STATE OF COLORADO

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF WATER RESOURCES No. 6

# 1984 ANNUAL REPORT
Preliminary

# I. WATER ADMINISTRATION

## A. CURRENT WATER YEAR

### 1. WHAT WERE YOUR ACCOMPLISHMENTS FOR THE YEAR?

A. Division 6 continued to operate its pan evaporation program for the third consecutive year during 1984. Equipment needed to run the program was purchased from grant funds from the Upper Yampa Water Conservancy District. Three stations were operated during 1984. One of the stations is located in Walden and is run by the District 47 water commissioner. The second station is located near Lake Catamount and is run by the Lake's caretaker The third station was installed in 1983 on Trout Creek and is operated by the District 57 water commissioner. Data collected from these three stations is used to compute net depletions for the annual water budget and is also used to analyze water right changes and augmentation plans where consumptive use estimates are required. Results of this years program are shown in the appendix.

B. Division 6 continued to operate two lysimeter sites on Trout Creek during 1984. These lysimeters were installed by Leonard Rice Water Engineers under a contract from Energy Fuels Corporation. After Leonard Rice abandoned the sites in 1983, Division 6 received a grant from the Upper Yampa Conservancy District to refurbish the equipment and resume collection of data. Both stations are now in operation and are supplying us with valuable consumptive use data from high mountain meadows. Using data collected from the stations we have been able to compute crop coefficients for use in the Blaney Criddle formulas for estimating consumptive use. Results of this years operation are shown in the appendix.

C. 123 dam inspections were completed in Division 6 during 1984. 77 of these inspections were performed by Division 6 personnel and included only low and moderate hazard dams. The remaining inspections were completed by Dam inspector from the Denver office. A final inspection of the new Taylor Draw Reservoir was completed in October 26, 1984 and the reservoir was filled by mid-December. The reservoir is designed to furnish irrigation water and municipal water for the City of Rangely. As soon as permits are secured and the plans are approved, power generation facilities will be added to the reservoir.

On August 16, 1984, a final inspection was made on Stillwater Reservoir for the purpose of reviewing the repair work which had been done to control a severe seep and sinkhole located on the upstream face of the dam. The sinkhole was excavated to a depth of approximately 20 feet where it was determined that the bulk of the seepage was flowing thru isolated channels from which much of the fines had been removed. A bentonite slurry was pumped into these channels to seal them off, then the upstream face was brought back to grade and rip rapped. The remedial work was found to be satisfactory and storage restrictions were lifted for the dam. The owners were ordered to carefully monitor the reservoir during filling to detect any seepage or slumping problems.

TABLE 1
DAM INSPECTIONS PERFORMED IN DIVISION 6
DURING 1984 BY DISTRICT

| DISTRICT | INSPECTED BY | |
|---|---|---|
| | DENVER STAFF | DIVISION 6 STAFF |
| 43 | 2 | 8 |
| 44 | 3 | 29 |
| 47 | 17 | 12 |
| 54 | 0 | 4 |
| 56 | 0 | 6 |
| 57 | 7 | 21 |
| 58 | 17 | 9 |

D. The Division 6 staff continued its project to assign priority numbers to every decreed water right. When the project is completed, each water right will have a unique number assigned to it derived from its Julian Calendar priority and adjudication dates. As soon as the Wang computer is put in operation, we will be able to prepare water right priority listings for each basin to be used for administrative purposes by the water commissioners. This project should reduce the time required to prepare new priority listings for the commissioners from new decrees received by the water court and also make the listings more accurate.

E. During the 1984 water year well permits were issued for 81 new wells in Division 6; down 148 from the 229 permits issued last year. The slowdown was due primarily to the cut back in new home construction in the area. The Division 6 well inspector performed 125 well inspections and 20 inspections for late registered wells.

F. Remote sensors were installed in three gaging stations in Division 6 during 1984 and should begin transmitting flow data via satellite before the 1985 irrigation season begins. Data received from the new site along with data transmitted from existing U.S.G.S. stations should be a big help in administering water rights in the future and in alerting The Division to potential flooding problems.

G. MISCELLANEOUS In addition to the previously mentioned activities, the Division 6 staff also fulfilled the following responsibilities:

1. Collect and maintain diversion records for water rights in the division. Enter diversion records into computer storage.

2. Regulate surface and groundwater diversions within the division to insure that water is apportioned in accordance with state laws.

3. Insure that Division 6 is in compliance with interstate compacts and agreements and the decree excerpt from Wyoming VS Nebraska.

4. Consult with referee concerning all new water right applications. Issue written report to referee concerning all new water right applications. Issue written report to referee expressing recommendation.

5. Submit expert testimony before the water court in water right cases.

6. Hold informal hearings between litigents to resolve disputes without court hearing

7. Enforce all judicial decisions and regulations in water matters.

8. Assist public in applications for well permits and water rights.

9. Give water presentations to water user organizations and concerned groups to keep them informed of new developments.

10. Maintain personnel records and make budget allocations for Division 6 staff.

11. Collect and maintain streamflow and pan evaporation data. Monitor and record spring flow data for Tract Cb augmentation plan. Prepare rating curves for surface diversion structures.

12. Calculate irrigated acres under each water right and compute consumptive use. Prepare annual water budget.

13. Annually prepare and update a tabulation of all water rights.

14. Mediate water disputes between users.

15. Meet with water officials from other states in regard to interstate compacts and water projects of mutual interest.

2. What Has Been The Divisions Involvement In The Water User Community For The Year?

A. Inspect privately owned reservoirs and advise owners of problem situations. Make recommendations for corrections in dam problems.

B. Make presentations before cattlemen's organizations, realtors organizations, League of Women Voters, etc., concerning new developments in water law and water projects that could have an impact on water users.

