Water Resources Division 6 2002 Annual Report

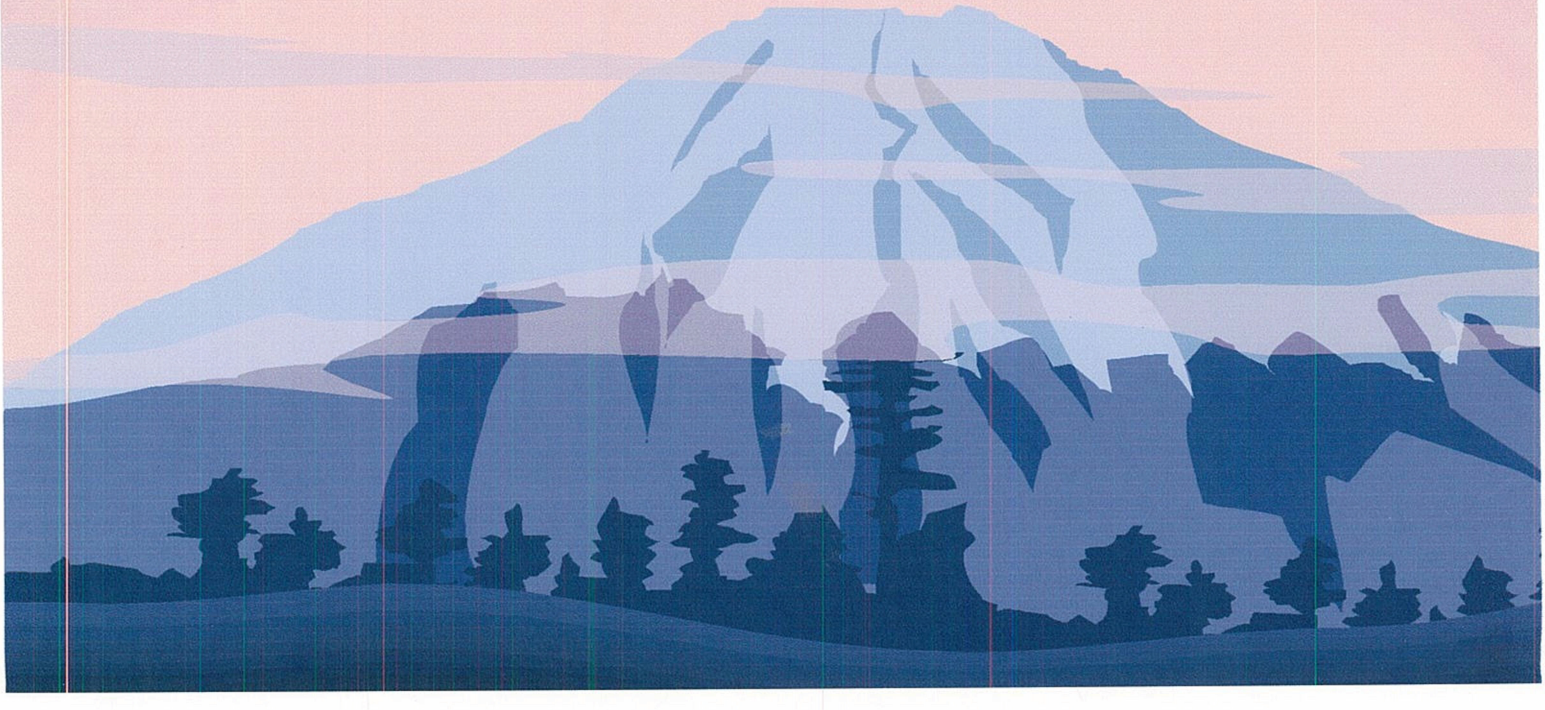


TABLE OF CONTENTS

Water Year 2002

Water Year 2003

Water Administration Data Summaries

Introduction

Water year 2002 was one of the driest in the history in the Division. The severity of the drought caused a great deal of concern within the water user community and resulted in a very busy summer for the Division 6 staff.

This report summarizes the activities of the Division 6 office of the Division of Water Resources. It presents an overview of the administration activities that took place during calendar year 2002, and presents summary data for the water year. Please direct any questions regarding the information in this report to the Division 6 office in Steamboat Springs.

Water Year 2002

Water Administration

Water year 2002 proved to be one of the driest years in recorded history in Division 6. In the past, 1977 was considered the worst year on record. This past year rivaled 1977 for low stream flows, lack of summertime precipitation and administration of water rights. Later in this report, data will be presented that compares the conditions of 2002 to both the long-term averages and to water year 1977.

Because of the extremely dry conditions, all of the major rivers and streams in the Division saw administration, including a formal call on the White River and curtailments on the main stem of the Yampa River. Many of the streams and rivers went under administration early in the irrigation season, with the call not taken off for the entire year. Many ditches throughout the Division were never able to divert water at all.

In order to provide a better picture of the conditions throughout the Division, a separate discussion on each of the major drainage basins is presented below.

Yampa River Drainage

The Yampa River drainage encompasses Water Districts 44, 54, 55, 56, 57 and 58. With the exception of District 55 and 56, that are located in the extreme northwest corner of the State, all of the districts had some level of administration. Runoff on the Yampa River started early due to the warm spring temperatures. Peak flows occurred in late May and early June, about a week

to ten days before the historical peak flow date. Flows were very low, with the peak on the Yampa River at approximately one-third of average.

Administration of the tributaries to the Yampa River began as early as April 19 on the Bear River southwest of the town of Yampa, and May 1 on both Fish Creek east of Steamboat Springs, and Fortification Creek north of Craig. These calls lasted the entire irrigation season and in some cases throughout the rest of the water year. Because of the early calls and low runoff, several of the larger irrigation and recreation reservoirs did not fill. These included Stillwater, Yamcolo, and Stagecoach Reservoirs. The early calls on Bear River necessitated early releases from storage reservoirs to help satisfy irrigation demands. By the middle of July, Stillwater and Yamcolo reservoirs had released their available irrigation water to downstream users.

As the summer wore on conditions became increasingly dry. In July, the Division of Wildlife and the City of Steamboat Springs requested the public to voluntarily stop any use of the Yampa River through Steamboat Springs, and cease all fishing activity from the outlet of Stagecoach Reservoir down to the confluence with the Elk River below Steamboat Springs. This voluntary ban lasted into August. During this time, flows in the river in Steamboat got as low as 17.0 cfs in the middle of July. At this critical time, the Upper Yampa Water Conservancy District began to release water from Stagecoach Reservoir to help the conditions in the river. These voluntary releases continued until contract holders called for reservoir releases.

During the latter part of the summer, stream flows became so low that the power station in Craig was unable to obtain sufficient water from the native flow in the Yampa River to satisfy their needs. On July 12, releases began from Elkhead Reservoir to insure that adequate water was available at the Craig Station pumping plant. These releases continued until July 24. As late summer river flows continued to drop, the Craig Station again began releases from Elkhead in the middle of August. Additional releases were also made from Stagecoach Reservoir to supplement the Elkhead releases. These releases continued until September 18, when rain in the basin increased the native river flows.

During this period of reservoir releases, our office monitored conditions on the river to insure delivery of the storage water to the power plant. As the native flows in the Yampa River decreased during the later part of August, it became apparent that the reservoir water was not reaching the owner's diversion structure. Transit losses were much higher than expected and ditches on the main stem were continuing to divert as much water as they could given the

extreme drought conditions. On August 30, Excel Energy started releasing water from Steamboat Lake to provide an adequate supply of water to their Hayden Power Station. Shortly thereafter, on September 5, the Division 6 staff started curtailing diversions on the main stem of the Yampa River between the reservoirs releasing water and the Craig Power Plant. The curtailment insured the delivery of the water released from storage. While there was no formal call for administration on the river, the only way to deliver the reservoir water was to limit diversions to the amount of available native flow. The curtailment remained in effect until September 18, when reservoir releases ceased.

The dry conditions also forced the town of Oak Creek to make reservoir releases from Sheriff Reservoir to maintain an adequate municipal supply when Oak Creek went on call. These releases started on June 24 and continued until September 16. Likewise, during curtailment of the Yampa River, the town of Hayden was required to release water from Stagecoach Reservoir to satisfy their needs.

The Little Snake River, a major tributary of the Yampa River, was subject to administration for the third year in a row. The call placed on July 1, was in effect for the remainder of the irrigation season. The call was administered under the provisions of the Upper Colorado River Compact in conjunction with staff from the Wyoming State Engineer's office. In addition to the call on the main stem of the Little Snake, a call was also placed on Slater Creek. This call marked the first time in many years that administration has taken place on any of the tributaries of the Little Snake.

The recent administration of structures on the Little Snake River required our office to issue orders for the installation and/or maintenance of headgates and measuring flumes to several ditches. These orders, issued in the fall of 2001, were complied with during the summer of 2002. The installation and maintenance of these structures will allow these ditches to be administered in compliance with the terms of the Compact, and will insure that water right owners get all of the water that is available to them in priority.

White River Drainage

Administration in the White River drainage began early in the year with a call on Piceance Creek on April 19, which lasted the entire irrigation season. Many of the tributaries either went on formal call or there was so little water that only the most senior ditches were able to divert. With

the severity of the drought, the impact of the retirement of one of our water commissioners was minimized since many areas did not require visits, as there was no water to administer.

That was not the case on the main stem of the White River however. For the first time since 1977, a formal call for administration was placed on the river. The Old Agency Ditch placed the call on August 25, which lasted until September 20. The call would have been placed earlier if not for the efforts of several ditch companies and individual ditch owners who voluntarily reduced their diversions in order to provide additional water to the Old Agency. This cooperative effort helped to delay the effective date of the call by over six weeks, which allowed junior ditches to continue to divert for an additional amount of time.

In addition to the cooperation shown in trying to avoid or delay a call on the river, many of these same ditch companies agreed to allow the Division of Wildlife to release water from Big Beaver Reservoir (aka Lake Avery) to help regulate temperature and oxygen content in a critical stretch of the White River for the fishery. The releases began in mid-July and lasted for about three weeks. The owners agreed to let these releases pass their headgates for delivery through a stretch of the river upstream of Meeker.

North Platte Drainage

Like the other drainages in Division 6, the North Platte went under administration early in the year. Ditches on many of the tributaries placed calls in the middle of April and by mid-May most of the system was under administration. Unlike past years where reservoirs would normally be filling in the spring, the warm temperatures and low snowpack allowed many ditches to open early. Reservoirs were forced to wait for stream flows to pick up before they could store. As a result, reservoir storage was less then normal and by the end of the year, most of the irrigation reservoirs were well below their normal storage levels.

The severity of the drought is reflected in the fact that streams on the west side of North Park also went under administration. While calls are regular on the Illinois and Michigan Rivers, the tributaries on the west side rarely go under administration. Many of the smaller streams and rivers in the drainage were dry by mid-August. Many ditches that were able to divert in 1977 were either called out-of-priority or no water was physically available at their headgates this year.

By the end of August, the Town of Walden was in danger of running out of water. The town draws part of its municipal supply from the Michigan River. Even though the town owns part of the senior water right, there was not enough flow to satisfy their needs. Eventually, the Division of Wildlife released water from North Michigan Creek Reservoir, to help meet the needs of the town until stream flows increased.

A list of the calls that occurred in the various Water Districts can be found on Pages 38-39.

Compacts

In addition to the administration of the decreed water rights within the Division, the office is also responsible for the following compacts and U.S. Supreme Court Decrees:

Upper Colorado River Compact

Under Article XIII (a), the State of Colorado will not cause the flow of the Yampa River at the Maybell gage to be depleted below an aggregate amount of 5,000,000 acre feet for any period of ten consecutive years. For the period 1993 to 2002, the aggregate flow at the Maybell gage was 11,506,900 acre-feet. While Colorado is still well above the aggregate flow provided for in the compact, this year was the second consecutive year that the 10-year aggregate flow amount has decreased, this year by an additional 250,000 acre-feet, and it was the fifth consecutive year of declining annual flows at the Maybell gage.

As previously mentioned, the Little Snake River was administered this summer under the conditions of this Compact. A formal call was placed for both Colorado and Wyoming water rights. Personnel from our office and the Wyoming State Engineer's office regulated the distribution of water to the ditches covered by the Compact from July 1 through the remainder of the irrigation season. Administration began a full month earlier in 2002 than in the previous year.

North Platte River (Nebraska v. Wyoming, U.S. Supreme Court Decree)

Under this decree, Colorado is limited to a total of 145,000 acres of irrigation in the North Platte drainage, storage of no more then 17,000 acre-feet per year for irrigation purposes and no more then 60,000 acre-feet of transmountain diversions from the basin in any period of ten consecutive years. In water year 2002, a total of 66,385 acres were reported irrigated and a

total of 8,481 acre-feet were stored for irrigation. Transmountain diversions out of the basin totaled 1,575 acre-feet. The ten-year total of transmountain diversions out of the basin was 44,236 acre-feet. None of the limitations of the Supreme Court Decree were exceeded in 2002.

Pot Creek

Pot Creek is a small tributary to the Green River. This creek's headwaters are in Utah, and it enters the Green River in Colorado. Water in Pot Creek is apportioned between the users of the two states under a Memorandum of Understanding. During 2002, no water was available for direct flow users in either state. At the annual water users meeting the Water Commissioner reported that all runoff prior to May 1 went to storage. All winter storage was credited towards the fill of Crouse Reservoir in Utah. No storage water was available to the Colorado reservoirs.

During 2002, the Utah Division of Wildlife Resources changed their senior direct flow right to a storage right. This right was the most senior irrigation right administered under the Memorandum of Understanding with Utah. Under the terms of the change, the Division will be able to store this right in any of the three reservoirs they own on Pot Creek, up to a maximum storage rate of 4.0 cfs. This change should have little impact on Colorado users since the water was originally diverted out of the Pot Creek basin. In fact, there may actually be a benefit since the original diversion rate out of basin was 5.0 cfs and the new storage rate is limited to 4.0 cfs.

Basin Hydrology

Water year 2002 was one of the lowest flow years in recorded history. Not only was this year the fourth in a row of below normal runoff, it was by far the driest in 25 years, rivaling the previous record drought of 1977. As throughout the rest of the state, snowfall was minimal in the winter, and summer rains were infrequent and widely scatter; resulting in extreme drought conditions throughout the Division.

The year began with a well below average snowpack that decreased dramatically during April as warm weather caused early snowmelt. Throughout the winter, there was very little snow cover at the lower and mid-elevations. The table below shows average snowpack for the beginning of the month for the major river drainages in the Division.

