



DIVISION 2 Annual Report 2007



Box Canyon on the Purgatoire (east of Trinidad)

Photo taken by Joe Flory

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ACTIVITIES and ACCOMPLISHMENTS in WATER YEAR 2007



State Engineer, Hal D. Simpson
1992-2007

It has been our privilege to have worked for you. You've been a thoroughly and consistently decent man and we came to have the highest degree of respect for you. You've shown that nice guys can finish on top. Your integrity earned respect and credibility that demonstrated the value of trustworthiness.

To your credit, you changed the culture of our agency. You inspired us by confronting your fears and urging us to be leaders in every aspect of life. Because of you we became better individuals and a better organization

We have appreciated the burdens you bore for us along the way...the trips to the Governor's office on our behalf, the sacrifices of time away from family while in Pasadena fighting for the future of the Arkansas River valley...not all a bed of roses... We appreciate your support and backing for decisions we made in our attempts to do what we thought you would want us to do.

On behalf of all Division 2 staff members... Thanks.

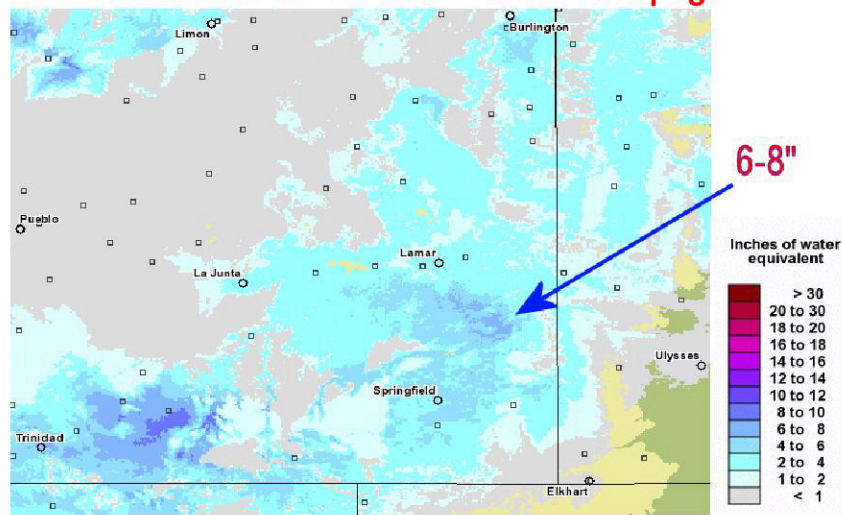
Submitted by Steve Witte

Surface Water Administration

Water Supply

Following the extraordinary winter of 2006-2007 which deposited frequent and significant snow accumulations across the southern plains and which prompted unrealized spring flooding concerns, the Arkansas valley enjoyed a remarkably temperate spring and early summer (with the notable exception of the tornado that devastated the town of Holly in late March).

Jan 16, 2007 - Water Equivalent in the snowpack Data from the NOHRSC Interactive page



As a result the runoff was sustained and prolonged as compared to other years in recent memory, but actually quite similar to the historical average. This afforded some of the junior irrigation water rights a better supply and allowed senior rights to conserve their stored water for use later in the season and to carryover water in storage through the winter as a hedge against future uncertainty in the spring of 2008.

The amount of Compact water stored during the period of winter storage from November 1, 2006 to May 1, 2007 in John Martin Reservoir was 53,705.82 acre-feet.

As of the end of the Pueblo Winter Storage Program on March 14, 2007, a total of 149,577 acre-feet were diverted for direct use or stored in various reservoirs pursuant to the provisions of 84CW179. This is compared to 103,746 acre-feet for the most recent five year average and 142,066 acre-feet historical average over the last 17 years that the program has been operated.

As a check on the possible effect that the Pueblo Winter Storage Program might have on Compact water storage a comparison is made between historical conservation storage in John Martin prior to the Winter Storage Program to the current year amount. As of February 28, 2007, the historical amount (1950-1975) was 17,810 acre-feet and the current year storage was 30,605 acre-feet.

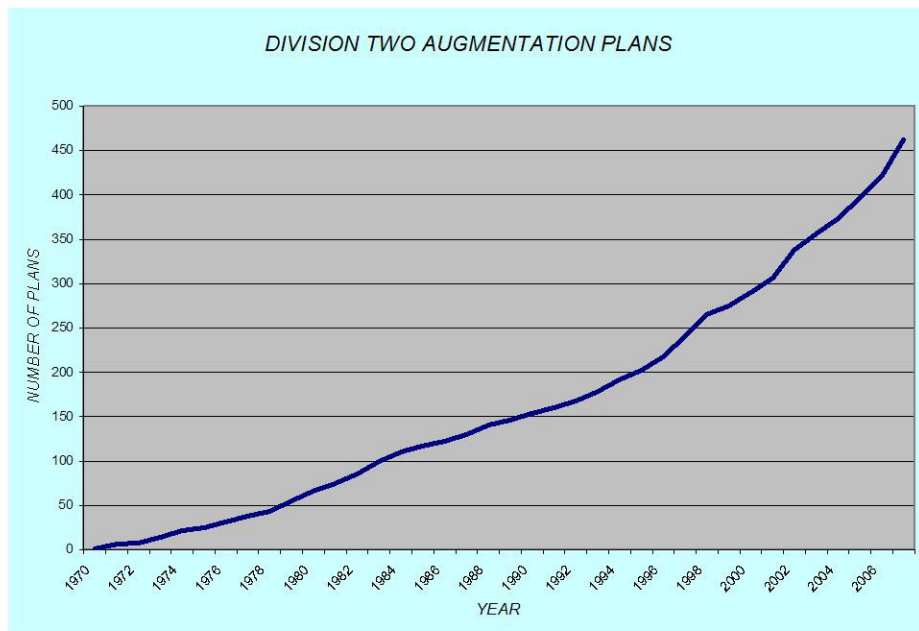
Administration of Plans for Augmentation and Substitute Water Supply Plans

The concentrated effort to improve on administration of decreed and temporary augmentation plans got delayed in 2007 due to a vacancy in the Reservoir Operations position and a six month distribution of those duties among several people. Pueblo and John Martin Reservoir operations took precedence over augmentation plan administration, however, there were enforcement proceedings in five Water Districts, and accounting assistance was provided to plan proponents in more than two dozen plans.

The Plan of Administration process also slowed slightly during 2007, due in part to the shift in assignments and in part to discussions and decisions needed on side bar issues. One positive result of this process was a Division 2 policy on administration of Denver Basin Augmentation Plans.

Water Commissioners throughout Division 2 are becoming more proactive in administration of augmentation plans and their efforts are yielding positive results in accomplishing Division 2's goal of including diversions, depletions and replacements in diversion records for all augmentation plans. Augmentation Coordinators are assisting Water Commissioners in this effort by providing reports and accounting received from decreed plan and substitute plan users.

As illustrated below, the number of augmentation plans in Division 2 continues to increase and now totals 462 decreed plans and 80 substitute plans. Each and every Water District picks up additional decrees each year while the number of Water Commissioners remains constant. Successful administration of augmentation plans and all other decrees will, in the future, require a team effort from all available resources in Division 2.



Submitted by Kalsoum Abbasi and Bill Richie

Enforcement Support Provided to Field Personnel

Riss Reservoirs

The Riss Reservoirs are three jurisdictional reservoirs located near the City of Cripple Creek. None of the three have water rights or outlet works. The reservoirs were apparently constructed in the 1960's with approved construction plans and have an estimated total capacity of 450 acre feet. Each of the three are located on live spring fed tributaries to Four Mile Creek. Beginning in the early 1990's efforts were made to require the owner to replace out of priority evaporative depletions from the reservoirs. These efforts were short-lived and ultimately not very successful.

Following another dam safety inspection of the reservoirs in 2006, administrative orders were issued to the now two owners to release all out of priority storage. This order resulted in a consent decree governing two of the reservoirs with agreement that the reservoirs would be emptied by June of 2007. In spite of pumping and siphoning efforts in the late summer and fall of 2007 the larger of the two reservoirs remains approximately half full. At present the Attorney Generals Office has filed a contempt of court motion seeking the two reservoirs to be completely emptied and possibly breached if no means of insuring against future out of priority storage can not be assured.

The owner of the third reservoir has sought to pursue a Substitute Water Supply Plan as a means of legitimizing the water currently stored and being loss to evaporation in his reservoir. At present this plan has just been approved and utilizes leased waters from the City of Cripple Creek as its replacement source.

Despite continuous efforts this relatively clear administrative situation has now stretched over two years in its current state and has taken many work hours of time to reach a point of only partial solution.

Beaver Creek Administration

Beaver Creek drains the south side of the Pikes Peak area and flows into the Arkansas River in Fremont County. This stream system has been heavily appropriated beginning in the 1860s mostly for irrigation uses. Because of the growth of the Cities of Colorado Springs, Cripple Creek, and Victor upstream transfers of these original irrigation rights and further storage appropriations near the headwaters of the drainage were made beginning in the 1890s. The lone large irrigation entity, the Beaver Park Irrigation Company (Beaver Park) is located nearer the bottom of the drainage. Historically many side agreements have served to administer this complex system, however late in 2006 questions about the storage of direct flow water rights by the City of Colorado Springs and Beaver Park have led to the need to confirm that diversions on the system are in fact being made relative to the priority system and to actual decree language.

In July, the Division Engineers Office sent a letter to all the major entities on the stream requesting that accounting which record diversion at all structures on a daily basis including reservoirs and be itemized by water right be submitted to the Water Commissioner monthly. To date this effort to confirm appropriate administration has been partially successful with more refinements still needed. The large entities are now also conducting meetings among themselves with the apparent goal being of reaching some type of stream management

agreement. That effort and this office's effort continue to be works in progress but ultimately each are anticipated to be successful.

Administration of City of Trinidad's change decree

A considerable amount of time and effort was expended by Division 2 staff in 2007 to come to agreement with the City of Trinidad and State Parks over the proper way to administer their respective change of water right decrees.

Past attempts by the City of Trinidad to deliver return flow obligations via the Model and John Flood Ditches through Chicosa Arroyo have been unacceptable to Div 2 because the City was unable to demonstrate definitively that the return flows actually made it to the Purgatoire River in the proper time and amount. This issue was aggravated by the nearly-identical Parks decree coming online in 2007.

DWR reached an uneasy truce with the City and Parks for the duration of the 2007 irrigation season, allowing the entities to operate through Chicosa Arroyo but charging an additional transit loss down Chicosa Arroyo and with the proviso that other arrangements would have to be made for the 2008 season. This allowed the City of Trinidad and Parks to store totals of 1,888 and 895 acre-feet under their respective change decrees.

After several field reconnaissance trips, much negotiation, and reviewing many plans and options, Parks agreed to install augmentation/return flow stations, one at the Model Ditch on the upper end, and one at the Hoehne Ditch at the lower end. These return flow stations will allow the return flow obligations to be delivered to appropriate points on the Purgatoire in accordance with the terms and conditions of the change decrees. City of Trinidad has tentatively agreed to join Parks in these efforts.

Initiative to Rehabilitate Fort Lyon Structures

After several years of effort to rehabilitate some major structures necessary for administration of the Fort Lyon system, the year 2007 saw these efforts winding down as many of the major issues have been resolved. These efforts were initiated in an attempt to correct a number of long-standing deficiencies in diversion structures, measurement devices and record keeping that were needed to prevent out of priority diversions and/or to demonstrate Fort Lyon's compliance with decrees and the Arkansas River Compact.

It was understood from the beginning that many of the items were going to be relatively expensive. Division 2 initially met with the Fort Lyon Board of Directors in 2005. The Board was perhaps understandably reluctant to make the expenditures DWR was asking for, but became convinced that the issues were not going to go away. Through a series of negotiations, consensus was found on ways to accomplish what was needed without placing unnecessary financial strain on the company. Rather than issuing orders with specified infrastructure or dates certain for compliance, Division 2 proactively took a position of gentle but firm persuasion, allowing latitude to the Fort Lyon as long as diligent effort was being applied to resolve the issues.