C. Collect and provide hydrologic data to individuals and organizations planning new water development projects. Assist in completing necessary water applications and well permits necessary to implement projects.

D. Advise water user organizations and individuals on methods to increase efficiency of existing water projects and provide pertinent hydrological data.

E. Consult with officials of the C.W.C.B. concerning minimum streamflow appropriations and proposed new water projects.

3. What Particular Issues Impacted Or May Impact Existing Policies, Statutes, Administrative Practices, etc? What Was The Nature And Degree Of Impact?

A. On August 24, 1984 an agreement was signed between the San Diego Water Authority and the Galloway Group Ltd., which if implemented would have enormous consequences in the Yampa and Whiter River Basins. In essense, the agreement states that Galloway will construct storage facilities on the Yampa and White Rivers in Colorado for the purpose of delivering 300,000 to 500,000 acre feet of water annually to San Diego.

Storage facilities to be located on the Yampa River would include the Juniper Reservoir site near Maybell.

To accomplish the delivery of water from Colorado to San Diego County will require many changes to be made to existing contracts, statutes, treaties, federal regulations, interstate compacts, and supreme court rulings. These changes will require concurrence by up to seven states and water user groups within those states and will doubtless require many years of major legal battles before any water deliveries will be made. It is impossible to know at this time how the final plan will evolve and what the effects will be on the Yampa and White Rivers.

B. Another major concern of water users in the Yampa Basin is the claim of the U.S. to minimum stream flows thru Dinosaur National Monument. In water cases 79SA99 and 79SA100, the Supreme Court of Colorado allowed the U.S. 6 months after the final decree was entered in these cases to quantify its claims for minimum flows in the Yampa River. The Master-Referee concluded that the U.S. is entitled, pursuant to the reserved rights doctrine, to water rights for an unquantified minimum stream flow in the Yampa River within Dinosaur National Monument. The U.S. will have to file applications with the Division 6 Court and the courts will decide at that time whether the specific uses claimed are within the purposes of the reservation. Recreational boating has already been excluded as a legitimate use by the court. It is unknown at this time what amount of water will be awarded, but if the U.S. is awarded a reserved right for the unimpaired natural flow of the Yampa River with a 1938 priority date, all water rights vested after that date would effectively be taken and Colorado would loose the beneficial use of most of the Yampa River water allocated to it under the Upper Basin Compact. Absolute decrees in the Yampa drainage above Dinosaur National Monument junior to the 1938 reservation date total about 1,200 c.f.s. and 12,513 a.f. and conditional rights total about 9,000 c.f.s. and 1,9000,000 a.f.

4. What Problems, Concerns, Issues, Tasks, etc., Could Not Be Addressed During The Year?

A. Delays in receiving the Wang Computer have caused the Division 6 staff to fall behind in its plans to assign priority numbers to all water rights in the Division described in item I.D. above. If the computers are received in December of 1984, we hope to have new basin priority listings available to the water commissioners in time for the 1985 irrigation season.

5. What Has Been The Effect Of Workload Change Upon The Staff?

A. There were no workload changes this year.

6. What Has Been The Impact Of Budget On Division Operations?

A. The U.S.G.S. cut back or eliminated funding for several gages in Division 6 this year. Funding was completely eliminated for the Pot Creek Gage located near the Utah-Colorado state line. This gage is necessary for the administration of the Pot Creek Agreement between Colorado and Utah and we have assumed responsibility for operating the gaging station.

B. We are still encountering problems in purchasing auto equipment when authorized state contractors refuse to sell equipment at the contract price. Purchasing the equipment in Denver has helped to alleviate this problem.

C. The legislature has restricted funds to the Attorney General's Office which were to be used to obtain a favorable resolution of the federal government's reserved right claims in Dinosaur National Monument. These funds should be restored and the attorney general should use all available resources to prevent the court from decreeing a minimum stream flow through the Monument.

B. COMING WATER YEAR

1. What Particular Problems and Concerns Will Impact Division Operations.

A. The major concern of the Divisions is to obtain a favorable resolution regarding the U.S. Governments reserved right claims thru Dinosaur National Monument. A decree granting minimum stream flows thru the Monument with a 1938 priority date could be devastating to water users in the Yampa basin.

2. Are There Particular Problems And Concerns That Will Not Be Addressed?

None

3. What Projected Work Items Are Planned For The Division Staff?

A. Update and correct the water rights tabulation.

B. Prepare a groundwater inventory map for the division. All drilled wells will be marked on a map and keyed to an index with all available data for each well. This map will be available to the public to assist in determining groundwater characteristics for a given area.

C. Assign a unique priority number to each water right derived from, its Julian Calendar priority date and adjudication date. These priority numbers will be used in the administration of all water rights and facilitate the cataloging of new water rights.

D. Continue to operate lysimeter station on Trout Creek and accumulate data on consumptive use. Prepare annual report showing results.

E. Continue to operate 3 evaporation pans in the division. Prepare an annual report depicting the results.

F. Inspect all major dams in the division and prepare a written report for each inspection.

G. Operate Pot Creek gaging station and prepare an annual report.

H. Continue to operate 4 reservoirs belonging to the Division of Wildlife in Division 6, primarily, to maintain outflows for minimum streamflow requirements and for moderation of spring flooding.

I. In addition to the items specified above, we will continue to perform those other duties directed by statute and briefly summarized in Item I A-1 of this report.

4. What Are Your Priorities In Terms Of Goals And Objectives?

A. Having all information properly submitted for an accurate and complete 1985 water rights tabulation.

B. Continually updating and obtaining more accurate land measurements for the ever-important consumptive use program for the water budget.

C. Having all records accurately and timely completed for all diversion records.

D. Receiving the public in an attitude that we are their servants and filling their requests as near possible under the state statutes.