SNOWPACK AS PERCENT OF AVERAGE
Water Year 2002

Drainage	Jan	Feb	Mar	Apr	May
North Platte River	67	61	65	66	44
Yampa River	71	67	64	69	32
Little Snake River	77	68	69	73	50
White River	73	65	53	64	37

Source: Natural Resource Conservation Service monthly Colorado Basin Outlook Reports

As spring approached, runoff at the lower elevations quickly dissipated. By early April only the high elevation snows remained. The warm, dry temperatures caused the soil moisture content, already at very low levels after three years of mild drought, to decrease further. Monthly stream flow forecasts developed by the Natural Resources Conservation Service (NRCS), followed the snowpack trends, decreasing dramatically in the March-April timeframe. The table below lists the April and May runoff forecasts for selected sites and the actual runoff as measured at the gaging stations. All values are in acre-feet.

Station Name	April 1 Forecast	May 1 Forecast	Actual Runoff
White River near Meeker	160,000	114,000	88,100
Little Snake River near Lily	165,000	154,000	83,276
Yampa River near Maybell	465,000	335,000	275,590
North Platte near Northgate	121,000	65,000	23,760

Forecasts are for the period April thru July for all location except the North Platte, which is May thru September

As can be seen from this table, the actual runoff was much lower then forecast.

When viewed over the entire year, the picture was no better. Precipitation was well below normal. While many areas received rain in September and October, it was too late to be of much use. Likewise, when rainfall did occur, there was little runoff that contributed to stream flow. Listed below are tables showing the monthly precipitation totals for selected sites in the Division. The tables present both Water Year and Calendar Year totals.

Monthly Precipitation Data for Selected Sites
Water Year 2002
(Inches)

Site	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Total	% of Avg
Meeker	1.08	1.53	0.68	0.84	0.30	1.63	0.82	0.10	0.47	1.09	0.88	1.63	11.05	67
Steamboat	1.71	2.02	1.50	1.43	0.95	1.61	1.73	0.52	0.61	1.09	1.86	2.07	17.09	71
Walden	0.50	0.92	0.11	0.51	0.35	1.03	0.47	0.98	0.11	1.51	1.82	1.05	9.36	86

Monthly Precipitation Data for Selected Sites
Calendar Year 2002
(Inches)

Site	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	% of Avg
Meeker	0.84	0.30	1.63	0.82	0.10	0.47	1.09	0.88	1.63	1.99	1.03	0.77	11.55	70
Steamboat	1.43	0.95	1.61	1.72	0.52	0.61	1.09	1.86	2.06	2.21	1.35	1.15	15.95	67
Walden	0.51	0.35	1.03	0.47	0.98	0.11	1.51	1.82	1.05	1.38	0.71	0.33	10.25	95

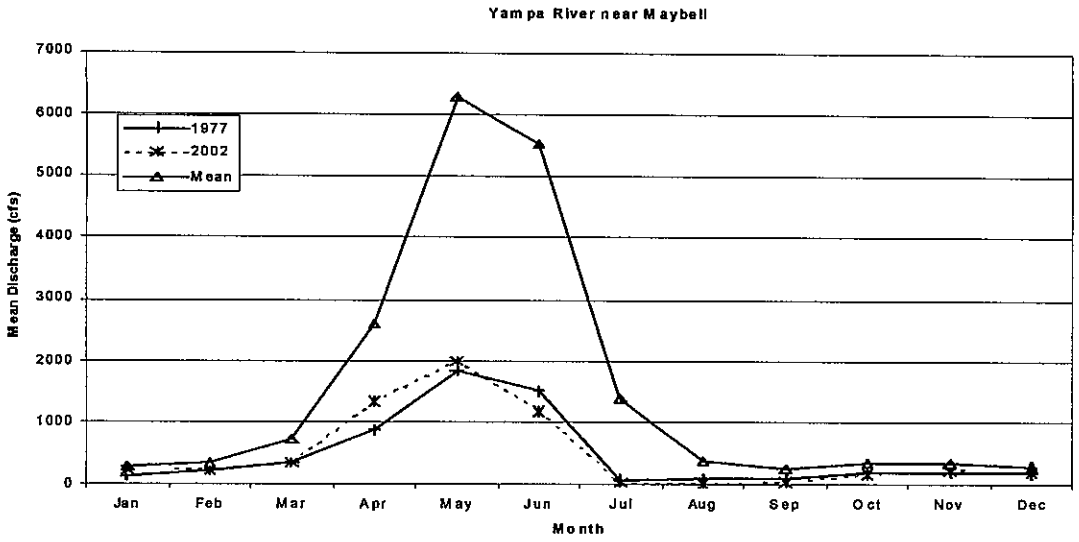
The low runoff combined with lack of precipitation led to extremely low river flows in the latter part of the summer. Many tributaries to the main rivers dried up or had minimum flow. At times even the major rivers were running at historic lows. The Yampa River near Maybell recorded a daily mean of 1.8 cfs on August 31 of this year, the lowest flow of record; as did the North Platte near Northgate, which recorded a mean daily flow of 15.0 cfs on September 6 and 7. While 1977 continued to have the lowest annual mean flow for the White and Yampa River basin, 2002 became the new record low year on the North Platte as measured at the gage near Northgate.

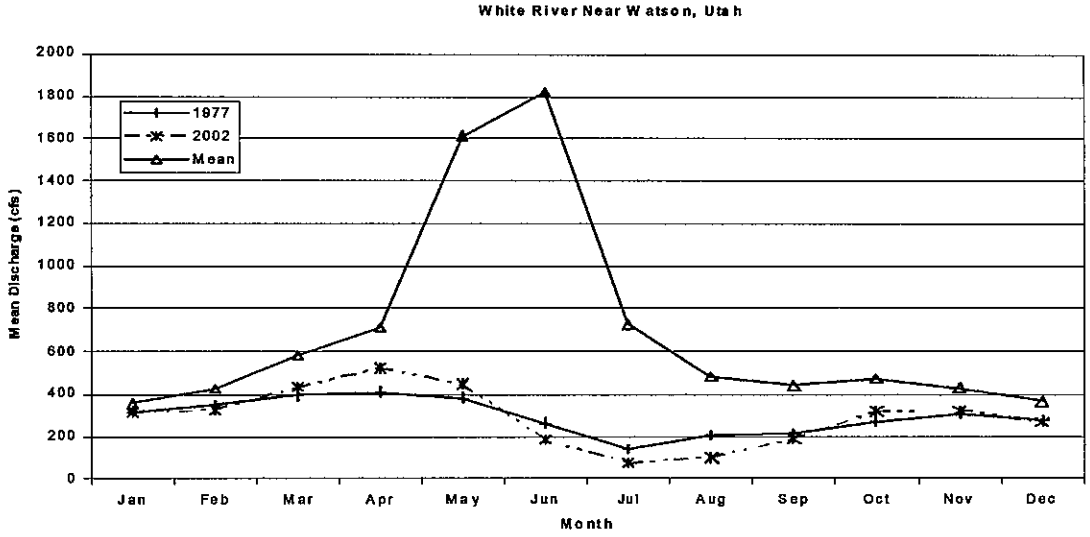
Listed below are total flows recorded at selected gages in the Division for Water Year 2002:

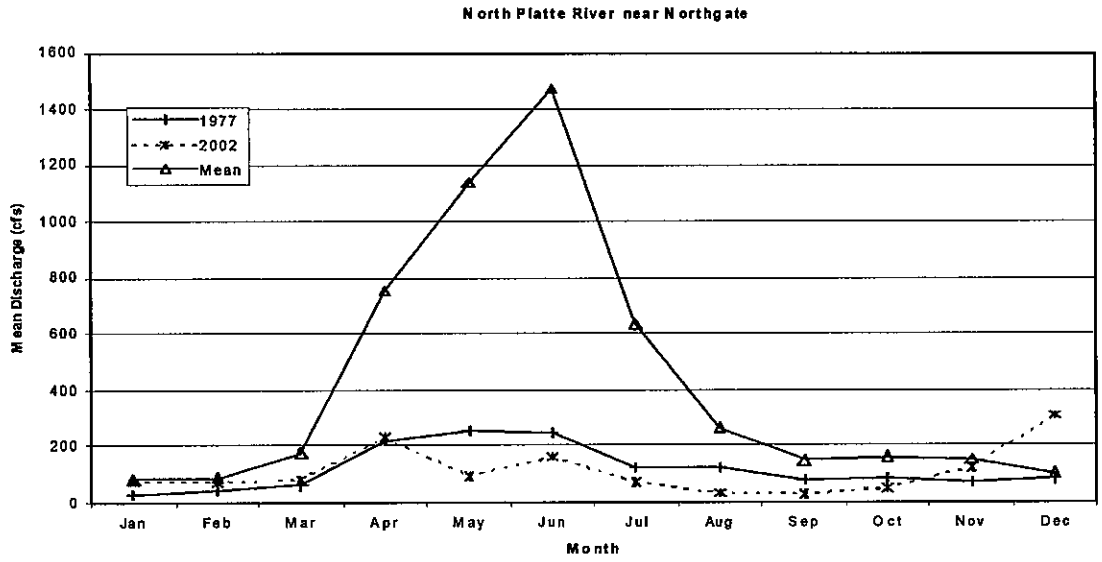
Station Name	Total Flow (AF)	Average (AF)	% of Average
White River near Meeker	219,700	454,300	48
Little Snake River at Lily	113,700	414,300	27
Yampa River near Maybell	363,900	1,127,000	32
North Platte near Northgate	66,230	311,100	21

These annual flows point out how dry the year was. When combined with the below normal precipitation during the irrigation season, many ranchers felt that 2002 may have been the driest year ever, even though this fact is not reflected in the steam flow record for the Yampa and White Rivers.

The graphs on the following page show a comparison of the hydrographs for mean conditions, 1977 and 2002 for gages on each of the three major rivers in the Division.


Yampa River near Maybell
7000
6000
5000
4000
3000
2000
1000
0
Mean Discharge (cfs)
1977
2002
Mean
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Month


White River Near Watson, Utah
2000
1800
1600
1400
1200
1000
800
600
400
200
0
Mean Discharge (cfs)
1977
2002
Mean
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Month


North Platte River near Northgate
1600
1400
1200
1000
800
600
400
200
0
Mean Discharge (cfs)
1977
2002
Mean
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Month

Dam Safety

The Dam Safety Branch of the Division of Water Resources is responsible for the safety of dams in Colorado while working to protect the loss of water supplies due to the failure of a dam. The dam safety program operates in accordance with Colorado Revised Statutes (CRS) Title 37 – "Water and Irrigation", Article 87 – "Reservoirs" and most specifically under sections 105 – "Approval of plans for reservoir – notice of modification", 107 – "Safety inspections – amount of water to be stored", 108.5 – "Emergency actions", 109 – "Complaint that reservoir is unsafe", 122 – "Erosion control dams", and 125 – "Notice of intent to construct impoundment structures". The program also oversees the construction of livestock water tanks as outlined in CRS Title 35 – "Agriculture", Article 49 – the "Livestock Water Tank Act of Colorado".

The primary functions of the Dam Safety Branch are the review of designs for the construction or modification of a dam and periodic safety inspections for existing dams to insure their integrity. To this end, engineers have been placed in each Division office to be closer to the dams, the owners, and the water commissioners that administer the water stored by the dams. The past dam safety engineer assigned to Division 6 left in November 2001, therefore the Division was without a local engineer until August 1, 2002 when a new engineer was hired. Early in the year, the dam safety staffs from the Division 1 office in Greeley and the Denver office assisted in the inspection work and design review needs for Division 6, and later assisted in the orientation and training of the new engineer. Assistance from Greg Hammer and Mark Haynes was especially appreciated during the past year.

In the design review and construction area, one breached dam, Lower Spring Creek, was converted to a city park while three other breached dams; Long Lake, Martin Cull, and Nofstger; were rebuilt with new outlets. Outlet repairs were also performed at Stillwater #1, and the outlet for Wyman Dam was slip-lined and a new gate installed. Finally, Poose Creek Dam at DOW's Vaughn Lake, received repairs to its emergency spillway to correct deterioration and safety issues. Construction inspections took place at each of these dams. Several other minor design reviews were initiated for projects with possible completion dates in the coming year. The biggest proposed project is a 20-foot enlargement for the Elkhead Reservoir dam near Craig that will add approximately 12,000 acre-feet of storage to that facility.

Safety inspections of existing dams in the State take place at periodic intervals based on the hazard class of each dam. During 2002, seven of thirteen high hazard dams, five of fourteen

medium hazard dams, and 22 of over 100 low hazard dams were inspected in Division 6. Engineers from Greeley and Denver, and the new Division 6 Engineer, did these inspections during August and September. Later in the fall, the new dam safety engineer was completing inspections on his own. Generally, only minor problems were found during this year's inspections, although a beaver colony had dug lodges across the upstream face of one low hazard dam causing severe damage that required repairs by the owner.

There were no erosion control dams or livestock water tanks constructed in Division 6 during 2002, although numerous non-jurisdictional dams (less than 10 feet in height) were constructed. Having a decorative pond is now a fad for larger, high-end lots or small ranchettes. Over twenty notices of intent to construct non-jurisdictional dams were processed, most of which have now been built. So far, no significant water administration problems have arisen, but these small dams are required to have adequate outlet pipes capable of passing inflow if they are on-channel structures.

Changing resource priorities and budget constraints will affect the workload of the Division 6 dam safety engineer in the coming year. Due to an increased workload in Division 5, the Division 6 Dam Safety Engineer will help with inspections in the upper water districts of Division 5 in the coming year. Since both dam safety engineers have the same name, all should run smoothly with this new arrangement.

Hydrographic Program

Currently there are 43 active stream gage sites in Division 6. Of these stations, the USGS operates 34 and the Division operates 9. Of the nine gages operated by the Division, seven are equipped with satellite monitoring; three of them transmit only reservoir water surface elevations, three transmit only stream flow gage heights, and one transmits both parameters. By the end of the irrigation year 2003, it is anticipated that the Walton Creek station will be upgraded to have satellite monitoring. This station presently uses a paper recorder, as well as a data collection platform (DCP) to record gage heights.

Although several of the stations at the beginning of the year were experiencing difficulties, all of the problems were resolved within a short period. At two of the sites, replacing the old Sutron SE5600-0530 shaft encoders with new Sutron SE8500 Model shaft encoders solved the problems.

Division 6 installed a new gage on the Michigan River in late April. The gage is on Jackson County property behind the Town of Walden's water collection facility. Jackson County was very cooperative and supportive in allowing the Division of Water Resources to install a gage at this site. The Town of Walden also allows us to access the site via their property at the collection facility. The gage consists of a Sutron shaft encoder Model SE8500 connected to a high data rate Sutron 8210 Data Collection Platform with satellite telemetry housed in a structure mounted on top of a 36-inch diameter stilling well. We will use this station extensively for water administration.