This approach over the past several years resulted, in the headgates of the Horse Creek Feeder/Osborne ditch being rebuilt, satellite monitored stream gages installed on Adobe Creek Reservoir, Adobe Creek below Adobe Reservoir, and at the Gageby Creek Wasteway, with a large Cippolletti weir designed for a capacity of 500 cfs being installed as the control for the Gageby gage. Stage/area/capacity tables were developed for Adobe Creek and Horse Creek Reservoirs, Thurston Reservoir and a head stabilization reservoir known as the Control Basin.

A comprehensive accounting system was developed for Adobe Creek Reservoir over the course of 2007. This accounting system is designed to track legal storage adjusted for storage, releases and evaporation on a daily basis so that out of priority storage can be determined and released to the stream in a timely manner. In addition, the accounting system has the ability to track various “colors” of water that enhances Fort Lyon’s ability to conform to their commingling plan required by the Bureau of Reclamation’s Reclamation Reform Act

Some items that remain are a measuring device at the Horse Creek Feeder/Osborne, an accounting system for Horse Creek Reservoir, working out an operational scheme with additional structures as necessary to pass out of priority inflows to Adobe Creek Reservoir, and a permanent control structure on the Fort Lyon Storage Canal at Horse Creek to prevent inadvertent diversion of flows out of priority.

Submitted by Joe Flory

Trinidad 10-Year Review

The Trinidad 10-Year Review (WY 1995 – WY 2004) process was initiated by the Bureau of Reclamation with a meeting in Trinidad on October 5, 2005. The following were issues identified as important criteria for the review:

- Operational changes including the permanent fishery pool, stockwater releases, acres irrigated under the project, progress toward efficient application of available irrigation supply and municipal and industrial uses
- Flood control operations including regulation of flows and channel capacity below Trinidad Reservoir
- Trinidad Reservoir Operations
- Status of other storage facilities in the project area including Model Reservoir
- Hydrologic impacts of “lands removed from irrigation”
- Stream gaging
- Re-creation of the spreadsheet model for facilitating 10-Year reviews
- Storage above the 20,000 acre-foot Model Pool

A number of meetings were held from the initial meeting in 2005 through 2006 and into 2007 however a significant portion of the review work took place during 2007.

A major component of work by the Bureau of Reclamation involved recreating the spreadsheet model from earlier reviews. Nancy Parker, USBR was the primary person involved in this effort culminating in a model which appeared to simulate earlier results adequately. The updated spreadsheet model was completed approximately September 2007.

An outgrowth of the 10-Year Review was development of a channel capacity study for the Purgatoire River below Trinidad Reservoir through the City of Trinidad and downstream to just below Patterson Crossing. The technical work on this project actually began in early 2008 and will be completed by August or September of 2008.

The 10-Year Review Final Report is expected to be released May or June of 2008.

Submitted by Bill Tyner

Ground Water Administration

Well Permits

Division 2 continues to respond to public and government inquiries relating to re-permitting existing wells, proposed wells for new subdivisions and reinstatements of expired permits. This assistance is available for realtors, county officials and water users regarding laws impacting existing and new sources of groundwater.

Division 2 staff was also involved in field inspections at the request of the State Engineer's Office completing 46 field inspections for evaluation of new permit approval as required by statute. These field inspections were for late registration, replacement of non-exempt permits and primarily proposed wells subject to a 600-foot spacing review, a result of new court approved plans of augmentation in the Denver Basin aquifers and for large augmentation plans such as approved under 02CW181 Lower Arkansas Water Management Association (LAWMA).

A total of 1193 well permit applications were received and 1054 Change in Ownership forms processed for Division 2 last year. Of the well permit applications, 694 were for new exempt, 258 for non-exempt wells. Replacement permits were approved for 147 exempt and 19 non-exempt wells. Of the 258 non-exempt wells, 96 were approved under the Upper Arkansas Water Conservancy District's plan for augmentation approved under 92CW84 located in parts of Chaffee and Fremont counties. This plan is for new subdivisions and expanded ground water uses. Logs were received on 835 wells, indicating active drilling in our division.

Submitted by Janet Kuzmiak

Administration of Ground Water Use and Measurement Rules

Rule 14 Plans Approval, Administration and Enforcement

Review and Approval

Eleven Plans were submitted for the 2007 Plan Year. Two of Plans previously under this program were dropped. Round Mountain Water & Sanitation District received approval for a Decreed Augmentation Plan (02CW0186) and the Fountain Valley School moved to a Substitute Water Supply Plan while pursuing its own Decreed Augmentation Plan under 04CW0118. The two Plans added to the Rule 14 Pre-1986 program are for Colorado Department of Corrections facilities: the Buena Vista Correctional Complex and the East Canon City Prison Complex. Total Wells in the eleven Plans were 1,933 with 1,345 Wells active for the Plan Year. The total of the approved pumping estimates for all Plans was 111,700 AF. The projected total pumping for the Plan Year is 74,900 AF, approximately 67% of the originally approved total.

Administration

Improvements in data consistency with the CWPDA independent database continued during 2007 resulting in fewer revisions and better consistency between the two data management systems. CWPDA plans to make additional revisions during this coming year that should further improve the efficiency and consistency of data.

Monthly and Annual Reporting: In 2007, monthly usage reports were received for 1,523 Meters representing 1,610 Wells. The majority of the Wells now use Totalizing Flow Meters (1,451, 90%). The changes in Measurement Test Policies and Amended Measurement Rules have encouraged the use of the TFMs rather than Power Consumption Coefficients. Fifty-five Wells changed from the PCC Method to the use of TFMs during 2007 leaving only 10% of the Wells with the PCC Method of Measurement (159 Wells).

The majority of the Wells reporting on monthly usage are in Rule 14 Pre-1986 Plans (1,396, 87%) and the balances are in Substitute Water Supply Plans (214, 13%) In addition to the monthly reports, another 119 Wells report monthly usage on an annual basis accounting for 5,000 AF of ground water diversions.

Office Enforcement Actions: During the 2007 Plan Year, Written Enforcement Actions were processed for 629 Wells, a 20% decrease from the previous year. 625 Wells received Written Orders and four were the subject of Requests to the State Attorney General's to file a Complaint against the Owner for violations of State Statute, the Amended Measurement Rules and/or the Amended Use Rules Amended Measurement Rules.

The number of Wells subject to Written Enforcement Actions in 2006 (779) was more than twice the number in 2005 (368). The 112% increase from 2005 to 2006 was due to a change in Measurement Rule Policies that occurred in late 2005. The 20% decrease from 2006 to 2007 represents the success of those Orders in achieving compliance with the Policy change and the revised Amended Measurement Rules issued in late 2006.

Field Inspections and Enforcement Actions in 2007 included 4,783 site visits to 3,539 Wells. 865 Wells visited more than once and one well was inspected seven times. 5,300 meter readings were collected from 2,488 meters.

35 Field Requests for Written Orders were submitted as a result of those site inspections. Well Head Orders were placed on 105 Wells and were removed from 106 Wells.

Certification of Water Well Meter Testers

No Recertifications or New Testers Classes were presented in 2007. Significant work was done to improve Measurement Rule Policies in Division 2 and an extensive amount of time was spent in assisting Division 3 in the development of their program to administer the "Rules Governing the Measurement of Ground Water Diversions Located in Water Division No. 3, the Rio Grand Basin."

Coordination of Measurement Rule Administration

In addition to the existing programs in Division 2 and 3 and the Designated Basins, Ground Water Measurement Rules for the Republican River Basin in Division 1 are being developed. In 2007, the RRB Measurement Rules continued with the public input process and were expected to become final in 2008.

Chris Lytle of Division 2 Ground Water Operations proposed a more centralized and coordinated effort among all DWR operations administering Ground Water Measurement Rules to promote consistency throughout the regulated areas of Colorado. Much of the work that is needed was contained in the 2006 Division 2 Annual Report.

GWDMS Progress

The 2006 Annual Report contained an extensive discussion of the data management system used by Division 2 Ground Water Operations and the development of a new system within the HydroBase environment that could be used throughout DWR.

Work continued on this project throughout 2007 and resulted in the completion of the first and most extensive of the modules: Core Data Management. It was also during 2007 that the Denver IT Staff began discussions with Division 1 to integrate the needs in the RRB and the South Platte with the new design. The result of those discussions was to propose a “Water Activity Management” module as the next phase of the project. Actual design of this module was expected to be undertaken and completed in 2008.

Submitted by Chris Lytle

Arkansas River Compact

Developments in Kansas vs. Colorado

The lawsuit filed by the State of Kansas in 1985 appears to be approaching a conclusion. Arthur Littleworth, the Special Master appointed to oversee the case by the United States Supreme Court issued his fifth and final Report to the United States Supreme Court in January 2008. The Special Master found that Colorado’s efforts to regulate post-Compact well pumping have been successful in preventing a net depletion to usable stateline flows during the first ten-year compliance period (1997-2006). It has been recommended, however, that the Court retain jurisdiction until the end of 2008 on the question of the adequacy of the Amended Arkansas Ground Water Use Rules for the purpose of replacing depletions to stateline flows in dry years. On April 11, 2008 Kansas filed an exception to the Special Master’s ruling on the single question of whether limiting costs for Kansas’ experts to \$40 per day is appropriate.

Arkansas River Compact Administration

Three separate meetings were held during Compact Year 2007 by the Special Engineering Committee for the purpose of considering possible recommendations to resolve issues referred by the Compact Administration. The first of these occurred in Topeka, Kansas on December 19-21, 2006. The second meeting was held in Denver, Colorado on February 12 & 13, 2007 and the final meeting was held in Pueblo, Colorado on April 11, 2007. Additional meetings were not scheduled due to the urgency associated with the need to address pending issues pertaining to the final decree to be entered in Kansas v. Colorado, No. 104 Original and the impending retirements of the Colorado State Engineer and the Kansas Chief Engineer, both members of the Special Engineering Committee.

The Committee reached agreement on two recommendations that address operational issues that have previously been in dispute. The first recommendation clarifies procedures to be used for making up deficits on deliveries of Kansas account releases and clarifies concurrent releases from the Kansas transit loss account and the Kansas account may occur. The second recommendation provides clarification regarding evaporation charges when water is in flood control space of John Martin Reservoir. Resolutions related to these recommendations were approved at the December 2007 meeting of the Compact Administration.

Recognizing Improvements to Irrigation Efficiency as a Potential Compact Issue

In reliance upon the authority conferred upon the state engineer by statute, e.g., §37-80-104, C.R.S. (2006), it was decided that the most appropriate means of addressing the concern of another violation of Article IV. D. of the Arkansas River Compact that might arise as a result of "...improved or prolonged functioning of existing works..." might be through rulemaking. (Please refer to the 2006 report for additional background on this subject.) During the first three quarters of 2007 efforts were directed toward the development of a draft set of rules to be distributed for the purpose of clearly communicating the concern and how it might be resolved. Introduction of these draft rules were initially made through presentations and distribution of the rules at regular meetings of the principle water conservancy districts during the fall of 2007. These preliminary efforts were generally not well received by the public and certainly not by the local press. The primary exception to this resistance was among the associations of well owners who recognized that without such rules, they will be held responsible for any increase in depletions to usable stateline flow that may result from the actions of surface water users who increase consumption through improved irrigation methods.

Soon after the appointment of Dick Wolfe, as the new state engineer, it was decided that a round of meetings with individuals and small groups should be initiated to allow an exchange of perspectives in a more rational manner and to assess the prospects for convening an advisory group similar to that which was used to facilitate amendments to the ground water use rules in 1996. This will be a major objective of the Division 2 office during 2008.