E. Strive to make all records available to the public in as accurate and complete format as possible.

F. Attempt to consolidate the storage of records in as small a space as possible, particularly using microfilm as the budget will allow.

G. Strive to make working conditions as safe as possible for all division personnel.

H. Work with all media to attempt to present the Division as furnishing accurate and reliable information concerning all aspects of water.

## II RECOMMENDATIONS

### A. POLICIES

#### 1. Water Administration

A. All log information submitted by well drillers should be entered into the microfilm records and sent to the division offices. This would save alot of time and phone calls from our office to Denver. This log information is needed for our groundwater inventory maps and to provide date to the public.

B. Provisions should be made to allow the Division Offices to store their water court records on microfilm Our office is running out of storage space for these records.

C. The water data bank should be expanded to allow entry of river call information. The computer coding sheets should also include a space to enter this date.

#### 2. Personnel

A. The wage scale for water commissioners should be increased to more realistic level. Water commissioners are not being fairly compensated now for their time and efforts, and promotions are extremely difficult to secure.

3. Budget

A. Mileage rates should be increase so that water commissioners do not have to subsidize the State when they use their own vehicles. A 4-wheel drive vehicle cannot be operated for $ .24 per mile.

B. Operating and travel budgets have been reduced over the past several years to the point that we will have insufficient funds available in a drought year.

4. Litigation Activities

A. The Attorney General's office should use all its available resources to obtain a favorable resolution of the federal claims for minimum streamflows thru Dinosaur National Monument

1983 RECORDS

1984 RECORDS
NOT YET COMPLETED

COLORADO DIVISION OF WATER RESOURCES

DIVISION 6 WATER BUDGET PROGRAM

DIVISION 6 CONSUMPTIVE USE (1984) - By District

| | | |
|---|---|---|
| **District 43** | | |
| Municipal | | 840 AF |
| Industrial | | 1469 AF |
| Irrigation (for 29018 Acres) | | 25140 AF |
| Reservoir Evaporation | | 338 AF |
| | TOTAL | 27787 AF |
| **District 44** | | |
| Municipal | | 612 AF |
| Industrial | | 8626 AF |
| Irrigation (for 23804 Acres) | | 17217 AF |
| Reservoir Evaporation | | 629 AF |
| | TOTAL | 27084 AF |
| **District 47** | | |
| Municipal | | 112 AF |
| Irrigation (for 113519 Acres) | | 65475 AF |
| Reservoir Evaporation | | 4021 AF |
| | TOTAL | 69608 AF |
| **District 54** | | |
| Irrigation (for 5176 Acres) | | 3286 AF |
| Reservoir Evaporation | | 18 AF |
| | TOTAL | 3304 AF |
| **District 55** | | |
| Irrigation (for 1350 Acres) | | 1317 AF |
| Reservoir Evaporation | | 32 AF |
| | TOTAL | 1349 AF |
| **District 56** | | |
| Irrigation (for 2800 Acres) | | 3414 AF |
| Reservoir Evaporation | | 119 AF |
| | TOTAL | 3533 AF |

District 57

| | | |
|---|---|---|
| Municipal | | 125 AF |
| Industrial | | 4500 AF |
| Irrigation (for 10562 Acres) | | 7430 AF |
| Reservoir Evaporation | | 60 AF |
| | TOTAL | 12115 AF |

District 58

| | | |
|---|---|---|
| Municipal | | 1624 AF |
| Irrigation (for 36920 Acres) | | 24595 AF |
| Reservoir Evaporation | | 1348 AF |
| | TOTAL | 27567 AF |

COLORADO DIVISION OF WATER RESOURCES
DIVISION 6 WATER BUDGET - 1984

BASIN YIELDS-

| | |
|---|---|
| White River @ State Line | 1004472 AF |
| Yampa River above confluence Little Snake R. | 2274888 AF |
| Little Snake River (Does not account for uses in Wyo) | 913423 AF |
| Misc. Tributaries to Green R. | 36595 AF |
| TOTAL Trib to Green R. | 4229378 AF |
| North Platte R. | 848738 AF |

CONSUMPTIVE USE

| | |
|---|---|
| White River | 27787 AF |
| Yampa River above confluence Little Snake R. | 66766 AF |
| Little Snake R. (In Colorado) | 4653 AF |
| Green River and Tributaries in District 56 | 3533 AF |
| TOTAL for waters Trib to Green R. | 102739 AF |
| North Platte River | 69608 AF |

TRANSBASIN DIVERSIONS

| | |
|---|---|
| Yampa River to Colorado River | 4715 AF |
| North Platte R. to Pouder R. | 227 AF |

DIVISION 6 BREAKDOWN BY RIVER BASIN

| | YAMPA | LITTLE SNAKE | GREEN | WHITE | N PLATTE | COLORADO |
|---|---|---|---|---|---|---|
| IRRIG DPLTN | 39893. | 5824. | 3476. | 18629. | 50551. | 67822. |
| RES EVAP | 2516. | 62. | 66. | 452. | 3269. | 3096. |
| CHG STORAGE | 3600. | 0. | 10. | 400. | 2360. | 4010. |
| MUN-IND | 10600. | 0. | 0. | 4000. | 100. | 14600. |
| TRANS-MTN | 3659. | 0. | 0. | 0. | 358. | 3659. |
| MISC | 900. | 250. | 150. | 500. | 400. | 1800. |
| OUTFLOW | 1584385. | 671234. | 30000. | 818862. | 721904. | 3104481. |
| BASIN YIELD | 164553. | 677370. | 33702. | 842843. | 778942. | 3199468. |
| CONS USE | 61168. | 6136. | 3702. | 23981. | 57038. | 94987. |
| PCT CONS | .0372 | .0091 | .1098 | .0285 | .0732 | .0297 |

IRRIGATED ACRES - North Platte River 114324
AF/Acres - .44

IRRIGATED ACRES - Colorado River 112120.
AF/Acres - .60

NOTES: Yampa River outflow is estimated flow at the confluence of Little Snake River.
North Platte outflow includes Big Creek, Live Creek, Camp Creek, and Encampment River drainages within Colorado.
Little Snake River does not include any uses in Wyoming.
Green River does not include mainstem.