The Michigan River near Meadow Creek Reservoir station continues to have reliability issues due to its location. Measurements taken this summer at the site did not correlate well with the existing rating table, as has been the case for several years. We will use a new rating table developed during the hydrographic record process, for the water year 2003. Because of the problems at this site, this rating table could also become poor within the next year or two.

The gage on Walton Creek near Steamboat Springs continues to be a critical site due to the recent administration on the creek. Presently, the site has a paper roll Stevens A-71 recorder and a Sutron 8200A data collection platform and SE8500 Model shaft encoder. Both the data collection platform and shaft encoder were installed at this site in early summer of 2002. We anticipate that by the end of the 2003 irrigation season, the site will be on satellite monitoring. The station is equipped with an A-frame cable way and car used by the USGS several years ago for high flow measurements. An inspection of the cableway in the spring of 2002 determined it to be unsafe and not usable. As a result, there is presently no means of making high flow measurements at the site.

In addition to maintaining the gage sites, the hydrographic program was unusually busy making additional measurements at various sites to assist with calls on many streams and the curtailment of water on the Yampa River that occurred in late summer. Some of the additional measurements made were on the Yampa River, Elkhead Creek, Elk River, and several ditches.

Groundwater and Well Permitting

Two hundred twenty five exempt well permits were issued in 2002, an increase of 50 percent over the same period last year. Due to the drought conditions, a significant percentage was due

to an increase in applications for livestock only permits, and replacements for domestic wells. The normal turn-around time for the issuance of a permit is approximately 10 working days. Division 6 continues to see an increase in staff time required to assist the public with completing well permit applications and answering questions about obtaining well permits. This is true not only for our office staff but also for our water commissioners. While many of the questions deal with the specifics of completing an application, we are spending increasing amounts of time educating people about the statutes concerning the use of groundwater in Colorado.

Although no action has been taken to pursue decentralization of non-exempt well permitting activities to the Division 6 office, the hope is that a proposal will be presented to the Assistant State Engineer for his consideration in implementing this plan. Because of the low volume of non-exempt well permits issued in the past, decentralizing this well permitting function to the Division 6 office may be feasible. This would result in a shorter turn around time on issuance of these permits and improved customer service.

Water Records and Information

A summary of the diversion records for Irrigation Year 2002 is on Page 35 of this report. These numbers show that total diversions for all uses were down by over 351,000 acre-feet from 2001. For irrigation, both diversions and irrigated acres were down from the previous year. Total diversions for irrigation declined by over 266,000 acre-feet. All the water districts experienced a decline, with the largest decline in District 47 at almost 144,000 acre-feet. In addition, irrigation reservoirs were used extensively to supplement direct flow water rights.

Through August of 2002, we kept our water rights database updated for use in Qinfo. Since then, our water rights are being maintained using Hydrobase. We used Hydrobase exclusively this year to enter diversion records. As was done in the past with Qinfo and now being done in Hydrobase, ownership, decreed water rights, and structure information is updated on a regular basis and distributed to all of our commissioners. The Well Tools program is used to update well data, and the DAM_app program to update dam information. Access to information through Qinfo, Hydrobase, and Well View are our primary methods of responding to inquiries from the public, although we are attempting to phase out Qinfo. Much effort is being put into conforming to the Hydrobase structure. Attempts are being made in the areas of alternate points of diversion, transfers, exchanges and plans of augmentation, that were never entered into Qinfo except by reference in comments. This process is lengthy, but it should be complete by the end of calendar year 2004.

The position of headgates on ditches, and reservoirs continue to be located using the Garmin GPS units. All of the collected data are transferred to the Division office for processing prior to sending it to Denver. In many of our Districts, the gathering of location data for all of the active ditches has been completed. The hope is to have this task completed for the entire Division by the end of 2004. Once the active structures are complete, we plan to continue gathering location information for the less frequently visited structures, as time permits. We are also gathering location information on many of the structures for new water rights during our field inspections for water court cases.

Division 6 continues to calculate an annual water budget for the various drainages. Using data from two lysimeter sites, consumptive use is calculated for the various drainage basins. This data is then used in reviewing water court applications for change cases. This year's water budget report and lysimeter information are provided as appendices to this annual report.

Water Court Cases

Water Court activity was up slightly for the year, with total cases in Division 6 down some and filings in Division 5 up. There were 112 cases filed in Division 6 this year as compared to 117 last year, and 37 cases in Division 5 Water Court as compared to 18. The Division Engineer prepared 160 Summaries of Consultation, an increase of 29 percent from 2001, and 48 percent from 2000. A summary of the Court activities for the year is on Page 41 of this report.

In January 2002, the revised abandonment list for Division 6 was published in the December resumes for Division 5 and 6 Water Courts. After publication, three Statements of Opposition were filed in Division 5 for rights in the White River drainage, and five were filed in Division 6 for rights in the Yampa and North Platte drainages. Our office, working through the Colorado Attorney General's office, has been in negotiations with the objectors in all of the cases. As of the end of the year, settlement was close in all the cases.

There were no trials held this year in either the Division 5 or 6 Water Courts involving the Division 6 office. However, the Division Engineer spent a significant amount of time preparing consultations, reviewing engineering reports and proposed decrees, and consulting with the applicant's attorneys. As more development is taking place in the Division, the number and complexity of cases seems to be increasing. While many of our applications are still filed "pro

se" and deal with new rights for springs and small diversions, an ever-increasing number of augmentation plans and exchanges are appearing in our courts.

Of special note this year, was the retirement of the Division 6 Water Judge, Richard Doucette. Judge Doucette served as the Water Judge in the Division for 8 years. His retirement was effective on December 31, 2002. The new District Judge, Michael O'Hara of Steamboat Springs, was sworn in on December 28, 2002.

In addition to the retirement of Judge Doucette, the voters of the 14th Judicial District voted not to retain District Judge Joel Thompson in the November election. Judge Thompson had been the alternate water judge for many years. He will leave office in early January 2003. His replacement is Daniel J. Kaup of the Eighth Judicial District Court in Fort Collins.

With the change of judges in Division 6, we have taken the opportunity to hold several discussions with Judge O'Hara, Water Referee Daniel Birch, and Clerk of the Court Tracey Epley, to review our procedures for handling new water court applications. The hope is to implement several ideas from these discussions that could result in more efficient use of our combined resources. These discussions are on going.

Involvement in the Water User Community

The Division 6 staff continues to assist the public in preparing water court and well permit applications, and providing water right and diversion information. Assistance was given to dam owners in completing Emergency Preparedness Plans and to water users for the proper selection and installation of water measuring devices. Considerable time was spent this year informing users about the drought conditions and explaining the need for installing and maintaining headgates and measuring flumes.

The Division 6 staff continues to attend as many of the regularly scheduled meetings of the conservation and conservancy districts as possible. We attended two of the four quarterly meetings of the Colorado River Water Conservation District, and had representation at all of the Upper Yampa Water Conservancy District meetings.

This year seemed especially busy with meetings. Besides our normal involvement at ditch and reservoir meetings, the Division Engineer attended several special meetings as outlined below.

There was a meeting in February in Baggs, Wyoming with water users on the Little Snake River. Division 6, the Wyoming Water Development Commission, and the Wyoming State Engineer's office, gave presentations. The purpose of the meeting was to discuss the progress of the High Savory Reservoir Project and compact administration under the Upper Colorado River Compact.

Division 6 also participated in the newly formed North Platte Decree Committee meetings. This Committee formed as part of the settlement under the revised US Supreme Court decree in Nebraska v. Wyoming concerning the administration of the North Platte River. The committee normally meets twice a year. This year the committee met in April in Scottsbluff, Nebraska and again in Torrington, Wyoming in October. Because of inclement weather, the Division Engineer represented Colorado at the October meeting.

In June, the CSU Extension Service hosted a drought seminar in Steamboat Springs. Both the Division Engineers from Divisions 5 and 6 participated in this seminar. In addition, the Division Engineer gave a presentation to the Colorado Water Quality Control Commission meeting in Steamboat Springs in November.

In September, the Division Engineer participated in the Forest Health Management: Wildfires and Water Yields Tour sponsored by the Colorado Department of Natural Resources. The tour was conducted in Jackson and Routt Counties and brought together representatives of state and federal agencies, legislators, and industry to discuss problems dealing with the health of our forests, and other natural resources issues.

In December, Division 6 staff gave presentations to the Routt County Planning Commission, and to the clerks of the District Court on the functions and responsibilities of our office. These presentations were at the request of these groups, and we hope to return on a semi-regular basis to address questions and further our working relationships.

Page 42 summarizes the activities of the offices and commissioners of the Division.

Issues and Achievements

Looking back over the year, the greatest issue in the Division was the drought. After three years of declining runoff volumes and decreasing soil moisture content, the drought of 2002 literally consumed the majority of our time. If we weren't responding to questions from the public, we

were trying to determine how to handle situations as they arose. As previously mentioned in this report, the fact that the drought was so severe actually helped us. Our staff was able to focus their attention on those areas where water was still available. The drought also pointed out areas that needed to be investigated or enhanced in order to do our jobs better in the future. Some of these areas are listed below:

- The need to develop a better understanding of the transportation losses on the Yampa River and its main tributaries. This issue became very evident during our efforts to deliver reservoir water in the latter part of the summer.
- The need for additional gaging stations on the mainstem of the Yampa River to help determine flows at critical points, and to assist in the delivery of reservoir releases. This issue will become even more critical when releasing water for the endangered species that must be delivered to critical habitat areas.
- The use of Hydrobase to develop priority lists for the rivers that will not only span districts but will also include the tributary rights.

Our hope is to develop a strategy to start addressing some of these issues in order to be better prepared for the possibility of future administration of the Yampa River.

The Yampa River Basin Management Plan is an issue that continues to linger in the Division. Started over three years ago, the scheduled completion date was originally August, 2000. After several delays, the release of the final document is now planned for the fall of 2003. When finalized, the US Fish and Wildlife Service will use the Plan to form the basis for their Biological Opinion for the Yampa Basin.

Work continues on the planned enlargement of Elkhead Reservoir near Craig. This reservoir is located on Elkhead Creek, a tributary of the Yampa River and is approximately 10 miles northeast of Craig. The reservoir currently holds approximately 13,500 acre-feet. The proposed enlargement is part of the implementation plan for the Yampa River basin under the Upper Colorado River Endangered Fish Recovery program. The draft Management Plan identifies an enlarged Elkhead Reservoir as a potential source for up to 7,500 acre-feet of water to supplement low flow conditions in the Yampa River for the endangered fish species. In addition, about 5,000 acre-feet of storage for future human needs are being evaluated for inclusion in the enlargement. Construction is now anticipated to start in the spring of 2004.

The Yampa River Hayden Project, sponsored by the Upper Yampa Water Conservancy District, continues to move forward. This project will consolidate four ditches in the Hayden area into one or two combined headgates, thus eliminating several gravel dams on the mainstem of the Yampa River. This past year, Tetra-Tech conducted site-specific studies to gather additional information to support conceptual designs for the project. A public meeting at the end of July was held to present the designs to the users on the ditches. The meeting had poor attendance by the water users on the four ditches, and while the design phase of the project continues, the final decision on whether the project will ever be built remains uncertain.

In February of this year, Three Forks Ranch filed a lawsuit in the United States District Court for the District of Colorado. Named as defendants in the suit were the City of Cheyenne, the Wyoming State Engineer and the Wyoming Water Development Commission. Three Forks Ranch is located on the Little Snake River where the South, Middle, and North Forks join. The suit raised several issues from compact questions, to injury by Cheyenne's upstream diversions, to failure on the part of the Wyoming State Engineer to properly administer water rights in Wyoming. While Colorado decided not to join the case, the Colorado Attorney General's office, the Colorado Water Conservation Board and our office jointly undertook an investigation of the compact issues raised by Three Forks Ranch. Several meetings were held with the Wyoming Engineer's office and the City of Cheyenne to investigate the allegations. As part of the investigation, there were site visits to the Hog Park diversion structures owned by the City of Cheyenne, and to the construction site of the High Savory Dam. The results of the investigation are due for release in early 2003.

Division 6 has worked closely with our Wyoming counterparts to revise the combined administration list for the Little Snake River. This list is used to administer the water rights on the mainstem of the Little Snake River below the compact point near Savory Creek. Wyoming is reviewing a draft of the updated list that is expected to be finalized in early 2003.

Staffing and budget continue to be issues of concern. With the imposed budget reductions, proper administration of the water rights in the Division is becoming increasingly difficult while addressing our other duties. Demands on staff time by the public seeking information and education about water issues is increasing with each passing year. The inability to hire personnel for vacant positions further exacerbates the problem. The hope is that legislation scheduled for introduction in 2003 will help to alleviate this situation.

Some of our accomplishments of this past year include:

- Operated within our budget for fiscal year 2002.
- Revised the Little Snake River combined administration list (finalization pending).
- Finalized investigation into allegations of compact violations on the Little Snake River.
- Hired John R. Blair to fill our Dam Safety Engineer vacancy.
- Completed all dam safety inspections with the assistance of Greg Hammer and Mark Haynes.
- Settled several Water Court cases through negotiations, foregoing the need for expensive litigation.
- Administered water rights in the Division without any major complaints or the necessity to issue formal orders.
- All Division 6 computers were upgraded to Windows 2000 and Microsoft Office 2000

Personnel

Once again, there were changes in the Division 6 staff. Joe Brown, our fulltime water commissioner in Water District 43, retired in April. Joe was responsible for the upper reaches of the White River drainage. Joe had been with the agency for over 28 years.

With Joe's departure, and the hiring freeze that the agency was under at that time, administration of the entire White River basin fell to Bill Dunham. We were able to increase Bill's time from six months to nine months and he was able to get through the year without major problems, partly due to the extremely dry conditions. Many creeks and streams in the White River basin were dry by mid-summer and Bill was able to focus his attention on the places that still had water.

In August, we filled our vacant Dam Safety Engineer position by hiring John R. Blair. John came to us from the Colorado Water Quality Control Division office, in Grand Junction. John was immediately immersed in an intensive training program to help him acclimate to his new duties. We look forward to having John on our staff for many years. I would like to thank Greg Hammer and Mark Haynes for their assistance inspecting dams in the Division this past year, and for their help and guidance with John's training.

