

**STATE OF WYOMING**

**2007**

**ANNUAL REPORT**

OF THE

STATE ENGINEER

STATE BOARD OF CONTROL

BOARD OF REGISTRATION FOR  
PROFESSIONAL ENGINEERS AND  
PROFESSIONAL LAND SURVEYORS

STATE BOARD OF EXAMINING WATER WELL DRILLING  
CONTRACTORS AND WATER WELL PUMP  
INSTALLATION CONTRACTORS

October 1, 2006 through September 30, 2007

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## REPORT OF THE STATE ENGINEER

Patrick T. Tyrrell, P.E.

Once again water year 2007 was a water short year throughout much of the state of Wyoming. Perhaps only in the Powder and Tongue River drainages, which saw timely late snow, did we achieve a near normal runoff year. Again in 2007 the North Platte River main stem reservoirs did not fill, and system storage on that river will enter 2008 troublingly low. Of particular concern will be storage in the Kendrick Project, where Seminoe Reservoir is so low that by 2009 deliveries for irrigation to Casper Alcova Irrigation District are in jeopardy unless significant runoff occurs. The Laramie River system also remains drought stricken, and Basin Electric Power Company is still using temporary agreements with local ground water users to supply critical cooling water.

In 2007, this office saw several appeals from decisions of division superintendents and/or State Engineer. In fact, 2007 produced more of these appeals than any other year in my tenure. The appeals took the form of:

- One appeal from an irrigator in Goshen County, taking exception to the superintendent's actions following a Wyoming Supreme Court decision regarding the use and location of the Lucerne Canal Company headgate. The superintendent's decision was upheld by this office, and that decision has been appealed to court.
- One appeal from irrigators in Natrona County, along Bates Creek, where irrigation wells were regulated off in priority with the surface water rights (the local ground water and the creek constituting one source of supply). This office's decision upholding the superintendent's ruling has also been appealed to court.
- One appeal from an irrigator on LaPrele Creek, appealing regulation of his appropriation along with that of LaPrele Reservoir. The decision of the superintendent was upheld, and no further action was taken.
- One appeal from irrigators on the lower Greybull River in Division III, alleging improper distribution of water as among other major canals in this basin and the Wood and Burnett Ditch. The decision of the superintendent was upheld, and no further appeal was brought.
- One appeal from an irrigator in Wagonhound Creek drainage appealing the state Engineer's decision to deny the irrigator's petition to reinstate lands on a permit that had been removed from the permit decades ago. The Board of control upheld the State Engineer's decision and the action has been appealed to court.

### **2007 General Legislative Session**

The 2007 session proved frustrating for this office. The office had vetted two bills through the interim Joint Agriculture, Public Lands and Water Resources Committee, and approached the session with these as committee bills. The bills dealt with 1) adding overarching, explicit rulemaking authority to our statutes (because, for whatever reason, no such umbrella authority currently exists), and 2) with creating mandatory

licensure for water well drillers and pump installation contractors. Both bills fell to defeat, for very different reasons.

The rules bill suffered from a severe case of bad timing. While it emerged from the interim process with unanimous support, and passed the Senate side of the committee process during the session (also unanimously), it ran into trouble in the House. At about the same time this bill was moving through the process, the agency was in the midst of having to inform ground water users in the Torrington area that if sufficient replacement water could not be obtained for 2006 depletions, ground water (irrigation well) regulation was a possibility in 2007. This news was not at all popular, and political concerns were sufficient to bring the legislative guillotine down on the bill. While absolutely no connection exists, or existed, between the replacement water/regulation issue and the rules bill, it was an interesting exposure to the political process and what can happen. In fact, in 2007, we were the subject of a public records request that primarily sought to determine what type of rulemaking we had in the wings, awaiting passage of the rulemaking authority bill. There was none, of course, since rulemaking authority under the ground water statutes already exists and therefore is an area of law that needs no further attention of this kind. In 2008, another rule bill will be brought, but it will focus on specific areas where rulemaking authority needs to be added, as opposed to being an umbrella fix.

The well drillers' bill actually passed both houses only to be vetoed by the Governor. Amendments made at the end of committee work had resulted in circular language that would have made drilling without a license not unlawful, and none of the reviews prior to the Governor's had uncovered the definitional misadventure. Following the veto, we again took this bill through the interim committee process in 2007, with the language repaired, and will follow it again as a committee bill in 2008. The primary concern in the 2008 session will be how to fund the Board, and several options are being considered, including raising well permit application fees.

### **Coal Bed Natural Gas (CBNG)**

In 2007, I was a member of a legislative task force evaluating water management options for CBNG-produced water (this task force actually ran from May 2006 to October 2007). Early in 2007, the task force chairman, Representative Pat Childers from Powell, asked what the state engineer does, or could do, to manage this water more effectively. Our response was two-fold. First, the legislature could provide explicit authority for the SEO to order the construction of conveyances to increase the capacity of natural channels and reduce the flooding effects of otherwise legal discharges. This approach would build upon our existing authority to order the construction of return ditches from agricultural operations, and would seek to address the problem of continual flooding experienced in areas where natural channel capacity had diminished for some reason. Secondly, we indicated we could begin attaching conditions and limitations to CBNG well permits that required the production of gas from the well(s) after a finite period of time. This second approach was designed to deal with the increasing problem, the data about which recently coalesced through work by the State Geologist, of significant numbers of wells that had produced nothing but water for extended

periods of time. The authority for adding these conditions is found in W.S. 41-3-933, so no additional legislative work was needed.

Both approaches ended up being recommended by the legislative task force. A bill has been prepared on the conveyance capacity issue, and will be sponsored by the Joint Minerals Committee for the 2008 session. In water year (WY) 2007, we anticipate beginning to add conditions to all CBNG well permits that a threshold water/gas ratio of 10 bbl/mcf must be achieved within 2-3 years.

On another note, the agency (both the SEO and the Board of Control) were sued regarding our traditional practices for permitting CBNG-related facilities (the West/Turner suit). Labeled by the plaintiff's attorney as a "public interest" case, at issue primarily are the procedures we use and whether it is appropriate for the state engineer to issue permits for small CBNG reservoirs and CBNG wells that will not be adjudicated. As of this writing, the gas industry has petitioned to intervene in the suit.

### **Interstate Streams Issues**

2007 was a busy year for our Interstate Streams Division, and for interstate water issues in general. First, we were sued by Montana in late January 2007, alleging certain violations of the Yellowstone River Compact. Primarily, the allegations center around Montana's frustration when, in drought years, Wyoming may not regulate all of our water rights as they would have us do it. Other allegations include the evolution of gravity to sprinkler irrigation ostensibly increasing Wyoming's depletion of the system above what it was in 1950 (even though this particular compact is diversion, and not depletion, driven). Montana also alleges that water produced from wells should be subject to compact constraints. This is particularly aimed at CBNG wells, which are deep and pose no contemporaneous threat to surface water, and large capacity irrigation, municipal, and industrial wells, of which there are very few at all.

Wyoming responded to Montana's complaint in March 2007, and Montana was allowed to rebut that response in April. During the summer, the U.S. Supreme Court asked the Solicitor General of the United States to weigh in on the case. It is our understanding that the brief will be filed early in 2008.

Within the North Platte River system, work was finalized modifying an exhibit to the settlement documents that corrected some earlier errors and oversights in those documents. Briefly, the corrections included adding language that allowed August and September inflows to be included in forecasting calculations (since these flows are available to meet the irrigation demands for which the forecast is made). Also, language was approved correcting the accounting for the Pathfinder Modification project from an administration perspective, if it is ultimately approved, to remove the prospect of that account having any effect above Seminoe Reservoir (as envisioned, and described, in the Pathfinder Modification Stipulation). These changes were positive actions for Wyoming, in that they both lightened the effect of decree administration on our water users.

This year also saw the close of negotiations surrounding the “Basin States Agreement,” and the NEPA process of which it was an instrument, involving the Colorado River. Dating back to 2005, an EIS process was undertaken to create a mechanism for more coordinated operations of Lakes Powell and Mead, and for establishing Lower Basin Shortage Guidelines. The agreement and EIS saw much debate in 2007 and at times was near collapse due to differences between the upper division states and, primarily, Arizona. Nonetheless, it was ultimately finalized, and the Record of Decision (ROD) for the process was signed on December 13, 2007 at the Colorado River Water Users’ Association meetings in Las Vegas.

## **Summary**

The above synopsis of 2007 is by its nature incomplete, and I refer the reader to other sections of this annual report for a more full description of the issues we faced during the year.

Water year 2007 should go down as an extremely busy year. In addition to our normal workload, the agency experienced additional pressures on our workforce for reducing backlogs in surface water permits, the additional analyses by our Ground Water Division required by task force work, intense review and testing by all the staff as our e-permitting development progresses, an extremely full docket for Board of Control petitions, and many other issues that we did not foresee, but required our time. Another water-short summer season made for difficult work, at times, for our field staff. All in all, however, we rose to the challenges at every turn. Once again, I am proud of the folks who make this agency their workplace, and I know we will need to rise again to unforeseen challenges in 2008. But, there is no better group to meet those challenges than the one we have.

## **ADMINISTRATION DIVISION**

Harry C. LaBonde, P.E.  
Deputy State Engineer

### **General**

The Administration Division is responsible for three separate functions in support of this agency. They include fiscal operations, human resources/personnel management, and support staff for the State Engineer. This group is also responsible for special agency projects such as the Biennium Budget, Annual Report, Strategic Planning, IT Initiative and the Agency's Health and Safety Program.

### **Fiscal Operations**

A total of three employees work in this section and are supervised by Steve Winders. Mr. Winders began employment with the agency on October 2, 2006 and has now completed his first year with the agency. During this time, Mr. Winders has improved the financial reporting that is provided to the administrators and superintendents. Each of these managers is responsible for expenditures made to support their respective divisions and to assure that they do not exceed appropriated funding levels. Mr. Winders was also responsible for coordinating the agency's 2009-2010 biennium budget proposal which was submitted to the governor on August 31, 2007. The budget proposal totaled \$33,651,155.00 of which \$27,860,613.00 was considered to be standard budget. After review by the Governor, the 2008 Legislature will consider the budget during their February, 2008 budget session.

### **Human Resources/Personnel Management**

Melanie Doolin completed her second year with the agency and provided great service to the employees of the agency. She continued to provide up to date benefit information to employees and process payroll submittals to assure that employees were paid correctly. Unfortunately for the State Engineer's Office, Ms. Doolin tendered her resignation on October 5, 2007 as she accepted a position with greater responsibilities with the Wyoming Department of Health.

### **IT Initiative**

The IT Initiative consists of four major components that are being developed by Weston Solutions of Seattle, Washington. The project had originally been scheduled for completion in November of 2006. However, due to the complexity of the agency's water right processes and the poor condition of the agency's existing water rights databases, the project has been delayed. It is now anticipated that a full scale production model will be available to test in February, 2008. A summary of each of the four components is listed below:

1. E-Permit/Petition Workflow Management System. This web-based system will allow for the submittal of a water right application via the internet. Once the e-application is received, it will be processed electronically through the systems workflow management system. Applications and petitions that are submitted in paper form will be entered into e-permit upon receipt and acceptance. This component of the system has taken significantly more time to develop and refine than originally anticipated.
2. New Relational Water Rights Database. Currently, the agency operates multiple tables/spreadsheets/databases to house water rights information. Weston Solutions has developed one relational database to totally replace the existing systems. Due to the poor quality of the existing data and the lack of good documentation, the data migration effort from existing to the new database has become very complicated. A contract addendum was issued to Weston Solutions to perform the actual data migration effort in lieu of the agency's staff. Once e-permit is completed, a final data migration effort will be conducted by Weston Solutions.
3. New Document Management System (DMS). The installation of the new DMS was completed in December, 2006 and allows the agency to store all of its records in electronic form. The Support Services Division is now starting the process of scanning all forms of records into electronic images. This includes 70,000+ maps, 6,000,000+ microfilm images, and 300,000 paper documents such as permits and certificates of record.
4. Geographic Information System (GIS) Prototype. The prototype was completed in October, 2006. Work is now underway in the Support Services Division to expand the data layers coverage to the entire state.

## Strategic Plan

Every two years, the agency is required to prepare a new strategic plan. This plan was submitted to the Governor's office on August 31, 2007 and covers the 2009-2010 biennium which starts on July 1, 2008. This new plan continues to use the six performance measures established in the 2007-2008 Strategic Plan and adds a seventh performance measure. The agency's seven performance measures are as follows:

1. **Percentage of Surface Water applications for permit that are processed within 9 months or less of receipt.** Processing is complete when a permit has been issued, or the application has been rejected. For those applications that have been reviewed and found to be deficient, (needing additional information from the applicant) the tracking of time is suspended until the applicant responds to the agency's request for additional information.
2. **Percentage of Ground Water applications for permit that are processed within one (1) month or less of receipt.** Processing is complete when a permit

has been issued or the application has been rejected. For those applications that have been reviewed and found to be deficient (needing additional information from the applicant) the tracking of time is suspended until the applicant responds to the agency's request for additional information.

3. **Percentage of Board of Control (BOC) petitions that are processed within one (1) year or less of receipt.** Processing is complete when the petition is approved, or the petition has been denied.
4. **Percentage of Hydrographer/Water Commissioner (H/WC) and Division Superintendent decisions that are upheld on appeal.**
5. **Percentage of calls for stream regulation where the Hydrographer/Water Commissioner (H/WC) responds in two business days or less as a function of total calls for regulation.**
6. **Percentage of Division II reservoirs that are inspected on a yearly basis and found to be in compliance with permit conditions as a function of total permitted reservoirs in Division II.**
7. **Percentage of water right adjudication files that are completed within two (2) years or less from the date of acceptance.**

## **INTERSTATE STREAMS DIVISION**

Sue Lowry  
Division Administrator

John Shields, Interstate Streams Engineer  
Phil Stump, North Platte Coordinator  
Jodee Pring, Water Planning Coordinator  
Steve Wolff, Colorado River Coordinator

The State Engineer is charged with administering and overseeing all matters involving Wyoming's interstate and intrastate streams and rivers. A primary objective of the agency is to safeguard the State's current and future water supplies by preserving Wyoming's ability to use and develop our water allocations under our interstate compacts and court decrees. Wyoming is party to seven interstate river compacts, and several court decrees that are the basis for water administration functions in several river basins. The Interstate Streams Division provides technical and policy support for water allocation and administration issues associated with these governing compacts and decrees. The Water Planning and Water Conservation activities of the agency are also coordinated in this Division.

### **Interstate Streams Activities**

The following summarizes notable activities of the Interstate Stream Section by river basin or issue:

#### **Missouri River Basin**

Transition from the Missouri River Basin Association (MRBA) to the Missouri River Association of States and Tribes (MoRAST) was completed during this reporting period. MRBA membership consisted of the 8 Missouri River basin states water resources agency officials and the Tribes were represented by the Mni Sose Tribal Coalition. The newly formed MoRAST is made up of 7 of the Missouri River basin states (the state of Missouri declined to participate) and individual tribes are eligible for membership. Each state is represented by the state water resources agency as well as the game and fish management agency. Wyoming Game and Fish was invited to participate, but at the present they are content with the State Engineer's Office being Wyoming's sole representative and alerting Game and Fish if any pertinent issues arise. David Pope, who recently retired as Kansas' long term Chief Water Engineer, has been hired as the MoRAST Executive Director. The substantive work of the organization has focused around the passage of a Water Resources Development Act containing authorizing language for performing species recovery projects throughout the basin, not just in the lower basin where the channelization project has been in place since the passage of the Flood Control Act of 1944. MoRAST also submitted joint comments to the Corps of Engineers on their Annual Operating Plan for the Missouri mainstem, had member states participate in the development of a Missouri River Recovery Implementation

Program (see further details below), and the Missouri River Environmental Restoration Program within the Corps of Engineers.

MoRAST also sponsored a meeting in July, 2007 at Fort Pierre, South Dakota for the states and tribal chairmen to meet with Assistant Secretary John Paul Woodley. He expressed the Corps desire to work more closely with the tribes and reiterated that he takes the federal trust responsibilities to the Tribes very seriously.

### **Missouri River Recovery Implementation Committee (MRRIC) Planning Group**

The Biological Opinion from the Fish and Wildlife Service which outlined the Reasonable and Prudent alternatives during the Master Manual update outlined the need for a public stakeholder group to be formed to serve in an advisory capacity to the Fish and Wildlife Service and to the Corps of Engineers as they moved forward with the Biological Opinion projects. Working closely with these two federal lead agencies are the other federal agencies with some water management role in the basin as the Missouri River Basin Interagency Roundtable (MRBIR). This Federal Working Group provided some sideboards to the group that was formed to develop the charter for the MRRIC and provide recommendations and guidance to the Secretary of the Army. The MRRIC will help guide mitigation, recovery and restoration activities on the Missouri River and its tributaries. To begin the process of forming this committee, a MRRIC Planning Group was established.

The MRRIC Planning Group is composed of representatives from tribes, state, federal, and local governments and non-governmental stakeholders in the Missouri River Basin. The Planning Group includes a drafting team and a review panel. The drafting team is responsible for developing a charter that will include guidelines and operating procedures for the MRRIC. The review panel's responsibility is to provide feedback, comments and suggested improvements on the charter to the drafting team. Wyoming is participating on the review panel.

The drafting team has met nine times since March 2007. The review panel has met with the drafting team three of those nine times. A public workshop will be held November 7, 2007 in Omaha, NE. At the workshop, brief presentations will be made concerning the origins of the MRRIC Planning Group process and development of the charter thus far, by the group. The workshop will also provide the public with the opportunity to interact with the planning group and present feedback on the recommended charter. A final recommended MRRIC charter is slated to be presented to the Army Corps of Engineers Secretary of the Army by May 0f 2008.

### **Platte River Basin**

#### **North Platte Settlement Agreement**

The U.S. Supreme Court approved the Final Settlement Stipulation and entered the Modified North Platte Decree in *Nebraska v. Wyoming* on November 13, 2001. The goal of the settlement was protection of existing water rights while providing certainty about the extent of Wyoming's water use and future water development and management. In

general, the settlement calls for an increase in monitoring, measurement, accounting, and reporting of water use, as well as future studies to be conducted by the North Platte Decree Committee (NPDC).

The NPDC consists of water officials from the Bureau of Reclamation, and Wyoming, Nebraska, and Colorado. The NPDC was created to reestablish trust and cooperation on various issues and to assist the parties in resolving future disputes. The NPDC members will attempt to resolve any disputes through direct negotiations or, as a last resort, through alternative dispute resolution, before returning to Court. NPDC meets in the fall and spring every year. Ms. Ann Bleed, Director of Nebraska Department of Natural Resources, has held the Chair position since January 1, 2006. Mr. John Lawson with U.S.B.R. will be the Chair of the NPDC beginning January 1, 2008. The NPDC has formed several subcommittees to assist in fulfilling its duties under the Modified Decree: Ground Water Wells, By-Laws, Control Crest, Official Files, Finance, Consumptive Use, Replacement Water, and State Line Gage Study.

Wyoming performs the following tasks to comply with the North Platte Settlement Agreement and as a cooperating member of the NPDC:

- 1.) Prior to November 13, 2006 Wyoming finalized the adjudication of 179 groundwater well permits used for irrigation purposes in the area from the Whalen Diversion Dam and to the Nebraska State Line know as the "triangle." Wyoming also adjudicated 175 irrigation well permits hydrologically connected to surface water in the Lower Laramie Basin and in the basin above Guernsey Reservoir.
- 2.) Wyoming serves on the NPDC Consumptive Use Subcommittee which conducts consumptive use research in the basin upstream of Guernsey Reservoir as required under the Modified North Platte Decree. During 2007 the High Plains Regional Climate Center (HPRCC) in Lincoln, Nebraska under a contract with the NPDC installed three weather stations in irrigated land areas near the municipalities of Encampment, Elk Mountain and Douglas. During 2008 the Consumptive Use Subcommittee plans to draft and release an RFP to acquire professional services to estimate consumptive use of irrigated lands from satellite imagery over one growing season with an energy balance method.
- 3.) Wyoming continues to track and report daily accounting for the Whalen Diversion Dam to the State Line reach. A new radio telemetry system was installed in 2004 at mainstem diversions below Whalen to improve data collection and accuracy. In 2006 Wyoming added six tributary diversion locations to the existing mainstem telemetry system.
- 4.) Wyoming replaces the depletions of the river's natural flow during "Trigger Days" caused by active groundwater wells pumping for irrigation in the triangle area. Wyoming had to replace 6393 acre feet of water for each of the 262 wells reported as active in the 2006 irrigation season. Water Year 2007 was the fourth year Wyoming had to measure and provide replacement water for out-of-priority depletions on

tributaries within the triangle area. These out-of-priority tributary depletions totaled 620 acre feet in 2007.

5.) For the 2006 irrigation season, Wyoming reported in a February 28, 2007 letter to the NPDC, that the intentionally irrigated acreage for the North Platte River basin above Guernsey Reservoir, exclusive of the Kendrick Project, was 184,079 acres and in the Lower Laramie River basin, exclusive of the Wheatland Irrigation District, was 17,973 acres. In accordance with the Settlement Agreement, the intentionally irrigated acreage caps for these basin areas are 226,000 acres and 39,000 acres, respectively.

6.) During 2005, 2006 and 2007 Wyoming installed measuring devices and electronic monitoring equipment to track annual accruals at the eight largest irrigation reservoirs storing water upstream of Pathfinder Reservoir. The remaining electronic monitoring equipment will be installed by Division I field staff over the next year. During 2008 and 2009 the State Engineer's Office will be transferring the ownership of the measuring devices and associated buildings to the reservoir owners.