Submitted by Steve Witte

Legal and Litigation

Division Two Water Court Activity

One hundred and forty two individual applications were filed with the court during 2007. This was an increase of thirteen cases from 2006. A summary of the types of claims being made can be found on Page 40. As seen on this chart plans for augmentation and claims for new underground water rights are the two most frequent types of applications. The majority of underground water right claims are for exempt types of wells. The number of plans for augmentation continues to grow at an increasing rate in Division Two. Forty plans were applied for in 2007 which is the largest annual number in history in the division. The chart on Page 3 shows this history and current trend.

Written consultations are made to the court for all new applications and as warranted for amended applications. The Division Engineers Office attempts to participate in all referee

hearings including the participation of water commissioners when needed. There were twelve hearings conducted in 2007. Disclosures of Expert Testimony (26(a)(2) filings were made in the Arkansas Groundwater Users Association (04CW062) and the Pueblo West (01CW152) cases however both cases were eventually stipulated to by the SEO/DEO prior to trial. A trial involving the final abandonment protest from the 2000 Abandonment List, (Drake 07CW019) was the only trial that the Division Engineers Office was a party to during the year.

Cases of Interest

Status of the 2000 Abandonment List (01CW157)

The Division Two 2000 Abandonment List was finally decreed in December. In 2002 there were fourteen protests to the Revised Abandonment List. Through various actions these protests were all closed by the end of 2006. Just as we were about to file to have the court decree the final abandonment list, a new protest was filed in February.

This new protest sought to remove portions of two water rights from the final list. It was felt that the Division had a strong case arguing for the abandonment of these two rights given fifty years of non use and the potential for injury to other rights if these rights were reactivated by the protestor. Eventually after 2 days of trial the court agreed with the Division Engineers Office and ordered that the two rights be retained on the abandonment list. The water rights on the final abandonment list were decreed abandoned in December. Special thanks to the Attorney Generals Office whose staff dedicated many hours working through the protest cases and the final trial.

Lower Arkansas Water Management Association (LAWMA 02CW181)

In March the court decreed the change in use and plan for augmentation decree for LAWMA. This case involves changes from irrigation use to augmentation use of several large water rights decreed to large canals below or near John Martin Reservoir. An associated plan for augmentation will allow post 1985 depletions resultant of LAWMA's members out of priority diversions to be augmented using these changed irrigation rights and also using "Article II Storage Account" compact water stored in John Martin Reservoir. This case is the first large change case to be decreed as a result of the State Engineers 1996 rules governing the use of non-exempt tributary wells in the Arkansas Basin.

Arkansas Groundwater Users Association (AGUA 04CW062)

In May the court decreed the change of water right case of AGUA. This decree changed the use of the two water rights decreed to the Excelsior Ditch to include among the historic irrigation use also augmentation use for the purpose of augmenting the AGUA membership's approximately 250 active wells. This decree confirmed the dry up or eventual dry up of 1,762 acres. This case did not directly involve a plan for augmentation. These changed water rights will continue to be used for replacement purposes under AGUA's Rule 14 Plan pursuant to the State Engineer's 1996 rules. A companion exchange case (AGUA 03CW019) allowing these waters to be diverted upstream at Pueblo Reservoir has not yet been decreed.

Pueblo West Metropolitan District – Hill Ranch (01CW152)

Pueblo West was awarded a decree in December changing many water rights associated with six irrigation ditches that diverted water from Chalk Creek and irrigated the Hill Ranch near Nathrop. The rights will be used by the district in the future for municipal uses. Approximately 1,300 acres of land will be dried up and a yield of approximately 1,900 acre-feet/year of consumptive use water is expected. The SEO/DEO stipulated to this decree a day prior to trial. The case is currently on appeal to the Supreme Court by another objector but compromise settlement between the parties is expected soon.

Tri-State Generation and Transmission Association (Tri-State 07CW074)

Tri-State filed an application in July to change the water rights and compact entitlements of the Amity Mutual Irrigation Company from irrigation use to also add augmentation uses. Approximately one half of the shares in this ditch company are now owned by the applicant and subject of this case. A plan for augmentation, a large water storage right, and several tributary underground water rights are also being sought. The purpose of the filing is to obtain a firm water supply for a proposed coal fired or nuclear electric generation plant near Holly. The SEO/DEO are parties in the case along with many other objectors. Settlement discussions are just beginning with the applicant.

Rule 14 Cases: CWPDA, MAGUA, and Booth Orchard Association

All of the above entities filed plan of augmentation applications in December through February 2008. Each of these cases seeks to augment member well depletions and with one small exception using annually leased sources of water not owned by the entities as the augmentation sources. These entities all had Rule 14 plans which were replacing depletions associated with post 1985 well depletions. In 1998 the State Engineer gave entities replacing post 1985 depletions 10 years to obtain a permanent plan for augmentation for these depletions. Statements of opposition were filed in each case by the SEO/DEO. As the augmentation waters are only leased and vary in location and quality it is anticipated that if decreed each case will function within the current Rule 14 process, with an annual plan being submitted and evaluated at the beginning of the irrigation season.

Submitted by Steve Kastner

Safety of Dams

Mike Graber and Bill McCormick divide the work load geographically with Bill having dam safety responsibilities for the northern portion of Division 2 and also the southern portions of Division 1 while Mike has responsibilities for the southern portion of Division 2 and WD 24 and 35 in Division 3. The prime objectives for 2007 were to complete all scheduled dam safety evaluations and determine the safe storage level for each dam evaluated, perform timely design reviews of designs, plans and specifications for dam repairs and rehabilitation and to assist owners with the safe operation and maintenance of dams and reservoirs.

Several dam safety improvement projects were completed in Division 2 including Big Tooth Dam in WD 10, Evans Gulch Dam in WD 11 and Jordan No 1 Dam in WD 12. Pictures of work in progress and completed projects are shown below.



Photo No. 1 – Ogee Crest raising at Big Tooth Dam in the mountains above Manitou Springs.

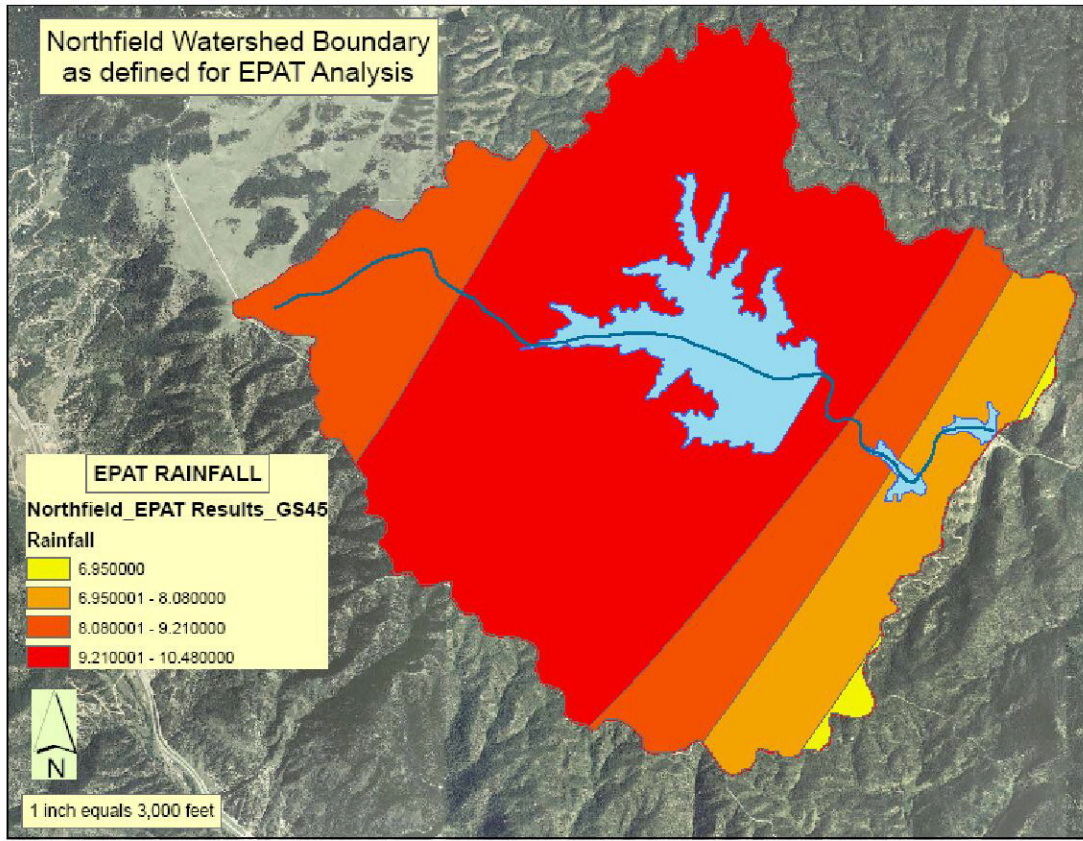


Photo No. 2 – Stability berm and toe drain installation at Evan’s Gulch dam in Leadville.



Photo No. 3 – Overflow structure repairs at Jordan No. 1 dam near Cripple Creek.

The continued emphasis for 2008 will be to use risk based profiling to evaluate the condition of each high and significant hazard dam and then use this information to better utilize limited resources towards focusing on those dams that are more at risk for unsafe operation or failure. Use of this tool may move the dam safety evaluation and inspection program from a presently deterministic one towards a program more probabilistic in basis.



In 2008 one new area of focus will be evaluation of spillway adequacies for dams having drainage basins above 7500 feet in elevation using the new GIS based extreme precipitation analysis software, EPAT, in conjunction with runoff modeling software. An example of the EPAT analysis results is shown above.

The table found in the Water Administration Data Summaries section recaps some of the aspects of the Division 2 Dam Safety Program activities.

Submitted by Bill McCormick

Hydrography

Assistant Division Engineer, Bill Tyner, PE III, provided overall program leadership of the Division 2 Hydrographic Program during water year 2006. He was supported by Lead Hydrographer, Mark Perry, PE I; Hydrographic Engineer, Lou Schultz, EIT; and Hydrographic Technicians, Anthony Gutierrez and Adam Adame. The Lead Hydrographer position was vacant for the first 2-1/2 months of WY07. Mark Perry became the Division 2 Lead Hydrographer on December 11, 2006. WY07 was a year of transition.

Each of the Division 2 hydrographers continued their assigned work with specific gaging stations and geographic areas. Routine work includes responsibility for regular streamflow measurements, gaging station operation and maintenance, satellite monitoring equipment

operation and maintenance and the complete development and computation of streamflow records for specific gaging stations. Lou Schultz is responsible for gaging stations in WD 11. Tony Gutierrez is primarily responsible for gages in WD's 10, 12, 14, 15, 16, 79, 18 and 19, with assistance from Mark Perry. Tom Ley is responsible for gages in WD 13 and providing other support as needed. Adam Adame is responsible for WD's 17 and 67. Additionally, hydrographers respond to requests of water commissioners for water measurement assistance in their respective districts.

Gaging Stations

SMS Gages

Division 2 staff operate and maintain 98 stream, diversion and reservoir gages on the Satellite Monitoring System (NOTE: This does NOT include 86 cooperator gages that require periodic involvement from Division 2 Hydrographic staff). The breakdown of Division 2 operated gages is as follows:

Record Stream Gages:	35
Record Diversion Gages:	13
Administrative Stream Gages:	11
Administrative Diversion Gages:	33
<u>Reservoir Gages:</u>	<u>6</u>
TOTAL	98 gages operated solely by Division 2

Gages operated solely by Division 2 require periodic visits to confirm that equipment is working correctly, monitoring equipment diagnostics via WebHMS, streamflow measurements, stage-discharge rating development, normal maintenance, and periodic gage improvements. Normal maintenance includes but is not limited to pumping wells; purging bubbler lines; breaking ice; replacing floats; changing charts; changing float tape; replacing mufflers; replacing malfunctioning DCPs, shaft encoders, antennas, GPS antennas and batteries; downloading DCP log data; and maintaining a gage log. Periodic gage improvements can include any construction or maintenance items required to preserve the integrity of a gage and data. Specific gage improvement projects performed in WY07 are discussed in more detail below.