Our Water Commissioner of the year for 2002 was Andrea (Andy) Schaffner. She was selected because of her outstanding work this summer, especially during the period that curtailment was

taking place on the Yampa River mainstem. Andy spent many long hours explaining to the users what was taking place on the river, and at the same time helped to develop the information necessary to administer the curtailment. I am very proud of her efforts this summer and her dedication to her job, and the water users she serves.

I would like to thank all of the Division 6 staff for their dedication and efforts this past year. During an extremely difficult time, they kept their sense of humor and did their very best to serve the water users and the people of the State of Colorado.

Workload

Once again, Division 6 was stretched to its limit during the irrigation season from the standpoint of human resources. Not only was the Division short one water commissioner, but also budget cuts, the hiring freeze, and restrictions in overtime hours caused additional problems. The only saving grace was that many streams were dry by mid-summer which alleviated the need to visit those areas.

The retirement of Joe Brown in District 43 caused the biggest impact on our workload. With the hiring freeze in effect, and unable to hire a replacement, Bill Dunham was required to handle administration in the entire District. Luckily, Bill is somewhat familiar with the upper reaches of the District as well as being acquainted with many of the water users. This familiarization helped tremendously in Bill being able to cover the entire District in an effective manner.

For the third year in a row, the Little Snake River saw administration. The call came on the river July 1, and lasted the entire irrigation season. In addition, Slater Creek, a tributary to the Little Snake also went under administration. As a result, Kathy Bower was required to make many more trips then normal to this area. There were also additional trips made to the area to inspect and rate the new measuring flumes installed because of orders issued by our office in 2001.

Office staff again helped throughout the summer monitoring conditions on Walton Creek in the Steamboat Springs area. Luckily, the short run-off season meant flow in the creek was down to the senior right by early July, reducing the frequency of site visits after that time.

Another increase in workload was the administration of reservoir water released to the power companies in July, August and September, and the curtailment of diversions on the Yampa

River. A great deal of office staff time was spent monitoring the river flows, making hydrographic measurements on the river and below the reservoirs, estimating the native flow available for diversion, and coordinating activities with the water commissioners and users. Special thanks go to Erin Light, Andy Schaffner, Walt Bohrer and Elvis Iacovetto for their insights, recommendations, and help during this time.

In the Division office, several changes are on-going with respect to responsibilities and job duties. Erin Light has assumed additional responsibilities reviewing new applications to Water Court and preparing Summaries of Consultation. She also has responsibility for our conversion to Hydrobase. Lynne Peters has started entering water rights information into Hydrobase under the supervision of Ms. Light. John R. Blair has been a tremendous help in the office responding to requests for information from the public and answering questions when not busy with his Dam Safety responsibilities. Having our Steamboat Springs office fully staffed for the first time in over three years, was a great advantage this past summer.

An organizational chart for Division 6 is located on Page 41 of this report.

Training

We continue to encourage staff participation in training opportunities. Training in 2002 came from various sources. Several employees attended training sessions as follows.

- A one-day training seminar for all the Division staff covered the use of GPS units, computers, the Internet to retrieve information, and e-mail.
- Bob Plaska received computer training in Denver that allows him administrative access to the Division computers.
- Doug Stenzel provided training to several staff members on the use of Hydrobase for data entry. Erin Light then trained the rest of the staff in these procedures.
- Erin Light took an Access Database course in the spring of 2002 offered by Colorado Mountain College.
- Erin Light participated in the "Safety Evaluation of Existing Dams" training offered by the Bureau of Reclamation.
- Erin Light received in-agency training in reviewing Hydrographic Records.
- John R. Blair attended a week of orientation and training in the Denver office in August.

Looking forward to 2003, we hope to provide additional training in the use of computer programs, Hydrobase data entry tools, additional training for the Dam Safety Engineer, and increase the general knowledge of our staff in the area of water administration.

Water Year 2003

Key Objectives for 2003

Listed below are some of the key objectives that we will focus on in the upcoming year:

- Provide additional training for our Dam Safety Engineer.
- Provide additional training to all field staff on the proper use of the computers and GPS units including our migration to Hydrobase.
- Continue gathering location information for the major diversion structures, using Garmin GPS units and incorporate this information into our ArcView database.
- Submit a proposal to Denver for the decentralization of non-exempt well permitting.
- Pursue updating the Memorandum of Understanding with the State of Utah on the administration of Pot Creek.
- In cooperation with the State of Wyoming, finalize the updated combined administration list for the Little Snake River.
- Implement a program to enter alternate points of diversions and augmentation plans into our water rights database..
- Within budgetary constraints, strive to fill the water commissioner vacancy in District 43 on the White River.
- Identify the need and investigate funding sources for additional gaging stations on the mainstem of the Yampa River.
- Have the Division Engineer spend additional time in the field with the Water Commissioners during the irrigation season.
- Develop good working relations with the new Water Judge in the Division 6 Water Court, and explore the possibility of streamlining the review of new applications and rulings.
- Operate within our allocated operating budget.

RESERVOIR STORAGE SUMMARY BY DISTRICT

WD	ID	RESERVOIR	SOURCE STREAM	AMOUNT IN STORAGE (AF)				
				Minimum		Maximum		End of
				Date	AF	Date	AF	Year
43	3500	WINDY BILL SPRING POND	EAST BEAVER CK	05/10/02	7	10/31/02	7	7
43	3529	LARSON RES NO 2	TRIBUTARIES-PICEANCE CK	09/18/02	17	10/31/02	17	17
43	3630	BAILEY LAKE RETAIN POND	SWEDE CK	09/03/02	23	09/03/02	23	23
43	3631	BARBOUR POND	MARVINE CK	05/01/02	8	10/22/02	15	15
43	3632	BEAVER LAKE RESERVOIR	VAUGHN CK	05/31/02	67	10/24/02	67	67
43	3633	BIG BEAVER CK RESERVOIR	BIG BEAVER CK	10/31/02	5983	06/28/02	7658	5983
43	3634	BLACK GULCH RES	BLACKS GULCH	05/15/02	41	10/31/02	41	41
43	3636	CABIN LAKE RESERVOIR	VAUGHN CK	05/31/02	16	10/24/02	16	16
43	3638	GOOSMAN RESERVOIR	ELK CK	05/03/02	6	09/24/02	6	6
43	3639	GREGOR RESERVOIR	VAUGHN CK	05/31/02	25	10/24/02	25	25
43	3642	JOHNNY JOHNSON RES	WHITE RIVER	08/01/02	408	09/18/02	525	500
43	3643	KEYSTONE RES 2	PRICE CK	04/25/02	0	04/15/02	20	0
43	3644	KEYSTONE BEN PRICE RES	PRICE CK	08/12/02	0	05/08/02	50	0
43	3645	KEYSTONE RES 3	DEEP CHANNEL CK	08/12/02	2	05/08/02	31	2
43	3646	LADY LAKE	VAUGHN CK	05/31/02	4	10/24/02	4	4
43	3647	LARSON RES	TRIBUTARIES-PICEANCE CK	09/18/02	16	10/31/02	16	16
43	3649	LUNNEY RESERVOIR	NINE MILE DRAW	09/23/02	38	04/10/02	82	38
43	3651	MCGINNIS MEADOW RES	SOUTH SKINNY FISH CK	09/06/02	87	09/06/02	87	87
43	3652	MCHATTEN RESERVOIR	COAL CK	06/20/02	0	05/22/02	64	0
43	3656	PROCTER RESERVOIR	CURTIS CK	04/10/02	0	10/24/02	0	0
43	3657	SEVENTH LAKE RESERVOIR	VAUGHN CK	05/31/02	32	10/24/02	32	32
43	3658	SHADOW LAKE RESERVOIR	VAUGHN CK	05/31/02	0	10/24/02	0	0
43	3659	SKINNY FISH RESERVOIR	SKINNY FISH CK	09/06/02	301	09/06/02	301	301
43	3660	STUMP LAKE RESERVOIR	VAUGHN CK	05/31/02	10	10/24/02	10	10
43	3662	TRAPPERS LAKE RETAIN PD	NORTH FORK	05/01/02	1	10/08/02	1	1
43	3668	WATKIN RESERVOIR	COAL CK	05/22/02	25	05/22/02	25	25
43	3669	WEST MILLER RESERVOIR	WEST MILLER CK	08/08/02	1	07/15/02	78	2

RESERVOIR STORAGE SUMMARY BY DISTRICT

WD	ID	RESERVOIR	SOURCE STREAM	AMOUNT IN STORAGE (AF)				
				Minimum		Maximum		End of
				Date	AF	Date	AF	Year
43	3670	WHITNER FISH POND	UTE CK	04/25/02	1	10/22/02	3	3
43	3671	WILSON RES	EAST FLAG CK	09/04/02	0	04/30/02	70	1
43	3672	WEST STEWART GULCH RES	WEST STEWART GULCH	06/20/02	0	07/25/02	15	13
43	3716	JOY JOY & WATSON RES	FAWN CK	07/31/02	6	09/05/02	6	6
43	3717	EVACUATION CR LAKE RES	WEST EVACUATION CK	06/07/02	65	10/31/02	65	65
43	3722	JESSUP RESERVOIR	PICEANCE CK	07/11/02	0	06/11/02	77	0
43	3723	JONES RESERVOIR	PICEANCE CK	06/25/02	0	06/11/02	22	2
43	3736	WEST MARVINE POND 1	MARVINE CK	06/18/02	2	09/20/02	2	2
43	3737	WEST MARVINE POND 2	MARVINE CK	06/18/02	2	09/20/02	2	2
43	3738	WEST MARVINE POND 3	MARVINE CK	06/18/02	6	09/20/02	6	6
43	3739	DIAMOND M REARING PONDS	MARVINE CK	04/25/02	1	09/20/02	1	1
43	3751	VIOLETT SPRINGS POND #1	YELLOW CK	04/15/02	4	09/24/02	4	4
43	3752	VIOLETT SPRINGS POND #2	YELLOW CK	04/15/02	9	09/24/02	9	9
43	3769	BIG LICK RES	BIG BEAVER CK	10/31/02	53	05/20/02	90	53
43	3893	MARK RES NO 1	WEST CK	04/29/02	20	10/31/02	20	20
43	3894	BANTA RES NO 1	WEST CK	08/09/02	0	04/29/02	2	0
43	3895	KIRBY RES NO 2/60	WEST CK	10/31/02	8	04/29/02	28	8
43	3896	ALBRIGHT RES NO 2	WEST CK	04/29/02	0	10/31/02	0	0
43	3897	MARK RES NO 3	WEST CK	10/31/02	8	04/29/02	28	8
43	3904	BALL LAKE RESERVOIR	MARVINE CK	04/25/02	18	10/22/02	85	85
43	4249	DORTCH POND NO 1	TRIBUTARIES-SOUTH FK	04/17/02	14	10/10/02	14	14
43	4250	DORTCH POND NO 2	TRIBUTARIES-SOUTH FK	04/17/02	5	10/10/02	5	5
43	4280	MARK RES NO 2	WEST CK	10/31/02	11	04/29/02	31	11
43	4284	NINE MILE RANCH RES 1	CURTIS CK	10/24/02	33	09/03/02	41	33
43	4291	RAINBOW LAKE	NORTH FORK	05/01/02	18	10/22/02	37	37
43	4294	RAT MT POND NO 1	MARVINE CK	05/27/02	1	10/22/02	1	1

RESERVOIR STORAGE SUMMARY BY DISTRICT

WD	ID	RESERVOIR	SOURCE STREAM	AMOUNT IN STORAGE (AF)				
				Minimum		Maximum		End of
				Date	AF	Date	AF	Year
43	4307	TERLEP POND	FAWN CK	06/21/02	7	10/22/02	7	7
43	4308	THEOS RES 1	COAL CK	10/24/02	29	05/22/02	51	29
43	4320	JENSEN RES 1	CURTIS CK	10/24/02	15	09/03/02	19	15
43	4327	SADDLE HORSE PARK RES	DRY CK	08/08/02	12	08/08/02	12	12
43	4433	TAYLOR DRAW RES	WHITE RIVER	04/03/02	13800	10/31/02	13800	13800
43	4446	JOHNSON POND 15	TRIBUTARIES-PICEANCE CK	08/27/02	1	05/06/02	2	1
43	4461	KAWCAK POND NO 1	TRIBUTARIES-NORTH FK	04/20/02	0	10/22/02	7	7
43	4463	VANDIVER POND	TRIBUTARIES-NORTH FK	04/20/02	12	10/22/02	25	25
43	4497	BLUE MOUNTAIN RES	WOLF CK	10/17/02	0	04/18/02	68	0
43	4499	REEVES RES	WOLF CK	10/17/02	5	04/18/02	34	17
43	4504	TAYLOR RES	HUNTER CK	07/15/02	10	10/31/02	81	81
			TOTAL FOR DISTRICT 43		**21289**		**23966**	**21597**
44	3504	SULLIVAN RES LOWER	CEDAR CK	06/07/02	50	05/15/02	51	50
44	3673	WADDLE CK RES	WADDLE CK	08/20/02	37	06/14/02	40	37
44	3674	WILSON RESERVOIR	GOOD SPRING CK	04/29/02	68	10/01/02	68	68
44	3675	WYMAN RES	LITTLE BEAVER CK	04/29/02	0	08/27/02	0	0
44	3681	BUNKER LAKE RES	BUNKER CK	08/29/02	167	06/27/02	191	167
44	3682	COVE LAKE RES	MORAPOS CK	04/29/02	49	06/12/02	65	57
44	3683	COVE RES	MORAPOS CK	04/29/02	95	06/12/02	115	112
44	3686	DRESCHER RES	BASIN GULCH	08/16/02	0	05/02/02	41	0
44	3688	DUNKLEY DEUBEAU RES	WILLOW CK	09/12/02	10	06/07/02	50	10
44	3689	D D & E RES	MILK CK	04/29/02	429	05/09/02	796	624
44	3695	LEFTWICH RES	BOONE CK	08/16/02	34	06/07/02	36	34
44	3701	POOSE CK RES	POOSE CK	07/24/02	99	06/07/02	277	102
44	3702	ROBY RES	MORAPOS CK	08/06/02	8	05/08/02	11	8

