work on Skaguay has been substantially complete, and the Division of Wildlife who own this reservoir, in a departure from past practice has obtained the proper decrees for filling and replacing evaporation before starting construction. Brush Hollow has been drained for maintenance and replacing hydraulic system. That work can now begin, as the Reservoir is dry. Some of the water was moved to Pueblo Reservoir and we anticipate no problem on re-filling. The first full year of operation of Trinidad was completed with the usual amount of confusion on a new project of this nature (the John Martin Controversy is covered on page 77). There are some important questions that will have to be addressed about the operations of this project and numerous meetings between Division, Attorney General and State Engineer staffs were held about this operation.

One instance of out of priority storage occurred in 1980 at the Black Hills Reservoir. This was ordered released, and the order was complied with, as anticipated in the report of last year.

Due in part to the high flows and unusually high (1948) river calls, Ground Water Regulations were minimal and mainly relegated to investigating complaints and domestic, sub-division issues. As mentioned last year, we must make some hard decisions regarding the Plans of Augmentation of the two water users associations and the nature and timing of any replacement water.

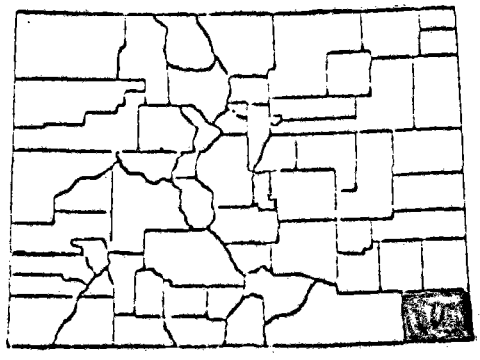
The Water Court was unusually quiet this year with a minimum of lengthy trials. The Referee Consultations are, as in the past, somewhat less than we could desire. The State Engineer's Proposal for making the referee and Division Engineer the same person is a good one, as was contemplated in S.B. 81 and would put Colorado more in line with the way other western states operate. There would be some additional work, and would require some additional personnel, but this would be offset in part by our not having to do the consultation we now do. Possibly moving some part-time to full-time and some additional clerical help would suffice.

The Water Rights Tabulation hearings have been held and all necessary corrections are in. We are awaiting the first print out. We hope this Tabulation is cleaner than its predecessors.

IRRIGATION DIVISION 2

BACA COUNTY

MAJOR CITY	Springfield
1970 POPULATION	5,516
URBAN POPULATION	No city over 2,500
RURAL POPULATION	5,516
COUNTY AREA	2,565 Square Miles
TERRAIN	Plains
ELEVATION (MAJOR CITY)	4,356
MAJOR STREAM	Carrizo
MAJOR TRIBUTARY	None
MAJOR WATER USE	Irrigation
IRRIGATED ACRES	56,910
AVERAGE GROWING SEASON	169 days
ANNUAL MEAN TEMPERATURE	52.20
AVERAGE ANNUAL RAINFALL	14.73 inches
AVERAGE ANNUAL SNOWFALL	27.7 inches
MAJOR SOURCE INCOME	Agriculture
NUMBER OF FARMS	750
WATER RESOURCE PROJECTS	Underground Water
LAND OWNERSHIP:	
PRIVATE	1,736,612 Acres
FEDERAL	205,500 Acres
STATE	42,928 Acres
COUNTY AND MUNICIPAL	86 Acres



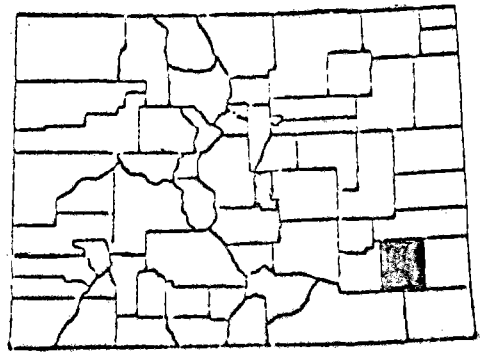
IRRIGATION DIVISION 2

BENT COUNTY

MAJOR CITY	Las Animas
1970 POPULATION	6,343
URBAN POPULATION	2,955
RURAL POPULATION	3,388
COUNTY AREA	1,517 Square Miles
TERRAIN	Plains
ELEVATION (MAJOR CITY)	3,901
MAJOR STREAM	Arkansas
MAJOR TRIBUTARY	Purgatoire
MAJOR WATER USE	Irrigation
IRRIGATED ACRES	61,713*
AVERAGE GROWING SEASON	158 Days
ANNUAL MEAN TEMPERATURE	51.3
AVERAGE ANNUAL RAINFALL	12.25 Inches
AVERAGE ANNUAL SNOWFALL	21.0 Inches
MAJOR SOURCE INCOME	Agriculture
NUMBER OF FARMS	450
WATER RESOURCE PROJECTS	Fryingpan

LAND OWNERSHIP:	
PRIVATE	939,722 Acres
FEDERAL	10,233 Acres
STATE	142,673 Acres
COUNTY AND MUNICIPAL	147 Acres

*1978 Assessor



IRRIGATION DIVISION 2

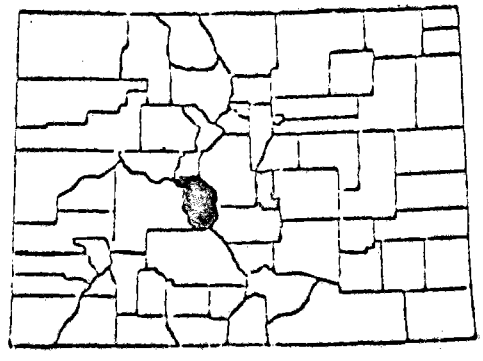
CHAFFEE COUNTY

MAJOR CITY	Salida
1970 POPULATION	9,663
URBAN POPULATION	4,322
RURAL POPULATION	5,341
COUNTY AREA	1,039 Square Miles
TERRAIN	Mountainous
ELEVATION (MAJOR CITY)	7,036
MAJOR STREAM	Arkansas
MAJOR TRIBUTARY	South Arkansas
MAJOR WATER USE	Irrigation
IRRIGATED ACRES	13,508*
AVERAGE GROWING SEASON	112 Days
ANNUAL MEAN TEMPERATURE	46.3
AVERAGE ANNUAL RAINFALL	10.87 Inches
AVERAGE ANNUAL SNOWFALL	46.2 Inches
MAJOR SOURCE INCOME	Agriculture
NUMBER OF FARMS	170
WATER RESOURCE PROJECTS	Fryingpan

LAND OWNERSHIP:

PRIVATE	128,736 Acres
FEDERAL	502,651 Acres
STATE	20,103 Acres
COUNTY AND MUNICIPAL	3,511 Acres

*1979 Assessor

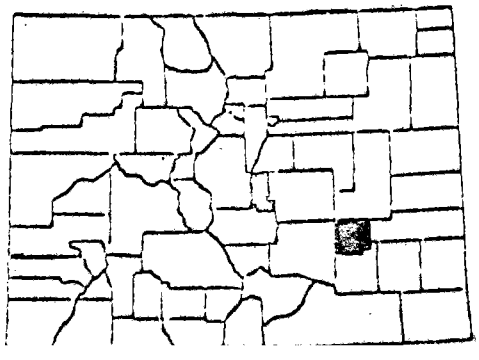


IRRIGATION DIVISION 2

CROWLEY COUNTY

MAJOR CITY	Ordway
1970 POPULATION	2,947
URBAN POPULATION	No city over 2,500
RURAL POPULATION	2,947
COUNTY AREA	803 Square Miles
TERRAIN	Plains
ELEVATION (MAJOR CITY)	4,312
MAJOR STREAM	Horse Creek
MAJOR TRIBUTARY	None
MAJOR WATER USE	Irrigation
IRRIGATED ACRES	25,010*
AVERAGE GROWING SEASON	162 Days
ANNUAL MEAN TEMPERATURE	51.4
AVERAGE ANNUAL RAINFALL	12.31 Inches
AVERAGE ANNUAL SNOWFALL	21.2 Inches
MAJOR SOURCE INCOME	Agriculture
NUMBER OF FARMS	400
WATER RESOURCE PROJECTS	Fryingpan
LAND OWNERSHIP:	
PRIVATE	531,034 Acres
FEDERAL	5,043 Acres
STATE	52,711 Acres
COUNTY AND MUNICIPAL	897 Acres

*1978 Assessor

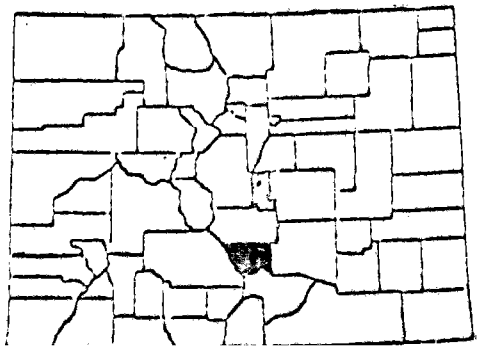


IRRIGATION DIVISION 2

CUSTER COUNTY

MAJOR CITY	Westcliffe
1970 POPULATION	1,028
URBAN POPULATION	No city over 2,500
RURAL POPULATION	1,028
COUNTY AREA	737 Square Miles
TERRAIN	Mountain Valley
ELEVATION (MAJOR CITY)	7,888
MAJOR STREAM	Grape
MAJOR TRIBUTARY	Texas
MAJOR WATER USE	Irrigation
IRRIGATED ACRES	27,790*
AVERAGE GROWING SEASON	86 Days
ANNUAL MEAN TEMPERATURE	43.7
AVERAGE ANNUAL RAINFALL	16.47 Inches
AVERAGE ANNUAL SNOWFALL	88.1 Inches
MAJOR SOURCE INCOME	Agruiculture
NUMBER OF FARMS	180
WATER RESOURCE PROJECTS	U.S.G.S. Underground Study
LAND OWNERSHIP:	
PRIVATE	298,001 Acres
FEDERAL	186,695 Acres
STATE	11,989 Acres
COUNTY AND MUNICIPAL	452 Acres

*1979 Assessor



IRRIGATION DIVISION 2

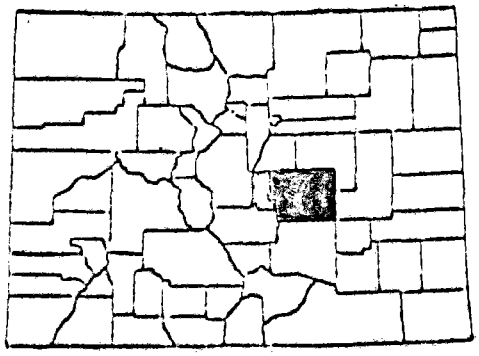
EL PASO COUNTY

MAJOR CITY	Colorado Springs
1970 POPULATION	229,113
URBAN POPULATION	200,145
RURAL POPULATION	27,968
COUNTY AREA	2,158 Square Miles
TERRAIN	Foothills
ELEVATION (MAJOR CITY)	6,012
MAJOR STREAM	Fountain
MAJOR TRIBUTARY	Monument
MAJOR WATER USE	Commercial & Irrigation
IRRIGATED ACRES	9,931*
AVERAGE GROWING SEASON	148 Days
ANNUAL MEAN TEMPERATURE	48.0
AVERAGE ANNUAL RAINFALL	14.49 Inches
AVERAGE ANNUAL SNOWFALL	35.0 Inches
MAJOR SOURCE INCOME	Military, Manufacturing
NUMBER OF FARMS	750
WATER RESOURCE PROJECTS	Blue River, Fryingpan, Homestake

LAND OWNERSHIP:

PRIVATE	981,504 Acres
FEDERAL	187,866 Acres
STATE	192,482 Acres
COUNTY AND MUNICIPAL	14,839 Acres

***1979 Assessor**

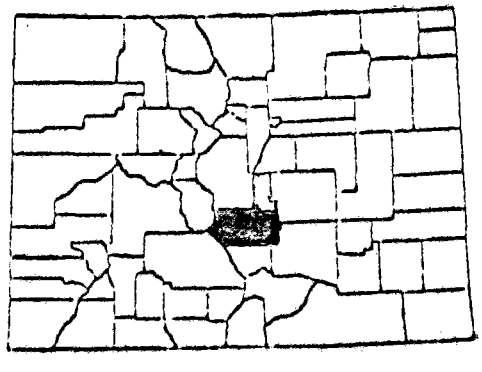


IRRIGATION DIVISION 2

FREMONT COUNTY

MAJOR CITY	Canon City
1970 POPULATION	20,220
URBAN POPULATION	11,917
RURAL POPULATION	8,303
COUNTY AREA	1,562 Square Miles
TERRAIN	Foothills
ELEVATION (MAJOR CITY)	5,332
MAJOR STREAM	Arkansas
MAJOR TRIBUTARY	Grape
MAJOR WATER USE	Irrigation
IRRIGATED ACRES	12,580*
AVERAGE GROWING SEASON	164 Days
ANNUAL MEAN TEMPERATURE	54.1
AVERAGE ANNUAL RAINFALL	12.66 Inches
AVERAGE ANNUAL SNOWFALL	35.6 Inches
MAJOR SOURCE INCOME	Agriculture, Industry
NUMBER OF FARMS	421
WATER RESOURCE PROJECTS	Fryingpan
LAND OWNERSHIP:	
PRIVATE	523,202 Acres
FEDERAL	441,445 Acres
STATE	65,326 Acres
COUNTY AND MUNICIPAL	7,785 Acres

*1979 Assessor

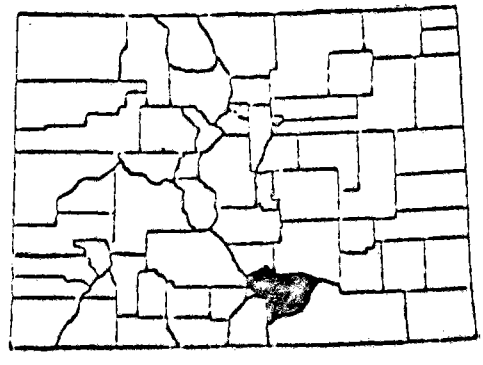


IRRIGATION DIVISION 2

HUERFANO COUNTY

MAJOR CITY	Walsenburg
1970 POPULATION	6,410
URBAN POPULATION	4,227
RURAL POPULATION	2,133
COUNTY AREA	1,578 Square Miles
TERRAIN	Mesa, Tableland
ELEVATION (MAJOR CITY)	6,185
MAJOR STREAM	Huerfano
MAJOR TRIBUTARY	Cucharas
MAJOR WATER USE	Irrigation
IRRIGATED ACRES	13.059*
AVERAGE GROWING SEASON	151 Days
ANNUAL MEAN TEMPERATURE	50.2
AVERAGE ANNUAL RAINFALL	14.13 Inches
AVERAGE ANNUAL SNOWFALL	69.0 Inches
MAJOR SOURCE INCOME	Agriculture
NUMBER OF FARMS	280
WATER RESOURCE PROJECTS	None
LAND OWNERSHIP:	
PRIVATE	747,000 Acres
FEDERAL	211,670 Acres
STATE	43,525 Acres
COUNTY AND MUNICIPAL	320 Acres

*1979 Assessor



IRRIGATION DIVISION 2

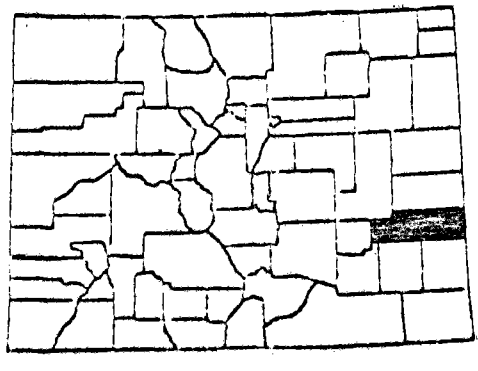
KIOWA COUNTY

MAJOR CITY	Eads
1970 POPULATION	2,006
URBAN POPULATION	No city over 2,500
RURAL POPULATION	2,006
COUNTY AREA	1,792 Square Miles
TERRAIN	Plains
ELEVATION (MAJOR CITY)	4,213
MAJOR STREAM	Big Sandy
MAJOR TRIBUTARY	None
MAJOR WATER USE	Irrigation
IRRIGATED ACRES	4,000*
AVERAGE GROWING SEASON	156 Days
ANNUAL MEAN TEMPERATURE	51.0
AVERAGE ANNUAL RAINFALL	13.78 Inches
AVERAGE ANNUAL SNOWFALL	22.3 Inches
MAJOR SOURCE INCOME	Agriculture
NUMBER OF FARMS	350
WATER RESOURCE PROJECTS	None

LAND OWNERSHIP:

PRIVATE	1,413,911 Acres
FEDERAL	3,975 Acres
STATE	70,893 Acres
COUNTY AND MUNICIPAL	365 Acres

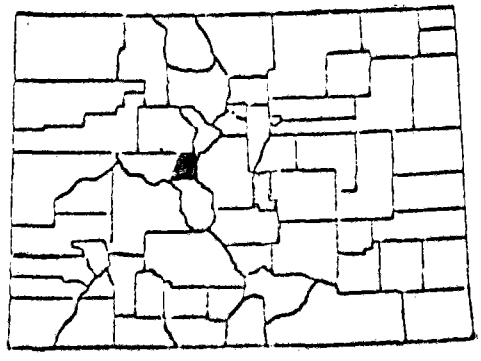
***1979 Assessor**



IRRIGATION DIVISION 2

LAKE COUNTY

MAJOR CITY	Leadville
1970 POPULATION	8,138
URBAN POPULATION	4,265
RURAL POPULATION	3,873
COUNTY AREA	380 Square Miles
TERRAIN	Mountainous
ELEVATION (MAJOR CITY)	10,152
MAJOR STREAM	Arkansas
MAJOR TRIBUTARY	Lake Fork
MAJOR WATER USE	Irrigation
IRRIGATED ACRES	6,036*
AVERAGE GROWING SEASON	82 Days
ANNUAL MEAN TEMPERATURE	37.3
AVERAGE ANNUAL RAINFALL	18.45 Inches
AVERAGE ANNUAL SNOWFALL	124.7 Inches
MAJOR SOURCE INCOME	Mining
NUMBER OF FARMS	17
WATER RESOURCE PROJECTS	Fryingpan
LAND OWNERSHIP:	
PRIVATE	71,342 Acres
FEDERAL	198,844 Acres
STATE	1,795 Acres
COUNTY AND MUNICIPAL	1,620 Acres



IRRIGATION DIVISION 2

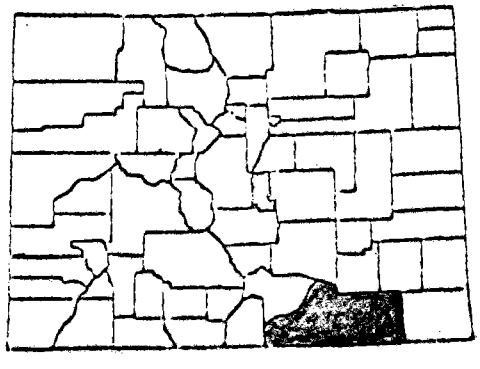
LAS ANIMAS COUNTY

MAJOR CITY	Trinidad
1970 POPULATION	15,291
URBAN POPULATION	9,721
RURAL POPULATION	5,570
COUNTY AREA	4,793 Square Miles
TERRAIN	Foothills
ELEVATION (MAJOR CITY)	6,025
MAJOR STREAM	Purgatoire
MAJOR TRIBUTARY	None
MAJOR WATER USE	Irrigation
IRRIGATED ACRES	20,239*
AVERAGE GROWING SEASON	156 Days
ANNUAL MEAN TEMPERATURE	50.4
AVERAGE ANNUAL RAINFALL	15.03 Inches
AVERAGE ANNUAL SNOWFALL	47.7 Inches
MAJOR SOURCE INCOME	Agriculture, Coal Mining
NUMBER OF FARMS	200
WATER RESOURCE PROJECTS	Trinidad Dam

LAND OWNERSHIP:

PRIVATE	3,179,204 Acres
FEDERAL	151,214 Acres
STATE	163,997 Acres
COUNTY AND MUNICIPAL	3,482 Acres

*1979 Assessor



IRRIGATION DIVISION 2

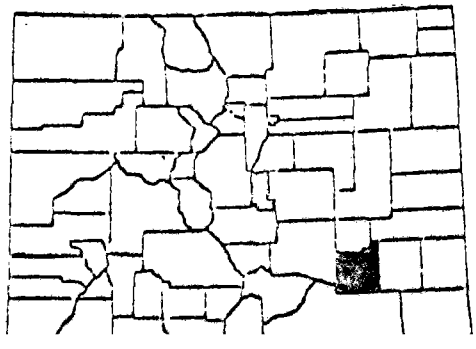
OTERO COUNTY

MAJOR CITY	La Junta
1970 POPULATION	22,824
URBAN POPULATION	12,514
RURAL POPULATION	10,310
COUNTY AREA	1,267 Square Miles
TERRAIN	Plains
ELEVATION (MAJOR CITY)	La Junta
MAJOR STREAM	Arkansas
MAJOR TRIBUTARY	Horse Creek
MAJOR WATER USE	Irrigation
IRRIGATED ACRES	81,016*
AVERAGE GROWING SEASON	162 Days
ANNUAL MEAN TEMPERATURE	52.0
AVERAGE ANNUAL RAINFALL	12.31 Inches
AVERAGE ANNUAL SNOWFALL	26.7 Inches
MAJOR SOURCE INCOME	Agriculture
NUMBER OF FARMS	690
WATER RESOURCE PROJECTS	Fryingpan

LAND OWNERSHIP:

PRIVATE	506,310 Acres
FEDERAL	169,004 Acres
STATE	120,572 Acres
COUNTY AND MUNICIPAL	2,050 Acres

*1978 Assessor



IRRIGATION DIVISION 2

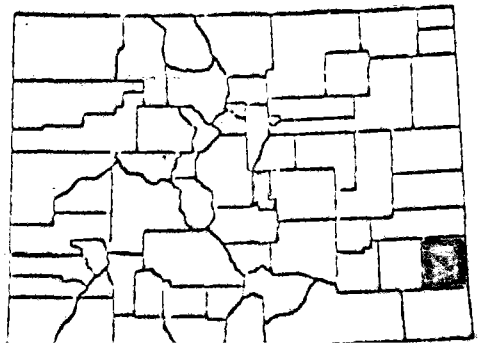
Prowers County

MAJOR CITY	Lamar
1970 POPULATION	12,877
URBAN POPULATION	7,510
RURAL POPULATION	5,367
COUNTY AREA	1,626 Square Miles
TERRAIN	Plains
ELEVATION (MAJOR CITY)	3,622
MAJOR STREAM	Arkansas
MAJOR TRIBUTARY	None
MAJOR WATER USE	Irrigation
IRRIGATED ACRES	136,778*
AVERAGE GROWING SEASON	163 Days
ANNUAL MEAN TEMPERATURE	52.0
AVERAGE ANNUAL RAINFALL	15.20 Inches
AVERAGE ANNUAL SNOWFALL	26.0 Inches
MAJOR SOURCE INCOME	Agriculture
NUMBER OF FARMS	469
WATER RESOURCE PROJECTS	None

LAND OWNERSHIP:

PRIVATE	996,952 Acres
FEDERAL	1,064 Acres
STATE	44,667 Acres
COUNTY AND MUNICIPAL	1,794 Acres

*1978 Assessor



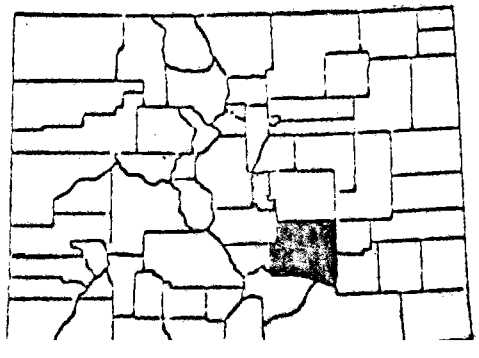
IRRIGATION DIVISION 2

PUEBLO COUNTY

MAJOR CITY	Pueblo
1970 POPULATION	117,212
URBAN POPULATION	106,565
RURAL POPULATION	10,556
COUNTY AREA	2,401 Square Miles
TERRAIN	Plains
ELEVATION (MAJOR CITY)	4,696
MAJOR STREAM	Arkansas
MAJOR TRIBUTARY	Fountain
MAJOR WATER USE	Irrigation, Industry
IRRIGATED ACRES	35,749*
AVERAGE GROWING SEASON	169 Days
ANNUAL MEAN TEMPERATURE	51.2
AVERAGE ANNUAL RAINFALL	12.14 Inches
AVERAGE ANNUAL SNOWFALL	31.3 Inches
MAJOR SOURCE INCOME	Industry
NUMBER OF FARMS	469
WATER RESOURCE PROJECTS	Fryingpan

LAND OWNERSHIP:	
PRIVATE	1,173,389 Acres
FEDERAL	76,712 Acres
STATE	232,519 Acres
COUNTY AND MUNICIPAL	3,045 Acres

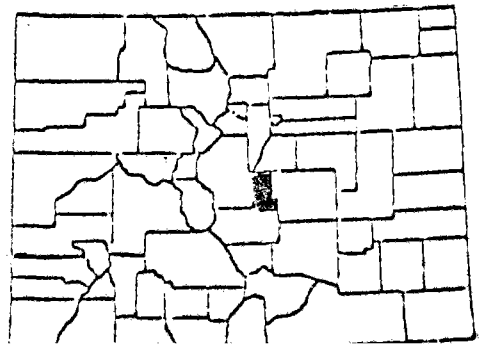
*1978 Assessor



IRRIGATION DIVISION 2

TELLER COUNTY

MAJOR CITY	Cripple Creek
1970 POPULATION	3,033
URBAN POPULATION	No city over 2,500
RURAL POPULATION	3,033
COUNTY AREA	554 Square Miles
TERRAIN	Mountainous
ELEVATION (MAJOR CITY)	9,949
MAJOR STREAM	Four Mile
MAJOR TRIBUTARY	None
MAJOR WATER USE	Irrigation, Commercial
IRRIGATED ACRES	865
AVERAGE GROWING SEASON	68 Days
ANNUAL MEAN TEMPERATURE	NA
AVERAGE ANNUAL RAINFALL	NA
AVERAGE ANNUAL SNOWFALL	NA
MAJOR SOURCE INCOME	Tourism, Agriculture
NUMBER OF FARMS	10
WATER RESOURCE PROJECTS	None
LAND OWNERSHIP:	
PRIVATE	195,257 Acres
FEDERAL	156,671 Acres
STATE	8,755 Acres
COUNTY AND MUNICIPAL	5,598 Acres



COUNTY	LAND AREA (1000 A.)	NO. OF FARMS	LAND IN FARMS (1000 A.) TOTAL	CROP LAND	IRRIGATED ACRES	WHEAT 1979 Acres Harvested WINTER	SPRING	OATS
Baca	1642	750	1430	847	56,910	220,000	700	---
Bent	971	450	917	145	61,713	24,000	100	400
Chaffee	665	170	160	24	13,508	---	---	100
Crowley	514	400	490	105	25,010	4,900	---	---
Custer	472	180	280	28	27,790	100	100	100
El Paso	1381	750	1050	200	9,931	12,000	200	900
Fremont	1000	550	493	30	12,580	300	100	200
Huerfano	1010	280	800	48	13,059	1,500	100	300
Kiowa	1147	350	1080	600	4,000	257,000	---	---
Lake	243	17	28	6	6,036	---	---	---
Las Animas	3068	600	2781	130	20,239	12,000	---	300
Otero	811	690	630	87	81,016	6,100	100	500
Park	*100	*20	*18	*4	*4,000	*500	---	---
Prowers	1041	729	1030	530	136,778	160,000	---	---
Pueblo	1537	800	1362	151	35,749	9,000	300	300
Teller	355	70	155	8	865	---	---	100

*In Division 2

1979 Acres Harvested as per 1980 Colorado Agricultural Statistics

COUNTY	CORN GRAIN	CORN SILAGE	SORGUHMS GRAIN	SORGUHMS SILAGE	SUGAR BEETS	DRY BEANS	POTATOES	BROOM CORN	ALFALFA	OTHER HAY	TOTAL HAY	BARLEY
BACA	28,500	6,500	148,000	49,500	1,640	300	100	35,700	6,700	16,000	22,700	1,700
BENT	1,400	1,206	17,000	7,300	460	---	40	---	28,500	3,200	37,100	1,700
CHAFEE	---	---	---	---	---	---	---	---	4,500	7,500	12,000	---
CROWLEY	6,000	3,500	8,500	740	550	1,100	20	---	25,000	1,206	26,200	100
CUSTER	---	---	---	130	---	---	---	---	3,900	11,000	1,490	300
EL PASO	1,500	3,300	2,000	2,100	---	---	---	---	10,500	22,500	33,000	400
FREMONT	100	100	---	170	---	1,800	---	---	3,100	6,300	7,400	100
HUERFANO	100	---	200	280	---	---	10	10	7,500	5,500	13,000	300
KIOWA	1,000	---	22,500	15,600	50	---	---	---	1,000	3,600	4,600	600
LAKE	---	---	---	---	---	---	---	---	---	500	500	---
LAS ANIMAS	200	200	1,100	---	---	---	---	---	5,900	700	5,600	1,400
OTERO	19,900	10,000	4,300	4,720	---	609	---	200	23,000	3,500	26,500	700
PARK	---	---	---	1,660	1,100	---	---	---	---	16,000	16,000	---
PROWERS	14,906	8,000	31,000	41,010	2,430	---	20	100	61,500	5,400	66,900	7,600
PUEBLO	8,900	5,000	9,900	4,790	1,390	10,000	100	---	8,900	3,200	12,100	1,100
TELLER	---	---	---	---	---	---	---	---	100	4,300	4,400	---

ADMINISTRATIVE WATER YEAR 1980

Pertinent Basin Yield Statistics for Arkansas Drainage in Colorado Division 2

Recorded Flow at Arkansas - Las Animas	287,140 A.F.
*Estimated Depletion by Irrigation above Gage 1.5 A.F./Acre x 244,534 Acres = 366,801 A.F.	366,801 A.F.
Recorded Flow at Purgatoire River - Las Animas	44,861 A.F.
*Estimated Depletion by Irrigation above Gage 1.5 A.F./Acre x 20,000 Acres = 30,000 A.F.	30,000 A.F.
Basin Yield including 125,204 A.F. Transmountain Import	728,802 A.F.
Less . . .	125,204 A.F.
Native Basin Yield above Confluence of Arkansas and Purgatoire Rivers	603,598 A.F.
Total Diversion in Division 2 (above John Martin)	1,746,072 A.F.

*Estimate of irrigated acreage based on County Assessors records.

Commentary on Basin Yield and Water Budget Data

In Water Administrative Year 1980, the native basin yield for the Arkansas above the confluence of the Purgatoire including the Purgatoire was 603,598 acre feet. The Arkansas flow at Las Animas for 1980 was 287,140 acre feet compared to 103,560 acre feet for 1979. The Purgatoire flow at Las Animas for 1980 was 44,861 acre feet compared to 38,620 acre feet for 1979. The precipitation was less in 1980 than 1979 and the transmountain import was 21,351 acre feet less in 1980 than 1979.

The average precipitation over the area (17,920 square miles) was 13.35 inches. This gives a total volume of water of 12,759,040 acre feet for the basin; of this 12,759,040 acre feet, only 603,598 acre feet, 4.73%, is accounted for. The remaining 95.27% either evaporated, transpired or was retained in the soil.

The diverted water of 1,746,072 acre feet when compared with native yield plus transmountain water indicates the water was used 2.40 times.

COMPARATIVE WATER 1979, 1980 DATA

	1980	1979
Basin Yield including Trnasmountain	728,802 A.F.	532,228 A.F.
Total Diverted (excluding W.D. 66 & 67)	1,746,072 A.F.	1,863,890 A.F.
Average Precipitation	13.35 Inches	15.52 Inches
Estimated Irrigated Acreage	264,534 Acres	260,320 Acres

DIVERSION DATA

Recorded Diversion by Municipalities	Water Year 1980
Municipal Diversion, Colorado Springs	34,440 A.F.
Municipal Diversion, Canon City	9,498 A.F.
Municipal Diversion, Pueblo	30,141 A.F.
Other	10,119 A.F.
Total Recorded Municipal Diversion	84,198 A.F.
Estimated Return Flow	56,132 A.F.
Estimated Depletion by Municipalities	28,066 A.F.

Recorded Diversion by Industrial Use	
Diversion by Minnequa Canal	81,589 A.F.
C.F.& I. Diversion from St. Charles	6,721 A.F.
Other	48,790 A.F.
Total Industrial Diversion	137,100 A.F.
Estimated Return Flow	91,400 A.F.
Estimated Depletion by Industry	45,700 A.F.

Recorded Diversion by Irrigation	
Water District 10	47,014 A.F.
Water District 11	117,783 A.F.
Water District 12	182,020 A.F.
Water District 13	54,454 A.F.
Water District 14	308,801 A.F.
Water District 15	14,396 A.F.
Water District 16	24,287 A.F.
Water District 17	669,616 A.F.
Water District 18	11,912 A.F.
Water District 19	68,594 A.F.
Water District 66	
Water District 67	194,830 A.F.
Water District 79	25,897 A.F.
Total Irrigation Diversion	1,719,604 A.F.

DIVERSION SUMMARY - DIVISION NO. 2

Direct Flow Diversions, 1980

Water Dist.	Active	Inactive N.A.	Inactive N.U.	Number of Ditches Administered	Close Freq.	Irrigation Direct Diversion A.F.	Number Acres Irrigated	A.F. Per Acre	Recreational and Industrial Use Diversion	Municipal Diversion A.F.	Transmountain Diversion A.F. *	Total Diversion A.F.
10	62		206	62	4	47,014	9,931	4.73	910	34,440		82,364
11	116		138	107	0	117,783	19,594	6.0				117,783
12	255		93	184	52	182,020	12,000	15.2	119,240	9,498		310,758
13	324		53	250	51	54,454	27,790	2.0				54,454
14	41		25	12	4	308,801	37,000	8.3	9,418	30,141		348,360
15	106		42	70	18	14,396	4,600	3.1	7,155	434		21,985
16	81		79	40	37	24,287	4,700	5.2		5,977		30,264
17	41		62	36	7	669,616	140,000	4.8				669,616
18	25		24	30	0	11,912	7,700	1.5				11,912
19	71		137	80	13	68,594	30,000	2.3	377	3,708		72,679
66&67	49		116	40	6	194,830	76,837	2.5				194,830
79	103		90	102	0	25,897	5,000	5.2				25,897
Other				988	188							
TOTAL						1,719,604	375,152	4.6	137,100	84,198	125,204	1,940,902

*Transmountain Water accounted for in districts used.

TRANSMOUNTAIN DIVERSION

DIVISION NO. 2

Tabulation 1980

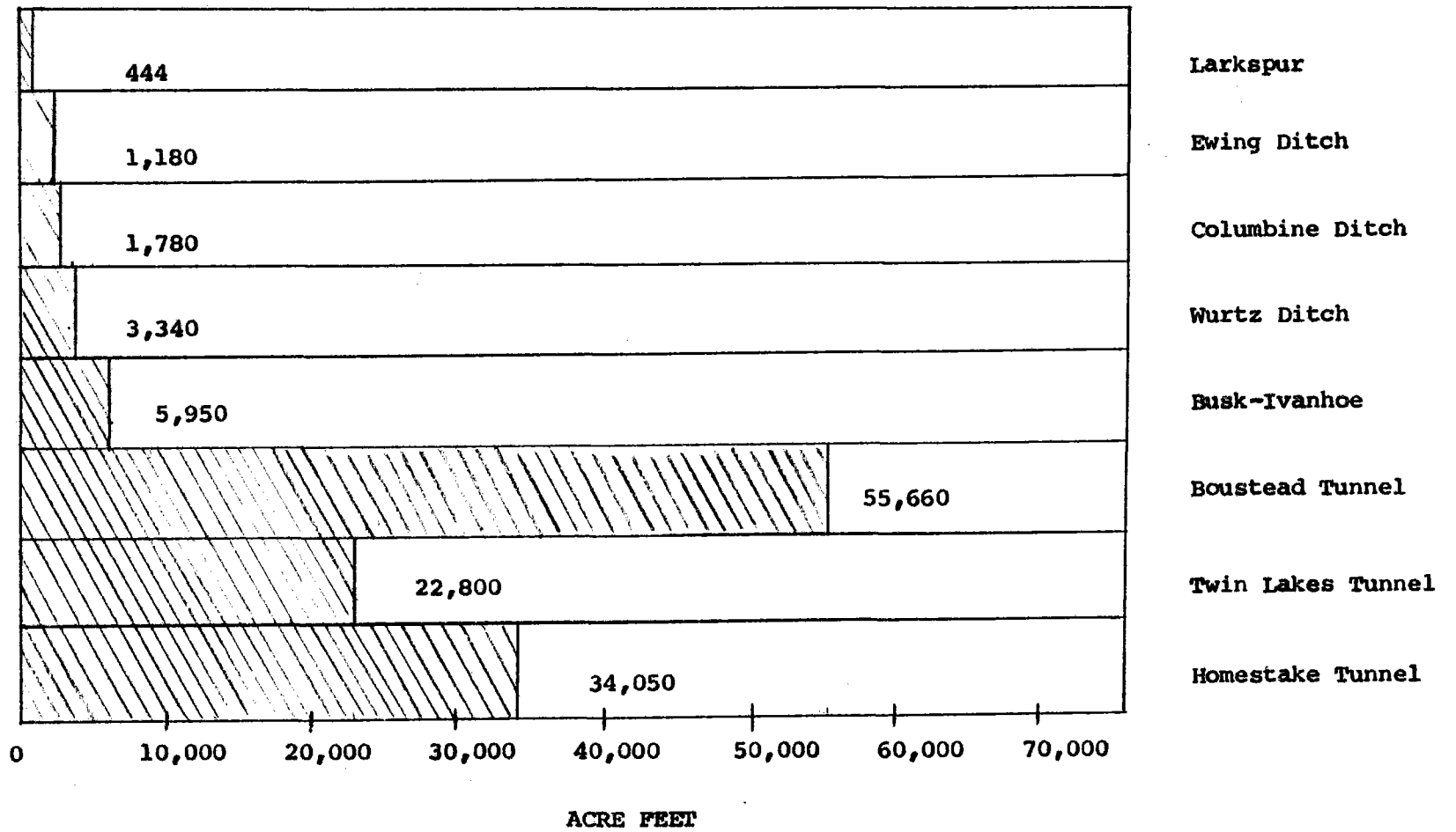
NAME	SOURCE	RECIPIENT	AMOUNT DIVERTED 10/1/79 to 9/30/80
Homestake Tunnel	Middle Fork Homestake Creek Division No. 5	Cities of Colorado Springs and Aurora	34,050 A.F.
Wurtz Ditch	Eagle River Division No. 5	City of Pueblo	3,340 A.F.
Ewing Ditch	Piney Creek	City of Pueblo	1,180 A.F.
Columbine Ditch	Eagle River Division No. 5	City of Pueblo	1,780 A.F.
Twin Lakes Tunnel	Roaring Fork River Divsion No. 5	Twin Lakes Reservoir and Canal Company	22,800 A.F.
Busk Ivanhoe Tunnel	Ivanhoe Creek Division No. 5	Highline Canal Co. and City of Pueblo	5,950 A.F.
Larkspur Ditch	Tomichi Creek Division No. 5	Catlin Canal Company	444 A.F.
Boustead Tunnel	Fryingpan River Division No. 5	U. S. Bureau of Reclaimation	55,660 A.F.

TRANSMOUNTAIN DIVERSION

DIVISION NO. 2

SUMMARY OF DIVERSION FOR

WATER YEAR 1980



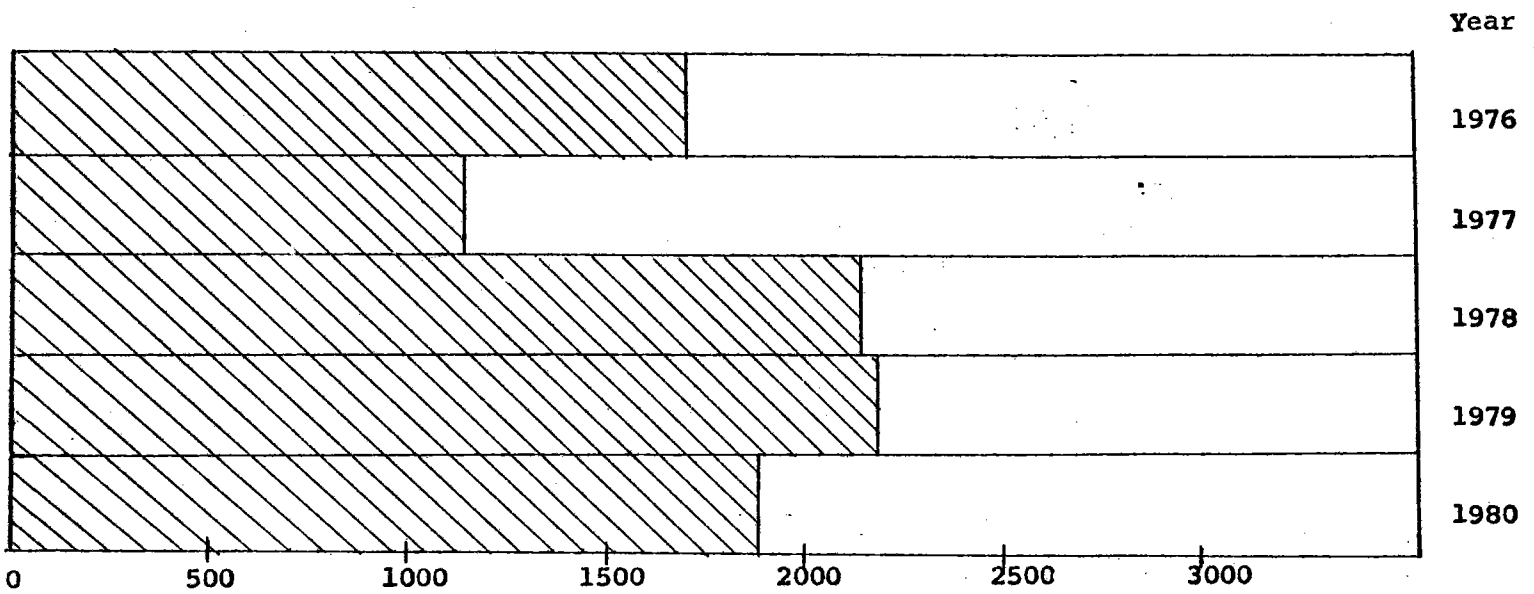
TRANSMOUNTAIN DIVERSION

DIVISION NO. 2

COLUMBINE DITCH

Source: **Eagle River, Division No. 5**

Recipient: **City of Pueblo**



ACRE FEET

5-YEAR COMPARISON

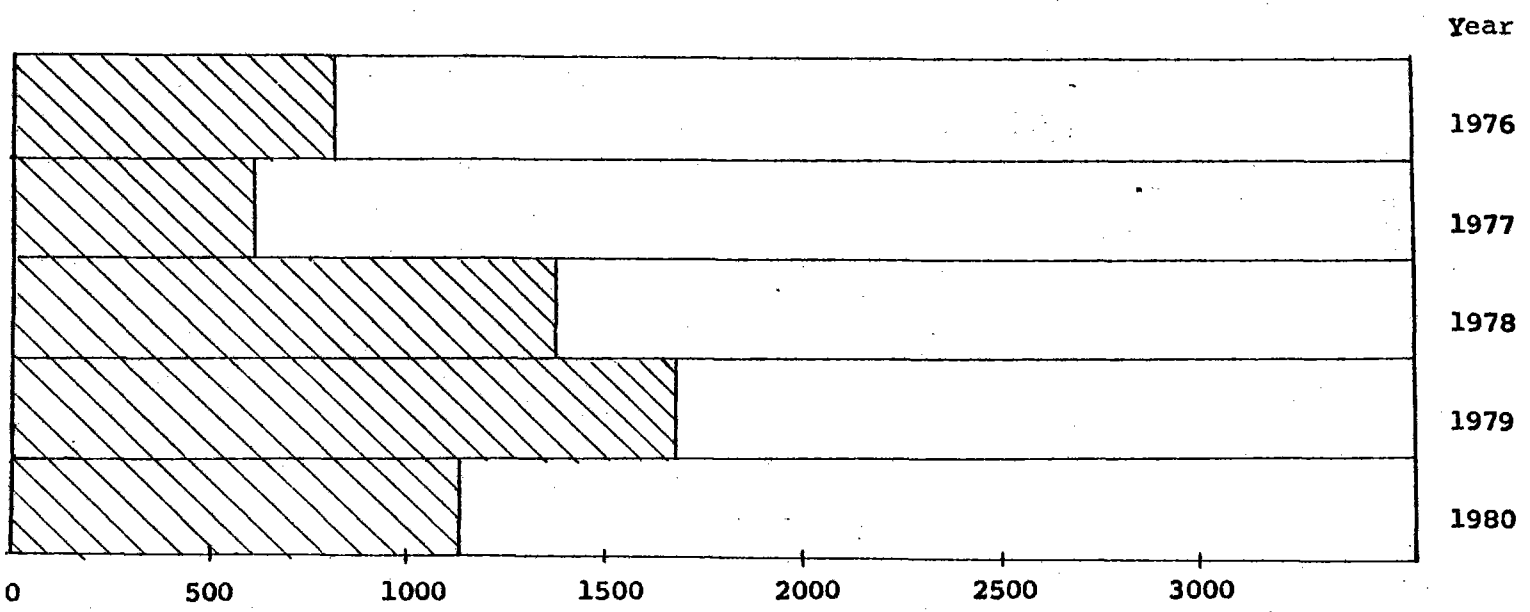
TRANSMOUNTAIN DIVERSION

DIVISION NO. 2

EWING DITCH

Source: **Piney Creek, Division No. 5**

Recipient: **City of Pueblo**



ACRE FEET

5-YEAR COMPARISON

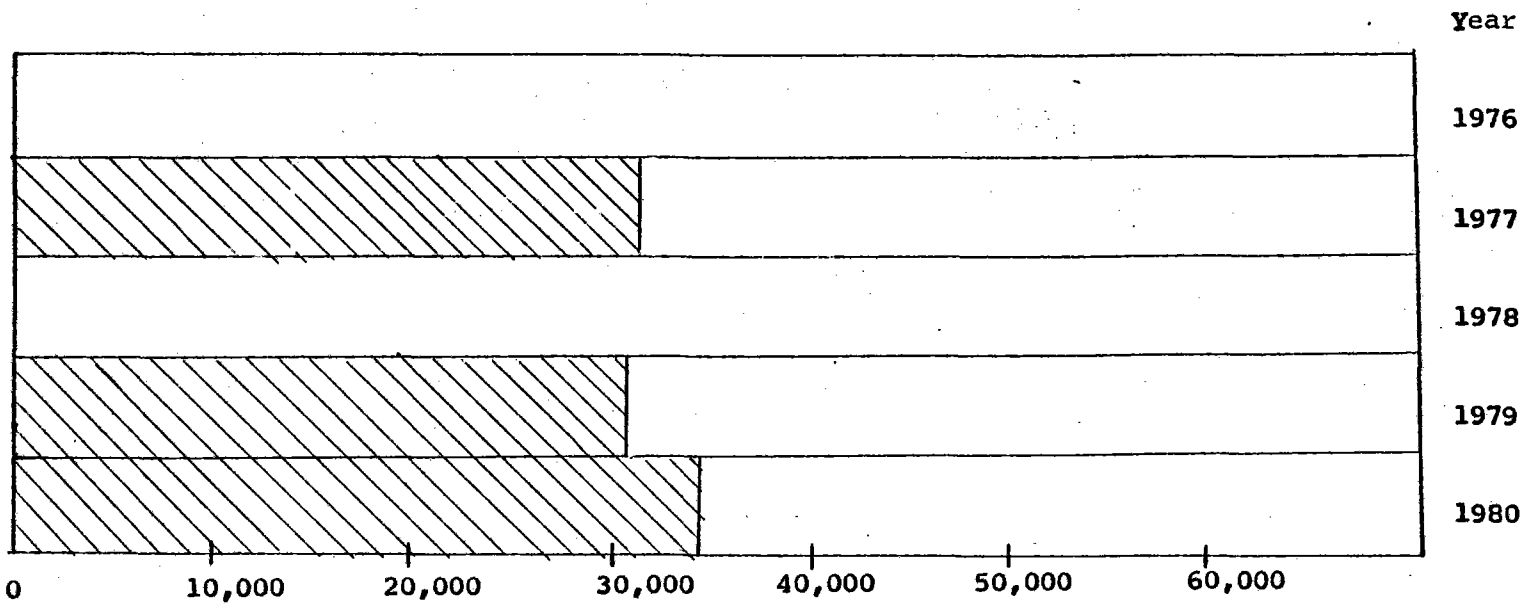
TRANSMOUNTAIN DIVERSION

DIVISION NO. 2

HOMESTAKE TUNNEL

Source: Middle Fork Homestake Creek, Division No. 5

Recipient: Cities of Colorado Springs and Aurora



5-YEAR COMPARISON

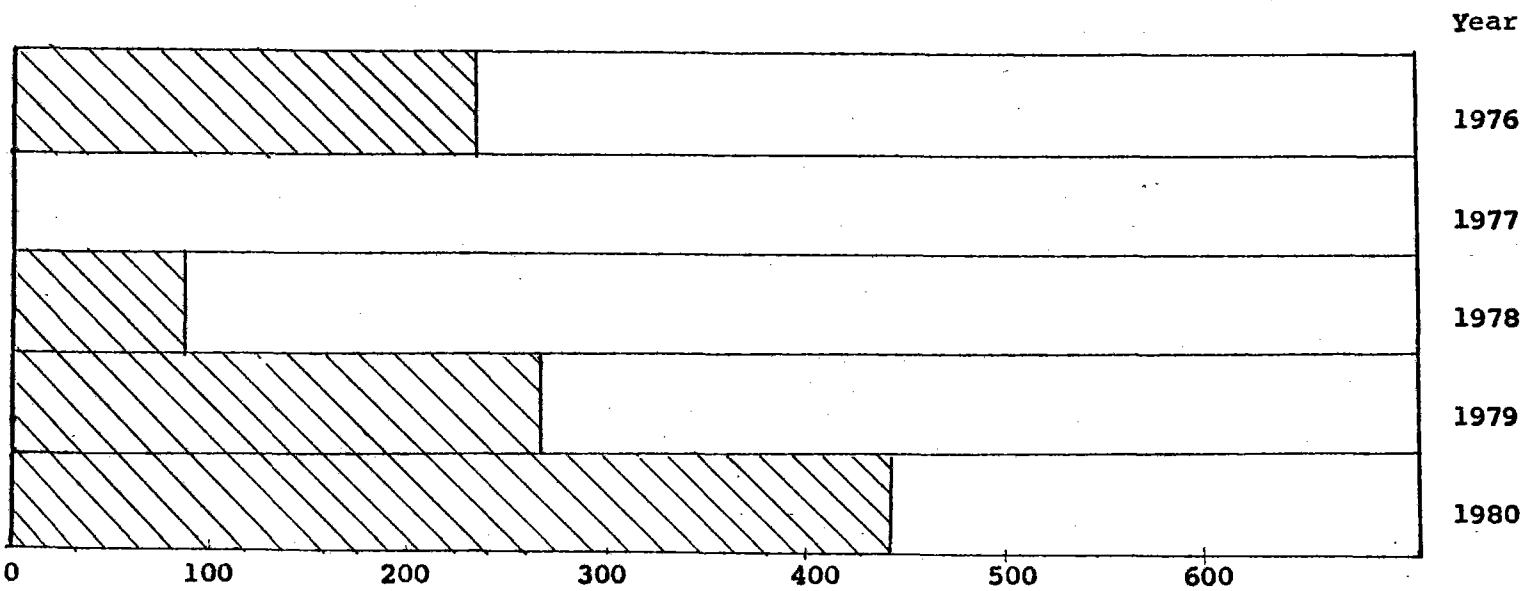
TRANSMOUNTAIN DIVERSION

DIVISION NO. 2

LARKSPUR DITCH

Source: **Tomichi Creek, Division No. 4**

Recipient: **Catlin Canal Company**



ACRE FEET

5-YEAR COMPARISON

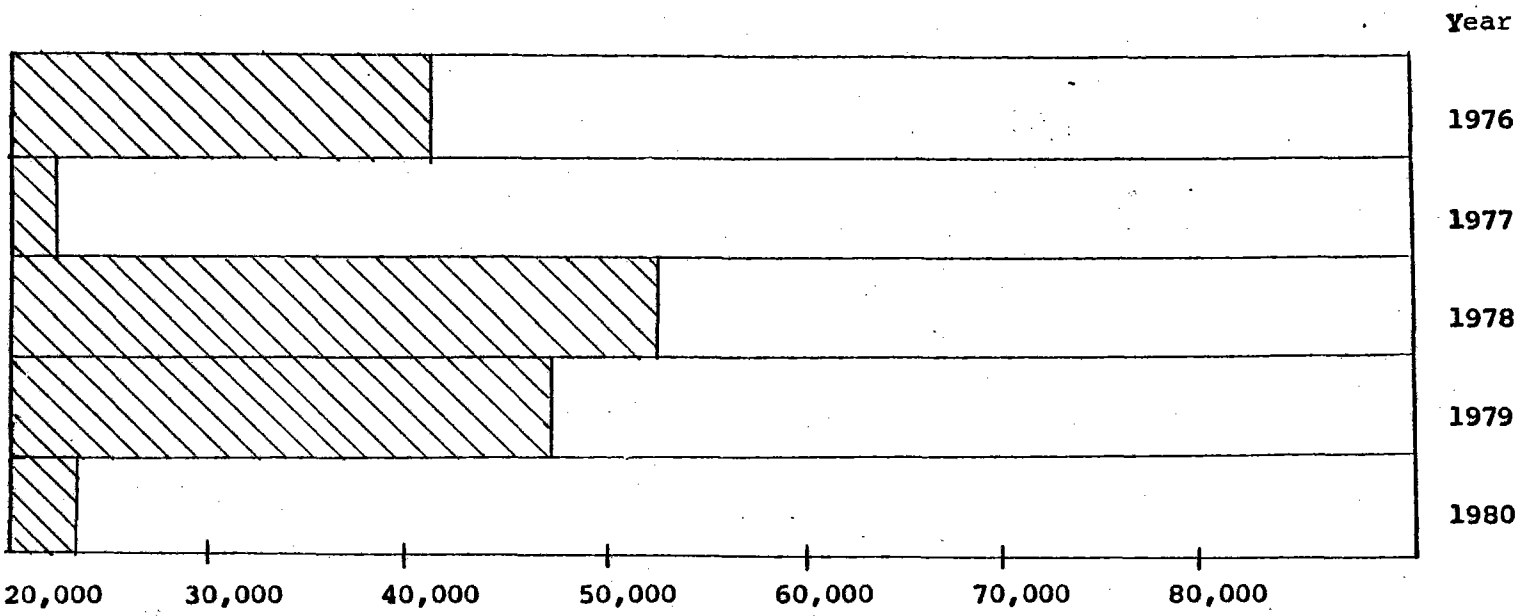
TRANSMOUNTAIN DIVERSION

DIVISION NO. 2

TWIN LAKES TUNNEL

Source: Roaring Fork River, Division No. 5

Recipient: Twin Lakes Reservoir and Canal Company



5-YEAR COMPARISON

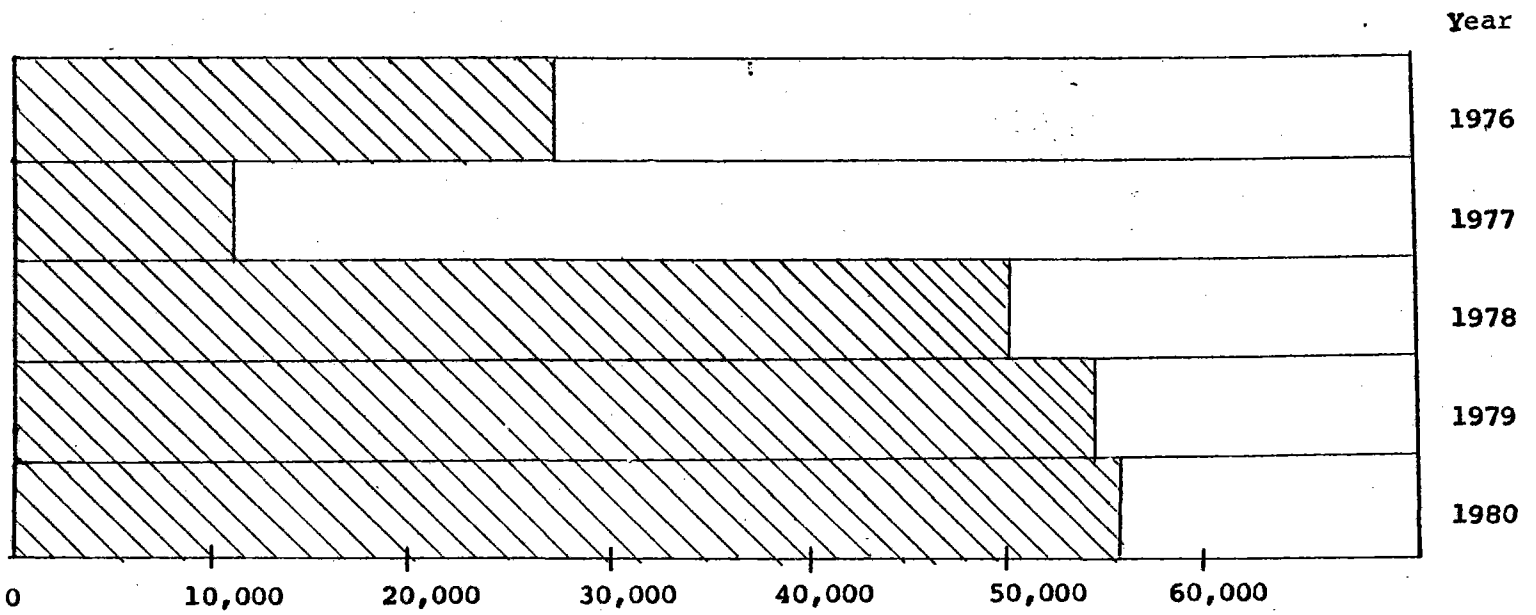
TRANSMOUNTAIN DIVERSION

DIVISION NO. 2

BOUSTEAD TUNNEL

Source: Fryingpan River

Recipient: U. S. Bureau of Reclamation



ACRE FEET

5-YEAR COMPARISON

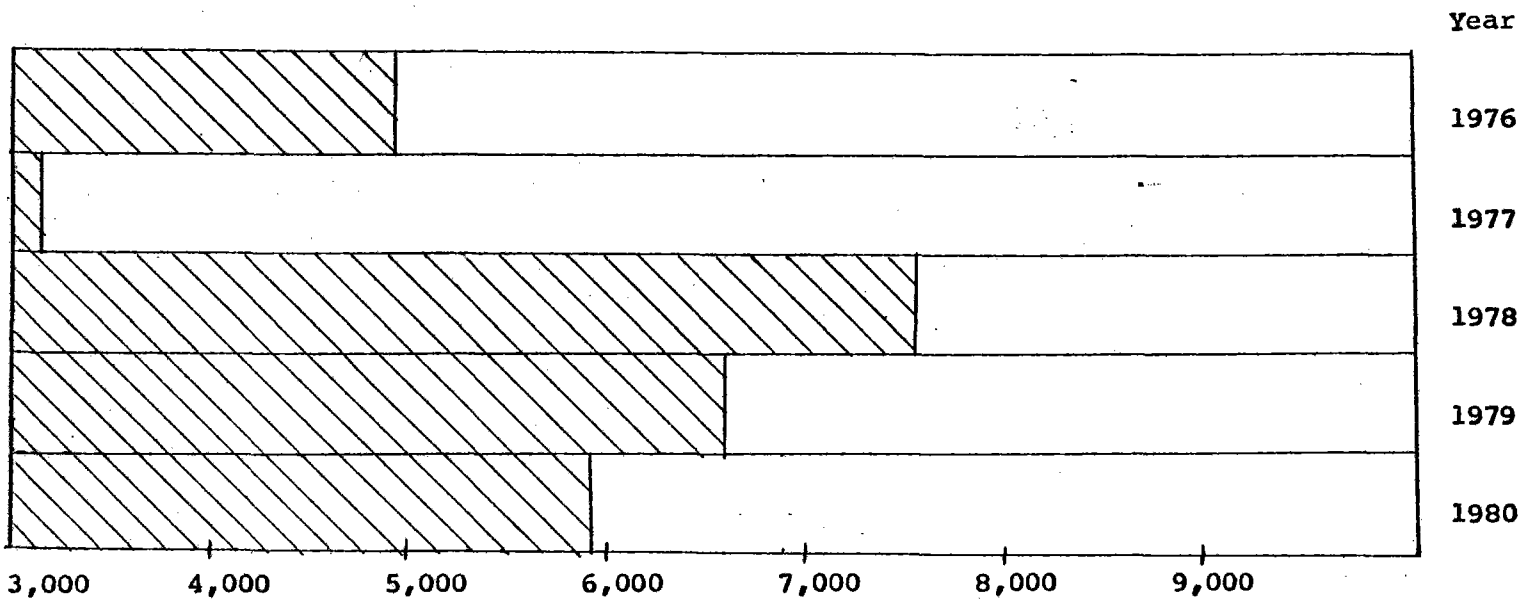
TRANSMOUNTAIN DIVERSION

DIVISION NO. 2

BUSK IVANHOE

Source: **Ivanhoe Creek, Division No. 5**

Recipient: **Highline Canal Company and City of Pueblo**



ACRE FEET

5-YEAR COMPARISON

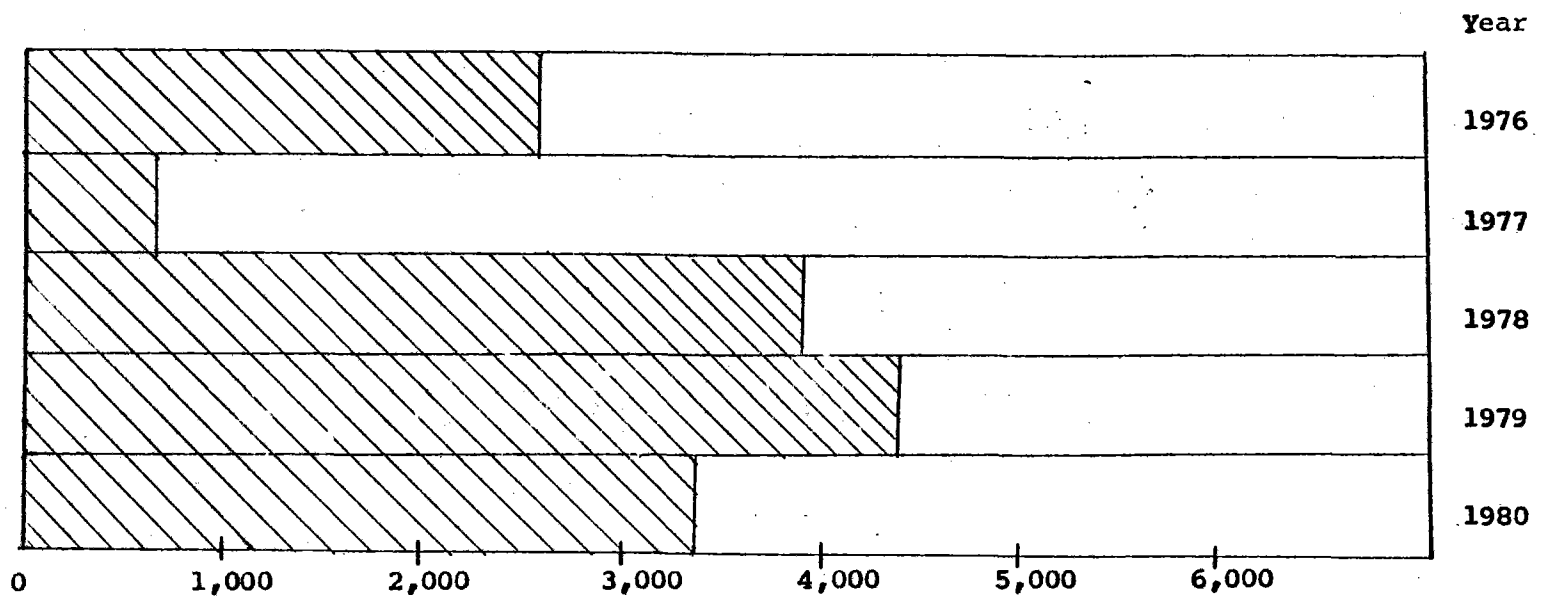
TRANSMOUNTAIN DIVERSION

DIVISION NO. 2

WURTZ DITCH

Source: **Eagèe River, Division No. 5**

Recipient: **City of Pueblo**



ACRE FEET

5-YEAR COMPARISON

PRECIPITATION

Precipitation for Division 2 was 106% of normal this year. The majority of the moisture received came in the form of rain and snow during the months of March, April and May. Moisture received for those three months was 172% of normal. During this period of high precipitation, reservoirs in the area had an opportunity to store large quantities of water. This stored water proved to be of great benefit in the following dry summer months after the exhaustion of the mountain snowpack. Moisture received for June, July, August and September was only 45% of normal and the precipitation that did occur for the period was in the form of several flash rains which were of short duration.