Six (6) full-time and one (1) part-time field staff and two (2) Cheyenne staff within the State Engineer's office carry out the tracking and reporting requirements of the Settlement Agreement. Many existing staff positions continue to be faced with additional responsibilities to comply with the Settlement Agreement. By accurately tracking and reporting Wyoming's water use in the North Platte River Basin, the State of Wyoming is able to protect Wyoming's appropriation of this valuable water resource.

### **Platte River Recovery Implementation Program (PRRIP)**

In 1997, the States of Colorado, Wyoming and Nebraska and the U.S. Department of the Interior (DOI) signed the Cooperative Agreement for the Platte River Research and Other Efforts Relating to Endangered Species Habitat Along the Central Platte River, Nebraska (Agreement). The Agreement addressed recovery of four species: the whooping crane, piping plover, least tern, and pallid sturgeon. The DOI contracted with the National Academy of Sciences (NAS) to review and evaluate the science regarding the central Platte River habitat needs and flow recommendations. The NAS report was released on April 28, 2004. The final environmental impact statement (EIS) and the biological opinion were distributed on May 18 and June 20 in 2006; respectively. Secretary Kempthorne of DOI signed the Record of Decision on September 27, 2006.

The PRRIP agreement was signed by the Governors of Colorado, Nebraska, and Wyoming and the Secretary of Interior in late 2006. The PRRIP will remain in effect for the first increment, 13 years, unless terminated earlier by one of the signatory parties. Mr. Mike Purcell, Director, Wyoming Water Development Commission, represents Wyoming on the Governance Committee (GC) and currently serves as the Chair. The State Engineer serves as an alternate to Mr. Purcell on the Governance Committee. Deputy State Engineer, Harry LaBonde, attends GC meetings for the State Engineer. Meetings are currently being held on a quarterly basis. During the summer of 2007, Mr. Jerry Kenny replaced Mr. Dale Strickland as the new executive director to the GC for

the PRRIP. Mr. Kenny comes from a private engineering consulting company and he grew up on a farm in the Republican River basin in Harlan County, Nebraska.

The PRRIP which began on January 1, 2007 is estimated to cost \$317 million, with the federal share being \$158 million (2005 dollars). Wyoming's 2006 Legislature approved \$6 million in funding for the PRRIP and \$8.5 million for an action alternative, the Pathfinder Modification Project, to recover 54,000 acre-feet of space in Pathfinder Reservoir. The Pathfinder Modification Project provides a municipal water supply, a water supply to help meet obligations of Wyoming under the Modified North Platte Decree, and enhancement of regulatory certainty under ESA.

PRRIP addresses several Endangered Species Act (ESA) issues affecting water development in the Platte River Basin in Wyoming. In the absence of the PRRIP, each water project or activity in the Platte River Basin having a federal nexus will be required to address and comply with federal ESA regulations individually, a process that could be costly and inefficient and would severely impact the states and their water users. Wyoming's Water Depletions Plan addresses Wyoming's responsibilities for existing and new water depletions in the Platte River Basin. Individual water users do not need to independently seek the federal clearances required under the Endangered Species Act because the Program serves as the reasonable and prudent alternative for existing water related activities and certain new water related activities implemented after July 1, 1997.

The State Engineer's Office is tasked with preparing annual depletion reports to satisfy requirements of the Governance Committee's Program Document and conducts consultations on new and existing water related activities. The Depletions Plan requires Wyoming to extensively track and report municipal, industrial, rural domestic, and agricultural water uses; and various new water related uses implemented since July 1, 1997. The first report which addresses new water uses and compares Water Year 2007 water uses to the 1997 water use baselines shall be submitted to the Governance Committee by March 15, 2008.

More information regarding the status of the Platter River Cooperative Agreement is available at the following website: <http://platterriverprogram.org/default.aspx>

### **Laramie River Basin**

After initial meetings last reporting period between Wyoming and Colorado to review the provisions of the decree, Colorado has continued to provide us with year-end delivery numbers for the Laramie River. No meetings were held during this reporting period with Colorado.

### **Yellowstone River Basin**

On January 31, 2007, Montana filed a Motion for Leave to File Bill of Complaint, Bill of Complaining and Brief of Support with the US Supreme Court making the claim that Wyoming has violated the Yellowstone Compact by expanding our water use in the Tongue and Powder River basins, by allowing groundwater pumping associated with

coalbed methane development, and by constructing additional storage. Wyoming filed their response to the complaint on March 31, 2007 denying Montana's claims and pointing out that Montana had not shown injury. The Court then gave the Solicitor General for the Department of Interior the opportunity to file a brief to describe the United States' interest in the case. The Solicitor General has not yet responded to the Court.

Although this threat of litigation is in the background, the Compact Commission continued to hold its Technical and full Commission meetings on December 5-6, 2006 and April 24-25, 2007 in Sheridan. The water supply was much improved in the Tongue and Powder River basins this past spring and summer. Tongue River Reservoir in Montana filled in the spring, 2007.

On June 6, 2007 SEO and Attorney General representatives met with Susan Cottingham of the Montana Reserved Water Rights Compact Commission to discuss the current status of the Crow Compact. Susan described Wyoming's participation as the Crow Compact was being negotiated and the amounts of water and other provisions in the compact as it was ratified by the Montana Legislature.

### **Yellowtail/Bighorn Reservoir Long Range Planning Group**

A group of citizens from the Lovell/Bighorn County area became concerned with Reclamation's operations at Yellowtail Dam. More specifically they believed that releases were being kept too high during these drought years which was causing Horseshoe Bend Marina to be unusable much of the time. The group asked for meetings with Reclamation officials as well as the Wyoming Governor's office. As a result, in part due to these meetings, Reclamation lowered their releases from the dam and the Montana Game, Fish and Parks department issued press releases about the devastating effects of Reclamation's actions. Sen. Baucus (D-MT) introduced federal legislation that would have mandated the releases that Reclamation could make from the reservoir. Fortunately that Senate bill has not moved past the introduction phase.

### **Belle Fourche River Basin**

The annual coordination meeting between Wyoming, South Dakota, Reclamation, US Geological Survey and the water users was held on December 4, 2006 in Beulah, Wyoming. This once-a-year meeting provides a good forum for the irrigators and the state water administrators to discuss the previous year's deliveries and discuss operations for the following year. Keyhole Reservoir continues to stay low, but the irrigators have used the water judiciously and are able to keep storage levels fairly constant even in these drought years.

### **Niobrara River Basin**

The State of Nebraska has been accessing Wyoming water rights via the SEO website and has called with some clarifying questions. Nebraska state officials have suggested that some of their constituents have been raising Compact concerns, but has yet to

describe definite description or their concerns or what provisions of the compact that may be of interest to Nebraska.

### **Colorado River Basin (Green River and Little Snake River Basins)**

The water year 2007 snowpack and inflow hydrology were a continuation of the persistently dry conditions that have plagued the Upper Colorado River Basin since the beginning of 2000. Unregulated inflow to Lake Powell in water year 2007 was 8.3 million acre-feet (MAF), or 68 percent of the 30-year average, as compared to 73 percent in the prior water year. Over the past 8 years (2000 through 2007, inclusive) inflow to Lake Powell has been below average in each one except 2005. Particularly indicative of the 2007 water supply shortage severity in the Wyoming portion of the watershed is that the April through July actual inflow into Fontenelle Reservoir was 34 percent of average and only 31 percent for Flaming Gorge Reservoir. Lake Powell ended water year 2007 with a little over 11.9 MAF of water in storage, just over 49 percent of its live storage capacity. Lake Mead had a similar percentage of live storage content for the same date. Colorado River water users are so very fortunate to have such a large reservoir system that was essentially full at the onset of the continuing drought.

From 2000 through 2004, the Basin experienced the worst five-year drought in the past 100 years. Inflow into Lake Powell, adjusted for the effect of upstream reservoirs, was 62, 59, 25, 51, and 49 percent of average, in 2000 through 2004 respectively, with the inflow in 2002 being the lowest on record. Water year 2005 inflows were much better, with the adjusted inflow being 105 percent. Water years 2006 and 2007 both reflected significant downturns in winter snowpack and runoff. Only 73 and 68 percent, respectively, of the thirty-year average reservoir-adjusted inflow into Lake Powell was recorded for the past two years.

As reported in last year's annual report, the Bureau of Reclamation (Reclamation) was directed by the Secretary of the Interior in May 2005 to develop additional Colorado River management strategies to address Lower Basin shortage and operations of Lake Powell and Lake Mead under low reservoir conditions. The reader is reminded that within each Colorado River Annual Operating Plan, the Secretary is required, based on available storage and projected conditions, to declare whether the Colorado River water supply availability condition for the Lower Basin States during the coming year will be "normal," "surplus," or "shortage." While regulations and operations criteria were previously developed for normal and surplus supply conditions, no guidelines for determining when a water supply shortage condition exists and for administration of the shortage water supply among Lower Basin water users have heretofore been established. Ongoing severe drought conditions which had significantly decreased reservoir system storage, coupled with Lower Basin uses being at the full "normal" water supply level of 7.5 million acre-feet per year and disagreements over the annual volume of water that should be released from Lake Powell during Water Year 2005, led the Secretary of the Interior to conclude that the time had come for shortage guidelines to be promulgated to address limited water availability during times of low reservoir conditions.

Following the Secretary's announcement in May 2005, Reclamation initiated a public process to develop and adopt water supply guidelines that can be used when low water conditions exist. Reclamation emphasized that by developing additional management strategies the Secretary of the Interior would be able to better manage and operate the Colorado River reservoir system to provide greater certainty and predictability to Colorado River water users in the Lower Division States of Arizona, California and Nevada as to the quantity of water that will be available to them when a "shortage" water supply declaration has to be made by the Secretary. Reclamation stated as an objective that the strategies delay the onset and magnitude of shortages, and maximize the protection afforded to water supply, hydropower production, recreation, and environmental benefits by water storage in Lakes Mead and Powell.

The initiation of this National Environmental Policy Act (NEPA) process by Reclamation to develop shortage guidelines as directed by the Department of the Interior was done after it appeared that negotiations among the Governors' representatives for the seven Colorado River Basin States and their staff members had stalled out in trying to develop a consensus approach by the seven States as to how to manage water shortages. The Department of the Interior had been encouraging the seven Basin States to develop a "shortage plan, or we will develop one for you." This had essentially been the message delivered through a video-taped message from Secretary of the Interior Gale Norton at the December 2004 Colorado River Water Users Association conference in Las Vegas, and reiterated by the Deputy Secretary of the Interior and the Commissioner of Reclamation in their personal remarks delivered at the conference. The May 2005 letter from the Secretary of the Interior indicated that the time was growing short to meet this charge. The Basin States' representatives continued to meet with one another during 2005, with perhaps a bit more intensity after the May 5<sup>th</sup> Secretarial letter. The technical staff members of the seven Basin States were working with a small team of Reclamation technical staff and computer modelers, considering various alternatives for Lake Mead management and joint Lake Mead and Lake Powell reservoir operations during water supply shortage conditions. The State of Arizona, who will bear the brunt of any shortage declaration (by virtue of their junior priority position relative to use of the Lower Division States' apportionment) conducted a series of workshops beginning in mid-2005 to develop shortage implementation criteria that would have the support of water users in their state.

Notably, after the available time had been exhausted and everyone had worked about as hard as they could, a preliminary Basin States' interim (through 2025) river operations agreement was reached in Las Vegas, Nevada during meetings held January 30-31, 2006. As Reclamation was already engaged in the scoping process for its NEPA analysis, the Basin States characterized this conceptual agreement as their compromise, consensus alternative to be included and analyzed in the environmental impact statement on Colorado River shortage guidelines and coordinated reservoir operations during low reservoir conditions. The Basin States communicated news of their preliminary agreement in a joint letter to the Secretary of the Interior dated February 3, 2006. Recognizing that the USBR's Environmental Impact Statement (EIS) would consider various alternatives, the Basin States' asked the USBR to adopt the

States' proposal as the preferred alternative in the Shortage Guidelines EIS then under preparation.

As transmitted to the Secretary via the February 2006, letter, the "Seven Basin States' Preliminary Proposal Regarding Colorado River Interim Operations" began with the statement that the States' have worked together to recommend interim operations to the Secretary that should minimize shortages in the Lower Basin and avoid the risk of curtailment in the Upper Basin through conservation, more efficient reservoir operations, and long-term alternatives to bring additional water into the Colorado River community. It stated: "the States' recommendation has four key elements. First, the States propose to manage the reservoirs to minimize shortages and avoid curtailments. Second, the States have identified actions in the Lower Basin to conserve water. Third, the States recommend a specific proposal for implementing shortages in the Lower Basin. Finally, the States recognize the need for additional water supplies to meet the current and future needs in the Basin."

The letter stated that the Basin States' recommendations had been prepared for consideration by the Department of Interior as it prepares additional operational and water accounting procedures to: 1) delay the onset and minimize the extent and duration of shortages in the Lower Division States; 2) maximize the protection afforded the Upper Division States by storage in Lake Powell against possible curtailment of Upper Basin uses; 3) provide for more efficient, flexible, responsive and reliable operation of the system reservoirs for the benefit of both the Upper and Lower Basins by developing additional system water supplies through extraordinary conservation, system efficiency and augmentation projects; 4) allow the continued development and use of the Colorado River resource in both the Upper and Lower Basins; and 5) allow for development of dedicated water supplies through participation in improvements to system efficiency and clarification of how to proceed with development of non-system water reaching the Lower Basin mainstream. The Basin States representatives restated in their letter their position that implementation of these operational and accounting procedures can be accomplished without modification of the Long Range Operating Criteria or other elements of the Law of the River.

The Preliminary Proposal also reflected seven Basin States' agreement that augmentation of the available Colorado River water supply is an important mechanism to avoid future confrontations – that by increasing the pie the likelihood of fighting over remaining slices of the pie is lessened. The Southern Nevada Water Authority (SNWA), in consultation with the Colorado River Basin States, developed a scope of services for the Colorado River Long-Term Augmentation Plan for the Seven Basin States. SNWA entered into a study contract with Colorado River Water Consultants (CRWC), a joint venture between Black & Veatch and CH2M Hill. CRWC personnel met with the Green River Basin Advisory Group in Green River, Wyoming on July 19<sup>th</sup>, 2006. The CRWC completed its report in draft form in May 2007.

Reclamation released its draft EIS on Interim Shortage Guidelines and Coordinated Reservoir Operations on February 28, 2007. The final EIS was released by Reclamation in early November 2007. On December 13, 2007, Secretary of the Interior Dirk

Kempthorne signed the Record of Decision implementing the interim shortage guidelines during a signing ceremony at the Colorado River Water Users Association Annual conference. “This is the most important agreement among the seven basin states since the original Colorado River Compact of 1922,” said Kempthorne, noting that his decision memorializes “a remarkable consensus” not only to solve current problems but also to prepare ahead of time for future droughts or surpluses rather than resorting to disruptive litigation.

The Record of Decision implements the Basin States’ Agreement which contains provisions committing the States to address future controversies on the river through consultation and negotiation before initiating any litigation. The Record of Decision adopts four key elements of river management:

- First, the new guidelines establish rules for shortages – specifying who will take reductions and when they take them. This is essential for prudent water planning in times of drought.
- Second, the new operational rules for Lake Powell and Lake Mead will allow these two massive reservoirs to rise and fall in tandem, thereby better sharing the risk of drought.
- Third, the new guidelines establish rules for surpluses, so that if the basin is blessed with ample runoff, the Department of the Interior will have rules in place to distribute the extra water.
- Fourth, the new rules will address the ongoing drought by encouraging new initiatives for water conservation.

“I am particularly impressed by the innovative approaches you have taken to conserve water, especially the construction project known as Drop 2,” the Secretary told the Association’s attendees. “This is truly an innovative example of cooperation among states....that may help other states facing shortages meet their needs,” the Secretary added.

Specifics in the guidelines include the elevations in Lake Mead at which the Secretary would declare shortages in the Lower Basin, as well as what those shortages would be. The guidelines also specify the conditions under which Lakes Powell and Mead will be operated, with the intent of operating the reservoirs to avoid the risk of water curtailments in the Upper Basin and minimize shortages in the Lower Basin. The guidelines provide a mechanism that encourages water conservation in Lake Mead in the Lower Basin to minimize the likelihood and severity of potential future shortages; and modify and extend the Interim Surplus Guidelines, implemented in 2001, through 2026.

Secretary Kempthorne emphasized the importance of the Record of Decision implementing the Interim Shortage Guidelines, noting they provide “an innovative example of cooperation among states.... As other states – and other countries – struggle to resolve their water issues in the coming decades, they will look to the

cooperation among the basin states as a model--a way to embrace consensus rather than conflict To conserve and share water rather than fight over water. To ensure that everyone walks away from the table a winner.”

On May 23, 2007, the Secretary of the Interior signed and approved a Hydrologic Determination on Water Availability from Navajo Reservoir and the Upper Colorado River Basin for Use in New Mexico. Public Law 87-483, enacted in 1962, stipulated that no long-term contracts for San Juan River water, other than the Navajo Indian Irrigation Project and the San Juan-Chama Project, would be granted out of Navajo Reservoir until a Hydrologic Determination by the Secretary of the Interior shows that there is sufficient water to fulfill the contract. The State of New Mexico is seeking the authorization and construction of the Navajo-Gallup Water Supply Project as a part of its Indian water rights settlement with the Navajo Nation. In May 2005, the State of New Mexico requested the Secretary of the Interior to update the 1988 hydrologic determination.

The 2007 Determination concluded that the Upper Basin yield and New Mexico water allocation needed to support New Mexico’s revised Upper Basin depletions schedule (which includes the depletions proposed to occur when the Navajo Gallup Water Supply Project is built) are reasonably likely to be available and that the available water supply is at least 200,000 acre-feet greater than the 6.0 maf finding of the 1988 Determination. The mass balance analyses results are sufficient to conclude that: (1) the Upper Basin yield is at least 5.76 maf per year, on average, excluding shared CRSP reservoir evaporation; (2) New Mexico’s Upper Basin allocation is at least 642,400 acre-feet per year, excluding shared CRSP reservoir evaporation; and (3) the total anticipated average annual consumptive use in New Mexico from the Upper Basin, including Navajo Reservoir evaporation of 642,000 acre-feet per year as shown in the revised New Mexico depletions schedule is not likely to exceed New Mexico’s Upper Basin allocation. This conclusion is reached assuming full use of the Navajo Nation’s proposed depletion rights under the Settlement Agreement for both the Navajo-Gallup Water Supply Project and the Navajo Indian Irrigation Project.

### **Colorado River Basin Salinity Control Program**

The Interstate Streams Division continues to devote a significant amount of time and energy into salinity control measures, including additional salt loading reduction measures at the Big Sandy Unit of the Colorado River Salinity Control Project, which is defined by the boundaries of the Eden Valley Irrigation and Drainage District in the Eden and Farson communities’ area of Wyoming. This reporting year was the ninth year during which governmental entities within the States of Colorado, Utah and Wyoming administered the “parallel” salinity control program authorized by the 1996 Farm Bill (P.L. 104-127), Amendments to the Colorado River Basin Salinity Control Act created by the 1996 Farm Bill allow up-front cost-sharing for salinity control measures (as opposed to reimbursement from the Upper and Lower Colorado River Basin Development Funds to the Federal Treasury once expenditures had occurred in a preceding year). The Parallel Program is allowing significant leveraging of federal appropriations with Basin Fund monies and has directly and greatly accelerated the rate of salinity control efforts being

implemented across the Basin. Unfortunately, solicitors' advising the Bureau of Reclamation's Salinity Control Coordinator raised questions during the past reporting period about the authority found in the Salinity Control Act to allow for this Basin States Parallel Program. This, along with questions about administration of the Bureau of Reclamation's Basinwide Salinity Control Program, led the Bureau to initiate a "program review" in mid-2007 that is scheduled to be completed at the end of calendar year 2007. Not content with leaving the matter in the hands of Reclamation, the Salinity Control Forum approved a plan to obtain explicit legislative authorization for the Parallel Program through amendments to the Salinity Control Act. The Forum has been working with Colorado and Utah's Senators to insert language in the Farm Bill legislation during this session of the 110<sup>th</sup> Congress to "clarify" the Basin States' authority to continue to implement the Parallel Program as has been done for the past decade.

The Interstate Streams Engineer continued to participate in meetings of the Salinity Control Forum, the Forum's Work Group, Salinity Control Advisory Council (established as a Federal Advisory Committee Act committee by the 1974 Salinity Control Act) and ad-hoc work groups. The State of Wyoming hosted the June 2007 Forum and Forum Work Group meetings in Jackson, Wyoming.

Last year's report described a proposal to achieve additional cost-effective (~\$22 per ton of salt loading reduction) salinity control within the Eden Valley Irrigation and Drainage District (EVIDD) by piping several long laterals traversing very sandy ground. The 2005 Wyoming Legislature appropriated \$1.588 million after the District had submitted an application to the Water Development Commission the prior fall for assistance with this water management/salinity control project. The Forum recommended and Reclamation approved use of Parallel Program salinity control funds for the remaining 50% of the funding for the 11.2 miles of pipeline under the three canal laterals that are to be piped under this proposal. During 2006 the State Engineer's Office negotiated a cooperative agreement amendment to allow the SEO to serve as the financial agent to transfer the "parallel" program funds to the EVIDD as contractor bills are submitted; and a project funding agreement between the SEO and the EVIDD specific to the funding and providing for approval of all work performed by engineers at the Water Development Commission. The EVIDD hired Nelson Engineering of Jackson to provide engineering services for this project in 2006 and subsurface investigation along the pipelines routes and right of way and easement work has been completed. Engineering design and detailed cost estimation work was performed by the Pinedale office of the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) in 2007. Due to ongoing plastic pipe price escalation and issues associated with the pipeline capacity the cost estimations came in over the available funding to complete the project and the NRCS went "back to the drawing board" in the late summer of 2007. Revised cost estimates that reflected smaller pipeline capacity were delivered to the Water Development Commission in early November 2007. It is hoped that the project will be ready to proceed to bidding on the actual pipeline construction work in early 2008.