RESERVOIR STORAGE SUMMARY BY DISTRICT

WD	ID	RESERVOIR	SOURCE STREAM	AMOUNT IN STORAGE (AF)				
				Minimum		Maximum		End of
				Date	AF	Date	AF	Year
47	3533	WILSON POND	TRIBUTARIES-ILLINOIS R	07/12/02	0	11/01/01	4	0
47	3534	ALKALI POND	POTTER CK	03/26/02	22	03/26/02	22	22
47	3535	ALLARD CONTOUR, MID POND	TRIBUTARIES-ILLINOIS R	03/25/02	0	10/31/02	0	0
47	3536	ALLARD CONTOUR N. POND	TRIBUTARIES-ILLINOIS R	03/25/02	0	10/31/02	0	0
47	3537	ALLARD POND, NORTH	TRIBUTARIES-ILLINOIS R	11/01/01	0	10/31/02	0	0
47	3538	ALLARD COUNTOUR, S. POND	TRIBUTARIES-ILLINOIS R	03/25/02	0	10/31/02	0	0
47	3539	ALLARD POND, SOUTH	TRIBUTARIES-ILLINOIS R	11/01/01	0	10/31/02	0	0
47	3540	ANDERSON CONTOUR POND	TRIBUTARIES-ILLINOIS R	11/01/01	0	10/31/02	0	0
47	3541	ANDERSON DRAIN	ILLINOIS RIVER	11/01/01	0	10/31/02	0	0
47	3542	AVOCET POND	TRIBUTARIES-ILLINOIS R	11/01/01	0	03/26/02	12	0
47	3543	BIRDIE POND	TRIBUTARIES-ILLINOIS R	10/31/02	0	03/26/02	4	0
47	3544	BLUEBILL POND	TRIBUTARIES-ILLINOIS R	10/31/02	0	03/26/02	19	0
47	3545	BROCKER POND NORTH	TRIBUTARIES-ILLINOIS R	11/01/01	0	10/31/02	0	0
47	3546	BUDDIES POND	TRIBUTARIES-ILLINOIS R	11/01/01	0	10/31/02	0	0
47	3547	BULRUSH POND	TRIBUTARIES-ILLINOIS R	07/12/02	0	03/25/02	6	0
47	3548	CASE RES #2 ANNEX POND	TRIBUTARIES-ILLINOIS R	03/25/02	0	10/31/02	0	0
47	3549	CATTAIL POND	TRIBUTARIES-ILLINOIS R	11/01/01	0	10/31/02	0	0
47	3550	COYOTE POND	TRIBUTARIES-ILLINOIS R	11/01/01	0	03/26/02	1	0
47	3551	DIVERSION POND	TRIBUTARIES-ILLINOIS R	11/01/01	0	03/26/02	1	0
47	3552	EAGLE POND	TRIBUTARIES-ILLINOIS R	11/01/01	0	10/31/02	0	0
47	3553	EISEMANN POND	TRIBUTARIES-ILLINOIS R	11/01/01	0	10/31/02	0	0
47	3554	FISH HATCHERY POND, EAST	TRIBUTARIES-ILLINOIS R	03/25/02	6	10/31/02	6	6
47	3555	FISH HATCHERY POND WEST	POTTER CK	03/26/02	2	10/31/02	2	2
47	3556	FISHERMAN'S PARKING POND	TRIBUTARIES-ILLINOIS R	11/01/01	0	10/31/02	0	0
47	3557	FOLLETT POND	TRIBUTARIES-ILLINOIS R	10/31/02	0	03/25/02	3	0
47	3558	FOX POND	SPRING CK	11/01/01	0	03/25/02	55	0
47	3559	GERM POND	TRIBUTARIES-ILLINOIS R	10/31/02	25	03/26/02	28	25

RESERVOIR STORAGE SUMMARY BY DISTRICT

WD	ID	RESERVOIR	SOURCE STREAM	AMOUNT IN STORAGE (AF)				
				Minimum		Maximum		End of
				Date	AF	Date	AF	Year
47	3560	GOOSE POND	TRIBUTARIES-ILLINOIS R	10/31/02	0	11/01/01	40	0
47	3561	GREASEWOOD POND	TRIBUTARIES-ILLINOIS R	11/01/01	0	10/31/02	0	0
47	3562	HAMPTON NO 1 POND	TRIBUTARIES-ILLINOIS R	11/01/01	0	10/31/02	0	0
47	3563	HAMPTON NO 2 POND	TRIBUTARIES-ILLINOIS R	10/31/02	0	03/25/02	14	0
47	3564	HAMPTON NO 3 POND	TRIBUTARIES-ILLINOIS R	10/31/02	0	03/25/02	9	0
47	3565	HOME POND	TRIBUTARIES-ILLINOIS R	11/01/01	0	03/25/02	2	0
47	3566	HORSESHOE POND	TRIBUTARIES-ILLINOIS R	10/31/02	1	03/26/02	2	1
47	3567	KITCHEN POND	TRIBUTARIES-ILLINOIS R	10/31/02	8	07/12/02	9	8
47	3568	LIVING ROOM POND	TRIBUTARIES-ILLINOIS R	11/01/01	0	10/31/02	0	0
47	3569	MARSH POND	ANTELOPE CK	07/12/02	0	11/01/01	15	0
47	3570	MCCAMMON POND NORTH	TRIBUTARIES-ILLINOIS R	11/01/01	0	10/31/02	0	0
47	3571	MCCAMMON POND SOUTH	TRIBUTARIES-ILLINOIS R	11/01/01	0	10/31/02	0	0
47	3572	N. TOUR ROUTE POND	TRIBUTARIES-ILLINOIS R	11/01/01	0	10/31/02	0	0
47	3573	OLD ROAD POND	TRIBUTARIES-ILLINOIS R	11/01/01	0	10/31/02	0	0
47	3574	ONE TWENTY FIVE POND	TRIBUTARIES-ILLINOIS R	11/01/01	0	10/31/02	0	0
47	3575	PATTEN POND	TRIBUTARIES-ILLINOIS R	11/01/01	0	10/31/02	0	0
47	3576	POTHOLE POND	TRIBUTARIES-ILLINOIS R	11/01/01	0	10/31/02	0	0
47	3577	PRAIRIE DOG POND	ANTELOPE CK	11/01/01	0	10/31/02	0	0
47	3578	RAT DITCH POND	TRIBUTARIES-ILLINOIS R	11/01/01	0	03/25/02	1	0
47	3579	RIZOR POND	TRIBUTARIES-ILLINOIS R	11/01/01	0	10/31/02	0	0
47	3580	ROADSIDE POND NORTH	TRIBUTARIES-ILLINOIS R	11/01/01	0	10/31/02	0	0
47	3581	ROADSIDE POND SOUTH	TRIBUTARIES-ILLINOIS R	11/01/01	0	10/31/02	0	0
47	3582	ROSS POND	POTTER CK	11/01/01	0	10/31/02	0	0
47	3583	SCHOOL POND NORTH	TRIBUTARIES-ILLINOIS R	11/01/01	0	10/31/02	0	0
47	3584	SCHOOL POND SOUTH	TRIBUTARIES-ILLINOIS R	11/01/01	0	10/31/02	0	0
47	3585	SMITH POND	TRIBUTARIES-ILLINOIS R	10/31/02	0	11/01/01	8	0
47	3586	SOLBERG POND	TRIBUTARIES-ILLINOIS R	11/01/01	0	10/31/02	0	0

RESERVOIR STORAGE SUMMARY BY DISTRICT

WD	ID	RESERVOIR	SOURCE STREAM	AMOUNT IN STORAGE (AF)				
				Minimum		Maximum		End of
				Date	AF	Date	AF	Year
47	3587	SOUTH TOUR ROUTE POND	TRIBUTARIES-ILLINOIS R	11/01/01	0	10/31/02	0	0
47	3588	SPRING CREEK POND	SPRING CK	11/01/01	0	03/25/02	45	20
47	3589	VARNEY POND	TRIBUTARIES-ILLINOIS R	10/31/02	0	11/01/01	10	0
47	3590	WILLFORD POND	TRIBUTARIES-ILLINOIS R	11/01/01	0	10/31/02	0	0
47	3594	BENNETT RESERVOIR	SOUTH FK of BEAVER CK	11/16/01	0	06/01/02	212	0
47	3595	BIG CREEK RESERVOIR	SOUTH FK of BIG CK	09/30/02	0	04/12/02	1434	0
47	3597	BUFFALO RES	BUFFALO CK	11/01/01	391	07/10/02	427	399
47	3598	BUTTE RES	TRIBUTARIES	07/21/02	349	05/10/02	563	390
47	3599	CARLSTROM RES	MICHIGAN RIVER	09/05/02	100	05/01/02	530	471
47	3601	CASE RES NO 2	POTTER CK	11/01/01	0	04/15/02	66	0
47	3602	CASE RES NO 3	POTTER CK	07/12/02	58	11/01/01	66	61
47	3603	CLAYTON RESERVOIR	BUFFALO CK	11/01/01	122	04/16/02	201	152
47	3604	DARCY RES	LIL WILLOW AKA ROCK CK	11/01/01	0	09/30/02	0	0
47	3605	FULLER RES	COW CK	11/01/01	0	04/23/02	7	3
47	3607	HAP RESERVOIR	BUFFALO CK	11/01/01	0	09/30/02	0	0
47	3608	HECLA RESERVOIR	ARAPAHOE CK	07/16/02	151	04/12/02	248	193
47	3610	JACKSON RES	RILEY CK	09/30/02	27	04/25/02	69	33
47	3613	LAKE ROSLYN RES	HOWD CREEK	10/02/02	250	04/27/02	290	250
47	3614	MACFARLANE RES	SOAP CK	08/28/02	2731	04/25/02	5247	2760
47	3615	MCGOWAN RES	MIDDLE FK of MEXICAN CK	11/01/01	0	04/12/02	40	21
47	3616	MEXICAN RESERVOIR	MEXICAN CK	10/01/02	45	04/25/02	152	45
47	3617	P W FISCHER RES	FISCHER DRAW	11/10/01	0	04/02/02	20	0
47	3620	SHAWVER RES	INDIAN CK of ILLINOIS R	11/01/01	0	04/17/02	1	0
47	3621	SLACK & WEISS RES	NINEGAR CK	08/30/02	44	04/10/02	152	55
47	3622	SOUTH ARAPAHOE RES	ARAPAHOE CK	10/01/02	4	05/19/02	16	4
47	3623	STAMBAUGH RES	CROSBY CK	11/02/01	88	06/21/02	139	88
47	3624	STATE WALDEN RES	POTTER CK	03/25/02	0	10/31/02	0	0

RESERVOIR STORAGE SUMMARY BY DISTRICT

WD	ID	RESERVOIR	SOURCE STREAM	AMOUNT IN STORAGE (AF)				
				Minimum		Maximum		End of
				Date	AF	Date	AF	Year
47	3625	THREE MILE RES	THREE MILE CK	10/01/02	6	11/05/01	29	6
47	3626	VANVALKENBURG RES	ED VAN VALKENBURG DRAW	11/01/01	0	04/25/02	1	0
47	3627	WALDEN RESERVOIR	ILLINOIS RIVER	09/30/02	78	04/25/02	1768	82
47	3628	WEST ARAPAHOE RES	ARAPAHOE CK	06/17/02	0	04/25/02	163	0
47	3629	WILLS RES	SIX MILE CK	11/01/01	0	04/07/02	5	0
47	3630	TWO LEDGE RES	COYOTE CK	07/01/02	31	06/03/02	49	38
47	3638	SHEARER SPRINGS RES #1	LIL WILLOW AKA ROCK CK	05/01/02	9	05/01/02	9	9
47	3639	SHEARER SPRING RES #2	LIL WILLOW AKA ROCK CK	05/01/02	75	05/01/02	75	75
47	3640	GOOD MEDICINE RESERVOIR	SALES CK	10/03/02	5	04/26/02	60	5
47	3652	FOUR ZERO FOUR POND	TRIBUTARIES-ILLINOIS R	11/01/01	0	10/31/02	0	0
47	3653	FOUR ZERO THREE POND	TRIBUTARIES-ILLINOIS R	11/01/01	0	10/31/02	0	0
47	3669	KIDS POND	DEER CK	10/31/02	0	04/04/02	5	5
47	3670	ROBBIES POND	DEER CK	04/04/02	7	04/04/02	7	7
47	3671	MIKES POND	DEER CK	04/04/02	5	10/31/02	5	5
47	3672	INDIAN CREEK #1	INDIAN CK of ILLINOIS R	04/04/02	25	10/31/02	25	25
47	3673	INDIAN CREEK #2	INDIAN CK of ILLINOIS R	04/04/02	15	10/31/02	15	15
47	3725	ADDISON RESERVOIR	BUFFALO CK	09/30/02	0	04/25/02	41	0
47	3726	AQUA FRIA RES	BEAVER CK of ROARING FK	08/10/02	0	05/19/02	550	0
47	3742	LAUNE RESERVOIR	TRIBUTARIES	11/01/01	1538	06/12/02	2013	1637
47	3743	SEYMOUR RES	BIG GRIZZLY CK	07/11/02	34	04/10/02	525	188
47	3744	COYTE RESERVOIR	ARAPAHOE CK	04/12/02	25	10/31/02	38	38
47	3746	POLE MOUNTAIN RES	MIDDLE FK of MEXICAN CK	11/01/01	0	04/25/02	118	58
47	3750	LAKE JOHN	LAKE CK	07/25/02	6301	11/01/01	7092	6693
47	3753	NORTH MICHIGAN CK RES	NORTH FK of MICHIGAN R	11/08/01	1000	04/29/02	1302	1187
47	3756	HOUSE RES	LOST CK	11/01/01	45	09/30/02	45	45
47	3757	RIDINGS RES	BUFFALO CK	11/01/01	0	04/16/02	46	0
47	3760	BURNS RES	CHEDSEY CK	11/01/01	39	07/20/02	39	39
47	3766	ROCK RESERVOIR	NEWCOMB CK	11/01/01	0	06/10/02	55	0