SUMMARY FOR WATER DISTRICT 47 IN ACRE-FT

| | |
|---|---|
| IRRIGATION DEPLETION | 50551. |
| RESERVOIR EVAPORATION | 3269. |
| CHANGE IN RESERVOIR STORAGE | 2360. |
| OUT OF BASIN DIVERSIONS | 358. |
| MUNICIPAL & INDUSTRIAL CONSUMPTION | 100. |
| MISC. USE OR CORRECTIONS | 400. |
| TOTAL DEPLETION | 57038. |

SUMMARY FOR WATER DISTRICT 43 IN ACRE-FT

| | |
|---|---|
| IRRIGATION DEPLETION | 18629. |
| RESERVOIR EVAPORATION | 452. |
| CHANGE IN RESERVOIR STORAGE | 400. |
| OUT OF BASIN DIVERSIONS | 0. |
| MUNICIPAL & INDUSTRIAL CONSUMPTION | 4000. |
| MISC. USE OR CORRECTIONS | 500. |
| TOTAL DEPLETION | 23981. |

SUMMARY FOR WATER DISTRICT 44 IN ACRE-FT

| | |
|---|---|
| IRRIGATION DEPLETION | 16955. |
| RESERVOIR EVAPORATION | 752. |
| CHANGE IN RESERVOIR STORAGE | -21. |
| OUT OF BASIN DIVERSIONS | 0. |
| MUNICIPAL & INDUSTRIAL CONSUMPTION | 5400. |
| MISC. USE OR CORRECTIONS | 500. |
| TOTAL DEPLETION | 23586. |

SUMMARY FOR WATER DISTRICT 54 IN ACRE-FT

| | |
|---|---|
| IRRIGATION DEPLETION | 4689. |
| RESERVOIR EVAPORATION | 62. |
| CHANGE IN RESERVOIR STORAGE | 0. |
| OUT OF BASIN DIVERSIONS | 0. |
| MUNICIPAL & INDUSTRIAL CONSUMPTION | 0. |
| MISC. USE OR CORRECTIONS | 100. |
| TOTAL DEPLETION | 4851. |

SUMMARY FOR WATER DISTRICT 55 IN ACRE-FT

| | |
|---|---|
| IRRIGATION DEPLETION | 1135. |
| RESERVOIR EVAPORATION | 0. |
| CHANGE IN RESERVOIR STORAGE | 0. |
| OUT OF BASIN DIVERSIONS | 0. |
| MUNICIPAL & INDUSTRIAL CONSUMPTION | 0. |
| MISC. USE OR CORRECTIONS | 150. |
| TOTAL DEPLETION | 1285. |

SUMMARY FOR WATER DISTRICT 56 ACRE-FT

| | |
|---|---|
| IRRIGATION DEPLETION | 3476. |
| RESERVOIR EVAPORATION | 66. |
| CHANGE IN RESERVOIR STORAGE | 10. |
| OUT OF BASIN DIVERSIONS | 0. |
| MUNICIPAL & INDUSTRIAL CONSUMPTION | 0. |
| MISC. USE OR CORRECTIONS | 150. |
| TOTAL DEPLETION | 3702. |

SUMMARY FOR WATER DISTRICT 57 IN ACRE-FT

| | |
|---|---|
| IRRIGATION DEPLETION | 7189. |
| RESERVOIR EVAPORATION | 112. |
| CHANGE IN RESERVOIR STORAGE | -221. |
| OUT OF BASIN DIVERSIONS | 334. |
| MUNICIPAL & INDUSTRIAL CONSUMPTION | 4500. |
| MISC. USE OR CORRECTIONS | 100. |
| TOTAL DEPLETION | 12014. |

SUMMARY FOR WATER DISTRICT 58 IN ACRE-FT

| | |
|---|---|
| IRRIGATION DEPLETION | 15749. |
| RESERVOIR EVAPORATION | 1652. |
| CHANGE IN RESERVOIR STORAGE | 3842. |
| OUT OF BASIN DIVERSIONS | 3993. |
| MUNICIPAL & INDUSTRIAL CONSUMPTION | 700. |
| MISC. USE OR CORRECTIONS | 300. |
| TOTAL DEPLETION | 25936. |

| | | | |
|---|---|---|---|
| ELEV. 6800. FT. TRIBS BL SARVIS | 4473. IRR. ACRES | IRR. SEASON | 6/15/1983 - 7/15/198 |

| MONTH | DEPLETION (INCHES) | |
|---|---|---|
| 6 | 1.36 | |
| 7 | 1.66 | |
| | 3.01 | YEARLY TOTAL |

NET DEPLETION = 1123. ACRE FT. 0.25 ACRE FT. PER ACI

| | | | |
|---|---|---|---|
| ELEV. 6770. FT. YAMPA R TO ELK | 6683. IRR. ACRES | IRR. SEASON | 6/15/1983 - 8/15/198 |

| MONTH | DEPLETION (INCHES) | |
|---|---|---|
| 6 | 1.37 | |
| 7 | 3.41 | |
| 8 | 1.82 | |
| | 6.59 | YEARLY TOTAL |

NET DEPLETION = 3672. ACRE FT. 0.55 ACRE FT. PER ACI

| | | | |
|---|---|---|---|
| ELEV. 7800. FT. TRIBS AB SARVIS | 4943. IRR. ACRES | IRR. SEASON | 6/10/1983 - 7/20/1983 |

| MONTH | DEPLETION (INCHES) | |
|---|---|---|
| 6 | 2.43 | |
| 7 | 2.60 | |
| | 5.04 | YEARLY TOTAL |

NET DEPLETION = 2074. ACRE FT. 0.42 ACRE FT. PER ACR

IRRIGATION TOTALS FOR WATER DISTRICT 58

15749. A.F. NET IRRIGATION DEPLETION 0.42 A.F./ACRE 37328. IRR. ACRES

WATER DISTRICT 58

RESERVOIR EVAPORATION AT 8000 FT.