### **Upper Colorado River Endangered Fish Recovery Program**

The non-federal Recovery Program participants again worked to obtain the support of

the four affected States' Congressional Delegation for budget items related to the Upper Colorado and San Juan recovery programs within the Bureau of Reclamation and Fish and Wildlife Service budgets in the President's recommended fiscal year 2008 prior to and during briefing meetings in Washington, D.C. with the involved States' Congressional Delegations and Congressional Committee staff in March 2007. Joint funding support letters signed by most of the members of the four States' Congressional delegations were delivered to the House and Senate appropriations committees having jurisdiction over the Bureau of Reclamation and the Fish and Wildlife Service budgets.

On July 11, 2007, about 200 people gathered at Elkhead Reservoir, a few miles northeast of Craig, Colorado for the official dedication of the enlarged reservoir. Completed as a partnership by the Colorado River Water Conservation District, the City of Craig, the Craig Station Power Plant, the Colorado Department of Natural Resources (Division of State Parks) and the Upper Colorado Endangered Fish Recovery Program, the \$31 million dollar project increased the reservoir capacity by 12,000 acre-feet to 24,800 acre-feet. Releases from the enlarged reservoir will augment late-summer base-flows in the Yampa River downstream to maintain favorable habitat for the endangered fish. Storage is available to meet future needs in the Yampa River Basin, to firm up the water supply for the Craig Station, and will significantly enhance water recreation opportunities in Moffat County. The Recovery Program's financial involvement purchased 5,000 acre-feet of reservoir storage in perpetuity. The Colorado River Water Conservation District has leased 2,000 acre-feet of the District's 6,957 acre-feet of enlarged reservoir capacity to the Recovery Program to help meet the endangered fish flows for the next 20 years. This project was cited as an outstanding example of interagency cooperation by local, county, state and federal officials who spoke at the dedication ceremony.

### **Colorado River Compacts Administration Program**

In July 2006, the Colorado River Compacts Administration Program became an official component of the Interstate Streams Division of the State Engineer's Office. Water Year 2007 was the first full year for the program's existence. The program's primary goal is to develop, implement and operate a process to monitor the consumptive use of water in the Colorado River basin of Wyoming. The program is needed to address requirements outlined in the Colorado River and Upper Colorado River Basin Compacts. The overall mission of the program is simply to ensure the State of Wyoming is the leading authority on its water use in the Colorado River Basin. The area covered by this program includes portions of the SEO's Division I (Little Snake drainage) and Division IV (Green River drainage).

The initial objective for this program was to develop a plan and associated implementation budget to begin to acquire the tools and subsequent data necessary to meet the program goal. The plan has been entitled the Consumptive Use Determination Plan (CU Plan) and is envisioned to be the "road map" outlining the steps the SEO and the State of Wyoming should take to build and implement a comprehensive and efficient monitoring program in the Colorado River Basin. A draft of the CU plan was completed in August and is currently under review. The CU plan was

structured to address eight main components. These components include; 1) climate and hydrology, 2) diversion and consumptive use, 3) water rights attribution, 4) reservoir operation, 5) groundwater, 6) administration/decision support tools, and 7) outreach. The plan is meant to be dynamic. The document will be updated on a regular basis to note tasks completed, changes in direction of the program, status of ongoing work efforts and newly proposed tasks or program requirements. The CU Plan also served as the basis for the preparation of the program's FY09-10 budget request. Contained in the request are funds needed to initiate the implementation of many of the tasks outlined within the plan.

In addition to the development of the CU Plan, several additional tasks under the auspices of the Colorado River Compact Administration Program were initiated in Water Year 2007. These included: 1) initiation of the mapping of water rights in the basin, 2) assessment of remote sensing technologies to estimate evapotranspiration from irrigated lands, 3) planning for enhanced/expanded field instrumentation with telemetry and 4) ongoing coordination efforts with Wyoming Water Development Office (WWDO) relative to the development of basin hydrology models.

Water Rights Mapping: The SEO contracted with Leonard Rice Engineers to complete the water rights mapping project. The intent of the project is to complete a one-to-one digital data set between water rights and irrigated lands. In addition to the mapping, verification of numerous attributes related to the irrigated lands will be verified and attributed within the data set. The project should be completed by early 2009.

Use of Remote Sensing Models to Assess ET: A contract is in place with the Wyoming Geographic Information Science Center at the University of Wyoming to assess the use of remote sensing models for estimating evapotranspiration from irrigated lands in the basin. Using the Water Year 2007 growing season, the initial objective was to calibrate models to Wyoming conditions, and assess the scale at which models could be applied. As part of the project, two weather stations needed for calibration were installed and operated in the basin from May through the remainder of Water Year 2007. Data for these two sites are included in the Division IV Hydrographers Report. Continuation of remote sensing work in WY08 will be dependent on Landsat 5 operational status.

Enhanced Data Network with Telemetry: Planning efforts were initiated to add telemetry to the existing data collection network in the Green River Basin, as well as expansion of the existing network. Development of the full network will be dependent on the program's FY09-10 budget exception request. Adding instrumentation in many areas will be dependent on the ordering in of (and compliance to) control structures. Radio tests will be started during the upcoming fall/winter, and plans are underway for some pilot radio installations in the spring 2008.

Hydrologic Modeling Efforts: Ongoing coordination with WWDC staff and an assortment of consultants to discuss the development of hydrologic models in the Green River Basin and statewide. There is general agreement to not pursue updating of spreadsheet models but rather put efforts towards the development of StateMod model in the Green River basin as well as other basins as WWDC's planning efforts move along.

Activities undertaken in Water Year 2008 will be driven in great part by the outcome of the FY09-10 funding request. If funds are approved, many of the tasks outlined in the CU Plan will be implemented in Water Year 2008. Significant results should begin to become available starting in 2009.

## **Other**

The Interstate Streams Division continued to represent the State of Wyoming in other Colorado River basin ongoing efforts that due to space considerations in this report and lack of notable or extraordinary accomplishments are only mentioned in passing. These include: serving as Chairman of the Resolutions Committee for the Colorado River Water Users Association; limited, as required, participation on the Technical Work Group and Adaptive Management Work Group for the Glen Canyon Adaptive Management Program; participation on the Colorado River Management Work Group that develops the draft Annual Operating Plan for the Colorado River Reservoir System and serving as the Chairman of the Upper Colorado River Commission's Engineering Committee and as Technical Advisor to the State Engineer in his capacity as the Wyoming Commissioner to the Upper Colorado River Commission.

## **Bear River Basin**

The Bear River Commission met November 21, 2006 and April 17, 2007. Bear Lake continues to hover around the compact defined elevation of 5911' which dictates whether Amended Compact storage may take place in the upper basin. Bear Lake did go above this elevation in the spring of 2007, so storage at Woodruff Narrows Reservoir, Sulphur Creek Reservoir and Whitney were not restricted. The Technical Advisory Committee (TAC) met February 13, 2007 in Salt Lake City to finalize their review of the water rights held by the US Fish and Wildlife Service for the Bear Lake Refuge. The Refuge also has a contract with PacifiCorp for the management of water levels in Mud Lake, which lies within the Refuge boundaries. The TAC was satisfied that the amount of water use with the area south of the Paris dike has not increased since the Amended Compact date of January 1, 1976. Idaho provided additional information on the water rights held north of the Paris dike and the TAC determined there was not a Commission issue with the use of these water rights. At the February, 13, 2007 meeting, the TAC also met with representatives of the Corps of Engineers who are completing a Watersheds Project with the Western States Water Council. The Corps was interested in possibly using the Bear River as a pilot to describe some of the water management "tools" that the Corps has developed. As a result of the EPA watershed program grant (\$800,000) that the Bear River Commission received, several information delivery tools had already been developed by the Utah State University

(USU) personnel who are contracting with the Commission under the EPA grant. The Bear River Commission agreed that they were comfortable with the Corps describing the efforts that have occurred in the Basin for improved information delivery, but the Commission was not interested in any additional work with the Corps. Regarding the EPA grant, USU has made significant progress in the three (3) components of the grant: water quality model development; outreach website; and pollution credits trading. EPA has allocated an additional year to the grant to see if additional interest can be garnered in a pollution credit exchange in the basin. A conference was held at USU in September, 2007 to provide water quality information to the wider water using public.

The TAC also met in September, 2007 mainly to review the proposed Black Bear Resort development near Bear Lake. The Resort plans to use groundwater for the 3000 unit development and under Idaho law, the Resort must mitigate for the consumptive use of the groundwater used. The Resort proponents have purchased a ranch with senior water rights in the Pegram, Idaho area which is in the Central Division as defined by the Compact, whereas the Resort property is in the Lower Division. No application had yet been filed with the Idaho Department of Water Resources, so the TAC will continue to monitor the Resort's activities once their water right application has been filed.

The Town of Bear River requested an allocation of 1958 Compact storage to provide to the City of Evanston for storage in Sulphur Creek Reservoir in return for Evanston providing Bear River with treated water for a regional system to serve Uinta County residents as well as the Town of Bear River in 2005. The Town and the County have now formed a joint powers board for delivering the water from Evanston to Town of Bear River and to the county areas in between. Construction funds have been received from the Water Development Commission and construction should begin on the pipeline next year. The allocation associated with the Needle Rock Reservoir permit which has a priority date of 1975, but which has not yet been constructed had been suggested as one potential compact allocation source for the Town of Bear River. The owner of the Needle Rock Reservoir has now expressed interest in getting the facility built; the owner has been giving a firm deadline of December 31, 2008 for completion of construction to maintain their original compact storage allocation.

A flood control study is still contemplated by the Corps of Engineers. Both Idaho and Wyoming have appropriated \$50,000 each to match with the Corps, but the Corps has been unsuccessful in getting their portion of the funding.

### **Snake River Basin**

The Wyoming State Engineer's Office, the Wyoming Game and Fish Department and the Bureau of Reclamation have been meeting each fall and spring since Wyoming purchased 33,000 acre feet of storage in Palisades Reservoir in 1990. Since all of the contracted use out of both Jackson Lake and Palisades Reservoir is to lands downstream of Palisades in Idaho, the Bureau of Reclamation and the State of Idaho—District 01 allows Wyoming through a paper transfer to use the Palisades water right storage out of Jackson Lake. Winter releases for 2006-07 were maintained at 500 cfs, which was considerably higher than the 280-300 cfs that had been released during the

more severe drought years. Storage amounts were near average going into the 2007 irrigation season, but very dry and hot conditions in Idaho resulted in the need to make large August and September releases from Jackson Lake to meet irrigation demands in Idaho. The high summer releases severely impact the commercial fishing guides as this is the height of their short season. Reclamation had approached Wyoming as to their interest in putting a portion of their Palisades storage into the Rental Pool for Reclamation's delivery of water for salmon passage on the lower Snake River. After further research, Reclamation concluded that a direct transfer of Wyoming's storage specifically for salmon delivery was not currently possible under the Rental Pool rules.

The fall agency meeting was held September 19, 2007 and the winter releases for 2007-08 are set for 350 cfs.

A coalition of environmental groups and individuals interested in obtaining Wild and Scenic Rivers Act designation for the Snake River and some of its tributaries were successful in obtaining Senator Craig Thomas' support and he introduced a Wild and Scenic bill for the Snake prior to his death in June, 2007. Senator John Barrasso succeeded Sen. Thomas and is also supporting the Wild and Scenic designation. We have worked with Sen. Barrasso's staff, supplying them with language such that the designation in the Snake River basin can perhaps mimic as closely as possible the process that was used in determining the federal reserved right for wild and scenic designation on the Clarks Fork of the Yellowstone in 1990.

### **Water Organizations and Policy Issues**

Water Forum: The State Engineer serves as the Chairman of the Wyoming State Water Forum. The Water Forum meets monthly beginning in September and ending in May and provides state and federal agency personnel a regular opportunity to share information and insight on water activities that are ongoing in their respective agencies. Each month, a special program is presented providing a more in-depth review of a particular water related issue or topic. During this last season, topics for Water Forum ranged from a presentation on the Cheyenne Re-use Project to climate change and the social life of water in Leukarbad, Switzerland. The current schedule and past and current Water Forum minutes are kept on the State Engineer's Office website at: <http://seo.state.wy.us/news.aspx>. The Forum provides an important information exchange mechanism in an informal setting.

Governor's Planning Office and Army Corps of Engineers Notices: The Interstate Streams Division is responsible for reviewing and responding to all notices received from the Governor's Planning Office and the Army Corps of Engineers. The notices from the Governor's Planning Office include, but are not limited to, proposed actions, scoping statements, environmental impact statements (draft and final) and environmental assessments. The notices from the Army Corps of Engineers are notices of applications for Section 404 permits. During this last reporting period, 44 notices were received from the Governor's Planning Office and 2 were received from the Army Corps of Engineers. The Interstate Streams Division is also responsible for attending any meetings that pertain to projects of special interest to the State Engineer's Office.

These meetings often include tours of the affected area, open houses and public meetings. Meetings with the other cooperators to help develop purpose and need statements and alternatives for the project are also attended by this division.

The Governor's Planning Office has also initiated State and Federal Coordinating Committee (SFCC) meetings. These meetings convene on a monthly basis and provide an opportunity for state and federal agencies to discuss National Environmental Policy Act (NEPA) projects and other projects and activities occurring around the state.

Interstate Council on Water Policy: The ICWP is a nation-wide water policy organization with membership made up of state water resource agencies and interstate water management entities. The ICWP continues to spearhead a work group made up of representatives from ICWP, Western State Water Council, National Water Resources Association and the Association of Floodplain Managers to raise the awareness of the continuing funding erosion of the USGS's streamgaging programs, namely the Cooperative Program and the National Streamflow Information Program (NSIP). ICWP sponsored a national USGS cooperators meeting in Austin, TX in early 2006. One recommendation from that meeting was to hold regional cooperator workshops. I attended the first two of those regional meetings (March 2007 for Georgia and the Carolinas, and in California in early May 2007). Although the streamgaging efforts are improving the overall federal budget for these programs, one disappointing area was a decision by the Bureau of Indian Affairs to cut their funding for about 40 gages in the Upper Missouri River basin. We are continuing discussions with the Dept. of Interior on the severe impacts of these gage cuts.

ICWP held their annual Federal Roundtable on February 25-28, 2007 in Washington DC. ICWP's Annual Meeting was held November 3, 2006 in conjunction with the American Water Resources Association (AWRA) meeting in Baltimore. ICWP also participated with the AWRA in sponsoring the 3<sup>rd</sup> National Water Policy held in Arlington, VA in January, 2007.

Sue Lowry is ICWP's representative to the Advisory Committee on Water Information (ACWI) which is a Federal Advisory Committee Act-commissioned group to provide public input on water programs of the USGS, EPA, NOAA, and other federal agencies.

Western States Water Council: Wyoming hosted the Council October 4-6, 2006 in Sheridan. The tour for the group included CBM development and water disposal methods and visits to Tie Hack dam and Lake deSmet. WSWC is continuing their work with the Corps of Engineers on a west-wide watershed study. The focus of the study is implementation of the issues identified in a report completed for the Western Governors Association (WGA) entitled: "Water Needs and Strategies for a Sustainable Future". Implementation of the WGA report included two symposia: one in Irvine, CA in November, 2006 on Emerging Water Supply Innovations and a second being planned for Salt Lake City in October, 2007 on Watershed Planning. The WGA report will result in a number of law articles and other reports detailing the subject of meeting the increasing demand for water in the west.

Upper Missouri Water Association: The Annual meeting of this group was held in Billings on October 26, 2006. It is Wyoming's turn to chair the organization and Sue Lowry was selected to be the chair for a two year term at the Billings meeting. The Annual Congressional Briefing was held in Washington DC on March 27, 2007 in conjunction with the National Water Resources Association meeting.

Ogallala Aquifer Institute: This institute was formed in 2001 with seed money provided by the Kansas Water Office. The Board of Directors for the Institute consist of agency representatives, land owners and environmental educators from the eight states which share the aquifer. The group has had difficulty raising any additional funds beyond the initial infusion from the Kansas Water Office. The Board agreed to retain the 501(c)(3) IRS status, but the Institute has been mostly inactive during this reporting period. The Board is seeking an organization with groundwater education as one of its missions and will transfer the small remaining funds and disband the Institute.

Other: During this reporting period, the Division also monitored the Bureau of Reclamation's Managing for Excellence efforts, served on the NRCS's State Technical Committee, and coordinated the inter-agency meetings with Water Development Commission, NRCS, DEQ and Game and Fish.

## **Water Planning**

The 1996 Legislature directed the Wyoming Water Development Commission (WWDC) and the State Engineer's Office (SEO) to prepare recommendations for updating the 1973 Wyoming Framework Water Plan. Following this direction, the two agencies submitted a joint recommendation to the Governor, the Select Water Committee, and the WWDC on October 1, 1996. In 1997, the Legislature directed the WWDC to conduct a water-planning feasibility study with the assistance of the SEO and the University of Wyoming (UW). The Bear River Basin was chosen as the site for the feasibility study and a pilot analysis soon began. Throughout the pilot study, the WWDC maintained an intensive public outreach effort, completed a statewide water data inventory, and was advised by a multi-agency scoping group. With the help of an independent consulting firm under contract to the WWDC, final recommendations for implementing future water plans were drafted for seven planning areas in Wyoming. The recommendations consisted of time lines, necessary agency staffing, estimated costs, process goals, and vision of the final products.

There are seven planning areas within Wyoming – the Bear, Green/Little Snake, Powder/Tongue, Northeast Wyoming (Little Missouri, Belle Fourche, Cheyenne, and Niobrara basins), Snake/Salt, Wind/Bighorn, and Platte basins. The products created for each plan consist of a series of technical memorandum describing each topic outlined in the contract with the WWDC. An executive summary and final report, spreadsheet models of the basin's water supply and uses, and various mapping products are also part of the final product. The Platte River basin includes a web-based presentation tool. All of these products are on the Water Planning website (<http://waterplan.state.wy.us/>). This enables anyone who is interested access to the data, mapping and modeling.

The following table summarizes the completion of the first round of planning for each basin:

<b>River Basin Plan</b>	<b>Plan Completion</b>	<b>Lead Consultant</b>
Green/Little Snake	December 2000	States West Water Resources
Bear	December 2000	Forsgren and Associates
Powder/Tongue	December 2001	HKM Inc.
Northeast	December 2001	HKM Inc.
Snake/Salt	December 2002	Sunrise Engineering
Wind/Bighorn	December 2002	BRS Inc.
Platte	April 2005	Trihydro

### **Framework Water Plan**

In 2005, the Wyoming Water Development Commission (WWDC) was appropriated \$500,000 by the Legislature to update the 1974 State Framework Water Plan. The updated Framework Water Plan summarizes the work that was completed over the last 6 years on all seven river basin plans and serves as a resource for current and future water planning.

WWC Engineering (WWC) of Laramie, WY was selected to complete the Framework Water Plan. This plan contains two volumes. Volume I presents a statewide perspective on water resources, compiled from the seven basin plans that were completed from 2000 - 2005. The purpose of this document is to provide information so practical decisions can be made concerning water and related land resource development in Wyoming. Volume II provides planning and management direction that is a result of comments and ideas that came from members of the seven Basin Advisory Groups (BAGs), a three-tiered survey, observations of the WWC consulting team and the water planning team, and ideas and opinions of state agency staff.

Volume I of the Framework Water Plan gives a summary of physical information about the state (such as amount of yearly precipitation and location of major aquifers), current social and economic conditions and an outline of institutional constraints (compacts and decrees, for instance) that play a part in water planning. The report further describes the total water supply in the state, including where the resource is located and its quantity. Use in all water sectors, both depleting and non-depleting, is described along with estimates of the amount and location of unused resources. The last two features of the plan, use and availability, will help water resource managers project future water needs of the state.

Inasmuch as Volume I gives the reader information concerning water resources in the state, Volume II describes the philosophy of water planning and the role and future direction the program should take in the state. Opinions and thoughts on the water planning process were solicited from a number of sources using an e-mail survey, a telephone survey with water managers, meetings with the Basin Advisory Groups, a facilitated agency head meeting and a survey of western states involved in water planning. The Game and Fish Department, the WWDC and the State Engineer's Office were also asked to provide a write-up for Volume II on their respective agency's thoughts and views on water planning. In this write-up, the SEO described some of the significant issues that may impact our agency in the next few years. Issues such as water rights transfers, the benefits and impacts of water conservation, the impacts of coalbed natural gas development, and the ability to develop a more extensive real-time gaging network are just a few of the topics covered.

Another important component of the Framework Water Plan is a web based tool. This tool gives the user the ability to view the report online as well as search for information using the Google search engine. The web based tool contains all of the information from the 2007 plan in a static form but will also be backed with databases that can be updated periodically. This will give the reader the ability to view the most up-to-date information on water resources in our state as it becomes available. This information can be accessed at: <http://waterplan.state.wy.us/>

One of the last tasks that WWC was asked to perform was to determine the order of the next round of updates of the individual basin plans. When water planning began in 2000, the intent was it would be an ever-evolving process. Now that individual plans have been completed in all seven of the basins and summarized in the 2007 Framework Water Plan, it is time to start the process again. WWC determined the Green River basin was the logical candidate to start this second round of water planning, as this basin has experienced significant population growth and energy development since the Green River Basin Water Plan was completed in 2001.

A request for proposal (RFP) for the Green River Basin Plan II Study was sent out on June 18, 2007. The Wyoming Water Development Office (WWDO) received three proposals and WWC Engineering in Laramie was selected for this project.

One of the issues that came to light in the first round of river basin planning was the lack of sufficient groundwater information. The WWDO decided to put more focus on groundwater in the next round of river basin planning to address this problem. To that end, the \$600,000 that has been appropriated for the Green River Basin Plan 2 will be split equally between two projects. One project will emphasize groundwater and the other, surface water and plan update.