RESERVOIR STORAGE SUMMARY BY DISTRICT

WD	ID	RESERVOIR	SOURCE STREAM	AMOUNT IN STORAGE (AF)				
				Minimum		Maximum		End of
				Date	AF	Date	AF	Year
47	3768	KETTLE RESERVOIR	NEWCOMB CK	08/08/02	0	11/01/01	25	0
47	3777	NINEGAR RESERVOIR	NINEGAR CK	07/11/02	0	06/09/02	24	11
47	3778	FISCHER LAKE	MICHIGAN RIVER	09/30/02	0	04/05/02	50	0
47	4335	MEADOW CREEK RES	MEADOW CK	08/26/02	322	05/08/02	3960	817
47	4356	MUDDY PASS RES	BIG GRIZZLY CK	10/25/02	48	04/09/02	58	48
47	4358	WADE LAKE	NINEGAR CK	11/01/01	51	10/02/02	51	51
47	4432	SPRING CK RES	SPRING CK	08/07/02	43	09/27/02	50	50
47	4433	MUSKRAT POND	POTTER CK	10/31/02	0	03/25/02	320	0
			TOTAL FOR DISTRICT 47		**14126**		**28873**	**16144**
54	3520	B2 RESERVOIR	TRIBUTARIES	06/20/02	35	06/20/02	35	35
54	3589	ELK LAKE RES	WILLOW CK	08/06/02	0	06/25/02	0	0
54	3591	LAKE FORK RESERVOIR	LAKE FORK CK	05/29/02	44	05/29/02	44	44
54	3944	LOWER COGDILL RES	GOVT/CORRAL CK	06/20/02	173	06/20/02	173	173
54	3945	UPPER COGDILL RES	GOVT/CORRAL CK	06/20/02	45	06/20/02	45	45
54	3946	MCCARGER RES	INDEPENDENCE CK	05/06/02	64	09/24/02	64	64
54	3948	SLATER CR LAKE	LAKE CK	06/19/02	30	05/13/02	80	30
54	4359	GEORGIOU RES	FOUR MILE CK	05/02/02	15	05/02/02	15	15
54	4473	BLUE JET RESERVOIR	WEST TIMBERLAKE CK	09/01/02	7	09/03/02	7	7
			TOTAL FOR DISTRICT 54		**414**		**464**	**414**
56	3506	DOUGLAS RESERVOIR	COTTONWOOD CK	05/10/02	2	05/10/02	2	2
56	3710	BASSETT RESERVOIR NO 1	MATT SPRING CK	06/12/02	25	05/10/02	30	25
56	3713	HAUNTED SPG RES	HAUNTED SPG GULCH	05/10/02	2	05/10/02	2	2
56	3715	OFFIELD RESERVOIR	POT CK	09/10/02	100	09/10/02	100	100
56	3921	COVE RES	COTTONWOOD CK	10/31/02	2	10/31/02	2	2
56	4452	HOUSE RESERVOIR	ANTONE CANYON	05/10/02	15	05/10/02	15	15
			TOTAL FOR DISTRICT 56		**145**		**150**	**145**

RESERVOIR STORAGE SUMMARY BY DISTRICT

WD	ID	RESERVOIR	SOURCE STREAM	AMOUNT IN STORAGE (AF)				
				Minimum		Maximum		End of
				Date	AF	Date	AF	Year
57	3500	SENECA MINE POND 006	HUBBERSON GULCH	08/31/02	11	10/31/02	11	11
57	3501	SEDIMENTATION POND A	FOIDEL CK	09/09/02	169	10/31/02	210	169
57	3516	WOLF MOUNTAIN RES	WOLF CK	08/27/02	74	04/15/02	82	74
57	3523	PEABODY POND Y-1	SAGE CK	08/31/02	14	10/31/02	14	14
57	3541	HUNTER NO 1 RES	MIDDLE CK	11/01/01	2	04/15/02	10	2
57	3543	CAMPSITE RESERVOIR	SMUIN GULCH	08/01/02	1	11/01/01	2	1
57	3549	APPLE RES	DRY FORK	11/01/01	1	04/05/02	10	2
57	3550	BASIN RES	BUCHANAN GULCH	11/01/01	0	10/31/02	0	0
57	3551	BROCK RESERVOIR	BROCK GULCH	10/31/02	0	05/01/02	5	0
57	3555	ECKMAN PARK RES 1	FOIDEL CK	08/15/02	1	05/01/02	4	2
57	3560	EMRICH RES	TEMPLE GULCH	11/01/01	0	04/05/02	30	8
57	3564	GREASEWOOD FLAT RES	DILL GULCH	10/31/02	2	04/05/02	8	2
57	3571	JAMES MARION YOAST RES	YOAST GULCH	08/29/02	15	04/19/02	201	15
57	3572	J C TEMPLE RES 1	TEMPLE GULCH	07/24/02	5	04/05/02	350	5
57	3574	MORGAN CREEK RES 1	MORGAN CK	11/01/01	0	05/01/02	100	0
57	3575	NOFSTGER RES	SCOTCHMANS GULCH	11/01/01	0	04/05/02	1	0
57	3576	NOFSTGER ZEIGLER RES	SCOTCHMANS GULCH	10/31/02	35	05/16/02	55	35
57	3582	SEATON RES	MIDDLE FISH CK	10/31/02	0	11/01/01	1	0
57	3583	SHERIFF RES	TROUT CK	09/17/02	786	06/17/02	1004	824
57	3585	WHETSTONE RES	WHETSTONE CK	10/21/02	5	04/22/02	24	5
57	3587	YOAST RESERVOIR 1	YOAST GULCH	11/01/01	0	05/24/02	11	11
57	3610	DEERWOOD POND	TRIBUTARIES-TROUT CK	10/21/02	10	04/15/02	14	10
57	3612	HOPES POND	TRIBUTARIES-TROUT CK	10/21/02	0	04/22/02	2	0
57	3620	PILOTS POND	WOLF CK	08/27/02	9	04/15/02	14	9
57	3639	HEADQUARTERS LAKE	TROUT CK	09/30/02	9	10/31/02	11	11
57	3641	BAKER LAKE	TROUT CK	09/15/02	8	10/31/02	9	9
57	3761	EAST OF MINE SHOP IMPND	GRASSY CK	11/01/01	7	05/16/02	10	8

RESERVOIR STORAGE SUMMARY BY DISTRICT

WD	ID	RESERVOIR	SOURCE STREAM	AMOUNT IN STORAGE (AF)				
				Minimum		Maximum		End of
				Date	AF	Date	AF	Year
57	3772	KOWACH RESERVOIR 1	BUCHANAN GULCH	08/01/02	20	05/01/02	32	25
57	3775	COZZENS WALROD RESERVOIR	HUTCHINSON DRAW	10/31/02	0	05/01/02	30	0
57	3786	HAYDEN RAW WATER RES	SAGE CK	04/06/02	702	07/01/02	999	702
57	3793	WADGE PIT RES	GRASSY CK	09/01/02	126	07/01/02	150	142
57	4000	CURTIS GULCH STOCK POND	CURTIS GULCH	10/31/02	20	11/01/01	33	20
		TOTAL FOR DISTRICT 57			**2031**		**3437**	**2116**
58	3500	ALLEN BASIN RES	MIDDLE HUNT CK	08/29/02	71	05/20/02	1209	120
58	3501	ALMA M BAER RES	FISH CK	11/01/01	3	10/31/02	3	3
58	3503	BISON PARK RES	LAWSON CK	11/01/01	0	06/10/02	15	4
58	3504	BULL PARK RES 2	WATSON CK	11/01/01	0	06/03/02	15	0
58	3505	BURNT MESA RES	SOUTH HUNT CK	11/01/01	0	07/01/02	7	0
58	3506	CHAPMAN RES	LITTLE OAK CK	11/01/01	9	06/13/02	175	35
58	3508	FISH CREEK RES	MIDDLE FK of FISH CK	04/01/02	2273	07/01/02	4176	3052
58	3509	FISH LAKE RES 2	WHEELER, LAKE CK	11/01/01	35	10/31/02	35	35
58	3511	GARDNER PARK RESERVOIR	GARDNER PARK CK	10/31/02	397	06/01/02	468	397
58	3512	HAHNS PEAK RES	WILLOW CK	11/01/01	601	10/16/02	601	601
58	3513	HEART LAKE RES	WATSON CK	08/29/02	0	11/01/01	275	0
58	3518	LAKE CREEK RES	WHEELER, LAKE CK	08/15/02	285	10/31/02	292	292
58	3519	LAKE WINDEMERE RES	DE CORA GULCH	11/01/01	0	05/25/02	25	0
58	3520	LEE RESERVOIR	CHIMNEY CK OR S FK	10/31/02	0	05/30/02	9	0
58	3521	LESTER CK RESERVOIR	LESTER CK	10/31/02	4031	05/15/02	5087	4031
58	3522	LONG LAKE RES	SOUTH FK of FISH CK	11/01/01	0	10/31/02	175	175
58	3525	MCCHIVVIS RES	WATSON CK	11/01/01	0	06/05/02	172	0
58	3528	MOORE PARK RES	MOORE PARK CK	11/01/01	21	10/31/02	21	21
58	3530	OAK CREEK RES	OAK CK	11/01/01	2	10/21/02	2	2
58	3532	RAMS HORN RES	DOME CK	11/01/01	122	10/31/02	122	122

RESERVOIR STORAGE SUMMARY BY DISTRICT

WD	ID	RESERVOIR	SOURCE STREAM	AMOUNT IN STORAGE (AF)				
				Minimum		Maximum		End of
				Date	AF	Date	AF	Year
58	3539	SIMON RES 1	MIDDLE HUNT CK	08/03/02	83	05/03/02	129	118
58	3540	STILLWATER RES 1	BEAR RIVER	09/23/02	201	05/22/02	2425	398
58	3541	STUCKEY DIST RES	SPRING CK	10/31/02	0	11/01/01	0	0
58	3544	TRULL CR RES	TRULL CK	08/30/02	0	05/15/02	75	0
58	3545	BEAR LAKE	BEAR RIVER	11/01/01	620	10/31/02	620	620
58	3546	WHEELER RES	WHEELER, LAKE CK	11/01/01	37	10/31/02	37	37
58	3547	WHITELEY NELSON RES	WILSON CK	08/01/02	10	06/01/02	350	10
58	3551	DEER PARK POND 3	WILLEY CK	10/31/02	2	04/29/02	10	2
58	3564	OVERMAN RESERVOIR	TRIBUTARIES	11/01/01	0	05/23/02	5	0
58	3569	FOLLY POND	OAK CK	10/31/02	22	04/29/02	35	22
58	3570	WHITEMAN SCHOOL POND	KIRKBRIDE CK	11/01/01	0	10/31/02	0	0
58	3571	MYSTIC RESERVOIR 2	TRULL CK	10/31/02	1	05/01/02	1	1
58	3586	FAIT RESERVOIR	RENFRO CK	11/01/01	4	10/31/02	4	4
58	3587	UPPER SPRING CK RES	SPRING CK	11/01/01	15	10/31/02	15	15
58	3596	LODWICK POND	FISH CK	11/01/01	13	10/31/02	13	13
58	3599	VALENTINE POND	FISH CK	11/01/01	2	10/31/02	2	2
58	3603	CHAPMAN POND	TRIBUTARIES-ELK R	10/31/02	4	08/15/02	7	4
58	3629	TARZIAN RES 1	FAWN CK	10/31/02	0	05/15/02	5	0
58	3631	LAKE CATAMOUNT	YAMPA RIVER	02/01/02	5260	05/21/02	7820	7410
58	3632	HOGUE RES	TRIBUTARIES	11/01/01	5	10/31/02	5	5
58	3635	ROSSI RESERVOIR 1	MIDDLE HUNT CK	11/01/01	10	10/31/02	10	10
58	3644	HOLLINGWORTH FISH POND 2	SODA CK	11/01/01	0	10/31/02	0	0
58	3689	DURYEA DAM	TRIBUTARIES-ELK R	10/31/02	5	05/09/02	8	5
58	3767	CROWNER RESERVOIR	BEAVER CK of CHIMNEY CK	11/01/01	0	05/15/02	5	2
58	3770	MARTIN RESERVOIR	MARTIN CK	09/01/02	70	11/01/01	74	73
58	3771	TILLQUIST LAKE RESERVOIR	MORRISON CK	11/01/01	6	10/31/02	6	6
58	3787	STEAMBOAT LAKE	WILLOW CK	11/01/01	22242	06/04/02	25900	23600
58	3788	HOLLINGWORTH FISH POND	SODA CK	11/01/01	2	10/31/02	2	2

RESERVOIR STORAGE SUMMARY BY DISTRICT

WD	ID	RESERVOIR	SOURCE STREAM	AMOUNT IN STORAGE (AF)				
				Minimum		Maximum		End of
				Date	AF	Date	AF	Year
58	3825	UPPER ROBINSON RES	DEER CK	10/31/02	12	04/29/02	21	12
58	3826	BAR BEE LAKE	BEAVER CK of MORRISON CK	08/28/02	65	11/01/01	81	70
58	3940	REED RESERVOIR	CHIMNEY CK	06/17/02	3	10/31/02	20	20
58	4213	STAGECOACH RESERVOIR	YAMPA RIVER	10/01/02	23793	11/01/01	30012	24103
58	4240	YAMCOLO RES	BEAR RIVER	08/26/02	1463	05/21/02	6814	1928
58	4362	HENDERSON RES	HENDERSON CK	11/01/01	25	06/01/02	28	25
58	4366	MAD RANCH POND	HOT SPRING CK	11/01/01	10	10/31/02	10	10
58	4376	STEAMBOAT WW RECL RES	TRIBUTARIES	07/19/02	15	09/15/02	45	45
58	4420	BROOKIE LAKE	WHEELER, LAKE CK	11/01/01	32	10/31/02	32	32
			TOTAL FOR DISTRICT 58		**61880**		**87509**	**67492**

WATER DIVERSION SUMMARY
IRRIGATION YEAR 2002

WD	STRUCTURES REPORTING		ALL OTHER STRUCTURES			ESTIMATED NUMBER OF VISITS TO STRUCTURE	TOTAL DIVERSIONS	TOTAL DIVERSIONS TO STORAGE	TOTAL DIVERSIONS TO IRRIGATION	NUMBER OF ACRES IRRIGATED	AVERAGE ACRE-FEET PER ACRE
	With Record Available	No Water Available	No Water Taken	No Info Available	No Record						
	1	2	3	4	5		AF	AF	AF		
43	607	126	71	0	1069	5123	532546	293	265685	23188	11.46
44	262	55	29	2	1410	2275	149992	0	128332	27029	4.75
47	317	167	29	1	664	3937	181366	9849	166298	66385	2.51
54	99	7	7	6	396	518	54017	379	39700	13805	2.88
55	18	1	2	0	176	123	13721	0	13517	1854	7.29
56	38	11	20	0	480	188	12672	860	5112	2837	1.80
57	86	18	30	2	466	713	46691	232	39581	8617	4.59
58	394	74	57	21	1256	4150	153803	79	101976	24926	4.09
Total	1821	459	245	32	5917	17027	1144808	11692	760201	168641	4.51

Grouped by ID
Count of Structures with NUC = B
Count of Structures with NUC = A+C+D
Count of Structures with NUC = E+F
Count of Structures with CIU = U