| MONTH | EVAPORATION(INCHES) | | NET DEPLETION(AF.) |
|---|---|---|---|
| 11 | 0.00 | | 0. |
| 12 | 0.00 | | 0. |
| 1 | 0.00 | | 0. |
| 2 | 0.00 | | 0. |
| 3 | 0.00 | | 0. |
| 4 | 0.00 | | 0. |
| 5 | 0.43 | | 90. |
| 6 | 1.53 | | 336. |
| 7 | 1.95 | | 423. |
| 8 | 2.51 | | 535. |
| 9 | 1.30 | | 269. |
| 10 | 0.00 | | 0. |
| | 7.72 | TOTALS | 1652. |

IRRIGATION CONSUMPTIVE USE

ELEV. 6900. FT. 6783. IRR. ACRES IRR. SEASON 6/10-1983 - 7/31/1983
ELK R

| MONTH | DEPLETION (INCHES) | |
|---|---|---|
| 6 | 1.71 | |
| 7 | 3.35 | |
| | 5.06 | YEARLY TOTAL |

NET DEPLETION = 2862. ACRE FT. 0.42 ACRE FT. PER ACRE

ELEV. 7000. FT. 3474. IRR. ACRES IRR. SEASON 6/20/1983 - 7/15/1983
TRIB TO ELK R

| MONTH | DEPLETION (INCHES) | |
|---|---|---|
| 6 | .89 | |
| 7 | 1.59 | |
| | 2.47 | YEARLY TOTAL |

NET DEPLETION = 716. ACRE FT. 0.21 ACRE FT. PER ACRE

ELEV. 8000. FT. 10972. IRR. ACRES IRR. SEASON 6/01/1983 - 7/31/1983
BEAR RIVER

| MONTH | DEPLETION (INCHES) | |
|---|---|---|
| 6 | 2.68 | |
| 7 | 3.12 | |
| | 5.80 | YEARLY TOTAL |

NET DEPLETION = 5302. ACRE FT. 0.48 ACRE FT. PER ACRE

WATER DISTRICT 57

RESERVOIR EVAPORATION AT 6700. FT.

| MONTH | EVAPORATION(INCHES) | | NET DEPLETION(AF.) |
|---|---|---|---|
| 12 | 0.00 | | 0. |
| 11 | 0.00 | | 0. |
| 1 | 0.00 | | 0. |
| 2 | 0.00 | | 0. |
| 3 | 0.00 | | 0. |
| 4 | 0.00 | | 0. |
| 5 | 1.23 | | 15. |
| 6 | 2.38 | | 27. |
| 7 | 1.49 | | 17. |
| 8 | 3.48 | | 32. |
| 9 | 2.06 | | 19. |
| 10 | 0.11 | | 1. |
| | 10.75 | TOTALS | 112. |

IRRIGATION CONSUMPTIVE USE

ELEV. 6300. FT. 6484. IRR. ACRES IRR. SEASON 6/01/1983 - 7/31/1983
8/20/1983 - 9/15/1983

YAMPA R

| MONTH | DEPLETION (INCHES) | |
|---|---|---|
| 6 | 3.44 | |
| 7 | 3.44 | |
| 8 | 1.87 | |
| 9 | 1.68 | |
| | 10.44 | YEARLY TOTAL |

NET DEPLETION = 5641. ACRE FT. 0.87 ACRE FT. PER ACR

ELEV. 6600. FT. 3854. IRR. ACRES IRR. SEASON 6/10/1982 - 7/25/1982

TRIBUTARIES

| MONTH | DEPLETION (INCHES) | |
|---|---|---|
| 6 | 2.28 | |
| 7 | 2.54 | |
| | 4.82 | YEARLY TOTAL |

NET DEPLETION = 1548. ACRE FT. 0.40 ACRE FT. PER ACR

IRRIGATION TOTALS FOR WATER DISTRICT 57

7189. A.F. NET IRRIGATION DEPLETION .70 A.F./ACRE 10338. IRR. ACRES

WATER DISTRICT 56

RESERVOIR EVAPORATION AT 6000. FT.

| MONTH | EVAPORATION(INCHES) | | NET DEPLETION(AF.) |
|---|---|---|---|
| 11 | 0.00 | | 0. |
| 12 | 0.00 | | 0. |
| 1 | 0.00 | | 0. |
| 2 | 0.00 | | 0. |
| 3 | 0.00 | | 0. |
| 4 | 0.50 | | 2. |
| 5 | 1.36 | | 9. |
| 6 | 1.81 | | 14. |
| 7 | 3.02 | | 18. |
| 8 | 2.54 | | 12. |
| 9 | 1.87 | | 8. |
| 10 | 0.42 | | 2. |
| | 11.52 | TOTALS | 66. |

IRRIGATION CONSUMPTIVE USE

ELEV. 5354. FT. 1500. IRR. ACRES IRR. SEASON 4/01/1983 - 10/15/1983
GREEN RIVER

| MONTH | DEPLETION (INCHES) | |
|---|---|---|
| 4 | 2.08 | |
| 5 | 2.87 | |
| 6 | 3.32 | |
| 7 | 4.81 | |
| 8 | 4.57 | |
| 9 | 3.52 | |
| 10 | 1.02 | |
| | 22.19 | YEARLY TOTAL |