In addition, 86 cooperator gages on the SMS system in Division 2 require a non-trivial time commitment from the Division 2 Hydrographic staff. For example, in WY07 we coordinated with Colorado Springs Utilities to get the Rosemont Reservoir and Lake Meredith Outlet repaired and with USGS to get the Arkansas River below Nathrop gage repaired at the request of Division Water Commissioners to assist them with water administration. We invested considerable time and effort to coordinate the high data rate upgrade at Pueblo Reservoir (including the addition of a gage on the Bessemer Ditch). Although the gage is operated by the Bureau of Reclamation, Division 2 acts as the "first responder" to gage problems due to its close proximity and paramount importance to water administration on the Arkansas River. Numerous problems plagued the Bureau's HDR upgrade and required involvement from Division 2 to be trained with the new equipment and setup (including tiny basic programming, radio bridges, and pressure transducers). We were also involved with establishing gage calibration and datum correction protocols that the Division 2 Reservoir Operations Coordinator can accommodate into

his storage accounting. Division 2 hydrographic staff were involved with checking the stage-storage survey for the cooperater gage at Lake Meredith. We also coordinated high data rate upgrades at CS-U and Aurora cooperater gages (planned for WY08). Measurements were made at the USGS Arkansas River at Las Animas gage in order to satisfy ARCA compact requirements.

Non-SMS Gages

Division 2 provides support for numerous other gages that are not on the Satellite Monitoring System. Generally such gages are used by water commissioners for administrative purposes, but Hydro staff may be involved in trouble-shooting and repair of gage equipment problems and making flow measurements to verify gage accuracy. *It is estimated that we spend at least 6 days per year in such activities.* In WY07 we supported the installation of an analog SDR on a flow meter for the City of La Veta, we provided trouble shooting and data downloading support for Stage Discharge Recorders (SDR) at non-SMS gages, we installed an SDR on the Brett Gray #1 Ditch at Smith Ranch for the Colorado State Land Board, we inspected flume construction at diversion to Clark and Orlando Reservoirs, and coordinated with District 17 water commissioner to measure at several ungaged locations. We provided SDR support for the Excelsior and Riverside Dairy ditches. We ran levels, inspected the flume, and measured flow at the Skaquay Reservoir outlet gage.

Hydrographic Records

Published Records

Division 2 hydrographic staff will complete 49 streamflow and diversion records in WY07 for publication in the DWR Annual Streamflow Report. As of the time of this report, Division 2 has met the Chief Hydrographer's 25%, 50% and 75% milestones for record completion. This has required discipline on the part of all hydrographic staff to complete records while juggling many other duties. In addition, Division 2 has met deadlines to provide WY07 records to other Divisions and agencies: Seven of Division 2's streamflow records were provided to the USGS for publication in their Annual Water Resources for Colorado Data Report; transmountain diversion records were provided to Divisions 4 and 5 and to the Upper Colorado River Commission for their reporting; ditch and canal diversion records were provided to appropriate Division 2 water commissioners in order to ensure consistent records where diversions are worked jointly.

It should be noted that new records software development by the Denver Satmon Group has in some cases lead to steep learning curves. While these applications are very helpful and will lead to future efficiency, this water year was a learning year.

Unpublished Records

Division 2 hydrographic staff also work hydrographic records at several administrative gages at the request of the Division Engineer; they are the Fort Lyon Storage Canal and the Adobe Creek below Adobe Reservoir gages.

Streamflow Measurements

During WY07, Division 2 hydrographers made a total of 545 discharge measurements as follows:

Measurements at Record Gages:	463
<u>Measurements at Administrative Gages:</u>	<u>82</u>
TOTAL	545

In addition to measurements, Hydro staff made many visits to reservoir gages and Coagmet weather stations. We operate 6 reservoir gages: Adobe, Bret Gray, Clear Creek, Cucharas, Douglas, and Skaquay. In addition we support cooperator reservoir gages at Lake Henry and Lake Meredith and Pueblo Reservoir. We did routine maintenance work at 7 Coagmet weather stations.

It should be noted that poor performance of one member of the hydrographic staff resulted in considerably fewer measurements than usual. Based on past performance, Division 2's total number of measurements would have otherwise been around 585 in WY07.

Stream Gage Installations and Improvements

A total of 11 new gages were brought onto the SMS system in WY07, additionally, Division 2 hydrographers completed numerous maintenance and improvement projects. These activities are detailed as a data summary included within this report.



Tony Gutierrez and Mark Perry at COMRETCO gage installation



DRGDITCO gage installation

Other Activities

Specialized Training:

- Two Division 2 Hydrographers attended Swift Water Training in WY07.
- Lead Hydro attended HEC-RAS Hydraulic Modeling training.
- Lead Hydro completed CD-ROM USGS levels training.
- Lead Hydro provided informal training for Hydrographic staff on new records program, HydroApp, and WebHMS.
- Hydro staff conducted records and SDR training for Division 2 water commissioners.

Miscellaneous Activities:

- Operation and maintenance of CoAgMet weather stations.
- HEC-RAS channel study was completed by Denver PE I hydro for the ARKPORCO gage in response to the WY06 flood. A new rating was developed and implemented by Division 2 Hydro staff based on results of the study.
- Several key gages (ARKCANCO, ARKPORCO, ARKPUECO and ARKCATCO) were changed from 30-min to 15-min transmission interval in order to provide better backup data and assist in real time water administration. The change involved coordination with USGS since the original reason for 30-min transmission was limitations of co-located USGS water quality labs.



ARKCATCO floodblock



ARKSALCO floodwall

Submitted by Mark Perry

Information Technology

Fountain Creek Transit Loss Model

The USGS rebuilt the District 10 Fountain Creek Transit Loss model in 2006 for the purpose of integrating the upper Monument Creek into the model. It was decided that DWR personnel would provide spreadsheets to each of the model participants that would allow the participants to enter their daily reusable return flow data into the spreadsheet and then push a button that would send the desired data to the DWR FTP site. An Access database

application would be provided to District 10 personnel that would retrieve the reusable return flow data from the FTP site, store it into a database and then allow the District 10 water commissioner to review the user supplied data for accuracy. Once all the data from all entities was received for the desired release date, the data would then be reviewed and accepted by the water commissioner. The water commissioner would then push a button that would send the reusable return flow data back to the FTP site, where it would be picked up by the USGS Transit Loss program as input. After the Transit Loss program computations were completed for the selected days run, the Transit Loss report file would be sent to the FTP site, where the resultant transit loss data would be incorporated into the District 10 database. The transit loss output data is important for insuring computation of accurate delivery amounts and documenting delivery to the desired location for the purpose of exchange to storage in Pueblo Reservoir or exchange on Fountain Creek and for the purpose of replacement of out-of-priority stream depletions in the proper amount, timing and location on Fountain Creek or the Arkansas River. This project should come to completion in April 2008.

GIS/GPS Support

As a member of the GIS/GPS Technical Group, Vivian Beal helped to make significant conceptual and direct contributions toward development of a functional integration of ESRI ArcGIS data with data collected using the upgraded suite of DeLorme XMap products. This included helping the team with product evaluation and purchasing recommendations, development of databases, and training.

Data Analysis and Processing Support

Division personnel have been very fortunate to have ready access to an IT Professional to assist with developing applications that assist in analysis of basic data and developing tools to process data to make it available for presentation or further analysis with other data gathered from disparate sources. Examples of this type of direct support to water administration efforts include analysis of various alternative methods of reservoir accounting procedures using historical data, development of macros utilizing Visual Basic to convert user supplied data from various spreadsheets into a Hydrobase compatible format, assisted with development enhancement features of a Transit Loss Application tool. Additionally, innumerable desk-top support functions assist with the overall effectiveness of this office.

Organization/Personnel/Workload Issues

Appointment of State Engineer

ON November 27, 2007 the Executive Director of the Department of Natural Resources, Harris Sherman announced that Governor Ritter had appointed Dick Wolfe as the next State Engineer. Dick has been a colleague in the Division of Water Resources for fourteen years. In announcing the decision, Director Sherman stated; “The candidates for this position were among the most impressive that I have ever interviewed for any position in state

government and we expect that the leadership within Water Resources will continue to chart an exciting future for this Division.”

Submitted by Steve Witte

Personnel

In 2007 Division 2 experienced relatively few staffing changes. Jeff Montoya was appointed lead water commissioner in Water District 19 (after the retirement of Danny Marques in position number 9). Jeff assumed the position and responsibilities effective June 1, 2007. Monique Morey chose to move from the Reservoir Operations position to a new half-time groundwater position. This new half-time position was the remainder of Ina Bernard’s original full-time position, reduced to half-time in the previous year. This change was effective April 1, 2007. Monique also passed her Engineer-in-Training test in January 2007. Scott Lorenz was hired on August 1, 2007 to fill the Reservoir Operations job. During the busy spring and summer season temporary employees were hired to assist in groundwater operations. These employees were Aron Jones, Russ Dash and Drew Prichard. Several employees were promoted during the year. Jeanette Bryan moved from EPSA II to EPSA III on January 30, 2007 and then promoted to EPST I on September 1, 2007. Kalsoum Abbasi promoted from EIT II to EIT III on July 1, 2007. Jerry Livengood moved from EPSA III to EPST I on August 20, 2007 and Rich Snyder became Division 2’s second EPST III (upgraded from EPST II) as of September 1, 2007. See Organization Chart on page 44.

Submitted by Wendy Bogard

Budget

The operating funds for Division 2 were boosted by mileage supplements in Spring 2007. This additional funding allowed us to meet our purchasing needs and also allowed our State and private vehicle drivers to continue normal vehicle operations through out the year to conduct water administration and public outreach duties even though we experienced approximately 10% increase to operate the leased vehicles (charged per mile driven). The reimbursement rate for private mileage reimbursement increased on January 1, 2007 which was the second increase in a series of three adjustments to more closely follow the federal mileage rate. Division 2 received five new fleet vehicles in 2007 which helped replace older, high mileage vehicles with new, more reliable and efficient vehicles.

Again this year we were allocated a slight increase to the overtime budget from the previous year. This increase and some additional personal services funding allowed managers to keep permanent part-time employees on a little longer in the fall and to bring that back a little earlier in the spring.

Submitted by Wendy Bogard

Training

Numerous training events were attended throughout the year. Kathy Trask enrolled in Database Design and Development college course. Kim Pulis and Wendy Bogard attended Notary Public training (and became Notaries in February 2007). Ina Bernard and Jeanette Bryan hosted a GIS/GPS training event for all employees in Division 2 using these tools. Swift Water Training was attended by Mark Perry, Adam Adame and Dan Neuhold in

May 2007. Staff participated in several tours throughout the year. These tours were of the Pueblo Dam, Nixon Power Plant, Colorado Springs' Southern Delivery System and Pueblo Board of Water Works annual tour. We conducted our own tour on September 26, 2007 of the Upper Arkansas Basin trans-basin structures. Eighteen Division 2 employees participated in this fall tour. In May Wendy Bogard spent several days working with Diane Butler, newly hired Program Assistant from Division 5. Diane traveled to Pueblo to learn about accounting, personnel, KRONOS/timesheet and other PA related duties. Five employees participated in the annual CWOA conference held in Durango. Our annual training allocation was \$1500 and almost \$1400 of this allocation was expended. Additionally, over \$300 of operating funds and almost \$1000 of funds from Denver were committed to training expenses.

Submitted by Wendy Bogard

Pay for Performance

Pay for Performance was funded with pay outs in July 2007. Each employee that was rated at Satisfactory or above received a 1% Achievement Pay increase. This was in addition to an average 3.7% Salary Survey adjustment. Employees that were successfully rated at the outstanding level also received a one time bonus of 2% of their yearly base pay. Hopefully the funding continues in future years to provide real incentives for this mandatory performance evaluation program.