WATER DIVERSIONS TO VARIOUS USES
IRRIGATION YEAR 2002

USES	WD 43	WD 44	WD 47	WD 54	WD 55	WD 56	WD 57	WD 58	TOTALS
TRANSMOUNTAIN OUT	0	0	1453	0	0	0	0	0	1453
TRANSBASIN OUT	0	0	270	0	0	0	1593	1521	3384
MUNICIPAL	3379	2230	176	0	0	48	294	4001	10128
COMMERCIAL	232	2	0	0	0	97	30	12	373
INDUSTRIAL	945	14663	52	0	0	0	3025	2863	21548
RECREATION	0	0	0	0	0	0	0	1957	1957
FISHERY	24325	0	98	12569	0	24	707	5764	43487
DOMESTIC & HOUSEHOLD	1902	24	0	24	0	50	205	777	2982
LIVESTOCK	13450	15	3170	1345	204	1110	1023	4119	24436
AUGMENTATION	0	0	0	0	0	0	0	0	0
EVAPORATION	0	0	0	0	0	0	0	0	0
GEOTHERMAL	0	0	0	0	0	0	0	0	0
SNOWMAKING	0	0	0	0	0	0	0	291	291
MINIMUM STREAMFLOW	232	0	0	0	0	0	0	0	232
POWER GENERATION	221527	4726	0	0	0	0	0	27253	253506
WILDLIFE	576	0	0	0	0	5371	0	0	5947
RECHARGE	0	0	0	0	0	0	0	0	0
OTHER	0	0	0	0	0	0	0	0	0
ALL BENEFICIAL USES	0	0	0	0	0	0	0	3192	3192
TOTALS	266568	21660	5219	13938	204	6700	6877	51750	372916

TRANSMOUNTAIN DIVERSION SUMMARY - OUTFLOWS
IRRIGATION YEAR 2002

SOURCE								RECIPIENT		
				10-YR AVG		CURRENT YEAR				
WD	ID	NAME	STREAM	AF	DAYS	AF	DAYS	WD	ID	STREAM
47	4602	Cameron Pass Ditch	Michigan River	29	9	85	25	3		Poudre River
47	4603	Michigan Ditch	Michigan River	4586	310	1368	216	3		Poudre River
58	4630	Dome Creek Ditch	Dome Creek	254	72	37	49	50		Egeria Creek
58	4684	Sarvis Ditch	Sarvis Creek	513	72	193	42	53		Muddy Creek
58	4685	Stillwater Ditch	Bear River	2416	109	1310	87	53		Egeria Creek

NO TRANSMOUNTAIN DIVERSION INFLOWS

RIVER CALLS – WATER YEAR 2002
CALLING PRIORITY

WD	STREAM	CALLING STRUCTURE	CALLING PERSON	FIRST	LAST	ADMIN NO
43	PICEANCE CREEK	METZ & REIGAN DITCH	BURKE BROS	05/18/02	10/18/02	12930.00000
43	PICEANCE CREEK	METZ DITCH	BURKE BROS	05/18/02	08/18/02	12755.00000
43	PICEANCE CREEK	SQUARE S CONSOLIDATED D	BOONE VAUGHN	05/14/02	10/28/02	12756.00000
43	PICEANCE CREEK	SQUARE S CONSOLIDATED D	BOONE VAUGHN	05/14/02	10/28/02	13270.00000
43	PICEANCE CREEK	SQUARE S CONSOLIDATED D	BOONE VAUGHN	05/14/02	06/22/02	1374.000000
43	PICEANCE CREEK	SQUARE S CONSOLIDATED D	BOONE VAUGHN	05/14/02	06/11/02	13509.00000
43	PICEANCE CREEK	RYAN DITCH	TIM MANTLE	05/26/02	09/19/02	12571.00000
43	PICEANCE CREEK	B M & H DITCH	TIM MANTLE	05/06/02	10/25/02	13583.00000
43	PICEANCE CREEK	MHM GERMAN CONS	LOV RANCH	05/06/02	10/11/02	12549.00000
43	PICEANCE CREEK	ROBERT MCKEE DITCH	PAT JOHNSON	04/19/02	10/25/02	13622.00000
43	PICEANCE CREEK	BELOT & MOFFAT DITCH	PAT JOHNSON	04/19/02	05/14/02	13659.00000
43	PICEANCE CREEK	PICEANCE DITCH	OLDLAND BROS	04/19/02	10/31/02	13342.00000
43	PICEANCE CREEK	EMILY DITCH	OLDLAND BROS	04/19/02	10/31/02	13458.00000
43	BLACK SULPHUR CR	BOISE DITCH	LOV RANCH	05/10/02	06/06/02	13438.00000
43	WHITE RIVER	OLD AGENCY DITCH	FORREST NELSON	08/25/02	09/20/02	12529.00000
43	COAL CREEK	COAL CREEK MESA DITCH	JIM SHERIDAN	06/12/02	10/31/02	13047.00000
43	BIG BEAVER CREEK	BIG BEAVER DITCH	BOB BUCKLES	07/19/02	10/31/02	13609.00000
43	UTE CREEK	UTE CREEK DITCH	C LAZY S RANCH	06/21/02	08/12/02	32172.15493
44	MORAPAS CREEK	DEER CREEK & MORAPOS	LARRY OSBORN	05/10/02	07/26/02	13646.00000
44	FORTIFICATION CK	WISCONSIN DITCH	TOM GREY	05.24/02	07/17/02	14109.00000
44	FORTIFICATION CK	LITTLE BEAR DITCH	JIM SIMPSON	05/03/02	08/30/02	13797.00000
44	TRIB OF YAMPA RIVER	MILK CREEK DITCH #1	JIM LEANDER	06/19/02	07/15/02	12122.00000
47	ROARING FORK	SUNDAY CREEK	JOHN IRVINE RANCH	04/18/02	07/25/02	30280.24319
47	ROARING FORK	MALON #2	BOB TOINTON	05/29/02	07/07/02	18367.00000
47	ROARING FORK	MALON DITCH	TOINTON RANCHES	07/08/02	07/28/02	14184.00000
47	NORRIS CREEK	BEAVER DITCH	JOHN IRVINE RANCH	04/18/02	07/13/01	15602.00000
47	NORTH FORK	VICTOR DITCH	BOB SWIFT	05/20/02	07/07/02	18808.00000
47	PINKHAM CREEK	CAPRON DITCH	BIG CREEK RANCHES	04/29/02	10/30/02	11130.00000
47	NORRIS CREEK	ROARING DITCH	TOINTON RANCHES	05/03/02	07/25/02	14525.00000
47	GOVERNMENT CREEK	COE #1	NORTH PARK ANGUS	05/05/02	06/27/02	11860.00000
47	GOVERNMENT CREEK	COE #2	NORTH PARK ANGUS	05/05/02	06/27/02	11860.00000
47	BEAVER CREEK	MITCHELL DITCH	TOINTON RANCHES	05/14/02	07/10/02	18749.00000
47	BIG GRIIZZLY CREEK	MARR 2 DITCH	GREG RAY	06/10/02	06/20/02	14031.00000
47	ILLINOIS RIVER	HOME #2 DITCH	DON PALMER	06/03/02	06/27/02	13605.00000
47	SPRING CREEK	NELLIE E. DITCH	NICK THAYER	07/08/02	08/07/02	23016.19722
47	MICHIGAN RIVER	CARLSTROM RES	CARL TRICK II	09/30/02	11/04/02	36354.00000
47	ILLINOIS RIVER	EVERHARD & BALDWIN	BILL BURR	04/26/02	06/03/02	13642.00000
47	ILLINOIS RIVER	PIONEER DITCH	JEFF PHILLIPS	06/27/02	07/18/02	13605.00000
47	ILLINOIS RIVER	MIDLAND DITCH	BILL BURR	07/18/02	08/15/02	13605.00000
47	MICHIGAN RIVER	KIWA DITCH	TRICK II, SILVER SPUR	04/26/02	09/30/02	12875.00000
47	BIG GRIZZLY CREEK	MUTUAL DITCH	EVANS, RAY, REUER	05/06/02	05/08/02	14121.00000
47	BIG GRIZZLY CREEK	PETERSON 1	JACK REUER	06/20/02	07/03/02	11840.00000
54	LITTLE SNAKE RIVER`	TROWEL DITCH	TAYLOR AND MENGE	07/01/02	10/31/02	13255.00000

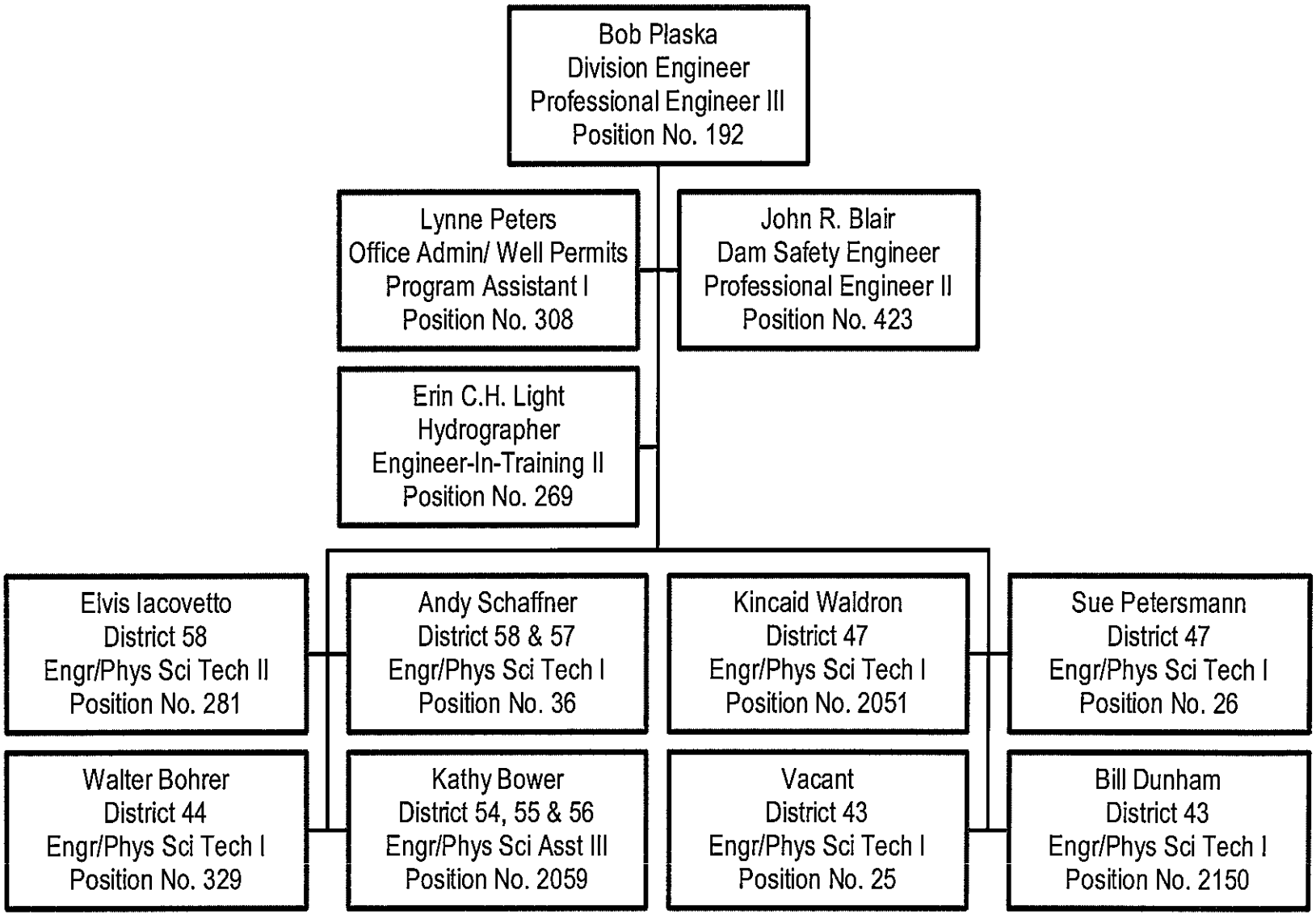
54	SLATER CREEK	MORGAN SLATER DITCH	JAY SHEEHAN	07/19/02	10/31/02	12936.00000
57	WEST FISH CREEK	HIGHLAND DITCH	ANDY PEROULIS	05/01/02	10/14/02	14501.00000
57	FISH CREEK	EAST SIDE DITCH 2	JOHN PEROULIS	05/01/02	10/14/02	39925.28641
57	FISH CREK	EAST SIDE DITCH	WADE LOUTHAN	06/12/02	10/05/02	34139.14366
57	TROUT CREEK	TEMPKE DITCH	WAYNE IACOVETTO	07/15/02	09/17/02	18885.15121
58	OAK CREEK	OAK CREEK DITCH	GREGORY CRAWFORD	05/28/02	10/29/02	13720.00000
58	SODA CREEK	SODA CREEK DITCH	WAYNE KAKELA	07/18/02	10/14/02	13675.00000
58	BEAR RIVER	FIX DITCH	JERRY SCHALNUS	04/19/02	10/01/02	12198.00000
58	BEAR RIVER	PENNSYLVANIA DITCH	BOB GEORGE	04/22/02	10/01/02	12210.00000
58	BEAR RIVER	NICKELL DITCH	DEAN ROSSI	04/30/02	10/01/02	12232.00000
58	BEAR RIVER	BIRD DITCH	JOHN BERRY	08/14/02	10/01/02	12232.00000
58	NORTH HUNT CREEK	NORTH HUNT CREEK D	ZANE KOUTHAN	05/01/02	09/13/02	1438.000000
58	SOUTH HUNT CREEK	LAFON D & SNOW BANK D	ROSSI, WINESTEIN	05/03/02	10/04/02	18529.13985
58	MIDDLE HUNT CREEK	SIMON	MARK ROSSI	05/13/02	09/20/02	14032.00000

WATER COURT ACTIVITIES
Calendar Year 2002

	Division 5	Division 6
Applications	37	112
Consultations with Referee	35	125
Decrees Issued by Court for Water Rights	14	141
Dismissals	0	3
Complaints	0	0
Change of Venue	0	0

TYPE OF RULING	Division 5 Cases/Orders	Structures	Division 6 Cases/Orders	Structures
Findings of Diligence on Conditional Rights	3	15	76	75
Cancellations of Conditional Rights	3	130	28	60
Conditional Water Rights Made Absolute	0	0	6	13
Surface Water Rights Adjudicated	7	28	58	110
Underground Water Rights Adjudicated	2	2	8	10
Water Storage Rights Adjudicated	2	23	13	44
Plans for Augmentation Adjudicated	2	23	1	1
Changes of Water Rights Adjudicated	2	6	0	0
Instream Flow Rights Adjudicated	0	0	0	0
Abandonment List	0	0	0	0