The groundwater project will be led by the Wyoming State Geological Survey with the U.S. Geological Survey and the Water Resources Data System providing technical support. This team will focus on gathering all available data relative to groundwater. They will identify aquifers present in the basin and their associated quality and quantity and attempt to determine recharge areas, recharge rates and safe yield. Any

information in existing reports, models and other studies that is pertinent to this study will be gathered into a bibliography. All of this information will then be synthesized into a report that lists the team's findings along with any data gaps and future needs that have also been discovered.

The surface water project will be led by WWC and will update portions of the 2001 plan. Some of the areas to be updated include irrigated lands mapping, available surface water information, population changes and projections and the socio-economic data. This update will also concentrate on some additional planning aspects that could help local and state decision makers. These planning aspects include looking at water use issues and topics that could influence water management strategies and water use opportunities in the basin. Some of the issues that the consultant has been asked to investigate include water quality issues, compact requirements, federal legislation such as the Endangered Species Act and climate change and its impact.

Along with the issues mentioned above, WWC has also been charged with recommending strategies to meet the needs of the basin as they are identified throughout the study. Some of the strategies that have been suggested include investigating flow augmentation opportunities, implementing water conservation and drought management techniques, developing new water supplies and improving management of existing water supplies.

The Basin Advisory Group (BAG) will play an important role in this update. The BAG is made up of stakeholders from throughout the basin. This group will meet every other month in various locations around the basin until the plan is completed in May 2009. At these meetings, the BAG will be provided an opportunity to discuss important issues with each other as well as WWC, the WWDO and the State Engineer's Office (SEO). To help initiate this discussion, the group has been asked to think about water issues and strategies to meet the needs that will undoubtedly occur as water use becomes more critical in the Green River Basin. Additionally, these meetings will give the SEO the opportunity to keep stakeholders updated on the Green River Consumptive Use Plan and other activities in which the SEO participates as part of the Colorado River Basin.

## **Water Conservation**

Sue Lowry continues to serve as the Western States Water Council's representative to the Bridging the Headgate (BTH) partnership. The partnership's goal is to improve communications between irrigators, state water officials, conservation districts, the Natural Resources Conservation Service and the Bureau of Reclamation to use limited resources as efficiently as possible. Dean Marrone is now serving as Reclamation's Field Services Program coordinator, and the steering committee met with Dean the first time in September, 2007 to develop a BTH work plan for 2008. Peter Robinson is now the main NRCS contact to BTH.

## **SUPPORT SERVICES DIVISION**

Martin Zimmerman

### **General**

The Support Services division has a total of thirteen employees and is responsible for the following operations:

- Information Technology and Telecommunications
  - Enterprise Systems - Hardware, Software, Backup, and Business Continuity.
  - Network – Telecommunications, Infrastructure, Firewall, and Security.
  - Help Desk & Support – All user issues and problems, Desktop equipment, software and peripherals.
- Application Programming and Databases
  - Programming - Application development and support.
  - Database – SQL & Microsoft Access programming, reports, and queries.
  - Database management.
  - Web – Website, Web Development, and Web Content.
- Geographic Information Systems
  - GIS – ArcGIS, ArcIMS and ArcSDE application support, development, and spatial data management.
  - GIS training.
- Microfilm & Imaging
  - Scan paper and microfilm records into electronic formats.
  - Maintaining film and appropriate archive procedures.
  - Manage documents systems and storage for scanned documents.
  - Maintain quality of scanned records and appropriate and safe archival.
  - Generate microfilm for state archival.
- Records Management
  - Maintain organization and access to all records for the agency

### **Information Technology and Telecommunications**

The State Engineers Office is currently involved in a multi-biennium project (IT Initiative) to allow the agency to receive, process, and store all applications, permits, petitions, maps, etc. in a digital form. Phase III is underway and Support Services has an instrumental role in preparing and supporting this initiative. IT continued to make infrastructure modification and upgrades over the past year. These included expansion of the IP SAN (Storage Area Network) for centralized file storage, upgrades to the SEO network backbone, WAN connections to division offices, and upgrade of the SEO firewall. Server replacement and new servers in support of IT Initiative have been installed. Upgrades to field office computer systems were started with the goal of

replacing outdated computers in all field offices. Semi-rugged laptops were purchased to assist personal when outside the office.

### **Application Programming and Databases**

The database and web groups continue to utilize new technologies to develop system that allow all users the ability to search for and view water rights and associated scanned documents. The transition from Microsoft Access to SQL Server and Visual Basic.net continues to improve performance and reliability of the current system. This group continues to maintain current data systems while assisting in preparing and testing the new e-Permit application.

### **Geographic Information Systems**

GIS continued to create, update and maintain spatial information for SEO technicians. We conducted several training sessions as well as provided numerous training resources for both field and headquarter staff. We continued working with ArcSDE and ArcIMS to disseminate data and maps on our internet site. We are still working collaboratively with the county offices, field personnel, and other agencies to collect LAT/LONG data on SEO points of interest. We hope to continue this progress to have all water rights tabular data depicted in a spatial format using ArcSDE and ArcIMS.

### **Microfilm & Imaging**

Microfilm and Imaging group gained two new positions on July 1. These two new positions are dedicated to the scanning of over 600,000 microfilm jackets. The group spent much time analyzing, organizing and preparing agency documents for scanning into the new Document Management System and e-Permit application.

### **Records Management**

Records management and records retention continued to be evaluated and analyzed as the ongoing IT Initiative and DMS systems get closer to going online.

### **Summary**

This department continues to undergo major changes and advancements as we evolve to be the technology leader within the State Engineers Office. We continue to play an important role in the testing and supporting the IT Initiative. It is a great opportunity and an exciting time for all of the Support Services staff.

## **SURFACE WATER AND ENGINEERING DIVISION**

The Surface Water and Engineering Division report includes surface water permit activities, weather modification permits, and dam safety activities. The numbers provided and the comments are for the period from October 1, 2006 through September 30, 2007, which is referred to as Water Year (WY) 2007.

### **SURFACE WATER RIGHTS SECTION**

John Barnes, P. E.  
Administrator, Surface Water and Engineering Division

#### **Objectives**

The objectives of the Surface Water Rights Section are mandated by the requirements of State water law and the State Engineer's Rules and Regulations as well as the goal to be of service to the public. The Section objectives are:

1. To promptly review and process surface water applications and petitions and submit them to the State Engineer for his review and consideration.
2. To maintain and update the status of all unadjudicated water rights records to accurately reflect the current status of these permits. The updated records are entered into the water rights database and scanned to keep all records current.
3. To provide a service to the public by promptly filling requests for data on the status of water rights and for copies of records by direct public contact or by providing assistance in the public's use of the electronic retrieval of records
4. To provide technical advice and instruction to engineers, surveyors, and the public on the proper procedures for filing applications for permits, petitions and water use agreements and for permit status updating.
5. To provide technical assistance to the State Engineer, office staff, and water administration field personnel in matters requiring interpretation of surface water rights.

#### **Accomplishments**

- a. Applications for permits – 1003
- b. Petitions – 23
- c. Temporary Water Agreements – 179
- d. Water rights information searches – 72

The 2006-2007 winter continued the drought with a below normal snow pack over the State. The reservoirs on the North Platte River were at historic low levels at the end of the

2007 irrigation season. There continues to be a large number of inquiries regarding water rights, water law, and related matters.

In addition, the Dam Safety Section conducted field safety inspections of dams, completed plan reviews and performed other activities as reported in a separate section of this Division report.

### Application Reviewing and Processing

A total of 1003 surface water applications were received in the period. The following table gives a comparison of applications and petitions filed with the State Engineer for the past years, beginning with FY 2001 and continuing through WY 2007. The end-of-period backlog is 911 applications as the number of CBM reservoir applications has leveled off.

FY	APPLICATIONS			PETITIONS		
	No. Recd	Approve/Reject	EOY Backlog	No. Filed	Approve/Dismiss	EOY Backlog
01	1067	600	1312	15	6	77
02	1205	661	1856	15	8	84
03*	1504	1208	2271	30	14	100
WY 04	1610	1350	2531	19	17	102
05	1650	2321	1768	23	17	108
06	1413	1610	1347	22	34	96
07	1003	1439	911	23	15	104

\*Represents a 15-month period: July 1, 2002 to September 30, 2003.

Types of applications fall into several categories. The more complex categories include ditches/pipelines, enlargements, and reservoirs. The less complex applications and those that can easily be reviewed and approved include applications for stock reservoirs and temporary water uses. Applications for permits for instream flows, the first of which was received in FY 1987, include a requirement by law that the State Engineer hold a hearing before granting or rejecting them. Only the state of Wyoming, through the Wyoming Water Development Commission, can file instream flow applications. A summary of instream flow water rights activities during WY 2007 includes the following:

- ISF applications received – 0
- ISF hearings conducted – 4
- ISF permits issued – 7
- ISF application backlog on September 30, 2007 - 35

COMPARISONS OF TYPES OF APPLICATIONS RECEIVED				
Category	FY 2004	WY2005	WY2005	WY2007
Ditches/Pipelines	146	133	101	113
Enlargements	17	19	19	32
Reservoirs	235	366	402	329
Stock Reservoirs	970	975	787	553
Temporary Use	68	152	101	98
Instream Flow	136**	5	3	0
<b>Totals</b>	<b>1610</b>	<b>1610</b>	<b>1413</b>	<b>1003</b>

\*\*State Instream Flow Applications – 1  
 Forest Service Instream Flow Recordations – 135

#### Petition Processing

The first table printed above included data on petitions submitted to the State Engineer to correct or to amend permits. During the reporting period, the number of petitions either filed, granted or dismissed brought the backlog to 104 on hand. Many of these petitions are associated with cleaning up permits associated with correcting permits to reflect how reservoirs are being constructed in Water Division No. II.

#### Temporary Water Agreements

Where water is not available under a new permit for construction purposes and other temporary uses, the temporary water users can enter into agreements with holders of valid, senior-priority water rights to obtain water for their temporary needs. Water Agreements must be reviewed and approved by the State Engineer's Office and an Order entered to allow the temporary change in use. To meet the needs of the construction and drilling industries, Water Agreements are quickly reviewed and approval Orders are normally issued within a few days of receipt of the Agreement. In the reporting period, a total of 179 Water Agreements were received and approved. A comparison with previous years follows:

<u>FY/WY</u>	<u>Water Agreements</u>
2002	179
2003	207* (166)
2004	129
2005	140
2006	121
2007	179

\*Represents a 15-month period: July 1, 2002 to September 30, 2003.

(Represents annualized number)

#### Permit Endorsements

Once a permit is issued, it is recorded in the agency database and a scanned image is stored in the document management system. The records must be updated every time a notice for completion of construction or beneficial use is filed with the State Engineer for a given permit. If approved, requests for extensions of time must be endorsed on the permit and the update recorded in the agency database. Eliminations of points of use from a permit, reinstatements of permits, cancellations of permits, assignments, or any other changes by petition to the State Engineer require endorsements to permits and updates of the database and document management system.

#### Information Searches

Landowners, surveyors, engineers, attorneys, realtors, and others routinely request copies of permits, certificates of appropriation, maps, and other information pertaining to water rights records. During WY 2007, a total of 72 requests were answered requiring records searches. The following table shows the history in the numbers of requests received.

<u>FY/WY</u>	<u>SEARCH REQUESTS</u>
2001	778
2002	666
2003	416** (333)
2004	86
2005	120
2006	95
2007	72

\* Represents a 15-month period: July 1, 2002 to September 30, 2003.  
(Represents annualized number)

Some of the information requests are related to the preparation of applications and maps by engineers and surveyors for permits or petitions. Again, in the reporting period, the bulk of the requests appeared to be from realtors and bankers who desired water rights information in real estate sales transactions or for use in real estate loans.

#### Field Activities

Site visits were made to areas where controversies were occurring. Site visits were also made by the Safety of Dams staff to observe reservoir construction, to inspect reservoirs as part of the dam safety program, and to investigate alleged illegal activities.

## Other Activities

The Surface Water and Engineering Division continues to participate in reviewing the activities of the U.S. Board of Geographic Names (USBGN). This review provides for coordination of names used on maps, particularly those of streams, since every year, many streams are given names by issuance of water rights permits.

The Surface Water and Engineering Division maintains a complete file and inventory of all USGS maps in Wyoming for use by the State Engineer's office and field personnel.

## Problem Areas

### Coal Bed Natural Gas Reservoir Impacts

The number of reservoir applications filed continues at a high level but has fallen off due to a lack of gas transmission capacity. The large number of reservoir applications is due to reservoir filings by the coal bed natural gas (CBNG) industry in the Powder River Basin. The Division continues to reduce the backlog of applications.

### Records Rehabilitation

The past Annual Reports detailed the need to upgrade the condition of the permanent hard copy records in the Surface Water and Engineering Division. Maps in bad condition are now being scanned and are available electronically so the original map gets used less. Map records that need to be updated and maintained include the paper plats, USGS maps, county maps, and permit maps—all of which are in daily use for supporting the water rights records and in providing information to the public. All new permits and maps are being scanned into the agency's document management system. The ultimate solution to this problem area is to scan all division records and make them available electronically.

### Upgraded Technology

The computer system is being used by the Division to access the water rights database including scanned documents, word processing, and power point presentations. Searching the water rights database provides another tool in answering information requests. The water rights database and the scanned images are now available to the public.

We continue to update our current computers with new, higher speed computers to be able to use them with the geographic information system. Division personnel have spent a considerable amount of time reviewing the various builds for the new e-permit system. This system, once complete, will allow for full electronic processing of new water rights applications.

## State Engineer's Instructions and Regulations

Work has continued on the State Engineer's Office Rules and Regulations. Rule making authority was sought from the legislature but was not approved. This office will continue to seek legislative approval prior to finalizing new rules and regulations.

### **WEATHER MODIFICATION PERMITTING ACTIVITIES**

#### **Objectives**

The primary objective of the Weather Modification Program is to procure, compile and evaluate information resulting from weather modification experiments, research and related activities conducted in the State of Wyoming. Weather Modification Permits are issued by the State Engineer for each modification program, experiment or activity.

#### **Accomplishments**

Three permits were issued for weather modification purposes during this reporting period. Permit Number 88 was issued to Eden Valley Irrigation and Drainage District in Farson, Wyoming, with the objective of their continuing weather modification program to increase the water supply in the Big Sandy River drainage. This is a wintertime operation which operates during proper weather conditions from November 15th through April 15th. The mobile, ground-based, cloud seeding generators are strategically placed along Highway 191 and are operated in accordance with daily weather conditions. The Eden Valley District wintertime project is in its thirty-fourth year of cloud seeding activities.

Permit No. 89 was issued to North American Weather Consultants for weather modification in the Uinta Range south of Lyman. This project intended to increase flows in the streams flowing into Wyoming on the north side of the Uinta Mountain Range.

Permit No. 90 was issued to Weather Modification, Inc. for aerial seeding over the Snowy Range west of Laramie. This is part of the Wyoming Water Development project for the Snowy and Sierra Madre ranges and represents the first year of actual seeding operations.

## **SAFETY OF DAMS SECTION**

John R. Barnes, P.E.  
Administrator, Surface Water and Engineering Division

### **Introduction**

In 1977, the State Legislature, recognizing the potential hazards to public safety due to waters impounded by dams throughout the state, and the economic benefits of well maintained and safely operated dams, authorized the Wyoming Safety of Dams Program, with passage of the Safety of Dams Law (Wyoming Statutes 41-3-307 through 41-3-318). The law was amended in 1992 to clarify inspection requirements, duties of the State Engineer and lien procedures; provided for penalties; and granted rule-making authority.

While a permit from the State Engineer is required for all dams, the Safety of Dams Law primarily pertains to dams which are greater than 20 feet height or impound 50 acre-feet or more, and diversion systems with a capacity of 50 cubic feet per second or greater. However, the State Engineer may enforce any sections of the law on any size facility, when necessary, to insure the public safety or the protection of property.

### **Objectives**

The objective of the Wyoming Safety of Dams (SOD) Program is to protect public safety by reducing the potential for flooding and loss of life as a result of failure of a dam or diversion system. This objective is accomplished in two ways, as stipulated by the Safety of Dams Law:

1. By reviewing plans and specifications for proposed work, which then results in the issuance of a permit, and by reviewing inspection and progress reports outlining current construction activities.
2. By conducting periodic safety inspections of existing facilities.

### **Accomplishments**

After an extensive search, a new safety of dams engineer began work on December 11, 2006. This has allowed the backlog of plans reviews to be reduced.

During the past year, 52 plan reviews were completed with permits being approved for 48 SOD facilities. Almost all of these facilities are associated with storing water produced from coal bed natural gas activities. Construction was completed on 30 safety of dams size facilities.

In addition to the work involved with design review and/or construction monitoring activities, a considerable amount of time is spent on the second aspect of the Safety of

Dams Program, the Periodic Inspection Program. Wyoming Statute 41-3-311 states: "Any dam, subject to the terms of this act shall be inspected at least once every ten years or as often as deemed necessary based on the hazards of the dam to insure the continued protection of public safety and property." Only very low hazard dams located in remote areas of the state are inspected less frequently than once every five years.

Currently, 1,477 dams meet the criteria of the Safety of Dams Law (more than 20 feet high and/or impounding 50 acre-feet or more of water). A total of 316 dams were inspected in Water Year 2007.

The quality of the safety inspections is steadily improving. This is due to the increased experience and training level of the state water administration personnel in dam inspections and the greater opportunity for the two Safety of Dams Engineers in Cheyenne to conduct routine periodic inspections of larger, high and significant hazard facilities. In addition, we also continue to coordinate safety inspections with federal agencies such as the Natural Resources Conservation Service, Bureau of Land Management, Bureau of Reclamation, Federal Energy Regulatory Commission and Forest Service to draw on the resources and experience of those agencies. Efforts to coordinate with the Mine Safety and Health Administration have been unsuccessful due to apparent lack of interest on Mine Safety and Health Administration's part.

### **Problem Areas**

A continuing problem area concerns dams located on the Wind River Indian Reservation. Because of disputes over jurisdiction, we have problems obtaining timely information on the present conditions of dams (Washakie Dam in particular, a high hazard structure) on the reservation.

Coal Bed Natural Gas (CBNG) development is continuing to have a significant effect on workload due to permitting of new dams. The number of plan reviews remains high.

The submittal of documentation to the Safety of Dams section by the dam owner continues to be problematic. The office continually works to improve this process. Further, due to the tight time frames associated with CBNG dams, it is difficult to properly oversee this work.

Some of the CBNG reservoirs are leaking and pump-back systems have been installed to intercept the seepage and pump it back into the reservoir. The facilities are being monitored to insure piping is not occurring which could lead to failure.

Petitions to correct the record continue to be submitted to document changes that occur during construction.

## **Other Activities**

Work is continuing on the National Inventory of Dams (NID) Project. We have been compiling information for each of the 1,477 dams in the Safety of Dams Program and preparing a computer inventory containing this information. In the past, part of the funding for this project has been provided by the Association of State Dam Safety Officials (ASDSO) through a "pass-through" grant from the Federal Emergency Management Agency (FEMA) and the U.S. Army Corps of Engineers. Data from the state dam safety organizations are compiled by the Corps and published in CD-ROM format periodically. This information is available on their web site.

Considerable assistance to the dam safety program has been provided by FEMA grant funds. The project to acquire digital photos of all jurisdictional reservoirs statewide, continued this summer. This project will be completed by Agency staff as time is available.

The grant has also been used to purchase equipment for the field personnel who are involved with inspection of low hazard dams. This year new GPS units, hand-held eye levels, digital cameras, and binoculars were purchased.

FEMA grant funds were also used for training. Three dam safety engineers attended the 2007 Association of State Dam Safety Official's annual conference and two others attended the 2007 Western Technical Conference.

We participated in two exercises with the Bureau of Reclamation that involved a simulated dam failure. These exercises were considered successful in that they demonstrated areas in which communication and coordination could be improved.

A study was conducted around the Casper and Sheridan areas to determine if all dams in these areas were properly classified. The results of this study were inconclusive and additional analysis will be required.

In the upcoming year, we anticipate conducting a public outreach program for all dam owners which would provide information about dam safety.

## **GROUND WATER DIVISION**

This Water Year 2007 (WY-07) report comprises two sections; the 1) Ground Water Section, and 2) Cooperative Programs. The Ground Water section provides an update on the day-to-day activities of the Ground Water Division (including the three control areas and four ground water advisory committees); the Cooperative Programs section reports on three programs administered by the Ground Water Division - Surface and Ground Water Data Collection, Snow Survey and Stream-flow Forecast, and Subdivision Water Rights. The WY-07 report for the State Board of Examining Water Well Drilling Contractors and Water Well Pump Installation Contractors, also the responsibility of the Ground Water Division, is provided later in this report.

### **GROUND WATER SECTION**

by

Lisa Lindemann, P.G., Administrator,  
John Harju, Assistant Administrator,  
and the Ground Water Division Staff

### **Objectives**

The objectives of the Ground Water Division (GW) are:

1. To issue, record, maintain, and prepare permits for adjudication which grant the right to appropriate ground water within the State of Wyoming and maintain a database of approved permits.
2. To resolve conflicts between ground water users.
3. To conduct Control Area Advisory Board meetings.
4. To coordinate ground water investigations involving the State Engineer's Office (SEO) and other agencies.
5. To investigate water well construction and enforce the "Water Well Minimum Construction Standards".
6. To protect the State's ground water resources.
7. To investigate the occurrence of ground water resources.
8. To monitor ground water levels across the state.