In general it was an excellent irrigation year in Division 2, due to the good snowpack in the mountains coupled with the reservoir storage of the early spring runoff. The summer was extremely hot and dry and with the good management of the reservoirs by State Personnel and ditch companies, crop yields were maintained at average levels.

DAMS

Dam inspections in Division 2 were as follows. The total inspections number 119. There were 32 ground inspections from the Denver office. This is where the men walk on the dam and check the dam for any problems. There were 87 dams inspected by the Denver office from the air and spot checked from the ground. This was done to see if the dams were in a high hazard area or in danger of any obvious dam problems.

There were numerous dams checked by our water commissioners on their day to day routine. If a dam looked like it had a problem, we contacted the Denver dam section, who immediately took the necessary action needed to insure the safety of the public.

FLOODS

Most of the flooding in Division 2 occurred in April, May and June due to extended periods of rainfall along the front range coupled with snowmelt in the higher elevations. Property damage was minimal with a few reportings of crop damage in the low lying areas of the Fountain and Arkansas.

The Fountain River required close scrutiny by Division personnel during April and May as it was at or near flood levels for much of the time. The peak for the unseasonably high flows occurred on May 8, which yielded a discharge of 10,000 c.f.s. at the Pinon Gage. A flash flood did occur on August 14 peaking at 14,900 c.f.s. but was of short duration.

The Arkansas River experienced much high water this year. There were few instances of flash flooding but rather high flows were sustained during the months of April, May, June and July. The rainfall along the front range kept the Arkansas high during the early part of the irrigation season and the snowmelt in the mountains sustained the high flows in June and July. August was uneventful with the exception of a flood originating in the Fountain on August 15. The flood produced a peak discharge of 10,200 c.f.s. at the Nepesta station.

The Purgatoire River known for its flash flooding was quite calm this year. Few thunderstorms took place in the Purgatoire Basin and as a result, no major events were encountered. Although no major floods occurred, the Purgatoire did experience sustained high discharges in April May and June.

IRRIGATION DIVISION NO. 2

STATION	WATER CONTENT PERCENT NORMAL AS OF FEB 1, 1980	SNOW DEPTH	WATER CONTENT AS OF FEB 1, 1980	AVERAGE INCHES
BIGELOW DIVIDE	127	26	6.2	4.9
COOPER HILL	114	33	7.9	6.9
EAST FORK	134	33	8.2	6.1
FOUR MILE PARK	115	23	4.5	3.9
FREMONT PASS	139	49	13.3	9.6
GARFIELD	137	48	11.8	8.6
HERMIT LAKE	94	28	6.0	6.4
MONARCH PASS	130	54	13.1	10.1
TENNESSEE PASS	121	36	7.6	6.3
TWIN LAKES TUNNEL	178	41	9.8	5.5
WESTCLIFFE	100	21	5.4	5.4
APISHAPA	134	24	6.7	5.0
CUCHARAS CREEK	-	28	6.6	-
LA VETA PASS	108	26	6.4	5.9
BOURBON	120	28	5.9	4.9

IRRIGATION DIVISION NO. 2

STATION	WATER CONTENT PERCENT NORMAL AS OF MAR 1, 1980	SNOW DEPTH	WATER CONTENT AS OF MAR 1, 1980	AVERAGE INCHES
BIGELOW DIVIDE	104	24	5.8	5.6
COOPER HILL	120	43	10.2	8.5
EAST FORK	134	41	9.9	8.0
FOUR MILE PARK	157	34	7.7	4.9
FREMONT PASS	128	60	15.8	12.3
GARFIELD	148	54	16.3	11.0
HERMIT LAKE	120	30	9.1	7.6
MONARCH PASS	121	56	16.2	13.4
TENNESSEE PASS	135	44	11.1	8.2
TWIN LAKES TUNNEL	158	50	12.6	8.0
WESTCLIFFE	109	27	7.2	6.6
APISHAPA	125	27	8.0	6.4
CUCHARAS CREEK	-	29	8.5	-
LA VETA PASS	126	36	9.6	7.6
BOURBON	123	32	7.0	5.7

IRRIGATION DIVISION NO. 2

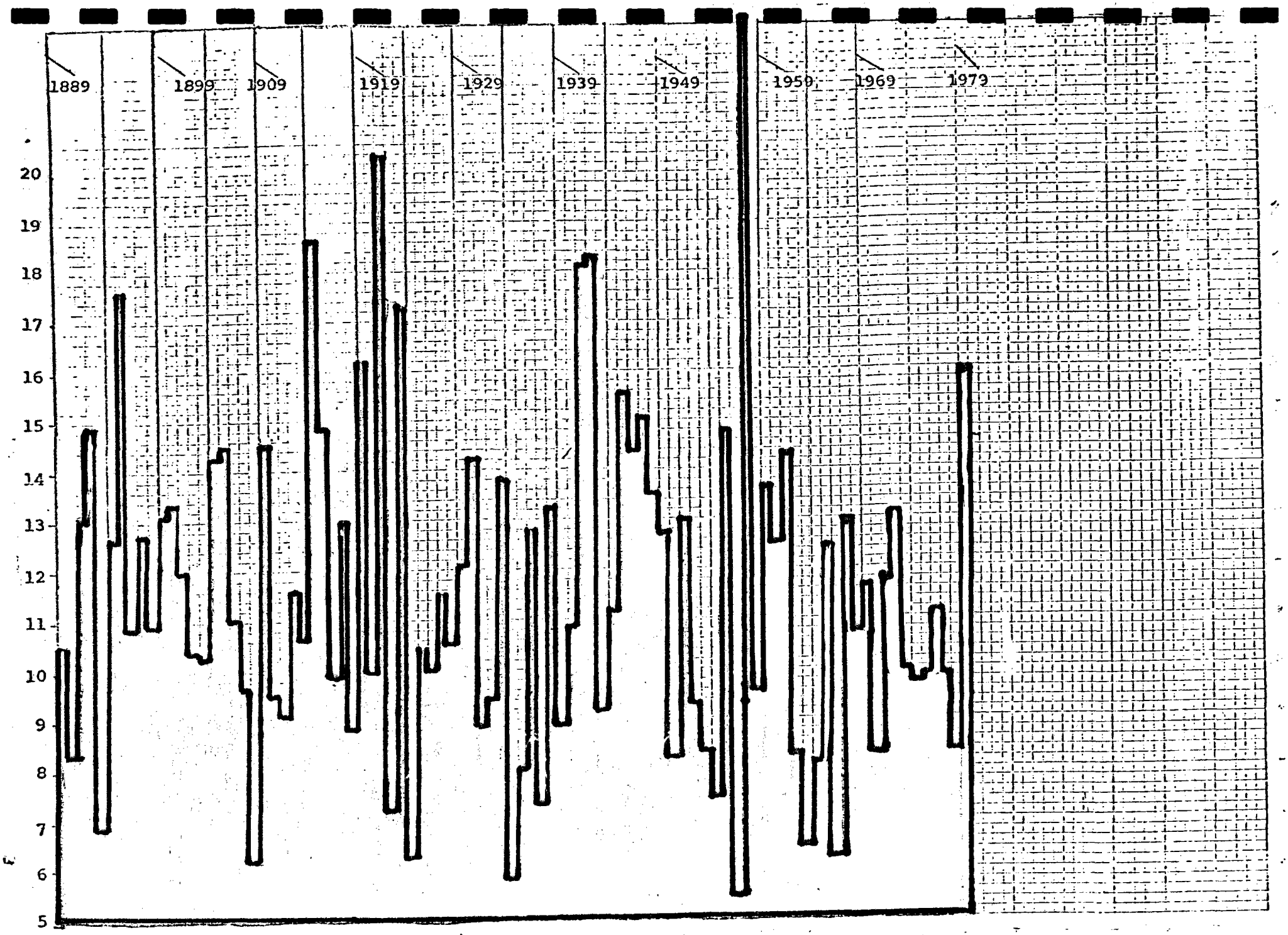
STATION	WATER CONTENT PERCENT NORMAL AS OF APR 1, 1980	SNOW DEPTH	WATER CONTENT AS OF APR 1, 1980	AVERAGE INCHES
BIGELOW DIVIDE	124	35	8.9	7.2
COOPER HILL	138	53	14.9	10.8
EAST FORK	125	44	11.9	9.5
FOUR MILE PARK	200	36	10.0	5.0
FREMONT PASS	138	66	21.4	15.5
GARFIELD	155	63	19.8	12.8
HERMIT LAKE	120	36	10.7	8.9
MONARCH PASS	133	70	21.3	16.0
TENNESSEE PASS	133	47	13.3	10.0
TWIN LAKES TUNNEL	133	41	12.0	9.8
WESTCLIFFE	122	37	8.4	6.9
APISHAPA	136	40	10.5	7.7
CUCHARAS CREEK	-	46	11.1	-
LA VETA PASS	148	42	12.0	8.1
BOURBON	154	45	10.6	6.9

IRRIGATION DIVISION NO. 2

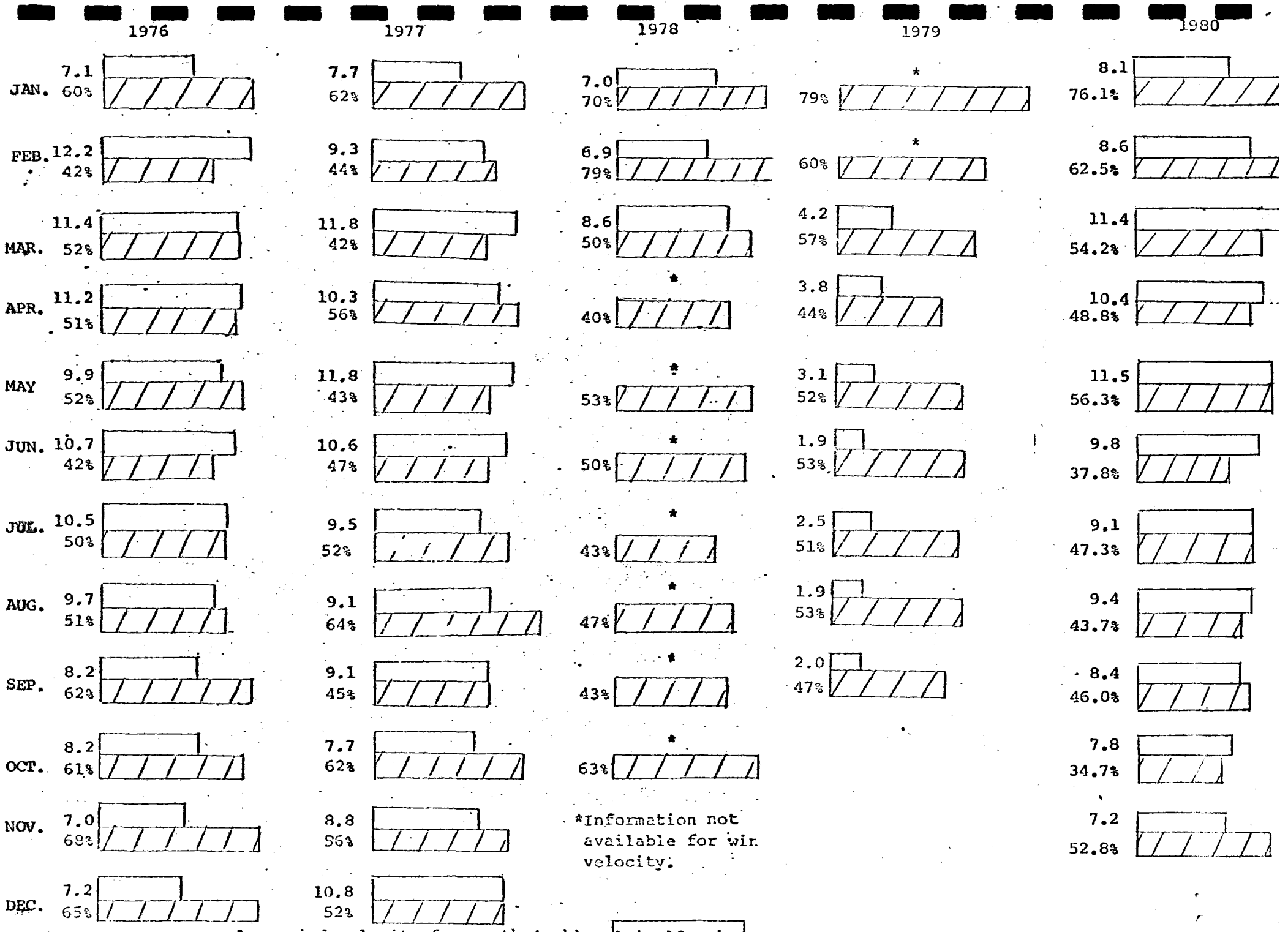
STATION	WATER CONTENT PERCENT NORMAL AS OF MAY 1, 1980	SNOW DEPTH	WATER CONTENT AS OF MAY 1, 1980	AVERAGE INCHES
BIGELOW DIVIDE	315	43	14.8	4.7
COOPER HILL	153	52	17.9	11.7
EAST FORK	159	34	11.6	7.3
FOUR MILE PARK	425	18	6.8	1.6
FREMONT PASS	132	63	23.4	17.7
GARFIELD	232	50	22.0	9.5
HERMIT LAKE	166	30	11.3	6.8
MONARCH PASS	154	60	23.5	15.3
TENNESSEE PASS	168	37	12.4	7.4
TWIN LAKES TUNNEL	161	38	15.3	9.5
WESTCLIFFE	312	23	7.8	2.5
APISHAPA	322	46	11.9	3.7
CUCHARAS CREEK	-	53	14.6	-
LA VETA PASS	441	48	14.1	3.2
BOURBON	374	35	10.1	2.7

PRECIPITATION
IRRIGATION DIVISION NO. 2

	April 1980	DEPART FROM NORMAL	May 1980	DEPART FROM NORMAL	June 1980	DEPART FROM NORMAL	July 1980	DEPART FROM NORMAL	August 1980	DEPART FROM NORMAL	September 1980	DEPART FROM NORMAL
Lamar	5.05	+3.70	2.52	- .01	.36	-1.90	.88	-1.45	1.57	- .77	.29	- .80
Buena Vista	1.62	+ .55	1.33	+ .29	.05	- .69	.52	-1.17	.56	-1.29	1.34	+ .54
Pueblo	2.99	+1.70	2.20	+ .55	.43	- .93	.75	-1.12	2.35	+ .39	.47	- .32
Trinidad	3.52	+2.21	2.05	+ .20	.17	-1.29	.57	-1.29	1.73	- .18	2.49	+1.52
Westcliffe	1.97	+ .05	2.38	+ .74	.22	- .87	1.40	-1.06	.31	-2.13	.84	- .12
Colorado Spgs.	3.64	+2.19	4.99	+2.87	1.60	- .71	1.69	-1.41	4.59	+2.01	.65	- .46



Precipitation in Inches
Pueblo, Colorado 1889 to Present



*Information not available for wind velocity.

DAM INSPECTION SUMMARY 1979 - 1980
IRRIGATION DIVISION NO. 2

W.D.	INSPECTED BY	NAME	U.S. ARMY #	COMMENTS
10	Corps of Engineers	Palmer Lake #2 Dam	00436	
12	Hydro-Triad, Ltd.	Mount Pisgah Dam	02066	
12	Dam Safety Branch	Mason Res. Dam		
12	Dam Safety Branch	McReynolds Res. Dam		
12	International Eng. Co., Inc.	Penrose Rosemont Dam	00471	
12	Charles T. Main Inc.	Mud Gulch Detention Dam	00469	
13	International Eng. Co., Inc.	DeWeese Reservoir Dam	02068	
15	Charles T. Main, Inc.	St. Charles #3	00493	
17	Charles T. Main, Inc.	Adobe Creek	00515	
19	Charles T. Main, Inc.	Fisher Peak FP-1	00533	
19	Charles T. Main, Inc.	Fisher Peak FP-2	00534	
67	Charles T. Main, Inc.	Limon Watershed L-1	00751	
67	Charles T. Main, Inc.	Ramah	01347	

DAM DESIGN REVIEW UNIT SUMMARY

IRRIGATION DIVISION NO. 2

W.D.	NAME	TYPE
12	Cotter Tailing Pond #3	Modification, Health Review
12	Lake Moraine	Hydrology
10	Big Tooth	Hydrology
12	Hansen Project	Preliminary Report

NAME OF RESERVOIR	SOURCE	AMOUNT OF ACRE FEET NOVEMBER 1, 1979	AMOUNT OF ACRE FEET APRIL 1, 1980	AMOUNT OF ACRE FEET OCTOBER 31, 1980
Ambler Res. No. 2	Unnamed Springs	-	-	-
Callhan Reservoir	Fountain	300	300	300
Crystal Creek Res.	Crystal Creek	869	815	2601
Fountain Valley #2	Fountain	1407	3825	1759
Fountain Valley #3	Fountain	-	0	0
Manitou Reservoir	No. Branch French Creek	711	711	711
Monument State	Monument Creek	370	370	370
North Catamount	No. Fork Catamount	8032	8687	8878
North Field No. 1		265	237	258
South Catamount	So. Catamount	1605	1086	2000
Spring Run	Spring Run	209	230	223
South Suburban Res.	So. Fork Cheyenne	182	201	215
Clear Creek Res.	Clear Creek	4697	7618	3392
O'Haver	Gray's Creek	-	-	-
Sugar Loaf Res.	Lake Fork Creek	102989	80857	81330
Twin Lakes Res.	Lake Creek	34782	33469	43683
Brush Hallow	Beaver Creek	928	3209	477
Colo. Springs #2	Beaver Creek	541	541	541
Colo. Springs #4	Beaver Creek	1965	1857	1831
Colo. Springs #5	Beaver Creek	1827	1827	1642
Colo. Springs #7	Beaver Creek	0	191	157
Colo. Springs #8	Beaver Creek	197	669	669
Lake Moraine	Beaver Creek	667	667	699
Mt. Pisgah	Four Mile Creek	456	931	2231
Rosemont Penrose	Beaver Creek	2036	2509	2227
Skaguay	Beaver Creek	1593	1337	1270
DeWeese Dye	Grape Creek	1344	4322	1244
Curiton	Springs	-	-	-
Greenview	Fountain	0	0	0
H.O.P. Reservoir	Springs	-	-	-
Pueblo Reservoir	Arkansas	33967	94224	36644

NAME OF RESERVOIR	SOURCE	AMOUNT OF ACRE FEET NOVEMBER 1, 1979	AMOUNT OF ACRE FEET APRIL 1, 1980	AMOUNT OF ACRE FEET OCTOBER 31, 1980
Hayden Beckwith	Greenhorn	455	630	734
Lake Minnequa	St. Charles	864	1166	1055
Reservoir No. 2	St. Charles	2293	2332	2411
Reservoir No. 3	St. Charles	6008	7430	7412
Arnold Flood Water	Santa Clara	0	-	-
Bressan #1	Unnamed Arroya	0	0	15
Bressan #2	Unnamed Arroya	0	0	15
Brunelli #1 & #2	Bear Creek	0	0	10
Butte	Cucharas	20	-	-
Chicosa #4 & #5	Huerfano	-	0	0
Coler (Lake Miriam)	Cucharas	3016	2235	1950
Cucharas Valley	Cucharas	580	485	17150
Dotson	Chicosa Creek	-	-	-
Holita	Cucharas	735	175	44
Huerfano Valley	Huerfano	0	0	0
La Joya	Cucharas	0	0	0
Maria Stevens	Cucharas	588	964	726
Martin Reservoir	Cucharas	2105		
Mosco	Poison Canon	-	-	-
Orlando	Huerfano	-	-	-
Sharps Orchid	Cucharas	0	0	0
Sierra Blanca	Decker Creek	-	-	-
Sunnyside	Santa Clara	-	-	-
Valdez	Santa Clara	-	-	-
Vories	Cucharas	-	-	-
Wilson	Sheer Creek	-	-	-
Zan	Apache Creek	-	-	-
Adobe	Arkansas	0	0	35655
Dye	Arkansas	0	2377	0
Henry	Arkansas	2036	0	0
Holbrook #1	Arkansas	1319	5810	0
Horse Creek	Arkansas	0	21808	0

NAME OF RESERVOIR	SOURCE	AMOUNT OF ACRE FEET NOVEMBER 1, 1979	AMOUNT OF ACRE FEET APRIL 1, 1980	AMOUNT OF ACRE FEET OCTOBER 31, 1980
Hermosa	San Francisco Creek	0	0	0
Monument	Middle Fork Purgatoire	1552	1462	1584
Model	Purgatoire	0	0	0
North	Trinchera	3175	3175	3269
Trinidad Reservoir	Purgatoire	18368	22556	39680
John Martin	Arkansas	5607	34777	35209
Nee No Shee	Arkansas	0	0	3403
Nee Skah	Arkansas	0	0	10847
Thurston	Arkansas	739	1150	1192
Two Buttes	Two Buttes Creek	269	5309	4858

LIVESTOCK WATER TANKS

Applications Filed and Approved:

Water District 10	1
Water District 11	0
Water District 12	4
Water District 13	3
Water District 14	0
Water District 15	0
Water District 16	0
Water District 17	3
Water District 18	6
Water District 19	26
Water District 66	0
Water District 67	2
Water District 79	0
TOTAL	45

All stock pond permits or applications are forwarded to our district Water Commissioners for site investigation and then for approval.

Last year (1979) the Division had 70 applications.

TABULATION

In June 1980 approximately 150 protests to the 1978 Tabulation were received, producing $1500.00 in revenue. Most of the protests were about clerical errors, so the protest fee was returned. Ten of the protests were of a general nature so their attorney agreed that the State would keep the fees and give a refund later, if the protest did not require the fee. Six protests required a hearing by the Division Engineer. To date, three have been heard, three are still pending. Of the $1500.00 collected, all but $160.00 had to be returned.

The protest in W. D. 13 concerned the Tabulation of the May 13, 1893; April 16, 1884; Sept. 7, 1895; and March 12, 1896 Adjudications. After a Hearing by the Division Engineer, it was decided to treat all these Adjudications as "original" and tabulate them accordingly. A copy of the Division Engineer's Findings, Conclusions and Order for Revision (former Water District 13) is included in the Appendix of this report.

The protest in W. D. 11 concerned the Adjudication type of the Younger 1, 2, 3 and Beaver Dam Ditches. After a Hearing by the Division Engineer, it was decided that those rights are correctly listed as supplemental decrees.

The protest in W. D. 12 concerned the previous Adjudication Date for the Victor P/L, Victor Reservoir, Bison Park Reservoir, State Ditch No. 1, Penrose Rosemont, Minnequa, and Gould Creek decrees. After a Hearing by the Division Engineer, it was decided that the correct previous Adjudication Date for those rights is Feb. 14, 1916. A copy of the Division Engineer's Findings, Conclusions and Order for Revision (former Water District 11) is included in the Appendix of this report.

The Division Engineer has responded to all protests, the clerical corrections and the corrections resulting from the Division Engineer's hearings have been made. There are three hearings yet to be held.

These protests affected the listing of nearly 2000 water rights.

The decrees awarded in 1980 will be on the 1980 Tabulation.

Cases Filed in the Water Court

The following shows the number of cases filed from January 1970 through June 1980, and also the number of claims.

NOTE: The number of cases is an accurate figure; however, the number of claims is an estimated figure as it is impossible to determine from some applications just how many claims are made, but state that the figures are reasonably close.

1970

MONTH	CASE NUMBERS	CASES	CLAIMS
January	None	0	0
February	W-23	1	4
March	W-24 through W-28	5	25
April	W-29 through W-31	3	7
May	W-32 through W-41	10	14
June	W-42 through W-60	19	105
July	W-61 through W-66	6	22
August	W-67 through W-74	8	15
September	W-75 through W-76	2	5
October	W-77 through W-78	2	2
November	W-79 through W-87	9	11
Decemberq	W-88 through W-114	27	62
	Sub-total . .	92	272

1971

January	W-115 through W-123	9	40
February	W-124 through W-146	23	51
March	W-147 through W-195	49	90
April	W-196 through W-241	46	80
May	W-242 through W-266	25	36
June	W-267 through W-317	51	117
July	W-318 through W-348	31	77
August	W-349 through W-375	27	76
September	W-376 through W-395	20	38
October	W-396 through W-421	26	66
November	W-422 through W-460	39	90
December	W-461 through W-507	47	83
	Sub-total . .	160	1922

MONTH	CASE NUMBERS	CASES	CLAIMS
	1972		
January	W-508 through W-543	36	110
February	W-544 through W-609	66	167
March	W-610 through W-701	92	252
April	W-702 through W-811	110	307
May	W-812 through W-1144	333	680
June	W-1145 through W-3440	2298	5385
July	W-3441 through W-3679	239	467
August	W-3680 through W-3780	101	202
September	W-3781 through W-3815	35	86
October	W-3816 through W-3852	37	97
November	W-3853 through W-3875	25	49
December	W-3876 through W-3893	23	53
	Sub-total . .	3395	7855
	1973		
January	W-3894 through W-3911	19	47
February	W-3912 through W-3922	11	35
March	W-3923 through W-3940	26	87
April	W-3941 through W-3954	18	72
May	W-3955 through W-3968	19	670
June	W-3969 through W-3983	20	119
July	W-3984 through W-3999	19	70
August	W-4000 through W-4015	21	64
September	W-4016 through W-4029	14	28
October	W-4030 through W-4039	12	460
November	W-4040 through W-4052	17	42
December	W-4053 through W-4062	12	234
	Sub-total . .	207	1928
	1974		
January	W-4063 through W-4069	8	68
February	W-4070 through W-4086	20	633
March	W-4087 through W-4096	10	66
April	W-4097 through W-4107	11	95
May	W-4108 through W-4113	6	7
June	W-4114 through W-4126	13	821
July	W-4127 through W-4144	18	36
August	W-4145 through W-4156	14	15
September	W-4157 through W-4169	13	16
October	W-4170 through W-4185	17	44
November	W-4186 through W-4198	14	61
December	W4199 through W-4214	16	60
	Sub-total . .	160	1922

MONTH	CASE NUMBERS		CASES	CLAIMS
		1975		
January	W-4215 through W-4222		8	25
February	W-4223 through W-4238		17	34
March	W-4239 through W-4245		9	9
April	W-4246 through W-4252		9	20
May	W-4253 through W-4263		11	31
June	W-4264 through W-4275		13	15
July	W-4276 through W-4280		6	10
August	W-4281 through W-4285		7	71
September	W-4286 through W-4324		40	70
October	W-4325 through W-4330		7	17
November	W-4331 through W-4359		29	33
December	W-4360 through W-4374		15	21
		Sub-total..	171	356
		1976		
January	W-4375 through W-4386		13	29
February	W-4387 through W-4396		15	46
March	W-4397 through W-4412		22	125
April	W-4413 through W-4427		21	36
May	W-4428 through W-4482		68	323
June	W-4483 through W-4490		15	127
July	W-4491 through W-4500		11	15
August	W-4501 through W-4510		12	21
September	W-4511 through W-4519		27	38
October	W-4520 through W-4529		15	159
November	W-4530 through W-4534		13	17
December	W-4535 through W-4545		17	50
		Sub-total..	249	986
		1977		
January	W-4546 through W-4552		13	33
February	W-4553 through W-4559		15	20
March	W-4560 through W-4565		28	55
April	W-4566 through W-4575		17	383
May	W-4576 through W-4579		9	12
June	W-4580 through W-4588		14	22
July	W-4589 through W-4595		16	29
August	W-4596 through W-4607		24	75
September	W-4608 through W-4609		15	56
October	W-4610 through W-4612		15	16
November	W-4613 through W-4624		18	60
December	W-4625 through W-4704		87	1089
		Sub-total..	217	1850

MONTH	CASE NUMBERS	CASES	CLAIMS
	1978		
January	W-4705 through W-4709	18	31
February	W-4710 through W-4715	10	14
March	W-4716 through W-4724	13	13
April	W-4725 through W-4737	13	19
May	W-4738 through W-4740	22	42
June	W-4741 through W-4753	20	39
July	W-4754 through W-4759	18	35
August	W-4760 through W-4768	16	40
September	W-4769 through W-4777	12	15
October	W-4778 through W-4787	16	42
November	W4788 through W-4794	16	30
December	W-4795	47	3402
	Sub-total . .	221	3722
	1979		
January	79CW1 through 79CW12	12	32
February	79CW13 through 79CW32	20	39
March	79CW33 through 79CW47	15	26
April	79CW48 through 79CW72	25	47
May	79CW73 through 79CW91	19	33
June	79CW92 through 79CW104	13	30
July	79CW105 through 79CW137	33	74
August	79CW138 through 79CW149	12	15
September	79CW150 through 79CW153	4	343
October	79CW154 through 79CW164	11	45
November	79CW165 through 79CW168	4	36
December	79CW169 through 79CW188	20	37
	Sub-total . .	188	757
	1980		
January	80CW1 through 80CW6	6	20
February	80CW7 through 80CW10	4	46
March	80CW11 through 80CW19	9	11
April	80CW20 through 80CW29	10	35
May	80CW30 through 30CW47	18	149
June	80CW48 through 80CW52	5	64
	Sub-total	52	325

Total of cases filed from 1970 through June, 1980 5,112

Approximate number of claims for same period 21,895

Cases Terminated by the Water Court

MONTH	NUMBER OF CASES TERMINATED
1970	
May	2
June	1
July	4
August	17
September	5
October	5
November	1
December	15
TOTAL....	50
1971	
January	0
February	4
March	16
April	9
May	15
June	13
July	47
August	46
September	26
October	43
November	25
December	30
TOTAL....	274
1972	
January	2
February	31
March	25
April	39
May	38
June	1
July	5
August	76
September	47
October	40
November	167
December	110
TOTAL....	581

MONTH	NUMBER OF CASES TERMINATED
1973	
January	95
February	110
March	151
April	81
May	104
June	174
July	83
August	139
September	121
October	216
November	178
December	78
TOTAL....	1530
1974	
January	137
February	77
March	157
April	99
May	112
June	152
July	59
August	100
September	64
October	68
November	75
December	99
TOTAL....	1199
1975	
January	84
February	54
March	58
April	65
May	92
June	54
July	41
August	39
September	23
October	28
November	13
December	18
TOTAL....	569

MONTH	NUMBER OF CASES TERMINATED
1976	
January	9
February	10
March	37
April	40
May	9
June	21
July	12
August	10
September	6
October	31
November	30
December	40
TOTAL....	255
1977	
January	27
February	19
March	29
April	30
May	11
June	25
July	28
August	16
September	18
October	8
November	13
December	22
TOTAL....	246
1978	
January	17
February	33
March	23
April	6
May	17
June	24
July	22
August	17
September	24
October	12
November	27
December	25
TOTAL....	247

MONTH	NUMBER OF CASES TERMINATED
1979	
January	12
February	7
March	24
April	6
May	9
June	8
July	15
August	9
September	7
October	13
November	16
December	28
TOTAL....	154
1980	
January	14
February	32
March	7
April	10
May	39
June	8
TOTAL....	110

Cases Terminated 1970	50
Cases Terminated 1971	274
Cases Terminated 1972	581
Cases Terminated 1973	1530
Cases Terminated 1974	1199
Cases Terminated 1975	569
Cases Terminated 1976	255
Cases Terminated 1977	246
Cases Terminated 1978	247
Cases Terminated 1979	154
Cases Terminated 1980	110
Total cases terminated through June 30, 1980	5215

WINTER WATER STORAGE

The winter storage effort was in its fourth year and is voluntary; whereby, downstream irrigators are able to store part of the direct flow rights in Pueblo Reservoir at no charge. The Winter Water Storage Program was started November 30, 1979 at Pueblo Reservoir for the Fryingpan Arkansas Project.

It had appeared that the Winter Storage Program, which needs the unanimous consent of the affected canal companies, was defeated November 9 when the Catlin Canal Company filed an objection to its implementation. The Catlin Canal had refused to acquiesce unless it received a favorable ruling from the Water Judge. This involved litigation with the Colorado Division of Wildlife over using water from Catlin for a permanent pool at the John Martin Reservoir. The Judge ruled in Catlin's favor November 19 and the Catlin Canal withdrew its objection.

The 1979-80 program began November 30, 1979 and continued through March 15, 1980, using the following formula:

> By foregoing winter diversions, the water will be accounted for by diversions through headgates, locations, or by storing in Pueblo Reservoir, on a percentage basis on the total river production, for a 3.5-month period. A maximum of 26,250 acre feet will accrue to the accounts storing in Pueblo Reservoir.

	Percent
Bessemer	5.20
Colorado	11.30
High Line	9.40
Oxford	2.10
Otero	0.47
Catlin	9.40
Holbrook	9.00
Rocky Ford	0.00
Ft. Lyon	38.70
Amity	12.00
Consolidated	2.70
West Pueblo	- -
Riverside	- -
Miscellaneous	- -

> In the event that the total river system produces above 97,250 acre feet, then the Amity Company will

receive the next 2,750 acre feet. If the system produces over 100,000 acre feet, the following percentages will apply to these canals provided the maximum has reached Pueblo Reservoir or the water is unable to be stopped.

Colorado	17.0
Holbrook	22.5
Ft. Lyon	38.0
Amity	22.5

WINTER WATER STORAGE SUMMARY SHEET
(Pueblo Reservoir)

CANAL	ACTUAL STORAGE
Bessemer	4664.62 A.F.
Colorado	8790.47 A.F.
High Line	8428.88 A.F.
Oxford	1884.75 A.F.
Otero	422.62 A.F.
Catlin	8428.88 A.F.
Holbrook	2885.70 A.F.
Rocky Ford Fort Lyon	1284.33 A.F.
Amity Consolidated	2420.25 A.F.
Riverside	120.00 A.F.
Miscellaneous	380.00 A.F.

WINTER WATER SUMMARY SHEET
(Off Channel Storage)

Colorado	6407.40 A.F.
Fort Lyon	45964.00 A.F.
Amity	20096.00 A.F.
Holbrook	11284.00 A.F.

In this summary, the figures are from December 1, 1979 through March 15, 1980. The Amity Canal had their Winter Water delivered to John Martin; the storage began December 15, 1979 in John Martin and ended March 15, 1980.

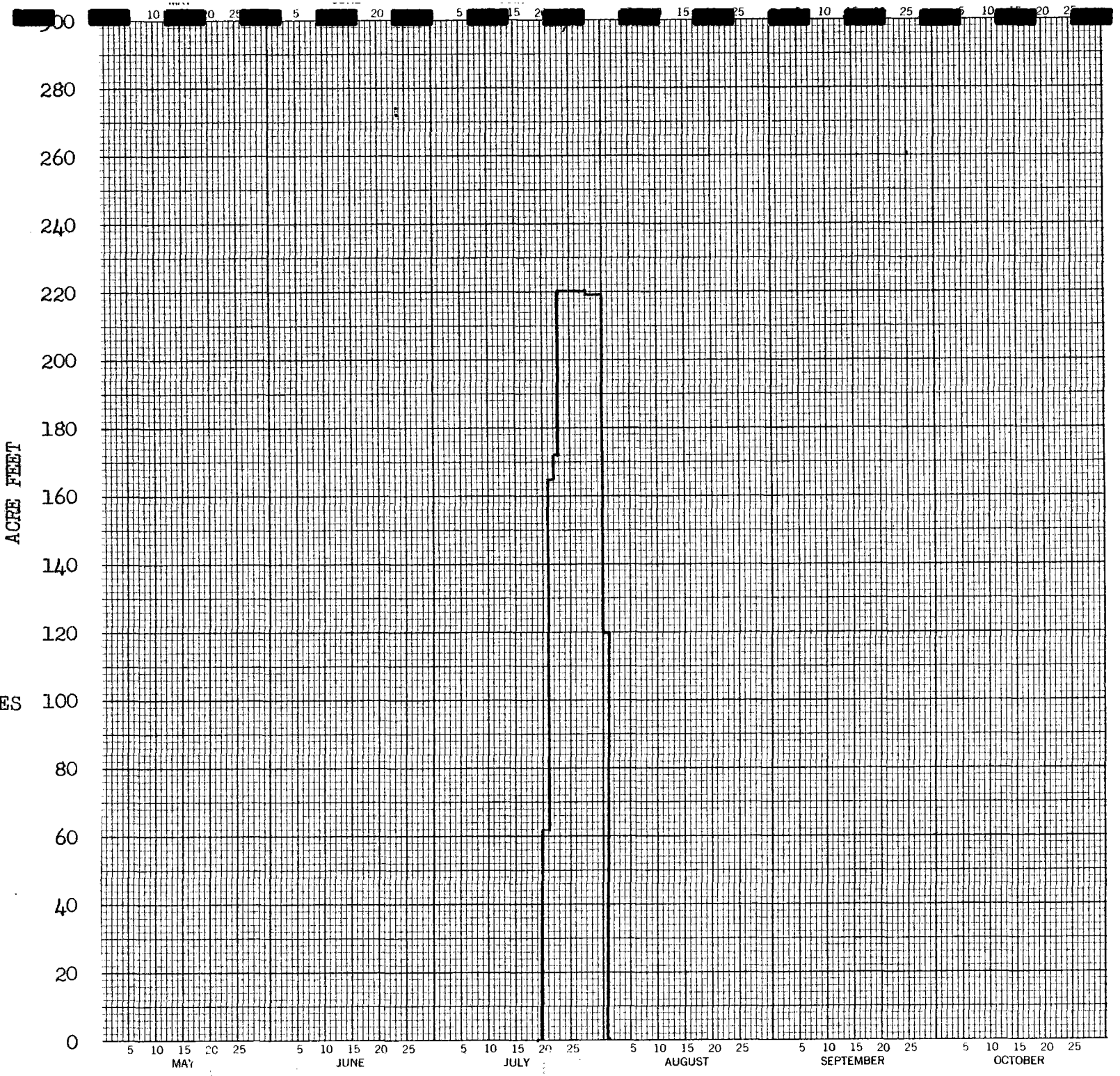
The first release of Winter Water from Pueblo Reservoir was March 16, 1980 to the Fort Lyon Canal to adjust their percentages. The release then continued to various irrigation companies through October 14, 1980 with the majority of the water being run during May, July and August.

The following graphs show the amount and the time the Winter Water was released from Pueblo Reservoir.

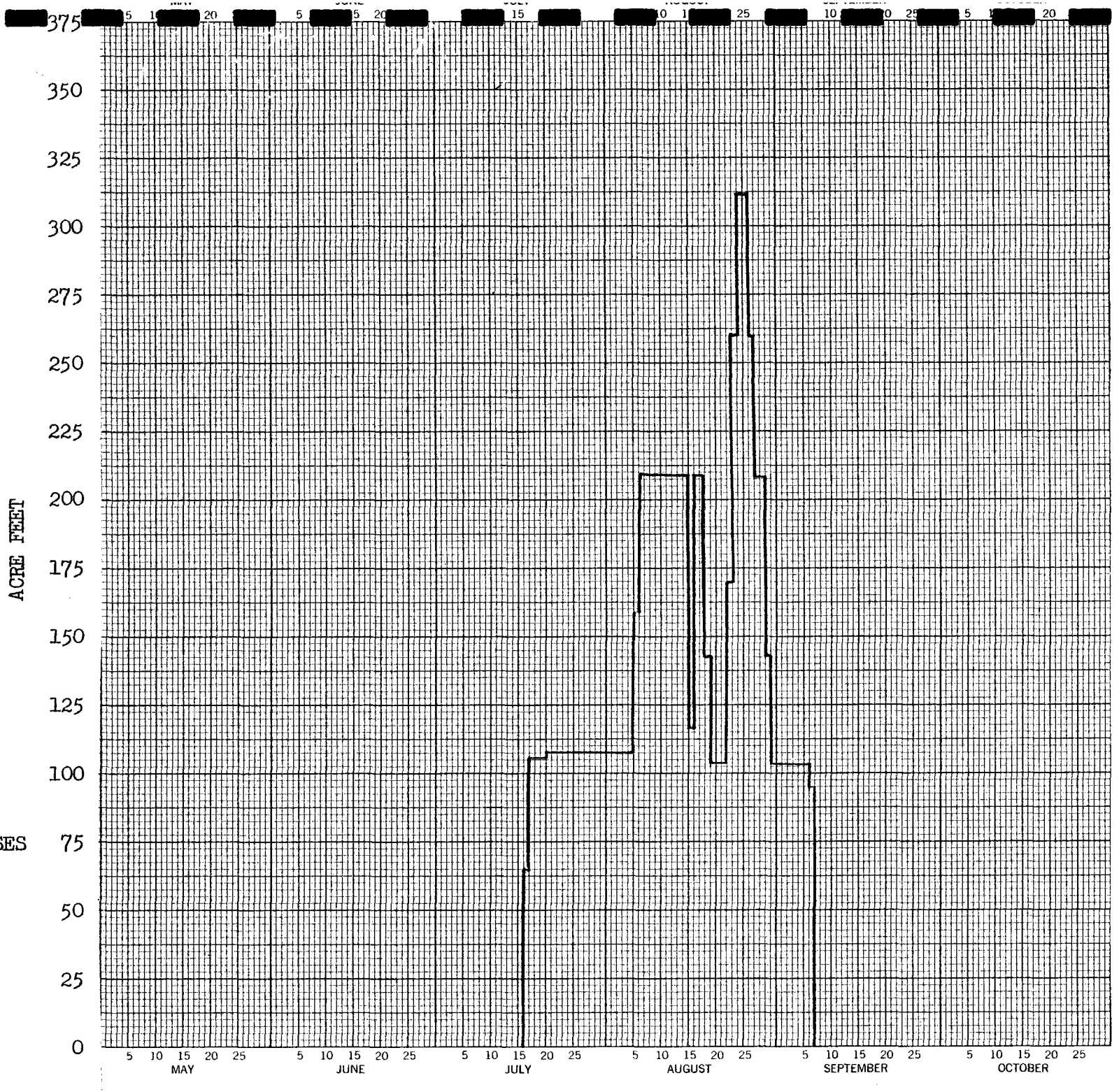
CONSOLIDATED CANAL

WINTER WATER
TIME AND QUANTITY RELEASES
FROM

PUEBLO RESERVOIR
1980



CATLIN CANAL



WINTER WATER
TIME AND QUANTITY RELEASES
FROM

PUEBLO RESERVOIR
1980

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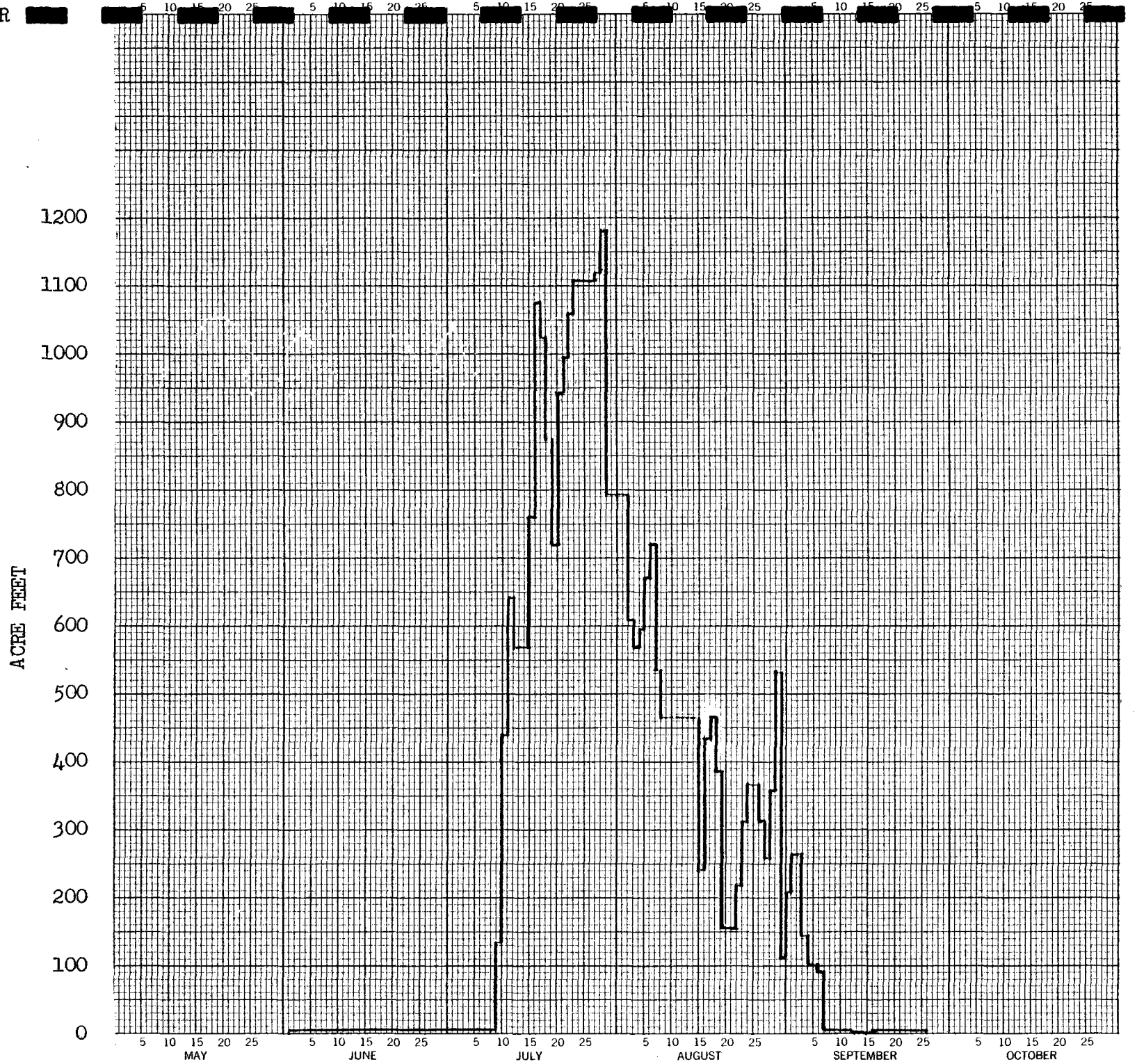
RELEASES
FROM
PUEBLO RESERVOIR
FOR
1980



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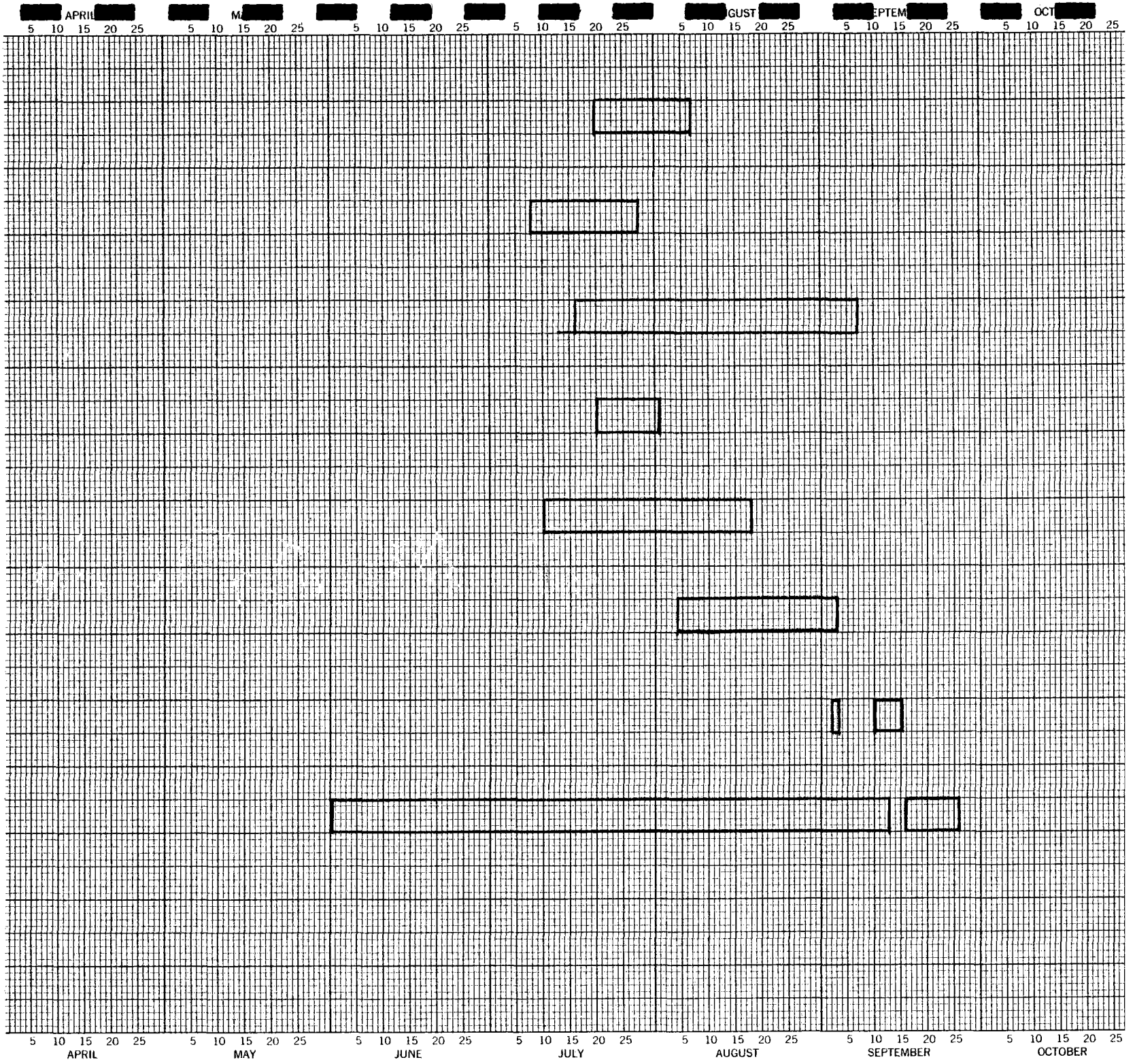
TIME RELEASE FROM
PUEBLO RESERVOIR
FOR 1980