Division 6 Organizational Chart



2002 OFFICE ADMINISTRATION and WORKLOAD MEASURES

Professional and Technical Staff	3.0
Administrative Support Staff	1.0
Water Commissioners Assigned	5.5
Wells Permitted	225
Water Court Appearances	15
Water Referee Contacts	30
Meetings with Water Users	21
Meetings to Resolve Water Related Disputes	0
Contacts to Give Public Assistance on Water Rights	25741

Appendix A

DIVISION 6 WATER BUDGET
IRRIGATION YEAR 2002

BASIN YIELDS

White River at State Line	287103	AF
Yampa River above confluence with Little Snake River	481162	AF
Little Snake River (Does not account for uses in Wyo.)	132414	AF
Misc. Tributaries to Green River	7710	AF
TOTAL TRIBUTARY TO GREEN RIVER	**908389**	AF
North Platte River	156412	AF

CONSUMPTIVE USE

White River	48982	AF
Yampa River above confluence with Little Snake River	110571	AF
Little Snake River (In Colo)	18803	AF
Green River and Tributaries in District 56	6030	AF
TOTAL TRIBUTARY TO GREEN RIVER	**184386**	AF
North Platte River	84248	AF

TRANSBASIN DIVERSIONS

Yampa River to Colorado River	1521	AF
North Platte River to Poudre River	1453	AF

CHANGE IN RESERVOIR STORAGE

White River	2879	AF
Yampa River above confluence with Little Snake River	11330	AF
Little Snake River	89	AF
Misc. Tributaries to Green River	120	AF
North Platte River	4129	AF

CONSUMPTIVE USE BY DISTRICT
IRRIGATION YEAR 2002

DISTRICT 43

Municipal (3379 AF)		629 AF
Industrial		945 AF
Irrigation (23188 Acres)		44567 AF
Reservoir Evaporation		2841 AF
	TOTAL	48982 AF

DISTRICT 44

Municipal (2230 AF)		801 AF
Industrial		14663 AF
Irrigation (25648 Acres)		37780 AF
Reservoir Evaporation		1784 AF
	TOTAL	55028 AF

DISTRICT 47

Municipal (176 AF)		24 AF
Industrial		52 AF
Irrigation (76105 Acres)		76105 AF
Reservoir Evaporation		5526 AF
	TOTAL	84248 AF

DISTRICT 54

Irrigation (13805 Acres)		15756 AF
Reservoir Evaporation		140 AF
	TOTAL	15896 AF

DISTRICT 55

Irrigation (1854 Acres)		2843 AF
Reservoir Evaporation		64 AF
	TOTAL	2907 AF

DISTRICT 56

Municipal (48 AF)		31 AF
Irrigation (2837 Acres)		5898 AF
Reservoir Evaporation		101 AF
	TOTAL	6030 AF

DISTRICT 57

Municipal (295 AF)		95 AF
Industrial		3025 AF
Irrigation (8617 Acres)		13759 AF
Reservoir Evaporation		335 AF
	TOTAL	17214 AF

DISTRICT 58

Municipal (3622 AF)		880 AF
Industrial		217 AF
Irrigation (24926 Acres)		32377 AF
Reservoir Evaporation		4855 AF
	TOTAL	38329 AF

STREAM GAGE INFORMATION 2002

		ACRE FEET
WHITE RIVER AT STATE LINE		
DISTRICT 43		
WHITE RIVER @ BELOW BOISE CK GAGING STATION		241000
YAMPA RIVER ABOVE CONFLUENCE WITH LITTLE SNAKE RIVER		
DISTRICTS 44, 57, 58		
YAMPA RIVER ABOVE LITTLE SNAKE RIVER NR MAYBELL		380400
LITTLE SNAKE RIVER		
DISTRICTS 54, 55		
USE LITTLE SNAKE NR LILLY		13700
MISC TRIBS. TO GREEN RIVER		
DISTRICT 56		
BASED ON PREVIOUS YEAR VS. CURRENT YEAR		1800
NORTH PLATTE RIVER		
DISTRICT 47		
USE NORTH PLATTE @NORTHGATE	66230	
+ LINE CK & BIG CK (13% OF NORTHGATE)	8610	74840

Appendix B

COLORADO DIVISION OF WATER RESOURCES
DIVISION 6

Irrigation Consumptive Use and
Data Collection Program 2002

Division VI personnel participate in a consumptive use data collection program initiated in 1978 by Energy Fuels Corporation. A site at the junction of Middle Creek and Foidel Creek (CYCC) contains instrumentation to collect evapotranspiration, evaporation, temperature, and precipitation data. A second lysimeter site, with evapotranspiration, temperature, and precipitation data, was added at Lake Catamount in May of 1996. In April 2000 the Lake Catamount site was removed and replaced by a lysimeter site at the Wildlife Refuge in North Park.

Evaporation and other weather data are collected at the CYCC lysimeter site, Walden, Steamboat Lake State Park, and Five Pine Mesa near Yampa. These four evaporation stations are located at elevations between 6670 - 8500 feet and sample four distinct climate zones. Evaporation pans are operated at three of the stations during ice-free seasons in their respective areas. Water level readings are taken on the pans weekly and the pans are refilled as deemed necessary by the observer. The Steamboat Lake station uses an evaporation tube, which is operated by State Park personnel.

The lysimeter plots at ColoradoYampa Coal Company (CYCC) were moved in May 1993 approximately two miles west from their original site on Trout Creek to their present Middle Creek location. The plots are situated in an open, dry land pasture area. The lysimeter plots at the Refuge were installed in April 2000 to provide additional comparative data for the North Park area. These plots are located in a low-lying pasture area adjacent to the Illinois River. The lysimeter tanks contain approximately twelve inches of native grass sod over six inches of pea gravel. They are flooded to ground level at least once a month during the growing season, or when necessary to prevent drought stress to the plants. The recorded volume of water necessary to refill the tanks is used to calculate evapotranspiration rates.

Tables 1 and 2 show precipitation and lysimeter water use data. Table 3 uses the water use data to generate Blaney-Criddle monthly crop coefficients and predict monthly irrigation requirements for both sites. Table 4 uses the crop coefficients from Table 3 to predict irrigation requirements for selected sites. Table 5 is a summary of the crop coefficients generated in previous years.

For questions about the report, or if you would like to request copies on disk or e-mail:

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RECORDED CONSUMPTIVE USE 2002

****** TABLE 1 ******

Lysimeter water use in inches

CYCC/MIDDLE CK		Tanks		REFUGE @ NORTH PARK		Tanks	
	Precipitation	South	North		Precipitation	South	North
MAY	.46	4.34	4.85	MAY	1.12	2.37	2.75
JUNE	.40	6.86	7.57	JUNE	.08	6.42	7.13
JULY	.80	6.33	7.05	JULY	1.42	5.91	6.05
AUGUST	1.01	5.15	5.35	AUG	1.17	4.55	5.15
SEPTEMBER	1.82	1.67	2.14	SEPT	1.20	2.58	2.95
TOTALS	4.49	24.35	26.96	TOTALS	4.99	21.83	24.03

******TABLE 2******

Gross ET in inches (Precip + Water Use)

CYCC/MIDDLE CK	Tanks			REFUGE @ NORTH PARK	Tanks		
	South	North	Average		South	North	Average
MAY	4.80	5.31	5.06	MAY	3.49	3.87	3.68
JUNE	7.26	7.97	7.62	JUNE	6.50	7.21	6.86
JULY	7.13	7.85	7.49	JULY	7.33	7.47	7.40
AUGUST	6.16	6.36	6.26	AUG	5.72	6.32	6.02
SEPTEMBER	3.49	3.96	3.73	SEPT	3.78	4.15	3.97
TOTALS:	28.84	31.45	30.16	TOTALS:	26.82	29.02	27.93

****** TABLE 3 ******

PARAMETERS RELATED TO IRRIGATION REQUIREMENTS 2002

Month	Mean Temp(F)	Precip (In)	Daylite Hours	% Month	(Kp) Blaney-Criddle Crop Coefficient	Gross ET (In) Both Tanks	Inches Effective Precip	Inches Irrigation Requirement
CYCC/MIDDLE CREEK								
MAY	47.5	.46	10.04	100	1.06	5.05	.34	4.71
JUNE	59.6	.40	10.12	100	1.26	7.60	.33	7.27
JULY	67.4	.80	10.26	100	1.08	7.47	.72	6.74
AUG	60.7	1.01	9.57	100	1.08	6.27	.85	5.42
SEPT	53.6	1.82	8.39	100	.83	3.73	1.29	2.44
TOTALS:		4.49				30.12	3.54	26.59
REFUGE @ NORTH PARK								
MAY	44.3	1.12	10.04	100	.83	3.69	.82	2.88.
JUNE	55.7	.08	10.12	100	1.22	6.88	-0-	6.88
JULY	61.9	1.42	10.26	100	1.17	7.43	1.26	6.17
AUG	56.8	1.17	9.57	100	1.11	6.03	.97	5.06
SEPT	50.0	1.20	8.39	100	.95	3.99	.89	3.10
TOTALS:		4.99				28.01	3.93	24.08

$$Kp = \frac{(\text{GROSS ET})\ (100)}{(\text{TEMP F})\ (\text{DAYLITE HRS})\ (\%\ \text{MONTH})}$$

***** TABLE 4 ******

MONTHLY POTENTIAL NET EVAPOTRANSPIRATION
FOR SELECTED NWS STATIONS 2002
****CYCC & REFUGE CROP COEFFICIENTS****

	% Elev Correction	APRIL	MAY	JUNE	JULY	AUG	SEPT	OCT	TOTAL
CATAMOUNT 6880 ft.		---	4.83	7.35	6.62	5.20	2.58	---	26.58
CRAIG 6440 ft.		3.58	5.52	8.13	7.27	5.18	2.85	---	32.54
CYCC 6670 ft		---	4.73	7.25	6.75	5.44	2.44	---	26.61
DINOSAUR 5920 ft.	-2%	4.30	6.20	9.06	7.71	6.60	2.51	3.12	39.50
FIVE PINE 8490 ft.	+6%	---	5.14	8.01	6.69	5.30	2.81	---	27.96
HAHN'S PEAK 8080 ft.	+4%	---	5.01	7.13	6.49	5.01	2.58	---	26.22
HAYDEN 6375 ft.		3.37	5.58	8.36	7.23	5.22	3.13	---	32.90
MAYBELL 5908 ft.	-2%	---	5.14	7.69	6.83	5.80	2.90	---	28.37
MEEKER 6347 ft.		3.95	5.61	8.05	7.16	5.76	2.89	---	33.41
RANGELY 5290 ft.	-4%	4.51	5.95	8.76	7.71	6.87	2.90	2.99	39.69
*REFUGE/N PK 8220 ft.		---	---	6.86	6.17	5.09	3.09	---	21.21
*SPICER 8335 ft.		---	3.22	7.10	5.78	5.29	2.92	---	24.30
STEAMBOAT 6758 ft.		---	4.85	7.16	6.54	4.84	2.38	---	25.77
*WALDEN 8115 ft.		---	3.12	7.01	6.28	4.64	3.26	---	24.30
YAMCOLO 9574 ft.	+9%	---	---	8.14	5.39	5.22	2.66	---	21.42
YAMPA 7892 ft.	+4%	---	4.69	7.65	6.32	4.89	2.40	---	26.22

These figures represent the total predicted evapotranspiration less the effective precipitation for each month. This table is produced using Blaney-Criddle methodology as described in SCS Technical Release 21 with monthly coefficients from Table 3. For April and October, where no monthly coefficients were generated, the average seasonal coefficient (Ka) of 1.07 was used. For 2002, Ka =1.07 for both CYCC and Refuge sites. Kp = Monthly crop coefficient. Kp = Ka + .28 cos (19 (month - 6)) - .13. An asterisk (*) denotes stations using coefficients from the Refuge lysimeter site at North Park. Daylight hours are computed at 40.5 degrees N Lat. Elevation adjustments recommended by NRSC are made to the equation when the difference between the lysimeter site and the predicted station exceed 1% of 1,000 meters. The adjustments are made at the rate of 10% per 1,000 meters difference from CYCC or Refuge sites. No figures were computed for a month when a station had a monthly mean temperature of 45 degrees or less.

*****TABLE 5 *****

MONTHLY BLANEY - CRIDDLE CROP COEFFICIENT SUMMARY
CYCC SITES

	MAY	JUNE	JULY	AUG	SEP	OCT
1979 (EF Data)	.81	.77	1.39	1.05	.81	.74
1980 (EF Data)		1.06	.99	1.42	1.16	1.13
1983	.75*	.83	.72	.89	.74	.88*
1984	1.08	1.07	.98	.77	.43*	
1985	.83	1.09	.91	.76	.96	
1986		1.01	1.04	.73	1.03	
1987		.89	.99	.94	.79	(.67*) corrected in 1997
1988		.88	.85	.77	.78	
1989	.80	.89	.96	.82	.86	
1990		.73	.86	.94	.50	
1991		.86	.84	.75	.89	
1992	.61*	.82	1.10	.93	.53	
1993	1.37*	.84	1.03	.77	.68	
1994		.84	1.12	1.05	.89	
1995	1.31	.93	1.29	1.12	.69	
1996	.88	.99	1.18	.97	.66	
1997	.96	1.07	1.16	.58	.55	
1998	.84	1.13	.98	.95	.69	.88*
1999	.73	.98	.93	.88	.85	
2000	.98	1.00	.91	.97	.87	
2001	.85	.87	1.03	.90	.99	
2002	1.06	1.26	1.08	1.08	.83	
Subtotal	13.86	20.81	22.34	20.04	17.18	
AVERAGE	.92	.95	1.02	.91	.78	.86

* Denotes coefficients estimated on partial month's data

******TABLE 5 (cont'd)******

MONTHLY BLANEY-CRIDDLE CROP COEFFICIENT SUMMARY

CATAMOUNT SITE

	MAY	JUNE	JULY	AUG	SEP	OCT
1996*	1.19	.58	.58	.59	.93	
(*coefficients not included in subtotal or average because plots not well established)						
1997		1.00	.90	.79	.92	.85*
1998	.74	.85	.71	.72	.62	.70*
1999		.94*	.91	.67	.59	
AVERAGE	.74	.93	.84	.73	.71	.78

REFUGE @ NORTH PARK SITE

	MAY	JUNE	JULY	AUG	SEP	OCT
2000*		.63	.66	.81	.81	
(*coefficients not included in subtotal or average because plots not well established)						
2001	.99	1.08	1.02	.88	.79	---
2002	.83	1.22	1.17	1.11	.95	---
AVERAGE	.91	1.15	1.10	1.00	.87	---