### **Accomplishments**

#### **Application Processing and Recording**

During WY-07, GW received 6,693 applications for permits to appropriate ground water, a decrease of 119 applications from WY-06. However, GW still receives and processes more applications than it has since the mid-1980's (Figure 1). During WY-07, 5,838 applications were approved to permit status, 836 less than WY-06. Seventy-six (76) applications were rejected in WY-07, 69 less than WY-06. In addition to applications

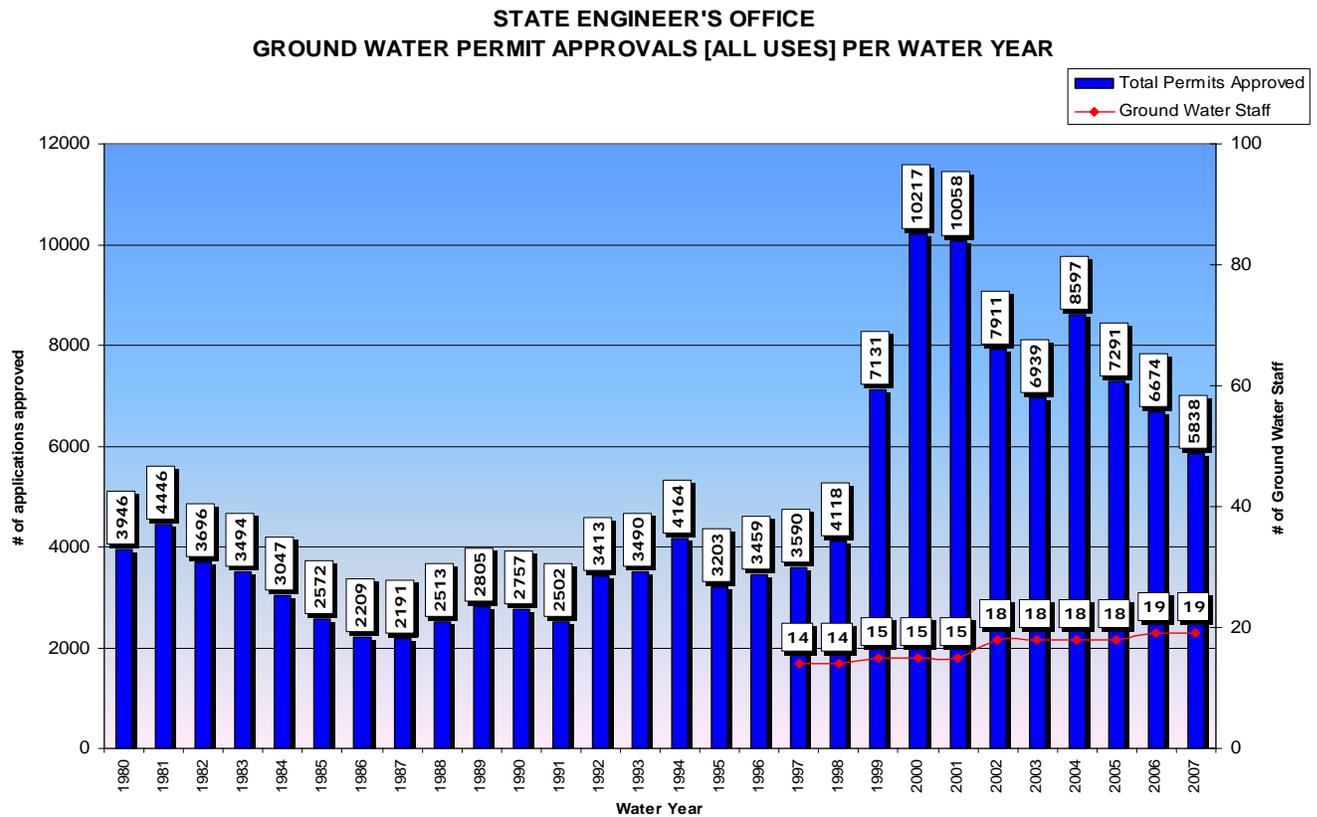
for new appropriations of ground water, 119 requests for relocations of existing wells were received and processed, 46 less than WY-06.

### Permit Cancellation Program

During WY-07, 1,255 permits to appropriate ground water were cancelled because the permittee either failed to submit the required notices (Statement of Completion and Proof of Beneficial Use forms) within the statutory time limits, or the permittee requested cancellation of the permit. This is a decrease of 2,910 from WY-06. Abandoned wells for which the attendant water rights were cancelled amounted to 471, a decrease of 421 from WY-06. The figure for abandoned/cancelled permits is separate from the count for cancelled permits where the required notices were not filed. These wells were in use and were subsequently abandoned, generally for physical failure.

Six thousand, seven hundred forty-seven (6,747) certified expiration letters were prepared and mailed, notifying applicants that their well permits were about to expire because the *Statement of Completion and Description of Well or Spring* form had not been properly submitted, 1038 less than WY-06.

Figure 1



## **Permit Maintenance Program**

Nine hundred and fifty-five (955) assignment requests were received in WY-07. The ownership of 401 permits to appropriate ground water was assigned to different owners during WY-07, a decrease of 205 from WY-06.

Requests for 1,435 extensions of time to provide a Statement of Completion or Proof of Beneficial Use form were received, processed and approved. Eight requests for additional points of use were received, processed and approved, an increase of six from WY-06. Two thousand and sixty-five (2,065) permits were updated with Statement of Completion or Proof of Beneficial Use forms. GW received and processed 84 miscellaneous updates.

The decrease of the amount of requests and forms processed can be contributed to a turnover of clerical staff and the redistribution of work duties – primarily data input.

## **Water Right Search Requests**

Ninety (90) “major” ground water rights searches were conducted for realtors, water resource consultants and other interested parties during WY-07. The availability of the SEO’s water well data through internet access has decreased the amount of search requests GW receives throughout the year. Numerous “small” water right searches are requested daily, either by telephone request or in person, but these are not reflected in the number referenced above. It is estimated the “small” requests range from 5,000 to 7,000 per year.

## **Mail Duty**

GW staff acquired the duty of opening and date stamping GW’s mail in WY-07. From January 29, 2007 through September 28, 2007, 18,384 pieces of mail were received and date stamped. Approximately 3,915 Statement of Completion forms, Proof of Beneficial Use forms and various other requests were received.

## **Two Year Review Letters**

No “Two-year Review Letters” were sent to permit holders in WY-07. These letters are the result of conditions placed on observation and monitor well permits which require a two-year review to determine if the well still exists or if it has been “mined out”, plugged and abandoned, etc. Due to other demands on staff time, this task was not completed.

## **Adjudication Program**

During WY-07, all remaining North Platte water rights were adjudicated at the August 2006 Board of Control meeting. Two hundred and eleven (211) non-North Platte-related water rights were inspected by GW staff and adjudicated by the Board of

Control, including 82 water rights at the November 2006 meeting and 129 at the May 2007 meeting.

Eighty nine (89) proofs were carried over at the November 2006 Board of Control meeting, and one proof - previously carried over - was submitted for rejection at the November 2006 meeting. One hundred and one (101) proofs were carried over at the May 2007 meeting.

One hundred and sixty four (164) *Maps to Accompany Proof of Appropriation and Beneficial Use of Ground Water* were received in WY-07, representing 279 water rights to be inspected by GW (maps may depict more than one well or an enlargement of a permit - for example, the map for the City of Gillette addresses 44 permits or water rights).

Approximately 70% of the maps (115 of 164) were original submittals; 12% of the maps (14 of 164) were received only after GW staff diligently followed up on appropriators who had not submitted the required map to-date; and 30% of the maps (49 of 164) were resubmittals of revised maps.

In addition to the daily permitting duties of this office, GW responds to the ever increasing demands of a ground water-dependent public suffering from the impacts of an 8-year drought, increasing competition for a decreasing resource, rapid land subdivision growth and rural development, coalbed natural gas development, and conflict resolution between water users. GW continues to address a backlog of work that accumulated over the past many years, including conducting or finishing interference investigations, performing hydrogeologic investigations, and addressing a backlog of ground water right adjudications.

## **Control Areas**

### **LARAMIE COUNTY CONTROL AREA**

One Laramie County Control Area Advisory Board meeting was held on July 23, 2007. Board elections were conducted on July 9, 2007. New board members include Mike Romsa (second term, District 4), and David Cummings (first term, District 5). Their terms expire in 2011.

As reported in previous annual reports, the State Engineer received a request for regulation of the Crow Creek Watershed. The Advisory Board chose not to make a decision in regards to regulation. However, they recommended that additional information be obtained on the impact of each possible corrective control scenario, i.e., installing meters, defining the irrigation season, prohibiting the use of end guns, well spacing, etc., before they could recommend regulation be implemented. In addition, they felt they should receive additional education in ground water hydrology so that they could make better informed decisions and recommendations.

Information was not presented in regard to the advisory boards' request of detailing the impact of each possible corrective control during the meeting held during WY-07, this was due to time constraints of GW staff with other projects. As stated in the previous annual report, a Wyoming Water Development Commission funded study for Laramie County may make this task unnecessary.

During WY-07, GW received several complaints that an appropriator within the Laramie County Control Area was using water illegally for off-site mixing of concrete, building roads, dust suppression, etc. in Colorado. After investigation by field and division staff, it was determined that the appropriator indeed was using water without a proper permit. A letter of violation was hand-delivered to the appropriator. After the letter was delivered, staff continued to watch for violations. No further violations occurred.

A summary of water rights activity in the Laramie County Control Area includes the following:

<input type="checkbox"/> Applications approved to permit status	0
<input type="checkbox"/> Applications rejected	1
<input type="checkbox"/> New applications received	6
<input type="checkbox"/> Application backlog as of September 30, 2007	9
<input type="checkbox"/> Board of Control petitions granted	5

## **PLATTE COUNTY CONTROL AREA**

Two Platte County Control Area Advisory Board meetings were held during WY-07; one on October 11, 2006, the other on April 2, 2007.

Platte County Control Area Advisory Board elections were conducted on July 11, 2007. Both David Hinman (District 4) and Josh Graves (District 5) were elected to serve second terms, both of which expire in 2011.

A summary of water rights activity in the Platte County Control Area includes the following:

<input type="checkbox"/> Applications approved to permit status	9
<input type="checkbox"/> Applications rejected	0
<input type="checkbox"/> New applications received	12
<input type="checkbox"/> Application backlog as of September 30, 2007	8
<input type="checkbox"/> Board of Control petitions granted	1

## **PRAIRIE CENTER CONTROL AREA**

Control Area Advisory Board elections were conducted on July 11, 2007. Greg DesEnfants was elected to serve a second term, and Elden Baldwin was elected as a new board member. Both terms expire in 2011.

Two Prairie Center Control Area Advisory Board meetings were held in WY-07. During these meetings the Advisory Board, as well as members of the public in attendance, continued to express their displeasure at past permit approvals by the State Engineer.

A summary of water rights activity in the Prairie Center Control Area includes the following:

<input type="checkbox"/> Applications approved to permit status	0
<input type="checkbox"/> Applications rejected	0
<input type="checkbox"/> New applications received	2
<input type="checkbox"/> Application backlog as of September 30, 2007	2
<input type="checkbox"/> Board of Control petitions granted	0

### **Outreach Programs**

During WY07, GW staff attended various seminars, conferences and public information meetings to provide water rights and policy-related assistance to the public. This assistance was in the form of data and report presentations, setting up and managing information booths, and answering general questions regarding ground water and agency policies, filing procedures and project-specific questions, or supporting proposed legislation.

Staff participated in the following events:

- Meeting with Bates Creek Area Appropriators, October 4, 2006 (discussion, re: ground water/surface water interconnectedness and potential regulation);
- Wyoming's Climate Workshop, Laramie, Wyoming, October 5, 2006;
- Joint Agriculture, State and Public Lands and Water Resources Interim Committee, Sundance, Wyoming, October 27, 2006 (proposed mandatory licensing bill);
- Coalbed Natural Gas Task Force, Douglas, Wyoming, November 2, 2006, (presented "Impacts to Domestic and Stock Wells from Coalbed Natural Gas Production and Available Regulatory Remedies" and "Landowners with Alleged Water Well Losses or Impacts from Coalbed Natural Gas Activities");
- Wyoming Water Well Association's Annual Convention, Casper, Wyoming, February 21-23, 2007;
- Elementary School Science Fair, Cheyenne, Wyoming, February 22, 2007;
- Hot Springs County Commissioners' Meeting, Thermopolis, Wyoming, March 20, 2007 (discussed formation of a ground water Control Area, existing permit application review options, and protection of the Big Spring);
- Water Commissioners' School, Riverton, Wyoming, March 21, 2007 (presented "Springs, Interference Complaints and Conjunctive Use Management");
- Public Meeting, SEO and WWDC, Saratoga, Wyoming, April 4, 2007 (discussion, re: proposed municipal water supply);
- 2007 Western South Dakota Hydrology Conference, Rapid City, South Dakota, April 19, 2007;

- Public Meeting, SEO and WWDC, Lusk, Wyoming, July 26, 2007 (discussion, re: potential formation of a ground water Control Area);
- Wyoming Game & Fish Expo, Casper, Wyoming, September 6-9, 2007;
- Western States Water Council, Water Information Management Systems and Water Availability Workshop, September 23-26, 2007, Seattle, Washington, Presented “Developing a Ground Water Management Plan”;
- Joint Agriculture, State and Public Lands and Water Resources Interim Committee, Douglas, Wyoming, September 12, 2007 (presented draft language for mandatory licensing of water well drilling and pump installation contractors); and
- National Groundwater Association’s Theis Conference, Conjunctive Management of Ground Water and Surface Water: Applications of Science to Policy, Sept. 28 - Oct. 1; Park City, Utah.

### **Modified North Platte Decree**

Previous Annual Reports outline the chronology of events that led to the creation of the Modified North Platte Decree. The implementation of the Modified North Platte Decree continues to result in additional duties for staff of the GW Division.

#### **Adjudication**

During WY-07, GW staff completed all remaining adjudication activities, including cancellation of unused water rights.

#### **Reporting**

During WY-07, GW continued to report to the North Platte Decree Committee (NPDC), on a monthly basis. Both applications received and permits approved for Irrigation Use permits within Wheatland Irrigation District, and for Industrial and Municipal Use permits within the remainder of the Basin subject to the provisions of the Modified North Platte Decree were reported, including:

- seven applications for new irrigation use permits within the Wheatland Irrigation District;
- seven applications for municipal use permits; and
- twenty applications for industrial use permits.

Four irrigation use permits within Wheatland Irrigation District, one permit for municipal use, and fifteen permits for industrial use were subsequently reported as approved permits.

GW also reported the annual pumpage of ground water under 42 irrigation use permits within the Wheatland Irrigation District during WY-07.

## Coal Bed Natural Gas or Coal Bed Methane Projects

GW received 3,405 coal bed natural gas (CBNG) or coal bed methane (CBM) applications during WY-07 from 34 companies, down slightly from WY-06. The following table provides a comparison of approved permits and the number of companies submitting applications per water year.

Annual Report Year	Total Applications	Number of Companies
2007	3405	34
2006	3632	56
2005	4784	52
2004	4758	39
2003	3938	48
2002	5663	58
2001	6093	55
2000	5811	86
1999	2532	51

Several companies continued to focus on correcting past permitting errors in WY-07 by filing miscellaneous and/or stock enlargement applications for existing CBM wells to add additional uses for stock tanks or reservoir supply. These enlargement applications are not part of the total CBM application count.

Although the number of applications received for CBM uses has declined from the peak in 2001, processing of the applications has become more complex, resulting in an increase in staff time required for processing each individual application. GW staff time and resources are also spent attending public meetings, making presentations, coordinating with other regulatory agencies, reviewing and providing comments on federal Environmental Impact Statement (EIS) and Environmental Assessment (EA) documents, reviewing water management and usage proposals, investigating ground water supply problems, installing and maintaining monitor wells, and fulfilling information requests related to CBM development.

The Record of Decision (ROD) for the Atlantic Rim Natural Gas Project was released in WY-07. The ROD documents the Wyoming State Director's decision to approve the preferred alternative as described in the Atlantic Rim Natural Gas Field Development Project (ARNG) Final Environmental Impact Statement (FEIS). The ARNG FEIS analyzes various options for oil and gas recovery and resource mitigation. The proposed project is expected to produce nearly 1,350 billion cubic feet (BCF) of natural gas, providing enough natural gas to heat 19.3 million homes for one year and generating approximately \$958 million in total taxes and royalties.

Current industry trends and high natural gas prices indicate that CBM-related activities (and thus, GW permitting activities) will increase for the foreseeable future.

CBM development presents an ongoing challenge to GW. Besides the statutory permitting requirements, GW addresses complaints of interference, and continues to struggle with managing a ground water resource that is perceived as being beneficially used by some and wasted by others. Management of an exploited ground water resource to the maximum beneficial use of all appropriators remains a challenge.

### **Observation Wells/Monitor Wells**

Previous Annual Reports outline the development and spatial distribution of the observation well/monitor well network maintained by GW. GW maintains a network of approximately 265 active observation wells throughout the state and a number of inactive observation wells pending rehabilitation or abandonment. Additional facilities that need to be removed from service included monitor wells installed for alleged interference investigations.

GW continued to improve the ground water observation well network and data collection efforts in WY-07, including continued development of quality control and quality assurance programs for the ground water level data program, in-house programming of software for data warehousing and analysis to replace legacy software, acquisition and installation of new recording equipment, and compliance with the health and safety plan that has been implemented.

Continued change, use, and dissemination of the GW and Cooperative observation well networks also occurred in WY-07, as described below.

### **Thermopolis Observation Wells**

Two observation wells remain in service in this area, GTW-1 and GTW-3. Site maintenance and data collection activities are conducted by GW, data review and publication is conducted by U.S. Geological Survey (USGS) personnel. The two wells continue to support projects in the Thermopolis area relative to the flow of the Big Spring, and any potential impacts that ground water development may have on that hydrogeologic feature. One well began to experience problems in WY-07 and efforts continue to determine the cause of those problems.

Solar chargers have been installed on both wells as part of the pilot program funded in WY-06.

### **Albany County Casper Formation Observation Wells**

One Cooperative Program well and one GW well are installed in the Laramie area. These wells are completed in, and are used to track water levels in the Casper Formation. Data from these wells continue to be used as support for ground water development projects in the vicinity. Solar panels and charge controllers were installed in both wells in WY-07.

### **Laramie, Platte, and Goshen County Observation Wells**

Data from these wells are utilized for decision support on issues before the Laramie County, Platte County, and Prairie Center Ground Water Control Areas, as well as tracking general trends of ground water levels in these areas. Upgrading monitoring equipment and sealing well shelters continued in WY-07. GW also completed the evaluation of a prototype Sutron SDR surface water recorder in a ground water application – GW's input will be provided to assist product development for ground water level recording.

Two wells, the Laramie County #15 and the CC Meier (Lagrange area, Goshen County), remain in an un-usable state and need rehabilitation, abandonment, and/or replacement.

A cooperative project between GW, the University of Wyoming/Department of Civil Engineering, and the Wyoming Department of Environmental Quality began in WY-07. The project incorporates several Laramie County monitor wells and will provide a long-term data set to investigate recharge to area aquifer systems.

### **Prairie Center Control Area and Madison Observation Wells**

Monitor wells ETSI T-1 and ETSI T-2 have been capped since January 7, 2005. The wells were slated for rehabilitation in 2006, however funding was not available.

### **Gillette Area Observation and Subdivision Wells**

These wells continue to provide water level data relative to ground water development in Campbell County and in the vicinity of the City of Gillette. Several wells have been removed from the network by either well or land owners and one well, G-Mon-7, remains inactive and in need of rehabilitation, abandonment, and/or relocation. The Jim Kintz well has been returned to the network for spot measurements until the owner returns the well to production. Solar panels and charge controllers were removed from two wells for evaluation in other areas of the observation well network.

Data from observation wells and active subdivision production wells in this area were used in WY-07 to address the feasibility of permitting additional appropriations for new subdivision and municipal use.

### **Coal Bed Methane Observation Wells**

CBM development and production continue to be a large segment of the mineral extraction industry in the Powder River Basin, as well as other areas of the state. The GW observation well (CBM-Mon-7W) in the vicinity of Wright continues to be monitored for gas presence although water levels are again measurable in the well bore. This well is a constant reminder that many things can and do happen when collecting monitoring data and care and safety must be exercised constantly – especially in areas of CBM production.

Data from this series of wells was provided to both the Gillette Area Ground Water Monitoring Organization (GAGMO) for modeling, and the Wyoming Geological Survey (WGS) for a GW/WGS cooperative project in which the WGS will prepare an interactive piezometric head map for the Powder River Basin.

### **USGS Cooperative Data Program**

The Cooperative Data Program between GW and the USGS continued in WY-07. GW requested guidance from the USGS relative to the use of different types of calibration measurement and recording equipment. A formal guidance document from the USGS/Wyoming Water Resources Division and/or National Ground Water Program continues in a pending status. The review and guidance requested from the USGS has resulted in six cooperative ground water sites being placed in a pending status. These six sites remain in the cooperative program budget, but have not been assigned to actual facilities for data collection, analysis, and publication. A formal response from the USGS on this issue is expected in WY-08.

Internet access to cooperative monitor well data products is available at <http://waterdata.usgs.gov/nwis/gw>

New methodology in raw data delivery and initial review implemented under the Cooperative Data Program in WY-07 has resulted in better delivery, timely processing, and general availability of data to the public via the internet (see site above).

### **Continuing Efforts**

As referenced in prior annual reports and previous sections in this report, the observation well network has several wells that are in need of rehabilitation. These wells have been temporarily taken out of service until resources are available to complete rehabilitation or abandonment.

Software development for data acquisition and processing continued in WY-07. Testing of commercial time series data software for analysis and long term storage began in WY-07; formal testing will continue into WY-08.

Changes and additions to the observation well network continue to better serve both the needs of the agency and provide support to GW in permitting and management of the ground water resource.