NET DEPLETION = 2774. ACRE FT. 1.85 ACRE FT. PER ACRE

ELEV. 5600. FT. 1233. IRR. ACRES IRR. SEASON 4/15/1983 - 6/30/1983
TRIBUTARIES

| MONTH | DEPLETION (INCHES) | |
|---|---|---|
| 4 | 1.06 | |
| 5 | 2.71 | |
| 6 | 3.06 | |
| | 6.83 | YEARLY TOTAL |

NET DEPLETION = 702. ACRE FT. 0.57 ACRE FT. PER ACRE

IRRIGATION TOTALS FOR WATER DISTRICT 56

3476. A.F. NET IRRIGATION DEPLETION 1.27 A.F./ACRE 2733. ITT. ACRES

WATER DISTRICT 55

RESERVOIR EVAPORATION AT 5500. FT.

| MONTH | EVAPORATION(INCHES) | | NET DEPLETION(AF.) |
|---|---|---|---|
| 11 | 0.25 | | 0. |
| 12 | 0.00 | | 0. |
| 1 | 0.00 | | 0. |
| 2 | 0.00 | | 0. |
| 3 | 0.00 | | 0. |
| 4 | 0.50 | | 0. |
| 5 | 1.39 | | 0. |
| 6 | 3.41 | | 0. |
| 7 | 3.26 | | 0. |
| 8 | 3.64 | | 0. |
| 9 | 2.50 | | 0. |
| 10 | 0.58 | | 0. |
| | 15.53 | TOTALS | 0. |

IRRIGATION CONSUMPTIVE USE

ELEV. 5700. FT. 1350. IRR. ACRES IRR. SEASON 5/20/1983 - 7/25/1983
8/20/1983 - 8/31/1983

LOWER SNAKE

| MONTH | DEPLETION (INCHES) | |
|---|---|---|
| 5 | .84 | |
| 6 | 3.89 | |
| 7 | 3.50 | |
| 8 | 1.86 | |
| | 10.09 | YEARLY TOTAL |

NET DEPLETION = 1135. ACRE FT. 0.84 ACRE FT. PER ACRE

IRRIGATION TOTALS FOR WATER DISTRICT 55

1135. A.F. NET IRRIGATION DEPLETION .84 A.F./ACRE 1350. IRR. ACRES

WATER DISTRICT 54

RESERVOIR EVAPORATION AT 7000. FT.

| MONTH | EVAPORATION(INCHES) | | NET DEPLETION(AF.) |
|---|---|---|---|
| 11 | 0.00 | | 0. |
| 12 | 0.00 | | 0. |
| 1 | 0.00 | | 0. |
| 2 | 0.00 | | 0. |
| 3 | 0.00 | | 0. |
| 4 | 0.00 | | 0. |
| 5 | 1.12 | | 11. |
| 6 | 1.10 | | 11. |
| 7 | 1.76 | | 13. |
| 8 | 2.17 | | 14. |
| 9 | 2.10 | | 12. |
| 10 | 0.00 | | 0. |
| | 8.25 | TOTALS | 62 |

IRRIGATION CONSUMPTIVE USE

ELEV. 6300. FT. 5966. IRR. ACRES IRR. SEASON 6/01/1983 - 7/25/1983
8/15/1983 - 8/31/1983

SNAKE R WILLOW

| MONTH | DEPLETION (INCHES) | |
|---|---|---|
| 6 | 2.68 | |
| 7 | 3.15 | |
| 8 | 2.35 | |
| | 8.18 | YEARLY TOTAL |

NET DEPLETION = 4065. ACRE FT. 0.68 ACRE FT. PER ACRE

ELEV. 6700. FT. 1980. IRR. ACRES IRR. SEASON 6/10/1983 - 7/20/1983

TRIBUTARIES

| MONTH | DEPLETION (INCHES) | |
|---|---|---|
| 6 | 1.57 | |
| 7 | 2.22 | |
| | 3.78 | YEARLY TOTAL |

NET DEPLETION = 624. ACRE FT. 0.32 ACRE FT. PER ACRE

IRRIGATION TOTALS FOR WATER DISTRICT 54

4689. A.F. NET IRRIGATION DEPLETION 0.59 A.F./ACRE 7946. IRR. ACRES

ELEV. 6800. FT. 5222. IRR. ACRES IRR. SEASON 6/10/1983 - 7/20/198
UPPER TRIBS

| MONTH | DEPLETION (INCHES) | |
|---|---|---|
| 6 | 1.50 | |
| 7 | 2.16 | |
| | 3.66 | YEARLY TOTAL |

NET DEPLETION = 1594. ACRE FT. 0.31 ACRE FT. PER AC

IRRIGAITON TOTAL FOR WATER DISTRICT 44

16955. A.F. NET IRRIGATION DEPLETION 0.66 A.F./ACRE 25638. IRR. ACRES

WATER DISTRICT 44

RESERVOIR EVAPORATION AT 6500. FT.

| MONTH | EVAPORATION(INCHES) | | NET DEPLETION(AF.) |
|---|---|---|---|
| 11 | 0.00 | | 0. |
| 12 | 0.00 | | 0. |
| 1 | 0.00 | | 0. |
| 2 | 0.00 | | 0. |
| 3 | 0.00 | | 0. |
| 4 | 0.25 | | 18. |
| 5 | 1.52 | | 110. |
| 6 | 1.62 | | 118. |
| 7 | 2.33 | | 163. |
| 8 | 2.67 | | 180. |
| 9 | 2.43 | | 163. |
| 10 | 0.00 | | 0. |
| | 10.82 | TOTALS | 752. |