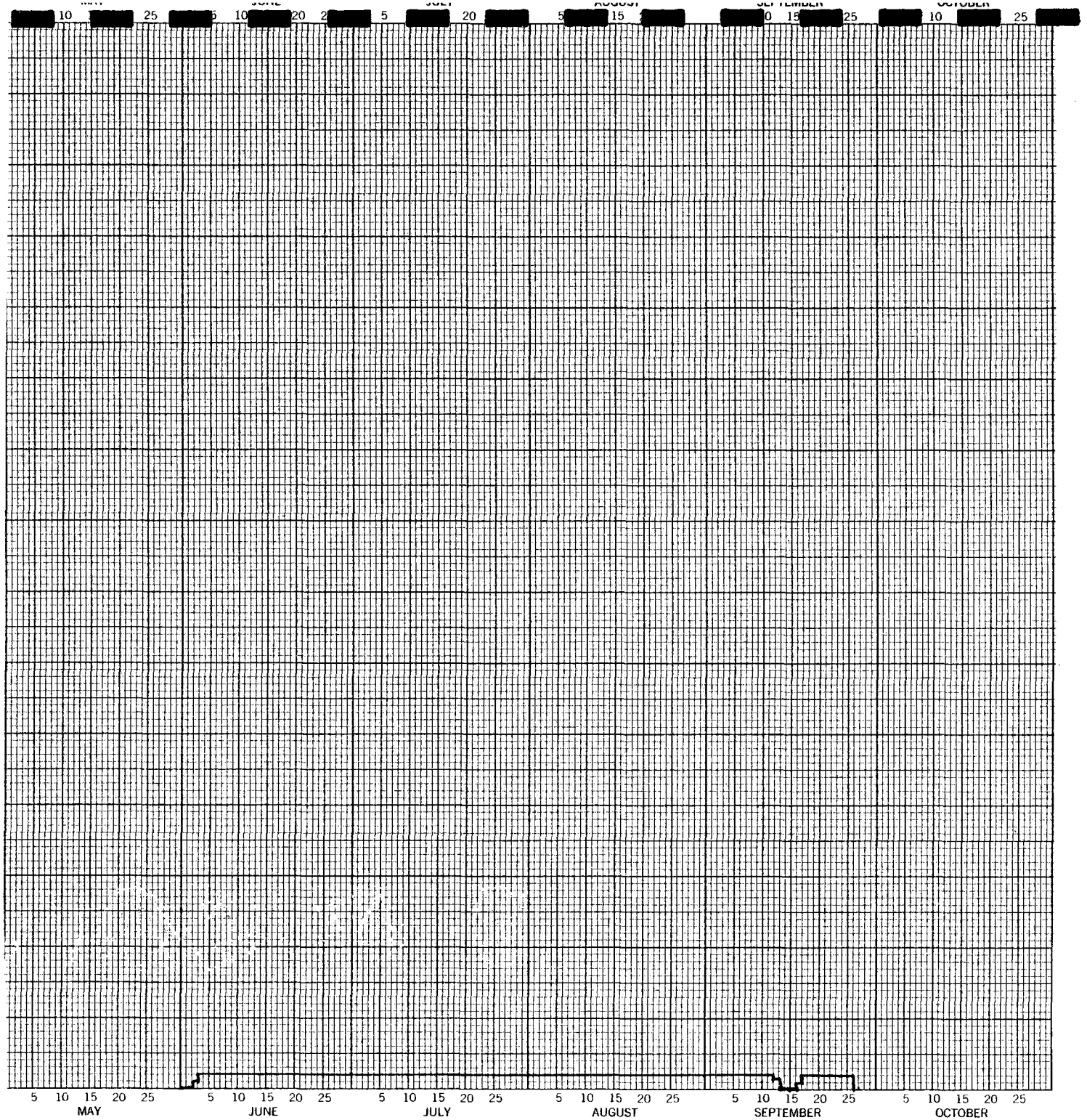


RIVERSIDE DAIRY

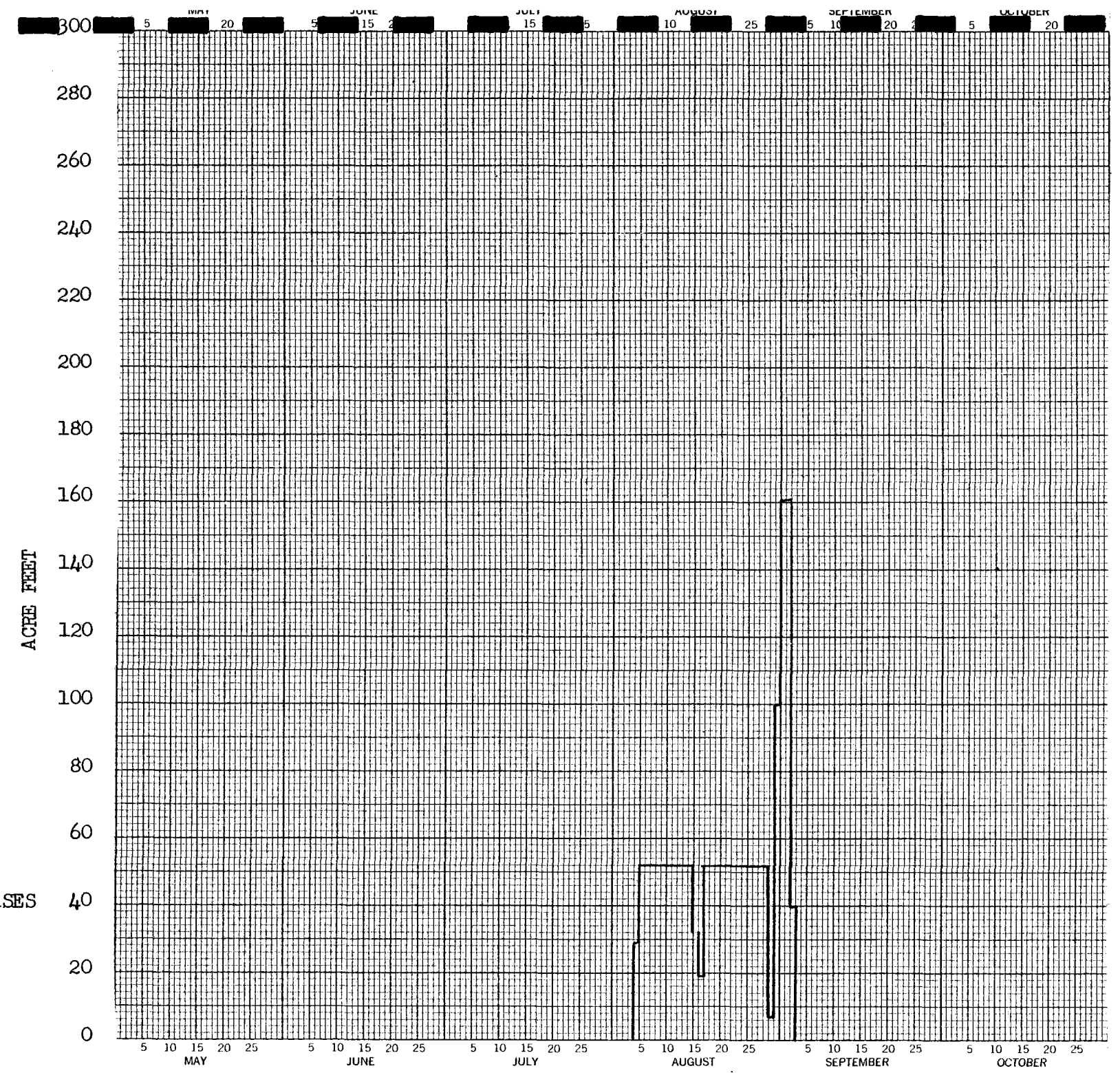
ACRE FEET

WINTER WATER
TIME AND QUANTITY RELEASES
FROM

PUEBLO RESERVOIR
1980



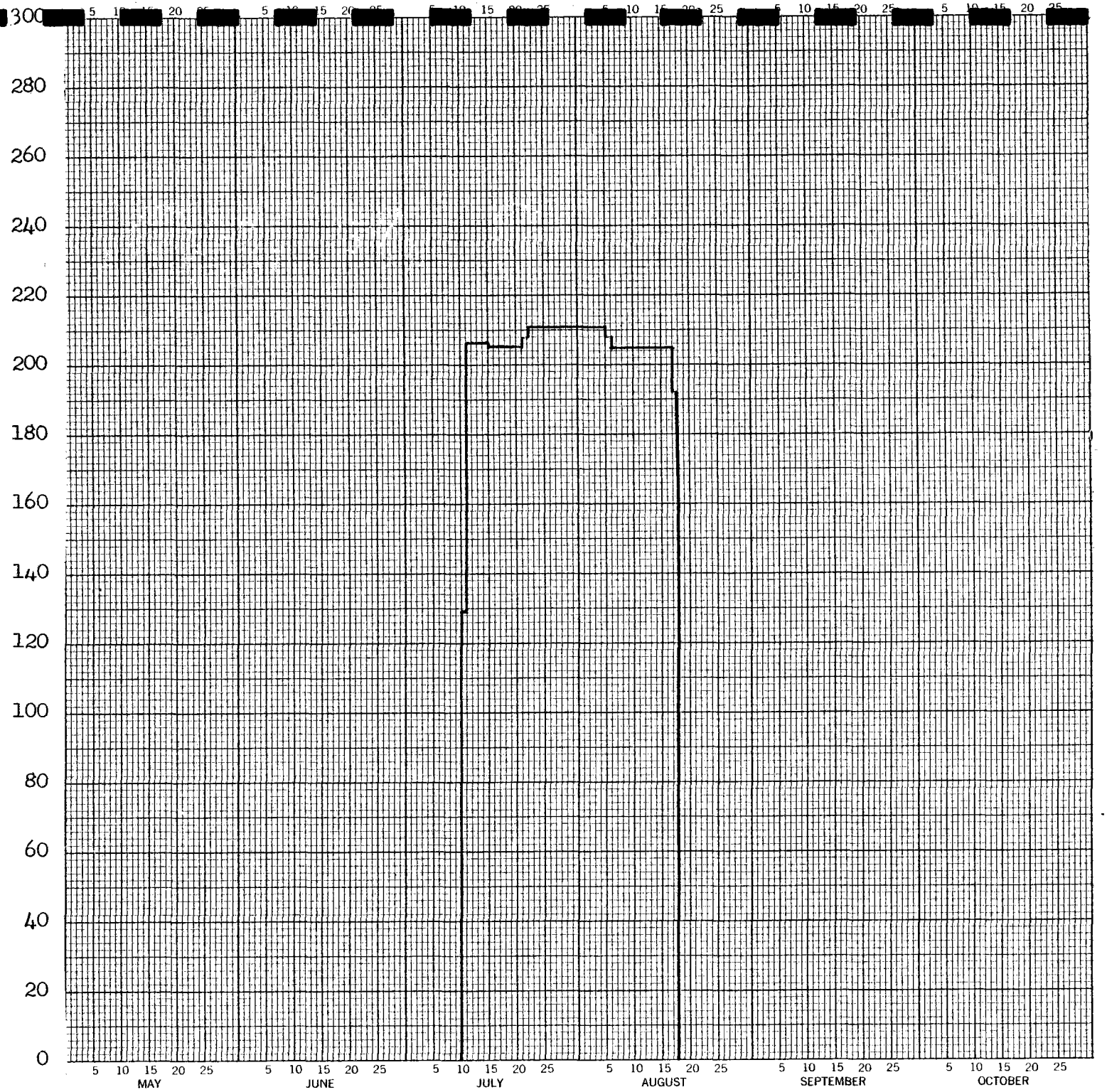
OXFORD CANAL



WINTER WATER
TIME AND QUANTITY RELEASES
FROM

PUEBLO RESERVOIR
1980

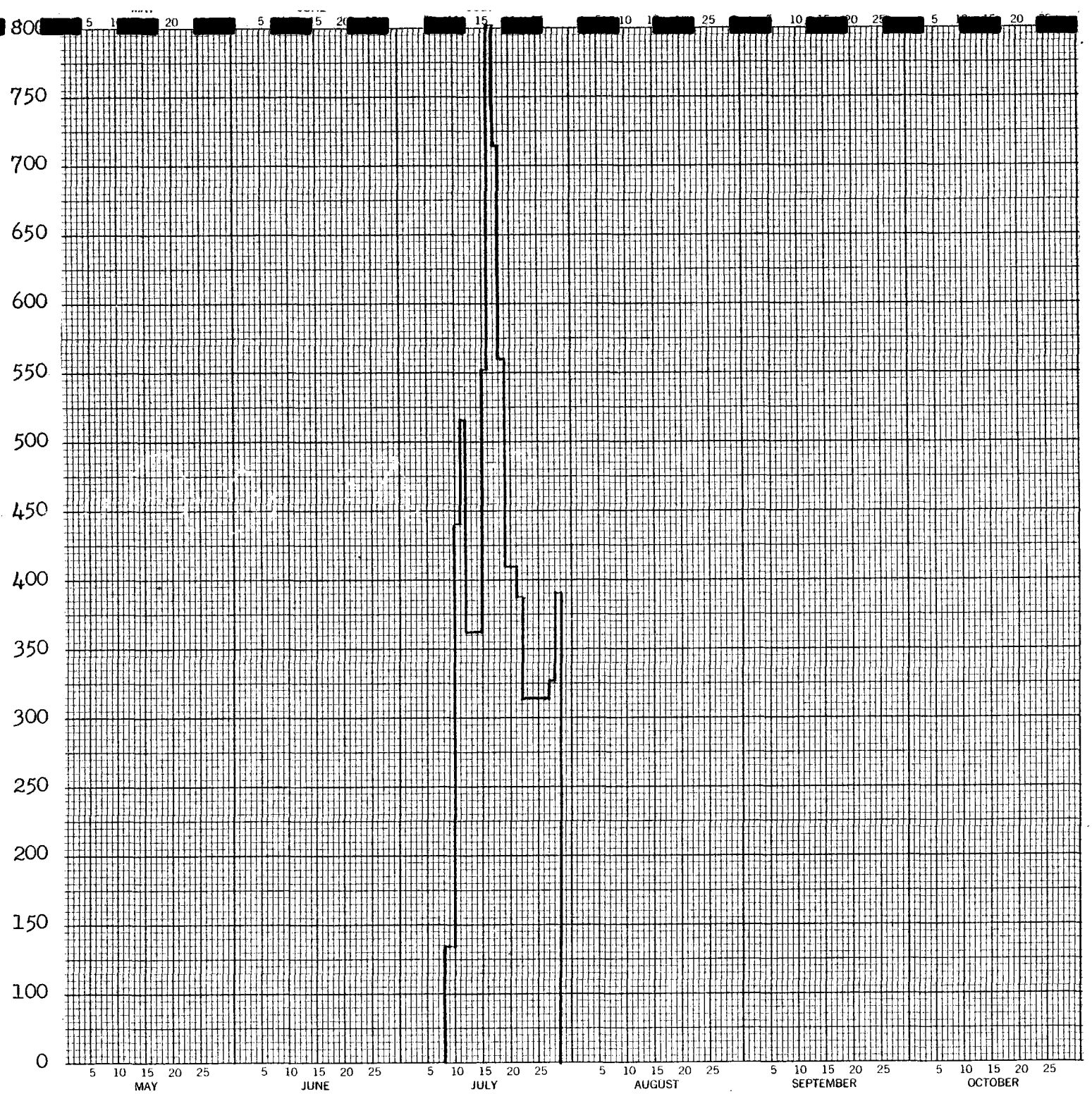
HIGH LINE CANAL



WINTER WATER
TIME AND QUANTITY RELEASES
FROM

PUEBLO RESERVOIR
1980

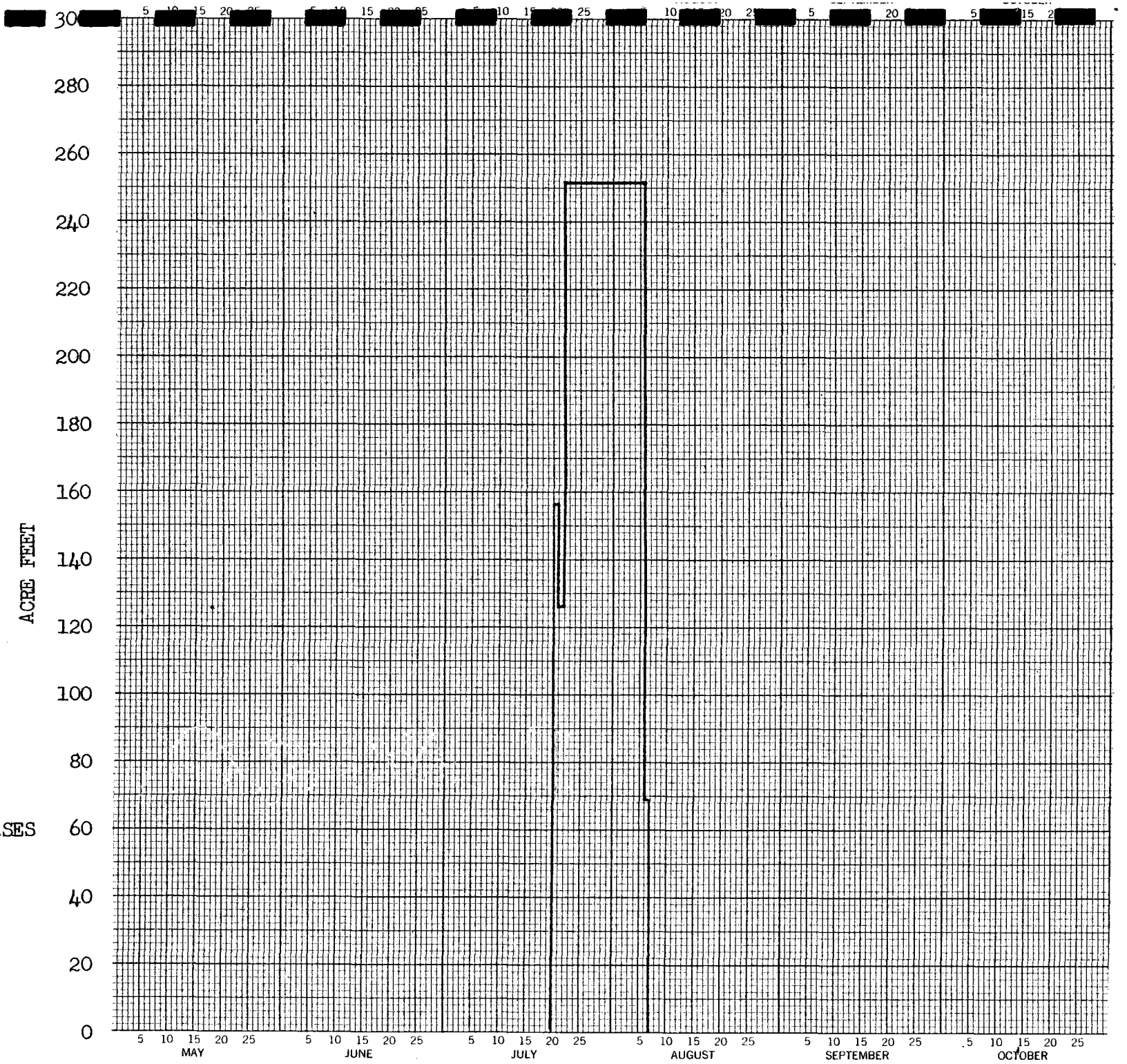
COLORADO CANAL



WINTER WATER
TIME AND QUANTITY RELEASES

FROM
PUEBLO RESERVOIR
1980

BESSEMER CANAL



WINTER WATER
TIME AND QUANTITY RELEASES
FROM

PUEBLO RESERVOIR
1980

GROUND WATER ADMINISTRATION

There were no major problems in Pumping Rules and Regulations Administration this year. This was due in part to the fact that there was so much surface water available that few wells were used. The 1948 River Call from May 19, 1980 to May 30, 1980 and from June 10, 1980 to July 7, 1980 allowed many wells that chose to do so to pump more than three days per week and still be in priority. 1980 was a most unusual year for ground water administration.

Ground water contamination is an issue of growing concern. In compliance with the State Engineer's memorandum of September 15, 1980, Division personnel have been directed to contact local sanitarians to be advised of any local ground water contamination.

In a 36 page decree, Division Two Water Court granted a Plan of Augmentation (W-4806) to Cyprus Mines Corp. The Plan calls for the construction of 25 wells, 14 stream gaging stations, and several ground water monitoring stations. When operational, the Plan will provide water for uranium mining and milling, dust control and exploration drilling.

There was one problem of an "in house use only" well being drilled too close to the leach field. While the problem is not yet resolved; an agreement with the Division of Water Resources, the Pueblo City-County Health Department and the well owner seems possible.

The Colorado Supreme Court handed down a decision that will affect Ground Water Administration state wide. The decision in State Engineer vs. Rothe Bros. states that the doctrine of Res Judicata does not preclude consideration of historic use of a previously decreed water right in determining whether the proposed change would injure other water rights.

SUMMARY OF WELLS
IRRIGATION DIVISION NO. 2

WATER DIST. NO.

TYPE OF USE

	0	1	2	3	4	5	6	7	8	TOTAL
10	24	2,618	101	73	57	11	227	10	107	3,228
11	77	867	7	9	49	6	25	5	16	1,061
12	66	561	70	57	13	13	48	3	8	839
13	27	161	41	32	0	0	29	10	4	304
14	19	1,502	376	132	54	36	855	28	57	3,059
15	38	523	47	36	3	1	113	13	21	795
16	3	172	200	77	5	21	64	3	3	548
17	2	454	625	161	35	24	969	37	57	2,364
18	2	22	54	5	0	0	10	2	7	102
19	10	86	168	26	0	12	16	7	4	320
66	0	80	267	35	3	14	572	7	12	990
67	5	652	1,442	201	37	9	1,423	10	102	3,882
TOTAL	273	7,699	3,403	843	256	147	4,361	135	399	17,516

Type of Use
(0) In House Use Only
(1) Domestic
(2) Stock
(3) Domestic & Stock
(4) Commercial
(5) Industrial
(6) Industrial
(7) Irrigation & Stock
(8) Municipal

The preceding table is of January 1977 which predates the formation of Water District 79.

NEW PERMITS ISSUED IN DIVISION 2

1 NOV 79 to 31 OCT 80

New In-House-Use Only (0)	478
Domestic (1), Stock (2), Domestic and Stock (3)	621
New Non-Tributary, Non-Exempt wells	11
Replacements for existing adjudicated wells	33
Denied applications	29
New Decfeed Non-Exempt wells (W-4801, Cyprus Mines)	25

UNDERGROUND WATER
IRRIGATION DIVISION NO. 2

Irrigation Division 2, composed of water Districts 10, 11, 12, 13, 14, 15, 16, 17, 66, 67 & 79, has 17,516 completed wells of all types in operation. Types of use are domestic, stock, domestic and stock, commercial, industrial, irrigation, irrigation and stock, and municipal. Tabulation showing the number of each type of well in each district is illustrated by the following table.

The principal aquifer area extends through a 150-mile reach of the Arkansas River Valley extending from Pueblo to the Kansas State Line. This is a valley-fill aquifer which is adjacent to, underlies, and is in hydraulic connection with, the Arkansas River. The aquifer consists of unconsolidated deposits of gravel, sand, silt anc clay. It ranges from one to fourteen miles in width and covers an area of about 500 square miles in parts of Pueblo, Otero, Crowley, Bent, and Prowers counties. The aquifer fills a "u-Shaped" trough cut into the bedrock, which consists of shale, limestone, and sandstone of Cretaceous age. About two million acre feet of water is stored in the valley-fill deposits. Summary of the hydrologic character is shown below.

UNIT	THICKNESS	PHYSICAL CHARACTER	HYDROLOGIC CHARACTER
Dune Sand	0 - 100'	Very fine to coarse. Poorly sorted sand.	Commonly not saturated but transmits water readily from the surface to underlying aquifers. Source of water for a few domestic and stock wells.
Valley-fill deposits	0 - 300'	Boulders, cobbles, gravel, sand, silt, and clay. Generally grades from fine sand near the surface to coarse sand and gravel at the base.	Principal source of water for irrigation, public supply, and industrial wells. Irrigation well yields are as much as 3,150 gpm and average 650 gpm. Aquifer furnishes water to 1,348 irrigation wells.
Pierre Shale	0 - 3,300'	Shale and sandy shale	Low permeability confining bed; acts as a barrier to vertical movement of ground water. Now known to yield water to wells.

UNIT	THICKNESS	PHYSICAL CHARACTER	HYDROLOGIC CHARACTER
Niobrara Formation	0 - 700'	Chalky and marly limestone and calcareous shale.	Low permeability to confining bed; acts as a barrier to vertical movement of ground water. A few stock wells tapping fractured limestone yield less than 5 gpm.
Carlile	1 - 200'	Calcareous shale, limestone, and sandstone.	Low permeability confining bed; acts as a barrier to vertical movement of ground water. Now known to yield water to wells.
Greenhorn	0 - 150'	Limestone and chalky shale.	Low permeability confining bed; acts as a barrier to vertical movement of ground water. A few stock wells tapping fractured limestone yield less than 5 gpm.
Graneréous Shale	0 - 200'	Gypsiferous shale and sandstone.	Low permeability confining bed; acts as a barrier to vertical movement of ground water. Now known to yield water to wells.
Dakota Sandstone	75 - 235'	Sandstone, sandy shale, siltstone, and shale.	Important source of water for domestic, stock and public water. Restricts vertical movement of water to and from the valley-fill deposits. Wells yield as much as 100 gpm and average 20 gpm.

GROUND-WATER WITHDRAWAL FROM THE
VALLEY-FILL AQUIFER BY IRRIGATION WELLS

(acre feet per year)

COUNTY	1964	1965	1966	1967	1968
Pueblo	25,000	16,000	23,000	19,000	21,000
Otero-Crowley	53,000	36,000	50,000	48,000	50,000
Bent	33,000	15,000	23,000	23,000	26,000
Prowers	74,000	45,000	34,000	42,000	55,000
TOTAL	185,000	112,000	130,000	132,000	152,000

The above statistics are from a study made prior to the inception of the Rules and Regulations, and may have been based on a pumping season of a full 110 days. If the 1968 total withdrawal figure of 152,000 acre feet was based on full yield pumping for 110 days at 24 hours per day, the 1975 withdrawal would be 3/7 of that or 65,143 acre feet.

The above study appears to be the most recent. If the reader has knowledge of more recent data and wishes to share it with the Division Engineer's Office, it would be most appreciated.

ARKANSAS RIVER COMPACT

Irrigation Division No. 2

There was a resolution adopted the 24th day of April 1980 by a special telephonic meeting which governs the operation of John Martin Reservoir. See attached Exhibit (A).

There were basically four types of water in 1980 in John Martin Reservoir as listed below:

1) Compact Water, which would be shared by Colorado Ditches and Kansas.

2) Winter Water, which was the Great Plains water. This water was divided amongst the nine ditch companies below John Martin and the State of Kansas.

3) Agreement Water, which is water stored in John Martin when the Compact Commission closed the gates, and theoretically released into Compact accounts.

4) Conservation Pool, which was trans-mountain water purchased from the City of Colorado Springs.

COMPACT WATER, WINTER WATER AND AGREEMENT WATER
AS OF JUNE 1, 1980

Kansas	33243.59 Acre Feet
Keesee	1517.71 Acre Feet
Fort Bent	6941.29 Acre Feet
Amity	25625.87 Acre Feet
Lamar	12369.02 Acre Feet
Hyde	957.72 Acre Feet
Manvel	1748.49 Acre Feet
X-Y	3249.07 Acre Feet
Buffalo	6491.21 Acre Feet
Sisson	883.99 Acre Feet
Permanent Pool	9762.26 Acre Feet

Following are tables and comments concerning the operation of John Martin Reservoir during the Water Year 1980 as submitted to the Arkansas River Compact.

RESOLUTION

CONCERNING

AN OPERATING PLAN FOR JOHN MARTIN RESERVOIR

EXHIBIT A

WHEREAS, the Arkansas River Compact Administration, hereinafter referred to as the Administration, recognizes that, because of changes in the regime of the Arkansas River, the present operation of the conservation features of John Martin Reservoir does not result in the most efficient utilization possible of the water under its control;

WHEREAS, the Administration finds that adoption of an operating plan that establishes storage accounts for Kansas, for the ditches of Colorado Water District 67, and for other Colorado ditches as provided herein may result in more efficient utilization of the water under its control; and

WHEREAS, the Administration finds that provisions of the operating plan contained herein are permitted by and in compliance with the Arkansas River Compact, hereinafter referred to as the Compact; and the Rules and Regulations; and the Bylaws adopted by the Administration;

NOW THEREFORE, BE IT RESOLVED that the Administration approves and adopts the following operating plan:

I. Definitions:

A. "Period of winter storage" consists of the period of time commencing on November 1 of each year and continuing to the first exhaustion of conservation storage during the compact year.

B. "Summer storage season" shall be the period of time commencing at the first exhaustion of conservation storage and continuing to and including the next succeeding October 31.

C. "Inflows" include all the normal accretions into John Martin Reservoir, measured or otherwise, including river flow but not including deliveries into the permanent pool or deliveries of other water as subsequently defined herein.

D. "Conservation storage" is water stored in the conservation pool that, but for the adoption of this resolution, would have comprised of the benefits arising from the construction of John Martin Reservoir.

E. "Other water" for regulation by John Martin Reservoir is water delivered into the accounts established in Section III, herein, and delivered under the authority of pre-Compact Colorado water rights. Deliveries of other water are permitted to gain increased utilization and greater beneficial use.

F. "Compact year" is the water accounting year of the Administration; it commences on November 1 of each year and extends to and includes the next succeeding October 31.

G. Except as provided herein, all words and terms used in this resolution have the meaning prescribed in Compact Article III.

II. Operating Principles:

A. Period of Winter Storage-

All inflows into John Martin Reservoir during a period of winter storage shall accrue to conservation storage. Conservation storage shall be released into the accounts specified in Subsection II D beginning at the first request for release after March 31 of account water by a Colorado Water District 67 ditch or by Kansas or beginning at 8:00 a.m. on April 7, whichever occurs first.

B. Summer Storage Season-

(1) When a runoff event occurs during the summer storage season, such that inflows into John Martin Reservoir are expected to exceed then existing irrigation requirements of the ditches in Colorado Water District 67 by at least 1,000 acre-feet, then the gates on John Martin Reservoir shall be closed commencing conservation storage except for releases of account water pursuant to Subsection II E, herein.

(2) The ditches in Colorado Water District 67 will be removed from the Colorado priority system when the sum of the flows of the Arkansas River at the Las Animas gaging station and the Purgatoire River at the Las Animas gaging station, exclusive of separate deliveries of other water under Section III, herein, indicates that conservation storage will occur.

(3) All inflows entering said reservoir during a period of conservation storage in the summer storage

season shall accrue to conservation storage. Conservation storage shall be released into the accounts specified in Section II D beginning at the first request for release of account water by a Colorado Water District 67 ditch or by Kansas or beginning 48 hours after commencement of conservation storage, whichever occurs first.

C. Exhaustion of Conservation Storage-

(1) For the purposes of Compact Article V F, the conservation pool shall be deemed exhausted whenever conservation storage has been completely released into the accounts. When this occurs, Colorado shall administer the decreed rights of water users in Colorado Water District 67 as against each other and as against all rights now or hereafter decreed to water users diverting upstream from John Martin Dam on the basis of relative priorities in the same manner in which their respective priority rights were administered before John Martin Reservoir began to operate and as though John Martin Dam had not been constructed. However, during these times, inflows shall, to the extent practical, be measured and released from the reservoir without temporary storage or averaging flows, and conservation storage may not be accumulated nor may storage in the accounts be increased except by deliveries of other water under Section III, herein.

(2) Administration in Colorado under decreed priorities shall be initiated so that ditches upstream from John Martin Reservoir shall deliver to the priorities of Colorado Water District 67 ditches water at the Arkansas River at the Las Animas gaging station coincident with the exhaustion of the conservation storage when taking the flow of all waters, including that of the Purgatoire River, into appropriate consideration.

D. Release into the Accounts-

(1) When conservation storage is being released into the accounts according to the provisions of Subsections II A or II B, herein, it shall be released at the total rate of 1,000 cfs. However, when conservation storage exceeds 20,000 acre-feet, it shall be released at the total rate of 1,250 cfs.

(2) Releases of conservation storage shall be into accounts and said releases shall be apportioned 60 percent for the accounts of the Colorado Water District 67 ditches and 40 percent for the Kansas account.

(3) The releases for the Colorado Water District 67 ditches shall be distributed into individual accounts according to the following percentages:

Fort Bent	9.90 percent
Keesee	2.30 percent
Amity	49.50 percent
Lamar	19.80 percent

Hyde	1.30 percent
Manvel	2.40 percent
X-Y & Graham	5.10 percent
Buffalo	8.50 percent
Sisson - Stubbs	1.20 percent

E. Releases Out of Accounts-

(1) Kansas and the various Colorado ditches may demand the release of water contained in their respective accounts, including those established in Section III herein, at any time at whatever rates they desire.

(2) Releases of water from the accounts, including those established in Section III herein, may be made simultaneously with releases from conservation storage into the accounts. However, such simultaneous releases cannot create deficits in those accounts.

(3) All such releases of account water from John Martin Reservoir to Colorado water users are subject to transit losses between John Martin Dam and the point of diversion from the Arkansas River, as determined by the Colorado Division Engineer, and the transit losses shall be borne by such releases.

(4) Releases of Kansas account water shall be measured at the Stateline as provided in Compact Article V E (3) allowing appropriate arrival times. If transit losses occur, those losses shall be determined by the Colorado Division Engineer and a

representative of the Kansas Division of Water Resources and shall be replenished from the Kansas transit loss account. In the event that such losses at the end of the delivery are greater than the total in the Kansas transit loss account, then the deficit shall be made up from the next available transfers of other water under Subsection III D.

(5) The water users and the responsible officials of both Colorado and Kansas shall do their utmost to achieve maximum beneficial use including calling for deliveries of Kansas account water during reasonable and favorable river conditions. When transit losses are deemed by the Colorado Division Engineer to be excessive, he shall so advise the receiving entity. Conversely, when river conditions are favorable for a delivery to Kansas, he shall so advise the Kansas Water Commissioner.

F. Evaporation charges shall be made against water stored in the accounts, including those established in Section III, herein, and the Kansas transit loss account, using formulas and procedures approved by the Colorado Division Engineer and a representative of the Kansas Division of Water Resources and using, when available, pan evaporation data provided by the Corps of Engineers. The evaporation charges shall be prorated amongst conservation storage and the accounts according to the amounts in them.

G. In the event that runoff conditions occur in the Arkansas River basin upstream from John Martin Reservoir that cause water to spill physically over the project's spillway, then water stored in the accounts granted in Section III shall spill before the accounts granted in Section II, both of which shall spill before conservation pool water. The amount of spill from the accounts shall be prorated amongst them according to the amounts in them at the beginning of spill. During times of spill, the permanent pool shall occupy flood control space as provided in the Administration's Resolution of August 14, 1976, and Public Law 89-298.

III. Other Water for Regulation by John Martin Reservoir:

A. The Amity may store such water as it could otherwise divert from the Arkansas River for storage in the Great Plains Reservoir system in its account granted in Section II, herein. This water will be in addition to water released into the Amity account under Section II, herein.

B. An account for the Fort Lyon Canal is hereby granted in John Martin Reservoir for agricultural purposes only. The Fort Lyon Canal may deliver water into said account under an approved Pueblo winter storage plan subject to the limitations that total quantity in the account at any time cannot exceed 20,000 acre-feet and that the delivery cannot include water that otherwise would have accumulated in conservation storage. The Fort Lyon may use water in this account for exchange with existing priorities. However, this account shall not be used in

any manner to increase the permanent recreation pool, either by exchange, transfer, change of use, or otherwise. In the event that water accumulated in this account has not been completely released by the end of the compact year, then that water shall become conservation storage controlled by Subsection II A, herein.

C. An account for the Las Animas Consolidated Canal Company is hereby granted in John Martin Reservoir for agricultural purposes only. The Las Animas Consolidated Canal Company may deliver water into said account under an approved Pueblo winter storage plan subject to the limitations that total quantity in the account at any time cannot exceed 5,000 acre-feet and that the delivery cannot include water that otherwise would have accumulated in conservation storage. The Las Animas Consolidated may use water in this account for exchange with existing priorities. However, this account shall not be used in any manner to increase the permanent recreation pool, either by exchange, transfer, change of use, or otherwise. In the event that water accumulated in this account has not been completely released by the end of the compact year, then that water shall become conservation storage controlled by Subsection II A.

D. Thirty-five percent of all water deliveries to John Martin Reservoir, under Subsections III A, III B, and III C, herein, during any compact year shall be transferred into the accounts for Kansas transit losses, for Kansas, and for Colorado Water District 67 ditches at

the time of delivery in the following manner: First, transfers from deliveries shall make up deficits, if any, in the Kansas transit loss account which result from Subsection II E (4), herein, and shall then also fill the said Kansas transit loss account to the amount of 1,700 acre-feet. Then, of all such water delivered in excess of this specified amount, 11 percent of those deliveries shall be transferred to the Kansas account and 24 percent of those deliveries shall be transferred to the account of the Colorado Water District 67 ditches. Transfers into the accounts for Colorado Water District 67 ditches shall be distributed according to the percentages in Subsection II D (3), herein; except the Amity shall not share in distributions of deliveries under Subsection III A, herein.

IV. A permanent recreation pool has been authorized by the August 14, 1976, Resolution of the Administration. For purposes of the Resolution, this permanent recreation pool shall be considered a separate account and deliveries made to it are not subject to the transfers provided in Subsection III D, herein. The permanent recreation pool will, however, stand its pro rata share of evaporation as provided in the Administration's Resolution of August 14, 1976.

V. In the event of injury either to entities in Colorado or to Kansas, there shall be restitution from the first account water thereafter available from the entity receiving improper benefits. The engineering committee shall quantify such injury, subject to the approval of the Administration.

VI. Adoption of this resolution does not prejudice the ability of Kansas or of any Colorado ditch to object or to otherwise represent its interest in present or future cases or controversies before the Administration or in a court of competent jurisdiction.

VII. This agreement shall be, and continue to be, in full force and effect from and after the date of execution of this resolution until March 31, 1981, and year to year thereafter subject to the following provisions:

A. Not later than November 15 of each year, the Colorado Division Engineer shall make an accounting of the operation under this resolution for the previous compact year available to the Operations Committee of the Administration and to interested parties. Either Colorado or Kansas, through its compact delegation, may then terminate this resolution on the next succeeding March 31 by giving written notice tc the Administration by February 1 of the same compact year.

B. In the event this resolution is so terminated, then entities storing water in accounts prior to such termination may utilize such water during the next irrigation season under the provisions of this resolution. Water not utilized by the following November 1 shall revert to conservation storage.

VIII. This resolution supersedes in its entirety the agreement of December 12, 1978, concerning Amity-Great Plains water and the Resolution concerning an Interim Operating Plan for John Martin Reservoir entered into on March 21, 1980. All water

delivered into the accounts established under the authorities of these two resolutions shall be forwarded and credited, without deductions, to the accounts for the same entities that are established in this operating plan.

Entered this 24th day of April, 1980, by special telephonic meeting.

Chairman
Arkansas River Compact
Administration

Secretary
Arkansas River Compact
Administration

JOHN MARTIN RESERVOIR

November 1, 1979 - October 31, 1980

The following statements concerning the operation of John Martin Reservoir during Water Year 1980 are submitted for your consideration.

Winter Storage Season

Winter Storage in John Martin Reservoir began at 0001 hour, 1 November, 1979. At that time the Conservation Pool was empty, but the Reservoir contained 5,040 A. Ft. of water in the accounts of the various ditches in Colo. Water District #67 and the State of Kansas. Winter Storage ended at 2400 hours, on March 31, 1980. During this period, 37,816 A. Ft. of Storage was accumulated (See Tables I and II).

TABLE I

Distribution of Water Stored, Nov. 1, 1979 - March 31, 1980

Acre Feet

Total Stored	Conservation Pool	Winter Water	Evaporation
37, 816.00	19,162.27	17,656.76	996.97

TABLE II

Allocation of Contents @ 2400 Hrs., March 31, 1980

Acre Feet

Agreement Water	Compact Water	Winter Water	Total
4676.97	19162.27	17656.76	41496.00

Summer Storage Season

Conservation Pool

Summer Storage began at 0001 hour April 1, 1980. At that time, the Conservation Pool contained 19,162.27 A. Ft., accumulated during Winter Storage Season. During the Summer Season, storage in the Conservation Pool totalled 242,338.33 A. Ft. This was all released into accounts in accordance with the Interim Operating Plan, adopted March 21, 1980, and, subsequently, with the Operating Plan, adopted April 24, 1980. The Conservation Pool was empty at 2400 hours, October 31, 1980, which is the end of the Compact Water Year (See Tables III & IV).

TABLE III

Summer Operation of Conservation Pool

	Contents Beginning of Month, A.Ft.	Inflow, A.Ft.*	Evaporation, A.Ft.	Release A.Ft.	Contents, End of Month A.Ft
April	19,162.27	10,733.22	204.93	29,690.56	0
May	0	128,934.49	869.55	64,127.94	63,937.00
June	63,937.00	79,407.60	1658.65	75,000.00	66,685.95
July	66,685.95	17,402.38	1430.01	74,295.00	8,363.32
August	8,363.32	3,513.02	33.38	11,842.96	0
September	0	1,441.94	0	1,441.94	0
October	0	905.68	0.73	904.95	0
TOTALS		242,338.33*	4,197.25	297,303.35	

*NOTE: This column includes 10,951.91 A. Ft. Trans-Mountain water & 4,000 A. Ft. from C.F. & I.

TABLE IV

Storage in and Releases From Conservation Pool

Beginning of Storage Hour	Day	Ending of Storage Hour	Day	Beginning of Release Hour	Day	Ending of Release Hour	Day
0001	April 1	0223	April 19	0800	April 7	0223	April 19
0223	April 19	2104	August 5	0223	April 19	2104	August 5
0900	August 16	1559	August 17	0900	August 16	1559	August 17
1700	Sept. 10	2400	Sept. 11	1700	Sept. 10	2400	Sept. 11
1000	Oct. 29	2400	Oct. 31	1308	Oct. 31	2400	Oct. 31

All Storages and Releases were authorized by the Compact Sercretary.

Winter Water Account

Storage accumulated during the Winter Season under the Great Plains Reservoir Priority amounted to 17,656.76 A. Ft. This total amount, less 85.05 A. Ft. evaporation, was transferred to the various accounts, as specified in the Interim Operating Plan, at 0001 hour, April 7.

Permanent Recreation Pool

During the latter part of April, 9,944.00 A. Ft. of water became available for storage in space for a permanent pool as authorized by Resolution of the Administration on August 14, 1976. On April 27, 52.74 A. Ft. of storage was also credited to the permanent pool under the old Muddy Creek Reservoir Decree. During Sept. 27 - 29, 400 A. Ft. of

Trans-mountain water remaining from a transit loss study was also stored in the Permanent Pool. However, the Colorado Division of Wildlife was unable to negotiate for possession of this water. Therefore, this 400 A. Ft., less 5.59 A. Ft. of Evaporation, was released to the River beginning at 0900 hours, October 9.

TABLE V

Operation of Permanent Pool

	Contents Beginning of Mo. A.FT.	Inflow, A.Ft.	Evaporation A.Ft.	Release, A.Ft.	Contents End. of Mont A.Ft.
April	0	5,158.28	7.67	0	5,150.61
May	5,150.61	4,838.46	219.45	0	9,769.62
June	9,769.62	0	265.96	0	9,503.66
July	9,503.66	0	338.50	0	9,165.16
August	9,165.16	0	400.08	0	8,765.08
September	8,765.08	400.00	293.33	0	8,871.75
October	8,871.75	0	242.68	394.41	8,234.66
TOTALS		10,396.74	1,767.67	394.41	

Releases for Irrigation

All waters stored in the Conservation Pool were first transferred to Agreement Accounts in accordance with the Interim Operating Plan dated 3/21/80, or the Operating Plan, dated 4/24/80. Water was then released upon order of the various account owners under authority granted by the Compact Sercretary and his designated representatives.

State of Kansas

Releases to the State of Kansas were made upon demand from their Agreement Account. In addition, releases were made from both the Kansas Transit Loss Account and the Sisson Ditch Account in order to assure delivery of the Kansas Demand to the measuring station at Coolidge, Kansas (See Table VI).

TABLE VI

Releases to State of Kansas, A. Ft.

	Kansas Agreement Account	Kansas Transit Loss Account	Sisson Ditch Account	Total Release to Kansas
April	5,750.00	841.66	0	6,591.66
May	750.00	0	0	750.00
June	31,066.67	638.34	1,389.66	33,094.67
July	49,600.00	0	402.75	50,002.75
August	13,411.36	0	200.40	13,611.76
September	0	0	0	0
October	0	0	0	0
TOTALS	100,578.03	1,480.00	1,992.81	104,050.84

State of Colorado

Releases to the State of Colorado were made upon individual demand of the various ditches in Colorado Water District #67. These orders were placed with the Water Commissioner for District #67, who then transmitted them to the Compact Secretary or his designated representative. Appropriate transit losses were deducted to calculate headgate diversions.

TABLE VII

Release to State of Colorado

Month	Acre Feet
April	946.84
May	12,919.95
June	37,626.93
July	42,119.63
August	23,513.41
September	8,062.30
October	9,992.76
TOTAL	135,181.82

Contents of the Reservoir at 2400 hours on October 31, 1980 was 35,395.00 A. Ft.

TABLE VIII

Allocation of Contents @ 2400 Hrs., Oct. 31, 1980

Conservation Pool	Agreement Water	Permanent Pool	TOTAL
0 A. Ft.	27,160.34 A. Ft.	8234.66 A. Ft.	35,395.00 A. Ft.

Conclusions

The 1980 Water Year produced well above-average stream flows. Consequently, storage in John Martin Reservoir was more than in any year since 1965. The Reservoir was in a storage situation continually from November 1, 1979 until August 5, 1980. The Conservation Pool was emptied for the first time on April 19, but storage was immediately declared to have begun again. Water was stored and released into accounts at the inflow rate from April 22 until May 2 when inflow exceeded the allowable release rate. Release rate from May 2 through August 5 was determined by the Operating Plan,4/24/80. Three short storage periods occurred, one each in August, September, and October.

The system of accounting for water stored in John Martin has again proved to be a positive water-management tool which resulted in a definite conservation of water.

Operation in general proved to be about as experienced in Water Year 1979, but with more ramifications. An example is the inclusion of the Permanent Recreation Pool. Acounting has become more time-consuming. Initiation of a computer system would facilitate the procedure.

Difficulties encountered still include the problem of week-end and Holiday gate changes. While the Corps of Engineers has seen that gate changes are usually made as requested, the response has been less than enthusiastic. Another problem is the outmoded system used in determining Reservoir elevations. The system includes a float-type recorder which periodically malfunctions, resulting in erroneous elevation readings. Other equipment, including inflow and outflow gages, telemarks, and radio transmitters, require constant maintenance to keep them operational. The problem with calculating evaporation losses remains the same as in 1979. Much of the problem is due to inaccurate reading of the Hook Gage on the Evaporation Pan, or failure to properly adjust for precipitation. The use of a factor at times when no Pan Evaporation is taken should be standardized.

Despite various problems encountered, the operation of the Reservoir under the 1980 Operating Plan should be viewed as a successful method of conserving the limited water supply.

PERSONNEL

Division No. 2

DIVISION OF WATER RESOURCES

NAME	POSITION	DISTRICT	MONTHS WORKED	MILEAGE	ALLOCATED
Robert W. Jesse	Division Engineer	Division 2	Full Time	15,308	12 Months
James F. Kasic	Assistant Division Engineer	Division 2	Full Time	1,007	12 Months
Kenneth J. Cooper	Assistant Division Engineer	Division 2	Full Time	1,968	12 Months
Robert Ermel	Water Commissioner	District 10	Full Time	12,684	12 Months
Bruce Smith	Water Commissioner	District 11	Full Time	13,187	12 Months
Larry Brown	Deputy Water Commissioner	District 11	151 Days	3,509	7 Months
John Jackson	Deputy Water Commissioner	District 11	129 Days	5,926	6 Months
George Wichmann	Water Commissioner	District 12	Full Time	14,754	12 Months
Louis D. Engelhart	Deputy Water Commissioner	District 12	97 Days	2,720	6 Months
Richard Sierka	Deputy Water Commissioner	District 12	67 Days	3,439	6 Months
Don Stuart	Water Commissioner	District 13	Full Time	9,055	12 Months
Richard Squire	Deputy Water Commissioner	District 13	98 Days	2,215	4 Months

NAME	POSITION	DISTRICT	MONTHS WORKED	MILEAGE	ALLOCATED
Larry Young	Water Commissioner	District 15	Full Time	12,530	12 Months
Robert Brgoch	Water Commissioner	District 16	Full Time	8,555	12 Months
George Coffee	Water Commissioner	District 17	Full Time	13,638	12 Months
Leonard Trujillo	Water Commissioner	District 18	129 Days	4,232	6 Months
Henry Marques	Water Commissioner	District 19	Full Time	12,473	12 Months
Tony Pantano	Deputy Water Commissioner	District 19	100 Days	5,620	2 Months
Lane Hackett	Water Commissioner	Dist. 66 & 67	Full Time	13,477	12 Months
Augustine Garcia	Water Commissioner	District 79	146 Days	5,100	8 Months
George Ridenour	1042 Water Commissioner	Division 2	Full Time	11,158	12 Months
Lou Schultz	Hydrographer	Division 2	Full Time	14,963	12 Months
Jim Sullivan	Hydrographer (Terminated Feb., 1980)	Division 2	Full Time	9,595	12 Months
Scott Jensen	Hydrographer	Division 2	Full Time	15,224	12 Months
William Howland	Engineering Technician	Division 2	Full Time17,553	17,553	12 Months

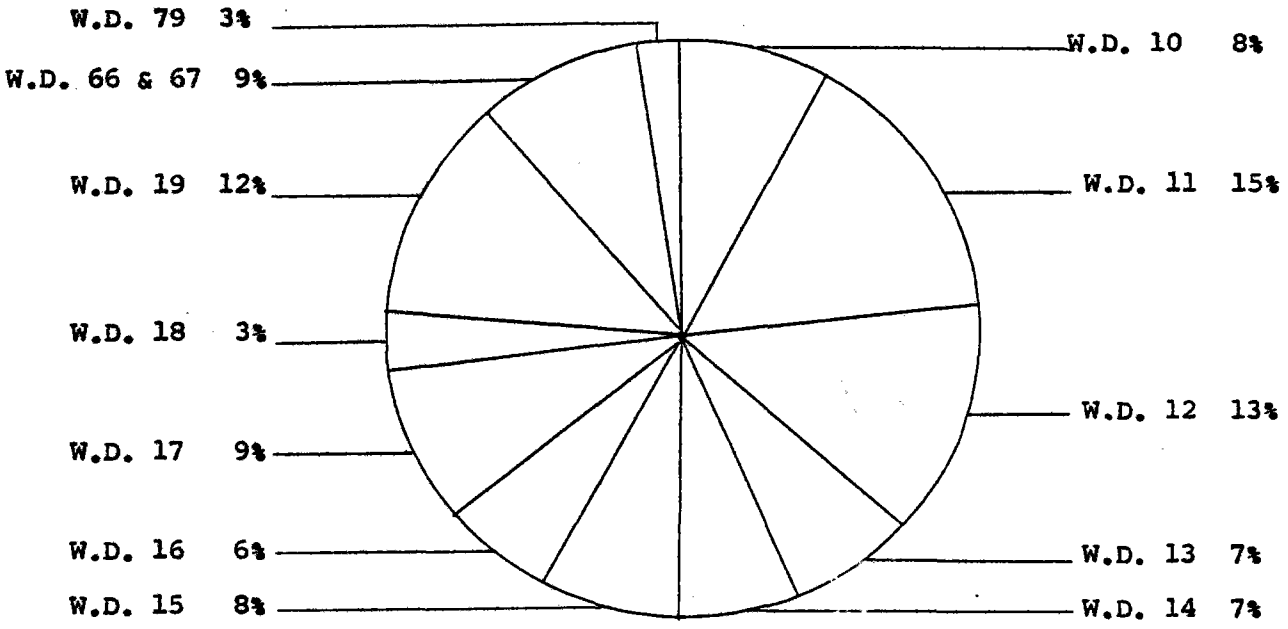
NAME	POSITION	DISTRICT	MONTHS WORKED	MILEAGE	ALLOCATED
Lynna Muse	Administrative Clerk Typist (Terminated March 1980)	Division 2	Full Time	0	12 Months
Esther Gonzales	Senior Admin. Clerk Typist (Began April 1980)	Division 2	Full Time	0	12 Months
Helen Bever	Key Punch Operator	Division 2		0	--

Paid Mileage 154,272

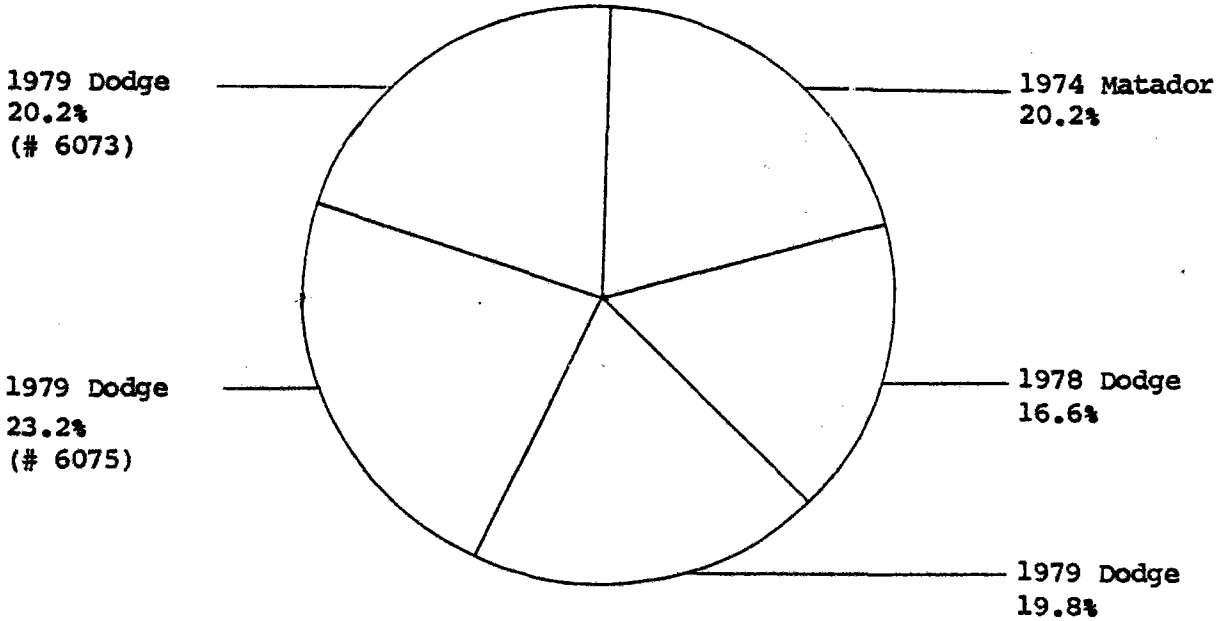
Mileage for State Vehicles 75,618

IRRIGATION DIVISION NO. 2
Water Division Mileage
July 1, 1979 thru June 30, 1980

Water Commissioners' Mileage Reimbursed



STATE-OWNED VEHICLES



154,272 = Mileage in Personal Automobiles
75,618 = Mileage in State-Owned Vehicles
229,890 = Total Mileage for Division

SOUTHEASTERN COLORADO

WATER CONSERVANCY DISTRICT
905 Highway 50 West
P. O. Box 440
Pueblo, Colorado 81002

OFFICERS

Raymond D. Nixon, President, 2519 Prairie, Colorado Springs, Colorado 80909

Keith I. Webb, Vice President, P. O. Box 992, La Junta, Colorado 81050

Leon C. Hook, Treasurer, 804 Rudd, Canon City, Colorado 81212

Charles L. Thompson, General Manager, P. O. Box 440, Pueblo, Colorado 81002

Charles J. Beise, Attorney for the District, 1600 Colorado National Building, 950 17th Street, Denver, Colorado 80202

Dr. Wendell Hutchinson, Secretary, 9104 U. S. Highway 50, Salida Colorado 81201

DIRECTORS

Keith I. Webb, P. O. Box 992, La Junta, Colorado 81050

Dr. Wendell Hutchinson, 9104 U. S. Highway 50, Salida, Colorado 81201

Robert Northrup, Box 392, Lamar, Colorado 81052

John Javernick, 3205 Hale, Canon City, Colorado 81212

Kenneth Carter, Route 1, Ordway, Colorado 81063

Raymond Nixon, 2519 Prairie, Colorado Springs, Colorado 80909

John Buebsch, 27 Oak Avenue, Colorado Springs, Colorado 90906

Glenn Everett, 10615 County Road 150, Salida, Colorado 81201

Frank Milenski, 23064 Rd. B B, La Junta, Colorado 81050

Alferd Putnam, 305 St. Vrain Avenue, Las Animas, Colorado 81054

Leon C. Hook, 804 Rudd, Canon City, Colorado 81212

Ralph Adkins, P. O. Box 316, Pueblo, Colorado 81003

David Ciruli, 1158 Lane 27 South, Pueblo, Colorado

Alvin Spady, Route 2, Las Animas, Colorado 81054

Pete Peters, Lane 14 - 3150, Manzanola, Colorado 81058

WATER RELATED ORGANIZATIONS

IRRIGATION DIVISION NO. 2

Avondale Water and Sanitation District, Roger Ruybal, Manager, P. O. Box 188, Avondale, Colorado 81022
Beaver Park Water Company, Penrose, Colorado 81240
Beehive Water Association, John F. Watters, Cheraw, Colorado 81030
Bent's Fort Water Association, 210 Main, La Junta, Colorado 81050
Boone, Colorado, Barbara Martin, Town Clerk, Boone, Colorado 81025
Town of Buena Vista, Justin Hamil, Town Admin., East Main, P. O. Box 2002, Buena Vista, Colorado 81211
City of Canon City, Jon Kolmitz, City Engineer, Box 711, Canon City, Colorado 81212
Town of Cheraw, Mayor, Cheraw, Colorado 81030
City of Colorado Springs, James Phillips, Director of Utilities, P. O. Box 1103; City of Colorado Springs, J. A. McCullough, P. O. Box 1103, City of Colorado Springs 80947
Town of Crowley, Walter Wilson, Crowley, Colorado 81033
Crowley County Pipeline, Bill McCurdy, 329 2nd, Crowley, Colorado 81033
Town of Eads, Mayor, 1201 Hickman, Eads, Colorado 81036
East End Water Company, James Jeffreys, Secretary, Route 2 Box 256, La Junta, Colorado 81050
Eureka Water Company, Ralph Read, P. O. Box 5, Rocky Ford, Colorado 81067
Fayette Water Association, John Schweizer, Jr., Secretary, Route 1, Box 311, Rocky Ford, Colorado 81067
City of Florence, Dan Gonzales, City Manager, Municipal Bldg., Florence, Colorado 81226
City of Fountain,, City Administrator, 116 So. Main, Fountain, Colorado 80817
Town of Fowler, Mayor Sterling Clark, City Hall, Fowler, Colorado 81039
Hasty Water Company, Earl Eckerett, Hasty, Colorado 81044
Holbrook Center Soft Water, J. B. Shenk, Secretary, Cheraw, Colorado 81030
Town of La Junta, Mayor C. A. Denney, 1 East 14, La Junta, Colorado 81050
City of Lamar, Francis Hiigle, City Administrator, Box 270, Lamar, Colorado 81052
City of Las Animas, Lloyde Gardner, Secretary, Route 1, Box 134, Las Animas, Colorado 81054
Town of Manzanola, Judith L. Chamblin, Town Clerk, Manzanola, Colorado 81058
Lombard Village Water Association, Levi Martinez, Attorney at Law, Thatcher Building, Pueblo, Colorado 81003
May Valley and Pleasant Valley Water Association, Ron Haggard, President, P. O. Box 315, Wiley, Colorado 81092
McClave Water Association, Dave Curley, P. O. Box 1, McClave, Colorado 81057
Town of Poncha Springs, Stuart Sexton, Mayor, Poncha Springs, Colorado 81242
Newdale-Grand Valley Company, Ernest P. Campbell, President, Route 2 Box 292, Rocky Ford, Colorado 81067
Town of Olney Springs, Charles Mc Ghee, Box 35, Olney Springs, Colorado 81062

Town of Ordway, Clair Biddison, Mayor, Ordway, Colorado 81063
Park Center Water District, George Smith, Clerk, P. O. Box 860, Canon City, Colorado 81212
Patterson Valley Water Company, David E. Smith, Treasurer, Route 1, Rocky Ford, Colorado 81067
Penrose Water District, P. O. Box 297, Penrose, Colorado 81240
96 Pipeline Company, Don Schiffer, President, Ordway, Colorado 81242
Pueblo Board of Water Works, Larry Fontaine, Executive Director, P. O. Box 400, Pueblo, Colorado 81002
Riverside Water Company, Larry Adcock, Secretary, P. O. Box 203 Swink, Colorado 81077
City of Rocky Ford, Kenneth Bruch, City Administrator, 203 South Main Street, Rocky Ford, Colorado 81067
City of Salida, A. E. Gentile, City Clerk, P. O. Box 417, Salida, Colorado 81201
Salt Creek Water and Sanitary District, Endalesio Garcia, 1022 Palo Alto Street, Pueblo, Colorado 81004
Security Water District, Thomas K. Remple, P. O. Box 5156, Security, Colorado 80911
Southside Water Association, Hans Hansen, President, R. R. 2, Box 211 La Junta, Colorado 81050
South Swink Water Company, Harold E. Spear, Secretary, P. O. Box 442, Swink, Colorado 81077
St. Charles Mesa Water Association, Lee Simpson, Treasurer, 1397 South Aspen, Pueblo, Colorado 81006
Stratmoor Hills, 1811 B Street, Stratmoor Hills, Colorado 80906 (Edward Hakes)
Town of Sugar City, Harriet Sweetnam, City Clerk, Box 69, Sugar City, Colorado 81076
Sugar City Pipeline Company, Henry Herman, Jr., Secretary, Sugar City, Colorado 81076
Town of Swink, Mayor Art O'Neal, 404 Columbia, Swink, Colorado 81077
Valley and Vroman Water Companies, Albert Stover, Secretary, Box 18 Manzanola, Colorado 81058
West Grand Valley Water, Inc., Blaine Malott, Box 182, Rocky Ford, Colorado 81067
West Holbrook Pipeline Company, Roy Wadleigh, Secretary, Route 2, Box 302, La Junta, Colorado 81050
Widefield Homes Water and Sanitation, Watson, President, 3 Widefield, Widefield, Colorado 80911
Town of Wiley, Floyd Branom, Representative, P. O. Box 128, Wiley, Colorado 81092

1980 ANNUAL SUMMARY - DIVISION 2
(Acre Feet (11-1-79 thru 10-31-80)

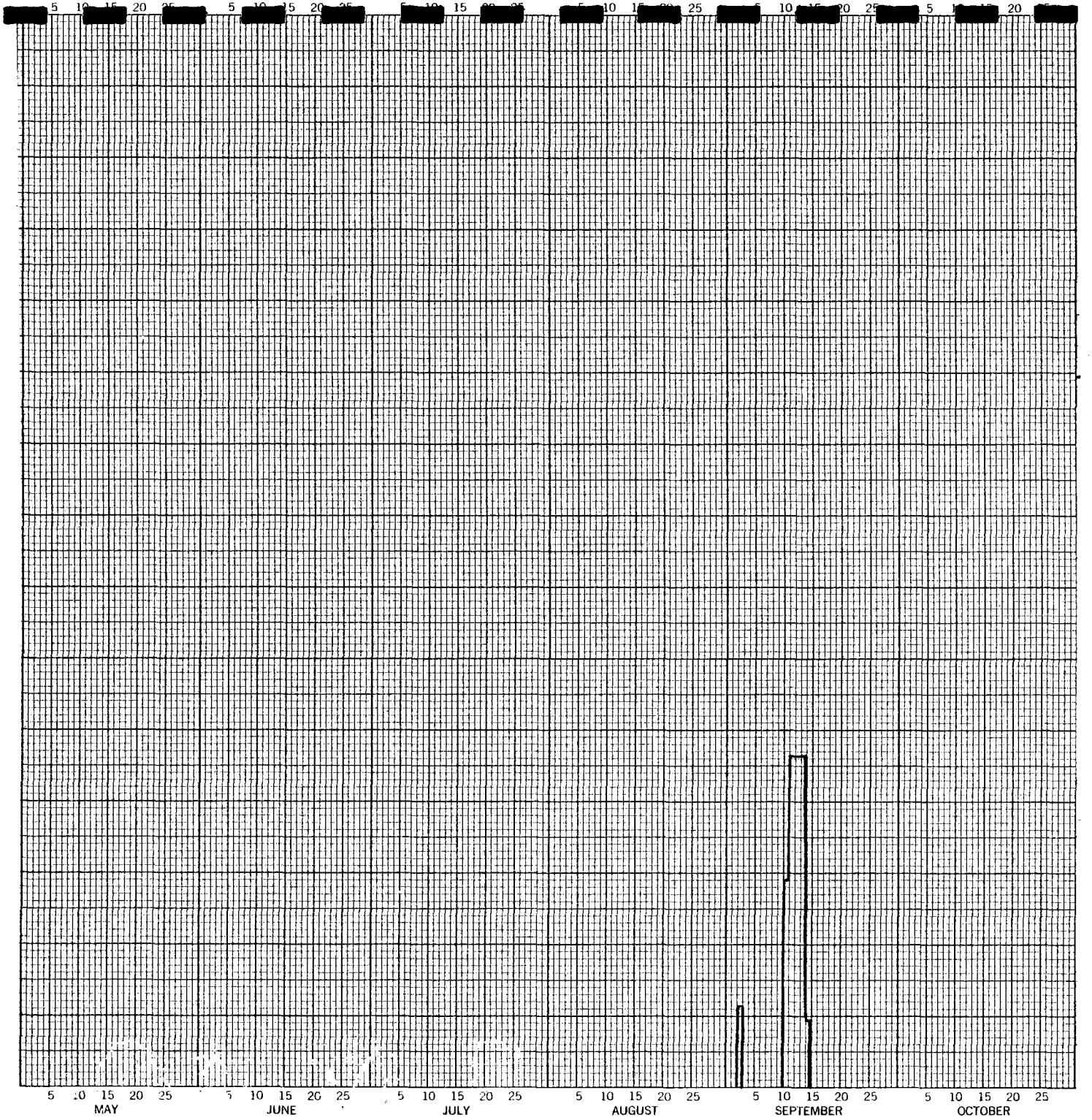
Dists.	No. Registered Non-Exempt Wells	No. Reported Ditch[1] Structures	IRRIGATION Direct Diversions To Irrigation	IRRIGATION Diversions To Storage	IRRIGATION Storage To Irrigation
10	412	72	47,014		
11	101	103	117,783		
12	85	239	182,020		
13	43	287	54,454		
14	1,100	16	308,801	37,800	37,800
15	151	86	14,396		
16	54	77	24,287		
17	1,122	31	669,616	56,980	56,980
18	19	28	11,912		
19	39	89	68,594		
66	608	11	(W.D. 66&67)		
67	1,581	35	194,830	15,760	15,760
79	46	102	25,897		
Total	5,361	1176	1,719,604	110,540	110,540

[1]Ditch structures which reported diverting water. There were many more ditches that were observed by the Water Commissioners that did not divert any water.