Submitted by Wendy Bogard

Agency Meetings

The staff of Division 2 are involved in a variety of agency meetings. These include the Program Assistants' annual meeting, the Dam Safety Engineers' annual meeting, the Hydrographers' annual meeting, and one State Engineer's meeting. Also, Steve Witte attended the scheduled Leadership Team meetings either in person or by teleconference. Division 2 hosted a Spring Meeting (May 1, 2007) and a Fall Meeting (October 11, 2007). There was one additional staff meeting and seven Senior Staff meetings through the year. Other groups that met routinely through the year were Groundwater, Surface Water, Plans of Administration and Orders Committee.

Submitted by Wendy Bogard

Employee Recognition

Water Commissioner of the Year was awarded to Water District 10 employees Rich Snyder and Brian Sutton. They were recognized on October 11, 2007 at the Fall Staff meeting and their awards were presented by Deputy



State Engineer Ken Knox and Division Engineer Steve Witte. Joe Flory received Manager of the Year (2006) at the State Engineer's annual meeting in Denver in April 2007. Tony Gutierrez was recognized by his supervisor Mark Perry early in 2007 for his work and extra effort as a beta tester of the HydroApp program.



Submitted by Wendy Bogard

Employee Council

The Employee survey completed last fall had the same percentage of participation as the previous year at 36%. The Statewide average was 59%. The shorter version of the survey was used again with ample ability to add comments. The major areas involved in the survey were: Motivation, Trust, Communication, Decision Making and the Mission Statement.

The average for questions concerning motivation (on a 1-10 scale) was 6.3. Last year was 5.7 and the State average was 6.6. The average for questions concerning communication was 5.7. Last year was 5.5 and the State average was 6.2. The average for questions concerning Trust was 7.6. Last year was 7.5 and the State average was 7.4. For questions concerning Decision Making the average was 5.5. Last year was 6.7 and the State average was 5.2. The average for questions concerning our understanding and adherence to the Mission Statement were 6.6. Last year was 6.0 and the State average was 6.7.

The comments again reflected concern over communication problems both at the Division level as well as between the Division and Denver. Employees liked the flexibility of their jobs and the people they work with. Consistency and more recognition of a job well done would be appreciated. They liked the diversity of work and a feeling that they are serving the public.

Submitted by Bruce Smith

Involvement in the Water Community

Division 2 staff attended numerous meetings throughout the year. The five water conservancy districts within the Arkansas River basin each hold their own meetings and are normally attended by someone on the Division 2 staff. Ditch companies, groundwater associations, various water users associations, and special interest groups conduct meetings and many times seek Division 2 personnel's attendance. Steve Witte participated in the SEO Forum in Denver (October 2007). Kathy Trask and Jeanette Bryan participated in the annual CSU-Pueblo DWIP program in May 2007 and State Fair booth volunteers (August 2007) were Kathy Trask, Jeanette Bryan, Brian Sutton, Gary Hanks, Kim Pulis, Wendy Bogard and Steve Witte.

Submitted by Wendy Bogard

Innovative Administration Processes

Ground Water Diversion Data Policy

The impetus for development of a policy entitled "Improved Collection and Processing of Ground Water Diversion Data Through the Use of Coordinated Quality Control Checking of Annual Diversion Records and Plans of Administration" is to develop a more comprehensive record of all diversions within the Division and to facilitate the timely compilation of such data within the Hydrobase database structure. Bill Tyner is to be credited for having the vision and exerting the leadership needed to outline the pre-requisite steps and proposing the processes needed to identify structures for which diversions have not been

recorded and developing plans of action to acquire data for those structures in the future. A written statement of this procedure was adopted in August of 2007.

Submitted by Steve Witte

Plans of Administration Policy

This policy was set in writing in a memorandum dated March 1, 2007. It describes a process for collaboratively determining a plan of action to ensure that plans for augmentation, substitute water supply plans and replacement plans approved under the Amended Use Rules are properly administered including the collection of diversion record data and the documentation of stream depletions and replacement operations. A Plan of Administration is a document that describes the essential elements and division of responsibilities for each of these plans that have been agreed upon.

Submitted by Steve Witte

GPS/GIS Coordination

In an effort to continue the development of GIS applications to advance the administrative capabilities of our office several additional key components were implemented in 2007.

ESRI ArcGIS software is used to effectively maintain and update Division 2's GIS data sets by GIS personnel. Due to the cost prohibitive nature of acquiring said software, DeLorme XMap software was purchased to allow for GIS capabilities for all Division 2 personnel. Unfortunately the two software file types were incompatible and no sharing of GIS data files was possible until recently.

A GIS Technical group was formed in the spring of 2007, and tasked with investigating the possible integration of the ESRI ArcGIS data with data collected in the field using the improved, upgraded suite of DeLorme XMap products. Following a short review period and a positive recommendation those software upgrades were purchased in the spring of 2007.

Through the course of the year the GIS Technical group became familiar with the new DeLorme software through hands-on training sessions and by the beginning of 2008 was ready to start creating a training program for Division 2 personnel, which will debut in April of 2008.

The integration of ESRI ArcGIS data with DeLorme XMap data will allow for streamlined, accurate data collection directly in the field, followed by an easy synchronization process that will update the GIS files kept in the Division 2 office. This will essentially make the GIS data acquisition process paperless and will eliminate redundant data entry, greatly reducing the potential for errors. Data sets to benefit from this improved process include, but certainly will not be limited to, irrigated acreage data, crop typing data, dry-up verification data, and GPS data.



In 2008, we intend to complete another round of the five-year irrigated acreage updates using satellite imagery to determine irrigation status and crop types in the Arkansas River Valley from Pueblo to the Kansas Stateline and for the first time, we intend to cooperate with the Purgatoire River Water Conservancy District in conducting a verification of irrigated acreage for the

Trinidad Project. We expect to implement the aforementioned updated acquisition process of GIS data to aid in these updates, and foresee great time savings as well as greatly enhanced data collection quality.

We also envision this new process to be utilized effectively in novel and upcoming projects, such as the inventory of ponds division wide and the inventory of irrigated acreage outside of the alluvial valley fill aquifer in conjunction with the upcoming Arkansas Decision Support System.

Submitted by Ina Bernard

Livingston Transit Loss Study Below John Martin

Russell K. Livingston, d.b.a. Livingston Professional Services, produced a report entitled “Transit Losses and Travel Times of Reservoir Releases along the Arkansas River from John Martin Reservoir to the Colorado-Kansas Stateline” dated February 2008 in partial completion of a contract with the Arkansas River Compact Administration. The study period encompassed a 15-year period beginning in water year 1991. The investigation resulted in a calibrated and verified stream aquifer model capable of routing reservoir releases below John Martin to the Stateline and to intervening points which interfaces with a spreadsheet application for ease of use. This spreadsheet tool, named Transit Loss Application (TLAP) is described in the report referenced above.

One of the initial uses intended will be to anticipate the amount of losses that may be expected on prospective releases under varying antecedent stream flow conditions and release parameters so that additional water may be released to net a predetermined quantity at downstream locations.

It has been determined that the TLAP application can be made more practically useful if input parameter data can be compiled automatically. This was not included within the original scope of work and will be assumed as a Division of Water Resources work effort in 2008.

Submitted by Steve Witte

Revised Fountain Creek Transit Loss Model

A description of efforts to revise the Fountain Creek Transit Loss Model may be found in the Division 2 Annual Report for 2006 and elsewhere in this report. (See Information Technology Section) A more comprehensive description may be found in the U.S.G.S. Scientific Investigations Report 2007-5028. The title of this Report is “Description and User Manual for a Web-Based Interface to a Transit-Loss Accounting Program for Monument and Fountain Creeks, El Paso and Pueblo Counties, Colorado.” Vivian Beal, IT Professional for Division 2, is one of the named authors of this report.

Submitted by Bill Tyner and Vivian Beal

Objectives for 2008

These are among the many things that we need to accomplish in the coming year:

- Continue to concentrate on doing those things that might make Division 2 a great place to work as reflected in an employee survey.
- Produce quality-control checked ground water and surface water diversion records loaded into Hydrobase by not later than March 1, 2009.
- Implement Task Group decision making process to, as described in Division 2 policy and procedures memorandum to increase the number of structures for which diversion records are maintained.
- Work to establish an advisory group through which a set of generally accepted Surface Water Irrigation Consumption Rules to assure compliance with Article IV-D of the Arkansas River Compact can be promulgated by the end of 2008.
- Strive to prepare and implement Plans of Administration for all plans for augmentation and substitute water supply plans decreed or approved in 2008 and for as many earlier plans as possible.
- Evaluate effectiveness of the Ground Water User Rules as described in the Fifth Report of the Special Master in Kansas v. Colorado, No. 105 Original.
- Complete another round of the five-year irrigated acreage updates using satellite imagery to determine irrigation status and crop types in the Arkansas River Valley from Pueblo to the Kansas Stateline and cooperate with the Purgatoire River Water Conservancy District in conducting a verification of irrigated acreage for the Trinidad Project.
- Conduct training and implement integration of ESRI ArcGIS data with DeLorme XMap data collection and update process.
- Analyze the United States Geological Survey gages, especially the Big Sandy gage to make a recommendation to ARCA on the continuation of such gages before the 2008 Compact meeting.
- Cooperate by communicating user needs and testing prototype systems to help assure development and conversion from the legacy Ground Water Data Management System (GWDMS) to a Hydrobase compatible system to the extent possible in 2008.
- Coordinate with USGS to complete automation steps needed to get data from Monument/Fountain users into a centralized location for review and input into the USGS Transit Loss Model.
- TLAP (transit loss application below John Martin Reservoir) front-end
- Use risk based profiling to evaluate the condition of each high and significant hazard dam and focus on those dams with greatest probability for failure.
- Promote improvements to diversion data recording conventions for Hydrobase through participation in the Hydrobase Steering Committee.
- Adapt to IT consolidation plans.
- Initiate a short term contract with Colorado State University to Monitor Irrigation Practices.
- Continue to participate in the Colorado State Supreme Court's Water Court Committee to make recommendations for improvements.
- Continue to participate in the State's task force to control spread of Zebra Mussels discovered at Pueblo Reservoir.
- Assist with studies related to development of a decision support system (ARKDSS).
- Cooperate in Pueblo to John Martin Transit Loss Study and Application Development spearheaded by the Southeastern Colorado Water Conservancy District.