IRRIGATIVE CONSUMPTIVE USE

ELEV. 6300. FT. 5666. IRR. ACRES IRR. SEASON 6/01/1983 - 8/05/1
8/25/1983 - 9/15/1

YAMPA AB JUNSPG

| MONTH | DEPLETION (INCHES) | |
|---|---|---|
| 6 | 2.68 | |
| 7 | 3.85 | |
| 8 | 1.60 | |
| 9 | 1.77 | |
| | 9.90 | YEARLY TOTAL |

NET DEPLETION = 4674. ACRE FT. 0.83 ACRE FT. PER

ELEV. 5900. FT. 5313. IRR. ACRES IRR. SEASON 5/20/1983 - 8/05/1
8/25/1983 - 10/05/

YAMPA BL JUNSPG

| MONTH | DEPLETION (INCHES) | |
|---|---|---|
| 5 | .78 | |
| 6 | 3.78 | |
| 7 | 4.14 | |
| 8 | 1.76 | |
| 9 | 3.42 | |
| 10 | .25 | |
| | 14.12 | YEARLY TOTAL |

NET DEPLETION = 6252. ACRE FT. 1.18 ACRE FT. PER

ELEV. 6500. FT. 9437. IRR. ACRES IRR. SEASON 5/20/1983 - 7/20/19

LOWER TRIBS

| MONTH | DEPLETION (INCHES) | |
|---|---|---|
| 5 | .91 | |
| 6 | 2.40 | |
| 7 | 2.33 | |
| | 5.64 | YEARLY TOTAL |

NET DEPLETION = 4435. ACRE FT. 0.47 ACRE FT. PER

ELEV. 5300. FT. 2233. IRR. ACRES IRR. SEASON 5/15/1983 - 7/20/1983
8/10/1983 - 8/25/1983

WR BL YELLOW CK

| MONTH | DEPLETION (INCHES) | |
|---|---|---|
| 5 | 1.26 | |
| 6 | 4.53 | |
| 7 | 3.46 | |
| 8 | 2.74 | |
| | 11.99 | YEARLY TOTAL |

NET DEPLETION = 2231. ACRE FT. 1.00 ACRE FT. PER ACR

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ELEV. 6300. FT. 3513. IRR. ACRES IRR. SEASON 5/15/1983 - 7/15/1983
8/10/1983 - 8/31/1983

LOWER TRIBS

| MONTH | DEPLETION (INCHES) | |
|---|---|---|
| 5 | .63 | |
| 6 | 2.41 | |
| 7 | 1.81 | |
| 8 | 2.73 | |
| | 7.57 | YEARLY TOTAL |

NET DEPLETION = 2217. ACRE FT. 0.63 ACRE FT. PER ACR

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IRRIGATION TOTALS FOR WATER DISTRICT 43

18629. A.F. NET IRRIGAITON DEPLETION 0.70 A.F./ACRE 26625. IRR. ACRES

WATER DISTRICT 43

RESERVOIR EVAPORATION AT 6800. FT.

| MONTH | EVAPORATION(INCHES) | NET DEPLETION(AF.) |
|---|---|---|
| 11 | 0.00 | 0. |
| 12 | 0.00 | 0. |
| 1 | 0.00 | 0. |
| 2 | 0.00 | 0. |
| 3 | 0.00 | 0. |
| 4 | 0.5 | 17. |
| 5 | 1.18 | 43. |
| 6 | 2.34 | 96. |
| 7 | 2.45 | 97. |
| 8 | 2.70 | 98. |
| 9 | 2.64 | 94. |
| 10 | .20 | 7. |
| | 12.01 TOTALS | 452. |

IRRIGATION CONSUMPTIVE USE

ELEV. 7700. FT. 2175. IRR. ACRES IRR. SEASON 6/20/1983 - 7/31/1983
ABOVE BUFORD

| MONTH | DEPLETION (INCHES) | |
|---|---|---|
| 6 | .92 | |
| 7 | 2.21 | |
| | 3.13 | YEARLY TOTALS |

NET DEPLETION = 567. ACRE FT. 0.26 ACRE FT. PER ACRE

ELEV. 6350. FT. 13596. IRR. ACRES IRR. SEASON 6/05/1983 - 7/31/1983
8/20/1983 - 9/10/1983
WR AB YELLOW CK

| MONTH | DEPLETION (INCHES) | |
|---|---|---|
| 6 | 2.99 | |
| 7 | 4.17 | |
| 8 | 1.67 | |
| 9 | 1.26 | |
| | 10.09 | YEARLY TOTAL |

NET DEPLETION = 11429. ACRE FT. 0.84 ACRE FT. PER ACRE

ELEV. 6500. FT. 5108. IRR. ACRES IRR. SEASON 6/01/1983 - 7/15/1983
TRIBS AB MEEKER

| MONTH | DEPLETION (INCHES) | |
|---|---|---|
| 6 | 3.23 | |
| 7 | 1.90 | |
| | 5.13 | YEARLY TOTAL |

NET DEPLETION = 2185. ACRE FT. 0.43 ACRE FT. PER ACRE

ELEV. 8300. FT. 10738. IRR. ACRES IRR. SEASON 6/01/1983 - 7/25/1983
ROARING FK

| MONTH | DEPLETION (INCHES) | |
|---|---|---|
| 6 | 2.74 | |
| 7 | 1.82 | |
| | 4.56 | YEARLY TOTAL |

NET DEPLETION = 4084. ACRE FT. 0.38 ACRE FT. PER ACRE

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ELEV. 8300. FT. 13428. IRR. ACRES IRR. SEASON 5/25/1983 - 7/25/1983
NORTH FK