Dists.	CURRENT YEAR Acres Irrigated*	TRANSMOUNTAIN Diversion to Diversion Export	TRANSMOUNTAIN Diversion to Diversion Import	MUNICIPAL Direct Diversions	INDUSTRIAL Direct Diversions
10	9,931			34,440	
11	19,594	10,351**	125,204		
12	12,000			9,498	81,589
13	27,790				
14	37,000			30,141	
15	4,600				6,721
16	4,700				
17	140,000				
18	7,700				
19	30,000				
66 & 67	194,830				
79	5,000				
Other	0			10,119	48,790
Total				84,198	137,100

*Estimated based on County Assessors Offices.
**City of Aurora

OTERO DITCH



WINTER WATER
TIME AND QUANTITY RELEASES
FROM

PUEBLO RESERVOIR
1980

BEFORE THE DIVISION ENGINEER

WATER DIVISION NO. 2

STATE OF COLORADO

IN THE MATTER OF THE TABULATION LISTING ALL DECREED WATER RIGHTS AND CONDITIONAL WATER RIGHTS IN WATER DIVISION NO. 2	DIVISION ENGINEER'S FINDINGS, CONCLUSIONS AND ORDER FOR REVISION (Former Water District 12)

Pursuant to Section 37-92-402(4), C.R.S. 1973, as amended, the Division Engineer, Water Division No. 2, Robert W. Jesse, held an informal hearing November 21, 1980, in his offices at 1906 West Northern, Pueblo, Colorado, commencing at 11:00 o'clock a.m., on a Statement of Objection to 1978 Tabulation filed by the City of Victor. Present were:

Robert W. Jesse, Division Engineer and Hearing Officer;

George W. Wichman, Water Commissioner, former Water District 12;

M.E. MacDougall, of Geddes, MacDougall, Geddes & Paxton, P.C., for Objector, The City of Victor; and

Kenneth J. Cooper, Assistant Division Engineer, Water Division No. 2

The Hearing Officer reviewed the Statement of Objection dated June 5, 1980, and attachments, and copies of Model Land and Irrigation Company v. Baca Irrigating Ditch Company, 83 Colo. 131, 262 Pac. 517 (1928), and of the Adjudication Act of 1943, Chapter 190 of the 1943 Session of Laws of Colorado, at pages 613-632, which shall be included in the record of the hearing.

The Hearing Officer heard testimony and arguments from all persons who wanted to speak.

Having reviewed the documents included in the record, and having considered the testimony and arguments presented, the Division Engineer of Water Division No. 2, now makes the following findings and conclusions:

A. Before the year 1903, the statutes of Colorado "provided a special proceeding for the adjudication of priorities of right to the use of water for irrigation only, although our Constitution gives a first preference to domestic use. Sec. 6, art. XVI. In 1903 the general assembly passed an act providing for the adjudication of priorities of right to the use of water for other than irrigation purposes. Chap. 130 L. 1903 p. 297 (Secs. 1756-1759, C.L. 1921)". Model Co. v. Baca Co., supra, at page 133 of 83 Colo.

B. Following the 1903 Act, there existed, in many of the former Water Districts of the State, including former Water District 12, a dual adjudication system whereby the original and supplemental adjudications for irrigation purposes were held and maintained entirely separate from the original and supplemental adjudications for purposes other than irrigation;

C. The Adjudication Act of 1943, supra, changed the procedures from a dual system of adjudications to a single proceeding for all beneficial purposes. Section 3, Chapter 190, 1943 Session Laws of Colorado. The 1943 Act also provided, in pertinent part, as follows:

> (Section 13, Chapter 190, Page 623, 1943 Session of Laws of Colorado)
>
> "In case a prior decree has been rendered by the court in any adjudication fixing irrigation or non-irrigation priorities from the same source,

> no priority date to water rights of the class theretofore adjudicated shall be awarded in a subsequent adjudication suit earlier than the last priority date awarded in such earlier decree; and in such subsequent decree the earliest priority dates awarded shall be fixed at least one day later than the latest priority date awarded in said prior decree."

D. The decree which granted the rights which are the subject of this Objection was entered March 13, 1954, in Civil Action No. 6913, District Court, Fremont County, and included both irrigation and other-than-irrigation claims. The 1943 Adjudication Act was substantially in effect at that time, and the part of Section 13 quoted above was numbered Section 147-9-13, C.R.S. 1953.

E. The Objection by the City of Victor herein is that the 1978 Tabulation is in error in that the column "Previous Adjudication Date" shows "06/18/1948", while the Decree itself provides, in part, as follows:

> "The latest priority date awarded to any water right in general adjudication or supplemental general adjudication for irrigation purposes heretofore decreed by this Court in said Water District No. 12 of the State of Colorado was April 1, 1930, awarded in Case No. 6190 on the general docket of this Court, and anything herein contained to the contrary notwithstanding, no priority date herein or hereby awarded for irrigation purposes shall be honored by the water administrating or distributing officers except junior and inferior to priorities of right to the use of water for irrigation purposes of said last mentioned date or senior thereto.

The latest priority date awarded to any water right in any general adjudication or supplemental general adjudication for non-irrigation purposes heretofore decreed by this Court in said Water District No. 12 of the State of Colorado was September 18, 1911, awarded in Case No. 2637 on the general docket of this Court, and anything herein contained to the contrary notwithstanding, no priority date herein or hereby awarded for non-irrigation purposes shall be honored by the water administrating or distributing officers except junior and inferior to priorities of right to the use of water for non-irrigation purposes of said last mentioned date or senior thereto."

F. The date of the decree in Case No. 6190, for irrigation purposes, was June 18, 1948, however, the date of the decree in Case No, 2637, for purposes other than irrigation, was February 14, 1916;

G. The adjudication date and previous adjudication date in the 1978 Tabulation for the Cripple Creek Water System, "Adjudication Date - 02/06/1918" is incorrect and should be 02/14/1916, with no entry under "Previous Adjudication Date" since it appears from the decree of February 6, 1918, that that was an amendment, as allowed by law, of the February 14, 1916 decree;

H. The previous adjudication date in the 1978 Tabulation for the following rights, all in former Water District No. 12:

Name of Structure	Use	Amount	Typ.	Adj.	Appro. Date
Victor P/L	M	4.800CFS	S		05/06/1895
Victor Reservoir	M	202.77AF	S		08/14/1897
Bison Park Res.	M	1147.80 AF	S		06/07/1901
State Ditch No. 1	D**	2.0000CFS	S		06/01/1930
Penrose Rosemont	MD	1229.00AF	S		08/20/1930
Minnequa	N	150.00CFS	S		02/24/1933
Gould Creek	MD	10.0000CFS	S		07/01/1950

is incorrect and should be "02/14/1916".

** State Ditch No. 1 received both irrigation and domestic priorities, and should be listed twice, once for irrigation, prior adjudication date "06/18/1948", and once for domestic, prior adjudication date "02/14/1916".

I. The July 1, 1978 Tabulation should be revised to show as follows:

a. The Cripple Creek Water System, appropriation date 02/14/1916, was an original adjudication, adjudication date 02/14/1916, and no previous adjudication;

b. The Victor Pipeline, Victor Reservoir, Bison Park Reservoir, State Ditch No. 1 (domestic use portion only), Penrose Rosemont Reservoir, Minnequa, and Gould Creek rights, referred to above, have a "Previous Adjudication Date" of 02/14/1916".

THE DIVISION ENGINEER CONCLUDES the revision set forth above is proper, and necessary or advisable, and, subject to review hereof by the State Engineer, ORDERS the 1978 Tabulation so revised.

DATED this ____ day of December, 1980.

Robert W. Jesse
Division Engineer
Water Division No. 2
State of Colorado

BEFORE THE DIVISION ENGINEER

WATER DIVISION NO. 2

STATE OF COLORADO

IN THE MATTER OF THE TABULATION LISTING ALL DECREED WATER RIGHTS AND CONDITIONAL WATER RIGHTS IN WATER DIVISION 2	)))))	DIVISION ENGINEER'S FINDINGS, CONCLUSIONS AND ORDER FOR REVISION (FORMER WATER DISTRICT 13)

Pursuant to Section 37-92-402(4), CRS 1973, as amended, the Division Engineer, Water Division No. 2, Robert W. Jesse, held an informal hearing July 7, 1980, in his offices at 1906 West Northern, Pueblo, Colorado, commencing at 10:00 o'clock A.M., on a Statement of Objection to 1978 Tabulation filed by Roberts Cattle Co. and Roberts Farms, Inc. Present were:

Robert W. Jesse, Division Engineer and Hearing Officer;

Donald K. Stuart, Water Commissioner, former Water District 13;

John Roberts and M.E. MacDougall for Objectors Roberts Cattle Co. and Roberts Farms, Inc.;

Ben Kettle and William F. Mattoon who joined in the objection;

Larry Livingston of Livingston Properties who opposed the objection;

Mr. and Mrs. Les Schulze requested to appear by Mr. Livingston; and

Mr. and Mrs. Frank Schneider;

The Hearing Officer reviewed the Statement of Objection dated February 5, 1979, and attachments, a letter opposing the same from Kenneth J. Burke representing Livingston Properties dated November 9, 1979, and a letter from Donald K. Stuart, Water Commissioner, dated July 7, 1980, which all

shall be included in the record of the hearing.

The Hearing Officer heard testimony and arguments from all persons who wanted to speak, and took the matter under advisement.

Having reviewed the documents included in the record and having considered the testimony and arguments presented the Division Engineer of Water Division No. 2, now makes the following findings and conclusions:

A. The original adjudication suit in then Water District 13, (See Note 1) Water Division No. 2, State of Colorado, occurred in the District Court, County of Fremont, and the Final Order, Judgment and Decree was entered therein by the Honorable Morton S. Bailey, District Judge, on March 12, 1896;

B. The documents referred to in the 1978 tabulation as the decrees of May 13, 1893, April 16, 1894, and September 7, 1895, were not Final Decrees, but were instead interlocutory in nature, were "suggested" findings approved by the Judge and not made final until March 12, 1896, each modified prior proceedings to and until March 12, 1896, and they were all entered in the same adjudication suit.

C. These conclusions are supported by the fact that for more than eighteen years the water of former Water District No. 13 has been administered in accordance with the priorities established by the March 12, 1896 decree.

D. The July 1, 1978 tabulation should be revised to show, for all water rights in then Water District 13, that the "Original Adjudication" decrees was entered March 12, 1896, thereby amending, in the column "ADJ DATE" for all water rights in then Water District 13, the dates of "05/13/1893", "04/16/1894", and "09/07/1895" to read "03/12/1896", and to delete, in the column "PREV ADJ DATE", for all water rights in the former Water District 13, any date prior to "03/12/1896". (See Note 1)

THE DIVISION ENGINEER CONCLUDES the revision set forth above is proper, and necessary or advisable, and, subject to review hereof by the State Engineer, ORDERS the 1978 tabulation so revised.

DATED this 29th day of October, 1980.

Robert W. Jesse
Division Engineer
Water Division No. 2
State of Colorado

NOTE 1:

Water District No. 13 was originally Grape Creek and its tributaries (Laws of 1885, page 257, effective April 1, 1885). It was amended in 1893 (Laws of 1893, page 301, effective April 8, 1893) to include only that part of Grape Creek and its tributaries lying in Custer County, and again in 1895 (Laws of 1895, page 190, effective April 13, 1895).

to include Texas Creek and its tributaries and that part of Grape Creek and its tributaries lying in Custer County.

Certain water rights now listed as being in former Water District No. 13 were adjudicated when they were in Water District No. 12, original adjudication date February 3, 1894. This revision shall not affect those rights, which shall remain as listed, and as required by Section 37-92-401(1)(b)(IV).

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. 09077160
Rating Table Used Standard 15-Ft. Parshall dated 6-15-71.

Day	APR. Gage height	APR. Discharge	MAY Gage height	MAY Discharge	JUNE Gage height	JUNE Discharge	JULY Gage height	JULY Discharge	AUG. Gage height	AUG. Discharge	SEPT. Gage height	SEPT. Discharge
1				0	3.30	ō1 389	4.08	ō1 546				
2				0	a	390	4.15	561				
3				0	24	455	3.95	519				
4				0		570	3.53	433				
5				0	a	685	3.12	355				
6				0	4.67	ō1 678	2.78	295				
7				0	4.44	626	2.62	268				
8			S	ō1 5.0	4.54	648	2.58	262				
9			0.40	13	5.00	757	2.43	238				
10			.53	20	5.35	844	2.40	233				
11			.58	24	5.42	861	2.29	216				
12			.58	24	5.32	836	2.22	206				
13			.50	18	5.19	803	2.00	174				
14			.47	17	5.03	764	1.73	138				
15			.45	16	4.73	692	1.49	108				
16			.42	14	4.56	653	1.28	85				
17			.40	13	4.63	669	1.14	70				
18			.38	12	4.78	704	1.01	58				
19			.46	16	4.88	728	0.87	45				
20			.69	31	4.65	674	.82	41				
21			S	82	4.49	637	28 .68	30				
22			2.06	182	4.49	637	.58	ō1 24				
23			2.77	293	4.55	651	.52	20				
24			3.07	346	4.52	644	.43	14				
25			2.61	267	4.75	697	S	ō1 8.0				
26			2.32	221	5.14	791		0				
27			2.36	227	5.00	757		0				
28			2.77	293	4.39	614		0				
29			2.93	321	3.87	502		0				
30			2.75	290	3.89	ō1 506		0				
31	XX	XXX	3.21	ō1 372	XX	XXX		0			XX	XXX
	0		3,117.0		19,862		4,947.0		0		0	
	0		101		662		160		0		0	
	0		6,180		39,400		9,810		0		0	
	0		372		861		561		0		0	
	0		0		389		0		0		0	

No Flow

	Day.	4th	3rd	2nd	1st	Quarter	Computed	Checked	Date
							S.D. Jensen	W.M. Crosby	12-9-80

	Day.	4th	3rd	2nd	1st	Quarter	Dis.appld.	Dis.check	Date
							S.D. Jensen	W.M. Crosby	12-9-80

	Day.	4th	3rd	2nd	1st	Quarter	G.H.cupd	G.H.check	Date
							S.D. Jensen	W.M. Crosby	12-9-80

Water Year 1980

Boustead Tunnel near Heeduille, Colorado

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 1980

Drainage area Trans-Mt. Div. square miles. Water stage recorder Stevens A-35 Continuous

Max. Discharge 726 Sec. ft. at 2400 on June 15, 1980 Min. Daily Discharge 0 sec.-ft. on many days

Max. G. H. 5.77 ft. at 2200 on 6-10-80

5-discharge subdivided. Discharge estimated for "a" - no gage height record.

Day.	OCT.		NOV.		DEC.		JAN.		FEB.		MAR.	
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13		Flow		Flow		Flow		Flow		Flow		Flow
14												
15												
16		No		No		No		No		No		No
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30									XX	XXX		
31			XX	XXX					XX	XXX		
27,235.8 Total		0		0		0		0		0		0
74.6 Mean		0		0		0		0		0		0
54,020 Run-off in acre-feet		0		0		0		0		0		0
726 Maximum		0		0		0		0		0		0
0 Minimum		0		0		0		0		0		0

Calendar Year 1979

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. 09063700

Rating Table Used dated 6-15-21
STANDARD 12 FT. PARSHALL FLUME

Day.	APR. Gage height	APR. Discharge	MAY Gage height	MAY Discharge	JUNE Gage height	JUNE Discharge	JULY Gage height	JULY Discharge	AUG. Gage height	AUG. Discharge	SEPT. Gage height	SEPT. Discharge
1		0	2.84	t06 252		0		0		0		0
2			2.82	254								
3			2.81	253								
4			2.79	250								
5			2.87	261								
6			2.91	267								
7			2.88	262								
8			2.85	258								
9		0	2.82	254								
10		t10	2.79	250								
11		68	2.77	t06 247								
12		68	S	t06 107								
13	.12	68	0	0								
14		68	S	t10 21								
15	.17	68	S	t10 3.6								
16		68		0								
17	.17	68				No Flow		No Flow		No Flow		No Flow
18	.12	68										
19		68										
20	.17	t10 68										
21	S	102										
22	S	t06 207										
23		t06 265										
24		264										
25	2.88	262										
26		261										
27	.86	260										
28		258										
29		258										
30	.85	t06 258				0						0
31		XXX		0	XX	XXX		0		0	XX	XXX
		3075		2940		0		0		0		0
		102		94.8								
				267								
		0		0								

Day.	Quarter			
1	3rd			
2	2nd			
3	1st	SDJ		
4	Quarter	Computed	Checked	Date
5				
6				
7				
8				
9	4th	SDJ		
10				
11	3rd			
12				
13	2nd	SDJ		
14				
15	1st	JMS		
16	Quarter	Dis.appld.	Dis.check	Date
17				
18				
19				
20	4th	SDJ		
21				
22	3rd			
23				
24	2nd	SDJ		
25				
26	1st	JMS		
27				
28	Quarter	G.H.copd.	G.H.check	Date
29				
30	Water Year			
31	1980			
	17,169			
	46.9			
	34,050			
	267			
	0			

HOMESTAKE TUNNEL Creek near ABOVE GARLOAF DAM

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 1980

Drainage area TRANS - MTN square miles. Water stage recorder STEVENS F WEEKLY

Max. Discharge [illegible] sec. ft. at [illegible] on May 5, 1980 G. H. 2.95 ft.

Max. G. H. 2.93 +.06 ft. at [illegible] on May 5, 1980 Min. Daily Discharge 0 sec.-ft. on Many Days

S - DISCHARGE SUBDIVIDED

Day	OCT. Gage height	OCT. Discharge	NOV. Gage height	NOV. Discharge	DEC. Gage height	DEC. Discharge	JAN. Gage height	JAN. Discharge	FEB. Gage height	FEB. Discharge	MAR. Gage height	MAR. Discharge
1		0		0		0	1.57	+10 106	1.62	+10 111	2.12	+06 163
2							1.56	105	1.61	110	2.11	161
3							[14] 1.58	+10 107	1.59	108	2.11	161
4							1.61	110	1.59	108	2.10	160
5							1.61	110	1.59	108	2.10	160
6						0	1.60	109	1.59	108	2.11	161
7					S	+10 47	1.60	109	1.60	109	2.14	+06 165
8					1.52	101	1.60	109	1.60	109	0.98	+10 53
9					1.52	101	1.60	109	1.60	109		0
10					1.54	103	1.61	110	1.59	+10 108		
11					1.63	112	1.61	110	S	135		
12					1.61	110	1.61	110	2.08	+06 158		
13					1.58	107	1.61	110	2.06	156		
14					1.60	109	1.60	109	2.06	156		
15					1.58	107	1.60	[illegible]	2.08	158		
16					1.60	109	1.60	[illegible]	2.08	158		
17		NO FLOW		NO FLOW	S	[illegible]	1.61	110	2.08	158		
18					1.04	58	1.62	111	2.07	157		
19					1.04	[illegible]	1.62	111	2.07	157		
20					S	[illegible]	1.62	111	2.07	157		
21					1.61	110	1.62	111	2.08	158		
22					1.62	111	1.62	111	2.09	159		
23					1.62	111	1.62	111	2.09	159		
24					1.62	111	1.61	110	2.08	158		
25					1.62	111	1.61	110	2.08	158		
26					1.62	[illegible]	1.61	110	2.08	158		
27					1.61	110	1.61	110	2.07	157		
28					1.62	[illegible]	1.61	110	[15] 2.10	+06 160		
29					1.62	[illegible]	1.61	110	2.12	+06 163		
30				0	1.61	[illegible]	1.61	110	XX	XXX		
31		0	XX	XXX	1.58	[illegible]	1.61	+10 110	XX	XXX		0

Calendar Year 1979		OCT.	NOV.	DEC.	JAN.	FEB.	MAR.
[illegible]	Total	0	0	2505	3397	4068	1184
49.4	Mean			80.8	110	140	38.2
[illegible]	Run-off in acre-feet			4970	6740	[illegible]	[illegible]
[illegible]	Maximum			112	111	163	[illegible]
0	Minimum			0	105	108	0

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. 09073000

Rating Table Used Oct. 1, 1979 – Sept. 3, 1980
STANDARD 12 FT. PARSHALL FLUME. 6-15-71

Day.	APR. Gage height	APR. Discharge	MAY Gage height	MAY Discharge	JUNE Gage height	JUNE Discharge	JULY Gage height	JULY Discharge	AUG. Gage height	AUG. Discharge	SEPT. Gage height	SEPT. Discharge
1	.10	1.2	.13	1.8	2.89	255	2.38	189	.03	.17	.10	1.2
2	.10	1.2	.14	2.0	3.10	286	2.29	176	.03	.17	.10	1.2
3	.10	1.2	.14	2.0	3.41	333	2.20	165	.03	.17	.10	1.2
4	.10	1.2	.14	2.0	[34] S	e 469	1.91	132	.03	.17	.09	.99
5	.10	1.2	.15	2.2	4.43	506	1.53	92	.03	.17	.09	.99
6	.10	1.2	.15	2.2	4.64	545	1.20	63	.03	.17	.08	.82
7	.10	1.2	.16	2.5	4.48	515	.98	45	.03	.17	.08	.82
8	.10	1.2	S	11	4.51	521	.98	45	.03	.17	.08	.82
9	.10	1.2	S	42	4.80	575	1.37	77	.03	.17	.10	1.2
10	.10	1.2	S	20	4.93	600	1.60	99	.03	.17	.12	1.6
11	.10	1.2	S	26	S	487	1.54	93	.03	.17	.13	1.8
12	.10	1.2	S	13	3.81	397	S	65	.03	.17	.13	1.8
13	.10	1.2	.15	2.2	3.70	379	.82	34	.06	.52	.12	1.6
14	.10	1.2	.15	2.2	3.21	302	.79	32	.11	1.4	.11	1.4
15	.10	1.2	.15	2.2	2.94	262	S	17	.14	2.0	.10	1.2
16	.10	1.2	.14	2.0	2.72	232	.09	.99	.15	2.2	.10	1.2
17	.09	.99	.14	2.0	2.81	244	.09	.99	.15	2.2	.10	1.2
18	.09	.99	.14	2.0	2.94	262	.08	.82	.15	2.2	.09	.99
19	.09	.99	.15	2.2	S	160	.07	.66	.14	2.0	.09	.99
20	.09	.99	S	18	S	10	.06	.52	.14	2.0	.10	1.2
21	.09	.99	.85	36	0.12	1.6	.04	.27	.14	2.0	.12	1.6
22	.10	1.2	S	117	S	12	.03	.17	.14	2.0	.12	1.6
23	.12	1.6	2.40	190	S	46	.03	.17	.14	2.0	.12	1.6
24	.12	1.6	3.18	298	S	53	.03	.17	.13	1.8	.11	1.4
25	.12	1.6	2.74	235	S	37	.03	.17	.14	2.0	.12	1.6
26	.12	1.6	2.29	176	S	48	.03	.17	.14	2.0	.20	3.6
27	.12	1.6	2.12	156	S	42	.03	.17	.12	1.6	.19	3.3
28	.12	1.6	2.20	165	S	9.0	.03	.17	.11	1.4	.19	3.3
29	.12	1.6	2.49	201	S	4.8	.03	.17	.10	1.2	.20	3.6
30	.12	1.6	2.49	201	S	160	.03	.17	.10	1.2	.20	3.6
31	XX	XXX	2.71	230	XX	XXX	.03	.17	.10	1.2	XX	XXX
	38.15		2164.5		7753.4		1322.95		34.96		49.43	
	1.27		69.8		258		42.8		1.13		1.65	
	76		4290		15380		2630		69		98	
	1.6		298		600		187		2.2		3.6	
	.09		1.8		1.6		.17		.17		.82	

4th Qtr: SDT
3rd Qtr: SDT
2nd Qtr: SDT
1st Qtr: JMS
Quarter — Computed / Checked / Date

4th Qtr: SDT
3rd Qtr: SDT
2nd Qtr: SDT
1st Qtr: JMS
Quarter — Dis. appld. / Dis. check / Date

4th Qtr: SDT
3rd Qtr: SDT
2nd Qtr: SDT
1st Qtr: JMS
Quarter — G.H. cupd. / G.H. check / Date

Water Year 1980

IWIN LAKES TUNNEL Creek near ABC TWIN LAKES, CO

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 19 80

Drainage area TRANS-MTN DIV square miles. Water stage recorder STEVENS A-35

Max. Discharge ___ Sec. ft. at ___ on ___ G. H. 4.95 ft.

Max. G. H. 4.95 ft. at ___ on June 10, 1980 Min. Daily Discharge ___ sec.-ft. on ___

S - discharge Subdivided

Day.	OCT.		NOV.		DEC.		JAN.		FEB.		MAR.	
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Disch
1	.04	°.27	.04	°.27	.06	°.52	.06	°.52	.08	.82	.11	1.4
2	.04	.27	.04	.27	.06	.52	.07	.66	.07	.66	.11	1.4
3	.04	.27	.04	.27	.06	.52	.07	.66	.07	.66	.11	1.4
4	.04	.27	.04	.27	.06	.52	.07	.66	.08	.82	.11	1.4
5	.04	.27	.04	.27	.06	.52	.07	.66	.08	.82	.11	1.4
6	.04	.27	.04	.27	.06	.52	.07	.66	.08	.82	.11	1.4
7	.04	.27	.04	.27	.06	.52	.07	.66	.08	.82	.11	1.4
8	.04	.27	.04	.27	.06	.52	.07	.66	.08	.82	.11	1.4
9	.04	.27	.05	.39	.06	.52	.07	.66	.08	.82	.11	1.4
10	.04	.27	.05	.39	.06	.52	.07	.66	.08	.82	.10	1.2
11	.04	.27	.06	.52	.06	.52	.07	.66	.08	.82	.10	1.2
12	.04	.27	.06	.52	.06	.52	.07	.66	.09	.99	.10	1.2
13	.03	.17	.06	.52	.06	.52	.07	.66	.09	.99	.10	1.2
14	.03	.17	.07	.66	.06	.52	.07	.66	.09	.99	.10	1.2
15	.03	.17	.07	.66	.06	.52	.07	.66	.09	.99	.10	1.2
16	.03	.17	.07	.66	.06	.52	.07	.66	.09	.99	.10	1.2
17	.03	.17	.07	.66	.06	.52	.08	.82	.09	.99	.10	1.2
18	.03	.17	.07	.66	.06	.52	.08	.82	.09	.99	.10	1.2
19	.03	.17	.07	.66	.06	.52	.08	.82	.10	1.2	.10	1.2
20	.04	.27	.07	.66	.06	.52	.08	.82	.10	1.2	.10	1.2
21	.03	.17	.07	.66	.06	.52	.08	.82	.10	1.2	.10	1.2
22	.03	.17	.07	.66	.06	.52	.08	.82	.10	1.2	.10	1.2
23	.03	.17	.06	.52	.06	.52	.08	.82	.10	1.2	.10	1.2
24	.03	.17	.06	.52	.06	.52	.08	.82	.10	1.2	.10	1.2
25	.04	.27	.06	.52	.06	.52	.08	.82	.10	1.2	.10	1.2
26	.04	.27	.06	.52	.06	.52	.08	.82	.10	1.2	.10	1.2
27	.04	.27	.06	.52	.06	.52	.08	.82	.10	1.2	.10	1.2
28	.03	.17	.06	.52	.06	.52	.08	.82	.10	1.2	.10	1.2
29	.04	.27	.06	.52	.06	.52	.08	.82	.11	1.4	.10	1.2
30	.04	.27	.06	°.52	.06	.52	.08	.82	XX	XXX	.10	1.2
31	.04	°.27	XX	XXX	.06	°.52	.08	.82	XX	XXX	.10	1.2

Calendar Year 1979

23301.82	Total	7.17	14.6	16.12	32.22	31.03	
63.8	Mean	0.23	0.49	0.52	0.73	1.00	
46230	Run-off in acre-feet	14	29	32	45	59	
	Maximum	.27	.66	.52	.66	1.4	
.17	Minimum	.17	.27	.52	.66	.66	

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. 091 200
Rating Table Used dated: 6-22-71 Oct. 1, 1979 - Sept. 30, 1979
STANDARD 4 FT. PARSHALL FLUME.

APR. Gage height	APR. Discharge	MAY Gage height	MAY Discharge	JUNE Gage height	JUNE Discharge	JULY Gage height	JULY Discharge	AUG. Gage height	AUG. Discharge	SEPT. Gage height	SEPT. Discharge	Day.
	0		0		0	a	6.0	a	1.5	.10	04 .19	1
							5.0		1.5	.11	.24	2
							5.0		1.5	.10	.19	3
							4.0		1.5	.10	.19	4
							5.0		1.5	.10	.19	5
							5.0	Est. by Wtr. Comm.	1.5	.10	.19	6
					NO FLOW		4.0		1.5	.10	.19	7
							5.0		1.2	.07	.06	8
							4.0		1.1	.04	0	9
							4.0		.98	.07	.06	10
						Est. by Water Commissioner	3.0		.89	.09	.14	11
							4.0		.98	.09	.14	12
							4.0		.89	.09	.14	13
							3.0	a	.89	.09	.14	14
							4.0	.11	04 .24	.10	.19	15
							3.0	.15	.49	.10	.19	16
	NO FLOW		NO FLOW		0		3.0	.17	.64	.10	04 .19	17
				a	8.0		2.0	.17	.64	a	.19	18
					8.0		3.0	.17	.64		0	19
				Est. by Wtr. Comm.	7.0		3.0	.17	.64			20
					8.0		2.0	.17	.64			21
					8.0		2.0	.15	.49			22
					7.0		1.5	.15	.49			23
					7.0	20	04 1.5	.14	.42			24
					6.0		1.5	.15	.49			25
					7.0		1.5	.15	.49			26
					6.0		1.5	.16	.56			27
					6.0		1.5	.13	.36			28
					5.0		1.5	.10	.19			29
	0			a	6.0		1.5	.11	.24		0	30
XX	XXX		0	XX	XXX	a	1.5	.10	04 .19	XX	XXX	31

APR.	MAY	JUNE	JULY	AUG.	SEPT.	
0	0	89	96.5	25.28	2.82	223.95
0	0	2.97	3.11	.82	.094	0.61
0	0	177	191	50	5.6	444
0	0	8.0	6.0	1.5	.24	8.0
0	0	0	1.5	.19	0	0

Quarter	Computed	Checked	Date
4th			
3rd			
2nd			
1st			

Quarter	Dis.appld.	Dis.check	Date
4th			
3rd			
2nd			
1st			

Quarter	G.H.copd.	G.H.check	Date
4th			
3rd			
2nd			
1st			

Water Year 1980

LARKSPUR D. CH River at Creek near MT. HALL PASS, COLO

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 19 80

Drainage area TRANS-MTN DIV. square miles. Water stage recorder STEVENS F WEEKLY 4' P.

Max. Discharge 8.0 (Estimated) Sec. ft. at ____ on June 18, 21, 22, 1980 G. H. ____ ft.

Max. G. H. ____ ft. at ____ on ____ Min. Daily Discharge 0 sec.-ft. on May 5

5 DISCHARGE SUBDIVIDED, Discharge estimated for "a" no gage-height record

Day.	OCT.		NOV.		DEC.		JAN.		FEB.		MAR.	
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge
1	.13	.30		0		0		0		0		0
2	.13	.30										
3	.13	.30										
4	.13	.30										
5	.13	.30										
6	.12	.24										
7	.12	.24										
8	.11	.19										
9	.11	.19										
10	.13	.30										
11	.13	.30										
12	.13	.30										
13	.13	.30										
14	.14	.36										
15	.15	.42										
16	.16	.49										
17	.14	.36		NO FLOW		NO FLOW		NO FLOW		NO FLOW		NO FLOW
18	.14	.36										
19	S	1.37										
20	.15	.42										
21	.12	.24										
22	.18	.61										
23	.16	.49										
24	.14	.36										
25	.13	.30										
26	.13	.30										
27	.13	.30										
28	.12	.24										
29	.10	.14								0		
30	0	0		0					XX	XXX		
31	0	0	XX	XXX		0		0	XX	XXX		0

Calendar Year 1979

131.92	Total	10.35		0		0		0		0		0
0.36	Mean	.34		0		0		0		0		0
262	Run-off in acre-feet	21		0		0		0		0		0
3.5	Maximum	1.37		0		0		0		0		0
0	Minimum	0		0		0		0		0		0

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. 09077500
Rating Table Used Standard 8-Ft. Parshall Flume dated 6-15-71.

Day	APR. Gage height	APR. Discharge	MAY Gage height	MAY Discharge	JUNE Gage height	JUNE Discharge	JULY Gage height	JULY Discharge	AUG. Gage height	AUG. Discharge	SEPT. Gage height	SEPT. Discharge
1		↑		0	0.83	° 24	1.60	° 68	0.16	° 1.7	0.08	° 0.55
2				0	.88	26	1.56	65	.15	1.5	.07	.45
3				0	.96	30	1.47	59	.14	1.4	.07	° .45
4				0	1.12	38	1.19	42	.14	1.4	a	.45
5				0	1.30	49	1.02	33	.13	1.2		.35
6				0	1.42	56	0.89	26	.12	1.1		.35
7				0	1.44	58	.79	22	.11	0.92		.35
8				0	1.44	58	.73	19	.10	.79		.45
9				0	1.52	63	.68	17	.09	.67		2.0
10				0	1.58	67	.63	15	.08	.55		1.5
11		NO FLOW		0	1.75	79	.61	14	.08	.55	a	2.0
12				0	1.82	84	.55	12	.08	.55	° 0.12	1.1
13				0	1.93	92	.52	11	.07	.45	.11	0.92
14				0	1.99	97	.49	10	.07	.45	.10	.79
15				0	2.03	100	.44	8.6	.09	.67	.09	.67
16				0	1.98	96	.45	8.9	.11	.92	.09	.67
17				0	1.97	95	.36	6.2	.10	.79	.09	.67
18				0	1.97	95	.33	5.4	.10	.79	.07	.45
19			S	1.0	2.02	99	.29	4.4	.11	.92	.07	.45
20			a	3.0	2.05	101	.27	3.9	.11	.92	.08	.55
21				5.0	2.01	98	.25	3.4	.11	.92	.08	.55
22				7.0	2.01	98	.23	° 3.0	.09	.67	.07	.45
23				8.0	1.98	96	.23	3.0	.10	.79	.07	.45
24				9.0	1.96	94	.22	2.8	.11	.92	.07	.45
25				10	1.94	93	.23	3.0	.12	1.1	.06	.35
26			a	11	1.94	93	.23	3.0	.12	1.1	.06	.35
27			0.55	° 12	1.91	90	.21	2.6	.11	0.92	.06	.35
28			.70	18	1.86	87	.18	2.0	.10	.79	.06	.35
29			.80	22	1.76	79	.17	1.8	.10	.79	.06	° .35
30		↓	.76	21	1.66	° 72	.17	1.8	.08	.55	a	.35
31	XX	XXX	.79	° 22	XX	XXX	.17	° 1.8	.08	° .55	XX	XXX

APR.	MAY	JUNE	JULY	AUG.	SEPT.	Water Year 1980
0	140.0	2,307	478.6	27.34	19.17	2,997.76
0	4.81	76.9	15.4	0.88	0.64	8.19
0	296	4,580	949	54	38	5,950
0	22	101	68	1.7	2.0	101

Quarter	1st	2nd	3rd	4th
Computed	—	WMC	WMC	—
Checked	R. D. Walcher	R. D. Walcher	R. D. Walcher	R. D. Walcher
Date	12-11-80	12-11-80	12-11-80	12-11-80

Quarter	1st	2nd	3rd	4th
Dis. appld.	J.M.S., SDJ. &	J.M.S., SDJ. &	J.M.S., SDJ. &	G.E.B.
Dis. check	—	WMC	WMC	—
Date	12-8-80	12-8-80	12-8-80	12-8-80

Quarter	1st	2nd	3rd	4th
G.H. copd.	J.M.S.	J.M.S.	S.D.J.	S.D.J.
G.H. check	G. E. Brees	G. E. Brees	G. E. Brees	G. E. Brees
Date	11-28-80	11-28-80	11-28-80	11-28-80

Water Year 1980

BOSK-IVANHOE TUNNEL near MALTA COLO

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending Sep[illegible]

Drainage area Trans-Mt. Div. square miles. Water stage recorder Stevens F Weekly

Max. Discharge [illegible] sec. ft. at [illegible] on [illegible]

Max. G. H. 2.08 ft. at 0900 on 6-20-80 Min. Daily Discharge [illegible] sec.-ft. on [illegible]

S-discharge subdivided. Discharge estimated for "a"-no gage height record.

Day.	OCT.		NOV.		DEC. 1979		1980 JAN.		FEB.		MAR.	
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge
1	0.08	oz 0.35	0.08	oz 0.35								
2	.08	.35	a	.35								
3	.08	.35		.35								
4	.08	.35		.35								
5	.08	.35		.35								
6	.08	.35		.35								
7	.08	.35		.35								
8	.08	.35		.35								
9	.08	.35		.35								
10	.08	.35		.35								
11	.08	.35		.35								
12	.08	.35		.35								
13	.08	.35		.35								
14	.08	.35		.35								
15	.08	.35	a	0.20								
16	.08	.35		0								
17	.08	.35		0								
18	.08	.35		0								
19	.08	.35		0								
20	.08	.35		0								
21	.08	.35		0								
22	.09	.45		0								
23	.09	.45		0								
24	.09	.45		0								
25	.09	.45		0								
26	.09	.45		0								
27	.09	.45		0								
28	.09	.45		0								
29	.08	.35		0								
30	.08	.35		0					XX	XXX		
31	.08	oz .35	XX	XXX					XX	XXX		
3361.23	Total		11.55		5.10	0		0		0		0
9.21	Mean		0.37		0.17	0		0		0		0
6,670	Run-off in acre-feet		23		10	0		0		0		0
113	Maximum		0.45		0.35	0		0		0		0
0	Minimum		0.35		0	0		0		0		0

Calendar Year 1979

FLOW NO FLOW NO FLOW NO FLOW

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. 09073000

Rating Table Used Oct. 1, 1979 – Sept. 3, 1980
STANDARD 12 FT. PARSHALL FLUME. 6-15

Day.	APR. Gage height	APR. Discharge	MAY Gage height	MAY Discharge	JUNE Gage height	JUNE Discharge	JULY Gage height	JULY Discharge	AUG. Gage height	AUG. Discharge	SEPT. Gage height	SEPT. Discharge
1	.10	1.2	.13	1.8	2.89	255	2.38	187	.03	.17	.10	1.2
2	.10	1.2	.14	2.0	3.10	286	2.29	176	.03	.17	.10	1.2
3	.10	1.2	.14	2.0	3.41	333	2.20	165	.03	.17	.10	1.2
4	.10	1.2	.14	2.0	[34] S	o 469	1.91	132	.03	.17	.09	.99
5	.10	1.2	.15	2.2	4.43	506	1.53	92	.03	.17	.09	.99
6	.10	1.2	.15	2.2	4.64	545	1.20	63	.03	.17	.08	.82
7	.10	1.2	.16	2.5	4.48	515	.98	45	.03	.17	.08	.82
8	.10	1.2	S	11	4.51	521	.98	45	.03	.17	.08	.82
9	.10	1.2	S	42	4.80	525	1.37	77	.03	.17	.10	1.2
10	.10	1.2	S	20	4.93	600	1.60	99	.03	.17	.12	1.6
11	.10	1.2	S	26	S	489	1.54	93	.03	.17	.13	1.8
12	.10	1.2	S	13	3.81	397	S	65	.03	.17	.13	1.8
13	.10	1.2	.15	2.2	3.70	379	.82	34	.06	.52	.12	1.6
14	.10	1.2	.15	2.2	3.21	302	.79	32	.11	1.4	.11	1.4
15	.10	1.2	.15	2.2	2.94	262	S	17	.14	2.0	.10	1.2
16	.10	1.2	.14	2.0	2.72	232	.09	.99	.15	2.2	.10	1.2
17	.09	.99	.14	2.0	2.81	244	.09	.99	.15	2.2	.10	1.2
18	.09	.99	.14	2.0	2.94	262	.08	.82	.15	2.2	.09	.99
19	.09	.99	.15	2.2	S	160	.07	.66	.14	2.0	.09	.99
20	.09	.99	S	18	S	10	.06	.52	.14	2.0	.10	1.2
21	.09	.99	.85	36	0.12	1.6	.04	.27	.14	2.0	.12	1.6
22	.10	1.2	S	117	S	12	.03	.17	.14	2.0	.12	1.6
23	.12	1.6	2.40	190	S	46	.03	.17	.14	2.0	.12	1.6
24	.12	1.6	3.18	298	S	53	.03	.17	.13	1.8	.11	1.4
25	.12	1.6	2.74	235	S	37	.03	.17	.14	2.0	.12	1.6
26	.12	1.6	2.29	176	S	48	.03	.17	.14	2.0	.20	3.6
27	.12	1.6	2.12	156	S	42	.03	.17	.12	1.6	.19	3.3
28	.12	1.6	2.20	165	S	9.0	.03	.17	.11	1.4	.19	3.3
29	.12	1.6	2.49	201	S	4.8	.03	.17	.10	1.2	.20	3.6
30	.12	1.6	2.49	201	S	160	.03	.17	.10	1.2	.20	3.6
31	XX	XXX	2.71	230	XX	XXX	.03	.17	.10	1.2	XX	XXX
	38.15		2164.5		7753.4		1327.95		34.96		49.43	
	1.27		69.8		258		42.8		1.13		1.65	
	76		4290		15380		2630		69		98	
	1.6		298		600		187		2.2		3.6	
	.09		1.8		1.6		.17		.17		.82	

Day.	4th	3rd	2nd	1st	Quarter
1					
2					
3					
4					
5				JMS	
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16				JMS	
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27				JMS	
28					
29					
30					
31					

Computed
Checked

Dis.appld.
Dis.check
Date

G.H.copd.
G.H.check
Date

Water Year 1980

TWIN LAKES TUNNEL Creek near ABOVE TWIN LAKES, COLO.

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 1980

Drainage area TRANS-MTN DIV. square miles. Water stage recorder STEVENS A-35

Max. Discharge ___ Sec. ft. on ___ G. H. 4.95 ft. on June 10, 1980

Max. G. H. 4.95 ft. at ___ on June 10, 1980 Min. Daily Discharge ___ sec.-ft. on ___

S - discharge Subdivided

Day	OCT.		NOV.		DEC.		JAN.		FEB.		MAR.	
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge
1	.04	°.27	.04	°.27	.06	°.52	.06	°.52	.08	.82	.11	1.4
2	.04	.27	.04	.27	.06	.52	.07	.66	.07	.66	.11	1.4
3	.04	.27	.04	.27	.06	.52	.07	.66	.07	.66	.11	1.4
4	.04	.27	.04	.27	.06	.52	.07	.66	.08	.82	.11	1.4
5	.04	.27	.04	.27	.06	.52	.07	.66	.08	.82	.11	1.4
6	.04	.27	.04	.27	.06	.52	.07	.66	.08	.82	.11	1.4
7	.04	.27	.04	.27	.06	.52	.07	.66	.08	.82	.11	1.4
8	.04	.27	.04	.27	.06	.52	.07	.66	.08	.82	.11	1.4
9	.04	.27	.05	.39	.06	.52	.07	.66	.08	.82	.11	1.4
10	.04	.27	.05	.39	.06	.52	.07	.66	.08	.82	.10	1.2
11	.04	.27	.06	.52	.06	.52	.07	.66	.08	.82	.10	1.2
12	.04	.27	.06	.52	.06	.52	.07	.66	.09	.99	.10	1.2
13	.03	.17	.06	.52	.06	.52	.07	.66	.09	.99	.10	1.2
14	.03	.17	.07	.66	.06	.52	.07	.66	.09	.99	.10	1.2
15	.03	.17	.07	.66	.06	.52	.07	.66	.09	.99	.10	1.2
16	.03	.17	.07	.66	.06	.52	.07	.66	.09	.99	.10	1.2
17	.03	.17	.07	.66	.06	.52	.08	.82	.09	.99	.10	1.2
18	.03	.17	.07	.66	.06	.52	.08	.82	.09	.99	.10	1.2
19	.03	.17	.07	.66	.06	.52	.08	.82	.10	1.2	.10	1.2
20	.04	.27	.07	.66	.06	.52	.08	.82	.10	1.2	.10	1.2
21	.03	.17	.07	.66	.06	.52	.08	.82	.10	1.2	.10	1.2
22	.03	.17	.07	.66	.06	.52	.08	.82	.10	1.2	.10	1.2
23	.03	.17	.06	.52	.06	.52	.08	.82	.10	1.2	.10	1.2
24	.03	.17	.06	.52	.06	.52	.08	.82	.10	1.2	.10	1.2
25	.04	.27	.06	.52	.06	.52	.08	.82	.10	1.2	.10	1.2
26	.04	.27	.06	.52	.06	.52	.08	.82	.10	1.2	.10	1.2
27	.04	.27	.06	.52	.06	.52	.08	.82	.10	1.2	.10	1.2
28	.03	.17	.06	.52	.06	.52	.08	.82	.10	1.2	.10	1.2
29	.04	.27	.06	.52	.06	.52	.08	.82	.11	1.4	.10	1.2
30	.04	.27	.06	.52	.06	.52	.08	.82	XX	XXX	.10	1.2
31	.04	°.27	XX	XXX	.06	°.52	.08	.82	XX	XXX	.10	1.2
Calendar Year 1979												
23301.82	Total	7.17		14.6		16.12		22.22		31.03		31.0
63.8	Mean	0.23		0.49		0.52		0.73		1.00		1.03
46230	Run-off in acre-feet	14		29		32		45		58		77
6[illegible]	Maximum	.27		.66		.66		.82		1.4		1.4
.12	Minimum	.17		.27		.52		.66		.66		1.2

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. 09061500

Rating Table Used Standard 6-ft. Parshall Flume dated 6-22-71

Day.	APR. Discharge	MAY Gage height	MAY Discharge	JUNE Gage height	JUNE Discharge	JULY Gage height	JULY Discharge	AUG. Gage height	AUG. Discharge	SEPT. Gage height	SEPT. Discharge
1			0	0.59	03 9.5	0.60	03 9.8	0.19	01 1.6	0.06	° 0.27
2			0	.65	03 11	.59	9.5	.19	1.6	.08	.43
3			0	[18] .74	04 14	.57	03 9.0	.18	1.4	.09	52
4			0	.87	18	.52	02 7.9	.17	1.3	.09	52
5			0	.95	21	.47	6.7	.17	1.3	.08	.43
6			0	.97	21	.43	5.8	.16	1.2	.08	.43
7			0	.94	20	.42	5.6	.15	1.0	.07	.35
8			0	1.05	24	.41	5.4	.16	1.2	.10	° .61
9			0	1.19	30	.39	4.9	.15	1.0	.12	01 .71
10			0	1.32	36	.38	4.7	.14	0.93	.11	° .71
11			0	1.39	39	.42	5.6	.13	.82	.10	.61
12			0	1.41	40	.42	5.6	.13	.82	.10	.61
13			0	1.35	37	.39	4.9	.14	.93	.08	° .43
14			0	1.26	33	.36	4.3	.15	1.0	a	.43
15			0	1.16	29	.31	02 3.3	.18	1.4	0.09	° .52
16			0	1.12	27	.28	01 3.0	.15	1.0	.08	.43
17			0	1.15	04 28	.28	30	.14	0.93	.08	° .43
18			0	a	28	.26	26	.13	.82	a	.35
19			0	a	27	.25	2.5	.13	.82	0.07	° .35
20			0	1.07	04 25	.24	2.3	.12	.71	S	V 1.4
21			0	1.01	23	.24	2.3	.12	.71	0.14	01 0.93
22			0	0.98	22	[20] .23	01 2.1	.12	.71	.06	° .27
23			0	.98	22	.22	2.0	.12	71	S	° .03
24		S	02 2.5	.93	20	.25	2.5	.13	.82		0
25		a	4.0	.91	19	.25	2.5	.14	93		0
26			4.0	.84	04 17	.23	2.1	.13	.82		0
27		a	4.0	a	15	.21	1.8	.12	01 71		0
28		0.47	b 5.0	0.62	03 10	.20	1.7	.10	0 61		0
29		.52	b 7.0	.63	11	.20	1.7	.08	43		0
30		.51	02 7.7	.61	03 10	.20	1.7	.10	.61		0
31	XXX	.55	03 8.5	XX	XXX	.19	01 1.6	.07	35	XX	XXX
	0		42.7		686.5		128.4		29.19		11.77
	0		1.38		22.9		4.14		0.94		0.39
	0		85		1,360		255		58		23
	0		85		40		2.8		1.6		1.4

Quarter	4th	3rd	2nd	1st	Computed	Checked	Date
		Crosby	M. D.	W. R.		Walker	12-N-80

Quarter	4th	3rd	2nd	1st	Dis. appld.	Dis. check	Date
	GEB	Crosby	M.	W.	JMS		12-8-80

Quarter	4th	3rd	2nd	1st	G.H. coput.	G.H. check	Date
	SDJ	SDJ	JMS	JMS		G. E. Brees	11-26-80

Water Year 1980

No Flow

COLUMBINE DITCH near FREMONT PASS, COLO.

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 1980

Drainage area Trans-Mt. Div. square miles. Water stage recorder Stevens F Weekly

Max. Discharge 60 sec. ft. at 1700 Min. Discharge 0 sec.-ft. on Many days

Max. G. H. 1.81 ft. at 1900 on 6-11-80 Min. Daily Discharge 0 sec.-ft. on days

5-discharge subdivided. V-variable shift. Discharge estimated for a"-no gage height record and"b"-ice effect.