Submitted by Steve Witte

Transmountain Diversion Summary

WY 2007 TRANSMOUNTAIN DIVERSION SUMMARY - INFLOWS

RECIPIENT					SOURCE	
DIV/WD	DIVERSION STRUCTURE	STREAM	ACRE-FEET	DAYS	DIV/WD	STREAM
2/11	COLUMBINE DITCH	ARKANSAS RIVER	1,830	87	5/37	EAGLE RIVER
2/11	EWING DITCH	TENNESSEE CREEK	1,040	99	5/37	EAGLE RIVER
2/11	WURTZ DITCH	TENNESSEE CREEK	2,360	112	5/37	EAGLE RIVER
2/11	HOMESTAKE TUNNEL	LAKE FORK CREEK	20,880	40	5/37	EAGLE RIVER
2/11	BOUSTEAD TUNNEL	LAKE FORK CREEK	55,220	365	5/38	FRYINGPAN RIVER
2/11	BUSK-IVANHOE TUNNEL	LAKE FORK CREEK	4,310	365	5/38	FRYINGPAN RIVER
2/11	TWIN LAKES TUNNEL	LAKE CREEK	54,470	365	5/38	ROARING FORK RIVER
2/11	LARKSPUR DITCH	PONCHA CREEK	397	157	4/28	TOMICHI CREEK
2/79	HUDSON DITCH	HUERFANO RIVER	454	72	3/35	MEDANO CREEK
2/79	MEDANO DITCH	HUERFANO RIVER	1,323	75	3/35	MEDANO CREEK
2/10	BLUE RIVER PIPELINE	FOUNTAIN CREEK	8,771	217	5/36	BLUE RIVER
	TOTAL:		151,055			

WY 2006 TRANSMOUNTAIN DIVERSION SUMMARY - OUTFLOWS

RECIPIENT					SOURCE	
DIV/WD	DIVERSION STRUCTURE	STREAM	ACRE-FEET	DAYS	DIV/WD	STREAM
5/36&37	STEVENS-LEITER WELL (AKA ARKANSAS WELL)	BLUE/EAGLE RIVERS	173	365	2/11	GROUNDWATER
	TOTAL:		173			

Water Diversion Summary – Use Type by Water District

**Water Diversion Summary
(Use Type by District)
IRRIGATION YEAR 2007 WATER DIVERSION SUMMARY BY USE
WATER DIVISION TWO
(ACRE-FEET)**

USE TYPE	WD10	WD11	WD12	WD13	WD14	WD15	WD16	WD17	WD18	WD19	WD66	WD67	WD79	TOTAL
IRRIGATION	34498	152904	145155	45072	90951	11755	14072	688504	9438	74851	0	241868	28502	1537570
STORAGE	11701	1275	3036	24	51	322	1620	107508	0	183	0	2715	1637	130072
MUNICIPAL	112170	6127	10446	330	33171	1766	3605	6259	154	3062	0	5175	6	182273
COMMERCIAL	644	186	53	17	206	11	30	355	0	3	0	693	0	2198
INDUSTRIAL	97	78	37303	0	45	10413	0	0	0	0	0	0	0	47936
RECREATIONAL	153	16	529	137	0	0	9	0	0	0	0	0	0	844
FISHERY	0	6750	0	0	405	0	370	721	0	0	0	0	0	8246
DOMESTIC	839	134	10	45	45	45	47	213	0	0	0	253	0	1631
STOCK	37	0	0	0	0	5	0	0	0	230	0	0	24	296
AUGMENTATION	20222	525	275	1178	884	537	1160	9604	0	0	0	21720	60	56165
EVAPORATION	0	1078	32	2	140	3	0	0	0	0	0	13	0	1268
HOUSEHOLD USE	0	1934	21	0	0	1	0	0	0	0	0	0	0	1956
POWER GEN	2594	12417	32201	0	26131	0	0	0	0	0	0	0	0	73343
RECHARGE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WILDLIFE	0	0	0	86	0	0	0	0	0	0	0	0	0	86
RECHARGE	0	0	0	0	0	0	0	0	0	0	0	2981	0	2981
OTHER	546	0	0	0	0	0	0	0	0	0	0	0	0	546
ALL BENEFICIAL USES	15	0	0	66	66	0	0	0	0	0	0	0	0	147
TRANSBASIN	0	153	2524	0	0	0	0	436	0	0	0	0	0	3113
Totals:	183516	183577	231585	46957	152095	24860	20913	813600	9592	78329	0	275418	30229	2050671

Water Diversion Summary – Various Statistics by Water District

2007 Water Diversion Summary

WD	STRUCTURES REPORTING				ALL STRUCTURES				
	With Record	No Water Avail.	No Water Taken	No Info Avail.	Estimated # of recorded readings at Structure	Total Surface Diversions (AF)	Total GW Diversions (AF)	Total Diversions to Storage * (AF)	Total Diversions to Irrigation (AF)
10	418	3	206	386	15707	155854	31040	13941	34498
11	350	36	40	312	2992	177842	2271	157966	152904
12	172	17	33	255	8627	231002	552	4258	145155
13	316	33	218	124	847	45229	498	2179	45072
14	415	9	27	672	3776	123143	11807	83731	90951
15	159	3	72	135	2728	23839	483	322	11755
16	132	15	80	46	2343	19697	55	1620	14072
17	561	25	108	607	3365	769336	30852	107508	688504
18	33	5	29	18	214	9456	135	0	9438
19	100	64	41	64	2089	78283	45	21170	74851
67	445	8	58	531	1293	260670	38900	122661	241868
79	176	44	45	29	988	30183	30	1637	28502
TOTALS	3277	262	957	3179	44969	1924534	116668	516993	1537570

* Total Diversions to Storage adjusted for operations not recorded in Water Commissioner diversion records, such as storage and movement of transmountain diversions, operation of John Martin and Pueblo Reservoirs, operation of the Trinidad Project and Winter Water operations.

Arkansas River Calls

RiverCallDate	ArkansasRiverCall	PriorityDate
11/1/2006	Fort Lyon II	3/1/1887
11/2/2006	Fort Lyon II	3/1/1887
11/3/2006	Fort Lyon II	3/1/1887
11/4/2006	Fort Lyon II	3/1/1887
11/5/2006	Fort Lyon II	3/1/1887
11/6/2006	Fort Lyon II	3/1/1887
11/7/2006	Fort Lyon II	3/1/1887
11/8/2006	Fort Lyon II	3/1/1887
11/9/2006	Fort Lyon II	3/1/1887
11/10/2006	Fort Lyon II	3/1/1887
11/11/2006	Fort Lyon II	3/1/1887
11/12/2006	Fort Lyon II	3/1/1887
11/13/2006	Fort Lyon II	3/1/1887
11/14/2006	Fort Lyon II	3/1/1887
11/15/2006	WINTER WATER	3/1/1910
11/16/2006	WINTER WATER	3/1/1910
11/17/2006	WINTER WATER	3/1/1910
11/18/2006	WINTER WATER	3/1/1910
11/19/2006	WINTER WATER	3/1/1910
11/20/2006	WINTER WATER	3/1/1910
11/21/2006	WINTER WATER	3/1/1910
11/22/2006	WINTER WATER	3/1/1910
11/23/2006	WINTER WATER	3/1/1910
11/24/2006	WINTER WATER	3/1/1910
11/25/2006	WINTER WATER	3/1/1910
11/26/2006	WINTER WATER	3/1/1910
11/27/2006	WINTER WATER	3/1/1910
11/28/2006	WINTER WATER	3/1/1910
11/29/2006	WINTER WATER	3/1/1910
11/30/2006	WINTER WATER	3/1/1910
12/1/2006	WINTER WATER	3/1/1910
12/2/2006	WINTER WATER	3/1/1910
12/3/2006	WINTER WATER	3/1/1910
12/4/2006	WINTER WATER	3/1/1910
12/5/2006	WINTER WATER	3/1/1910
12/6/2006	WINTER WATER	3/1/1910
12/7/2006	WINTER WATER	3/1/1910
12/8/2006	WINTER WATER	3/1/1910
12/9/2006	WINTER WATER	3/1/1910
12/10/2006	WINTER WATER	3/1/1910
12/11/2006	WINTER WATER	3/1/1910
12/12/2006	WINTER WATER	3/1/1910

12/13/2006	WINTER WATER	3/1/1910
12/14/2006	WINTER WATER	3/1/1910
12/15/2006	WINTER WATER	3/1/1910
12/16/2006	WINTER WATER	3/1/1910
12/17/2006	WINTER WATER	3/1/1910
12/18/2006	WINTER WATER	3/1/1910
12/19/2006	WINTER WATER	3/1/1910
12/20/2006	WINTER WATER	3/1/1910
12/21/2006	WINTER WATER	3/1/1910
12/22/2006	WINTER WATER	3/1/1910
12/23/2006	WINTER WATER	3/1/1910
12/24/2006	WINTER WATER	3/1/1910
12/25/2006	WINTER WATER	3/1/1910
12/26/2006	WINTER WATER	3/1/1910
12/27/2006	WINTER WATER	3/1/1910
12/28/2006	WINTER WATER	3/1/1910
12/29/2006	WINTER WATER	3/1/1910
12/30/2006	WINTER WATER	3/1/1910
12/31/2006	WINTER WATER	3/1/1910
1/1/2007	WINTER WATER	3/1/1910
1/2/2007	WINTER WATER	3/1/1910
1/3/2007	WINTER WATER	3/1/1910
1/4/2007	WINTER WATER	3/1/1910
1/5/2007	WINTER WATER	3/1/1910
1/6/2007	WINTER WATER	3/1/1910
1/7/2007	WINTER WATER	3/1/1910
1/8/2007	WINTER WATER	3/1/1910
1/9/2007	WINTER WATER	3/1/1910
1/10/2007	WINTER WATER	3/1/1910
1/11/2007	WINTER WATER	3/1/1910
1/12/2007	WINTER WATER	3/1/1910
1/13/2007	WINTER WATER	3/1/1910
1/14/2007	WINTER WATER	3/1/1910
1/15/2007	WINTER WATER	3/1/1910
1/16/2007	WINTER WATER	3/1/1910
1/17/2007	WINTER WATER	3/1/1910
1/18/2007	WINTER WATER	3/1/1910
1/19/2007	WINTER WATER	3/1/1910
1/20/2007	WINTER WATER	3/1/1910
1/21/2007	WINTER WATER	3/1/1910
1/22/2007	WINTER WATER	3/1/1910
1/23/2007	WINTER WATER	3/1/1910
1/24/2007	WINTER WATER	3/1/1910
1/25/2007	WINTER WATER	3/1/1910
1/26/2007	WINTER WATER	3/1/1910

1/27/2007	WINTER WATER	3/1/1910
1/28/2007	WINTER WATER	3/1/1910
1/29/2007	WINTER WATER	3/1/1910
1/30/2007	WINTER WATER	3/1/1910
1/31/2007	WINTER WATER	3/1/1910
2/1/2007	WINTER WATER	3/1/1910
2/2/2007	WINTER WATER	3/1/1910
2/3/2007	WINTER WATER	3/1/1910
2/4/2007	WINTER WATER	3/1/1910
2/5/2007	WINTER WATER	3/1/1910
2/6/2007	WINTER WATER	3/1/1910
2/7/2007	WINTER WATER	3/1/1910
2/8/2007	WINTER WATER	3/1/1910
2/9/2007	WINTER WATER	3/1/1910
2/10/2007	WINTER WATER	3/1/1910
2/11/2007	WINTER WATER	3/1/1910
2/12/2007	WINTER WATER	3/1/1910
2/13/2007	WINTER WATER	3/1/1910
2/14/2007	WINTER WATER	3/1/1910
2/15/2007	WINTER WATER	3/1/1910
2/16/2007	WINTER WATER	3/1/1910
2/17/2007	WINTER WATER	3/1/1910
2/18/2007	WINTER WATER	3/1/1910
2/19/2007	WINTER WATER	3/1/1910
2/20/2007	WINTER WATER	3/1/1910
2/21/2007	WINTER WATER	3/1/1910
2/22/2007	WINTER WATER	3/1/1910
2/23/2007	WINTER WATER	3/1/1910
2/24/2007	WINTER WATER	3/1/1910
2/25/2007	WINTER WATER	3/1/1910
2/26/2007	WINTER WATER	3/1/1910
2/27/2007	WINTER WATER	3/1/1910
2/28/2007	WINTER WATER	3/1/1910
3/1/2007	WINTER WATER	3/1/1910
3/2/2007	WINTER WATER	3/1/1910
3/3/2007	WINTER WATER	3/1/1910
3/4/2007	WINTER WATER	3/1/1910
3/5/2007	WINTER WATER	3/1/1910
3/6/2007	WINTER WATER	3/1/1910
3/7/2007	WINTER WATER	3/1/1910
3/8/2007	WINTER WATER	3/1/1910
3/9/2007	WINTER WATER	3/1/1910
3/10/2007	WINTER WATER	3/1/1910
3/11/2007	WINTER WATER	3/1/1910
3/12/2007	WINTER WATER	3/1/1910