### **Interference Investigations**

#### **1999 USFWS –Saratoga Fish Hatchery Interference Investigation**

The U.S. Fish and Wildlife Service (USFWS) potential interference investigation continued in WY-07. A chronology and description of previous events related to this investigation are provided in previous annual reports. Compilation of available data products and reference materials is complete. Report preparation and analysis of

additional data provided by a Wyoming Water Development Commission (WWDC) ground water exploration and testing project, will also be incorporated into the report.

In WY-07, an independent consultant was contracted to analyze GW's data and prepare a report summarizing the analysis. The third party report was delivered to GW at the end of February 2007 and will be incorporated into GW's final report, expected to be available in WY-08.

### **2006 USFWS –Saratoga Fish Hatchery Interference Investigation**

Another allegation of interference was filed by the USFWS regarding the water rights of the Saratoga National Fish Hatchery and a nearby irrigated agriculture operation in WY-06. This additional interference investigation will proceed when the report for the interference investigation described above is completed. That report will be critical in providing information relative to the potential interconnection between local irrigation wells, the flow of Lake Creek, and the discharge of Lake Creek Lake (a natural spring with appropriations to serve the USFWS – Saratoga Fish Hatchery).

### **1994 Borie Area**

A draft report entitled "Investigation of a Complaint of Interference to the Weber No. 1 Water Well (Well Registration No. U.W. 13), Laramie County, Wyoming", was prepared in April 2007. The report was subsequently submitted to an independent contractor to provide a technical review of the report. That report was received in October 2007. The report will be revised appropriately and a final report should be available in WY-08.

To-date, approximately 2,400 hours of staff time have been spent on this one interference investigation.

### **Hydrogeologic Studies**

#### **Bates Creek**

On October 4, 2006, the SEO conducted a public meeting with Bates Creek water users to discuss water shortages and possible regulation of ground water users along with the surface water priorities on Bates Creek.

The State Engineer's Office discussed general and technical information related to Wyoming water rights and regulation administration, streamflow and ground water supply data, potential regulatory scenarios for water administration specific to the Bates Creek drainage, and development of management alternatives. Ground water wells with the potential to impact flows in Bates Creek (i.e., those wells that are interconnected with Bates Creek or are in the "same source of supply") were identified at this meeting. Area appropriators were told that if a call for regulation was received in 2007 by the Hydrographer, all surface water rights and ground water rights would be regulated by priority.

GW staff handed out and presented an internal report (“Stream Depletion Due to Irrigation Wells along Bates Creek Natrona County”, October 2, 2006) describing how the local alluvial wells can deplete the streamflow in Bates Creek. The meeting included discussion as to why the SEO considers the Bates Creek alluvium to be hydrologically interconnected with Bates Creek proper and how the stream and the alluvium constitute one source of supply. Also discussed was the relative speed with which ground water pumping can affect the streamflow in Bates Creek.

On or about May 16, 2007, Mr. Charles Scott, a senior direct flow surface water appropriator who irrigates out of Bates Creek, placed a Request for Regulation for the Territorial Bates Creek Ditch (“Request for Regulation”).

As a result of Mr. Scott’s May 16, 2007 Request for Regulation, District 11 Hydrographer/Commissioner, Jack Gibson, took action beginning on May 16, 2007 to regulate the withdrawals from junior rights upstream of Mr. Scott’s senior water right. This regulation included wells owned by Dennis and Sherry Rivetts (Permit Nos. U.W. 36222, U.W. 38042, U.W. 38043).

On May 17, 2007, the Rivetts filed an appeal of the water commissioner’s actions with Randy Tullis, Superintendent of Water Division No. 1.

On May 24, 2007, the Superintendent denied the Rivetts’ appeal.

On May 25, 2007, the Rivetts filed an appeal of the decision of the Superintendent of Water Division No. 1 to the State Engineer.

On June 12, 2007, the State Engineer denied the Rivetts’ appeal of the decision of the Superintendent of Water Division No. 1.

On July 3, 2007, Kara Brighton, attorney for the Rivetts, filed a Petition for Review to the Seventh Judicial District Court for review of the Wyoming State Engineer’s decision to deny their Appeal of Decision of Superintendent of Water Division No. 1.

The 8-year drought has created much conflict between ground water and surface water users where the two resources are connected. “Conjunctive use” management of both ground water and surface water is becoming more and more of an issue, especially in the Bates Creek, Crow Creek, and Owl Creek drainages. GW is attempting to develop a management tool that can be applied to drainages in the event the Hydrographer receives a call for regulation. The University of Wyoming is currently conducting a study on conjunctive use management on behalf of the SEO which should provide both the technical and legal framework on which future regulatory decisions can be based.

## Hot Springs Area of Concern

At the request of the Hot Springs County Commissioners, GW staff attended a public meeting in Thermopolis on March 20, 2007 to address the Commissioners' concerns about the process in which wells are permitted in the "Hot Springs Area of Concern", and the timing of correspondence relative to T.F. No. U.W. 39-2-183, the Leyba #1, and T.F. No. U.W. 39-3-183, the Leyba #2. The Hot Springs County Commission is concerned about potential impacts to the Big Spring and wants the SEO to establish a control area that would be protective of the Big Spring. During the last several years, GW, the State Engineer, and the Water Division No. 3 Water Superintendent have spent a considerable amount of time trying to educate the Commission on what a Control Area is designed to accomplish. Staff have also educated the Commission on the responsibility of the appropriator to insure their water right is in order and their responsibility to collect water level measurement data to effectively document the actual flows of the Big Spring.

Water Division No. 3 staff also spent many hours in the area, monitoring water levels and collecting data on wells the Commission identified as potentially impacting the Big Spring. Staffs' attention to this project resulted in each high capacity well in the area being properly permitted, and the Commission's continued ability to review each permit prior to the State Engineer acting on the permit.

## Mandatory Licensing Bill for Well Drilling and Pump Installation Contractors

A revised bill, requiring mandatory licensing of water well drilling and pump installation contractors, was presented to the Joint Agriculture, Public Lands and Water Resources Interim Committee in Sundance, Wyoming on October 27, 2006. Chairman Geis moved the draft bill which was seconded by Representative Samuelson. The 2007 Legislature passed House Bill 136/House Enrolled Act 122. Governor Freudenthal vetoed the bill on March 9, 2007 due to a drafting error that rendered the Act incapable of accomplishing its intended purpose. The Governor acknowledged that this was a technical error which could be fixed during the next Session.

The SEO will attempt to move the licensing bill through the legislature during the 2008 session. To-date, the SEO's WY-07 efforts to license water well drilling and pump installation contractors include:

- **April 24, 2007, Joint Agriculture, State and Public Lands and Water Resources Interim Committee, Laramie, Wyoming.** The State Engineer presented draft language on the water well drilling and pump installation license to the Committee. Co-Chairman Geis moved to draft a bill for the September meeting, the motion was seconded by Senator Johnson. The motion passed.
- **September 12, 2007, Joint Agriculture, State and Public Lands and Water Resources Interim Committee, Douglas, Wyoming.** Representative Zwonitzer moved to sponsor the draft bill, motion was seconded by Representative Blake.

Senator Bebout moved to amend the draft bill on page 4 to allow reciprocity if the other state offers reciprocity. Senator Johnson seconded the amendment and the amendment passed. The bill passed 11-2-1 with Representatives Semlek and Wallis voting no and Senator Perkins excused.

The Wyoming Water Well Association has been, and will continue to be, instrumental in supporting this important bill.

### **Water Supply and Water Yield Analysis Plans**

The State Engineer is required under Wyoming Statute §35-12-107 to prepare a “Water Supply and Water Yield Analysis” for projects under the jurisdiction of the Industrial Siting Administration which would use 800 acre-feet of water per year or more. The analysis is done to evaluate the adequacy of the proposed water supply for the project and the State Engineer is required to certify the adequacy of this water supply. The procedure requires investigation and review of the proposal, the issuance and publication of a written “Preliminary Opinion”, and ultimately, the issuance of a “Final Opinion” by the State Engineer concerning the water supply.

Medicine Bow Fuel and Power plans to construct a coal mine, near Hanna, Wyoming, that will produce approximately 3.2 million tons of coal per year and a coal-to-liquids (CTL) plant that will use the coal to produce approximately 13,000 barrels of diesel fuel per day. Each facility is expected to employ approximately 200 people. The estimated water use is 44 gallons per employee per day at the coal mine and 25 gallons per day at the CTL plant. Total daily use by employees would be about 14,000 gallons. Annual employee use would be about 5,100,000 gallons. This demand could be satisfied by continuous pumping of 10 gallons per minute.

Process water requirements for the CTL plan are estimated to be 800 gallons per minute. No estimates were made of mine or other CTL water needs but URS Corporation determined that a supply of 1,000 gallons per minute would satisfy all plant and mine needs. This would be about 526 million gallons per year, or 1,600 acre-feet per year. Over the 30-year life of the project, total pumpage would be about 15.8 billion gallons, or 48,000 acre-feet.

Medicine Box Fuel and Power intends to obtain its water supply from twelve wells completed in the Mesaverde Formation. Based on aquifer tests, an average pumping rate of 90 gallons per minute is anticipated. Because planned use of 1,000 gallons per minute is probably an overestimate, two or three of the wells could probably be idle at any one time. This would allow rotation of use to moderate cumulative drawdowns where necessary. Nonetheless, subsequent analyses assumes that all twelve wells pump continuously at 83 gallons per minute. The plant startup and shutdown dates have not been given but calculations by URS Corporation assumed a project life of 30 years.

GW evaluated and published a Preliminary Opinion for the DKRW project in July 2007 (WY-07). Based upon available information, it was the preliminary opinion of the State Engineer that sufficient water exists in the Mesaverde aquifer to supply up to 48,000 acre-feet of water to Medicine Bow Fuel and power's coal mine and CTL plant over a period of 30 years. Plans to drill twelve production wells in order to obtain a total yield of 1,000 gallons per minute are reasonable based on the very limited information obtained from pumping tests of two test wells. If well yields are less than the anticipated 90 gallons per minute, additional wells could be drilled. A Final Opinion will be published in early WY-08.

The Industrial Siting Administration indicates there are several other imminent projects which will also require water supply and water yield analysis.

### **Cumulative Hydrologic Impact Assessment (CHIA)**

GW staff reviewed several Cumulative Hydrologic Impact Assessments (CHIA) in WY-07, at the request of the Wyoming Department of Environmental Quality – Land Quality Division:

- Cumulative Hydrological Impact Assessment of Coal Mining in the Southern Powder River Basin, Wyoming, WDEQ-CHIA-19, April 9, 2007;
- Draft Cumulative Hydrologic Impact Assessment for the Northwest Railroad Loop Amendment, Black Thunder Mine, April 9, 2007; and
- Draft Cumulative Hydrologic Impact Assessment for the Little Pete Mine Revision, Stansbury Coal Mine, Green River Basin, August 28, 2007.

### **Water Well Minimum Construction Standards**

As time was available in WY-07, efforts were expended revising and expanding draft Water Well Minimum Construction Standards for private water supply wells (construction standards for public water supply wells are under the jurisdiction of the Wyoming Department of Environmental Quality). Advances in water well construction technology, water well construction materials and a general awareness concerning waterborne disease and water quality characteristics dictated the revisions. Draft construction standards will be complete and available for public review in WY-08.

GW is tasked with enforcing the "Water Well Minimum Construction Standards." This is a difficult task due to the lack of dedicated field staff. To some degree, requiring mandatory licensing of well drillers and/or pump installers would help address this concern in that once licensed, the state licensing board would have the authority to revoke a license of an offending contractor. Revocation of a contractor's license would serve as an effective incentive to comply with water well minimum construction standards.

## **Rules and Regulations**

Concentrated efforts at revising the GW Division's Rules and Regulations (1974) commenced in WY-07. There have been many changes in the types of uses of water and in the manner in which water may be used for the production of other resources, necessitating the need for revised rules. There have also been many advances in the manner in which business is conducted through internet technology; surveys are performed through global positioning techniques; maps are created through computer aided drafting; money is transferred through internet transactions – all of these issues must be addressed in specific terms in the revision of the Rules and Regulations. Throughout this process, the intent of the laws that protect the priority system must be maintained. The “first in time, first in right” concept must be defined when the possibility exists that applications may be submitted in different formats; either through e-mail or hard copies through the U.S. Postal Service.

The extent of work required to update the rules was fully realized when GW staff had to prepare a typed version of the original rules from which to make changes, since an original electronic copy did not exist.

## **Ground Water Management Strategy**

As noted in the “Objectives” portion of this report, GW's responsibilities include protecting the State's ground water resources. On October 27, 2005, the State Engineer gave a PowerPoint® presentation to the Joint Agriculture, Public Lands and Water Resources Interim Committee in Powell, Wyoming, entitled, “Challenges Ahead: Effectively Managing Wyoming's Ground Water Resources”. The ensuing discussion centered around current ground water management issues facing the SEO, the need for the SEO to take a proactive stance relative to ground water management, and the need to develop the management tools necessary to effectively manage Wyoming's ground water resources. Developing an effective ground water management strategy for the state is not a luxury, but a long overdue necessity. Finding the time and resources to launch such an ambitious project, on top of our statutorily mandated duties, is an issue with which GW struggles.

## **Ground Water Advisory Committees**

The SEO's four Ground Water Advisory Committees, revived in WY-04, remained active in WY-07. W.S. 41-3-908 requires one division advisory committee on underground water for each water division of the state. Each committee consists of three persons, appointed by the Governor, who represent the landowners and water users of the division, geographical areas of the division, and public interest. Committee members are appointed for 6-year terms.

Duties of the Ground Water Advisory Committees include:

- Call/supervise election of control area advisory board members;

- Assist/advise State Engineer and the Board of Control on policies affecting ground water – assistance/advice should consider both the interests of ground water users and the general public;
- Assist/advise state engineer and superintendents in solving ground water problems as they arise within the Division;
- Assist/advise the Control Area Advisory Boards – particularly in the development of control measures which are recommended to the State Engineer for adoption; and
- Provide information to ground water users within the Division relative to the State Engineer’s and Board of Control’s policies and procedures which affect the use of ground water.

Several vacancies on the Ground Water Advisory Committees were created when members’ terms expired. GW launched a recruiting campaign in late WY-07 and was successful in generating interest from new members in all Water Divisions except Division 4. New members are expected to be appointed by the Governor in early WY-08. At the end of WY-07, Committee members included:

<u>Water Division:</u>	<u>Committee Member:</u>	<u>Term Expires:</u>
1	<i>Vacant</i>	9/30/06
	Colby Dreschel	9/30/08
	Ben Jordan	9/30/10
2	Harvey Crowe	9/30/10
	<i>Vacant</i>	9/30/06
	Thomas Pilch	9/30/08
3	<i>Vacant</i>	9/30/06
	Ken Schreuder	9/30/10
	Doyle Ward	9/30/08
4	<i>Vacant</i>	9/30/10
	<i>Vacant</i>	9/30/06
	Eugene Martin	9/30/08

The Ground Water Advisory Committees chose to continue meeting as a group in WY-07, facilitating the dissemination of “background” information to all committee members. The group met on January 18, 2007 at the Wyoming Gas Pipeline Authority Building, 152 North Durbin Street, Suite 230, Casper, Wyoming. The second meeting for fiscal year 2007 will be held in early WY-08.

Division Superintendents actively participated in the meetings which helped foster an understanding of Division-specific ground water issues.

## **Changes in Ground Water Staff**

GW experienced many staff changes in WY-07, including:

### **Promotions**

- Cyndee Arnold and Roxanne Trujillo received in-house promotions in WY-2007. Both Administrative Specialists are valued members of the staff, assisting customers efficiently and competently. Whether on the phone or at the counter, Cyndee and Roxanne always have a ready smile and are quick to assist our appropriators.

### **New Additions**

- Krissie Groth and Polly Helzer both joined the GW support staff in May 2007. Both Krissie and Polly bring a freshness to GW and with “new eyes”, greatly improved our annual process of preparing and mailing cancellation letters (over 6,700 letters in WY-07).
- Tom Johnson joined GW’s technical staff in June 2007. Tom served as Assistant Water Master for the Oregon Water Resources Department for four years prior to returning to his home town, Cheyenne. Tom basically “hit the ground running” which was a huge benefit to the division.

### **Moving On**

- Tonia Fishback left the agency on February 2007 for more southern climes, Dixie Pierce left GW for new and different challenges in the Board of Control in March 2007, and George Langstaff left state government in July 2007. Tonia, Dixie and George will all be missed and GW thanks them for their contributions to GW and the friendships forged during their tenure here.

### **Summer Intern**

- GW was once again fortunate to have access to a summer intern through the Administration and Information program. Shari Gilbert assisted GW in conducting field inspections and reducing the existing backlog of adjudication work.

## **COOPERATIVE PROGRAMS SECTION**

**By**

**Michael R. Ebsen, Cooperative Programs Coordinator**

The Cooperative Programs Section coordinates three ongoing programs and provides technical support in other areas as assigned. The primary objectives of each program are as follows:

### **Objectives**

1. The objective of the Surface and Ground Water Data Program has been and remains to provide the State Engineer, other state, local and federal agencies, and all other water users with quality, legally acceptable, hydrologic information for use in crop and other water use planning. This includes regulation, compact administration and the technical analyses required in water related litigation. The program also aids in flood plain planning and flood warning, water quality monitoring and various other types of studies. Continued involvement in this investigation and surveillance activity allows the State Engineer to more effectively address current state priorities as well as gather baseline information as issues evolve.
2. The objective of the Snow Survey and Stream Flow Forecast Program has been and remains to provide information for the State Engineer and all water users, managers, and planners on seasonal snowpack and projected snowmelt stream flow runoff. This in turn helps insure that maximum utility can be realized from this limited water resource.
3. The objective of the Subdivision Review Program is to identify water right issues associated with county subdivision permit applications that have been submitted by the Department of Environmental Quality for State Engineer review, and comment within the time period specified by the Department.

### **Surface and Ground Water Data Program**

#### **Accomplishments**

A significant portion of the funding for this Program has historically been provided through cost share agreements between the State Engineer and other entities, including the United States Geological Survey (USGS), the United States Bureau of Reclamation (USBR), the United States Natural Resources Conservation Service (NRCS), and the United States Bureau of Land Management (BLM).

#### **Cooperative Stream Gaging Activities**

Accomplishments involving State Engineer personnel working in the surface water data area include the day-to-day operation, maintenance and/or monitoring of a myriad of administrative data stations and sites, including the 54 surface stream gage sites

currently being operated in the statewide USGS cooperative network. Other agency and private sector cooperators also assist in this effort; an example of which is the Basin Electric Power Cooperative, which currently assists in the funding of stream flow data collection on the Laramie River, near Grayrocks Reservoir.

WY-07 was again a busy year for the field staff and their efforts are appreciated. Activities include regular measurements at the various sites, and communicating essential information to the appropriate parties as the season progresses. Detailed records of stream flow and reservoir stage are gathered, analyzed, and computed. Reconnaissance, safety inspections, and other work are provided. Water use data is collected, assembled and transmitted for inclusion in the records. Worn equipment or instrumentation components are repaired or replaced. Shelters are painted and patched, walkways and cableways are tested and repaired, and riprap is placed around gage houses, stream banks and damaged artificial controls. Maintenance around the state ranges from repairs resulting from the acts of vandals; to the acts of Mother Nature and Father Time.

### **Statewide Gage Upgrade Activities**

The SEO and the U.S. Bureau of Reclamation (USBR) - Mills Office have recently concluded a project involving the replacement, repair, and rehabilitation of select stream gage stations within the region east of the continental divide. Activities included the installation of new instrument shelters, the construction or rehabilitation of cableways, the installation of artificial control structures, and the upgrading of select sites with new and improved instrumentation. Some of the new instrumentation allows for the automation of sites with electronic data loggers equipped with remote data telemetry capabilities. This last round of objectives included upgrading ten (10) canal diversion sites between Boysen Reservoir and the Town of Worland with real time GOES satellite telemetry.

A historic perspective of these Mills Office activities can be found in previous reports. However, by cooperating with the USBR at sites of mutual interest, the State Engineer effectively doubled the resources available to upgrade these sites. This in turn allowed for more extensive upgrades, and/or more sites to be considered. These type upgrade efforts continue to conserve water, more efficiently distribute the available supply, shorten response times, and provide safer working conditions for State Engineer field personnel.

Also worthy of noting are efforts on the Bear River by State Engineer staff in cooperation with the USBR – Provo Office, to install real-time telemetry at canal diversion sites along this interstate river system. The states of Wyoming, Idaho, and Utah each entered into individual agreements with the USBR; Wyoming being the largest co-operator in this basin wide effort. These activities have been discussed previously and in more detail in the Field Reports section of this Annual Report Series under the Superintendent's Report for Water Division Number 4. Further information and data can also be viewed at the following web location: <http://bearriverbasin.org/>.

These and similar activities have kept State Engineer field staff busy, and their efforts are truly appreciated.

### **Bear River Compact Stream Gage Activities**

The State Engineer continues to participate in the surveillance of the water resources of the Bear River basin in the states of Utah, Idaho, and Wyoming through the Bear River Commission, as provided for in the Bear River Compact. The states of Utah and Idaho also participate at the same funding level as Wyoming for their portion of this activity, which is handled through the Utah District Office of the USGS.

### **Yellowstone River Compact Stream Gage Activities**

The State Engineer continues to participate in the surveillance of the water resources of the Yellowstone River basin in the states of Montana and Wyoming, as provided for in the Yellowstone River Compact. The state of Montana also participates at the same funding level as Wyoming for their portion of this activity, which is handled through the Montana District Office of the USGS.

### **Belle Fourche River Compact Stream Gage Activities**

The State Engineer continues to participate in the surveillance of the water resources of the Belle Fourche River basin, as provided for in the Belle Fourche River Compact. The state of South Dakota also participates at the same funding level as Wyoming for their portion of this activity, which is handled through the South Dakota District Office of the USGS.