Calendar Year 1979

Day.	OCT. Gage height	OCT. Discharge	NOV. Gage height	NOV. Discharge	DEC. 1979 Gage height	DEC. 1979 Discharge	1980 JAN. Gage height	JAN. Discharge	FEB. Gage height	FEB. Discharge	MAR. Gage height	MAR. Discharge
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13		No Flow		No Flow		No Flow		No Flow		No Flow		No Flow
14												
15												
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30									XX	XXX		
31			XX	XXX					XX	XXX		

		OCT.	NOV.	DEC.	JAN.	FEB.	MAR.
1027.50	Total	0	0	0	0	0	0
2.82	Mean	0	0	0	0	0	0
2,040	Run-off in acre-feet	0	0	0	0	0	0
38	Maximum	0	0	0	0	0	0
0	Minimum	0	0	0	0	0	0

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. 09062500

Rating Table Used Standard 6-ft. Parshall Flume dated 6-22-71

Day	APR. Gage height	APR. Discharge	MAY Gage height	MAY Discharge	JUNE Gage height	JUNE Discharge	JULY Gage height	JULY Discharge	AUG. Gage height	AUG. Discharge	SEPT. Gage height	SEPT. Discharge
1				0	1.07	0 27	0.83	+01 18	0.21	+02 2.3	0.09	+01 0.61
2				0	1.10	28	.81	18	.21	2.3	.08	.52
3				0	1.21 (29)	0 32	.79	+01 17	.21	2.3	.08	.52
4				0	1.37	40	.70	+02 14	.19	2.0	.08	.52
5				0	1.52	47	.63	12	.18	1.8	.07	.43
6				0	1.53	47	.58	11	.16	1.6	.07	.43
7				0	1.49	45	.58	11	.15	1.4	.07	.43
8				0	1.63	52	.60	11	.15	1.4	.08	+01 .52
9				0	1.83	63	.55	9.8	.15	+02 1.4	.16	+02 1.6
10				0	1.97	71	.51	8.7	.13	+01 1.0	.12	+01 0.93
11				0	2.01	73	.52	9.0	.12	0.93	.16	+02 1.6
12				0	1.89	66	.54	9.5	.12	.93	.11	+01 0.82
13				0	1.81	62	.48	7.9	.11	.82	.10	.71
14				0	1.70	56	.43	+02 6.7	.12	+01 .93	.08	.52
15				0	1.57	49	.40	+03 6.2	.17	+02 1.7	.08	.52
16				0	1.47	44	.37	5.6	.14	+02 1.3	.09	.61
17				0	1.43	42	.36	5.4	.12	+01 0.93	.09	.61
18				0	1.44	43	.34	4.9	.12	.93	.08	.52
19				0	1.42	42	.33	4.7	.11	.82	.07	.43
20				0	1.35	39	.30	4.1	.11	.82	.08	.52
21				0	1.28	36	.29 (30)	3.9	.11	.82	.07	+01 .43
22				0	1.22	33	.27	+03 3.5	.10	.71	.05	0 .20
23			S	+01 8.0	1.20	32	.27	3.5	.09	.61	.04	.14
24			0.78	16	1.16	30	.29	3.9	.12	+01 .93	.03	.09
25			.73	15	1.11	28	.33	4.7	.19	+02 2.0	.02	.05
26			.73	15	1.13	29	.30	4.1	.14	+02 1.3	S	0 .01
27			.74	15	1.08	0 27	.24	3.0	.12	+01 0.93		0
28			.85	19	0.95	+01 22	.23	2.8	.11	.82		0
29			.94	22	.86	19	.23	2.8	.10	.71		0
30			.93	+01 22	.84	+01 18	.23	2.8	.10	.71		0
31	XX	XXX	1.03	0 25	XX	XXX	.23	+03 2.8	.11	+01 .82	XX	XXX
	0			157.0		1,242		232.3		37.97		14.29
	0			5.06		41.4		7.49		1.22		0.48
	0			311		2,460		461		75		28
	0			25		73		18		2.3		1.6
	0			0		18		2.6		0.61		0

No Flow

Quarter	4th	3rd	2nd	1st
Computed		W. M.	R. D.	
Checked		Crosby	Walker	
Date		12-1-80		

Quarter	4th	3rd	2nd	1st
Dis.appld.		G.E.B.	S.J.T. &	
Dis.check		Crosby	W M	
Date		12-9-80		

Quarter	4th	3rd	2nd	1st
G.H.copd.	S.D.I.	S.D.I.	T.M.S.	T.M.S.
G.H.check		G.E. Bree S		G.E. Bree S
Date		11-26-80		

Water Year 1980

WURTZ DITCH near TENNESSEE PASS, COLORADO

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 1980

Drainage area *Trans-Mt. Div* square miles. Water stage recorder *Stevens F Weekly*

Max. Discharge *96* Sec. ft. at *2000* on *June 10, 1980* G. H. *2.27[?]* ft.

Max. G. H. *2.39* ft. at *2000* on *6-10-80* Min. Daily Discharge ____ sec.-ft. on ____

S-discharge subdivided

Day	OCT. Gage height	OCT. Discharge	NOV. Gage height	NOV. Discharge	DEC. *1979* Gage height	DEC. Discharge	*1980* JAN. Gage height	JAN. Discharge	FEB. Gage height	FEB. Discharge	MAR. Gage height	MAR. Discharge
1												
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15		*No Flow*		*No Flow*		*No Flow*		*No Flow*		*No Flow*		*No Flow*
16												
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29												
30									XX	XXX		
31			XX	XXX					XX	XXX		

Calendar Year 1979		OCT.	NOV.	DEC.	JAN.	FEB.	MAR.
2,172.72	Total	0	0	0	0	0	0
5.95	Mean	0	0	0	0	0	0
4,310	Run-off in acre-feet	0	0	0	0	0	0
70	Maximum	0	0	0	0	0	0
0	Minimum	0	0	0	0	0	0

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. ____

Rating Table Used ____ *STANDARD 6 FT. PARSHALL FLUME*

APR. Gage height	APR. Discharge	MAY Gage height	MAY Discharge	JUNE Gage height	JUNE Discharge	JULY Gage height	JULY Discharge	AUG. Gage height	AUG. Discharge	SEPT. Gage height	SEPT. Discharge	Day.
	0		0	0.38	5.1	0.35	4.5	0.10	0.6	.05	0.2	1
				.41	5.8	.33	4.1	.10	0.6	.05	0.2	2
				.46	7.0	.32	3.9	.10	0.6	.05	0.2	3
				.53	8.7	.29	3.3	.08	0.4	.05	0.2	4
				.61	11	[illegible]	2.8	.09	0.5	.05	0.2	5
				.65	12	.26	2.8	.08	0.4	.04	0.1	6
				.63	13	.24	2.5	.08	0.4	.05	0.2	7
				.75	15	.24	2.5	.08	0.4	.09	0.5	8
				.81	17	.23	2.3	.08	0.4	.13	0.8	9
				.85	18	.22	2.1	.01	0	.10	0.6	10
				.89	20	.23	2.3	.07	0.4	.10	0.6	11
				.90	20	.23	2.3	.07	0.4	.09	0.5	12
				.86	19	.21	2.0	.07	0.4	.08	0.4	13
				.82	18	.20	1.8	.08	0.4	.07	0.4	14
				.75	15	.18	1.6	.08	0.4	.07	0.4	15
				.70	14	.17	1.4	.06	0.3	.07	0.4	16
	no flow		no flow	.67	13	.18	1.6	.07	0.4	.07	0.4	17
				.67	13	.17	1.4	.07	0.4	.07	0.4	18
				.65	12	.16	1.3	.07	0.4	.07	0.4	19
				.60	11	.16	1.3	.07	0.4	.09	0.5	20
				.56	9.5	.15	1.2	.07	0.4	.08	0.4	21
				.54	9.0	.14	1.0	.07	0.4	.07	0.4	22
				.52	8.5	.14	1.0	.07	0.4	.06	0.3	23
				.50	7.9	.14	1.0	.06	0.3	S	0.2	24
			0	.48	7.4	.16	1.3	.09	0.5		0	25
		S	2.1	.48	7.4	.15	1.2	.09	0.5			26
		.27	3.2	.46	7.0	.13	0.9	.07	0.4		no flow	27
		.29	3.7	.41	5.8	.12	0.8	.06	0.3			28
		.33	4.1	.37	4.9	.12	0.8	.06	0.3			29
	0	.30	3.5	.36	4.7	.13	0.9	.06	0.3		0	30
XX	XXX	.31	3.9	XX	XXX	.11	0.7	.06	0.3	XX	XXX	31

APR.	MAY	JUNE	JULY	AUG.	SEPT.	Water Year
0	19.9	339.7	58.6	12.3	8.9	439.4
0	0.6	11.3	1.9	0.4	0.3	1.2
0	39	674	116	24	18	[illegible]
0	4.1	20	4.5	0.6	0.8	20
0	0	4.7	0.7	0	0	0

Quarter	Computed	Checked	Date
4th	[illegible]	TCS	1-8-81
3rd	[illegible]	TCS	[illegible]
2nd	[illegible]	[illegible]	[illegible]
1st	[illegible]	[illegible]	[illegible]

Quarter	Dis.appld.	Dis.check	Date
4th	[illegible]	[illegible]	[illegible]
3rd	[illegible]	[illegible]	[illegible]
2nd	[illegible]	[illegible]	[illegible]
1st	[illegible]	[illegible]	[illegible]

Quarter	G.H.copd.	G.H.check	Date
4th	[illegible]	TCS	[illegible]
3rd	[illegible]	TCS	[illegible]
2nd	[illegible]	[illegible]	[illegible]
1st	[illegible]	[illegible]	[illegible]

Water Year 1980

VWURTZ EXTENSION River at Creek near TENNESSEE PASS

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 19 80

Drainage area TRANS-MTN DIV. square miles. Water stage recorder STEVENS F WEEKLY

Max. Discharge ____ Sec. ft. at ____ on ____ Min. Daily Discharge ____ sec.-ft. on many days

Max. G. H. ____ ft. at ____ on ____

S - discharge subdivided

Day.	OCT.		NOV.		DEC.		JAN.		FEB.		MAR.	
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge
1		0		0		0		0		0		0
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16		NO FLOW		NO FLOW		NO FLOW		NO FLOW		NO FLOW		NO FLOW
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29										0		
30				0					XX	XXX		
31		0	XX	XXX		0		0	XX	XXX		0
Total		0		0		0		0		0		0
Mean		0		0		0		0		0		
Runoff in acre-feet		0		0		0		0		0		
Maximum		0		0		0		0		0		
Minimum		0		0		0		0		0		

Calendar Year 1979

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. 07062000

Rating Table Used dated 6-22-71, oct. 1, 1979 - Sept. 30, 1980
STANDARD 4 FT. PARSHALL FLUME

Day.	APR. Gage height	APR. Discharge	MAY Gage height	MAY Discharge	JUNE Gage height	JUNE Discharge	JULY Gage height	JULY Discharge	AUG. Gage height	AUG. Discharge	SEPT. Gage height	SEPT. Discharge
1		0		0	0.68	8.7	0.55	ā 6.0	0.26	ō3 1.6	0.20	ō3 0.98
2					.71	9.3	.53	ō1 5.7	.27	1.7	.19	.89
3					[31] .75	o 10	.50	ō2 5.0	.27	1.7	.19	.89
4					.80	11	.48	4.7	.26	1.6	.18	.80
5					.85	12	.47	4.5	.25	1.5	.18	.80
6					.87	13	.45	4.2	.24	1.4	.19	.89
7					.88	13	.44	4.1	.24	1.4	.19	.89
8					.91	14	.43	3.9	.24	1.4	.21	1.1
9					1.03	17	.41	3.6	.23	1.3	.21	1.1
10					1.08	18	.40	3.5	.23	1.3	.21	1.1
11					1.08	18	.42	3.8	.22	1.2	.20	.98
12					1.09	18	.41	3.6	.22	1.2	a	.98
13					1.09	18	.42	ō2 3.8	.22	1.2	a	.98
14					1.06	18	.39	ō3 3.2	.22	1.2	a	.89
15					1.02	16	.37	2.9	.25	1.5	a	.89
16					.99	16	.36	2.8	.23	1.3	.19	.89
17					.95	15	.35	2.6	.22	1.2	.18	.80
18					.90	14	.33	2.4	.22	1.2	.18	.80
19					.86	13	.33	2.4	.21	1.1	.18	.80
20					.84	12	.32	2.3	.22	1.2	.18	.80
21					.82	12	.32	2.3	.21	1.1	.17	.72
22				0	.28	11	[32] .31	ō3 2.2	.20	.98	.17	.72
23			S	ō1 3.1	.75	10	.30	2.0	.20	.98	.16	.64
24			0.51	5.4	.72	9.5	.35	2.6	.21	1.1	.16	.64
25			.53	5.7	.68	8.7	.33	2.4	.23	1.3	.16	.64
26			.57	6.4	.65	o 8.1	.30	2.0	.21	1.1	S	ō3 .37
27			.51	5.4	.62	ō1 7.3	.29	1.9	.20	.98		0
28			.58	ō1 6.6	.61	7.2	.28	1.8	.20	.98		
29			.61	o 7.3	.58	6.6	.27	1.7	.20	.98		
30		0	.63	7.7	.56	ō1 6.2	.27	1.7	.20	.98		0
31	XX	XXX	.67	o 8.5	XX	XXX	.26	ō3 1.6	.20	ō3 .98	XX	XXX
	0		56.1		370.6		97.2		38.66		21.98	
	0		1.81		12.3		3.14		1.25		0.73	
	0		111		735		193		77		44	
	0		8.5		18		6.0		1.7		1.1	
	0		0		6.2		1.6		.98		0	

NO FLOW

NO FLOW

Quarter	4th	3rd	2nd	1st
Computed	SDJ	SDJ	SDJ	SDJ
Checked				
Date				

Quarter	4th	3rd	2nd	1st
Dis.appld.	SDJ	SDJ	SDJ	JMS
Dis.check				
Date				

Quarter	4th	3rd	2nd	1st
G.H.copd.	SDJ	SDJ	SDJ	JMS
G.H.check				
Date				

Water Year 1980

EWING DITCH Creek near TEN NESSEE PASS

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 19 80

Drainage area TRANS-MTN DIV. square miles. Water stage recorder STEVENS F WEEKLY 4' P

Max. Discharge 20 Sec. ft. at 1800 Hrs on June 10, 1980 G. H. 1.15 ft.

Max. G. H. 1.15 ft. at 1800 Hrs on June 10, 1980 Min. Daily Discharge 0 sec.-ft. on Many Days

S - discharge Subdivided: Discharge estimated for "0" no gage-height record

Day	OCT. Gage height	OCT. Discharge	NOV. Gage height	NOV. Discharge	DEC. Gage height	DEC. Discharge	JAN. Gage height	JAN. Discharge	FEB. Gage height	FEB. Discharge	MAR. Gage height	MAR. Discharge
1	.18	.72		0		0		0		0		0
2	.18	.72										
3	.1	.64										
4	.19	.80										
5	.19	.80										
6	.19	.80										
7	.19	.80										
8	.19	.80										
9	.19	.80										
10	.19	.80										
11	S	.45										
12		0										
13												
14												
15												
16		NO FLOW		NO FLOW		NO FLOW		NO FLOW		NO FLOW		NO FLOW
17												
18												
19												
20												
21												
22												
23												
24												
25												
26												
27												
28												
29										0		
30				0					XX	XXX		
31		0	XX	XXX		0		0	XX	XXX		0
810.2	Total	8.13		0		0		0		0		0
2.22	Mean	0.26		0		0		0		0		0
1610	Run-off in acre-feet	16		0		0		0		0		0
24	Maximum	.80		0		0		0		0		0
0	Minimum	0		0		0		0		0		0

Calendar Year 1979

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. _____

Rating Table Used No. 4 dated 12-2-76

Oct. 1, 1979 Thru Sept. 30, 1980

Day	APR. Discharge	MAY Gage height	MAY Discharge	JUNE Gage height	JUNE Discharge	JULY Gage height	JULY Discharge	AUG. Gage height	AUG. Discharge	SEPT. Gage height	SEPT. Discharge
1	t04 187	1.90	t10 395	0.76	t02 40	311 1.85	t12 382	1.83	t11 368	1.40	t13 206
2	187	1.90	395	.76	t02 40	1.89	t12 400	1.91	405	1.40	t13 206
3	187	1.90	395	309 S	v 83	S	v 299	1.91	405	1.52	t11 240
4	184	1.90	395	S	v 283	1.16	t11 132	1.91	405	1.64	t09 277
5	184	1.90	395	1.97	t11 435	1.16	t11 132	1.90	400	1.66	t07 277
6	184	1.90	395	2.00	450	1.75	t10 328	1.84	392	1.69	t08 293
7	184	1.90	t10 395	2.00	450	1.63	277	1.81	359	1.69	293
8	t06 178	S	v 175	2.00	450	1.43	206	1.72	318	1.68	t08 289
9	187	0.84	t02 59	2.01	455	1.33	175	1.75	332	1.72	t07 301
10	196	.84	59	1.96	430	1.56	251	1.75	332	1.75	314
11	219	.85	60	1.93	415	1.29	346	1.69	t11 305	315 1.76	t10 318
12	t06 222	.85	60	1.99	445	1.86	377	313 1.59	t12 269	1.72	301
13	v 158	.85	t07 60	1.96	t11 430	1.86	377	1.54	251	1.70	293
14	t07 56	.92	t06 71	1.86	t12 386	1.77	336	1.52	243	1.70	293
15	56	.97	t06 80	1.76	t12 341	1.71	310	1.49	233	1.70	t07 293
16	72	1.03	t05 89	1.64	t13 293	1.67	293	1.49	233	1.54	t05 226
17	93	1.08	100	310 1.71	t13 323	1.68	297	1.49	t12 233	1.34	t03 158
18	93	1.08	t05 100	1.83	t12 392	1.69	301	1.42	t13 229	1.38	169
19	95	0.98	t04 78	1.83	392	1.65	285	1.43	216	1.40	175
20	95	308 .92	t03 66	1.87	390	1.65	285	1.42	212	1.39	172
21	t07 95	S	179	1.87	390	1.69	301	1.42	212	1.39	t03 172
22	v 192	1.75	297	1.87	390	312 1.72	t10 314	1.42	212	1.31	t02 147
23	v 374	1.75	297	1.87	390	1.72	314	1.42	212	1.25	132
24	t06 415	1.76	301	1.87	390	1.71	310	1.42	212	1.25	132
25	415	1.76	301	1.87	390	1.70	305	1.46	226	1.27	137
26	415	1.76	301	1.87	390	1.70	305	1.45	222	1.29	142
27	415	1.76	301	1.86	386	1.70	305	314 1.39	t13 203	1.29	142
28	415	1.77	t03 305	1.86	386	1.71	310	1.39	203	1.29	142
29	415	S	v 178	1.86	386	S	299	1.39	203	1.29	142
30	t10 410	0.76	t02 40	1.85	t12 382	1.69	301	1.40	206	316 a	t02 142
31	XXX	.76	t02 40	XX	XXX	1.68	t10 297	1.40	t13 206	XX	XXX
	6578	6362		10,763		9130		8437		6524	71757
	219	205		359		294		272		217	196
	13050	12,620		21,350		18,110		16,730		12,940	142,330
	415	395		455		400		405		318	455
	56	40		40		132		203		132	19

4th Quarter — Computed / Checked / Date

3rd Quarter — Dis.applid. / Dis.check / Date

2nd Quarter — G.H.copd. / G.H.check / Date

1st Quarter

Water Year 1980

LAKE FORK Creek near BELOW LUGARLOAF RESERVOIR

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 19 80

Drainage area _____ square miles. Water stage recorder STEVENS A-35 CONTINOUS

Max. Discharge _____ sec.-ft. at _____ hrs. on _____ Min. Daily Discharge _____ sec.-ft. on _____

Max. G. H. 2.04 ft. at 0000 hrs. on Jan. 5, 1980

a - NO GAGE-HEIGHT RECORD, DISCHARGE ESTIMATED

S - DISCHARGE SUBDIVIDED

Day.	OCT. Gage height	OCT. Discharge	NOV. Gage height	NOV. Discharge	DEC. Gage height	DEC. Discharge	JAN. Gage height	JAN. Discharge	FEB. Gage height	FEB. Discharge	MAR. Gage height	MAR. Discharge
1	S	V 23	.63	+02 26	1.44	+06 196	1.08	+06 102	1.15	+06 117	1.20	+02 120
2	S	V 19	.63	26	1.44	196	1.08	102	1.12	122	1.20	120
3	.75	+01 37	.63	26	S	135	301 1.05	+01 102	1.12	122	1.20	120
4	.75	37	.63	+02 26	.93	72	1.07	100	1.12	122	1.20	120
5	.75	37	S	V 78	.93	72	.92	82	303 1.12	+06 122	1.20	120
6	.75	37	1.33	+05 161	.93	72	.95	76	1.12	+05 120	1.20	120
7	.75	37	1.33	161	.93	72	.94	74	1.12	120	1.20	120
8	.75	37	298 1.31	+05 155	.93	72	.95	76	1.12	120	1.20	120
9	.75	37	1.30	152	.93	72	.95	76	1.12	120	1.20	120
10	296 .75	+01 37	1.32	158	a	110	.96	+06 78	1.12	+05 120	1.20	+02 120
11	.81	45	1.32	158	1.20	129	1.08	+02 104	1.18	+04 120	1.23	+03 129
12	.83	48	1.32	158	1.20	129	1.02	102	1.18	120	1.24	132
13	.83	48	1.32	158	300 1.20	+06 129	.96	80	1.18	120	1.27	+03 139
14	.83	48	1.31	155	1.20	129	1.04	95	1.18	120	1.40	+04 178
15	.82	46	1.30	+05 152	1.20	129	1.10	108	1.18	+04 120	1.44	190
16	.85	51	1.36	+06 172	1.20	129	302 1.10	+07 108	1.19	+03 120	1.44	+04 190
17	.87	54	1.43	193	1.20	129	1.10	108	1.19	120	S	V 285
18	.87	54	1.43	193	1.20	129	1.08	104	1.19	120	1.94	+05 390
19	.92	62	1.43	193	1.20	129	.99	85	1.19	120	305 1.94	+05 390
20	.88	56	1.43	193	1.20	129	1.00	87	1.19	120	1.94	390
21	.88	56	1.44	196	1.20	129	1.00	87	1.19	120	1.95	395
22	.88	56	1.45	199	1.20	129	1.00	87	1.19	+03 120	1.95	395
23	.88	56	1.45	199	1.20	129	1.03	+07 93	1.20	+02 120	1.94	390
24	297 .88	+01 56	1.45	199	1.20	129	1.12	+06 111	1.20	120	1.94	390
25	.82	46	1.45	199	1.20	129	1.14	115	1.20	120	1.94	390
26	.78	41	1.45	199	1.20	129	1.13	113	1.20	120	1.98	410
27	.78	41	1.45	199	1.15	117	1.13	113	1.20	120	2.00	420
28	.78	41	1.45	199	1.07	100	1.13	113	304 1.20	+02 120	2.00	420
29	.78	41	299 1.45	+06 199	1.08	102	1.13	113	1.20	+02 120	1.17	+05 415
30	.81	45	1.44	+06 196	1.08	102	1.13	113	XX	XXX	S	V 336
31	.72	+01 34	XX	XXX	1.08	+06 102	1.13	+06 113	XX	XXX	1.41	+06 187
Total		1363		4678		3656		3020		3485		7761
Mean		44		156		118		97		120		250
Run-off in acre-feet		2,700		9280		7250		5,990		6910		15,390
Maximum		62		199		196		115		122		420
Minimum		19		26		72		76		117		120

Calendar Year 1979

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. _____

Rating Table Used 25-Ft. Parshall Flume Table

APR.		MAY		JUNE		JULY		AUG.		SEPT.		Day.	4th			
Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge		3rd			
	8.4	a	13	1.91	262	3.65	252	1.65	211	0.62	50	1	2nd			
	18	|	13	1.92	269	4.00	870	S	105	.62	50	2	1st			
	44	|	13	1.92	269	4.32	984	0.99	93	.66	49	3	Quarter	Computed	Checked	Date
	24	|	13	1.99	285	4.45	1030	.99	93	.66	49	4				
	10	|	13	S	493	4.50	1050	S	58	.66	49	5				
	10	|	109	3.22	630	4.58	1080	.64	46	.66	49	6				
	11	|	205	3.29	637	4.63	1100	.64	46	.66	49	7				
	11	a	254	3.30	640	S	898	S	180	.62	50	8				
	8.4	2.02	303	3.30	640	S	442	2.12	315	.62	50	9	4th			
	8.4	2.06	301	3.30	640	1.93	291	2.12	315	.62	50	10				
	8.4	2.08	306	3.31	643	1.93	291	2.11	313	.62	50	11	3rd			
	8.4	2.16	325	3.33	649	1.94	293	2.11	313	.62	50	12				
	8.4	2.19	332	S	829	1.95	296	2.10	310	.68	51	13	2nd			
	8.4	S	233	5.30	1370	1.96	298	2.09	308	.68	51	14				
	8.4	1.08	102	S	1280	1.92	280	2.09	308	.68	51	15	1st			
	8.4	1.07	106	3.68	761	1.92	280	2.08	306	.80	66	16				
	12	1.44	170	3.22	725	1.92	280	a	315	.92	83	17	Quarter	Dis.appld.	Dis.check	Date
	12	1.56	193	3.25	785	1.92	280	|	315	.92	83	18				
	12	1.56	193	S	581	1.92	280	|	149	.92	83	19				
	12	1.55	191	1.85	253	1.92	280	|	36	.83	70	20	4th			
	12	1.36	155	S	638	1.92	280	|	36	.65	48	21				
	12	a	95	S	468	1.92	285	|	36	.61	43	22	3rd			
	16	|	95	3.20	768	2.09	308	|	36	.60	42	23				
	18	|	96	3.22	725	2.05	299	|	36	.59	41	24	2nd			
	20	a	212	3.52	725	2.06	301	|	40	.58	40	25				
	15	2.18	329	3.45	687	2.04	296	|	56	.52	38	26	1st			
	11	2.20	334	3.46	690	2.02	292	a	56	.52	38	27				
	8.4	S	212	3.48	696	2.01	287	0.21	55	.56	39	28	Quarter	G.H.copd.	G.H.check	Date
	10	1.38	158	3.54	716	1.84	258	.20	54	.55	36	29				
	13	1.40	162	3.60	735	1.66	213	.25	87	.55	36	30	Water Year			
XX	XXX	1.65	211	XX	XXX	1.66	213	.26	61	XX	XXX	31	1980			
387		5451		19,574		14,289		4688		1532			51,113.6			
13		176		652		461		151		51			140			
968		10,810		38,820		28,340		9300		3040			101,380			
44		334		1370		1100		315		83			1370			
8.4		13		253		213		36		36			6.6			

LAKE Creek ~~near~~ BELOW TWIN LAKES RESERVOIR

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 19 80

Drainage area _____ square miles. Water stage recorder _____

Max. Discharge _____ Sec. ft. at _____ on _____ Min. Daily Discharge _____ sec.-ft. on _____

Max. G. H. _____ ft. at _____ on _____ G. H. _____ ft.

Day	OCT.		NOV.		DEC.		JAN.		FEB.		MAR.	
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge
1	1.17	a 122	0.25	60	a	55	a	8.4	0.24	9.6	a	8.4
2	1.17	122	.25	60		55		8.4	.24	9.6		8.4
3	1.17	122	.24	58		55		8.4	a	8.4		8.4
4	1.17	122	.23	57		55	a	8.4		8.4		8.4
5	1.17	122	.23	57		55	0.20	7.2		8.4		8.4
6	1.17	122	.22	56		55	.21	7.8		8.4		8.4
7	S	120	.21	55		55	.20	7.2		8.4		8.4
8	0.22	62	.21	55		55	.20	7.2		8.4		8.4
9	.22	62	.22	56		55	.20	7.2		8.4		8.4
10	.22	62	.22	56	a	52	.19	6.6		8.4		8.4
11	.22	62	.22	56	0.22	8.4	a	8.4		8.4		8.4
12	.26	61	.22	56	.22	8.4		8.4		8.4		8.4
13	.26	61	.22	56	.22	8.4		8.4	a	22		8.4
14	.25	60	.23	57	.22	8.4		8.4	0.52	33		8.4
15	.66	49	.22	56	.23	9.0		8.4	.47	28	a	8.4
16	.59	41	.22	56	.23	9.0		8.4	.25	10	0.24	9.6
17	.58	40	.22	56	.23	9.0		8.4	.25	10	.24	9.6
18	.58	40	.22	56	.24	9.6		8.4	.25	10	a	8.4
19	.58	40	.22	56	.24	9.6		8.4	.25	10		8.4
20	.58	40	.22	56	.24	9.6		8.4	.25	10		8.4
21	a	40	.21	55	.24	9.6		8.4	.26	11		8.4
22		40	.21	55	.24	9.6		8.4	.25	10		8.4
23		40	.21	55	a	8.4		8.4	.25	10		8.4
24		40	.62	50		8.4		8.4	.24	9.6		8.4
25		40	.66	49		8.4	a	8.4	a	8.4		8.4
26		40	.65	48		8.4	0.21	7.8		8.4		8.4
27		40	a	55		8.4	.22	8.4		8.4		8.4
28		40		55		8.4	.22	8.4		8.4		8.4
29		40		55		8.4	.22	8.4	a	8.4		8.4
30		40	a	55		8.4	.22	8.4	XX	XXX		8.4
31	a	a 40	XX	XXX	a	8.4	.23	9.0	XX	XXX	a	8.4
Total		1972		1663		231.2		253.2		318.8		254.4
Mean		64		55		24		8.2		11		8.2
Run-off in acre-feet		3910		3300		1450		502		632		505
Maximum		122		60		55		9.0		33		9.6
Minimum		40		48		8.4		6.6		8.4		8.4

Calendar Year

LAKE Creek ~~near~~ ABOVE TWIN LAKES, COLO.

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 19 80

Drainage area 75 square miles. Water stage recorder STEVENS A-35 CONTINUOUS

"a" - NO GAGE-HEIGHT RECORD, DISCHARGE ESTIMATED

"S" - DISCHARGE SUBDIVIDED

Max. G. H. ____ ft. at ____ on ____ Min. Daily Discharge ____ sec.-ft. on ____

Day.	OCT.		NOV.		DEC.		JAN.		FEB.		MAR.	
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge
1	1.05	27	a	18	a	14	a	11	a	11	a	10
2	1.05	27		18		14		11		11		10
3	1.03	26		18		14	388	11		11		10
4	1.01	25		18		14		11		11		11
5	1.01	25		18		14		11	390	11		11
6	1.00	24		17		14		11		11		11
7	.99	24		17		14		11		11		11
8	.98	23	385	17		14		12		11		11
9	.98	23		17		14		12		11		11
10	.97	23		17		14		12		11		12
11	383 .96	22		17		14		12		11		12
12	.95	21		16		14		12		11		12
13	.94	21		16	387	14		12		10		12
14	.94	21		16		14		12		10		12
15	.95	21		16		14		12		10		12
16	.96	22		16		14	387	12		10		12
17	.93	20		16		14		12		10		13
18	.97	22		15		14		12		10		13
19	.98	23		15		13		12		10	392	13
20	.99	23		15		13		12		9.0		13
21	1.03	25		15		13		12		9.0		12
22	.94	19		15		13		12		9.0		12
23	1.00	22		15		13		12		9.0		12
24	364 1.04	24		14		13		12		9.0		12
25	1.00	21		14		13		11		9.0		12
26	1.01	22		14		13		11		9.0		11
27	.98	20		14		12		11	391	9.0		11
28	.93	18		14		12		11		10		11
29	.98	20	386	14		12		11	a	10		11
30	.94	18	a	14		12		11	XX	XXX		11
31	a	18	XX	XXX	a	12	a	11	XX	XXX	a	10
Total		690		476		416		358		294		357
Mean		22.3		15.9		13.4		11.5		10.1		11.5
Run-off in acre-feet		1370		944		825		710		583		708
Maximum		27		18		14		12		11		13
Minimum		18		14		12		11		9.0		10

Calendar Year 1979

LAKE Creek ~~near~~ ABOVE TWIN LAKES, COLO.

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 19 80

Drainage area 75 square miles. Water stage recorder STEVENS A-35 CONTINUOUS

Max. Discharge ____ Sec. ft. at ____ on ____ Min. Daily Discharge ____ sec.-ft. on ____

Max. G. H. ____ ft. at ____

"a" - NO GAGE-HEIGHT RECORD, DISCHARGE ESTIMATED

"S" - DISCHARGE SUBDIVIDED

Day.	OCT.		NOV.		DEC.		JAN.		FEB.		MAR.	
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge
1	1.05	+42 27	a	18	a	14	a	11	a	11	a	10
2	1.05	+42 27		18		14		11		11		10
3	1.03	+42 26		18		14	388	11		11		10
4	1.01	25		18		14		11		11		11
5	1.01	25		18		14		11	390	11		11
6	1.00	+42 24		17		14		11		11		11
7	.99	+42 24		17		14		11		11		11
8	.98	23	385	17		14		12		11		11
9	.98	23		17		14		12		11		11
10	.97	23		17		14		12		11		12
11	383 .96	+14 22		17		14		12		11		12
12	.95	21		16		14		12		11		12
13	.94	21		16	387	14		12		10		12
14	.94	21		16		14		12		10		12
15	.95	21		16		14		13		10		12
16	.96	+21 22		16		14	389	12		10		12
17	.93	+13 20		16		14		12		10		13
18	.97	22		15		14		12		10		13
19	.98	23		15		13		12		10	392	13
20	.99	+13 23		15		13		12		9.0		13
21	1.03	+42 25		15		13		12		9.0		12
22	.94	19		15		13		12		9.0		12
23	1.00	+42 22		15		13		12		9.0		12
24	384 1.04	+13 24		14		13		12		9.0		12
25	1.00	21		14		13		11		9.0		12
26	1.01	22		14		13		11		9.0		11
27	.98	20		14		12		11	391	9.0		11
28	.93	18		14		12		11		10		11
29	.98	20	386	14		12		11	a	10		11
30	.94	+13 18	a	14		12		11	XX	XXX		11
31	a	18	XX	XXX	a	12	a	11	XX	XXX	a	10
Total		690		476		416		358		294		357
Mean		22.3		15.9		13.4		11.5		10.1		11.5
Run-off in acre-feet		1,370		944		825		710		583		708
Maximum		27		18		14		12		11		13
Minimum		18		14		12		11		9.0		10

Calendar Year 1979

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. _____

Rating Table Used No. 9

Day.	APR. Gage height	APR. Discharge	MAY Gage height	MAY Discharge	JUNE Gage height	JUNE Discharge	JULY Gage height	JULY Discharge	AUG. Gage height	AUG. Discharge	SEPT. Gage height	SEPT. Discharge
1		258	3.26	593	3.65	894	4.68	1880	3.43	669	2.87	325
2		254	3.24	559	3.73	966	4.62	1870	3.38	628	2.86	320
3		266	3.28	588	3.85	1070	4.62	1800	3.37	620	2.88	330
4		286	3.35	644	4.23	1460	4.38	1520	3.34	596	3.02	402
5		278	3.37	660	4.59	1900	4.30	1470	3.28	552	3.02	402
6		262	3.60	867	4.72	2080	4.38	1530	3.23	517	3.04	414
7		258	3.86	1100	4.73	2090	4.25	1390	3.46	696	3.04	414
8		254	3.73	984	4.76	2120	3.92	1090	3.55	777	3.05	420
9		262	3.42	705	4.88	2290	3.68	885	3.57	795	3.13	468
10		290	3.38	669	5.04	2510	3.71	918	3.55	777	3.16	486
11		258	3.43	714	5.31	2930	3.85	1060	3.54	768	3.17	492
12		129	3.41	696	5.55	3310	3.92	1100	3.51	741	3.13	468
13		125	3.18	517	5.45	3120	3.88	1060	3.46	696	3.10	450
14		127	2.74	375	5.31	2870	3.85	1040	3.45	687	3.08	438
15		136	3.02	420	5.22	2700	3.74	948	3.48	714	3.07	432
16		145	3.14	492	4.78	2220	3.68	894	3.46	696	3.03	408
17		182	3.24	559	4.62	1220	3.65	867	3.43	669	2.88	340
18		199	3.15	498	4.88	2100	3.69	885	3.41	652	2.90	350
19		211	3.12	480	4.93	2180	3.65	867	3.30	444	2.92	360
20		235	3.05	438	4.80	1980	3.63	849	2.90	740	2.89	345
21		254	3.14	492	4.96	2240	3.62	840	2.89	335	2.85	325
22		278	3.54	813	4.93	2200	3.62	840	2.88	330	2.78	295
23		588	3.74	993	4.90	2150	3.61	831	2.91	345	2.71	266
24		588	4.03	1270	4.85	2090	3.62	840	2.96	370	2.71	266
25		531	3.98	1210	4.84	2080	3.66	876	3.00	390	2.71	266
26		545	3.81	1050	4.80	2020	3.63	849	3.00	390	2.72	274
27		545	3.70	948	4.77	1980	3.60	822	2.92	350	2.72	274
28		559	3.73	966	4.70	1850	3.58	804	2.90	340	2.72	274
29		604	3.77	1030	4.61	1720	3.50	732	2.89	335	2.71	266
30		604	3.55	831	4.65	1830	3.69	714	2.95	365	2.71	266
31		XXX	3.62	862	XX	XXX	3.45	687	2.93	355	XX	XXX
		7,511		23,008		62,800		32,702		16,979		10,836
		317		742		2,093		1055		546		361
		12,870		45,640		124,600		64,860		33,600		21,490
		254		1,270		3,310		1,880		795		492
		125		375		894		697		330		266

	4th	3rd	2nd	1st	Quarter	Computed	Checked	Date
1–10								
11–20								
21–30								

	Quarter	Dis.appld.	Dis.check	Date
1–10				
11–20				
21–30				

	Quarter	G.H.copd.	G.H.check	Date
1–10				
11–20				
21–30				

Water Year 1980

ARKANSAS Creek near GRANITE, COLO

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 19 80

Drainage area 427 square miles. Water stage recorder STEVENS A-35 CONTINUOUS

Max. Discharge ____ Sec. ft. at ____ on ____ Min. Daily Discharge ____ sec.-ft. on ____

Max. G. H. ____ ft. at ____ on ____

S - DISCHARGE SUBDIVIDED

Day.	OCT. Gage height	OCT. Discharge	NOV. Gage height	NOV. Discharge	DEC. Gage height	DEC. Discharge	JAN. Gage height	JAN. Discharge	FEB. Gage height	FEB. Discharge	MAR. Gage height	MAR. Discharge
1	2.18	-05 123	2.37	-07 162	2.87	-02 365	2.42	-11 165	2.46	02 202	2.48	06 196
2	2.26	140	2.39	168	2.87	-02 365	2.40	160	2.47	205	2.48	196
3	2.21	129	2.38	165	S	V 321	831 2.42	-11 165	2.47	205	2.47	199
4	2.22	131	2.39	-07 168	2.54	-03 223	2.40	10 162	2.46	202	2.49	06 199
5	2.22	131	S	V 190	2.52	05 211	2.34	10 148	833 2.46	02 202	2.48	07 193
6	2.31	152	2.76	-05 295	2.53	03 214	2.30	09 140	2.46	202	2.48	193
7	2.39	173	2.79	310	2.52	-7 205	2.37	09 157	2.47	205	2.48	07 193
8	2.40	176	828 2.79	-05 310	2.50	-9 193	2.44	08 179	2.47	205	a	192
9	2.40	176	2.78	305	2.49	11 184	2.38	06 162	2.48	208		192
10	826 2.40	-05 176	2.78	305	2.50	12 181	2.39	07 168	2.50	02 214		191
11	2.41	179	2.78	305	2.53	13 190	2.44	10 182	2.52	03 217		191
12	2.39	173	2.78	305	2.52	15 182	2.45	06 187	2.62	247		194
13	2.37	168	2.78	305	830 2.54	-17 182	2.42	06 179	2.57	232		191
14	2.37	168	2.78	-05 305	2.58	193	2.36	05 165	2.52	217		225
15	2.37	168	2.76	-04 300	2.57	-17 190	2.41	04 182	2.51	03 214		350
16	2.38	-05 170	2.78	-03 315	2.53	16 182	832 2.41	-04 182	2.47	04 199		249
17	2.42	-06 179	2.86	-02 360	2.52	179	2.42	184	2.47	199		247
18	2.43	182	2.86	360	2.50	16 173	2.39	176	2.48	202		448
19	2.43	-06 182	2.86	360	2.48	15 170	2.34	162	2.48	202	835 a	09 479
20	2.46	-07 187	2.86	360	2.48	15 170	2.34	162	2.48	04 202	3.11	09 468
21	2.49	196	2.86	360	2.47	14 170	2.34	162	2.48	05 199	3.10	462
22	2.45	184	2.87	365	2.47	170	2.37	04 170	2.48	199	3.10	462
23	2.46	187	2.86	360	2.47	170	2.38	03 176	2.47	202	3.10	05 462
24	831 2.46	-07 187	2.86	360	2.47	170	2.45	196	2.49	202	3.09	09 462
25	2.45	184	2.86	360	2.47	14 170	2.48	205	2.50	05 205	3.10	468
26	2.42	176	2.87	365	2.46	13 170	2.44	193	2.48	06 196	3.10	468
27	2.41	173	2.86	360	2.45	13 168	2.44	193	2.48	196	3.13	07 486
28	2.38	165	2.84	350	2.36	12 148	2.44	193	834 2.49	06 199	3.14	06 498
29	2.39	168	829 2.85	-07 355	2.40	11 160	2.44	03 193	2.47	06 199	3.13	492
30	2.40	170	2.86	-09 360	2.41	162	2.45	03 179	XX	XXX	3.13	492
31	2.40	-07 170	XX	XXX	2.42	11 165	2.49	05 205	XX	XXX	3.04	06 434
Total		5223		9042		6099		5452		5918		10067
Mean		168		308		197		176		206		325
Run-off in acre-feet		10,360		18,340		12,100		10,810		11,860		19,970
Maximum		176		365		365		205		247		498
Minimum		123		162		148		140		196		191

Calendar Year 1979

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. 070 200

Rating Table Used

APR. Gage height	APR. Discharge	MAY Gage height	MAY Discharge	JUNE Gage height	JUNE Discharge	JULY Gage height	JULY Discharge	AUG. Gage height	AUG. Discharge	SEPT. Gage height	SEPT. Discharge	Day.
[illegible]	289	a	625	3.69	1330	5.21	2500	2.82	730	1.87	334	1
[illegible]	286	2.37	555	3.50	1190	5.20	2490	2.75	695	1.83	320	2
[illegible]	282	2.42	580	3.60	1260	5.09	2390	2.74	690	1.82	317	3
[illegible]	317	2.54	640	3.97	1530	4.43	1810	2.69	665	2.04	404	4
.75	314	2.61	675	4.64	2070	4.29	1690	2.63	630	2.03	400	5
[illegible]	286	2.86	800	4.88	2270	4.49	1840	2.57	605	2.07	416	6
[illegible]	278	3.25	1100	5.00	2380	4.67	2000	2.80	725	2.08	420	7
[illegible]	272	3.30	1060	5.08	2440	4.49	1850	2.93	770	2.09	424	8
[illegible]	257	2.97	745	5.28	2620	4.22	1640	2.97	810	[illegible]	488	9
.62	269	2.89	705	5.55	2880	3.94	1430	2.94	795	[illegible]	504	10
[illegible]	269	2.95	735	5.94	3300	4.05	1510	2.88	765	2.32	520	11
[illegible]	128	2.94	730	6.28	3700	4.16	1580	2.78	715	2.24	488	12
[illegible]	100	2.52	620	6.14	3530	4.07	1520	2.71	680	2.18	461	13
[illegible]	97	2.11	436	5.88	3220	3.74	1280	2.71	690	2.15	452	14
[illegible]	107	2.18	464	5.72	3030	3.66	1190	2.79	715	2.17	460	15
[illegible]	120	2.29	508	5.52	2830	3.48	1110	2.73	690	2.26	495	16
.07	136	2.42	570	5.15	2470	3.40	1060	2.67	660	2.03	400	17
[illegible]	161	2.33	524	5.43	2740	3.34	1030	2.65	650	2.01	392	18
.30	180	2.26	496	5.60	2910	3.18	924	2.33	504	2.06	412	19
[illegible]	200	2.22	480	5.76	2660	3.17	918	1.95	362	2.02	396	20
[illegible]	242	2.19	468	5.57	2870	3.15	906	1.94	359	1.96	373	21
1.63	272	2.87	800	5.55	2850	3.14	900	1.90	345	1.89	345	22
[illegible]	494	3.16	972	5.54	2840	3.11	882	1.90	345	1.83	324	23
2.36	550	3.67	1300	5.52	2820	3.11	882	1.97	370	1.81	317	24
[illegible]	492	3.61	1260	5.43	2730	3.16	912	2.03	392	1.81	317	25
[illegible]	505	3.48	1180	5.44	2740	3.16	912	2.05	400	1.83	324	26
[illegible]	505	3.36	1100	5.42	2720	3.05	846	1.93	356	1.82	320	27
[illegible]	532	3.43	1150	5.31	2600	3.05	846	1.89	342	1.79	310	28
2.41	575	3.63	1280	5.17	2460	2.99	810	1.86	331	[illegible]	282	29
[illegible]	[illegible]	3.80	1400	5.17	2460	2.96	750	1.92	350	[illegible]	275	30
XX	XXX	3.75	1370	XX	XXX	2.95	715	1.94	352	XX	XXX	31

APR.	MAY	JUNE	JULY	AUG.	SEPT.	Water Year 1980
9,142	24,948	77,450	41,153	17,507	11,694	217,154
305	802	2,582	1,328	565	390	593
18,130	49,290	153,600	81,630	34,730	23,200	430,700
[illegible]	1,400	3,700	2,500	810	520	3,700
97	436	1190	715	331	275	97

Quarter	Computed	Checked	Date
4th			
3rd			
2nd			
1st			

Quarter	Dis.appld.	Dis.check	Date
4th			
3rd			
2nd			
1st			

Quarter	G.H.copd.	G.H.check	Date
4th			
3rd			
2nd			
1st			

ARKANSAS River at BUENA VISTA, COLORADO

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 19 80

Drainage area 611 square miles. Water stage recorder STEVENS A-35 RECORDER

Max. Discharge ____ Sec. ft. at ____ on ____ Min. Daily Discharge ____ sec.-ft. on ____

Max. G. H. ____ ft. at ____ on ____

a - NO GAGE-HEIGHT RECORD, DISCHARGE ESTIMATED

b - ICE EFFECT S - DISCHARGE SUBDIVIDED

Day.	OCT. Gage height	OCT. Discharge (Sept. 27 f.)	NOV. Gage height	NOV. Discharge	DEC. Gage height	DEC. Discharge	JAN. Gage height	JAN. Discharge	FEB. Gage height	FEB. Discharge	MAR. Gage height	MAR. Discharge
1	1.42	212	1.07	132	1.73	286	1.25	b 158	1.14	b 142	1.16	157
2	1.29	175	1.13	143	1.80	310	1.29	160	1.16	145	1.14	153
3	1.31	180	1.03	125	1.80	310	1.31	b 162	1.17	146	1.18	161
4	1.32	182	1.05	129	1.30	178	1.38	166	1.17	b 146	1.17	159
5	1.31	180	1.06	131	1.27	170	1.24	158	1.18	157	1.17	159
6	1.25	163	S	223	1.26	168	1.23	158	1.18	157	1.17	159
7	1.08	125	1.58	263	1.24	163	1.18	154	1.19	159	1.18	161
8	1.06	122	a	268	1.20	157	1.35	164	1.17	155	1.17	159
9	1.07	124		268	1.20	157	1.20	153	1.18	157	1.17	151
10	1.08	125		263	1.21	159	1.21	150	1.20	161	1.16	157
11	1.08	125		260	1.29	b 180	1.13	145	1.21	163	1.16	157
12	1.07	124		263	1.26	b 172	1.19	148	1.41	215	1.19	163
13	1.02	117		250	1.25	170	1.25	158	1.52	251	1.16	157
14	1.02	117		250	1.32	172	1.23	b 157	1.46	233	1.33	172
15	1.03	119		248	1.33	174	1.30	161	1.30	190	1.44	218
16	1.02	117		248	1.33	b 174	1.34	162	1.28	185	1.43	215
17	1.07	127		253	1.33	174	1.36	163	1.24	175	1.42	212
18	1.09	131		262	1.33	174	1.34	162	1.25	178	S	313
19	1.08	129	1.15	268	1.29	172	1.29	160	1.18	161	2.02	404
20	1.11	136		268	1.27	170	1.33	162	1.16	157	2.01	400
21	1.18	149		250	1.27	170	1.30	161	1.14	153	2.01	400
22	1.11	136	1.12	250	1.30	171	1.19	148	1.14	153	2.01	400
23	1.14	143		253	1.32	171	1.21	150	1.14	153	2.00	[illegible]
24	1.16	149		253	1.36	172	1.25	153	1.16	157	2.00	[illegible]
25	1.10	138		260	1.37	174	1.35	163	1.14	153	2.01	400
26	1.07	132		260	1.37	b 174	1.32	161	1.17	159	2.01	400
27	1.06	131		253	1.37	176	1.42	168	1.15	161	2.06	420
28	1.05	129		250	1.28	165	1.28	159	1.16	157	2.06	420
29	1.09	136	a	240	1.23	160	1.22	151	1.18	161	2.05	416
30	1.08	134	1.70	275	1.22	160	1.18	147	XX	XXX	2.05	416
31	1.07	133	XX	XXX	1.20	b 158	1.23	b 152	XX	XXX	2.13	[illegible]

Calendar Year 1979

	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.
Total	4,338	7,060	5641	4,874	4,810	8607
Mean	140	235	182	157	167	278
Run-off in acre-feet	8600	14,000	11,190	9,670	9,600	[illegible]
Maximum	212	275	310	168	251	[illegible]
Minimum	117	125	157	145	142	[illegible]

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. _____

Rating Table Used _____

Day.	APR. Discharge	MAY Gage height	MAY Discharge	JUNE Gage height	JUNE Discharge	JULY Gage height	JULY Discharge	AUG. Gage height	AUG. Discharge	SEPT. Gage height	SEPT. Discharge
1	0	a	9.00	≤	± 281	3.59	± 374	2.09	± 95	1.58	± 33
2			9.00	2.49	161	3.59	374	2.09	95	1.58	33
3			9.00	≤	108	≤	212	2.09	95	1.58	33
4			9.00	28 ≤	± 76	0.44	0	2.09	95	1.58	33
5			9.00	2.11	98	0.44	0	2.04	88	1.58	33
6			15	≤	58	≤	96	1.97	77	1.59	34
7			21	1.40	18	2.39	143	1.98	79	1.58	33
8		a	26	1.41	19	≤	308	1.98	79	1.58	33
9		1.61	± 36	1.42	19	3.66	389	1.98	79	1.58	33
10		1.60	35	1.43	20	3.66	389	1.97	77	1.59	34
11		1.59	34	≤	214	3.65	387	≤	56	1.59	34
12		1.58	33	3.58	359	3.62	380	1.60	35	1.60	35
13		1.58	33	3.57	370	≤	254	1.59	34	1.60	35
14		1.57	32	3.61	378	265	190	1.59	34	1.60	35
15	2	1.58	33	3.61	378	2.63	186	1.59	34	≤	60
16	FLO	1.58	34	3.61	378	2.63	186	1.59	34	2.05	89
17	W	1.57	33	3.62	380	2.64	188	1.59	34	2.05	89
18	0	≤	17	3.64	384	≤	114	1.59	34	2.05	89
19	2	1.21	8.00	3.64	384	≤	96	1.59	34	2.05	89
20		1.21	8.00	3.65	385	2.32	131	1.59	34	2.05	89
21		1.21	± 8.00	3.64	384	2.32	131	1.60	35	2.05	89
22	0	1.21	8.00	3.64	384	2.32	131	1.60	35	≤	89
23	9.00	1.21	8.00	3.63	382	2.32	131	1.60	35	2.15	104
24	9.00	1.21	8.00	3.63	382	≤	152	1.59	34	2.14	102
25	9.00	1.20	8.00	3.63	382	≤	145	1.59	34	2.14	102
26	9.00	1.21	8.00	3.63	382	1.90	68	1.59	34	2.13	101
27	9.00	1.21	8.00	3.63	382	≤	84	1.59	34	2.14	102
28	9.00	1.21	8.00	3.63	382	2.10	96	1.59	34	2.03	86
29	9.00	≤	114	3.62	380	2.10	96	1.59	34	1.93	72
30	9.00	3.98	414	3.61	± 373	2.10	96	1.59	34	1.92	± 71
31	XXX	3.65	± 387	XX	XXX	2.10	± 96	1.58	± 33	XX	XXX
	72	1432		2282		5623		1598		1894	18916.2
	9	45.9		276		181		52		63	52
	143	2831		16434		11153		3170		3757	37520
		414		327		389		95		104	414
		3.66		12		0		33		33	0

4th Quarter — Computed: T.C. Simpson — Checked: — Date:
3rd Quarter — Computed: T.C. Simpson — Checked: — Date:
2nd Quarter — Dis. appld.: J.M.S. — Dis. check: T.C. Simpson — Date:
1st Quarter — G.H. copd.: J.M.S. — G.H. check: T.C. Simpson — Date:

Water Year 1980

CLEAR Creek near below CLEAR CREEK RESERVOIR

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 19 80

Drainage area _____ square miles. Water stage recorder STEVENS E WEEKLY 20'

Max. Discharge _____ sec. ft. at _____ Max. G. H. 3.80 ft. at 8:00 PM on May 22 Min. Daily Discharge 0 sec.-ft. on 176 Days

S - discharge subdivided Discharge estimated for "a" no gage height record.