3/13/2007	WINTER WATER	3/1/1910
3/14/2007	WINTER WATER	3/1/1910
3/15/2007	FORT LYON	03/01/1887
3/16/2007	FORT LYON	03/01/1887
3/17/2007	FORT LYON	03/01/1887
3/18/2007	HOLBROOK	09/25/1889
3/19/2007	HOLBROOK	09/25/1889
3/20/2007	FORT LYON	03/01/1887
3/21/2007	HOLBROOK	09/25/1889
3/22/2007	SPLIT CALL: HOLBROOK; GREAT PLAINS	09/25/1889; 08/01/1896
3/23/2007	FORT LYON	03/01/1887
3/24/2007	FORT LYON	03/01/1887
3/25/2007	FORT LYON	03/01/1887
3/26/2007	FORT LYON	03/01/1887
3/27/2007	FORT LYON	03/01/1887
3/28/2007	FORT LYON	03/01/1887
3/29/2007	FORT LYON	03/01/1887
3/30/2007	FORT LYON	03/01/1887
3/31/2007	FORT LYON	03/01/1887
4/1/2007	FORT LYON	03/01/1887
4/2/2007	FORT LYON	03/01/1887
4/3/2007	FORT LYON	03/01/1887
4/4/2007	FORT LYON	03/01/1887
4/5/2007	HIGHLINE	03/11/1886
4/6/2007	HIGHLINE	03/11/1886
4/7/2007	HIGHLINE	03/11/1886
4/8/2007	Oxford and Fort Lyon II	02/26/1887; 03/01/1887
4/9/2007	Oxford and Fort Lyon II	02/26/1887; 03/01/1887
4/10/2007	Oxford and Fort Lyon II	02/26/1887; 03/01/1887
4/11/2007	Oxford and Fort Lyon II	02/26/1887; 03/01/1887
4/12/2007	Oxford and Fort Lyon II	02/26/1887; 03/01/1887
4/13/2007	Fort Lyon II	03/01/1887
4/14/2007	Fort Lyon II	03/01/1887
4/15/2007	Fort Lyon II	03/01/1887
4/16/2007	Fort Lyon II	03/01/1887
4/17/2007	SPLIT CALL: COLORADO CANAL AND FORT LYON II	6/6/1890 AND 3/1/1887
4/18/2007	SPLIT CALL: COLORADO CANAL / GREAT PLAINS	06/09/1890; 08/01/1896
4/19/2007	HIGHLINE	01/06/1890
4/20/2007	Fort Lyon II	03/01/1887
4/21/2007	Fort Lyon II	03/01/1887
4/22/2007	Fort Lyon II	03/01/1887
4/23/2007	Fort Lyon II	03/01/1887
4/24/2007	Fort Lyon II	03/01/1887
4/25/2007	SPLITCALL: FORT LYON II / COLORADO CANAL	03/01/1887 ; 6/9/1890
4/26/2007	GREAT PLAINS RESERVOIRS	08/01/1896

4/27/2007	COLORADO CANAL	06/09/1890
4/28/2007	HIGHLINE	01/06/1890
4/29/2007	HOLBROOK	9/25/1889
4/30/2007	HOLBROOK	9/25/1889
5/1/2007	HOLBROOK	9/25/1889
5/2/2007	HOLBROOK	9/25/1889
5/3/2007	HOLBROOK	09/25/1889
5/4/2007	FORT LYON III	08/31/1893
5/5/2007	COLORADO CANAL	06/09/1890
5/6/2007	COLORADO CANAL	06/09/1890
5/7/2007	COLORADO CANAL	06/09/1890
5/8/2007	GREAT PLAINS RESERVOIRS	08/01/1896
5/9/2007	GREAT PLAINS RESERVOIRS	08/01/1896
5/10/2007	SPLIT CALL: HOLBROOK/COLORADO CANAL	08/30/1893; 06/09/1890
5/11/2007	AMITY	02/21/1887
5/12/2007	HIGHLINE	01/06/1890
5/13/2007	OTERO	03/03/1890
5/14/2007	BESSEMER	05/01/1887
5/15/2007	SPLIT CALL: BESSEMER AND EXCELSIOR/HGHLINE	05/01/1887 AND 01/06/1890
5/16/2007	AMITY	04/01/1893
5/17/2007	SPLIT CALL: LAKE HENRY AND GREAT PLAINS RESERVOIRS	12/31/1891; 08/01/1896
5/18/2007	FORT LYON III	08/31/1893
5/19/2007	GREAT PLAINS RESERVOIRS	08/01/1896
5/20/2007	FORT LYON STORAGE	01/25/1906
5/21/2007	HOLBROOK	08/30/1893
5/22/2007	AMITY	04/01/1893
5/23/2007	AMITY	04/01/1893
5/24/2007	AMITY	04/01/1893
5/25/2007	GREAT PLAINS RESERVOIRS	08/01/1896
5/26/2007	GREAT PLAINS RESERVOIRS	08/01/1896
5/27/2007	AMITY	04/01/1893
5/28/2007	Fort Lyon II	03/01/1887
5/29/2007	Fort Lyon II	03/01/1887
5/30/2007	SPLIT CALL:OTERO & GREAT PLAINS RESERVOIRS	03/03/1890 & 08/01/1896
5/31/2007	SPLIT CALL: OTERO & GREAT PLAINS RESERVOIRS	03/03/1890 & 08/01/1896
6/1/2007	TWIN LAKES RESERVOIR	12/15/1896
6/2/2007	COLORADO CANAL	06/09/1890
6/3/2007	COLORADO CANAL	06/09/1890
6/4/2007	COLORADO CANAL	06/09/1890
6/5/2007	COLORADO CANAL	06/09/1890
6/6/2007	COLORADO CANAL	06/09/1890
6/7/2007	COLORADO CANAL	06/09/1890
6/8/2007	HOLBROOK	08/30/1893
6/9/2007	GREAT PLAINS RESERVOIRS	08/01/1896

6/10/2007	HOLBROOK	08/30/1893
6/11/2007	COLORADO CANAL	06/09/1890
6/12/2007	Fort Lyon II	03/01/1887
6/13/2007	BESSEMER	05/01/1887
6/14/2007	GREAT PLAINS RESERVOIRS	08/01/1896
6/15/2007	GREAT PLAINS RESERVOIRS	08/01/1896
6/16/2007	GREAT PLAINS RESERVOIRS	08/01/1896
6/17/2007	GREAT PLAINS RESERVOIRS	08/01/1896
6/18/2007	GREAT PLAINS RESERVOIRS	08/01/1896
6/19/2007	FORT LYON III	08/31/1893
6/20/2007	FORT LYON III	08/31/1893
6/21/2007	SPLIT CALL: OTERO & AMITY II	03/03/1890 & 04/01/1893
6/22/2007	SPLIT CALL: BESSEMER AND EXCELSIOR	05/01/1887
6/23/2007	SPLIT CALL: BESSEMER AND EXCELSIOR	05/01/1887
6/24/2007	SPLIT CALL: BESSEMER AND AMITY	05/01/1887 AND 04/01/1893
6/25/2007	SPLIT CALL: BESSEMER AND AMITY	05/01/1887 AND 04/01/1893
6/26/2007	SPLIT CALL: BESSEMER AND AMITY	05/01/1887 AND 04/01/1893
6/27/2007	FORT LYON STORAGE	01/25/1906
6/28/2007	3-WAY SPLIT: BESSEMER, FORT LYON III, JM CONS STOR	05/01/1887 & 08/31/1893 & 1948
6/29/2007	SPLIT CALL: COLORADO CANAL / GREAT PLAINS	06/09/1890; 08/01/1896
6/30/2007	SPLIT CALL: HOLBROOK/AMITY	09/25/1889/04/01/1893
7/1/2007	Fort Lyon II	03/01/1887
7/2/2007	Fort Lyon II	03/01/1887
7/3/2007	Fort Lyon II	03/01/1887
7/4/2007	Fort Lyon II	03/01/1887
7/5/2007	Fort Lyon II	03/01/1887
7/6/2007	Fort Lyon II	03/01/1887
7/7/2007	Fort Lyon II	03/01/1887
7/8/2007	Fort Lyon II	03/01/1887
7/9/2007	Fort Lyon II	03/01/1887
7/10/2007	Fort Lyon II	03/01/1887
7/11/2007	AMITY	02/21/1887
7/12/2007	AMITY	02/21/1887
7/13/2007	AMITY	02/21/1887
7/14/2007	AMITY	2/21/1887
7/15/2007	AMITY	2/21/1887
7/16/2007	AMITY	2/21/1887
7/17/2007	AMITY	2/21/1887
7/18/2007	AMITY	2/21/1887
7/19/2007	AMITY	2/21/1887
7/20/2007	AMITY	2/21/1887
7/21/2007	Amity/Bessemer	2/21/1887 - 5/1/1887
7/22/2007	Consolidated	3/13/1888
7/23/2007	Bessemer/Consolidated	5/1/1887 - 3/13/1888

7/24/2007	FORT LYON II	03/01/1887
7/25/2007	OXFORD II AND AMITY I	02/26/1887 ; 02/21/1887
7/26/2007	AMITY	02/21/1887
7/27/2007	AMITY	02/21/1887
7/28/2007	FT LYON II	03/01/1887
7/29/2007	FT LYON II	3/1/1887
7/30/2007	FT LYON II	3/1/1887
7/31/2007	FT LYON II	03/01/1887
8/1/2007	FT LYON II	03/01/1887
8/2/2007	FT LYON II	03/01/1887
8/3/2007	SPLIT CALL: COLORADO CANAL AND FORT LYON II	06/09/1890 AND 03/01/1887
8/4/2007	SPLIT CALL: BESSEMER and GREAT PLAINS RES	05/01/1887 AND 08/01/1896
8/5/2007	FT LYON II	03/01/1887
8/6/2007	SPLIT CALL: BESS/EXCEL/COLL AND FORT LYON II	05/01/1887 AND 03/01/1887
8/7/2007	SPLIT CALL: HIGHLINE AND FORT LYON II	01/06/1890 AND 03/01/1887
8/8/2007	SPLIT CALL: COLORADO CANAL / AMITY	01/06/1890 AND 04/01/1893
8/9/2007	HOLBROOK	09/25/1889
8/10/2007	SPLIT CALL: BESSEMER AND EXCELSIOR	05/01/1887
8/11/2007	FT LYON II	3/1/1887
8/12/2007	FT LYON II	3/1/1887
8/13/2007	FT LYON II	3/1/1887
8/14/2007	FT LYON II	3/1/1887
8/15/2007	FT LYON II	3/1/1887
8/16/2007	FT LYON II	3/1/1887
8/17/2007	FLC II, Bess, Cons II	3/1/87, 5/1/87, 3/13/88
8/18/2007	Bessemer/Excelsior	5/1/1887
8/19/2007	Consolidated	3/13/1888
8/20/2007	Bess/Excel/Col/Consolidated	5/1/1887 - 3/13/1888
8/21/2007	SPLIT CALL FORT LYON II/CONSOLIDATED	03/01/1887 & 3/13/1888
8/22/2007	Ft. Lyon II	3/1/1887
8/23/2007	Ft. Lyon II	3/1/1887
8/24/2007	Ft. Lyon II	3/1/1887
8/25/2007	Ft. Lyon II	3/1/1887
8/26/2007	Ft. Lyon II	3/1/1887
8/27/2007	Ft. Lyon II	3/1/1887
8/28/2007	Ft. Lyon II	3/1/1887
8/29/2007	AMITY	2/21/1887
8/30/2007	AMITY	2/21/1887
8/31/2007	SPLIT CALL: AMITY/FT LYON	03/01/1887 ; 02/21/1887
9/1/2007	SPLITCALL: FORT LYON II / AMITY II	03/01/1887 ; 04/01/1893
9/2/2007	SPLIT CALL: AMITY/FT LYON	03/01/1887 ; 04/1/1893
9/3/2007	FT LYON II	03/01/1887
9/4/2007	AMITY	02/21/1887
9/5/2007	AMITY	02/21/1887
9/6/2007	AMITY	2/21/1887