### **Monitor Well Measurement Activities**

Accomplishments involving State Engineer personnel in the ground water data area include the day-to-day operation, maintenance and/or monitoring of the 69 observation wells in the USGS cooperative network, as well as 206 State Engineer sites throughout the state. Activities include repairing or replacing worn equipment or instrumentation components. Many of these wells are equipped with float driven digital water-level recorders. However, some wells, including several artesian wells, are equipped with pressure-sensing transducers and electronic data recorders. The remaining wells are measured periodically by hand using a steel drop tape, or airline systems. More detailed information on this activity can be located in the Ground Water Section of this report.

### **Other Data Activities**

Other surveillance and investigation activities are conducted solely by State Engineer personnel for various administrative purposes, and are beyond the scope of the multi-participant cooperative activities outlined above. However, these efforts also provide

compiled data on stream flow, reservoir storage and river diversions. One example of these compilations is the Hydrographers' Annual Report series.

### **Areal Study Activities**

The State Engineer and the USGS have a long history of cooperation, which has provided an extensive list of water resource investigation products. These products catalog Wyoming's water resources on a basin-wide, a county-wide, or a more local scale. One of the more recent products, "Water Resources of Carbon County", has been published and is currently available for public review.

Another recent product, "Select Hydrologic Data for the High Plains Aquifer in Southwestern Laramie County, Wyoming, 1931-2006", is a compilation of ground water data southwest of Cheyenne. This product is primarily a GIS-based database with schematic well logs and other information. This information is accessible online at <http://wy.water.usgs.gov/> or on CD. Information on 166 wells is included in the database. More detailed information on this activity can be located in the Ground Water Section of this report.

### **Problem Areas and Recommendations**

As statewide water planning efforts proceed; the demand for water and its proper administration continues to increase. Changes in the uses of water as well as changes in water usage patterns, along with the resulting conflicts have and will continue to occur. Those involved in resolving these complex issues request increasingly sophisticated information, often on a real time basis. Information to support informed water resource planning decisions often requires many years of records.

Meanwhile, this need to provide data in a timely manner coupled with the aging condition of the largely un-automated data collection sites in the various State Engineer data networks, poses data availability concerns as well as personnel safety concerns. The information age has also brought with it cutbacks in government programs at all levels. One need only examine past reports to realize that programs have been downsized and activities restricted.

Compounding these concerns is the ever increasing annual operational costs associated with continuing to provide basic levels of data through these cooperative programs. A historic perspective of these funding factors can be found in previous reports. However, several hard to quantify factors are perpetually involved. One factor being the real value of the cost share dollars that are offered as matching funds. Another factor being the trend toward increased State Engineer cost proportions.

Other problems including damages associated with vandalism are an ongoing concern; but damage tends to occur only at certain problem sites, and appears a component cost of doing this kind of work. Also, repair costs, as well as timely product repair and product support, from instrumentation and software vendors continues to be of concern;

but the solution may lie in selecting new instrumentation vendors when the opportunity to replace these gage components and software arises.

## **Snow Survey and Streamflow Forecast Program**

### **Accomplishments**

Participants include Natural Resources Conservation Service (NRCS) personnel, SEO personnel, and others. Surveys are conducted during the last week of each month and the results are presented four times each year, beginning February 1st and continuing until May 1st, for the 66 manually measured snow courses, and daily at the 80 automated SNOTEL sites in Wyoming. Snow survey personnel manually measure snow depth and density, as well as provide winter maintenance on SNOTEL sites throughout Wyoming on an as needed basis. The repair of SNOTEL sites and measurement of snow pack often require snow survey personnel to travel to remote locations under potentially adverse conditions. For these reasons participants are required to complete special training in snow survey and snow survival techniques, maintain current first aid and CPR certifications, and undergo annual physical exams.

SNOTEL sites are automated; radio-telemetered, snow pack data collection sites and are generally located in remote, yet hydrologically significant areas throughout Wyoming. These sites provide equivalent water depth of the snow pack (SWE), as well as precipitation, air temperature, and in some cases soil moisture and temperature. The number of sites that measure snow depth was recently increased to 55. These stations electronically relay data, at regular intervals, to a central collection point in Portland, Oregon. Data is then available to users via a modem or the Internet. A direct link to this data has also been provided from the SEO's Internet home page. Data can be collected at almost any interval, but is generally collected at four to six hour intervals. Data collected once each day is normally adequate for water supply forecasting, but avalanche forecasting and other recreational users may need the data on a more frequent basis. Each site has the capability of handling up to 64 sensors. As more sites are added, and the confidence level of data collected with SNOTEL sites improves, labor intensive, manual snow survey measurements will be reduced.

Stream flow forecasts are the end result of these snow data collection efforts, and have been proven a valuable tool for those involved in water management and planning. Stream flow forecasts are currently available at 54 locations in Wyoming. Flows at these sites are forecast six (6) times per year beginning January 1 and ending on June 1. Virtually all of these stream flow prediction sites have been selected as the direct result of input from local water users. The sites require the presence of an active stream gage at the forecast site to calibrate and refine the prediction models. Complex planning issues involving all areas of the public and private sectors including the administration of interstate compacts and court decrees, flood forecasting, reservoir carryover storage, in stream flow, and power generation require information in advance of the runoff season to be properly addressed. Decisions in areas including agriculture, industry, and municipal water supply are simplified through the availability of these

forecasts. The State Engineer again contributed \$2,000 to this program, in addition to personnel and equipment, to aid in the collection of snow survey data.

### **Problem Areas and Recommendations**

Because of innate fluctuations in snow pack measurements, and the effects of weather patterns prior to and during the measurement and runoff periods, snow surveying and stream flow forecasting remain an inherently inexact science. Even so, network and equipment refinements continue to evolve. Replacing manual snow courses with SNOTEL stations and adding additional equipment such as snow depth, soil moisture and evaporation loss sensors would provide improved and almost continuous forecasting capabilities. As funds become available, snow depth sensors are being added to the system by the NRCS.

Certain instrumentation components exhibit some degree of unreliability and may require additional site visits to verify that these sites are operating optimally. Therefore, pre-season planning meetings are held every fall in an attempt to recognize and address these types of concerns prior to the onset of the snow season.

Periodic SEO and NRCS personnel reassignments and retirements can impact snow survey activities. Typically a nearby trained snow surveyor will 'stand by' and assist in areas where they normally may have no involvement, while a new snow surveyor obtains the required training and certifications. This year four SEO candidates attended the formal West Wide Snow Survey and Survival Training in Tahoe City, California. The NRCS, Casper Office, also put together a special in-state snow survey refresher course for the 'old hands' in the program; many thanks to Terry Gonzales for his efforts.

SEO personnel and others, should recognize and focus on how changes in funding, personnel, and activities within other water data programs have and may continue to adversely impact related activities (such as stream flow predictions) in this and other programs. The State Engineer therefore must carefully weigh potential impacts, including impacts on related programs, in the resource allocation process.

### **Subdivision Review Program**

#### **Accomplishments involving Proposed Water Supplies**

State Engineer involvement concerning the adequacy of a subdivision's proposed water supply, first became effective in July of 1997. Current State Engineer responsibilities in this new area are outlined under Wyoming Statute § 18-5-306(c)(i) and these review responsibilities remain with GW.

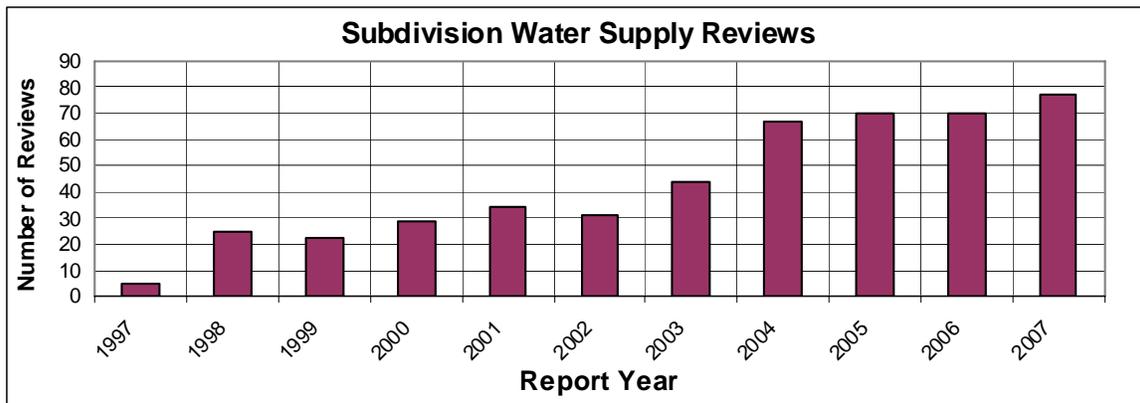
Basically, the State of Wyoming's Department of Environmental Quality (DEQ) may request assistance from the State Engineer. The SEO is to furnish the information or recommendations requested within the time period specified by the Department.

Typically DEQ requests that the SEO determine if water right issues have been addressed.

To determine what water right issues may be associated with the development of a proposed subdivision, a preliminary search of the State Engineer's records on lands in the area of the proposed subdivision is conducted. From these searches, existing water right concerns, as well as concerns associated with the new subdivision's proposed water supply are identified.

Based on the issues as identified in the DEQ submittal, and the SEO preliminary search results, appropriate water right actions are proposed. This may involve coordinating appropriate Surface Water Division, GW, and/or Board of Control Division input, as well as conveying this input to the County, the Subdivider, DEQ, appropriate SEO field staff, and others.

Since the original enactment of this legislation in 1997, the State Engineer has provided DEQ with review comments and follow-up reviews as requested. This obligation also requires staff time to be committed to participating in meetings, City/County outreach efforts, conferences, and associated activities. Also worth repeating is the recent decision on the part of DEQ to shift Department review responsibilities from the Main Office in Cheyenne, to the District Offices throughout the State.



NOTE: All years through 2003 are reported as reviews per Calendar Year, 2004 and subsequent years are reported as reviews per water year.

### Problem Areas and Recommendations

With the advent of the newer subdivision water supply legislation, compliance appears to be improving. However, subdivisions continue to be approved by county officials before water right issues have been reviewed and resolved by the SEO. Contributing to this problem is the tendency on the part of DEQ to favorably comment to County Planning entities, prior to State Engineer review and resolution of State Engineer concerns.

## **BOARD OF CONTROL DIVISION**

The Board of Control is comprised of two (2) sections: the Board of Control Section and the Big Horn River General Adjudication Section. Both sections are incorporated within this Board of Control Division Report.

### **BOARD OF CONTROL SECTION**

Allan Cunningham, Adjudication Officer  
Board of Control Division

#### **Objectives**

1. To promptly process petitions to amend adjudicated water rights and to present these petitions for review and consideration by the Board of Control.
2. To promptly review, within 30 days, water distribution plans and/or authorizations for detachment of water for consideration by the State Engineer or the Board of Control.
3. To promptly process proofs of appropriation for new adjudications and to present these proofs for review and consideration by the Board of Control.
4. To maintain and update the status of all adjudicated water right records to accurately reflect their current status.
5. To continuously evaluate the productivity of staff efforts in addressing the current workload.
6. To respond to inquiries by the public, as well as State and Federal agencies, regarding the current status of adjudicated water rights, and to give instructions and assist appropriators on the methods, procedures and format for filing petitions, plans and authorizations for detachment with the Board of Control.
7. To provide technical and administrative support to the Board of Control members in matters concerning the evaluation of both surface and ground water rights and water administration.
8. To prepare and forward proofs of appropriation for surface and ground water uses to the Division Superintendents for field processing and recommendation.
9. To comply with statutory requirements and publish a tabulation of adjudicated water rights for the four (4) Water Divisions.

## Major Accomplishments

During this reporting period (Water Year 2007, October 1, 2006 to September 30, 2007), the Board of Control Division received 212 petitions, an increase of 12 petitions or 6%, from throughout the State. These new petitions are listed by division as follows:

	SURFACE	GROUND	TOTAL
DIVISION NO. 1	35	32	67
DIVISION NO. 2	34	3	37
DIVISION NO. 3	43	15	58
DIVISION NO. 4	<u>45</u>	<u>5</u>	<u>50</u>
TOTAL	157	55	212

Final action was taken on 184 petitions, which were either granted, denied, dismissed or withdrawn. Some of the petitions were carried over from the previous reporting period to allow for the resolution of technical, engineering and legal problems, and in some cases for public hearings. The petitions dealt with by the Board of Control ranged from those with simple issues such as a change of point of diversion to those of a more complex nature such as change of use and declaration of abandonment.

Three hundred seventy three (373) proofs of appropriation were approved by the Board of Control during this reporting period. Two hundred twelve (212) or 57% of these proofs were for ground water rights (wells), and one hundred sixty one (161) or 43% were for surface water rights. In addition to these 373 proofs, 104 stock reservoirs were inspected and found to be constructed within the terms of the permit. Under existing Board of Control policy, these stock reservoir permits will be finalized, and a notation made in the water rights tabulation books, but no certificate of construction issued.

During this reporting period, the number of final actions concerning petitions decreased by 60 petitions or 25%. During this reporting period, the number of proofs of appropriations approved decreased by 67 proofs or a decrease of 15%. The number of stock reservoirs inspected and found to be constructed within the terms of the permit decreased by 4 facilities or a decrease of 4%.

During the reporting period, three hundred fourteen (314) new certificates of appropriation or construction were issued as a result of adjudications, and forty four (44) amended certificates of appropriation or construction were issued as a result of petitions.

During this reporting period, the Board of Control Division established an Adjudication Team consisting three (3) technicians for adjudications and the backlog of proofs. Before this reporting period, the Board of Control Division had one (1) technician assigned to proofs. The Adjudication Team during this reporting period took over the responsibility of advertising all surface water proofs for the division superintendents.

During this reporting period, the Tab Book Specialist position within the Board of Control Division was upgraded to a technician position due to the technical nature of work assigned to that position. A Tab Book Team was established with one (1) Division supervisory position to oversee the work of the Tab Book Specialist to assure that the Division achieves its goal in publishing Tab Books in a timely manner. During this reporting period, a draft tabulation of the Snake River and tributaries in Water Division No. IV was completed by the Tab Book Team.

Fifty one (51) water distribution plans and/or authorizations for detachment of water were received during this reporting period, an increase of 28 plans and/or authorizations or a 122% increase from the previous reporting period. This increase in the number of plans and/or authorizations has placed additional burdens on the Division's technician staff to complete its review within 30 days. If the subdivisions statutes are amended to include additional subdivisions under the statutes' preview, the Division's policy of a 30-day review of plans and/or authorizations will be difficult to meet without additional staff.

During the reporting period, the State Engineer's Office assisted its consultant, Weston Solutions, in developing and implementing the SEO IT Initiative. The State Board of Control Division through Weston Solutions has continued to participate in a business process review identifying its business process, workflow, and data handling points. This development and implementation has greatly diverted staff time and resources from other assigned tasks.

### **Problem Areas**

Wyoming Statute § 41-4-208, 1977, requires that the Board of Control compile and edit revised tabulations of adjudicated water rights for all four (4) water divisions of the State. There is a constant demand for these tabulations from engineers, land surveyors, government agencies, and the public. The creation of the new Tabulations of Adjudicated Water Rights is being done using the State Engineer's Office water right database. This database must be proofed for accuracy before these Tabulations can be printed. The task of proofing this database has delayed efforts to timely publish these Tabulations. Hopefully through the SEO IT Initiative, publication of these tabulations will become more frequent and timely.

The technical staff continues to strive for a complete comprehensive review that each petition, water distribution plan and authorization for detachment of water deserve. Computer technology has been a great asset in assisting the Board's staff in developing ways of doing more with less. Applications such as word processing and report keeping have made positive strides toward greater effectiveness and production due in large part to the utilization of the computer to its capacity. Although better and faster computers are making some procedures more efficient, ultimately the computer cannot replace the analysis and research capabilities performed by the technical staff. Due to the increasing number of petitions, water distribution plans and authorizations for detachment of water the technical staff's time is entirely dedicated to these related activities. Through the SEO IT Initiative, it is hoped that streamlining of Board

processes will make time available for cross training or training of new tasks allowing the Division staff to grow within the Division.

Wyoming is in a multi-year drought period, and because of this drought, focus of the Board of Control has shifted to water administration from adjudication. As a result, there is a backlog of pending proofs and no dedicated plan is in place to decrease the backlog.

While the concept of removing “paper water rights” from the Agency’s records has been around for a long time, this effort would be both beneficial and in keeping with the multiple facets of our Agency’s mission and responsibilities. Past efforts that have begun with good intentions have been redirected by other demands placed on the Agency due to higher priority issues. It is hoped that future resources will be available to undertake this important effort.

## **Recommendations**

Develop and implement a unified Board of Control plan to reduce the backlog of proofs. The plan should:

- Set priorities to complete the oldest proofs first and those proofs with funds already paid to the Agency;
- Once current, establish a maintenance plan to keep the backlog of proofs to no more than six (6) months old;
- Change the Board’s policy from reviewing proofs twice per year and alternating between surface and ground water to reviewing both surface water and ground water proofs at every quarterly meeting until the proof backlog is reduced significantly;
- Dedicate the Division’s Adjudication Team solely to adjudications and the backlog of proofs to assure that internal and external issues do not influence the existing workload within the Team

Develop and implement a unified Agency plan to address “paper water rights.”

The Agency’s current database will be migrated into a new database sometime during the next reporting period. There is an urgent need to proof the new database once migration is completed. A Database Team needs to be developed within the Agency with the sole responsibility of correcting the Agency’s database. This Agency will be need to dedicate at least six (6) technical positions full time with one (1) Support Services’ position to serve as liaison to a Database Team to fully correct the new database in the shortest possible time. The BOC Division suggests that two (2) tech positions from the Board of Control Division, Surface Water Division and Ground Water Division comprise the Database Team. This Database Team will solely perform database correction tasks until the new database is completely corrected. This Team should have the sole “rights” to correct the new database. All other Agency personnel should not have “rights” to correct the new database. This Database Team will need to

have a deep understanding of water rights and the e-permit system (future changes to the new database will only be performed through e-permit). Upon its initial formation, this Team will need to set Agency-wide standards and/or criteria for proofing the new database. This Division foresees that the proposed dedication of our resources will have a profound impact on this Agency's constitutional duties. It will slow our response time in processing applications, petitions, water distribution plans, authorizations for detachment of water and adjudications. This Division would expect that it will increase the backlog in all divisions. Ideally, if this task could be outsourced there would no drain on Agency's resources, but recruitment of people knowledgeable in both water rights and e-permit would be problematic. Also, dedicating Agency personnel to this task part-time would extend the completion time of this task. Over the last 30 years this Agency has performed corrections to the database on a part-time or as needed basis and we have failed to make any significant impact on our old database.

Before we can commence a total review of the Agency's new database, a necessary prerequisite is the complete scanning of all certificates and permits of this Agency.

## **BIG HORN RIVER GENERAL ADJUDICATION SECTION**

Nancy D. McCann  
Water Manager

W.S. 1-37-106, General Adjudication Statute, gave authorization to initiate the process through a judicial determination of the rights to use water of all persons on any river system. Subsequently in 1977, the State filed suit for the determination of water rights in the Big Horn River system and all other sources. This lawsuit, known as the Big Horn River General Adjudication, is under the jurisdiction of the Fifth Judicial District in Worland.

The staff continues to serve as the technical arm to the district court on all phases of the case. Some of the staff's tasks are ordered by the court while others are necessary functions to maintain proper records at the State Engineers Office (e.g., incorporating decreed rights). As each decision is handed down, there continues to be numerous technical or administrative tasks that must be accomplished to integrate the decisions into the agency records and the county records.

### **What lies before us?**

The judicial decisions have set off an extraordinary amount of administrative and technical activities that the court requires of the state. The General Adjudication is nearing completion and the last of the surface water permit files are expected to be reported to the Court in WY 2008. After that, the SEO staff will be available to the Court to provide technical assistance in the final stages of the case.

### **Current Accomplishments**

#### Phase I Decrees

- Tribal Reserved Rights
- Consent Decree/Appurtenance of the Tribal Reserved Rights
- Walton Rights
- Tribal Ground Water Quantification

The results of these decrees require correction and updates of state records, recording the "permanent rights" at county offices, and database modifications. A process for the final integration into the SEO records will be developed and made available to the agency in the next biennium. We anticipate that training the agency in the understanding of all rights awarded within Phase I will begin in the next biennium.

#### Phase II Decree

- Federal (non-Indian) Reserved Water Rights

Phase II Interlocutory Decree was revised during the last reporting period with a draft final decree being reviewed by and circulated to all the parties. No objections to the

decree were filed; hence the final decree was entered by the District Court on November 29, 2005.

### Phase III

#### Surface Water Rights

Using the 1997 amended Court procedures; the staff continues the comprehensive review of all unadjudicated State water rights in Water Division III. Over 4000 surface water permits have gone through the court process. Less than sixteen permits remain to be completed under the court procedures. Objections to the staff's recommendations are filed with the District Court. Resolving those objections continue to demand a significant amount of staff time to provide technical water rights assistance to the legal team. Detailed field inspections included comprehensive analysis of the water rights, obtaining current ownership information from the county, and then conducting on-the-ground inspections with individual appropriators or administrative entity such as an irrigation district or a ditch company. We anticipate a few reinspections may become needed to resolve objections by the appropriator and other clarification issues to further clarify questions on previous inspections.