Day.	OCT.		NOV.		DEC.		JAN.		FEB.		MAR.	
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge
1	a	0	1.04	.60	a	0	a	0	a	0	a	0
2		NO FLOW	1.04	.60								
3			1.04	.60								
4	a	0	1.04	.60								
5	1.04	.60	1.04	.60								
6	1.04	.60	1.04	.60								
7	1.04	.60	1.04	.60								
8	1.04	.60	1.04	.60								
9	1.04	.60	1.04	.60								
10	1.04	.60	1.03	.30								
11	1.04	.60	1.03	.30								
12	1.03	.30	1.03	.30								
13	1.03	.30	1.03	.30								
14	1.02	0	1.03	.30								
15	1.02	0	a	0		NO FLOW		NO FLOW		NO FLOW		NO FLOW
16	1.02	0										
17	1.02	0										
18	1.02	0										
19	1.03	.30										
20	1.03	.30										
21	1.03	.30										
22	1.03	.30										
23	1.05	.90										
24	1.05	.90										
25	1.05	.90										
26	1.04	.60										
27	1.04	.60										
28	1.04	.60										
29	1.04	.60							a	0		
30	1.04	.60	a	0					XX	XXX		
31	1.04	.60	XX	XXX	a	0	a	0	XX	XXX	a	0
Total	12.3		6.9		0		0		0		0	
Mean	.40		.49		0		0		0		0	
Run-off in acre-feet	24.4		13.7		0		0		0		0	
Maximum	.90		.60		0		0		0		0	
Minimum	0		0		0		0		0		0	

Calendar Year

STATE OF COLORADO)
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. 07L 36500

Rating Table Used No. 12 Oct. 1, 1979 – Sept. 30, 1980

Day	APR. Gage height	APR. Discharge	MAY Gage height	MAY Discharge	JUNE Gage height	JUNE Discharge	JULY Gage height	JULY Discharge	AUG. Gage height	AUG. Discharge	SEPT. Gage height	SEPT. Discharge
1	a	12	0.42	-03 27	1.41	-01 202	1.66	+43 412	0.45	+32 74	0.47	-03 32
2		12	0.39	24	1.43	207	[555] 1.62	+44 401	.44	72	.46	31
3		12	0.42	27	1.54	236	1.56	+43 396	.42	+32 69	.45	30
4		13	0.48	33	[553] 1.73	-01 291	1.49	+42 342	.39	+31 63	.44	29
5		13	0.55	40	1.86	+02 339	1.38	+41 312	.36	+31 59	.44	29
6		13	0.61	-03 48	1.90	+03 356	1.29	+40 282	.33	+30 54	.44	29
7		13	0.67	-02 56	1.88	+04 352	1.25	+40 270	S	47	.47	32
8		13	0.69	59	1.90	+05 362	1.29	+40 282	S	52	.48	-03 33
9		14	0.66	55	2.12	+10 458	1.23	+39 262	S	+30 45	.60	-04 45
10		14	0.62	50	2.31	+15 557	1.18	+39 248	a	45	.69	-05 55
11		14	0.61	49	2.44	+18 629	1.18	+39 248	a	45	[559] .88	-06 81
12		16	0.59	46	2.37	+20 606	1.09	+38 220	[557] a	45	.94	-07 59
13		18	0.56	-02 43	2.27	+22 570	1.03	+38 205		45	.62	-08 49
14		20	0.57	-01 45	2.21	+23 548	0.99	+37 192		50	.64	-08 45
15		22	0.59	48	2.14	+25 526	.92	+37 176	a	55	.62	-09 42
16		24	0.58	46	2.03	+27 490	.87	+36 162	0.35	+30 56	.60	39
17		26	0.60	49	1.99	+28 478	.83	+36 153	a	55	.58	37
18		28	0.57	45	[554] 2.04	+29 502	.80	+35 144		50	.57	-09 36
19		26	0.61	50	2.04	+29 502	.76	135		45	.55	-10 33
20		24	0.68	59	1.99	+31 490	.74	+35 131		40	.54	32
21		22	[552] 0.81	-01 78	1.94	+32 474	.67	+34 115		40	.54	32
22		20	1.01	113	1.95	+32 478	.65	+34 111		40	.54	32
23		18	1.24	162	2.02	+33 510	[556] .62	+34 106		40	.54	32
24	2.31	-05 16	1.37	192	1.99	+34 502	.62	106		43	.54	32
25	2.27	-05 13	1.28	171	1.92	+35 498	.66	111		45	.53	31
26		-04 16	1.20	153	1.92	+35 498	.61	+34 104		45	.53	31
27	0.33	-04 18	1.16	144	1.91	+36 498	.55	+33 92		40	.52	30
28		-03 23	1.20	153	1.80	+39 446	.52	86	[558] a	-03 40	.52	30
29	.12	27	1.28	171	1.68	+41 412	.49	81	0.53	38	.51	29
30	[551] .15	-03 30	1.27	169	1.70	+42 422	.51	+33 85	.52	39	[560] .51	-10 29
31	XX	XXX	1.35	-01 188	XX	XXX	0.47	+33 96	0.50	-03 35	XX	XXX
	550		2593		13419		6026		1509		1106	28,352
	18.3		83.6		447		194		48.7		36.9	77.5
			5140		26,620		11,950		2,990		2,190	56,240
			192		629		412		74		81	629
			24		202		96		35		29	12

4th Qtr: SDT
3rd Qtr: SDT
2nd Qtr: SDT
1st Qtr: SDT
Quarter — Computed / Checked / Date

4th Qtr: SDT
3rd Qtr: SDT
2nd Qtr: SDT
1st Qtr: SDT
Quarter — Dis.appld. / Dis.check / Date

4th Qtr: SDT
3rd Qtr: SDT
2nd Qtr: SDT
1st Qtr: JMS
Quarter — G.H.copd / G.H.check / Date

Water Year 1980

CLEAR Creek ~~near~~ ABOVE CLEAR CREEK RESERVOIR

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 1980

Drainage area 67 square miles. Water stage recorder STEVENS A-35 CONTINUOUS

Max. Discharge 110 sec. ft. at [illegible] on [illegible]

Max. G. H. 2.60 ft. at [illegible] on Jun 13 1980 Min. Daily Discharge 12 sec.-ft. on Many Days

a NO GAGE-HEIGHT RECORD, DISCHARGE ESTIMATED

Day.	OCT. Gage height	OCT. Discharge	NOV. Gage height	NOV. Discharge	DEC. Gage height	DEC. Discharge	JAN. Gage height	JAN. Discharge	FEB. Gage height	FEB. Discharge	MAR. Gage height	MAR. Discharge
1	.37	0 25	.33	0 22	a	20	a	19	a	14	a	12
2	.37	0 25	.33	22		20		19		14		12
3	.36	+.01 25	.33	22		20	546	17		14		12
4	.36	25	.24	0 15		20		18		14		12
5	.35	24	a	17		20		18	548	14		12
6	.35	24		18		20		18		14		12
7	.35	+.01 24		19		20		17		14		12
8	.34	+.02 24	543	20		20		17		14		12
9	.34	+.02 24		20		20		17		14		12
10	541 .33	+.03 24		20		20		17		14		12
11	.33	24		20		20		16		14		12
12	.33	24		20		20		16		13		12
13	.33	24		20	545	20		16		13		12
14	.32	23		20		20		15		13		12
15	.32	23		20		20		15		13		12
16	.31	+.03 22		20		20	547	15		13		12
17	.27	+.02 18		20		20		15		13		12
18	.31	+.01 21		20		20		15		13		12
19	.33	22		20		20		15		13	550	12
20	.33	22		20		20		15		13		12
21	.38	+.01 27		20		20		15		12		12
22	.36	0 24		20		20		15		12		12
23	.34	22		20		19		15		12		12
24	542 .36	0 24		20		19		15		12		12
25	.34	22		20		17		15		12		12
26	.33	22		20		17		14		12		12
27	.32	21		20		17		14	549	12		12
28	.27	17		20		19		14		12		12
29	.30	19	544	20		19		14	a	12		12
30	.28	18	a	20		19		14	XX	XXX		12
31	.29	0 18	XX	XXX	a	19	a	14	XX	XXX	a	12

Calendar Year 1979		OCT.	NOV.	DEC.	JAN.	FEB.	MAR.
30885.5	Total	701	595	611	491	377	372
84.6	Mean	22.6	19.8	19.7	15.8	13.1	12.0
61,260	Run-off in acre-feet	1390	1180	1210	974	752	738
552	Maximum	27	22	20	19	14	12
8.0	Minimum	17	15	17	14	12	12

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. _____

Rating Table Used _____

Day	APR. Gage height	APR. Discharge	MAY Gage height	MAY Discharge	JUNE Gage height	JUNE Discharge	JULY Gage height	JULY Discharge	AUG. Gage height	AUG. Discharge	SEPT. Gage height	SEPT. Discharge
1	2.56	19	2.28	6.5	3.57	213	4.11	309	2.69	43	2.45	25
2	2.57	20	2.23	5.3	3.58	216	4.11	309	2.45	26	2.45	25
3	2.57	20	2.23	5.3	3.62	229	4.07	298	2.41	23	2.44	25
4	2.57	20	2.24	5.6	3.74		4.00	281	2.36	20	2.37	20
5	2.57	20	2.34	9.3	3.88		3.86	248	2.35	20	2.39	22
6	2.58	20	2.56	22	4.01		3.73	216	2.44	25	2.41	23
7	2.57	20	2.54	21	3.96		3.67	200	2.50	29	2.45	25
8	2.56	19	2.57	23	3.91		3.67	200	2.51	30	2.46	26
9	2.56	19	2.57	23	4.16		3.59	182	2.54	32	2.55	39
10	2.56	19	2.55	22	S		3.54	170	2.42	24	a	67
11	2.56	19	2.60	26	5.03	c	3.53	168	2.49	28		86
12	2.54	18	2.62	27	5.19		3.45	151	2.47	27		62
13	2.54	18	2.53	22	5.05		3.40	142	2.14	25		48
14	2.52	17	2.51	21	4.95	c	3.36	133	2.45	26	a	36
15	2.50	16	2.53	23	4.81		3.31	125	2.60	36	2.57	32
16	2.49	15	2.51	22	4.50		3.18	102	2.60	36	a	29
17	2.45	13	2.48	20	4.45		3.10	89	a	30		26
18	2.46	14	2.44	18	4.91		3.03	78	a	27		25
19	2.46	14	2.49	22	S		2.77	71	2.42	24	a	19
20	2.45	13	2.59	28	4.73	504	3.00	75	2.38	22	2.31	17
21	2.44	12	2.73	40	4.66	497	2.97	71	2.37	21	a	17
22	2.39	10	3.04	77	4.61	479	2.94	67	2.35	20		16
23	2.31	7.6	3.42	158	4.62	482	2.91	65	2.36	20		14
24	2.33	8.2	3.48	175	4.60	476	2.87	60	2.39	22		14
25	2.32	7.9	3.43	163	4.57	453	2.89	62	2.48	27		17
26	2.33	8.2	3.33	142	4.50	440	2.88	61	2.48	27		25
27	2.32	7.9	3.29	136	4.41	410	2.83	55	2.45	25		23
28	2.30	7.2	3.27	131	4.33	387	2.83	55	2.51	29		25
29	2.31	5.3	3.42	170	4.20	340	2.80	52	2.45	25		23
30	2.22	4.7	3.49	185	4.11	309	2.78	50	2.45	25	a	22
31	XX	XXX	3.52	198	XX	XXX	2.78	50	2.46	26	XX	XXX
	432		1947				4,195		820		811	
	14.4		63				135		26.4		29.0	
	857		3860				8320		1630		1730	
	20		198				309		43		26	
	4.7		53				50		20		14	

Day. | 4th | 3rd | 2nd | 1st | Quarter | Computed | Checked | Date

Dis.appld. | Dis.check | Date

G.H.copd. | G.H.check | Date

Water Year 1980

CHALK [illegible] River at Creek near NATHROP, COLO

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 19 80

Drainage area _____ square miles. Water stage recorder STEVENS A-35 CONTINUOU

Max. Discharge _____ Sec. ft. at _____ on _____ G. H. _____ ft.
Max. G. H. _____ ft. at _____ on _____ Min. Daily Discharge _____ sec.-ft. on _____
B-ICE EFFECT

Day.	OCT.		NOV.		DEC.		JAN.		FEB.		MAR.	
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge
1	2.51	-22 14	2.55	-25 15	2.62	B 19	2.59	B 19	2.55	18 19	2.54	19 19
2	2.42	10	2.57	16	2.57	B 18	2.57	-22 18	2.55	19	2.54	19
3	2.37	8.2	2.56	16	2.59	-22 19	2.58	B 19	2.55	19	2.54	19
4	2.36	7.9	2.57	16	2.59	19	[198] 2.57	-22 18	2.55	19	2.55	19
5	2.36	7.9	2.57	16	2.59	19	2.57	18	2.55	19	2.54	19
6	2.37	8.2	2.57	16	2.60	20	2.56	19	[199] 2.55	18 19	2.55	19
7	2.38	8.6	2.56	16	2.59	19	2.57	18	2.56	20	2.56	20
8	2.37	8.2	2.57	16	2.59	19	2.56	19	2.55	18 19	2.55	19
9	2.37	8.2	[196] 2.55	-25 15	2.59	19	2.57	18	2.55	b 19	2.55	19
10	2.37	8.2	2.54	14	2.59	19	2.59	20	2.55	b 19	2.55	19
11	[194] 2.40	-22 9.3	2.56	16	2.59	19	2.60	20	2.56	b 19	2.55	19
12	2.39	9.0	2.58	17	2.59	19	2.59	20	2.54	18 19	2.55	19
13	2.39	9.0	2.57	16	2.58	-22 19	2.58	19	2.54	19	2.56	20
14	2.39	9.0	2.57	16	2.59	B 19	2.58	19	2.54	19	2.56	20
15	2.38	8.6	2.56	16	2.58	-22 19	2.58	19	2.55	19	2.56	20
16	2.39	9.0	2.56	16	2.58	19	2.58	20 19	2.54	19	2.56	20
17	2.39	9.0	2.56	16	2.58	19	2.57	20 19	2.54	19	2.55	19
18	2.39	-22 9.0	2.56	16	2.58	19	2.58	20	2.54	19	[201] 2.55	18 19
19	2.41	-24 9.0	2.57	16	2.57	18	2.58	20	2.55	19	2.55	19
20	2.41	9.0	2.57	16	2.56	19	2.58	20	2.55	19	2.56	20
21	2.44	-24 10	2.57	-25 16	2.56	19	2.57	20 19	2.54	19	2.56	20
22	2.42	-26 8.6	2.57	B 16	2.56	19	2.56	19 19	2.54	19	2.56	20
23	2.44	9.3	2.57	-25 16	2.56	19	2.56	b 19	2.54	19	2.57	20
24	2.45	9.6	2.57	B 16	2.55	19	2.56	19 19	2.54	19	2.57	20
25	[195] 2.43	-26 9.0	2.56	-25 16	2.55	19	2.56	19	2.53	18	2.57	20
26	2.42	8.6	2.57	16	2.56	19	2.56	19	2.53	18	2.57	20
27	2.44	-26 9.3	2.56	-25 16	2.56	19	2.56	19	[200] 2.54	18 19	2.57	18 20
28	2.52	-25 14	2.56	B 16	2.56	-22 19	2.56	19	2.54	19	2.56	19 19
29	2.56	16		16	2.56	B 19	2.57	20	2.54	18 19	2.56	19
30	256	16	[197]	13 16	258	-22 19	2.56	19	XX	XXX	2.55	19
31	2.54	-25 14	XX	XXX	258	13 19	2.56	19 B 19	XX	XXX	2.57	19 20
Total	303.7		477		544		587		550		603	
Mean	9.8		16		18		19		19		19	
Run-off in acre-feet	602		946		1,120		1,165		1,090		1,200	
Maximum	16		17		20		20		20		20	
Minimum	7.9		14		17		17		18		19	

Calendar Year 1979

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. _____

Rating Table Used _____

APR.		MAY		JUNE		JULY		AUG.		SEPT.		Day.	4th
Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge		3rd
1.44	16	1.13	10	1.47	19	3.16	356	1.89	63	0.97	6.9	1	
1.50	19	0.84	5.0	1.43	17	3.16	356	1.88	61	0.82	5.2	2	2nd
1.47	18	0.77	4.3	1.53	22	3.10	334	1.87	59	0.76	4.6	3	
1.47	18	0.80	4.6	S	79	2.99	298	1.83	54	0.78	4.8	4	1st
1.46	18	S	6.1	S	143	2.85	254	1.80	50	0.76	4.6	5	
1.46	18	1.31	13	2.80	220	2.76	234	1.68	35	0.79	4.9	6	Quarter
1.47	19	S	11	2.83	229	2.72	223	1.80	46	0.76	4.6	7	Computed
S	17	0.92	5.9	2.82	226	2.73	226	1.81	46	0.76	4.6	8	Checked
1.48	20	0.83	4.9	3.19	345	2.66	207	1.82	48	1.30	12	9	4th
1.50	21	0.76	4.2	3.52	487	2.61	195	1.79	44	1.52	18	10	
1.48	20	0.80	4.6	3.55	500	2.58	187	1.72	36	1.67	26	11	3rd
1.48	20	0.85	5.1	3.63	541	2.52	173	1.69	34	1.54	19	12	
1.46	19	0.68	3.4	3.60	528	2.47	162	1.66	30	1.46	15	13	2nd
1.47	19	0.65	3.2	3.46	464	2.46	160	1.62	26	1.36	13	14	
1.49	20	0.64	3.1	3.38	432	2.38	145	1.70	32	1.27	11	15	1st
S	16	0.63	3.0	3.37	428	2.29	129	1.59	24	1.12	9.4	16	
S	9.9	0.73	3.9	3.34	416	2.22	117	1.48	17	1.01	8.1	17	Quarter
1.00	8.6	0.80	4.6	343	452	2.20	113	1.39	13	0.99	7.4	18	Dis.appld.
1.16	11	0.80	4.6	3.50	482	2.17	110	1.25	11	0.93	6.8	19	Dis.check
1.37	14	0.79	4.5	3.39	436	2.11	100	1.16	9.3	0.86	5.9	20	
S	13	S	5.5	3.36	421	2.09	97	1.14	9.0	0.86	5.9	21	4th
1.07	9.8	1.60	26	3.33	412	2.09	97	1.11	8.6	0.94	6.8	22	
S	13	1.86	48	3.40	440	2.07	94	1.14	9.0	0.91	6.4	23	3rd
1.46	18	2.03	68	3.50	487	2.09	97	1.21	9.9	0.95	6.9	24	
1.12	11	1.69	34	3.47	474	2.09	97	1.36	12	1.09	8.6	25	2nd
1.07	9.7	1.67	32	3.48	478	2.06	91	1.30	11	1.07	8.4	26	
0.94	7.8	1.50	21	3.47	474	2.02	84	1.17	9.4	1.03	7.9	27	1st
0.92	7.5	1.50	21	3.37	432	1.99	78	1.13	8.9	1.01	7.6	28	Quarter
0.82	6.3	1.48	20	3.18	362	1.96	73	S	7.5	0.97	7.2	29	G.H.copd.
1.21	11	1.45	18	3.15	352	1.92	67	1.03	7.6	0.85	6.9	30	G.H.check
XX	XXX	1.47	19	XX	XXX	1.91	65	1.08	8.2	XX	XXX	31	Date
29.6	421.5	10,801		5019		839.4		264.4		21,414.8			Water Year
15.0	13.6	360		162		27.1		8.81		58.5			1980
270	836	21,420		9,960		1660		524		42,480			
1	68	541		356		63		26		5.11			
1.7	3.0	17		65		7.5							

COTTONWOOD Creek near BUENA VISTA, COLO

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 1980

Drainage area ______ square miles. Water stage recorder STEVENS A-35 CONTINUOUS

Max. Discharge ____ sec. ft. at ____ on ____

Max. G. H. [illegible] ft. at [illegible] on [illegible]

Min. Daily Discharge 0.56 sec.-ft. on Oct 12-16

v - variable shift. Discharge [illegible]

S - discharge subdivided [illegible]

a - no gage height record, "b" ice effect

[illegible] for "a" [illegible]

Day	OCT. Gage height	OCT. Discharge	NOV. Gage height	NOV. Discharge	DEC. Gage height	DEC. Discharge	JAN. Gage height	JAN. Discharge	FEB. Gage height	FEB. Discharge	MAR. Gage height	MAR. Discharge
1	.34	.14 0.66	1.30	+.01 13	1.77	b .04 32	1.69	b 0 29	1.56	b .01 20	1.59	.04 20
2	.34	0.66	1.37	+.01 14	1.77	32	1.66	27	1.59	.02 21	1.58	20
3	.33	0.61	1.52	+.08 23	1.80	34	1.64	0 26	1.58	21	1.61	21
4	.33	0.61	1.63	+.09 31	1.76	31	[204] 1.67	+.01 28	1.52	.02 20	1.60	21
5	.33	0.61	1.63	31	1.73	29	1.67	+.01 28	1.56	.03 19	1.59	.04 20
6	.33	0.61	1.61	30	1.73	29	1.65	27	[206] 1.56	.03 19	1.60	.05 20
7	.33	0.61	1.62	30	1.72	28	1.64	26	1.52	.03 20	1.60	20
8	.33	0.61	1.62	30	1.72	28	1.64	26	1.52	b 17	1.59	20
9	.33	0.61	[201] 1.61	+.09 30	1.70	27	1.64	+.01 26	1.39	13	1.58	b .05 19
10	[199] .33	.14 0.61	1.60	.09 29	1.70	27	1.65	+.02 28	1.51	17	1.52	.05 19
11	.33	0.61	1.59	+.03 28	1.70	27	1.63	26	1.53	18	1.58	.04 19
12	.32	0.56	1.58	+.02 26	1.70	27	1.63	26	1.53	b 18	1.58	19
13	.32	0.56	1.59	.06 26	[203] 1.64	.04 23	1.63	26	1.56	.03 19	1.54	b 17
14	.32	0.56	1.58	+.05 25	1.67	.04 25	1.64	+.02 27	1.55	19	1.58	17
15	.32	0.56	1.58	25	1.71	.03 28	1.61	+.03 26	1.56	19	1.5?	17
16	.32	0.56	1.58	25	1.68	26	[205] 1.60	+.03 25	1.55	19	1.56	.04 18
17	.33	0.61	1.58	+.05 25	1.68	26	1.59	24	1.54	18	1.45	b 13
18	.33	0.61	1.59	+.04 25	1.69	.03 27	1.60	+.03 25	1.52	20	[208] 1.49	b .02 14
19	.33	0.61	1.61	.03 26	1.68	.02 27	1.60	b +.03 25	1.52	20	1.48	.04 14
20	.37	.14 0.82	1.62	.03 26	1.68	27	1.56	.03 22	1.56	19	1.48	.06 14
21	S	v 2.0	1.59	.01 23 b	1.67	26	1.58	.02 23	1.54	18	1.48	.05 15
22	S	v 4.6	1.56	+0 21 b	1.68	.02 27	1.56	+.02 22	1.53	18	1.50	.05 16
23	S	v 12	1.64	+.02 27 b	1.67	.01 27	1.53	+.01 20	1.55	.03 19	1.51	.04 16
24	[200] 1.51	+.01 19	1.65	+.02 28	1.67	27	1.57	b 23	1.53	b 18	1.42	.03 15
25	1.49	18	1.73	0 32	1.67	27	1.61	+.01 24	1.45	b 14	1.49	.03 16
26	1.49	+.01 18	1.70	.01 29 b	1.68	28	1.58	0 22	1.58	.03 20	1.47	.02 16
27	1.37	+.02 13	1.68	.02 27 b	1.68	28	1.57	22	[207] 1.60	.03 21	1.48	.01 16
28	1.27	+.03 12	1.61	b 21	1.66	.01 25	1.57	22	1.61	22	1.48	.01 16
29	1.43	+.05 17	1.64	b 22	1.62	b 22	1.57	0 22	1.60	.03 21	1.46	16
30	1.38	+.05 15	[202] a	.04 24 b	1.68	24	1.58	+.01 21	XX	XXX	1.47	.01 16
31	1.26	+.06 12	XX	XXX	1.66	b 23	1.54	b .01 19	XX	XXX	1.46	.01 16

Calendar Year 1979		OCT.	NOV.	DEC.	JAN.	FEB.	MAR.
[illegible]	Total	154.9	772	844	763	547	540
41.4	Mean	5.0	25.7	27.2	24.6	18.9	17.4
29,950	Run-off in acre-feet	307	1,531	1,670	1,510	1,080	1,070
[illegible]	Maximum	19	31	34	29	22	21
[illegible]	Minimum	0.56	13	22	19	13	13

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. 070 500
Rating Table Used No. 2 Rated 2-20-78

Day	APR. Gage height	APR. Discharge	MAY Gage height	MAY Discharge	JUNE Gage height	JUNE Discharge	JULY Gage height	JULY Discharge	AUG. Gage height	AUG. Discharge	SEPT. Gage height	SEPT. Discharge
1	[illegible]	417	[852] 1.33	664	2.32	1580	3.65	3140	1.56	902	1.03	417
2	[illegible]	353	1.26	607	2.12	1350	3.63	3110	1.51	857	1.02	410
3	.91	335	1.26	607	2.23	1460	[856] 3.59	3070	1.49	839	1.00	398
4	[illegible]	353	1.33	664	2.39	1630	3.00	2350	1.47	821	1.05	437
5	.17	365	1.38	706	[854] 3.02	2330	2.81	2140	1.41	767	1.09	472
6	[illegible]	353	1.48	794	3.29	2680	2.86	2210	1.38	740	1.11	486
7	[illegible]	335	1.89	1200	3.39	2800	3.03	2440	1.45	803	1.10	479
8	.11	323	1.91	1220	a	2820	2.86	2210	1.60	940	1.11	486
9	[illegible]	311	1.53	848		3130	2.66	1970	1.63	970	1.25	583
10	.12	323	1.45	776		3650	2.48	1790	1.60	940	[860] 1.33	672
11	[illegible]	323	1.46	785		4110	2.54	1860	1.59	930	1.36	698
12	.00	256	1.47	794		4860	2.59	1910	1.52	866	1.29	639
13	.65	186	1.39	723		4780	2.52	1840	[858] 1.46	812	1.22	591
14	[illegible]	186	1.11	500		4420	2.45	1760	1.42	776	1.17	552
15	.67	196	1.15	530		4210	2.19	1520	1.46	812	1.14	530
16	[illegible]	196	1.19	560		3840	2.08	1410	1.46	812	1.17	552
17	.69	210	1.29	639		3280	1.99	1330	1.40	749	1.10	500
18	[illegible]	235	1.24	599		3440	1.96	1300	1.37	723	1.05	465
19	[illegible]	250	1.18	552	[855] a	3770	1.83	1180	1.30	655	1.07	479
20	.80	272	1.18	552	3.90	3370	1.82	1160	1.04	424	1.06	472
21	[illegible]	294	1.12	508	4.12	3730	1.79	1130	1.01	404	1.04	458
22	.70	329	[853] 1.46	785	4.05	3690	1.79	1130	1.02	410	1.00	430
23	[illegible]	451	1.80	1100	4.08	3690	1.76	1110	1.00	398	0.96	404
24	.32	631	2.20	1490	4.10	3730	[857] 1.75	1100	1.04	424	0.95	398
25	[illegible]	560	2.22	1520	3.97	3540	1.79	1140	1.07	444	0.95	398
26	[illegible]	560	2.14	1430	4.00	3600	1.76	1110	1.09	458	0.97	410
27	.20	552	1.97	1230	3.96	3540	1.71	1060	1.06	437	0.98	404
28	[illegible]	552	1.99	1250	3.85	3390	1.70	1050	1.05	430	0.98	404
29	.27	607	2.12	1380	3.65	3120	1.66	1010	[859] 1.02	410	0.92	378
30	[illegible]	655	2.33	1590	3.61	3070	1.59	930	1.03	417	0.91	372
31	[illegible]	XXX	2.30	1560	XX	XXX	1.57	911	1.08	451	XX	XXX

APR.	MAY	JUNE	JULY	AUG.	SEPT.	Water Year 1980
10,969	28,167	98,630	51,381	20,821	14,374	279,833
366	908	3,288	1,657	672	479	765
21,760	55,860	195,600	101,900	41,300	28,510	555,000
[illegible]	1590	4,860	3,140	970	698	4,860
186	500	1,350	911	398	372	186

Quarter	Computed	Checked	Date
4th			
3rd			
2nd			
1st			

Quarter	Dis. appld.	Dis. check	Date
4th			
3rd			
2nd			
1st			

Quarter	G.H. copd.	G.H. check	Date
4th			
3rd			
2nd			
1st			

Water Year 1980

ARKANSAS River at Creek near CALIDA, COLO

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 1980

Drainage area 1218 square miles. Water stage recorder STEVENS A-35 CONTINUOUS

Day.	OCT.		NOV.		DEC.		JAN.		FEB.		MAR.	
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge
1	.78	+12 305	.76	+06 261	1.01	+03 391	.78	+04 261	.25	to 261	.25	to 261
2	.75	+11 283	.76	261	1.01	+03 391	.78	261	.25	261	.23	250
3	.73	+10 266	.76	261	1.04	+07 410	.77	256	.25	261	.24	256
4	.75	+09 272	.78	272	.90	+01 329	846 .79	+01 266	.25	261	.25	261
5	.75	272	.79	+06 278	.84	+03 300	.78	to 5 266	.24	to 7 256	.24	to 7 251
6	.74	+07 266	.85	+08 323	.82	288	.77	261	849 .23	to 6 245	.25	to 8 266
7	.71	+08 245	.97	+12 424	.82	288	.76	256	.26	261	.25	266
8	.68	+07 225	.98	430	.82	288	.79	to 5 272	.23	245	.24	261
9	.68	225	843 .98	+12 430	.81	283	.77	to 6 266	.24	250	.23	256
10	.68	225	.97	424	.80	278	.75	256	.25	256	.23	to 8 266
11	841 .67	+07 220	.96	417	.81	283	.76	261	.25	256	.24	to 6 266
12	.65	210	.97	+12 424	.80	278	.74	to 6 250	.22	266	.23	261
13	.64	205	.95	+11 404	.80	278	.77	to 7 272	.83	300	.22	256
14	.63	200	.95	404	845 .80	+02 278	.77	272	.29	278	.26	to 278
15	.63	200	.94	398	.82	288	.77	to 7 272	.29	278	.82	to 312
16	.63	200	.94	+11 398	.82	288	.78	to 8 283	.22	266	.82	312
17	.63	200	.97	+10 410	.82	288	847 .78	+08 283	.24	250	.80	to 305
18	.64	205	1.01	+08 424	.82	288	.80	294	.26	261	850 .95	to 11 404
19	.65	210	1.02	430	.82	288	.78	283	.22	266	1.08	493
20	.66	+07 215	1.02	+12 430	.82	288	.76	272	.25	256	1.08	493
21	.70	+06 230	.99	+07 404	.81	283	.77	278	.24	250	1.08	485
22	.74	250	1.00	+06 404	.81	283	.77	278	.24	250	1.08	493
23	.74	250	1.02	+05 410	.81	283	.75	266	.24	250	1.08	473
24	.76	261	1.02	410	.81	283	.76	272	.24	250	1.07	466
25	842 .76	+06 261	1.03	417	.83	294	.77	278	.23	245	1.08	473
26	.74	250	1.03	417	.83	294	.79	288	.23	245	1.07	466
27	.74	250	1.02	410	.84	300	.79	to 8 288	849 .24	to 4 250	1.10	to 10 500
28	.72	240	1.01	+05 404	.82	+01 288	.77	to 7 272	.24	to 6 250	1.12	515
29	.74	250	.99	+01 384	.78	+01 261	.79	283	.25	to 7 261	1.11	473
30	.76	261	844 1.01	+02 391	.78	261	.75	261	XX	XXX	1.11	509
31	.76	+01 261	XX	XXX	.78	+01 261	.73	to 7 250	XX	XXX	1.14	to 10 [illegible]

Max. Discharge _____ sec. ft. at _____ on _____ Max. G. H. _____ ft. at _____ on _____ Min. Daily Discharge _____ sec.-ft. on _____

Calendar Year 1979

67,097	Total	7,413	11,554	9,182	8,377	7,385	11,484
732	Mean	239	385	296	270	258	370
[illegible]	Run-off in acre-feet	14,700	22,920	18,210	16,620	14,650	[illegible]
[illegible]	Maximum	305	430	410	[illegible]	300	530
[illegible]	Minimum	200	261	261	250	245	250

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. 070932

Rating Table Used No. 4 Rated October 1, 1924

Day	APR. Gage height	APR. Discharge	MAY Gage height	MAY Discharge	JUNE Gage height	JUNE Discharge	JULY Gage height	JULY Discharge	AUG. Gage height	AUG. Discharge	SEPT. Gage height	SEPT. Discharge
1		520	[357] 4.10	11 234	5.43	+04 1890	6.73	04 3620	4.50	04 1030	3.57	13 458
2		480	4.00	10 680	5.24	+04 1900	6.72	3610	4.44	05 983	3.56	454
3		460	3.99	625	5.36	+05 1830	[361] 6.70	04 3580	4.41	962	3.52	436
4		470	4.07	10 722	5.58	+05 2080	6.23	03 2840	4.38	05 941	3.58	462
5		480	4.14	09 770	[359] 6.16	+06 2870	6.06	2600	4.30	05 89[illegible]	3.66	498
6		470	4.28	09 854	6.40	3260	6.05	2590	4.25	854	3.68	508
7		460	4.78	08 1200	6.49	3400	6.19	2780	4.31	890	3.70	516
8		415	4.86	08 1260	6.53	+06 3460	6.04	2570	4.54	1050	3.71	13 521
9		14 425	4.44	07 969	6.78	+05 3820	5.90	2380	4.56	1060	3.85	12 595
10	.47	418	4.30	07 828	7.13	4500	5.70	2120	4.51	1020	4.02	11 686
11	0	422	4.31	06 870	7.43	+05 5080	5.71	2140	4.49	06 1010	4.14	10 764
12	.52	347	4.31	870	7.90	04 6000	5.72	2150	4.39	07 931	[365] 4.05	10 710
13	.27	222	4.21	06 830	7.85	5900	5.65	2060	[363] 4.33	07 896	3.98	670
14	.26	212	3.87	05 640	7.63	5460	5.60	2000	4.33	896	3.90	630
15	3.01	14 230	3.82	05 615	7.50	+04 5200	5.30	1620	4.39	927	3.85	605
16	3.04	13 244	3.90	04 660	7.28	03 4740	5.18	1570	4.38	927	3.90	630
17	3.07	254	3.99	710	6.90	4050	5.04	1450	4.30	878	3.81	10 585
18	3.16	282	3.97	04 698	7.01	4250	5.01	1420	4.26	07 854	3.71	11 530
19	3.24	319	3.85	03 640	[360] 7.25	+03 4650	4.85	1300	4.18	09 794	3.71	530
20	3.27	339	3.86	645	7.03	0 4230	4.84	1290	3.74	12 510	3.71	530
21	3.3	13 325	3.80	03 615	7.14	4130	4.80	1260	3.70	521	3.66	508
22	3.48	12 422	[358] 4.28	02 876	7.06	4290	4.79	1250	3.68	512	3.64	498
23	.78	560	4.84	01 1300	7.07	4310	4.76	1220	3.66	503	3.59	472
24	4.10	728	5.30	0 1720	7.05	4270	[362] 4.76	03 1220	3.69	516	3.56	462
25	3.95	645	5.33	0 1750	7.00	4180	4.83	1280	3.73	535	3.54	451
26	3.93	12 635	5.18	0 1600	7.04	4250	4.79	1250	3.76	13 550	3.56	462
27	3.91	11 630	4.96	+01 1420	7.02	0 4220	4.72	1190	3.70	13 516	3.56	462
28	3.90	625	4.97	+01 1420	6.9[illegible]	01 4010	4.69	1170	3.65	48[illegible]	3.57	467
29	4.00	625	5.13	+02 1570	6.72	01 3610	4.65	03 1140	[364] 3.61	13 47[illegible]	3.5[illegible]	44[illegible]
30	4.02	11 716	5.38	+03 1830	6.67	01 3530	4.54	01 1060	3.57	458	3.5[illegible]	43[illegible]
31	XX	XXX	5.37	03 1820	XX	XXX	4.53	01 1050	3.66	13 4[illegible]	XX	XXX

	APR.	MAY	JUNE	JULY	AUG.	SEPT.	Water Year 1980
	13,515	31,901	119,580	53,850	23,900	15,591	33[illegible],99[illegible]
	450	1,029	3,986	1,898	771	533	910
	26,810	63,280	237,200	116,700	47,410	30,920	660,200
	728	1,830	6,000	3,620	1,060	764	6,000
	212	615	1,700	1,050	458	436	212

Quarter	Computed	Checked	Date
4th	LRS		
3rd			
2nd			
1st	LRS		

Quarter	Dis.appld.	Dis.check	Date
4th	[illegible]		
3rd	[illegible]		
2nd	[illegible]		
1st	[illegible]		

Quarter	G.H.copd.	G.H.check	Date
4th	LRS		
3rd	[illegible]		
2nd	[illegible]		
1st	[illegible]		

ARKANSAS River at ~~Creek~~ near WELCOVILLE, COLORADO

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 1980

Drainage area 1485 square miles. Water stage recorder Stevens A-35 Continuous

Max. Discharge ____ sec.-ft. on ____ Min. Daily Discharge ____ sec.-ft. on ____

Max. G. H. ____ ft. at ____

Day	OCT. Gage height	OCT. Discharge	NOV. Gage height	NOV. Discharge	DEC. Gage height	DEC. Discharge	JAN. Gage height	JAN. Discharge	FEB. Gage height	FEB. Discharge	MAR. Gage height	MAR. Discharge
1	3.23	347	3.12	323	3.20	526	3.25	359	3.19	331	3.23	331
2	3.16	323	3.12	323	3.22	535	3.28	371	3.22	343	3.20	315
3	3.11	307	3.18	327	3.24	545	3.21	339	3.22	343	3.21	319
4	3.12	311	3.23	343	3.56	480	3.30	371	3.22	343	3.21	319
5	3.13	315	3.25	351	3.42	426	3.27	359	3.21	339	3.21	319
6	3.11	307	S	384	3.38	413	3.27	359	3.20	335	3.21	319
7	3.03	283	3.55	462	3.38	413	3.23	347	3.25	351	3.24	331
8	2.98	268	3.52	472	3.37	408	3.22	343	3.22	339	3.20	311
9	3.01	283	3.58	476	3.35	404	3.26	359	3.18	323	3.19	307
10	2.99	275	3.52	472	3.33	395	3.22	343	3.22	339	3.12	299
11	2.92	268	3.56	467	3.35	401	3.20	335	3.21	335	3.20	311
12	2.94	258	3.55	462	3.35	404	3.21	339	3.23	339	3.19	307
13	2.93	254	3.54	458	3.30	387	3.25	359	3.38	400	3.12	299
14	2.90	240	3.55	462	3.31	391	3.26	363	3.34	383	3.22	319
15	2.90	240	3.54	458	3.32	413	3.26	363	3.32	375	3.36	371
16	2.90	240	3.52	449	3.36	408	3.27	367	3.30	367	3.39	383
17	2.92	242	3.52	472	3.36	408	3.22	367	3.24	339	3.31	351
18	2.94	254	3.62	490	3.35	404	3.32	387	3.23	335	a	450
19	2.94	254	3.64	498	3.33	395	3.30	379	3.32	371		530
20	2.95	258	3.69	521	3.32	391	3.23	351	3.22	351		[illegible]
21	3.03	283	3.68	516	3.33	395	3.21	343	3.23	335		[illegible]
22	a	300	3.67	512	3.35	404	3.21	343	3.22	331		[illegible]
23		300	3.67	512	3.34	400	3.15	319	3.22	331		[illegible]
24		335	3.67	512	3.32	391	3.17	327	3.21	323		[illegible]
25	a	335	3.72	535	3.32	413	3.22	347	3.18	311		530
26	3.12	323	3.72	535	3.39	422	3.23	351	3.21	323		515
27	3.15	315	3.72	535	3.42	436	3.21	339	3.22	327		[illegible]
28	3.12	303	3.66	508	3.32	413	3.22	343	3.23	331		[illegible]
29	3.14	311	3.66	508	3.29	367	3.23	347	3.23	331		[illegible]
30	3.19	331	3.71	530	3.28	391	3.25	355	XX	XXX		[illegible]
31	3.18	329	XX	XXX	3.23	351	3.16	319	XX	XXX	a	[illegible]
Total		8995		13,873		12,913		10,895		9984		12,261
Mean		290		462		416		351		342		418
Run-off in acre-feet		17,840		27,520		25,610		21,610		19,680		24,320
Maximum		347		535		545		387		400		530
Minimum		240		323		367		319		311		299

Calendar Year 1979

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. 070 5000

Rating Table Used # 7, Since 8/66

Day	APR. Gage height	APR. Discharge	MAY Gage height	MAY Discharge	JUNE Gage height	JUNE Discharge	JULY Gage height	JULY Discharge	AUG. Gage height	AUG. Discharge	SEPT. Gage height	SEPT. Discharge
1		27	1.37	112	1.10	70	0.95	51	0.61	15	0.45	4.7
2		29	1.36	110	1.09	68	1.09	70	.59	13	.45	4.7
3		31	1.20	84	1.05	63	1.02	60	.60	14	.45	4.7
4		34	1.47	134	1.00	56	0.95	51	.57	12	.45	4.7
5		37	1.30	99	0.99	55	.86	41	.54	9.8	.45	4.7
6		36	1.47	134	1.04	61	.82	37	.53	8.9	.46	5.2
7		35	1.32	103	1.10	70	.77	32	.51	7.4	.46	5.2
8		37	1.80	216	1.14	75	.73	28	.54	9.8	.46	5.2
9		44	1.41	121	1.46	130	.73	28	.57	12	.51	8.0
10		47	1.17	79	1.76	201	.70	25	.51	8.0	.57	13
11		46	1.08	67	2.01	266	.63	18	.49	6.9	.76	34
12		44	1.07	65	2.08	287	.57	13	.50	7.4	.66	24
13		43	1.05	63	1.99	260	.55	12	.50	7.4	.60	17
14		43	1.03	60	1.83	216	.52	8.9	.52	8.9	.58	15
15		42	1.21	85	1.66	173	.50	7.4	.57	13	.55	12
16		43	1.49	139	1.59	156	.49	6.9	.54	11	.53	11
17		43	1.68	185	1.57	151	.49	6.9	.52	8.9	.52	9.8
18		60	1.43	125	1.56	149	.47	5.8	.51	8.0	.52	9.8
19		80	1.23	89	1.55	146	.48	6.4	.50	7.4	.52	9.8
20		110	1.14	75	1.49	134	.49	6.9	.49	6.9	.50	8.0
21		140	1.17	79	1.46	128	.48	6.4	.48	6.4	.50	8.0
22		170	1.25	91	1.46	128	S	50	.48	6.4	.50	8.0
23		200	1.38	114	1.43	121	.67	21	.48	6.4	.51	8.9
24		230	1.51	144	1.33	103	.63	17	.48	6.4	.51	8.9
25		190	1.49	139	1.27	94	.61	15	.49	6.9	.51	8.9
26		175	1.40	119	1.27	94	.62	16	.48	6.4	.52	9.8
27	1.51	144	1.32	103	1.22	86	.61	15	.48	6.4	.51	8.9
28		92	1.24	89	1.20	84	.59	12	.47	5.8	.50	8.0
29	0.98	54	1.22	86	1.10	71	.57	12	.46	5.2	.51	8.9
30		59	1.18	81	1.00	58	.55	9.8	.46	5.2	.50	8.0
31	XX	XXX	1.15	77	XX	XXX	.59	13	.46	5.2	XX	XXX
	236.5		3267		3754		702.1		262.4		276.8	
	78.8		105		125		22.6		8.46		9.89	
	1,170		6,480		7,450		1,390		520		549	
	230		216		291		70		15		34	
	27		60		58		5.8		5.2		4.7	

4th Qtr: LRS
3rd Qtr:
2nd Qtr:
1st Qtr: LOS
Quarter — Computed / Checked / Date

4th Qtr: LRS
3rd Qtr:
2nd Qtr:
1st Qtr: LOS
Quarter — Dis.appld. / Dis.check / Date

4th Qtr: LRS
3rd Qtr:
2nd Qtr:
1st Qtr: LOS
Quarter — G.H.copd. / G.H.check / Date

Water Year 1980

Grape Creek near Westcliffe

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 19 80

Drainage area 320 square miles. Water stage recorder Stevens A-35

Max. Discharge [illegible] sec. ft. at [illegible] on [illegible] Min. Daily Discharge 4.7 sec.-ft. on Sept 1-5

Max. G. H. 2.19 ft. at 1730 on [illegible]

S - discharge subdivided; V - variable shift. Discharge estimated for "a" - no gage height record and "b" - ice effect

Day	OCT. Gage height	OCT. Discharge	NOV. Gage height	NOV. Discharge	DEC. Gage height	DEC. Discharge	JAN. Gage height	JAN. Discharge	FEB. Gage height	FEB. Discharge	MAR. Gage height	MAR. Discharge
1	0.53	8.9	0.66	18	a	b 11	1.05	b 13	1.16	b 26	0.75	28
2	.52	8.0	.63	15		11	1.05	13	1.06	30	.73	26
3	.51	7.4	.65	17		11	1.05	13	1.05	34	.76	29
4	.52	8.0	.68	20		13	1.30	15	1.06	33	.73	26
5	.52	8.0	.67	19		18	1.28	15	0.93	30	.73	26
6	.52	8.0	.68	20		20	1.00	13	.83	28	.73	26
7	.52	8.0	.69	21		24	1.07	14	.77	27	.72	25
8	.52	8.0	.69	21		28	1.72	28	.76	25	.71	24
9	.52	8.0	.69	21	a	29	1.50	25	.82	23	.71	24
10	.54	8.9	.69	21	a	30	1.35	23	.93	25	.71	24
11	.54	8.9	.65	17	0.77	14	1.12	19	.97	26	.72	25
12	.54	8.9	.64	16	.80	15	1.11	19	.95	26	.69	21
13	.54	8.9	.64	16	.84	13	1.34	22	.78	23	.67	19
14	.55	9.8	.63	15	.93	12	1.66	27	.74	23	.69	21
15	.53	8.0	.62	14	1.03	11	1.91	34	.95	26	.71	24
16	a	8.0	.63	15	0.93	10	1.55	28	.86	b 30	.66	18
17		8.0	.63	15	.92	10	1.18	20	.83	36	.69	21
18		8.0	.64	16	1.00	10	1.02	17	.92	46	.70	22
19		8.0	.63	15	1.02	10	0.98	16	.99	55	.72	25
20		8.0	.67	19	1.06	9.7	1.02	17	.85	38	.75	29
21		16	.73	b 12	1.05	9.5	1.05	17	.75	28	.85	39
22		15	.93	14	0.93	9.0	1.05	17	.76	29	.81	35
23		13	1.01	15	.81	7.0	1.12	19	.73	26	.73	26
24		11	a	16	.81	6.0	1.20	20	.70	22	.76	29
25		10		18	.85	6.0	1.18	20	.71	24	.85	39
26		10	a	17	.82	6.8	1.05	17	.72	25	.81	35
27		10	a	18	.81	7.4	1.13	19	.77	30	.84	38
28	a	10		16	.81	8.0	0.64	5.0	.82	36	.79	32
29	a	10		14	.92	10	1.34	32	.82	[illegible]	.78	31
30	.58	12	a	b 13	1.02	12	1.26	28	XX	XXX	.78	31
31	.63	15	XX	XXX	1.00	b 12	1.20	b 27	XX	XXX	.74	27

Calendar Year 1979		OCT.	NOV.	DEC.	JAN.	FEB.	MAR.
17,041.1	Total	297.7	505	403.4	612	866	844
46.7	Mean	9.6	16.8	13.0	19.7	29.9	27.2
34,000	Run-off in acre-feet	590	1,000	801	1,210	1,720	1,670
775	Maximum	16	21	30	34	55	39
3.0	Minimum	7.4	12	6.0	5.0	22	18

DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Rating Table Used 10.21 - Oct. 1, 1979 to Sept. 30, 1980

Day	APR. Gage height	APR. Discharge	MAY Gage height	MAY Discharge	JUNE Gage height	JUNE Discharge	JULY Gage height	JULY Discharge	AUG. Gage height	AUG. Discharge	SEPT. Gage height	SEPT. Discharge
1		+01 735	6.49	+01 1230	7.38	-11 2170	8.29	-07 3670	6.24	-11 887	5.52	-03 399
2		593	6.45	1190	7.31 [114]	-12 2060	8.27	3630	6.21	860	5.47	369
3		526	6.44	1180	7.31	-12 2060	8.26	3610	6.18	834	5.43	345
4		512	6.52	1260	7.40	2180	7.93	3050	6.14	800	5.41	334
5		555	6.52	1260	7.90	2920	7.67	2640	6.15	809	5.53	405
6		608	6.53	1270	8.20	3420	7.54	2450	6.11	775	5.53	405
7		655	6.86	1630	8.28	3560	7.73	2730	6.02	703	5.56	425
8		600	7.15	2010	8.38	3740	7.59	2520	6.14	800	5.56 [121]	-03 425
9		570	6.95	1750	8.56	4080	7.48	2360	6.32	959	5.67	-03 498
10		563	6.68	1430	8.87	4690	7.24	2100	6.28	923	5.85	-02 639
11		600	6.59	1330	9.24	5460	7.24	2030	6.23 [119]	-11 878	5.99	-02 751
12		563	6.60 [113]	+01 1340	9.78	6670	7.27	2070	6.18	-10 843	5.96	-01 735
13		412	6.47	+01 1210	9.85	6830	7.22 [117]	2000	6.13	-09 809	5.87	663
14		334	6.32	0 1060	9.60	6260	7.21	-07 1990	6.07	-08 767	5.81	-01 615
15		+01 334	6.24	0 986	9.36	5730	6.96	1660	6.20	-08 878	5.76	0 585
16		334	6.43	-01 1150	9.17 [115]	5320	6.84	-07 1520	6.17	-07 860	5.72	555
17		301	6.49	-01 1210	8.82	-12 4590	6.73	-08 1380	6.08	-07 784	5.75	0 578
18		307	6.51	-02 1220	8.71	-12 4370	6.67	1320	6.02	-06 743	5.62	+01 491
19		312	6.38	-02 1090	8.98	-11 4940	6.59	-08 1240	6.00	-06 727	5.57	457
20		334	6.31	-03 1020	8.84	-10 4650	6.52	-09 1160	5.79	-05 570	5.59	+01 470
21		351	6.26	-03 977	8.82	4630	6.51	1150	5.61	-04 451	5.56	+02 457
22		399	6.33	-04 1030	8.81	-10 4610	6.53	1170	5.58	-04 431	5.52	431
23		491	6.82	-05 1520	8.76	-09 4530	6.52	-07 1160	5.54	-03 412	5.50 [122]	+02 418
24		1010	7.15	-06 1920	8.75	-09 4510	6.48	-10 1110	5.53	405	5.46	393
25		1040	7.36	-07 2200	8.67	-08 4370	6.47	1100	5.57 [120]	-03 431	5.45	387
26		968	7.29	-08 2080	8.64	4310	6.48	-10 1110	5.61	457	5.46	393
27		995	7.10	-08 1830	8.63	-08 4290	6.43	-11 1060	5.65	484	5.47	399
28		959	7.05	-09 1750	8.56	-07 4170	6.39 [118]	1020	5.53	405	5.46	393
29		950	7.08	-09 1790	8.39 [116]	3850	6.37	-11 1000	5.50	387	5.44	381
30		+01 1010	7.26	-10 2010	8.26	-07 3610	6.30	941	5.48	375	5.41	+02 363
31	XX	XXX	7.33	-11 2100	XX	XXX	6.29	-11 932	5.52	-03 399	XX	XXX
	17,921		45,033		128,580		56,883		20,846		14,159	
	597		1453		4286		1835		672		472	
	35,550		89,320		255,000		112,800		41,350		28,080	
	1040		2200		6830		3670		959		751	
	301		977		2060		932		375		334	

	4th	3rd	2nd	1st	Quarter	Computed	Checked	Date
			L.R. Schultz	G.E. Brees				11-20-80
	4th	3rd	2nd	1st	Quarter	Dis.appld.	Dis.check	Date
			L.R. Schultz	G.E. Brees				11-20-80
	4th	3rd	2nd	1st	Quarter	G.H.copd.	G.H.check	Date
			L.R. Schultz	G.E. Brees				11-20-80

Water Year 1980

ARKANSAS Creek near CANON CITY, COLO.

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 1980

Drainage area 3117 square miles. Water stage recorder Stevens A-35 Continuous

Max. G. H. 10.05 ft. at 1300 on 6-12-80 Min. Daily Discharge 171 sec.-ft. on 10-15-79

5-discharge subdivided. Discharge estimated for "a" - no gage height record.

Day	OCT. Gage height	OCT. Discharge	NOV. Gage height	NOV. Discharge	DEC. 1979 Gage height	DEC. 1979 Discharge	JAN. 1980 Gage height	JAN. 1980 Discharge	FEB. Gage height	FEB. Discharge	MAR. Gage height	MAR. Discharge
1	5.17 [101]	+03 240	5.21	+02 255	5.72	−06 512	a	410	5.36	+04 345	5.47	+01 393
2	5.16	237	5.22	260	5.74	526		395	5.35	340	5.43	369
3	5.09	214	5.23	+02 265	5.81	578		370	5.36	345	5.44	375
4	5.07	208	5.26	+01 275	5.81	−06 578		360	5.36 [110]	+04 345	5.46 [111]	+01 387
5	5.08	211	5.32	−01 296	5.63	−05 457		395	5.37	351	5.46	387
6	5.07	208	5.31	−01 290	5.58	425		390	5.36	345	5.43	369
7	5.05	204	5.48	−04 369	5.54	399		370	5.37	351	5.45	381
8	4.98	192	5.57	−05 418	5.53	393	[108] a	369	5.39	363	5.44	375
9	4.93	183	5.59	−06 425	5.51	381	5.47	+04 412	5.33	329	5.42	363
10	4.97	190	a	430	[106] 5.49	−05 369	5.44	393	5.35	+04 340	5.40	351
11	4.95	187		420	5.48	−05 363	5.42	381	5.39	+03 357	5.41	357
12	4.93	183		415	5.50	−04 381	5.35	340	5.37	345	5.42	363
13	4.92	182	[104] a	425	5.98	−03 375	5.34	334	5.41	369	5.40	351
14	4.90	178	5.57	−06 412	5.47	−03 369	5.44	393	5.51	431	5.39	345
15	[102] 4.86	+03 171	5.59	425	5.50	−02 393	5.53	451	5.51	431	5.47	393
16	4.88	175	5.58	418	5.52	−01 412	5.49	425	5.55	457	5.56	451
17	4.90	178	5.60	431	5.51	−01 405	5.47	412	5.52	438	5.56	451
18	4.89	176	5.66	470	5.47	0 387	5.48	+04 418	5.51	+03 431	5.55	444
19	4.89	178	5.70	498	5.47	387	a	440	5.58	+02 470	5.76	593
20	4.93	183	5.80	570	5.48	393		395	5.58	470	5.83	647
21	5.00	+03 195	5.77	548	5.47	0 387	[109] a	375	5.50	418	5.83	647
22	5.13	+04 230	5.73	519	5.49	+01 405	5.42	+04 381	5.47	399	5.83	647
23	5.16	240	5.74	526	5.48	+01 399	5.37	351	5.46	393	5.88	681
24	5.22	270	5.76	540	[107] 5.45	+02 387	5.39	363	5.43	375	5.84	655
25	5.23	275	5.78	555	5.47	399	5.39	363	5.41	363	5.86	667
26	5.21	265	5.78	555	5.51	425	5.42	381	5.41	+02 363	5.84	655
27	5.17	245	[105] 5.79	−06 563	5.55	451	5.39	363	5.43	+01 369	5.87	677
28	5.14	234	5.73	519	5.56	457	5.47	412	5.46	387	5.91	717
29	[103] 5.12	+04 227	5.71	505	5.47	+02 399	5.47	412	5.47	+01 393	5.90	703
30	5.20	+02 250	5.69	−06 491	a	380	5.55	464	XX	XXX	5.88	681
31	5.20	+02 250	XX	XXX	a	395	5.43	+04 387	XX	XXX	5.90	+01 703
Calendar Year 1979												
12,262	Total	6,559		13,088		12,967		12,105		11,113		15,59
856	Mean	212		436		418		390		383		503
19,400	Run-off in acre-feet	13,010		25,960		25,720		24,010		22,040		30,92
4650	Maximum	275		570		578		464		470		71
150	Minimum	171		255		363		334		329		345

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. ________ [illegible]

Rating Table Used *No. 1 - Oct. 1, 1979 to Sept. 30, 1980*

APR. Gage height	APR. Discharge	MAY Gage height	MAY Discharge	JUNE Gage height	JUNE Discharge	JULY Gage height	JULY Discharge	AUG. Gage height	AUG. Discharge	SEPT. Gage height	SEPT. Discharge	Day
.64	+18 631	4.59	+19 2180	4.78	+19 2380	5.91	+13 3640	3.07	+09 834	2.29	+13 429	1
1	510	4.30	1890	4.79	2390	6.00	+13 3760	3.05	821	257/ 2.19	+13 388	2
.30	456	4.13	1740	242/ 4.67	+19 2260	5.90	+14 3640	3.01	795	2.13	364	3
.27	442	4.23	1830	4.75	+19 2340	5.56	+14 3220	2.94	753	2.12	360	4
7	490	4.53	2120	5.31	+18 2970	5.07	+15 2650	253/ 2.93	+09 747	2.20	392	5
.44	525	4.57	2160	5.84	+17 3600	4.86	2420	2.86	705	2.26	416	6
3	570	4.85	2450	6.03	+16 3840	248/ 5.10	+15 2680	2.75	642	2.30	434	7
.43	520	5.43	3120	6.12	+15 3940	4.98	2550	2.89	723	258/ 2.32	+13 442	8
7	490	5.32	2990	243/ 6.40	+14 4300	4.80	2360	3.17	899	2.58	570	9
7	490	4.85	2450	7.00	5140	4.54	2090	3.11	860	2.79	687	10
.44	525	4.65	2290	7.40	+14 5740	4.44	1990	254/ 3.06	+09 828	2.97	795	11
7	490	240/ 4.62	+19 2210	8.05	+13 6750	4.52	2070	3.02	802	2.95	783	12
.08	364	4.42	2010	244/ 8.20	+13 6990	4.48	2030	2.92	741	2.83	711	13
381/ 1	+18 300	4.21	1810	7.87	6460	249/ 4.43	+15 1980	3.04	814	2.75	664	14
6	356	4.29	1880	7.53	5920	4.15	1720	3.21	925	259/ 2.65	+13 607	15
.19	408	4.95	2560	245/ 7.22	+13 5460	3.95	1540	3.11	860	2.58	570	16
4	388	4.59	2180	6.78	4810	3.81	1420	3.00	789	2.62	+13 592	17
.11	376	4.59	2180	6.52	4450	3.71	1340	255/ 2.89	+09 723	2.45	+14 510	18
5	279	4.40	1990	6.81	4860	3.60	1250	2.83	+09 687	2.35	+14 460	19
.70	296	4.26	1860	6.73	4740	3.47	1150	2.65	+10 592	2.38	+15 480	20
.02	303	4.18	1780	6.63	4600	250/ 3.45	+15 1130	2.34	+10 438	2.33	+15 456	21
9	329	4.18	1780	6.68	4670	3.46	1140	2.28	+11 416	2.28	+16 438	22
S	490	241/ 4.67	+19 2260	246/ 6.63	+13 4600	3.47	+15 1150	2.23	+12 400	260/ 2.28	+16 438	23
	1440	5.01	2630	6.65	4630	3.44	+14 1120	2.23	+12 400	2.21	408	24
3.73	1380	5.29	2960	6.57	4520	251/ 3.41	+14 1100	256/ 2.28	+13 424	2.23	416	25
3.44	1150	5.14	2780	6.47	4380	3.44	+13 1110	2.33	447	2.24	420	26
3 7	1170	4.86	2460	6.43	4320	3.38	+12 1060	S	598	2.25	424	27
3.47	1170	4.67	2260	6.35	4210	3.29	+10 984	2.30	434	2.24	420	28
3 7	+18 1170	4.66	2250	6.12	3920	252/ 3.24	+09 944	2.22	400	261/ 2.21	+16 408	29
S	V 1600	4.86	2460	247/ 5.94	+13 3680	3.14	880	2.19	388	2.18	+16 396	30
XX	XXX	4.86	+19 2460	XX	XXX	3.13	+09 873	2.26	+13 416	XX	XXX	31

APR.	MAY	JUNE	JULY	AUG.	SEPT.	Water Year 1980
19,108	69,930	132,870	56,991	20,301	14,880	378,107
637	2256	4429	1838	655	496	1033
37,900	138,700	263,500	113,000	40,270	29,510	750,000
1600	3120	6990	3760	925	795	6990
279	1740	2260	873	388	360	168

Quarter	Computed	Checked	Date
4th, 3rd, 2nd, 1st	L.R. Schultz	G.E. Brees	11-18-80

Quarter	Dis. appld.	Dis. check	Date
4th, 3rd, 2nd, 1st	L.R. Schultz	G.E. Brees	11-18-80

Quarter	G.H. copd.	G.H. check	Date
4th, 3rd, 2nd, 1st	L.R. Schultz	G.E. Brees	11-18-80

Water Year 1980

ARKANSAS River at ~~Creek near~~ PORTLAND, COLO.

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 1980

Drainage area 4280 square miles. Water stage recorder Stevens A-35 Continu

Max. Discharge 1300 Sec. ft. at 1100 on June 14, 1980 G. H. 8.38 ft.

Max. G. H. 8.38 ft. at 1700 on 6-12-80 Min. Daily Discharge 168 sec.-ft. on 10-17-79

S-discharge subdivided, V-variable shift.