| MONTH | DEPLETION (INCHES) | |
|---|---|---|
| 5 | .40 | |
| 6 | 2.38 | |
| 7 | 2.62 | |
| | 5.41 | YEARLY TOTAL |

NET DEPLETION = 6054. ACRE FT. 0.45 ACRE FT. PER ACRE

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ELEV. 8400. FT. 1030. IRR. ACRES IRR. SEASON 6/01/1983 - 7/25/1983
NON TRIB IN CO

| MONTH | DEPLETION (INCHES) | |
|---|---|---|
| 6 | 2.30 | |
| 7 | 2.55 | |
| | 4.85 | YEARLY TOTAL |

NET DEPLETION = 417. ACRE FT. 0.40 ACRE FT. PER ACRE

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ELEV. 8000. FT. 4748. IRR. ACRES IRR. SEASON 5/20/1983 - 7/25/1983
N PLATTE

| MONTH | DEPLETION (INCHES) | |
|---|---|---|
| 5 | .79 | |
| 6 | 2.63 | |
| 7 | 2.83 | |
| | 6.25 | YEARLY TOTAL |

NET DEPLETION = 2472. ACRE FT. 0.52 ACRE FT. PER ACRE

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IRRIGATION TOTAL FOR WATER DISTRICT 47

50551. A.F. NET IRRIGAITON DEPLETION 0.442 A.F./ACRE 114324. IRR. ACRES

ELEV. 8000. FT. 4944. IRR. ACRES IRR. SEASON 5/20/1983 - 7/25/1983
MICH BL WALDEN

| MONTH | DEPLETION (INCHES) | |
|---|---|---|
| 5 | .79 | |
| 6 | 2.63 | |
| 7 | 2.83 | |
| | 6.25 | YEARLY TOTAL |

NET DEPLETION = 2574. ACRE FT. 0.52 ACRE FT. PER ACRE

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ELEV. 8600. FT. 12356. IRR. ACRES IRR. SEASON 5/25/1983 - 7/25/1983
ILL TO MIDLAND

| MONTH | DEPLETION (INCHES) | |
|---|---|---|
| 5 | .37 | |
| 6 | 2.51 | |
| 7 | 1.54 | |
| | 4.42 | YEARLY TOTAL |

NET DEPLETION = 4551. ACRE FT. 0.37 ACRE FT. PER ACRE

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ELEV. 8000. FT. 9427. IRR. ACRES IRR. SEASON 5/20/1983 - 7/25/1983
LOWER ILLINOIS

| MONTH | DEPLETION (INCHES) | |
|---|---|---|
| 5 | .79 | |
| 6 | 2.63 | |
| 7 | 2.83 | |
| | 6.25 | YEARLY TOTAL |

NET DEPLETION = 4910. ACRE FT. 0.52 ACRE FT. PER ACRE

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ELEV. 8200. FT. 11648. IRR. ACRES IRR. SEASON 5/25/1983 -7/25/1983
LIL GRIZZLY

| MONTH | DEPLETION (INCHES) | |
|---|---|---|
| 5 | .43 | |
| 6 | 2.81 | |
| 7 | 1.91 | |
| | 5.15 | YEARLY TOTAL |

NET DEPLETION = 4997. ACRE FT. 0.43 ACRE FT. PER ACRE

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ELEV. 8200. FT. 14930. IRR. ACRES IRR. SEASON 5/20/1983 - 7/25/1983
BIG GRIZZLY

| MONTH | DEPLETION (INCHES) | |
|---|---|---|
| 5 | .75 | |
| 6 | 2.81 | |
| 7 | 1.91 | |
| | 5.47 | YEARLY TOTAL |

NET DEPLETION = 6809. ACRE FT. 0.46 ACRE FT. PER ACRE

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WATER DISTRICT 47

RESERVOIR EVAPORATION AT 8300. FT.

| MONTH | EVAPORATION(INCHES) | | NET DEPLETION(AF.) |
|---|---|---|---|
| 11 | 0.00 | | 0. |
| 12 | 0.00 | | 0. |
| 1 | 0.00 | | 0. |
| 2 | 0.00 | | 0. |
| 3 | 0.00 | | 0. |
| 4 | 0.00 | | 0. |
| 5 | 1.34 | | 343. |
| 6 | 1.72 | | 496. |
| 7 | 2.67 | | 728. |
| 8 | 2.25 | | 603. |
| 9 | 3.53 | | 947. |
| 10 | 0.57 | | 153. |
| | 12.08 | TOTALS | 3269. |

IRRIGATION CONSUMPTIVE USE

ELEV. 8000. FT. 11417. IRR. ACRES IRR. SEASON 5/25/1983 - 7/25/1983
CANADIAN

| MONTH | DEPLETION (INCHES) | |
|---|---|---|
| 5 | .45 | |
| 6 | 2.63 | |
| 7 | 2.82 | |
| | 5.89 | YEARLY TOTAL |

NET DEPLETION = 5607. ACRE FT. 0.49 ACRE FT. PER ACRE

ELEV. 8600. FT. 9491. IRR. ACRES IRR. SEASON 5/25/1983 - 7/25/1983
MICH TO KIMMONS

| MONTH | DEPLETION (INCHES) | |
|---|---|---|
| 5 | .37 | |
| 6 | 2.51 | |
| 7 | 1.54 | |
| | 4.42 | YEARLY TOTAL |

NET DEPLETION = 3496. ACRE FT. 0.37 ACRE FT. PER ACRE

ELEV. 8300. FT. 10167. IRR. ACRES IRR. SEASON 5/25/1983 - 7/25/1983
MICH TO WALDEN

| MONTH | DEPLETION (INCHES) | |
|---|---|---|
| 5 | .40 | |
| 6 | 2.38 | |
| 7 | 2.62 | |
| | 5.41 | YEARLY TOTAL |

NET DEPLETION = 4580. ACRE FT. 0.45 ACRE FT. PER ACRE