9/7/2007	AMITY	2/21/1887
9/8/2007	AMITY	2/21/1887
9/9/2007	AMITY	2/21/1887
9/10/2007	AMITY	2/21/1887
9/11/2007	AMITY	2/21/1887
9/12/2007	AMITY	2/21/1887
9/13/2007	AMITY	2/21/1887
9/14/2007	AMITY	2/21/1887
9/15/2007	AMITY	2/21/1887
9/16/2007	AMITY	2/21/1887
9/17/2007	AMITY	2/21/1887
9/18/2007	AMITY	2/21/1887
9/19/2007	AMITY	2/21/1887
9/20/2007	AMITY	2/21/1887
9/21/2007	AMITY	2/21/1887
9/22/2007	AMITY	2/21/1887
9/23/2007	AMITY	2/21/1887
9/24/2007	AMITY	2/21/1887
9/25/2007	AMITY	2/21/1887
9/26/2007	AMITY	2/21/1887
9/27/2007	AMITY	2/21/1887
9/28/2007	AMITY	2/21/1887
9/29/2007	AMITY	2/21/1887
9/30/2007	AMITY	2/21/1887
10/1/2007	LAMAR	11/04/1886
10/2/2007	LAMAR	11/04/1886
10/3/2007	LAMAR	11/04/1886
10/4/2007	LAMAR	11/04/1886
10/5/2007	LAMAR	11/04/1886
10/6/2007	LAMAR	11/04/1886
10/7/2007	LAMAR	11/04/1886
10/8/2007	LAMAR	11/04/1886
10/9/2007	LAMAR	11/04/1886
10/10/2007	LAMAR	11/04/1886
10/11/2007	LAMAR	11/04/1886
10/12/2007	LAMAR	11/4/1886
10/13/2007	LAMAR	11/4/1886
10/14/2007	LAMAR	11/4/1886
10/15/2007	LAMAR	11/4/1886
10/16/2007	LAMAR	11/4/1886
10/17/2007	LAMAR	11/4/1886
10/18/2007	LAMAR	11/4/1886
10/19/2007	LAMAR	11/4/1886
10/20/2007	LAMAR	11/4/1886
10/21/2007	LAMAR	11/4/1886

10/22/2007	LAMAR	11/4/1886
10/23/2007	AMITY	02/21/1887
10/24/2007	AMITY	02/21/1887
10/25/2007	AMITY	02/21/1887
10/26/2007	AMITY	02/21/1887
10/27/2007	AMITY	02/21/1887
10/28/2007	AMITY	02/21/1887
10/29/2007	AMITY	02/21/1887
10/30/2007	AMITY	2/21/1887
10/31/2007	AMITY	02/21/1887

Water Court Activity

2007 WATER COURT ACTIVITY		
NUMBER OF APPLICATIONS	142	
NUMBER OF DECREES ISSUED	134	
TYPE	TYPES OF APPLICATIONS *	TYPES OF DECREES *
ALTERNATE POINT OF DIVERSION	0	0
AUGMENTATION PLAN	40	23
CHANGE OF EXISTING RIGHT	19	19
COMPLAINT/INJUNCTION	6	0
NEW SURFACE RIGHT	23	28
NEW STORAGE RIGHT	14	9
NEW UNDERGROUND RIGHT	47	36
CONTINUING DILIGENCE/ABSOLUTE	21	33
EXCHANGE	8	2
PROTEST TO ABANDONMENT LIST	1	1
OTHER		
TOTAL	179	151
* SOME APPLICATIONS OR DECREES ARE OF MULTIPLE TYPES		

Stream Gage Installations and Improvements

New Stream Gages

- Six Purgatoire River Water Conservancy District gages in District 19 (CILDITCO, SOUDITCO, HOEDITCO, JOHDITCO, MODCANCO, PIKDITCO) were brought onto the SMS system. Equipment housings were installed by the cooperators under close coordination and supervision of Division 2 staff. Electronic equipment was installed by Division 2 staff and the statewide Hydro Electronics Specialist.
- A streamgage was installed at Greenhorn Creek above Rye (GRECRKCO) and the adjacent Shurtz Ditch gage was brought onto the SMS system (SHRDITCO).
- Satellite telemetry equipment was installed at Comanche Power Plant return flow gage (COMRETCO).
- Satellite telemetry equipment was installed on the Doc Rodgers Ditch in Upper District 10 (DRGDITCO).
- The Bessemer Ditch gage (BESDITCO) was brought onto the SMS system.

Stream Gage Refurbishment

- Constant Flow Bubbler was installed at ADORESCO to correct problem with diurnal fluctuation in gage readings.
- Drop wire weight was installed for primary reference gage at PURTRICO.
- Channel clearing and grubbing was performed at the RACRSTCO. Also a cleanout door was installed on the stilling well.
- Oil tubes were installed at DOURESCO, DOUOUTCO, BRERESCO, and PURNINCO to hold isopar for winter gage operation.
- A floodwall was constructed at the ARKSALCO gage.
- Structural repair was done on the ARKCANCO cableway frame on the right side of the river.
- A floodblock was installed at the ARKCATCO gage after ice heave caused the orifice line to move in winter 2007. New conduit was run and a new muffler was installed.
- Major tree clearing was done along the ARKCATCO cableway. Also graduations were repainted on the cable.
- Orifice line was extended further into the channel and a new muffler was installed at the RULTOOCO gage.
- A drop wire weight reference gage was installed at RULTOOCO.
- Crest gages were installed at RULTOOCO to attempt to verify flashy flows.
- New temperature sensors were installed at GRAWESCO, ARKWELCO, CRBRLVCO, HURREDCO and ARKNEPCO.
- A tipping bucket rain gage was installed at MUDTOOCO.
- An SDR was installed at ARKPORCO.
- Bubbler line was re-run at ARKPUECO.
- Abandoned bank operated cableway was demolished and removed at GRAWESCO. Also the stilling well was pumped and intakes cleaned.
- Major electronics repair was done at PURNINCO including new DCP, new battery, new antenna and new antenna cable.
- The Accubar at PURHILCO was replaced by an Accububbler after damage caused by an untrained deputy water commissioner. New orifice line was run.
- A vent was installed in the ARKGRNCO shelter due to excessive moisture in the shelter.

- Constant Flow Bubblers were installed at ARKLAJCO and ARKWELCO gages as part of field tests by the Denver Electronics Specialist. Division 2 staff coordinated to change programming and monitor performance, especially during ice conditions.
- A new muffler was installed at ARKROCCO.

High Data Rate DCP Upgrades

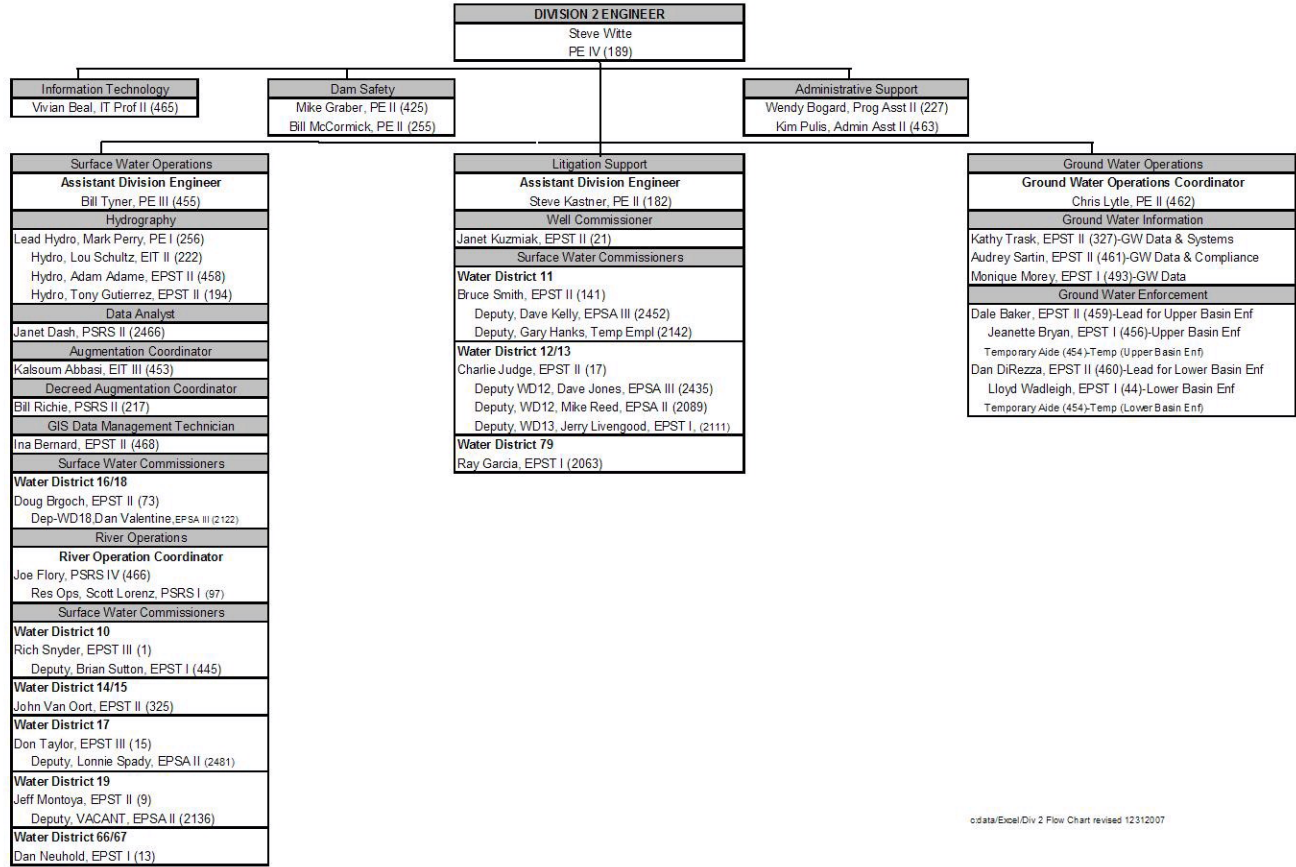
One HDR upgrade was completed at the Pueblo Reservoir gage. Coordination with Colorado Springs Utilities and Aurora and the Upper District 10 Water Users Association was done to ensure that all remaining low data rate gages in Division 2 should be upgraded in WY08.

Dam Safety Engineer's Summary

SUMMARY OF DIVISION 2 DAM SAFETY ACTIVITIES

Activity	Dam Hazard Classification					Total
	Class 1	Class 2	Class 3	Class 4	Other	
Inspections/Site Visits						
Dam Safety	43	20	14	0	2	79
Interim Dam Safety	0	4	3	2	1	10
Construction	11	11	21	0	0	43
Follow-up	9	5	7	0	0	21
Outlet Works	2	1	2	0	0	5
Federal Dams (non-FERC)	3	0	0	0	0	3
FERC Dams	0	0	0	0	0	-
Other	1	1	1	0	2	5
Reviews						
Hydrologic Studies	1	2	1	0	0	4
Stability Analyses	0	0	0	3	0	3
Design (new/enlarge)	2	1	1	0	0	4
Design (repair/modification)	1	3	3	1	6	14
NJ Dam Applications	0	0	36	5	0	41
Outlet Inspection Reports	0	0	2	0	0	2
Federal Reports	1	0	0	1	2	4
FERC Reports	0	0	0	0	0	-
Monitoring Reports	12	0	0	0	0	12
Monitoring Data Evaluations	15	4	0	0	0	19
EPP's (new and updated)	12	5	0	0	0	17
Construction Change Orders	0	0	2	0	0	2
Final Construction Acceptance	1	0	3	0	0	4
Other	4	2	1	0	0	7
Hazard Classification Evaluation	1	0	0	0	0	1

Organizational Chart



c:\data\Excel\Div 2 Flow Chart revised 12312007