Day.	OCT. Gage height	OCT. Discharge	NOV. Gage height	NOV. Discharge	DEC. 1979 Gage height	DEC. 1979 Discharge	JAN. 1980 Gage height	JAN. 1980 Discharge	FEB. Gage height	FEB. Discharge	MAR. Gage height	MAR. Discharge
1	[216] 2.01	+ 01 276	2.06	289	2.63	+ 02 540	2.09	+ 14 352	1.98	+ 18 325	1.96	+ 18 31
2	2.03	+ 01 283	2.07	293	2.62	535	[229] 2.04	+ 15 336	2.00	333	1.91	30
3	1.95	0 253	2.08	0 296	[223] 2.56	+ 02 505	1.98	314	2.02	340	1.95	31
4	1.90	- 01 234	2.10	+ 01 307	2.49	+ 03 475	1.95	303	[236] 1.99	+ 18 329	[237] 1.94	+ 18 31
5	1.93	243	[221] 2.15	+ 02 329	2.26	+ 04 380	2.05	340	1.95	314	1.95	314
6	1.91	- 01 237	2.15	329	2.14	+ 05 336	2.04	336	1.90	296	1.91	30
7	1.87	- 02 222	2.30	388	2.19	+ 06 360	1.99	318	1.90	296	1.94	310
8	1.84	- 03 210	2.47	460	2.10	+ 07 329	[230] 1.92	+ 15 293	1.91	300	1.93	30
9	[217] 1.75	- 02 183	2.48	465	2.08	+ 07 322	1.98	+ 16 318	1.82	269	1.89	29
10	1.76	185	2.49	470	[226] 2.17	+ 08 360	1.98	+ 16 318	1.81	266	1.86	283
11	1.82	202	2.47	460	2.20	+ 07 368	1.93	+ 17 303	[236] 1.92	+ 18 303	1.87	28
12	1.85	210	2.46	456	2.20	+ 07 368	1.90	+ 17 293	1.87	286	1.88	289
13	1.86	213	[222] 2.47	+ 02 460	2.16	+ 06 348	1.96	+ 18 318	1.96	318	1.86	28
14	1.84	207	2.44	447	2.11	+ 05 325	[231] 1.94	+ 18 310	2.07	360	1.82	26
15	[218] 1.79	- 04 194	2.47	460	2.18	+ 04 348	2.08	+ 19 368	2.07	360	1.90	296
16	1.70	- 03 172	2.46	456	2.23	+ 03 364	2.02	344	2.08	364	2.04	39
17	1.67	- 02 168	2.46	456	[227] 2.22	+ 03 360	2.00	336	2.02	340	2.06	356
18	1.69	- 01 175	2.52	485	2.20	352	2.00	+ 19 336	2.02	340	2.03	34
19	1.72	0 185	[223] 2.57	+ 02 510	2.18	344	2.07	+ 20 368	2.09	368	2.29	452
20	1.77	+ 01 202	2.68	565	2.17	340	1.96	+ 21 329	2.12	380	2.49	550
21	1.83	+ 02 222	2.63	540	2.18	344	[232] 1.91	+ 21 310	2.01	336	2.45	53
22	[219] 2.01	+ 03 283	2.57	510	2.20	352	1.92	314	1.95	314	2.47	540
23	2.06	+ 02 296	2.57	510	2.20	352	[233] 1.85	+ 21 289	1.94	310	2.56	56
24	2.07	+ 02 300	2.61	530	[228] 2.16	+ 03 336	1.85	+ 21 289	1.90	296	2.48	545
25	2.02	0 276	2.62	535	2.17	+ 03 340	1.89	+ 20 300	1.87	286	2.48	545
26	1.98	- 01 259	2.63	540	2.22	+ 04 364	1.89	+ 20 300	1.88	289	2.46	53
27	1.94	- 02 243	[224] 2.61	+ 02 530	2.27	+ 05 388	1.75	+ 19 250	1.93	307	2.52	545
28	1.94	243	2.51	480	2.28	+ 05 392	[234] 1.89	+ 19 296	1.92	303	2.57	55
29	[220] 1.93	- 02 240	2.48	465	2.19	+ 08 368	1.83	+ 19 276	1.96	+ 18 318	2.54	576
30	2.02	- 01 272	2.48	+ 02 465	2.02	+ 12 318	2.08	+ 18 364	XX	XXX	2.52	56
31	2.08	0 296	XX	XXX	2.06	+ 13 336	2.05	+ 19 352	XX	XXX	2.56	+ 18 55
300,417	Total	7,184		13,486		11,549		9,873		9,246		12,689
823	Mean	232		450		373		318		319		40
595,900	Run-off in acre-feet	14,250		26,750		22,910		19,580		18,340		25,1
4700	Maximum	300		565		540		368		380		59
150	Minimum	168		289		318		250		266		2

Calendar Year 1979

ft Arkansas R. above Pueblo

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. 07099400

Rating Table Used No. 10 Dated Oct. 1, 1979 thru Sept. 30, 1980

APR.		MAY		JUNE		JULY		AUG.		SEPT.		Day.
Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	
1.78	+14 257	4.80	+19 2420	4.77	+04 2220	5.42	+16 3130	3.50	+13 1140	2.57	+24 646	1
1.89	296	[400] 5.10	+18 2770	4.69	+03 2120	S	V 2790	3.55	1180	[421] 2.15	+24 440	2
1.82	271	S	2170	[409] 4.69	+03 2120	S	V 2010	3.62	1230	2.15	+24 440	3
1.79	260	3.66	1300	4.88	+02 2320	5.83	+19 3710	3.54	1170	1.87	+25 328	4
1.82	271	4.37	1950	5.03	+01 2480	5.04	+20 2720	[413] 3.47	+13 1120	1.70	268	5
1.89	296	3.82	1440	5.64	-02 3190	4.52	+21 2130	3.54	1170	1.67	+25 257	6
2.04	352	5.12	2790	6.08	-05 3720	[410] 4.55	+21 2170	3.55	1180	1.58	+26 232	7
2.11	380	S	1890	6.17	-06 3830	4.63	2250	3.50	1140	[422] 1.73	+26 282	8
1.92	306	S	1860	[405] 6.57	-08 4370	4.57	2190	3.45	1110	2.03	396	9
1.82	271	5.62	3420	6.86	4780	[411] 4.52	+21 2130	3.35	1040	2.24	490	10
1.80	264	5.67	3480	7.23	5340	4.35	1960	[416] 3.34	+13 1030	2.33	535	11
1.81	268	[401] 5.21	+18 2900	7.20	5290	4.13	1750	3.61	1220	2.44	590	12
1.77	254	4.34	1920	7.19	5280	4.11	1730	4.00	1560	2.41	575	13
[397] 1.71	+14 235	[402] 4.53	+18 2110	7.20	5290	[412] 4.10	+21 1720	3.93	+13 1490	2.33	535	14
1.82	+14 271	4.25	1830	7.18	5260	4.14	+20 1750	S	V 1060	[423] 2.27	+24 505	15
2.10	+15 380	S	655	[406] 7.16	-08 5230	4.17	+19 1760	3.80	+12 1370	2.08	418	16
2.09	376	S	2470	7.15	5220	3.82	+17 1430	3.81	1380	1.86	328	17
1.98	+15 332	5.49	3250	7.16	-08 5230	3.52	+12 1180	[417] 3.78	+12 1350	1.88	336	18
2.02	+16 215	5.97	3890	7.13	-07 5200	3.35	+15 1050	3.67	1260	2.11	432	19
1.56	+16 200	6.45	4560	6.78	-02 4750	3.41	+14 1080	3.65	1250	2.11	432	20
1.76	+17 260	6.33	4390	7.12	+03 5340	[413] 3.46	+13 1110	[418] 3.55	+12 1170	2.04	400	21
S	V 433	[403] S	+18 2370	7.06	+02 5260	3.59	1210	3.54	1160	[424][425] 2.20	+26 472	22
3.16	+18 949	4.35	+17 1920	[407] 6.54	+11 4590	3.73	1320	3.54	1160	2.33	+25 530	23
3.59	+19 1250	4.94	+15 2540	6.23	4160	3.67	1270	3.53	1160	[426][427] 2.15	+24 440	24
4.90	+20 2550	5.33	+13 2980	6.15	4040	3.58	1200	[419] 3.54	+12 1160	2.03	388	25
4.76	+21 2070	5.23	+12 2850	[408] 6.23	+11 4160	3.52	1160	[420] 3.57	+24 1280	2.11	+24 422	26
3.78	+22 1440	5.10	+11 2680	6.30	+12 4270	3.52	1160	3.64	1330	2.22	+23 468	27
3.92	1480	4.90	+09 1890	6.02	+14 3900	3.52	1160	3.52	1290	2.25	481	28
[398] 4.82	+22 1480	4.34	+08 1820	5.99	+15 3880	[414] 3.51	+13 1150	3.20	1010	[428] 2.07	+23 400	29
[399] 4.01	+22 1650	5.08	+06 2600	[409] 5.88	+16 3740	3.51	1150	2.77	756	1.88	+23 324	30
XX	XXX	5.17	+05 2690	XX	XXX	3.51	+13 1150	2.77	+24 756	XX	XXX	31
19,317		77,805		126,580		53,680		36,632		12,790		362,395
644		2510		4219		1732		1182		426		990
38,320		154,300		251,100		106,500		72,660		25,370		718,800
2550		4560		5340		3710		1560		646		5340
2.00		6.55		2120		1050		756		232		47

4th Quarter: Computed L. R. Schultz; Checked G. E. Brees; Date 11-17-80

3rd Quarter: Dis.appld. L. R. Schultz; Dis.check G. E. Brees; Date 11-17-80

2nd Quarter: G.H.copd. L. R. Schultz; G.H.check G. E. Brees; Date 11-17-80

1st Quarter:

Water Year 1980

ARKANSAS River at ~~Creek near~~ AB. E PUEBLO, COLO

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 19 80

Drainage area 4670 square miles. Water stage recorder Stevens A-35 continuous

Max. Discharge 5480 Sec. ft. at 2230 on June 10, 1980 G. H. 4.36 ft.
Max. G. H. 7.32 ft. at 2230 on 6-10-80 Min. Daily Discharge 47 sec.-ft. on 1-10-80
S-discharge subdivided. V-variable shift.

Day.	OCT. Gage height	OCT. Discharge	NOV. Gage height	NOV. Discharge	DEC. 1979 Gage height	DEC. 1979 Discharge	JAN. 1980 Gage height	JAN. 1980 Discharge	FEB. Gage height	FEB. Discharge	MAR. Gage height	MAR. Discharge
1	[376] 1.94	+14 313	1.73	+12 235	0.89	+05 55	0.92	+02 55	1.08	-05 66	1.12	+11 97
2	1.89	296	1.79	254	.89	55	[389] .92	+02 55	1.08	66	1.12	97
3	1.87	288	1.85	274	[385] .89	+05 55	.93	56	1.08	66	1.12	97
4	1.90	+14 299	1.85	274	.91	57	.94	+02 57	[394] 1.08	-05 66	[396] 1.12	+11 97
5	1.98	+13 324	[381] 1.90	+12 292	.91	57	.95	+01 57	1.08	-05 66	1.12	97
6	1.96	316	1.98	320	.90	56	.96	58	S	V 136	1.12	97
7	2.23	427	1.99	324	.92	58	.97	60	S	V 301	1.11	96
8	2.50	555	1.98	320	.92	58	[390] .97	+01 60	1.50	+09 168	1.12	97
9	[377] 2.55	+13 580	1.92	299	.92	58	.93	0 54	1.50	168	1.12	97
10	2.50	555	1.88	285	[386] .92	+05 58	.88	-01 47	1.50	168	1.12	+11 9
11	2.51	560	1.88	285	.93	60	.89	48	[395] 1.50	+09 168	S	V 158
12	2.51	560	1.88	285	.93	60	.90	49	1.50	168	2.05	+12 34
13	2.50	555	[382] 1.91	+12 296	.94	61	.90	49	1.50	168	2.05	348
14	2.49	550	1.97	316	.95	62	[391] .91	-01 50	1.50	168	2.04	34
15	[378] 2.47	+13 540	1.94	306	.95	62	.92	51	1.50	168	2.28	44
16	1.97	320	1.92	299	.96	63	.93	52	1.51	170	2.55	575
17	1.69	226	1.92	299	[387] .93	+05 60	.94	54	1.51	170	2.44	+12 52
18	1.62	208	1.93	302	.93	60	.95	55	1.51	+09 170	2.09	+13 368
19	1.66	218	[383] 1.93	+12 302	.94	+05 61	.95	55	1.47	+10 164	1.98	32
20	1.67	220	1.94	306	1.05	+04 75	.96	56	1.35	140	2.00	332
21	1.66	218	1.94	306	0.98	+03 63	[392] .97	-01 57	1.27	124	2.01	336
22	[379] 1.73	+13 238	1.94	+12 306	.91	+02 54	.98	-01 58	1.27	124	1.93	30
23	2.01	336	1.87	+11 278	.92	55	.96	-02 55	1.28	126	2.17	400
24	1.93	306	1.84	+11 268	[388] .93	+02 56	.93	-03 50	1.29	128	2.44	+13 52
25	1.87	285	2.22	+10 409	.94	57	.96	-04 52	1.17	+10 105	2.07	+14 364
26	1.87	285	2.22	409	.97	61	1.03	-05 60	1.11	+11 96	1.79	26
27	1.79	257	[384] 2.11	+10 364	1.00	65	1.04	61	1.11	96	1.76	25
28	1.76	247	2.25	+10 422	0.94	57	[393] 1.05	-05 62	1.11	96	1.78	257
29	[380] 1.76	+13 247	2.06	+09 340	.92	55	1.06	63	1.12	+11 97	1.84	27
30	1.70	229	S	V 157	.92	55	1.06	63	XX	XXX	1.81	268
31	1.68	+13 223	XX	XXX	.92	+02 55	1.07	-05 65	XX	XXX	1.72	+14 23
271,863	Total	10,781		9,132		1,824		1,724		3,917		8,213
745	Mean	348		304		58.8		55.6		135		26
539,200	Run-off in acre-feet	21,380		18,110		3,620		3,420		7,770		16,290
4460	Maximum	580		422		75		65		301		575
54	Minimum	208		157		54		47		66		91

Calendar Year 1979

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. 0 7000
Rating Table Used # 8

APR. Gage height	APR. Discharge	MAY Gage height	MAY Discharge	JUNE Gage height	JUNE Discharge	JULY Gage height	JULY Discharge	AUG. Gage height	AUG. Discharge	SEPT. Gage height	SEPT. Discharge	Day
4.74	545	7.00	4380	6.23	1980	5.95	2520	4.53	655	4.01	359	1
a	510	7.02	4440	5.90	1450	5.64	1990	4.53	655	4.14	444	2
a	480	7.00	4380	5.89	1430	S	1430	4.62	732	4.07	398	3
4.61	451	6.19	2270	5.80	1300	6.45	4040	4.69	794	4.03	372	4
4.56	417	6.37	2620	5.95	1490	S	3770	4.57	689	3.93	341	5
4.54	404	6.28	2410	6.11	1710	5.21	1490	4.55	672	3.87	278	6
4.53	398	6.50	2820	6.58	2540	4.92	1150	4.64	758	3.82	250	7
4.65	477	7.26	4860	6.63	2640	5.09	1380	4.64	758	3.79	235	8
4.74	545	7.23	4760	6.93	3350	5.01	1290	4.71	821	S	437	9
4.68	500	7.58	6000	7.11	3830	5.06	1360	4.86	978	4.31	552	10
4.65	477	7.44	5450	7.52	5080	5.04	1340	4.68	812	4.40	615	11
4.57	424	7.28	4860	7.59	5410	5.03	1320	4.63	767	4.45	655	12
4.62	458	6.63	2960	7.55	5320	5.07	1390	5.00	1160	4.45	655	13
4.62	458	6.36	2370	7.46	5110	5.09	1400	5.19	1400	4.45	655	14
4.57	424	a	2640	7.41	5000	5.10	1420	S	6210	4.40	615	15
4.61	451		4110	7.36	4900	5.14	1470	S	2070	4.35	568	16
4.70	515		4350	7.34	4860	5.10	1420	5.34	1620	4.26	500	17
4.71	522		4940	7.33	4860	4.75	956	5.14	1340	4.12	398	18
4.63	465		4610	7.33	4860	4.50	698	5.00	1160	4.08	378	19
4.38	305		5320	7.27	4730	4.33	545	4.91	1070	4.20	465	20
4.35	288	a	5300	7.51	5880	4.49	655	4.81	969	4.25	508	21
4.49	372	S	4370	7.37	5480	4.48	647	4.70	868	4.16	451	22
S	711	6.33	2310	7.13	4860	4.75	868	4.71	878	4.35	530	23
5.66	1520	6.62	3060	6.73	3920	4.81	925	4.72	887	4.44	552	24
6.58	2250	6.86	3570	6.46	3430	4.74	849	4.73	896	4.27	417	25
6.73	2770	6.88	3570	6.38	3270	4.63	740	4.78	946	4.25	404	26
6.07	2170	6.67	2990	6.62	4040	4.59	706	4.81	978	4.21	444	27
5.76	1660	6.34	2250	6.32	3270	4.57	689	5.12	1350	4.33	456	28
5.77	1680	5.75	1300	6.24	3090	4.54	664	4.77	956	4.34	465	29
5.85	1790	6.06	1760	6.19	2990	4.51	639	4.36	599	4.25	404	30
XX	XXX	6.33	2170	XX	XXX	4.56	680	4.03	372	XX	XXX	31
26,561		113,260		112,150		40,441		34,818		13,803		404,696
885		3654		3738		1305		1123		460		1106
52680		224,700		222,400		80,210		69,060		27,380		802,700
2770		6000		5880		4040		6210		655		6,210
288		1300		1300		545		372		235		172

Quarter: 4th, 3rd, 2nd, 1st — Computed / Checked / Date: TCS
Quarter: 4th, 3rd, 2nd, 1st — Dis. appld. / Dis. check / Date: TCS
Quarter: 4th, 3rd, 2nd, 1st — G.H. copd. / G.H. check / Date: LRS

Water Year 1980

Arkansas ( ) River ~~at~~ ~~Creek~~ near N. pesta

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 19 80

Drainage area _____ square miles. Water stage recorder Stevens A-35

Max. Discharge 10,200 Sec. ft. at 11:00 A m on Aug 15 G. H. 7.83 ft.

Max. G. H. 7.83 ft. at 11:00 A m on Aug. 15 Min. Daily Discharge 172 sec.-ft. on Dec. 30

"S" = discharge subjumped; "V" variable shift; "b" ice affected; "a" discharge estimated for no gage-height record

Day	OCT. Gage height	OCT. Discharge	NOV. Gage height	NOV. Discharge	DEC. Gage height	DEC. Discharge	JAN. Gage height	JAN. Discharge	FEB. Gage height	FEB. Discharge	MAR. Gage height	MAR. Discharge
1	4.20	+18 294	4.24	+16 305	4.47	+10 410	a	260	4.88	b323	4.49	-07 317
2	4.21	300	4.27	+5 317	4.25	+10 278	[5.85]	306	4.78	335	4.53	341
3	4.13	256	4.33	+13 335	a	225	a	290	4.51	347	4.57	365
4	4.11	245	4.35	+11 341		182	4.27	b 235	4.58	b359	4.54	347
5	4.13	256	4.31	+15 311		182	4.31	256	4.56	-372	4.54	347
6	4.17	278	4.32	+09 311		225	4.35	272	4.48	-05 323	4.52	335
7	4.16	+18 272	4.36	+03 329	[5.84] a	261	4.33	250	4.31	-06 225	4.53	341
8	4.37	+6 384	[5.81] 4.39	+13 341	4.22	+10 261	4.37	b 283	4.22	182	4.53	341
9	4.54	+9 486	4.42	+06 353	4.19	+10 245	a	300	4.26	200	4.52	335
10	4.61	+12 522	4.40	+2 341	4.19	+09 240		315	4.27	205	4.51	329
11	4.63	538	4.49	+07 404	4.20	245		326	4.30	220	4.50	-07 322
12	[5.59] 4.59	+12 508	4.53	430	4.21	+09 250		328	4.32	230	4.63	-08 39
13	4.61	522	4.54	+07 437	4.20	+08 240		395	4.32	230	[5.82] 4.88	-08 575
14	4.62	530	4.60	+08 486	4.16	220		402	4.34	240	4.92	-7 61
15	4.60	515	4.61	493	4.17	+06 225		414	4.31	225	4.91	665
16	4.56	+16 486	4.63	508	4.20	+07 235		427	4.30	220	4.92	-07 6
17	4.28	+15 323	4.63	508	4.20	235		404	4.30	220	5.00	-6 6
18	4.12	+16 240	4.56	+08 453	4.22	+07 245	[5.86] a	-01 305	4.32	-06 230	4.88	-6 599
19	4.06	210	4.43	+06 378	4.23	+06 245	4.43	b 323	4.37	-06 256	4.78	-6 53
20	4.07	+15 215	4.56	+10 472	[5.84] 4.22	+6 240	4.40	305	4.44	-06 294	4.70	-6 479
21	4.16	+19 266	4.53	451	4.23	245	4.34	272	[5.88] 4.44	-6 294	4.75	51
22	4.27	+13 335	[5.82] 4.54	458	4.28	272	4.38	294	4.42	-6 283	4.72	-6 49
23	4.30	+18 353	4.56	+5 472	4.27	266	4.38	294	4.50	-07 323	4.64	-6 444
24	4.41	+19 430	4.54	458	4.27	+6 266	4.36	283	4.57	365	4.90	-6 69
25	4.28	+20 353	4.49	424	a	254	4.33	266	4.56	359	5.00	-6 758
26	[5.80] 4.24	+23 347	4.74	609		238	4.35	266	4.53	341	4.72	53
27	4.26	+22 353	4.67	552		242	4.31	256	4.48	311	4.61	451
28	4.21	+20 311	4.63	522		280	4.68	278	4.50	323	4.63	466
29	4.20	+19 300	4.73	599		285	4.76	288	4.50	-07 323	4.63	466
30	4.17	+16 278	4.63	+6 522		172	4.80	300	XX	XXX	4.62	454
31	4.20	+19 288	XX	XXX	a	198	[5.87] 4.87	b 311	XX	XXX	4.62	+22 [illegible]
253,226	Total	10994		12,923		7,607		9469		8,158		14,512
694	Mean	355		431		245		305		281		468
[illegible]	Run-off in acre-feet	21,210		25,630		15,090		18,780		16,180		28,790
[illegible]	Maximum	532		607		410		427		372		758
76	Minimum	210		305		172		235		182		317

Calendar Year 1979

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. _____

Rating Table Used #3

Day.	APR. Gage height	APR. Discharge	MAY Gage height	MAY Discharge	JUNE Gage height	JUNE Discharge	JULY Gage height	JULY Discharge	AUG. Gage height	AUG. Discharge	SEPT. Gage height	SEPT. Discharge
1		522	S	3590	5.36	1940	5.26	2240	2.81	310	2.28	178
2		764	6.61	4620	5.03	1490	4.95	1300	2.76	292	2.26	178
3		524	6.31	3920	4.99	1440	4.26	1620	2.82	325	2.39	212
4		565	5.99	2720	4.81	1230	S	2950	2.96	405	2.40	222
5		524	5.80	2720	4.82	1310	5.20	4030	3.00	435	4941 2.39	213
6		498	5.92	2980	5.01	1470	4.94	1990	4911 2.81	335	2.37	212
7		459	5.98	2620	5.44	2050	3.99	1090	2.93	460	2.38	215
8		423	6.41	3810	5.61	2320	3.26	990	3.03	459	2.39	212
9		561	4851 6.15	5100	5.99	3020	3.92	1640	3.00	441	2.43	223
10		519	6.26	4810	6.23	3520	3.75	980	3.24	600	2.32	335
11		530	6.65	4370	4921 6.55	4250	4891 3.85	980	3.09	484	2.93	449
12		459	6.53	4100	6.66	4560	3.71	865	2.99	435	3.02	498
13		366	6.00	2920	6.69	4660	3.65	796	a	860	3.68	539
14		320	5.60	2260	6.69	9630	3.71	860	a	1100	3.13	592
15		296	5.95	2540	6.64	4580	3.66	805	4921 S	4570	3.05	519
16		260	6.45	4010	6.53	4370	3.84	970	S	2460	2.90	417
17		276	6.55	4250	6.29	3870	3.82	950	4.33	1670	2.85	356
18		263	6.98	4840	6.35	4030	3.46	640	4.03	1300	4931 2.60	256
19		260	6.64	4510	6.41	4200	3.10	394	3.88	1130	2.48	208
20		412	6.93	5280	6.45	4320	S	591	3.90	950	2.49	212
21		106	6.96	5200	6.62	4810	S	546	3.61	868	2.54	296
22		160	4851 6.64	4560	6.59	4710	3.15	423	4931 3.36	656	2.61	242
23		160	5.92	2040	6.22	3920	3.11	400	3.31	624	4961 2.82	325
24		394	5.61	2340	5.89	3260	3.24	498	3.27	593	3.10	465
25			5.87	2760	5.91	2920	4901 3.18	441	3.20	544	3.12	498
26			6.02	3120	4881 5.66	2920	3.63	361	3.25	599	4971 2.70	325
27			5.87	2820	5.09	3160	2.91	320	3.29	668	2.96	392
28		1510	5.90	2500	5.64	2880	S	366	S	945	3.04	423
29		1600	5.15	1640	5.55	2920	2.83	265	3.45	714	3.01	451
30		1220	5.09	1560	5.42	2520	2.91	291	3.65	517	2.91	312
31		XXX	5.12	2020	XX	XXX	2.91	291	3.52	252	XX	XXX

Quarter	4th	3rd	2nd	1st
	T.C.S.			T.C.S.
	L.R.S.			L.R.S.
Computed				
Checked				
Date				

Quarter	4th	3rd	2nd	1st
	T.C.S.			T.C.S.
	L.R.S.			L.R.S.
Dis.appld.				
Dis.check				
Date				

Quarter	4th	3rd	2nd	1st
	T.C.S.	T.C.S.	T.C.S.	T.C.S.
	L.R.S.	L.R.S.	L.R.S.	L.R.S.
G.H.appd.				
G.H.check				
Date				

Water Year 19[illegible]

Arkansas River ~~at~~ Creek ~~near~~ Below Catlin Dam

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 19 80

Drainage area ______ square miles. Water stage recorder Cont. A 35

Max. Discharge 2,370 Sec. ft. at Noon on Mar 15 G. H. 7.15 ft.

Max. G. H. 7.49 ft. at 10:00 A on Mar 9 Min. Daily Discharge 166 sec.-ft. on April 21

"J" discharge subdivided ("J" variable shift)

"Ø" discharge estimated for no gage-height record

Day	OCT. Gage height	OCT. Discharge	NOV. Gage height	NOV. Discharge	DEC. Gage height	DEC. Discharge	JAN. Gage height	JAN. Discharge	FEB. Gage height	FEB. Discharge	MAR. Gage height	MAR. Discharge
1	2.85	.14 264	2.90	.25 242	3.57	.35 544	3.24	.44 300	3.35	.33 417	3.29	.32 388
2	2.81	.14 250	2.97	.26 264	3.34	.36 394	3.36	.45 356	3.32	400	3.30	.32 394
3	2.73	.15 218	2.92	.26 262	3.21	325	3.31	330	3.33	.33 405	3.36	.31 435
4	2.75	.15 225	3.05	.27 292	3.09	272	(478) 3.30	.45 325	3.44	.34 465	3.35	.31 429
5	2.81	.16 242	3.03	284	3.09	272	3.30	.44 330	3.40	441	3.32	.30 417
6	2.90	.17 272	3.01	.27 276	3.15	296	3.30	.42 335	3.37	.34 423	3.33	.30 423
7	2.94	.17 288	3.14	.29 325	(476) 3.18	.36 310	3.14	.40 276	3.30	.35 378	3.36	.29 447
8	3.01	.18 315	3.20	356	3.18	310	3.09	.38 264	3.08	.36 268	3.36	447
9	3.26	.19 447	(474) 3.13	.31 320	3.17	305	3.21	.37 320	3.10	276	3.34	.29 435
10	3.25	.19 441	3.13	320	3.15	291	3.25	.36 345	3.12	284	3.29	.23 400
11	3.32	.20 478	3.19	.29 340	3.13	288	3.28	.35 366	3.12	284	3.25	378
12	(472) 3.18	.21 388	3.24	.30 372	3.12	284	3.29	.34 398	3.12	284	3.29	.22 411
13	3.17	383	3.27	388	3.11	280	3.38	.33 435	3.16	276	(482) 3.54	.22 616
14	3.24	423	3.31	.30 411	3.11	.36 276	3.43	.32 472	3.11	260	3.69	.23 728
15	3.32	472	3.38	.31 447	3.06	.37 264	3.46	.31 498	3.10	276	3.69	728
16	3.33	478	3.35	429	3.07	260	3.48	.30 517	3.07	264	3.61	664
17	3.19	394	3.35	429	3.02	242	3.45	.29 504	3.06	260	3.62	692
18	3.09	.21 340	3.37	.31 441	3.00	236	(479) 3.28	.28 405	3.09	272	3.68	.23 720
19	2.99	.22 288	3.25	.32 366	2.66	236	3.31	423	3.11	280	3.45	.24 535
20	2.92	260	3.28	383	(477) 2.99	.37 232	3.27	400	3.17	.36 305	3.35	.24 472
21	2.94	268	3.25	.32 366	3.05	.37 253	3.25	.26 388	(481) 3.21	.37 320	3.20	.25 378
22	2.92	260	3.31	.33 394	3.13	.36 280	3.22	.29 366	3.21	320	3.17	372
23	2.86	239	(475) 3.35	.33 417	3.16	292	3.21	361	3.20	.37 315	3.11	[illegible]
24	2.94	268	3.29	383	3.15	288	3.22	366	3.33	.34 400	3.16	311
25	2.95	272	3.26	335	3.14	284	3.23	.31 372	3.31	.33 429	3.12	411
26	(473) 2.86	.22 212	3.28	.33 378	3.16	292	3.01	.30 296	3.31	.33 421	3.16	[illegible]
27	2.77	262	3.44	.31 465	3.11	.36 292	2.91	.31 226	3.31	.32 400	3.14	311
28	2.74	.23 199	3.36	417	3.21	.31 316	2.97	.31 246	3.31	400	3.17	336
29	2.68	.23 178	3.38	.34 429	3.22	.31 315	3.12	.32 300	3.29	.32 388	3.14	292
30	2.80	.24 212	3.57	.35 544	2.95	.12 202	3.29	.33 372	XX	XXX	3.05	292
31	2.94	.26 256	XX	XXX	3.64	.32 227	(480) 3.24	.33 411	XX	XXX	3.61	.29 291

Calendar Year 1979						
Total						
Mean						
Run-off in acre-feet						
Maximum						
Minimum						

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. _____

Rating Table Used Std for 15' P.F.
Flume dated 6-15-71

APR.		MAY		JUNE		JULY		AUG.		SEPT.		Day.			
Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge		4th	TCS	LRS
	90	1.14	o 71	2.47	o 246	2.94	o 325	2.97	o 295	2.40	o 235	1	3rd		
		1.49	109	2.46	244	2.53	255	2.80	300	2.25	212	2	2nd		
		1.61	124	2.45	242	S	95	2.81	302	2.03	199	3			
		1.61	124	2.48	247	o	o	2.80	300	1.97	144	4	1st	TCS	LRS
	3	S	41	2.66	275	o	o	2.80	300	1.70	135	5			
	0	S	29	2.80	300	S	139	2.80	300	1.50	111	6	Quarter	Computed	Checked
		1.69	124	2.84	307	2.70	283	2.80	300	1.25	83	7			Date
	2	1.70	135	2.57	262	3.00	335	2.80	300	1.05	62	8			
		1.70	135	2.30	219	3.06	346	2.80	300	S	102	9	4th	TCS	LRS
		1.76	143	2.31	221	3.01	337	2.98	332	2.01	177	10			
	o 22	1.88	159	3.36	228	3.03	341	3.05	344	2.00	175	11	3rd		
	52	1.89	160	2.96	293	3.07	348	3.06	346	2.00	175	12			
	91	1.90	161	2.92	304	3.06	346	3.07	348	1.99	174	13	2nd		
	162	1.89	160	2.84	307	3.08	350	3.02	339	1.98	172	14			
	160	1.79	134	2.84	307	2.98	332	3.00	335	1.98	172	15	1st	TCS	LRS
	99	1.16	75	2.84	307	2.48	249	3.05	344	2.04	181	16			
	134	S	16	2.72	304	2.73	288	3.03	341	2.03	179	17	Quarter	Dis.appld.	Dis.check
	155	o	o	2.83	305	2.80	300	3.03	341	[35] 2.03	o 179	18			Date
	152	o	o	S	238	2.80	300	2.86	311	2.00	175	19			
	179	o	o	S	47	2.80	300	2.78	297	2.00	175	20	4th	TCS	LRS
	166	S	102	3.32	222	2.80	300	2.79	299	1.93	166	21			
	135	1.84	153	2.37	230	2.79	299	2.80	300	1.56	118	22	3rd		
	168	1.84	153	2.39	233	2.79	299	2.78	299	1.43	102	23			
	112	2.06	174	2.11	212	2.79	299	2.79	299	1.40	99	24	2nd		
	62	2.14	196	2.76	311	2.79	299	2.79	299	1.40	99	25			
	121	2.14	195	3.62	339	2.81	302	2.89	316	1.40	99	26	1st	TCS	LRS
	195	2.14	195	3.05	344	2.73	305	2.98	332	1.40	99	27			
	197	2.15	197	3.62	339	2.64	293	3.00	335	1.40	99	28	Quarter		
	160	2.30	219	2.99	330	2.82	304	2.82	304	1.56	120	29			
	111	2.50	250	2.96	o 326	2.82	304	2.70	283	1.61	o 124	30	Water Year		
XX	XXX	2.49	o 249	XX	XXX	2.81	302	2.68	o 290	XX	XXX	31	1970		

Catlin Canal — River at Creek near Fowler, Colo.

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 1980

Drainage area ______ square miles. Water stage recorder Stevens A-35 continuous

Max. Discharge [illegible] Sec. ft. at 12:00 [illegible] on Aug 15 G. H. [illegible] ft.

Max. G. H. 2.11 ft. at 12:15 pm on Aug 15 Min. Daily Discharge 0 sec.-ft. on many days

"S" discharge subdivided

Day.	OCT. Gage height	OCT. Discharge	NOV. Gage height	NOV. Discharge	DEC. Gage height	DEC. Discharge	JAN. Gage height	JAN. Discharge	FEB. Gage height	FEB. Discharge	MAR. Gage height	MAR. Discharge
1	S	°40	1.16	°73		No Flow		No Flow		No Flow		No Flow
2	1.11	68	1.19	76								
3	1.24	82	1.20	77								
4	0.86	45	1.20	77								
5	0.79	40	1.19	76								
6	S	20	1.20	77								
7	0	0	1.21	78								
8	0	0	1.21	78								
9	S	20	1.21	78								
10	1.44	104	1.20	77								
11	1.39	98	1.18	75								
12	1.67	131	1.17	74								
13	2.00	175	1.17	74								
14	1.99	174	1.18	75								
15	1.44	104	1.18	75								
16	1.43	102	1.17	74							S	°28
17	1.42	101	1.18	75							1.08	65
18	S	2.8	1.18	75							1.42	101
19	0	0	1.17	74							1.36	95
20	0	0	1.17	74							1.41	100
21	S	19	1.17	74							1.63	126
22	1.33	91	1.18	75							1.82	151
23	1.40	99	1.17	74							1.80	148
24	1.50	111	1.18	75							1.82	151
25	1.58	120	1.21	78							1.82	151
26	1.55	117	1.34	92							1.82	151
27	1.56	118	1.57	119							1.82	151
28	1.55	117	1.54	115							1.82	151
29	1.55	117	1.51	112							1.82	151
30	1.29	87	S	°65					XX	XXX	1.82	151
31	0.97	°55	XX	XXX					XX	XXX	1.82	°151
Total												
Mean												
Run-off in acre-feet												
Maximum												
Minimum												

Calendar Year 1979

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. ______

Rating Table Used #3 Arkansas below Catlin Dam std. Cur 15' P.F.

Day	APR. Gage height	APR. Discharge	MAY Gage height	MAY Discharge	JUNE Gage height	JUNE Discharge	JULY Gage height	JULY Discharge	AUG. Gage height	AUG. Discharge	SEPT. Gage height	SEPT. Discharge
1		522		3661		2186		2565		605		413
2		724		4789		1734		2055		592		390
3		594		4044		1682		1775		627		391
4		565		2844		1477		2950		706		366
5		594		2821		1585		4030		735		353
6		493		3009		1770		2129		635		323
7		[illegible]		2814		2357		1393		700		298
8		[illegible]		4005		2582		1305		759		274
9		[illegible]		5235		3239		1386		741		330
10		577		5003		3741		1317		932		565
11		553		4529		4478		1321		828		622
12		511		4260		4853		1198		981		673
13		517		3141		4964		1142		1208		711
14		499		2420		4937		1200		1439		744
15		396		2674		4887		1137		4855		689
16		383		4085		4677		1217		3064		598
17		412		4266		4174		1238		2011		535
18		423		4840		4335		940		1641		435
19		412		4510		4438		694		1441		383
20		371		5280		4367		891		1249		359
21		292		5302		5032		846		1167		462
22		295		4713		4940		722		956		360
23		328		2193		4153		649		921		429
24		346		2524		3528		777		892		564
25		3269		3055		3231		740		848		577
26		3741		3315		3219		663		895		434
27		2122		3015		3504		625		940		471
28		1653		2697		3219		641		1280		522
29		1760		1859		3050		601		1118		537
30		2211		1816		2826		583		800		490
31	X	XXX		2269	XX	XXX		598		533	XX	XXX

	APR.	MAY	JUNE	JULY	AUG.	SEPT.	Year
[illegible]	[illegible]	110,970	105,165	39,171	35,831	14,324	463,116
[illegible]	[illegible]	3580	3505	1264	1156	477	1102
[illegible]	[illegible]	220,120	208,590	77,900	71,070	28,410	777,790
[illegible]	[illegible]	5,302	5,032	4,030	4,855	744	5,302
[illegible]	[illegible]	1,810	1,477	583	533	274	202

Water Year 1980

Quarter (4th, 3rd, 2nd, 1st) — Computed: LRS; Checked: TCS; Date
Quarter (4th, 3rd, 2nd, 1st) — Dis. compd.: LRS; Dis. check: TCS; Date
Quarter (4th, 3rd, 2nd, 1st) — G.h. compd.: LRS; G.h. check; Date

Arkansas River ~~at~~ below ~~Creek near~~ Catlin Dam (combined flow)

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 19 80

Drainage area _____ square miles. Water stage recorder _____

Max. Discharge _____ Sec. ft. at _____ on _____ Min. Daily Discharge 202 sec.-ft. on Dec 30

Max. G. H. _____ ft. at _____ on _____

Day.	OCT.		NOV.		DEC.		JAN.		FEB.		MAR.	
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge
1		304		315		544		300		417		238
2		318		340		394		356		405		394
3		300		345		326		330		405		425
4		270		369		298		326		465		421
5		282		360		292		330		441		419
6		292		353		296		335		423		423
7		288		403		310		296		378		449
8		315		434		310		264		268		449
9		467		398		305		320		296		435
10		545		397		296		345		284		405
11		576		415		288		366		284		388
12		519		446		284		378		284		411
13		558		462		280		435		296		516
14		597		486		280		472		280		723
15		576		522		264		498		296		723
16		580		503		260		517		264		692
17		495		504		242		504		260		737
18		343		516		236		405		272		621
19		288		440		236		423		280		632
20		260		457		232		405		305		572
21		287		440		253		388		320		504
22		351		469		280		366		320		523
23		338		491		292		361		315		478
24		379		458		288		366		460		517
25		392		413		284		372		429		495
26		329		470		268		296		429		642
27		326		584		272		225		405		512
28		316		532		310		246		400		491
29		295		541		315		300		388		443
30		299		609		202		372	XX	XXX		443
31		311	XX	XXX		228		411	XX	XXX		459
259,847 Total		11,796		13,492		8918		11,282		9,939		16,210
712 Mean		380		449		288		364		343		522
515,400 Run-off in acre-feet		23,390		26,720		17,690		22,380		19,710		32,150
4,510 Maximum		597		609		544		517		465		723
111 Minimum		260		315		202		225		260		366

Calendar Year 1979

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. 07116 2

Rating Table Used No. 14 dated 11-8-78
October 1, 1978 thru September 30, 1980

APR. Gage height	APR. Discharge	MAY Gage height	MAY Discharge	JUNE Gage height	JUNE Discharge	JULY Gage height	JULY Discharge	AUG. Gage height	AUG. Discharge	SEPT. Gage height	SEPT. Discharge	Day.
.07	-.50 9.8	2.52	-.01 46	2.90	+.46 164	2.58	+.40 102	2.06	+.33 36	1.86	+.23 18	1
[redacted]	11	2.54	0 49	2.92	167	2.55	+.39 97	2.07	36	1.85	18	2
.10	11	2.56	+.01 52	2.87	158	2.52	+.39 92	2.06	36	1.84	17	3
[redacted]	11	2.59	+.03 57	2.92	167	2.46	+.38 83	2.02	33	946 1.85	+.23 18	4
[redacted]	11	2.63	+.05 64	2.98	179	2.43	+.38 79	2.01	32	1.85	18	5
.12	12	2.66	+.07 70	3.02	186	2.39	+.37 73	2.03	+.33 34	1.86	18	6
[redacted]	11	940 2.74	+.09 82	2.89	162	2.36	70	1.99	+.32 30	1.91	26	7
.07	10	2.74	+.09 82	2.92	167	2.36	70	2.04	34	1.95	22	8
[redacted]	11	2.77	+.11 88	2.96	175	2.34	.37 67	2.09	37	2.03	+.23 26	9
.14	12	2.79	+.12 92	2.98	179	2.30	+.36 62	2.04	34	2.27	+.22 44	10
[redacted]	-.20 12	2.83	+.15 102	3.06	194	2.32	64	2.02	32	2.36	53	11
[redacted]	-.19 12	2.82	+.15 101	3.04	190	2.28	59	2.00	31	2.21	39	12
.13	12	2.79	+.18 101	3.00	182	2.26	57	2.00	31	2.12	+.22 32	13
[redacted]	-.17 14	2.77	+.19 99	2.97	177	2.27	-.36 58	2.03	33	2.06	+.21 28	14
.23	-.16 16	2.78	+.19 101	2.94	171	2.23	+.35 53	945 2.00	+.32 31	2.03	26	15
[redacted]	-.15 20	2.76	+.20 99	2.89	162	2.18	48	1.96	+.30 27	1.98	23	16
[redacted]	21	2.76	+.20 99	2.88	160	2.15	45	1.94	+.30 26	1.95	22	17
.33	-.15 22	2.66	+.22 88	2.90	164	944 2.20	+.35 50	1.92	+.29 24	1.94	21	18
[redacted]	-.13 26	2.70	+.25 98	2.90	164	2.22	52	1.91	24	1.91	20	19
.41	-.12 29	2.78	+.29 116	943 2.82	+.46 151	2.20	50	1.91	+.29 24	1.90	19	20
[redacted]	-.10 33	2.83	+.31 126	2.81	+.46 148	2.20	50	1.89	+.28 22	1.88	18	21
[illegible]	35	2.95	+.36 155	2.78	+.45 141	2.22	52	1.88	+.28 22	1.88	18	22
[redacted]	-.10 35	3.07	+.40 184	2.74	+.44 133	2.21	51	1.87	+.27 20	1.87	18	23
[redacted]	-.08 27	3.12	+.42 198	2.73	131	2.24	54	1.88	+.26 20	1.88	18	24
.40	-.06 32	3.00	+.44 179	2.72	+.44 130	2.23	+.35 53	1.94	+.24 22	947 1.88	+.21 18	25
[redacted]	33	2.93	+.46 169	2.68	+.42 120	2.17	-.34 46	1.95	23	1.88	18	26
[illegible]	-.06 34	2.92	167	2.67	+.42 118	2.14	43	1.93	22	1.87	18	27
[redacted]	-.04 40	2.87	158	2.63	+.41 111	2.13	-.34 42	1.92	+.24 22	1.88	18	28
[redacted]	-.03 43	942 2.91	+.46 166	2.58	+.40 102	2.08	+.33 37	1.89	+.23 22	1.89	18	29
[illegible]	-.01 48	2.91	166	2.57	+.40 101	2.08	37	1.87	18	1.89	+.21 18	30
[redacted]	XXX	2.89	+.46 162	XX	XXX	2.07	+.33 36	1.86	+.23 18	XX	XXX	31

APR.	MAY	JUNE	JULY	AUG.	SEPT.	Water Year 1980
653.8	3516	4654	1832	856	682	14,093.9
[redacted] 21.8	113	155	59.1	27.6	22.7	38.5
[redacted] 77	6974	9231	3634	1698	1353	27,960
[illegible]	198	194	102	37	53	198
[redacted]	46	101	36	18	17	5.6

Quarter	Computed	Checked	Date
4th	T.C. Simpson		
3rd	T.C. Simpson		
2nd	T.C.S.		
1st	T.		

Quarter	Dis. appld.	Dis. check	Date
4th	T.C. Simpson		
3rd	T.C.S.		
2nd	[illegible]		
1st	S.O.J.		

Quarter	G.H. copd.	G.H. check	Date
4th	T.C. Simpson		
3rd	T.C.S.		
2nd	[illegible]		
1st	S.O.		

Water Year 1980

HUERFANO Creek near MANZANARES CROSSING NEAR REDWING, CO

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 1980

Drainage area 73 square miles. Water stage recorder Stevens A-35 Continuous

Max. Discharge [illegible] sec.-ft. at [illegible] on [illegible]

Max. G. H. 3.17 ft. at 2:00 am on June 11, 1980 Min. Daily Discharge 5.6 sec.-ft. on MAR. 13, 1980

S - [illegible], V - Variable shift, b - Ice effect

Day	OCT. Gage height	OCT. Discharge	NOV. Gage height	NOV. Discharge	DEC. Gage height	DEC. Discharge	JAN. Gage height	JAN. Discharge	FEB. Gage height	FEB. Discharge	MAR. Gage height	MAR. Discharge
1	2.16	13	2.17	13	2.18	11	2.14	9.5	2.12	5.7	2.08	9.8
2	2.15	12	2.17	13	2.17	10	2.13	9.2	2.11	5.8	S	9.7
3	2.15	12	2.17	13	2.17	10	2.23	12	2.07	5.8	2.11	11
4	2.15	12	2.19	13	2.16	9.5	2.13	9.5	2.07	6.2	2.10	10
5	2.14	12	2.17	13	2.16	9.5	2.13	9.5	S	v 6.6	S	9.7
6	2.14	12	2.16	12	2.16	9.2	2.12	9.2	S	v 7.7	2.10	10
7	2.14	12	932 2.17	13	2.16	9.2	2.12	9.2	2.10	7.6	2.07	9.8
8	2.14	12	2.18	13	2.15	8.6	2.13	9.8	2.13	8.9	2.09	b 9.8
9	2.14	12	2.19	13	2.16	8.6	2.12	9.5	S	v 8.0	2.06	8.7
10	930 2.14	12	2.17	13	2.15	8.0	2.12	9.5	2.21	13	2.03	8.0
11	2.14	12	2.16	12	2.14	7.6	2.16	11	2.13	11	2.09	b 9.8
12	2.15	12	2.15	b 12	2.14	7.6	2.13	10	2.13	11	939 2.06	8.7
13	2.15	12	2.13	11	934 2.11	6.8	2.13	10	2.11	10	S	9.2
14	2.15	12	2.14	12	2.18	8.6	2.13	10	2.11	10	S	10
15	2.15	12	2.15	12	2.16	8.0	2.13	10	2.11	10	2.07	10
16	2.15	12	2.16	12	2.15	8.0	936 2.12	10	2.09	10	2.07	9.5
17	2.15	12	2.15	b 12	2.14	7.8	2.12	10	2.10	11	S	8.8
18	2.15	12	2.16	12	2.16	b 8.3	2.12	10	2.10	11	S	11
19	2.15	12	2.14	b 12	2.16	8.3	2.13	10	938 2.11	11	2.07	10
20	2.16	12	2.18	b 12	2.14	b 8.0	2.14	10	2.07	11	2.08	9.8
21	2.20	13	2.16	12	2.13	7.8	2.14	10	2.08	b 10	2.08	9.8
22	2.17	12	2.16	12	2.13	7.8	2.13	10	2.08	10	2.08	9.8
23	2.19	13	2.17	13	2.12	7.6	2.22	12	2.08	10	2.11	11
24	931 2.21	14	2.22	b 14	2.20	b 7.8	2.14	9.2	2.07	11	2.11	11
25	2.20	13	2.22	14	2.13	8.0	2.11	8.0	2.10	11	2.07	9.8
26	2.18	13	933 2.21	14	2.13	8.0	2.17	9.5	2.12	b 11	2.07	10
27	2.18	13	2.18	13	2.17	9.5	S	v 13	2.10	11	2.07	9.8
28	2.17	12	2.15	12	2.14	8.7	2.10	7.2	2.10	11	2.07	9.8
29	2.17	12	2.20	b 12	2.21	b 9.8	2.14	b 7.6	2.12	11	2.07	[illegible]
30	2.16	12	2.17	11	2.16	9.8	2.10	b 6.4	XX	XXX	2.07	10
31	2.14	12	XX	XXX	935 2.15	9.8	932 2.13	5.6	XX	XXX	2.05	9.2

Calendar Year 1979		OCT.	NOV.	DEC.	JAN.	FEB.	MAR.
2,948.7	Total	380	375	267.4	296.4	277.3	303.9
35.5	Mean	12.2	12.5	8.62	9.56	9.56	9.80
[illegible]	Run-off in acre-feet	754	744	530	587	549	603
[illegible]	Maximum	14	14	11	13	13	11
5.4	Minimum	12	11	6.8	5.6	5.7	8.0

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. _____ 2711000

Rating Table Used _____

Day	APR. Gage height	APR. Discharge	MAY Gage height	MAY Discharge	JUNE Gage height	JUNE Discharge	JULY Gage height	JULY Discharge	AUG. Gage height	AUG. Discharge	SEPT. Gage height	SEPT. Discharge
1	6.5		1.58	50	2.58	192	2.01	80	1.36	20	1.17	11
2	6.5		1.61	54	2.56	188	1.97	73	1.35	19	1.16	10
3	6.5		1.69	63	2.53	181	1.92	67	1.35	19	1.15	10
4	6.2		1.82	78	2.55	185	1.87	62	1.34	18	1.16	10
5	6.5		2.05	112		190	1.85	59	1.32	17	1.16	10
6	10		2.38	168		190	1.83	56	1.32	17	1.17	11
7	11		2.52	192		195	1.82	55	1.32	17	1.16	10
8	9.2		2.54	196		200	1.78	51	1.32	17	1.21	12
9	11		2.40	166		205	1.76	49	1.33	18	1.43	25
10	11		2.38	162		210	1.76	49	1.32	17	1.33	18
11	11		2.43	173		205	1.72	45	1.29	16	1.26	15
12	9.2		2.37	160		200	1.69	43	1.28	15	1.22	13
13	10		2.16	119		190	1.64	38	1.27	15	1.22	13
14	12		2.06	101		180	1.60	35	1.30	16	1.21	12
15	12		2.10	108		170	1.57	32	1.34	19	1.19	12
16	16		2.10	108		160	1.54	31	1.30	17	1.18	11
17	19		2.12	112		150	1.51	29	1.29	16	1.17	11
18	21		2.18	123		140	1.51	29	1.28	16	1.17	11
19	24		2.18	123		130	1.49	28	1.27	15	1.15	10
20	25		2.33	152		125	1.48	27	1.25	14	1.15	10
21	26		2.46	179	2.34	127	1.47	26	1.25	14	1.14	9.6
22	30		2.48	183	2.29	119	1.47	26	1.24	14	1.16	10
23	31		2.60	203	2.26	114	1.46	25	1.23	13	1.17	11
24	21		2.77	234	2.25	114	1.45	25	1.24	14	1.16	10
25	17		2.72	223	2.23	110	1.44	24	1.26	15	1.16	10
26	28		2.59	194	2.22	108	1.43	23	1.23	13	1.16	10
27	31		2.54	183	2.19	105	1.41	23	1.22	13	1.16	10
28	33		2.52	192	2.15	98	1.41	23	1.20	12	1.16	10
29	44			192	2.08	88	1.39	21	1.19	12	1.15	9.6
30	56			192	2.04	83	1.37	20	1.19	12	1.14	8.9
31	XXX			194	XX	XXX	1.37	20	1.17	11	XX	XXX
	560.6		4689		4652		1194		480		344	
	18.7		151		155		38.5		15.5		11.5	
	1110		9300		9230		2370		952		682	
					210		80		20			
			50		83		20		11		8.9	

Quarter: 4th, 3rd, 2nd, 1st — Computed, Checked, Date

Quarter: 4th, 3rd, 2nd, 1st — Drs.appld., Drs.check, Date

Quarter: 4th, 3rd, 2nd, 1st — G.H.appld., G.H.check, Date

Water Year 19 80

Cucharas River at ~~Creek near~~ Spool Ranch above LaVeta Colo.

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 1980

Drainage area 56 square miles. Water stage recorder Stevens A-35

Day	OCT. Gage height	OCT. Discharge (Sept 18 - +19)	NOV. Gage height	NOV. Discharge	DEC. '79 Gage height	DEC. Discharge	JAN. '80 Gage height	JAN. Discharge	FEB. Gage height	FEB. Discharge	MAR. Gage height	MAR. Discharge
1	0.96 +6	11	1.01 +16	13	a	7.0	a	6.0	a	6.0	0.83 b	8.5
2	0.95	11	1.02	13		7.0		6.0		6.0	0.91 b	8.0
3	0.95	11	1.03	14		7.5		5.5		6.5	0.88	8.5
4	0.96 +7	11	0.96	11		8.0		5.5		6.5	0.87	8.5
5	0.94 +16	10	0.97	11		8.0		6.0		6.0	0.88 b	8.0
6	0.94	10	0.96	11		8.5		6.0		6.0	0.88	8.0
7	0.93	9.6	993 0.96 +6	11		8.0		5.5	P	6.0	0.86	7.5
8	0.93	9.6	0.96 +6	11		8.0		5.0		5.5	0.87 b	7.0
9	0.94	10	0.97 +6	11		8.5		5.0		5.5	0.87	8.0
10	991 0.94 +6	10	1.00 b	11		9.0		5.0		6.0	0.91 b	8.5
11	0.93	9.6	1.02	11		8.5		5.0		6.0	0.90 +17	8.8
12	0.94	10	1.02	10		8.5		5.5		6.0	0.86 +12	7.4
13	0.94	10	1.13 b	10	995	8.5		5.5		6.0	0.90	[illegible]
14	0.94	10	1.07	9.0		8.5		6.0		6.0	0.94	10
15	0.94	10	1.06	9.0		8.5		6.5		6.5	[illegible]	8.8
16	0.94	10	1.05	10		8.0	992	6.0		6.5	0.87	7.9?
17	0.94	10	1.02	11		7.5		6.5		6.5	0.78	5.2
18	0.94	10	0.96	10		8.0		6.0		7.0	0.85	7.1
19	0.93	9.6	0.95	10		8.0	P	5.5	999 a	+6 7.5	0.93	10
20	0.93 +6	9.6	0.97 P	10		7.5		5.0	0.81	7.0	[illegible]	[illegible]
21	0.96 +5	10	a	11		7.0		5.5	0.80 b	7.0	0.83	[illegible]
22	0.96	10		10		6.5		5.0	0.83	7.5	0.90	[illegible]
23	0.97	11		8.0		6.5		5.5	0.85 b	7.0	0.87	7.8
24	992 0.97 +5	11		8.0		7.0		5.5	0.90	7.0	0.96	11
25	0.96	10		8.0		6.5		5.5	0.83	8.0	0.90	8.8
26	0.95	10	994 a	8.0		6.5		5.0	0.85	8.0	0.86	[illegible]
27	0.94	9.6		7.5		6.5		5.0	0.88 b	8.5	0.87	[illegible]
28	0.94	9.6		7.0		6.0		5.0	[illegible]	8.5	0.85	[illegible]
29	0.93	9.2		7.0		6.0		5.0	[illegible]	9.0	0.91	[illegible]
30	0.88 +5	7.4	a	7.0	996	6.0		5.5	XX	XXX	[illegible]	6.8
31	1.01 +6	13	XX	XXX	a	5.5	998 a	6.0	XX	XXX	[illegible]	[illegible]

Calendar Year 1979		OCT.	NOV.	DEC.	JAN.	FEB.	MAR.
5,690.3	Total	312.8	298.5	231	171.5	195.5	250.0
15.6	Mean	10.1	9.95	7.45	5.53	6.74	8.06?
[illegible]	Run-off in acre-feet	620	592	458	340	388	[illegible]
[illegible]	Maximum	13	14	9.0	6.5	9.0	11
[illegible]	Minimum	7.4	7.0	5.5	5.0	5.5	5.2

Max. Discharge [illegible] sec. ft. at [illegible] on [illegible]

Max. G. H. 2.27 ft. at 1200-2200 on May 24 Min. Daily Discharge 5.0 (est.) sec.-ft. on Many days

S-discharge subdivided. V-variable shift. Discharge estimated for "a"-no gage height record & "b"-ice effect.

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. 02[illegible]5

Rating Table Used No. 12 October 1, 1929
to

Day	APR. Gage height	APR. Discharge	MAY Gage height	MAY Discharge	JUNE Gage height	JUNE Discharge	JULY Gage height	JULY Discharge	AUG. Gage height	AUG. Discharge	SEPT. Gage height	SEPT. Discharge
1		1.1	2.04	175	2.08	196	2.37	275	2.16	218	1.95	163
2		1.6	1.67	100	2.15	215	2.35	268	2.17	221	1.94	161
3		1.2	1.29	50	2.44	306	2.36	272	2.16	218	1.93	159
4		1.2	1.12	34	2.55	345	2.36	272	2.15	215	1.93	159
5		1.0	1.16	37	2.41	296	2.31	221	2.15	215	1.89	150
6		1.0	0.98	24	2.44	306	2.09	188	2.15	215	1.86	143
7		1.0	0.93	21	2.44	306	2.07	183	2.12	209	1.86	143
8		1.0	1.14	36	2.45	310	2.07	183	2.09	201	1.87	146
9		1.0	1.01	26	2.54	342	2.13	198	2.08	198	S	138
10		1.7	0.90	19	2.75	425	2.22	227	2.08	198	1.58	90
11		4.4	0.84	16	2.75	425	2.25	236	2.07	196	1.57	88
12		2.3	0.79	14	2.68	397	2.24	233	2.07	196	1.40	64
13		2.0	0.75	12	2.58	357	2.24	233	Q	196	1.32	53
14		1.8	0.74	11	2.48	320	2.24	233		196	S	61
15		1.7	S	69	2.49	324	2.28	245	Q	193	1.16	36
16		1.2	S	135	2.48	320	2.33	265	2.06	193	1.15	35
17		1.6	1.22	45	2.51	331	2.32	262	2.06	193	1.14	34
18		1.4	1.05	30	2.51	331	2.30	255	2.05	190	1.13	33
19		1.1	S	141	2.51	331	2.29	252	2.05	190	1.12	33
20		1.1	S	121	2.51	331	2.30	255	2.00	178	1.12	33
21		1.6	0.96	26	2.49	324	2.27	245	1.93	161	1.12	33
22		1.0	0.94	27	2.49	324	2.21	230	1.84	139	1.12	33
23		2.8	0.92	23	2.49	324	2.19	224	1.78	127	1.07	29
24		1.6	0.86	20	2.49	324	2.19	224	1.79	129	1.01	24
25		7.8	0.83	18	2.49	324	2.19	224	1.84	139	0.96	21
26		2.8	0.81	17	S	2.63	2.16	218	1.93	159	0.97	22
27		7.0	S	41	2.47	314	2.16	218	1.96	166	0.92	19
28		13.4	1.43	74	2.47	310	2.16	218	1.95	163	0.87	16
29		13.2	1.55	92	2.47	310	2.16	218	1.94	161	0.92	19
30		9.7	1.80	133	2.44	300	2.16	218	1.94	161	0.83	16
31		XXX	2.04	185	XX	XXX	2.16	218	1.94	161	XX	XXX
	631		1772		9627		7211		5695		2154	28,237
	21.0		57.2		321		233		184		71.8	77.2
	1250		3,510		19,100		14,300		11,300		4,270	56,010
	134		185		425		275		221		163	425
	1.0		11		196		183		127		16	0.8

Quarter: 4th, 3rd, 2nd, 1st — Computed, Checked, Date
Dis.appld., Dis.check, Date
G.H.copd., G.H.check, Date
Water Year 1980

PURGATOIRE [illegible] ~~Creek near~~ TRINIDAD, COLORADO

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 1980

Drainage area 795 square miles. Water stage recorder Stevens A-35 Continuous

Max. Discharge 495 Sec. ft. at 1130 on May 19 G. H. 2.88 ft.

Max. G. H. 2.89 ft. at 1130 on May 19 Min. Daily Discharge 0.3 sec.-ft. on 15 Mar.

S - discharge conditioned; V - variable shift; Discharge estimated for "G" - no gage height record, and "X" - ice effect

Day	OCT. Gage height	OCT. Discharge	NOV. Gage height	NOV. Discharge	DEC. Gage height	DEC. Discharge	JAN. Gage height	JAN. Discharge	FEB. Gage height	FEB. Discharge	MAR. Gage height	MAR. Discharge
1	1.00	28	0.46	2.1	0.39	1.2	0.37	1.2	0.33	1.0	0.34	1.0
2	1.13	37	0.43	1.7	0.39	1.2	0.36	1.2	0.33	1.0	0.34	1.0
3	1.12	41	0.42	1.4	0.39	1.2	0.35	1.1	0.33	1.0	0.32	1.1
4	1.24	48	0.42	1.4	0.38	1.2	0.35	1.1	0.33	1.0	0.33	0.9
5	1.26	50	0.42	1.4	0.39	1.2	0.36	1.2	0.33	1.0	0.35	1.0
6	1.26	50	[716] 0.42	1.4	0.32	1.1	0.34	1.0	0.32	1.0	[722] 0.33	0.9
7	1.26	50	0.42	1.4	0.38	1.2	0.33	1.0	0.32	1.0	0.34	1.0
8	1.26	50	0.44	1.7	0.37	1.1	[719] 0.35	1.1	0.33	1.0	0.33	0.9
9	1.22	46	0.44	1.7	0.38	1.2	0.34	1.0	0.33	1.0	0.34	1.0
10	[714] 1.18	42	0.42	2.1	[718] 0.38	1.2	S	6.5	0.36	1.2	0.33	0.9
11	1.12	41	0.43	1.6	0.35	1.0	S	11	0.34	1.0	0.33	0.9
12	1.18	42	0.48	2.2	0.25	1.0	S	23	0.34	1.0	0.33	0.9
13	1.18	42	0.42	1.4	0.34	1.0	S	6.2	[721] S	V 39	0.33	0.9
14	1.05	30	0.43	1.6	0.33	0.9	0.36	1.2	1.42	66	0.32	0.9
15	S	V 8.5	S	V 6.9	0.32	1.1	0.38	1.4	S	V 32	0.31	0.8
16	0.48	2.8	0.86	14	0.33	0.9	0.35	1.1	0.41	1.4	0.32	0.9
17	S	6.4	S	7.4	0.36	1.0	0.33	1.0	0.39	1.2	0.32	1.1
18	0.48	2.8	0.40	1.4	0.34	1.0	0.33	1.0	0.32	1.1	0.36	1.0
19	0.44	2.3	0.42	1.6	S	5.1	0.34	1.0	0.36	1.0	0.33	0.9
20	0.44	2.3	0.45	2.0	S	11	0.35	1.1	0.36	1.0	0.33	0.9
21	0.52	3.2	0.40	1.4	S	12	0.34	1.0	0.35	1.0	0.34	1.0
22	0.50	3.2	0.41	1.4	S	6.2	0.34	1.0	0.35	1.0	0.32	0.9
23	0.46	2.6	0.39	1.2	0.38	1.2	0.32	1.0	0.36	1.0	0.42	1.6
24	0.43	2.2	0.39	1.2	0.38	1.2	[720] 0.34	1.0	0.35	1.0	0.35	1.2
25	[715] 0.44	2.3	0.39	1.2	0.36	1.1	0.33	1.0	0.34	1.0	0.32	1.1
26	0.48	2.8	[717] S	V 26	0.35	1.0	0.31	0.9	0.33	0.9	0.35	1.0
27	0.47	2.6	1.22	48	0.35	1.0	0.34	1.0	0.33	0.9	0.36	1.0
28	0.46	2.3	S	V 22	0.36	1.1	0.36	1.2	0.33	0.9	0.36	1.0
29	0.47	2.4	0.40	1.4	0.33	1.0	S	1.5	0.33	0.9	0.39	1.1
30	0.53	3.2	0.40	1.4	0.35	1.0	0.33	1.0	XX	XXX	0.35	1.0
31	0.47	2.3	XX	XXX	0.35	1.0	0.32	1.0	XX	XXX	0.32	1.1
Calendar Year 1979												
18,883.6	Total	651.7		161.6		63.6		76.0		163.5		30.7
51.7	Mean	21.0		5.39		2.05		2.45		5.64		1.00
37,460	Run-off in acre-feet	1,290		321		126		151		324		61
[illegible]	Maximum	50		48		11		23		[illegible]		[illegible]
[illegible]	Minimum	2.2		1.2		0.9		0.9		0.9		0.8

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. 07126500

Rating Table Used No. 4

Day	APR. Gage height	APR. Discharge	MAY Gage height	MAY Discharge	JUNE Gage height	JUNE Discharge	JULY Gage height	JULY Discharge	AUG. Gage height	AUG. Discharge	SEPT. Gage height	SEPT. Discharge
1		24		2120		51		59		26		14
2		23		1400		50	a	55		24		14
3		23		750		47		50		30		12
4		23		356		106		45		31		11
5		22		298		128		40		35		7.8
6		20		323		75		35		32		5.9
7		17		433		60		30		46		5.2
8		15		300		56		25		35		5.7
9		15		463		54	254 a	+ 03 18		173		1660
10		14		265		76		13		85		354
11		14		214		138		11		48		203
12		14		192	283	+ 03 122		18	285	35		125
13		15		156		137		27		30		87
14		18	282	130		132		28		29		63
15		18		136		73		28		79		71
16	281 o	17		1480		85		25		46		58
17		16		744		86		31		34	287	44
18		14		393		89		30		26		39
19		13		262		111		33		25		36
20		13		355		93		35		23		32
21		13		240		90		43		24		28
22		13		159		92		40		24		27
23		13		149		95		38		22		24
24		16		130		98		35		18		20
25		177		110		88		36		10		17
26		188		94		87		27	a	286 6.5		16
27		434		78		68		27		7.3		14
28		713		67		59		22		138		13
29		1260		67		72		22		22		13
30		941		76		68		23		21		12
31	XX	XXX		65	XX	XXX		26		17	XX	XXX
	4/16		12033		2586		925		1206.8		3031.6	
	177		388		86.2		31.5		38.9		101	
	8,160		23,870		5,130		1,930		2,390		6,010	
	1,360		3,180		138		59		173		1660	
	13		65		47		11		6.5		5.8	

Day	Quarter	4th	3rd	2nd	1st	Computed	Checked	Date
1			3rd					
2				2nd				
3					1st			
4								
5								
6								
7								
8								
9		4th						
10								
11			3rd					
12								
13				2nd				
14								
15					1st			
16								
17						Dis.appld.	Dis.check	Date
18								
19								
20		4th						
21								
22			3rd					
23								
24				2nd				
25								
26					1st			
27								
28						G.H.appd.	G.H.check	Date
29								
30						Water Year		
31						1980		

Purgatoire River at Creek near Thatcher, Colorado

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 1980

Drainage area _____ square miles. Water stage recorder _____

Max. Discharge 3,783.4 Sec. ft. at 0215 on May 1st G. H. 7.92 ft.

Max. G. H. 7.92 ft. at 0915 on May 1st Min. Daily Discharge 1.8 sec.-ft. on Sept. 8

"b" - ice affected gage-height, "a" - discharge estimated for no gage-height record, all days subdivided.

Day.	OCT. Gage height	OCT. Discharge	NOV. Gage height	NOV. Discharge	DEC. Gage height	DEC. Discharge	JAN. Gage height	JAN. Discharge	FEB. Gage height	FEB. Discharge	MAR. Gage height	MAR. Discharge
1	2.22	11	2.59	+03 31	a	15	a	15		16		15
2	2.23	11	2.63	34		15		16		18		15
3	2.18	9.2	2.59	30		16		17		20		15
4	2.26	12	2.59	30		19		16		23		14
5	2.36	16	2.59	30	a	22		15		24		15
6	2.47	+00 24	2.56	29		26		16		20	2.90	-01 15
7	2.51	26	2.51	26		24	a	17		21		14
8	2.55	28	2.49	25		21	2.22	-01 16		19		14
9	2.48	24	2.48	25		24		15	a	18		14
10	2.50	25	2.49	25	2.76	-03 23		18		19		14
11	2.49	25	2.50	26		22		23		18		13
12	2.54	28	2.55	29		20		20		20		13
13	2.53	27	2.54	28		19		20	2.29 a	+01 22		13
14	2.49	25	2.53	28		18		36		23		13
15	2.58	30	2.74	+03 24		17		33		20		13
16	2.65	35		23		15		27		18		13
17	2.23 2.53	+00 29		23		18		26		16		14
18	2.46	23		22	a	17		25		21		15
19	2.46	23		22		16		22		22		15
20	2.46	23		22		15		21		19		16
21	2.50	25		25		16		18		18		16
22	2.55	28		23		17		21		17		15
23	2.58	30		30		18		17		17		15
24	2.52	26		22		17	2.28	-03 17		16		17
25	2.51	26		21		16		20		16		16
26	2.51	26		20		15	b	24		16		18
27	2.50	25		20		16	b	13		14		18
28	2.52	26		20		17		12		14		16
29	2.48	24	2.75	-03 14		18		12		14		16
30	2.66	36	a	15		17		16	XX	XXX		16
31	2.70	+00 39	XX	XXX	a	16		18	XX	XXX		16
Total		762.2		733		565		607		533		429
Mean		24.6		24.4		18.2		19.6		19.4		15.3
Run-off in acre-feet		1,510		1,450		1120		1,200		1060		850
Maximum		38		34		26		36		24		18
Minimum		9.2		14		15		12		14		13

Calendar Year

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. 0710o100

Rating Table Used No. 3 from Oct., 1924
To Sept. 30, 1980

Day.	APR. Gage height	APR. Discharge	MAY Gage height	MAY Discharge	JUNE Gage height	JUNE Discharge	JULY Gage height	JULY Discharge	AUG. Gage height	AUG. Discharge	SEPT. Gage height	SEPT. Discharge
1	0.25	0.00	S	1.5	0.25	0.00	0.25	0.00	0.25	0.00	0.25	0.00
2	0.25		S	1.2	0.25		0.25		0.25		0.25	
3	0.25		S	.04	0.25		0.25		0.25		0.25	
4	0.25		0.22	0.00	0.25		0.25		0.25		0.25	
5	0.25		0.25		0.25		0.25		0.25		0.25	
6	0.25		0.25		0.25		0.25		0.25		0.25	
7	0.25		0.25		0.25		0.25		0.25		0.25	
8	0.25		0.25		0.25		0.25		0.25		0.25	
9	0.25		0.25		0.25		0.25 [013]		0.25		0.25	
10	0.25		0.25		0.25		0.25		a		0.25	
11	0.25		0.25		0.25		0.25		a		0.25	
12	0.25		0.25		0.25 [012]		0.25		a [014]		0.25	
13	0.25		0.25		0.25		0.25		0.25		0.25	
14	0.25		0.25 [011]		0.25		0.25		0.25		0.25	
15	0.25		0.25		0.25		0.25		0.25		0.25	
16	0.25		0.25		0.25		0.25		0.25		0.25	
17	0.25		0.25		0.25		0.25		0.25		0.25 [016]	
18	0.25		0.25		0.25		0.25		0.25		0.25	
19	0.25		0.25		0.25		0.25		0.25		0.25	
20	0.25		0.25		0.25		0.25		0.25		0.25	
21	0.25		0.25		0.25		0.25		0.25		0.25	
22	0.25		0.25		0.25		0.25		0.25		0.25	
23	0.25		0.25		0.25		0.25		0.25		0.25	
24	0.25		0.25		0.25		0.25		0.25		0.25	
25	0.25		0.25		0.25		0.25		0.25		0.25	
26	0.25		0.25		0.25		0.25		0.25 [015]		0.25	
27	0.25		0.25		0.25		0.25		0.25		0.25	
28	0.25		0.25		0.25		0.25		0.25		0.25	
29	0.25		0.25		0.25		0.25		0.25		0.25	
30	0.25		0.25		0.25	0.00	0.25		0.25		0.25	0.00
31	XX	XXX	0.25	0.00	XX	XXX	0.25	0.00	0.25	0.00	XX	XXX
			3.24		0.00		0.00		0.00		0.00	

Quarter: 4th, 3rd, 2nd, 1st — Computed SDJ — Checked — Date

Quarter: 4th, 3rd, 2nd, 1st — Dis.appld. SDJ — Dis.check — Date

Quarter: 4th, 3rd, 2nd, 1st — G.H.copd SDJ — G.H.check — Date

Water Year 1980

Luning Arroyo Creek (near) Mode, Colorado

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 1980

Drainage area ______ square miles. Water stage recorder ______

Max. Discharge [illegible] Sec. ft. at [illegible] on [illegible] G. H. 1.54 ft.

Max. G. H. 1.54 ft. at [illegible] on [illegible] Min. Daily Discharge 0.00 sec.-ft. on Many Days

[illegible] days, [illegible] day

Calendar Year 1979

Day	OCT. Gage height	OCT. Discharge	NOV. Gage height	NOV. Discharge	DEC. Gage height	DEC. Discharge	JAN. Gage height	JAN. Discharge	FEB. Gage height	FEB. Discharge	MAR. Gage height	MAR. Discharge
1	0.25	0.00	0.25	0.00	0.25	0.00	0.25	0.00	0.25	0.00	0.25	0.00
2	0.25		0.25		0.25		0.25		0.25		0.25	
3	0.25		0.25		0.25		0.25		0.25		0.25	
4	001 0.25		0.25		0.25		0.25		0.25		0.25	
5	0.25		0.25		0.25		0.25		0.25		0.25	
6	0.25		003 0.25		0.25		0.25		0.25		009 0.25	
7	0.25		0.25		0.25		0.25		0.25		0.25	
8	0.25		0.25		0.25		006 0.25		0.25		0.25	
9	0.25		0.25		0.25		0.25		0.25		0.25	
10	0.25		0.25		005 0.25		0.25		0.25		0.25	
11	0.25		0.25		0.25		0.25		0.25		0.25	
12	0.25		0.25		0.25		0.25		0.25		0.25	
13	0.25		0.25		0.25		0.25		008 0.25		0.25	
14	0.25		0.25		0.25		0.25		0.25		0.25	
15	0.25		0.25		0.25		0.25		0.25		0.25	
16	0.25		0.25		0.25		0.25		0.25		0.25	
17	002 0.25		0.25		0.25		0.25		0.25		0.25	
18	0.25		0.25		0.25		0.25		0.25		0.25	
19	0.25		0.25		0.25		0.25		0.25		0.25	
20	0.25		0.25		0.25		0.25		0.25		0.25	
21	0.25		0.25		0.25		0.25		0.25		0.25	
22	0.25		0.25		0.25		0.25		0.25		0.25	
23	0.25		0.25		0.25		0.25		0.25		0.25	
24	0.25		0.25		0.25		007 0.25		0.25		0.25	
25	0.25		0.25		0.25		0.25		0.25		0.25	
26	0.25		0.25		0.25		0.25		0.25		0.25	
27	0.25		0.25		0.25		0.25		0.25		0.25	
28	0.25		0.25		0.25		0.25		0.25		0.25	
29	0.25		004 0.25		0.25		0.25		0.25	0.00	0.25	
30	0.25		0.25	0.00	0.25		0.25		XX	XXX	0.25	
31	0.25	0.00	XX	XXX	0.25	0.00	0.25	0.00	XX	XXX	0.25	0.0
Total		0.00		0.00		0.00		0.00		0.00		0.00
Mean												
Run-off in acre-feet												
Maximum												
Minimum												

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. 0712 00

Rating Table Used No. 4 from Oct. 1, 1975

APR. Gage height	APR. Discharge	MAY Gage height	MAY Discharge	JUNE Gage height	JUNE Discharge	JULY Gage height	JULY Discharge	AUG. Gage height	AUG. Discharge	SEPT. Gage height	SEPT. Discharge	Day.
[illegible]	0.21	0.44	2.1	0.29	0.18	0.28	0.15	0.30	0.21	0.26	0.09	1
[illegible]	.21	.40	1.3	.29	.18	.29	.18	.30	.21	.26	.09	2
[illegible]	.21	.37	0.80	.29	.18	.30	.21	.29	.18	.25	.06	3
[illegible]	.21	.34	.50	.29	.18	.30	.21	.29	.18	.26	.09	4
[illegible]	.21	.33	.40	.30	.21	.30	.21	.29	.18	.26	.09	5
[illegible]	.21	.32	.30	.30	.21	.30	.21	.29	.18	.26	.09	6
[illegible]	.21	.32	.30	.30	.21	.30	.21	.30	.21	.26	.09	7
[illegible]	.21	.33	.40	.30	.21	.30	.21	.31	.25	.26	.09	8
[illegible]	.21	.32	.30	.30	.21	[222] .30	.21	[illegible]	1.7	.27	.12	9
[illegible]	.21	.32	.30	.30	.21	.30	.21	.36	.70	.27	.12	10
[illegible]	.21	.32	.30	.30	.21	.30	.21	.31	.25	.27	.12	11
[illegible]	.21	.31	.25	[221] .30	.21	.30	.21	[223] .30	.21	.26	.09	12
[illegible]	.21	.31	.25	.30	.21	.29	.18	.31	.25	.26	.09	13
[illegible]	.21	[220] .31	.25	.30	.21	.29	.18	S	6.3	.26	.09	14
[illegible]	.21	.31	.25	.30	.21	.29	.18	.47	2.6	.26	.09	15
[219] [illegible]	.21	.34	.50	.30	.21	.29	.18	.32	.30	.26	.09	16
.28	.15	.33	.40	.30	.21	.29	.18	.30	.21	[225] .26	.09	17
.27	.12	.32	.30	.30	.21	.29	.18	.28	.15	.26	.09	18
.27	.12	.31	.25	.29	.18	.29	.18	.28	.15	.26	.09	19
.26	.09	.30	.21	.29	.18	.28	.15	.28	.15	.26	.09	20
[illegible]	.09	.29	.18	.28	.15	.28	.15	.26	.09	.27	.12	21
[illegible]	.09	.29	.18	.28	.15	.30	.21	.26	.09	.27	.12	22
[illegible]	.09	.29	.18	.28	.15	.35	.60	.26	.09	.27	.12	23
[illegible]	.21	.28	.15	.28	.15	.31	.25	.26	.09	.27	.12	24
[illegible]	[illegible]	.27	.12	.27	.12	.31	.25	.25	.06	.27	.12	25
[illegible]	.70	.27	.12	.27	.12	.30	.21	[224] [illegible]	.09	.27	.12	26
[illegible]	.40	.28	.15	.27	.12	.30	.21	.26	.09	.27	.12	27
[illegible]	.25	.27	.12	.28	.15	.30	.21	[illegible]	.09	.27	.12	28
[illegible]	.21	.27	.12	.28	.15	.30	.21	.25	.06	.27	.12	29
[illegible]	.25	.28	.15	.28	.15	.30	.21	.25	.06	.27	.12	30
XX	XXX	.29	.12	XX	XXX	.30	.21	.35	.06	XX	XXX	31

APR.	MAY	JUNE	JULY	AUG.	SEPT.	Water Year 1980
7.03	11.31	5.43	6.56	15.64	3.06	84.00
0.23	0.36	0.18	0.21	0.50	0.10	0.23
14	22	11	13	31	6.1	167
[illegible]	2.1	0.21	0.60	6.3	0.12	[illegible]
[illegible]	0.12	0.12	0.15	0.06	0.06	0.06

Quarter		Computed	Checked	Date
4th				
3rd				
2nd				
1st				

Quarter		Dis.appld.	Dis.check	Date
4th				
3rd				
2nd				
1st				

Quarter		G.H.copd.	G.H.check	Date
4th				
3rd				
2nd				
1st				

Water Year 1980

Van Bremer Arroyo Creek (near) Model, Colorado

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 19 80

Drainage area ______ square miles. Water stage recorder Stevens A-35

Max. Discharge [illegible] sec. ft. at [illegible] on Aug. [illegible] G. H. 6.10 ft.

Max. G. H. 1.72 ft. at 2100 on Aug. 14 Min. Daily Discharge 0.06 sec.-ft. on Aug. & Sept.

S - discharge subdivided; V - variable shift; b - ice effect;

a - discharge estimated

Calendar Year 1979

Day	OCT. Gage height	OCT. Discharge	NOV. Gage height	NOV. Discharge	DEC. Gage height	DEC. Discharge	JAN. Gage height	JAN. Discharge	FEB. Gage height	FEB. Discharge	MAR. Gage height	MAR. Discharge
1	0.26	0.15	0.32	0.50	0.27	0.12	0.28	0.18	0.29	0.21	0.27	0.15
2	0.26	.15	0.33	.60	0.27	.12	0.28	.18	0.29	.21	0.27	.15
3	0.27	.15	0.30	.40	0.27	.12	0.28	.18	0.29	.21	0.27	.15
4	0.27	.15	0.29	.30	0.27	.12	0.28	.18	0.29	.21	0.27	.15
5	0.27	.15	0.28	.25	0.27	.12	0.28	.18	0.29	.21	0.27	.15
6	0.27	.15	0.27	.25	0.27	.12	0.28	.18	0.29	.21	0.29	.18
7	0.28	.15	0.27	.25	0.27	.12	0.28	.18	0.29	.21	0.30	.21
8	0.28	.15	0.27	.25	0.27	.12	0.28	.18	0.29	.21	a	.21
9	0.28	.15	0.27	.25	0.28	.15	0.29	.21	0.29	.21		.21
10	0.28	.15	0.27	.25	0.28	.15	0.30	.25	0.29	.21		.21
11	0.27	.12	0.27	.21	0.28	.15	0.30	.25	0.29	.21		.21
12	0.27	.12	0.27	.21	0.28	.15	0.30	.25	0.29	.21		.21
13	0.28	.15	0.27	.21	0.28	.15	0.30	.25	0.29	.21		.21
14	0.28	.15	0.27	.21	0.28	.15	0.30	.25	0.29	.21		.21
15	0.27	.12	0.27	.21	0.28	.15	0.28	.18	0.29	.21		.21
16	0.28	.15	0.26	.15	0.28	.15	0.28	.18	0.29	.21		.21
17	0.28	.15	0.26	.15	0.28	.15	0.31	.30	0.29	.21		.21
18	0.28	.15	0.26	.15	0.28	.15	0.31	.30	0.29	.21		.21
19	0.28	.15	0.26	.15	0.28	.15	0.31	.30	0.29	.21		.21
20	0.28	.15	0.26	.15	0.28	.15	0.31	.30	0.29	.21		.21
21	0.28	.15	0.26	.12	0.28	.15	0.31	.30	0.28	.18		.21
22	0.28	.15	0.26	.12	0.28	.15	0.31	.30	0.28	.18		.21
23	0.28	.15	0.26	.12	0.28	.15	0.31	.30	0.28	.18		.21
24	0.28	.15	0.26	.12	0.28	.15	0.31	.30	0.27	.15		.21
25	0.29	.18	0.27	.12	0.28	.15	0.30	.25	0.28	.18		.21
26	0.29	.18	0.27	.12	0.28	.15	0.30	.25	0.28	.18		.21
27	0.29	.18	0.27	.12	0.28	.15	0.30	.25	0.27	.15		.21
28	0.29	.18	0.27	.12	0.28	.15	0.30	.25	0.28	.18		.21
29	0.29	.18	0.27	.12	0.28	.15	0.30	.25	0.28	.18		.21
30	0.30	.25	0.27	.12	0.28	.15	0.30	.25	XX	XXX		.21
31	0.30	.25	XX	XXX	0.28	.15	0.30	.25	XX	XXX	a	.21

	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.
Total	4.91	6.30	4.41	7.41	5.76	6.18
Mean	0.16	0.21	0.14	0.24	0.20	0.20
Run-off in acre-feet	9.7	12	8.7	15	11	12
Maximum	0.25	0.60	0.15	0.30	0.21	[illegible]
Minimum	0.12	0.12	0.12	0.18	0.15	[illegible]

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. 09123000

Rating Table Used No. 35 rated 2/7/73

Oct. 1, 1979 Thru Sept. 30 1980

Day	APR. Gage height	APR. Discharge	MAY Gage height	MAY Discharge	JUNE Gage height	JUNE Discharge	JULY Gage height	JULY Discharge	AUG. Gage height	AUG. Discharge	SEPT. Gage height	SEPT. Discharge
1		.52 777	S	v 1320	6.36	.44 1150	5.48	.32 389	4.60	.25 54	5.18	.36 208
2		.53 30	S	v 3340	S	v 938	S	v 607	4.52	.24 40	525 5.08	.36 166
3		.54 166	S	v 2360	5.61	.44 396	516	v 431	4.59	.25 51	4.92	.39 106
4		28	S	v 1480	513 S	v 220	S	v 646	4.61	.25 56	4.92	106
5		.51 28	6.22	.43 950	4.79	.32 113	S	v 974	521 4.63	.28 106	4.95	116
6		.65 30	S	v 964	4.57	.22 54	S	v 525	4.98	.29 154	4.94	113
7		.62 30	S	v 262	S	v 134	S	v 258	4.78	.27 94	4.92	106
8		.64 29	S	v 2400	5.82	.38 606	4.65	.29 56	4.83	.28 106	4.89	97
9		.66 24	508 S	v 3990	6.16	.45 782	517 4.74	140	4.92	.29 133	526 4.99	.39 129
10		.62 23	S	v 2200	6.39	.50 1070	4.96	83	4.93	.29 136	5.22	.38 219
11		.61 24	7.96	.71 3320	6.92	.62 1690	4.99	.29 151	5.18	.32 227	5.25	.38 231
12		.61 29	7.60	.66 2720	513 S	v 2500	S	v 230	522 5.02	.31 162	4.92	.39 106
13		.65 20	S	v 1700	7.46	.59 2480	4.94	.29 78	4.88	.29 119	5.29	.39 245
14		.71 12	509 S	v 1050	7.53	.60 2570	4.65	56	4.78	.28 91	5.60	.41 408
15		.69 24	S	v 1590	7.46	.59 2480	4.91	.29 129	S	v 607	5.64	.41 436
16		.64 29	S	v 2610	S	v 2390	5.00	.34 144	S	v 1100	529 5.48	.40 339
17		.65 26	S	v 3750	S	v 2150	518 5.18	.42 183	5.58	.35 436	5.39	290
18		.61 40	S	v 3290	S	v 2330	5.00	.34 144	5.67	.39 491	5.32	225
19		.60 39	S	v 3610	S	v 3520	4.95	.29 80	5.35	.39 285	5.15	.43 178
20		.66 33	S	v 3910	514 S	v 2810	4.65	.28 58	533 S	v 261	5.04	.31 140
21		.59 42	S	v 4180	S	v 2970	S	v 322	4.90	.30 122	4.97	116
22		.58 43	S	v 4880	S	v 2700	519 4.62	.28 51	4.80	.28 97	4.92	100
23		.59 35	510 S	v 2290	S	v 1630	4.59	.26 45	4.74	.27 83	528 4.88	.39 88
24		v 95	6.96	.82 1770	S	v 1110	4.58	.27 45	5.14	.39 189	4.89	96
25		v 1140	7.32	.46 2420	S	v 977	4.60	.29 49	5.10	170	529 5.13	.35 136
26		.62 579	7.44	.68 2630	6.04	.43 991	4.52	.25 39	534 5.14	.39 189	530 5.12	.39 178
27		.62 528	S	v 2230	515 S	v 656	4.53	40	5.18	204	531 4.99	.32 119
28		v 529	S	v 2140	6.01	.42 750	4.54	.25 42	5.30	260	4.91	100
29		.63 750	S	v 1570	5.58	.34 443	520 4.48	.23 36	5.65	.39 491	532 5.00	.31 129
30		.63 226	511 S	v 485	S	v 511	4.47	.23 35	5.36	.36 295	4.94	.36 110
31		XXX	S	v 1140	XX	XXX	4.63	.25 60	5.30	.36 265	XX	XXX
	5,246		72,757		43,001		6,126		7,030		5,124	
	175		2347		1433		198		227		171	
	10,406		144,300		85,290		12,150		13,940		10,160	
	46		4880		3520		974		1,100		436	
	12		268		54		35		40		86	

Quarter: 4th WFH TCS; 3rd; 2nd; 1st WFH TCS; Computed; Checked; Date

Quarter: 4th WFH TCS; 3rd; 2nd; 1st WFH TCS; Dis.appld.; Dis.check; Date

Quarter: 4th WFH TCS; 3rd; 2nd; 1st WFH TCS; G.H.comp; G.H.check; Date

Water Year 1980

ARKANSAS River at ~~Creek near~~ LA JUNTA COLORADO

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 19 80

Drainage area 12,210 square miles. Water stage recorder STEVENS A-35 CONTINUOUS

Max. Discharge [illegible] Sec. ft. at [illegible] on [illegible]

Max. G. H. [illegible] ft. at [illegible] on [illegible] Min. Daily Discharge 18 sec.-ft. on Dec 5-10 [illegible]

"S" Discharge [illegible] [illegible] [illegible]

Day	OCT. Gage height	OCT. Discharge	NOV. Gage height	NOV. Discharge	DEC. Gage height	DEC. Discharge	JAN. Gage height	JAN. Discharge	FEB. Gage height	FEB. Discharge	MAR. Gage height	MAR. Discharge
1	4.62	.27 54	4.47	.15 47	4.67	.55 23	6.21	b 167	5.33	b 106	4.94	.52 69
2	4.59	47	4.44	.16 40	4.63	.56 20	6.37	200	5.35	110	4.93	69
3	4.43	26	4.43	.17 37	4.62	.56 19	6.13	175	5.26	b 115	4.93	.52 69
4	4.47	29	a	39	493 4.61	.56 18	6.20	180	499 4.98	.45 106	5.02	.53 86
5	4.42	25		40	a	18	6.53	220	4.99	.45 116	5.07	[illegible]
6	4.47	29		41		18	5.61	140	5.01	.45 113	5.05	[illegible]
7	4.61	.27 51		43		18	7.24	120	5.02	.45 113	5.04	91
8	486 4.76	.26 91	490	44		18	7.04	100	4.96	.46 106	5.06	[illegible] 97
9	4.76	.25 94	a	46		18	6.97	116	4.96	.47 103	[illegible]	.45 [illegible]
10	4.65	.24 67	4.52	.20 47		18	6.85	150	5.01	.48 100	5.06	[illegible] 91
11	4.64	64	4.49	.20 42		19	6.73	240	5.02	.49 100	502 5.00	.56 75
12	4.71	.24 83	4.50	.21 42		19	6.43	220	4.99	.50 88	5.02	.54 81
13	4.72	.23 88	S	.22 71		20	6.43	240	500 5.00	.50 91	5.07	.52 103
14	4.73	91	4.56	.23 49	a	40	5.93	b 230	4.95	78	5.16	.51 [illegible]
15	4.75	.23 97	491 S	v 42	494 5.12	.48 136	5.24	.41 213	4.89	62	S	.51 112
16	a	80	4.80	.52 40	5.16	151	5.16	178	4.83	49	4.71	.50 30
17	487 a	90	S	53	5.12	136	497 5.12	.41 162	4.90	64	4.67	27
18	4.63	.19 75	S	69	5.23	178	5.08 g	.42 144	4.94	75	4.64	24
19	S	.18 88	4.86	51	495 5.23	.48 178	5.04 g	.43 126	4.89	62	4.93	72
20	4.55	.17 60	4.84	47	5.21	.49 166	5.01 g	.44 113	4.89	62	4.86	56
21	4.66	.15 94	4.76	35	5.22	.50 166	5.01 g	.45 110	4.90	64	4.76	37
22	4.78	.14 136	4.90	60	5.26	.51 178	4.98	.47 94	4.95	78	4.76	37
23	4.77	.13 136	492 4.79	39	5.25	.52 170	4.96	.48 86	4.94	75	4.83	49
24	488 4.71	.11 122	4.76	35	5.22	.53 154	498 5.00	.50 91	4.91	67	4.87	58
25	4.78	147	4.76	35	5.25	.54 162	5.02	97	4.94	.50 75	4.81	45
26	4.66	.11 106	S	60	496 5.25	.54 162	4.86	.50 56	501 5.08	.51 113	4.75	36
27	4.60	.12 86	4.84	47	5.27	170	5.30	b 70	5.10	.51 119	S	65
28	4.62	91	4.82	.52 43	5.23	154	5.32	55	5.01	.52 88	503 4.84	.50 51
29	489 4.51	.12 62	S	.53 46	5.23	154	5.34	50	5.01	.52 88	4.83	49
30	4.48	.13 54	S	.54 43	5.17	.54 133	5.33	90	XX	XXX	4.83	49
31	4.57	.14 72	XX	XXX	6.10	b 150	5.31	b 100	XX	XXX	4.80	.50 43

Calendar Year 1979		OCT.	NOV.	DEC.	JAN.	FEB.	MAR.
69427.2	Total	2435	1,379	2,984	4,327	2,556	2,104
190	Mean	78	46	96	140	88	68
[illegible]	Run-off in acre-feet	[illegible]	2,740	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	Maximum	147	71	178	240	119	136
6.6	Minimum	25	35	18	50	49	24

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. 07126500

Rating Table Used No. 15 - October 1, 1979
To September 30, 1980

APR.		MAY		JUNE		JULY		AUG.		SEPT.		Day.	4th			
Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge		3rd			
		S	o 616	3.25	o2 40.9	3.17	o6 20.5	3.13	o6 15.5	3.14	o9 13.4	1	2nd			
	47.8	4.27	969	3.22	o3 32.5	481 3.18	22.0	3.14	16.6	489 3.13	12.4	2	1st			
3.22	o1 36.3	3.95	o 502	3.18	o4 25.0	3.19	23.5	3.15	17.8	3.10	o9 9.80	3	Quarter	Computed	Checked	Date
	36	3.63	+o1 218	3.17	o4 23.5	3.22	28.0	3.15	17.8	S	v 5.63	4				
	36	3.64	225	478 3.24	o6 31.0	3.16	19.0	486 3.16	19.0	1.50	o2 0	5				
	38	3.62	+o1 211	3.41	73.5	3.21	o6 26.5	3.17	20.5	1.47	0	6				
	40	474 3.73	+o2 302	3.28	38.6	3.16	o8 16.6	3.18	22.0	1.41	0	7				
3.23	o1 38.6	3.67	253	3.21	26.5	482 3.14	o9 13.4	3.21	26.5	1.35	0	8				
	34.0	3.67	253	3.18	22.0	3.14	13.4	3.31	45.5	490 1.37	o2 0	9	4th			
3.20	32.5	3.72	+o2 294	3.16	19.0	3.14	13.4	3.41	73.5	S	v 973	10				
	o1 32.5	3.55	o 162	3.19	23.5	3.16	15.5	3.25	32.5	3.66	o2 218	11				
	o2 26.5	3.59	184	3.38	63.6	3.13	12.4	487 3.21	26.5	3.59	o3 168	12	3rd			
	13.4	3.64	o 218	3.41	73.5	3.12	o9 11.5	3.23	29.5	3.53	o3 135	13				
	25.0	3.57	o1 168	3.38	63.6	S	v 4.29	3.23	29.5	3.45	o4 94.5	14	2nd			
3.16	25.0	475 3.52	o3 130	3.40	70.2	483 S	v 5.51	3.21	26.5	3.39	o5 73.5	15				
	28.0	S	v 278	3.26	34.0	3.17	o7 19.0	3.28	38.6	491 3.38	66.9	16	1st			
	o2 28.0	4.29	o 1000	3.25	32.5	3.17	19.0	3.33	50.1	3.38	66.9	17	Quarter	Dis.appld.	Dis.check	Date
	o3 23.5	3.94	o1 480	3.26	34.0	3.16	17.8	3.28	38.6	3.34	o5 54.7	18				
	25.0	3.77	311	479 3.26	o6 34.0	3.16	o7 17.8	3.23	o6 29.5	3.31	o6 45.5	19				
3.16	o3 23.5	3.68	o1 239	3.33	50.1	3.18	o6 22.0	488 3.18	o4 25.0	3.26	o7 32.5	20	4th			
	o4 20.5	476 3.81	o2 336	3.31	45.5	3.24	o4 34.0	3.16	o5 20.5	3.25	o7 31.0	21				
3.13	o5 16.6	3.64	204	3.27	36.3	484 3.22	31.0	3.15	o6 17.8	3.23	o8 26.5	22	3rd			
	v 9.98	3.56	157	3.27	36.3	3.23	32.5	3.14	16.6	492 3.22	25.0	23				
	o5 17.8	3.53	140	3.28	38.6	3.23	32.5	3.14	16.6	3.21	23.5	24	2nd			
3.27	o1 47.8	3.50	126	3.28	o6 38.6	3.23	32.5	3.13	15.5	3.20	22.0	25				
	o 179	3.46	108	480 3.25	o5 34.0	3.22	31.0	3.11	13.4	3.18	o8 19.0	26	1st			
3.72	277	3.41	867	3.23	31.0	3.22	o4 31.0	3.10	12.4	3.16	o7 17.8	27				
	560	3.38	76.8	3.22	29.5	3.18	o6 22.0	3.08	o6 10.6	3.15	16.6	28	Quarter	G.H.copd.	G.H.check	Date
	918	477 3.27	455	3.14	o6 16.6	485 3.18	22.0	3.23	o8 26.5	3.14	15.5	29				
4.04	o 614	3.25	40.9	3.18	o6 22.0	3.16	19.0	3.16	16.6	3.12	o7 13.4	30	Water Year			
XX	XXX	3.28	o2 47.8	XX	XXX	3.13	o6 15.5	3.18	o8 19.0	XX	XXX	31	1980			

PURGATOIRE Creek near HIGBEE, COLORADO

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 1980

Drainage area 2900 square miles. Water stage recorder STEVENS A-35 CONTINUOU

Max. Discharge 3030 Sec. ft. at 0520 on SEPT 10, 1979 Max. G. H. 5.09 ft. at 0520 on SEPT 10, 1979 Min. Daily Discharge 0 sec.-ft. on MANY DAYS

S - DISCHARGE SUBDIVIDED; V - VARIABLE SHIFT; DISCHARGE ESTIMATED FOR "a", NO GAGE HEIGHT RECORD

Day.	OCT. 1979 Gage height	OCT. 1979 Discharge	NOV. 1979 Gage height	NOV. 1979 Discharge	DEC. 1979 Gage height	DEC. 1979 Discharge	1980 JAN. Gage height	1980 JAN. Discharge	FEB. Gage height	FEB. Discharge	MAR. Gage height	MAR. Discharge
1	3.11	08 11.5	3.29	06 40.9	S	V 0.36	2.92	12 0	3.13	06 15.5	1.79	12 0
2	3.10	10.6	3.27	36.3	S	V 1.05	S	V 2.25	3.16	19.0	1.86	0
3	3.08	9.00	3.25	32.5	S	V 1.80	3.06	08 7.60	3.15	17.8	1.87	0
4	3.08	9.00	3.21	06 26.5	S	12 .14	a	9	3.18	22.0	1.84	0
5	3.09	9.80	3.15	07 16.6	2.57	0		9	3.16	19.0	1.83	0
6	3.09	9.80	3.12	08 12.4	4441 2.92	0		9	3.17	20.5	1.83	0
7	3.11	11.5	3.05	09 6.30	2.88	0		9	3.17	20.5	1.87	0
8	3.13	08 13.4	4621 3.02	10 4.00	2.75	0		9	3.11	13.4	1.87	0
9	3.14	07 15.5	2.97	1.70	2.88	0		9	3.08	10.6	1.86	0
10	4591 3.16	05 20.5	2.97	1.70	2.84	0		9	3.13	15.5	1.83	0
11	3.17	22.0	2.94	.80	2.61	0		9	4681 3.15	06 17.8	4701 1.86	12 0
12	3.17	22.0	2.97	1.70	2.47	0		10	S	V 3.57	S	V 5.4
13	3.17	22.0	2.99	2.50	4651 2.29	12 0		34	2.06	12 0	3.11	06 13.4
14	3.18	23.5	3.02	4.00	S	V .36		34	2.04	0	3.13	15.4
15	3.18	23.5	3.02	4.00	S	V 2.48		34	2.07	0	3.13	15.5
16	3.17	22.0	3.01	10 3.50	S	V .62	a	34	1.97	0	3.12	14.4
17	4601 3.18	05 23.5	2.92	12 0	2.00	12 0	4671 a	35	2.07	0	3.12	14.4
18	3.20	26.5	2.84	0	S	V 13.6		33	2.18	0	4711 3.13	15.5
19	3.20	26.5	2.79	0	S	V 3.68		30	1.94	0	3.12	14
20	3.18	23.5	2.88	0	S	V 3.77		28	2.00	0	3.12	14.4
21	3.18	23.5	S	12 0	S	V 1.46		26	2.04	0	3.12	14
22	3.18	05 23.5	S	V 2.64	S	V .38		23	2.01	0	3.13	15
23	3.19	06 23.5	4631 S	V 4.32	2.74	12 0		20	1.97	0	3.13	06 15.5
24	4611 3.19	23.5	S	V 2.67	S	V 1.20		20	1.98	0	3.14	15 17
25	3.20	25.0	S	12 0	S	V .64		19	1.97	0	3.14	17.8
26	3.20	25.0	S	.01	2.53	12 0		18	4671 1.92	0	3.14	05 17
27	3.19	23.5	S	0	S	V .03		15	1.88	0	3.16	04 22.0
28	3.20	25.0	S	.20	S	V .44		13	1.87	0	3.17	23.5
29	3.21	26.5	S	12 0	S	V 2.20		12	1.81	12 0	3.17	23
30	3.20	25.0	S	V .76	2.92	12 0		12	XX	XXX	3.17	23.5
31	3.30	06 43.2	XX	XXX	4661 2.92	12 0	a	15	XX	XXX	3.15	04 20
Total												
Mean												
Run-off in acre-feet												
Maximum												
Minimum												

Calendar Year 1979

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. 07126500

Rating Table Used

APR.		MAY		JUNE		JULY		AUG.		SEPT.		Day.
Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	
	34.0		616		81.5		57.4		15.5		13.4	1
	47.8		969		72.6		55.2		16.6		12.4	2
	36.3		502		65.1		60.0		17.8		9.80	3
	36		218		63.2		64.0		17.8		9.43	4
	36		225		69.3		48.0		19.0		10.1	5
	38		211		114		52.1		20.5		9.79	6
	40		302		78.3		42.2		22.0		9.25	7
	38.6		253		65.7		34.4		26.5		9.25	8
	34.0		253		61.2		28.6		60.5		8.72	9
	32.5		294		58.2		21.1		117		1010	10
	32.5		162		63.2		20.4		74.5		257	11
	26.5		256		105		17.1		44.3		190	12
	13.4		290		116		16.0		38.0		135	13
	25.0		192		106		12.8		29.5		94.5	14
	25.0		154		110		16.0		26.5		73.5	15
	28.0		302		71.4		20.7		38.6		66.9	16
	28.0		1070		69.9		20.6		50.1		66.9	17
	23.5		504		71.4		19.2		38.6		54.7	18
	25.0		335		71.8		19.0		29.5		45.5	19
	23.5		263		88.4		22.9		25.0		32.5	20
	20.5		360		83.3		34.8		20.5		31.0	21
	16.6		228		74.1		31.6		17.8		26.5	22
	9.98		181		74.1		33.0		16.6		25.0	23
	17.8		164		76.4		32.9		16.6		23.5	24
	47.8		150		76.4		32.8		15.5		22.0	25
	179		132		71.4		31.2		13.4		19.0	26
	277		111		68.4		31.1		12.4		17.8	27
	560		101		66.9		22.1		10.6		16.6	28
	918		86.1		53.5		22.0		43.3		15.5	29
	614		81.5		58.9		19.0		28.5		13.4	30
X	XXX		88.4	XX	XXX		15.5		19.0	XX	XXX	31
	3284.28		9054		2305.6		953.7		942		2328.94	23,126.4
	109		292		76.9		30.8		30.4		77.6	63.2
	6510		17960		4570		1890		1870		4620	45,850
	913		1070		116		64.0		117		1010	1,070
	9.98		81.5		53.5		12.8		10.6		8.72	7.94

Quarter: 4th, 3rd, 2nd, 1st — Computed, Checked, Date

Quarter: 4th, 3rd, 2nd, 1st — Dis.appld., Dis.check, Date

Quarter: 4th, 3rd, 2nd, 1st — G.H.copd., G.H.check, Date

Water Year 1980

PURGATOIRE(FLOW) ~~Creek~~ near HIGBEE, COLORADO

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 1980

Drainage area _____ square miles. Water stage recorder _____

Max. Discharge 3070 Sec. ft. at 0520 on SEPT. 10, 1980 G. H. 5.09 ft.
Max. G. H. _____ ft. at _____ on _____ Min. Daily Discharge 7.94 sec.-ft. on FEB. 13, 14, 15

Day.	OCT. 1979		NOV.		DEC. 1979		1980 JAN.		FEB.		MAR.	
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge
1		11.5		40.9		24.4		24.0		23.4		16.8
2		10.6		36.3		25.0		26.2		26.9		16.8
3		9.00		32.5		25.8		31.6		25.7		16.8
4		9.00		30.0		24.1		33		29.9		16.8
5		9.80		22.2		24.0		33		26.9		16.8
6		9.80		23.0		24.0		33		28.4		16.8
7		11.5		19.9		24.0		33		28.4		16.8
8		13.4		24.3		24.0		33		21.3		16.8
9		15.5		29.6		24.0		33		18.5		16.8
10		20.5		29.6		24.0		33		23.4		16.8
11		22.0		28.7		24.0		9		25.7		16.8
12		22.0		29.6		24.0		10		11.5		22.2
13		22.0		30.4		24.0		34		7.94		13.4
14		23.5		31.9		24.4		34		7.94		15.5
15		23.5		31.9		26.5		34		7.94		15.2
16		22.0		27.5		24.6		41.9		16.8		14.4
17		23.5		24.0		24.0		42.9		16.8		14.8
18		26.5		24.0		37.6		40.9		16.8		15.5
19		26.5		24.0		27.7		37.9		16.8		14.8
20		23.5		24.0		27.8		35.9		16.8		14.9
21		23.5		24.0		25.5		33.9		16.8		14.4
22		23.5		30.5		24.4		30.9		16.8		15.2
23		23.5		32.2		24.0		27.9		16.8		15.5
24		23.5		30.6		25.2		27.9		16.8		17.2
25		25.0		27.9		24.6		26.9		16.8		17.3
26		25.0		27.9		24.0		25.9		16.8		17.0
27		23.5		27.9		24.0		22.9		16.8		22.2
28		25.0		24.2		24.0		20.9		16.8		23.5
29		26.5		24.0		26.2		19.9		16.8		23.2
30		25.0		24.3		24.0		19.9	XX	XXX		23.5
31		43.2	XX	XXX		24.0		22.9	XX	XXX		24.0
23749.3	Total	642.8		838.3		778.2		913.2		549.02		531.0
65.1	Mean	20.7		27.9		25.1		29.4		18.9		17.1
47,110	Run-off in acre-feet	1270		1660		1540		1810		1090		1050
2,590	Maximum	43.2		40.9		37.6		42.9		24.9		23.5
0	Minimum	9.00		22.2		24.0		9		7.94		13.8

Calendar Year 1979

STATE OF COLORADO
DIVISION OF WATER RESOURCES
OFFICE OF STATE ENGINEER

Sta. No. 07126500

Rating Table Used No. 15 - October 1, 1979
To September 30, 1980

Day	APR. Gage height	APR. Discharge	MAY Gage height	MAY Discharge	JUNE Gage height	JUNE Discharge	JULY Gage height	JULY Discharge	AUG. Gage height	AUG. Discharge	SEPT. Gage height	SEPT. Discharge
1	3.21	01 34.0	S	0 616	3.25	02 40.9	3.17	06 20.5	3.13	06 15.5	3.14	09 13.4
2	[illegible]27	47.8	4.27	969	3.22	03 32.5	481 3.18	22.0	3.14	16.6	469 3.13	12.4
3	3.22	01 36.3	3.95	0 502	3.18	04 25.0	3.19	23.5	3.15	17.8	3.10	09 9.80
4	[illegible]	36	3.63	+ 01 218	3.17	04 23.5	3.22	28.0	3.15	17.8	S	V 5.63
5	[illegible]	36	3.64	225	478 3.24	06 31.0	3.16	19.0	486 3.16	19.0	1.50	12 0
6	[illegible]	38	3.62	+ 01 211	3.41	73.5	3.21	06 26.5	3.17	20.5	1.47	0
7	[illegible]	40	474 3.73	+ 02 302	3.28	38.6	3.16	08 16.6	3.18	22.0	1.41	0
8	3.23	01 38.6	3.67	253	3.21	26.5	482 3.14	09 13.4	3.21	26.5	1.35	0
9	[illegible]21	34.0	3.67	253	3.18	22.0	3.14	13.4	3.31	45.5	490 1.37	12 0
10	3.20	32.5	3.72	+ 02 294	3.16	19.0	3.14	13.4	3.41	73.5	S	V 973
11	[illegible]20	01 32.5	3.55	0 162	3.19	23.5	3.16	15.5	3.25	32.5	3.66	02 218
12	[illegible]17	02 26.5	3.59	184	3.38	63.6	3.13	12.4	487 3.21	26.5	3.59	03 168
13	3.07	13.4	3.64	0 218	3.41	73.5	3.12	09 11.5	3.23	29.5	3.53	03 135
14	[illegible]16	25.0	3.57	01 168	3.38	63.6	S	V 4.29	3.23	29.5	3.45	04 94.5
15	3.16	25.0	475 3.52	03 130	3.40	70.2	483 S	V 5.51	3.21	26.5	3.39	05 73.5
16	[illegible]18	28.0	S	V 278	3.26	34.0	3.17	07 19.0	3.28	38.6	491 3.38	66.9
17	3.18	02 28.0	4.29	0 1000	3.25	32.5	3.17	19.0	3.33	50.1	3.38	66.9
18	[illegible]16	03 23.5	3.94	01 480	3.26	34.0	3.16	17.8	3.28	38.6	3.34	05 54.7
19	[illegible]17	25.0	3.77	311	479 3.26	06 34.0	3.16	07 17.8	3.23	06 29.5	3.31	06 45.5
20	3.16	03 23.5	3.68	01 239	3.33	50.1	3.18	06 22.0	488 3.18	04 25.0	3.26	07 32.5
21	[illegible]15	04 20.5	476 3.81	02 336	3.31	45.5	3.24	04 34.0	3.16	05 20.5	3.25	07 31.0
22	3.13	05 16.6	3.64	204	3.27	36.3	484 3.22	31.0	3.15	06 17.8	3.23	08 26.5
23	[illegible]6	V 9.98	3.56	157	3.27	36.3	3.23	32.5	3.14	16.6	492 3.22	25.0
24	[illegible]4	05 17.8	3.53	140	3.28	38.6	3.23	32.5	3.14	16.6	3.21	23.5
25	3.27	01 47.8	3.50	126	3.28	06 38.6	3.23	32.5	3.13	15.5	3.20	22.0
26	[illegible]8	0 179	3.46	108	480 3.25	05 34.0	3.22	31.0	3.11	13.4	3.18	08 19.0
27	3.72	277	3.41	867	3.23	31.0	3.22	04 31.0	3.10	12.4	3.16	07 17.8
28	[illegible]0	560	3.38	76.8	3.22	29.5	3.18	06 22.0	3.08	06 10.6	3.15	16.6
29	[illegible]4	918	477 3.27	45.5	3.14	06 16.6	485 3.18	22.0	3.23	08 26.5	3.14	15.5
30	4.04	0 619	3.25	40.9	3.18	06 22.0	3.16	19.0	3.16	16.6	3.12	07 13.4
31	X	XXX	3.28	03 47.8	XX	XXX	3.13	02 15.5	3.18	08 19.0	XX	XXX

Quarter: 1st / 2nd / 3rd / 4th — Computed — Checked — Date

Dis.appld. — Dis.check — Date

G.H.copd. — G.H.check — Date

Water Year 1980

PURGATOIRE ~~Creek near~~ HIGBEE, COLORADO

Daily Gage Height, in Feet, and Discharge in Second-Feet for the Year Ending September 30, 1980

Drainage area 2900 square miles. Water stage recorder STEVENS A-35 CONTINUOUS

Max. Discharge 3030 Sec. ft. at 0520 on SEPT 10, 1980 G. H. 5.09 ft.
Max. G. H. 5.09 ft. at 0520 on SEPT 10, 1980 Min. Daily Discharge 0 sec.-ft. on MANY DAYS
S - DISCHARGE SUBBUILDED; V - VARIABLE SHIFT; D. DISCHARGE ESTIMATED FOR "A", NO GAGE HEIGHT RECORD

Day.	OCT. 1979		NOV. 1979		DEC. 1979		1980 JAN.		FEB.		MAR.	
	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge	Gage height	Discharge
1	3.11	08 11.5	3.29	06 40.9	S	V 0.36	2.92	12 0	3.13	06 15.5	1.79	12 0
2	3.10	10.6	3.27	36.3	S	V 1.05	S	V 2.25	3.16	19.0	1.86	0
3	3.08	9.00	3.25	32.5	S	V 1.80	3.06	08 7.60	3.15	17.8	1.87	0
4	3.08	9.00	3.21	06 26.5	S	12 .14	a	9	3.18	22.0	1.84	0
5	3.09	9.80	3.15	07 16.6	2.57	0		9	3.16	19.0	1.83	0
6	3.09	9.80	3.12	08 12.4	[464] 2.92	0		9	3.17	20.5	1.83	0
7	3.11	11.5	3.05	09 6.30	2.88	0		9	3.17	20.5	1.87	0
8	[459] 3.13	08 13.4	[462] 3.02	10 4.00	[465] 2.75	0		9	3.11	13.4	1.87	0
9	3.14	07 15.5	2.97	1.70	2.88	0		9	3.08	10.6	1.86	0
10	[459] 3.16	05 20.5	2.97	1.70	2.84	0		9	3.13	15.5	1.83	0
11	3.17	22.0	2.94	.80	2.61	0		9	[468] 3.15	06 17.8	[470] 1.86	12 0
12	3.17	22.0	2.97	1.70	2.47	0		10	S	V 3.57	S	V 5.46
13	3.17	22.0	2.99	2.50	[465] 2.29	12 0		34	2.06	12 0	3.11	06 13.4
14	3.18	23.5	3.02	4.00	S	V .36		34	2.04	0	3.13	15.5
15	3.18	23.5	3.07	4.00	S	V 2.48		34	2.07	0	3.13	15.5
16	3.17	22.0	3.01	10 3.50	S	V .62	a	34	1.97	0	3.12	14.4
17	[460] 3.18	05 23.5	2.92	12 0	2.00	12 0	[467] a	35	2.07	0	3.12	14.4
18	3.20	26.5	2.84	0	S	V 13.6		33	2.18	0	[471] 3.13	15.5
19	3.20	26.5	2.79	0	S	V 3.66		30	1.94	0	3.12	14.4
20	3.18	23.5	2.88	0	S	V 3.77		28	2.00	0	3.12	14.4
21	3.18	23.5	S	12 0	S	V 1.46		26	2.04	0	3.12	14
22	3.18	05 23.5	S	V 2.64	S	V .38		23	2.01	0	3.13	15.5
23	3.19	06 23.5	[463] S	V 4.32	2.74	12 0		20	1.97	0	3.13	06 15.5
24	[461] 3.19	23.5	S	V 2.67	S	V 1.20		20	1.98	0	3.14	05 17.8
25	3.20	25.0	S	12 0	S	V .64		19	1.97	0	3.14	17.8
26	3.30	25.0	S	.01	2.53	12 0		18	[469] 1.92	0	3.14	05 17.8
27	3.19	23.5	S	0	S	V .03		15	1.88	0	3.16	04 22.0
28	3.20	25.0	S	.20	S	V .44		13	1.87	0	3.17	23.5
29	3.21	26.5	S	12 0	S	V 2.20		12	1.81	12 0	3.17	23.5
30	3.20	25.0	S	V .76	2.92	12 0		12	XX	XXX	3.17	23.5
31	3.30	06 43.2	XX	XXX	[466] 2.92	12 0	a	15	XX	XXX	3.15	04 20.0
Total												
Mean												
Run-off in acre-feet												
Maximum												
Minimum												

Calendar Year 1979