The staff held meetings during this reporting period with water appropriators, irrigation districts, and the personnel of the Bureau of Reclamation and others to explain the Big Horn Adjudication process along with the pending recommendations for adjudication and elimination for lands, uses, etc. described under purported water rights. In some instances, these meetings provided a venue to solve objections in advance of filing of the State's report. The staff continues with their recommendations of the final disposition of water rights subject to the Big Horn General Adjudication to the District Court. The staff is also responsible for all uncontested cases in place of the Special Master in order to alleviate the burden on the Court. When cases are contested, the matter is referred back to the staff for resolution and settlement of disputes, but when resolution cannot be reached, the case file proceeds through the court's legal process. In addition, the staff participated in pre-hearing conferences to provide clarification and assistance to the Special Master. These efforts, put forth by the staff, resolved the issues of concern and avoided the necessity for any hearings before the Court during this reporting period. A total of 104 surface water permits were reported to the District Court. Certificates of Appropriation issued from Court Orders totaled 49.

At the close of the last reporting period, the Big Horn staff was cross-trained to handle the increase of petitions filed within the Board of Control and handled four-fifths of the workload of the Board petition processing in addition to their Big Horn assignments during this reporting period. The Big Horn staff was also cross-trained to conduct review of water distribution plans which is detailed under the Board of Control portion of this report. It is anticipated that upon the close of Big Horn work, the staff will be cross-trained on other duties, such as the drafting of orders resulting from granted petitions under the Board of Control.

## **Big Horn Problem Areas**

Continuous efforts are being made after the Court orders are issued to integrate the decreed rights into the State Engineer records. This integration process involves a lengthy, detailed update of the actual permit records, stream cards, township cards, certificates being issued, amended and canceled, updates of the computer water rights database, microfilm or scanning all records involved, and so on. This process has impacted the flow of work throughout the State Engineer's office. Several permits (both unadjudicated and adjudicated) have petitions pending that require processing by the Surface Water Division and Board of Control prior to staff reporting their recommendations to the District Court. The staff is assisting the Surface Water Division and Board of Control in the petition processing and records updates. Unfortunately, some petitions require consent that cannot be obtained, thereby requiring a hearing in order to finalize the petition. The remaining permits left on Phase III of the Big Horn case are very complex and require in-depth detailed analysis. In addition, several parties are involved in the review of the staff's recommendations, such as Irrigation Districts, Tribal entities, Bureau of Reclamation, Bureau of Indian Affairs and other federal agencies, United States attorneys, individual land owners and other interested parties.

## **Big Horn Recommendations**

The staff continues their dedication, hard work and patience while dealing with the appropriators and all parties involved in this complex Big Horn water case. The realization of our dream of completing the Big Horn Project is now in reach. Continued cross-training between projects is a necessity to address the increasing workload within the Board of Control. An education plan should be developed and implemented at the close of the Big Horn Adjudication to distribute the knowledge of decrees and reserved rights.

## **GIS (Geographic Information Systems) Projects**

The use of GIS technology has been utilized for the identification of overlapping water rights or conflicts in water rights within the Big Horn Adjudication. Tribal Reserved rights, Consent Decree Rights, Walton Rights and those State rights coexistent with all these rights are contained within the mapping projects in this division. Numerous requests from interested parties for maps were filled by the staff. The Big Horn map data and tabular data continue to be used to solve administration issues. The staff assisted other state agencies, such as DEQ and the WYDOT by providing Big Horn GIS information to determine jurisdictional issues on the Wind River Indian Reservation. The staff also provided data and/or GIS maps for the Attorney General's Office for Big Horn litigation.

## **LEGAL ACTIVITIES**

Water & Natural Resources Division  
Wyoming Attorney General's Office

### **North Platte River**

In water year 2007, Wyoming, Nebraska, Colorado, and the Bureau of Reclamation managed the North Platte River system according to the Modified North Platte Decree of the United States Supreme Court, and the Final Settlement Stipulation incorporated by that decree, both of which arose out of the 2001 settlement of Nebraska's suit against Wyoming in the Supreme Court. Unfortunately, 2007 was a poor year for inflows into the North Platte system and the Bureau declared it to be an allocation year.

An ongoing disagreement among the parties about the allocation language in the Final Settlement Stipulation led to negotiations over amendments to that language. These amendments to the Allocation Stipulation of the Final Settlement Stipulation were adopted by the North Platte Decree Committee (NPDC) at its September meeting.

Another issue that becomes urgent during times of water shortage in the North Platte drainage is the proper interpretation of exhibit 10 to the settlement stipulation, under which certain Wyoming groundwater users downstream of the Whalen Diversion Dam must provide system surface water to replace the groundwater they pump. In years of shortage, replacement water is difficult to obtain from storage reservoirs. In 2007, this office assisted the State Engineer in establishing and supporting Wyoming's interpretation of exhibit 10.

An attorney from this office also participated in two large public records requests regarding the North Platte River. One request was specific to replacement water obligations in the area downstream of the Whalen Diversion Dam and the other sought information regarding the proposed Pathfinder Modification Project. As of the end of 2007, the latter request is still in progress.

### **Colorado River**

Although 2007 was another year of serious drought in the Colorado River Basin, including Wyoming's Green River and Little Snake River Basins, the seven Colorado River Basin states at least made great progress toward the cooperative management of Hoover and Glen Canyon dams in times of shortage. The Attorney General's Office assisted Wyoming's representatives in negotiating various aspects of the seven state's agreement that was to be completed prior to the Bureau of Reclamation's issuance of a record of decision on shortage sharing guidelines. In December of 2007, Interior Secretary Dirk Kempthorne signed the record of decision. Wyoming's representatives believe that the guidelines will benefit all seven states, including Wyoming, during future shortages.

Through the Wyoming Attorney General's Office, Wyoming joined with other Colorado River Basin states in filing a brief in support of the concrete lining of the All American Canal. That effort was successful in heading off litigation by various parties that would have delayed or stopped the project. The project will result in significant conservation of water that has been seeping from the unlined canal into Mexico, in excess of Mexico's water entitlement under the treaty of 1944 between the United States and Mexico.

### **Yellowstone River Compact**

In early 2007, the Montana asked the United States Supreme Court for permission to file a complaint against Wyoming regarding water use on the Tongue and Powder Rivers. The Attorney General's Office filed a brief resisting Montana's motion on grounds that Montana's allegations overlooked the intended meaning of the terms of the Yellowstone River Compact, that Montana failed to make any concrete allegations of damage it had suffered, and that Montana should further investigate its claims in cooperation with Wyoming water officials and the Yellowstone River Compact Commission before proceeding. After reviewing the states' briefs, the Supreme Court asked the Solicitor General of the United States for a brief setting forth the federal government's views on whether the case should proceed. As of the end of 2007, the Solicitor General had not yet filed its brief.

### **Berman v. Yarbrough**

For several years the Attorney General's Office has been defending a lawsuit brought by Utah lawyer Dan Berman and his neighbor Steven Bond, who both own ranch properties in Uinta County. Berman and Bond brought the suit in the District Court of Summit County, Utah against Wyoming's Lead Hydrographer-Commissioner John Yarbrough. They alleged that Mr. Yarbrough had failed to deliver from the Smiths Fork in Wyoming the full amount of water that Berman and Bond had stored in a Utah reservoir called China Lake. Berman and Bond also sued the Utah State Engineer in the case, alleging that he had failed to recognize the full extent of their rights to store water in China Lake.

After a trial that was focused primarily on the extent of the water storage rights in China Lake, the Utah district court issued an order establishing the size of that water right. With respect to Mr. Yarbrough, the district court agreed with Mr. Yarbrough that the court lacked jurisdiction to determine how the storage water should be delivered in Wyoming after it was released from China Lake and had flowed from Utah into Wyoming.

## **Intrastate Legal Matters**

The Attorney General's Office defended the State Engineer in several appeals to district courts involving his regulation of water use by Wyoming irrigators, and his permitting decisions relating to coal bed natural gas wells. One of these cases involving a permitting decision in northeast Wyoming was resolved in favor of the State Engineer. The other four cases remain pending. The five cases are listed below:

Petitioner: William P. Maycock, II.

Decision: Order Granting [State Engineer's] Motion to Dismiss for Lack of Standing, entered July 2, 2007.

*In the Matter of Applications for Issuance of Certain Permits to Appropriate Surface Water, Numbered 12546, 12547, 12548R, 12459R, 12627R Through 12659R (Inclusive) and 12678R, Civil Action Nos. 27374, 27404, 27529, 27596*, In the District Court, Sixth Judicial District, Campbell County, Wyoming.

Appellants: Dennis and Sherry Rivetts. *The Matter of the Decision of the State Engineer Denying Appeal of Decision of Superintendent of Water Division I, Issued on June 12, 2007*, Civil Action No. 87611-B, In the District Court, Seventh Judicial District, Natrona County, Wyoming.

*Bill West, Marge West, L. J. Turner and Karen Turner v. Patrick Tyrrell, Wyoming State Engineer and the Wyoming Board of Control*, Civil Action No. 170-63, In the District Court, First Judicial District, Laramie County, Wyoming.

Appellant: White Land and Livestock, L.L.C. *In the Matter of the Appeal from the Endorsement of the State Engineer Denying the Request for Restoration of 92.99 acres to Permit No. 6101*, Docket No. I-2007-1-5, Board of Control Order Record No. 64, Page 53.

*Thomas L. Wilson and Helen L. Wilson v. Patrick T. Tyrrell and Lucerne Canal and Power Company*, Civil Action No. CV-2007-566, In the District Court, Eighth Judicial District, Goshen County, Wyoming.

In 2007, the Attorney General's Office also worked closely with the State Engineer on potential legislation and policies on the development, storage and disposal of water produced from coal bed natural gas operations. This included participation in proceedings of the Wyoming Coal Bed Methane Water Management Task Force.

## **Big Horn River General Stream Adjudication**

The Attorney General's Office continued to represent the State Engineer's Office in the Big Horn River General Stream Adjudication before the District Court of the Fifth Judicial District. In the 2007 water year, there were numerous objections to the State Engineers' recommendations to the Court regarding the adjudication of state permitted and decreed water rights (Phase III). Almost all of these objections were settled by agreement of the parties or withdrawn by the objector prior to scheduled hearings before the Special Master.



## **REPORT OF THE SUPERINTENDENT WATER DIVISION I**

Randy Tullis, Torrington, Wyoming

This report is a summary of water related activities and trends within Water Division No. I for the period of October 1, 2006, to September 30, 2007. Water Division I is comprised of the North Platte, South Platte, Niobrara, and Little Snake River drainages of southeastern Wyoming.

### **General and Climatic Conditions**

The challenges of water management and administration during the extensive drought continue to intensify and become more complicated as the compounding effects involve more water users. Readers will note that was the same phrase in my Water Year 2006 report and a year later conditions have not improved to alter that statement. Upon reflection, I'm not sure if it is the lack of normal hydrologic conditions, changes in societal values and litigation tendencies, or the influx of new landowners, but water management of 10 years ago and earlier is clearly a thing of the past. I am satisfied to report that the Division I staff has met those changes and challenges with consistency, tireless effort, and respect.

Similar to last year in the North Platte drainage, Water Year 2007 began with extremely dry conditions related to below average streamflows, carryover storage, soil moisture, and aquifer water tables. Carryover ownerships on October 1 for Water Years 2006, 2007, and 2008 was 402 KAF, 323 KAF, and 286 KAF in the North Platte Project; 542 KAF, 443 KAF, and 339 KAF in the Kendrick Project; and 54 KAF, 30 KAF, and 54 KAF in the Glendo Project, respectively, and clearly an indication of the continuing downward spiral of North Platte mainstem storage. Of note was the unexpected accrual of almost 58 KAF this water year to the Glendo ownership due largely to an early May wet snowstorm and the decision of irrigation districts below Guernsey to not release for an early hay run. For the same three water years Wheatland Irrigation District experienced carryover storage of 34 KAF, 13.4 KAF, and 16 KAF, respectively.

As in the previous water year, a less-than-disastrous snowpack accumulation through the winter months resulted in Reclamation's forecasted supplies to be above the 1.1 MAF comparison threshold in the months of February, March, and April and relieving Wyoming of regulatory administration during those months for the benefit of mainstem reservoir accruals. Due in combination to less than average carryover and less than expected streamflows and spring time precipitation, Reclamation eventually declared an Allocation Year due to a June 1 forecast of 1.065 MAF and the first release of storage on June 12. By the end of the irrigation season North Platte Pathfinder ownership had accrued almost 602 KAF, Guernsey ownership had filled on May 2, Inland Lakes ownership had accrued 42 KAF, Glendo ownership accrued 58 KAF, and Kendrick for the seventh consecutive year never came into priority for storage or direct flow.

Throughout the Division streamflow peaks and sustainability were variable. The LaPrele Creek drainage has experienced well below normal streamflows and LaPrele Reservoir

storage accruals during this drought. Regulation administration for LaPrele Reservoir accruals was enforced during late March and April, concurrent with an appeal of that administration by the new landowner. The appeal was upheld by this Superintendent, and upheld on appeal to the State Engineer. Following the late spring snowstorm the regulation was lifted by Hydrographer Weinand and it was reported that reservoir accruals and streamflows to the confluence of the North Platte River were better than many recent years.

Bates Creek streamflows continued to show signs of the compounding effects of the extended drought. A public meeting was held with the Bates Creek drainage water users to inform them of the likelihood that groundwater developments, often additional supply to lands with senior surface water rights, would be regulated on a common priority basis with other surface water rights. This regulation was enforced by Hydrographer Gibson, concurrent with an appeal by a new landowner. The appeal was upheld by this Superintendent, by the State Engineer, and has since been appealed to District Court. No further comment on this pending legal proceeding would be appropriate here pending the litigation.

The Big Laramie River and tributaries continued to experience below normal streamflows and storage accruals, partly due to the cooler than normal temperatures during late spring and early summer. The priority date of administration in the upper part of the drainage has not been junior to Wheatland No. 2 Reservoir January 29, 1898 for many years, and this year was eventually administered down to 1879 in the Big Laramie and 1881 in the Little Laramie drainages (not counting an 1876 stock water "Sprague Lane" call in the off season). Wheatland Irrigation District delivered about 0.7 AF/Acre to its members, less than an average of a little over 1 AF/Acre, but better than other previous recent years. Gray Rocks Reservoir has continued to experience limited inflows and record low storage levels. Multiple Temporary Water Use Agreements by Basin Electric with local irrigation well users has allowed their continued operation but even those supplies are limited.

In the southwest portion of Division I, the Little Snake River drainage enjoyed near average streamflows, and then with the administration of newly hired Assistant Water Commissioner Susan Adams, High Savery storage was delivered to downstream appropriators that have purchased shares in the State owned facility. As more experience and data is collected on the timing of releases, and Savery Creek conveyance losses in relationship to releases, Division I staff will be better able to conservatively and equitably meet delivery schedules. Precipitation in the very southeast part of Division I seemed to be surprisingly consistent and cooperation among many of the Crow Creek users has been encouraged by Hydrographer Ross. Conversely, Horse Creek in District 2 again experienced well below normal precipitation and streamflows. Hawk Springs Reservoir ownership accounting continues to be improved and calculated by Hydrographer Mehling to equitably distribute inflows and evaporation to the two ownerships of the Horse Creek Conservation District and the State of Wyoming.

## Accomplishments

Reporting requirements for Modified North Platte Decree compliance has continued to be completed in a timely and accurate manner. Division I staff continues to improve the data collection and time budgeting skills necessary at critical seasonal changes to fulfill Wyoming's compliance requirements. Although there were a few unexpected hydrologic and "human nature" variables this water year, I am pleased to report that all reporting requirements, compliance obligations, and replacement water deliveries were completed. Replacement water for the Triangle Area had not been fully secured in January and a well attended public meeting presented that information to the water users. Through the diligent efforts of State Engineer Patrick Tyrrell and Wyoming Water Development Director Mike Purcell, by May 1 those replacement supplies had been located, secured, and began to be moved for temporary storage in Glendo Reservoir. The 262 Triangle Wells active in Water Year 2006, along with Triangle Tributary replacement requirements, necessitated the delivery of about 7400 AF as natural flow released from Guernsey Reservoir. Wyoming continues to determine and evaluate those replacement supplies that may be available in the short-term, in addition to pursuing reliable long-term supplies.

Other important reporting requirements included Triangle Well estimated annual pumpage by Well Inspector Kelly Mehling, post-2001 priority well pumpage in Wheatland Irrigation District by the Cheyenne Groundwater Section, intentionally irrigated acres and consumptive use reporting by Field Investigator Robert Foreman and Acreage Inspectors Scott Haskamp, Chad Pickett, and new hire Connie Kersting, and instrumentation installation and data collection on ten of the "Big Eleven" irrigation reservoirs above Pathfinder Reservoir by Accounting Coordinator Brian Pugsley and other Division staff.

As in previous years, statutorily required duties were completed by the Division I Superintendent and staff. Priority administration during periods of shortage is always evaluated and instituted in a timely manner due to the importance of changing hydrologic conditions and importance to economic success of water users. Field investigations for petition and proof verification requires considerable time to schedule and travel to often remote areas. I have observed no decrease in the number or complexity of Board of Control docketed petitions for water right changes in the Division, and I think that is an indicator of the extended drought and appropriators becoming more aware of the importance of their water rights during shortages. Several hearings were held in contested case petitions as was necessary to gather important information for the Board to consider. Of note is the current appeal to District Court of the Board of Control denial action in the White petition Docket No. I-2007-1-5, along with the previously described Bates Creek ground water administration appeal of the State Engineer.

I have reported before that interviewing and selecting good candidates for vacant positions in this type of field work is probably my most challenging and rewarding task. This water year saw the resignation of Acreage Inspector Jamie Rasnake and we thank her for her consistent work and wish her well in the future. Connie Kersting was selected to fill that Acreage Inspector position and I am pleased to report that she has

shown considerable application of her agricultural experience to the challenge of irrigated acreage reporting and mapping. This being the first year of required High Savery Reservoir storage administration, Susan Adams was hired mid-season and proved to have both water delivery and inter-personal skills that should serve her well in the future in the Little Snake River valley.

## **Summary**

Water Year 2007 will be remembered as a year of both difficult water administration decisions and enforcement, and resultant litigation challenges. I will assure the State Engineer that the Division I staff and I will continue to manage both water administration and general public assistance to the best of our abilities and in a respectful, statutorily defensible, and sensible manner. I would like to thank members of the Board of Control for their counsel and advice on the many challenges that would have seemed unpredictable 20 or even 10 years ago. Thanks also goes to the agency's office staff in Cheyenne for their assistance with record searches, equipment purchases, and special project assistance. And as always, I compliment the hard work of my Division I co-workers and staff.

## **REPORT OF THE SUPERINTENDENT WATER DIVISION II**

Michael B. Whitaker, Sheridan

The following annual report submitted for Water Division II is a summary of the individual water administrators within the division.

### **General Conditions**

The 2007 water year began with 37 percent carryover in the Tongue River drainage, 19 percent in the Powder River drainage and Keyhole Reservoir was at 25 percent of capacity.

As of May 01, 2007, snowpack conditions were below normal, but significantly higher than the previous year. The Tongue River drainage was at 87 percent, Goose Creek drainage was 82 percent, Clear Creek drainage was 80 percent, Crazy Woman drainage was 82 percent and the Powder River drainage was 75 percent of average. The Belle Fourche drainage had melted out by May 1, and was considered zero.

As usual the irrigation season started in early May. We saw the peak flows from snow melt occur in mid-May, which is a month earlier than it should be. Fortunately, we received some timely showers which maintained streamflows at fairly high levels through June in the Tongue and Powder River drainages. The peak streamflow for the season occurred on June 7 as a result of a precip event. For the season Big Goose Creek above the PK Ditch ran 163 percent of average and Little Goose Creek near Big Horn ran 129 percent of average. In late May a high wind storm hit Lake DeSmet, putting waves over the south dam and eroding the rip-rap. The County Coalition began releasing water to lower the elevation to prevent further damage. This release continued through the season providing plenty of water for Piney Creek and lower Clear Creek. Releases from the mountain reservoirs started about mid-July and continued through the remainder of the season.

The Belle Fourche drainage experienced a pretty good year. Releases from Keyhole Reservoir began on July 5 for the Belle Fourche Irrigation District and continued through August 23 using 6,942 acre-feet, while Crook County used 614 acre-feet of storage.

Once again the precipitation we received in May and June carried us through a major portion of the irrigation season, allowing for a little more carryover storage. Carryover for the 2008 water year for the Tongue River drainage was 37 percent of capacity, the Powder River drainage was 29 percent of capacity (this excludes Lake DeSmet), and Keyhole Reservoir was 27 percent. Lake DeSmet was unable to complete the aforementioned repairs to the south dam this fall, therefore, no additional storage will occur between now and the next irrigation season.

This year our CBNG reservoir inspection program continued with 693 inspections completed. Of these 693, 152 were either not constructed or upgraded; 169 did not pass inspections, 54 unpermitted facilities were found, and 318 were approved. The 54 percent that were not approved for various reasons required some form of written correspondence with the companies to correct deficiencies.

The Safety of Dams program involves inspections every five years for reservoirs which exceed 20 feet in fill height or 50 acre-feet in capacity. Of approximately 650 dams in Division II that fall into this program, 134 were scheduled for inspection this year. A total of 153 dams were inspected this year.

This past year 94 Final Proof of Appropriations were taken and submitted to the Board of Control for adjudication of the water rights, along with the finalization of 103 stock reservoir inspections not to be adjudicated, but included in the Tab Book. In addition, 17 petitions reflecting various changes of water rights were acted upon. On-site inspections, proof of ownership, signatures and fees, and in the case of petitions, sometimes it is necessary to hold a public hearing.

## **Summary**

By the time the irrigation season got going, this did not appear to be a very good year. Snowpack was low, runoff was early and then we received some good showers in May and June which turned things into a pretty good year. For the first time the Division II office moved into a new building built specifically for our needs and staff. The move itself was somewhat congested as we had to share space with DEQ for a few weeks while construction occurred. But since moving in, the office is very nice and should meet our needs for many years to come. At this time we finally started getting some snow on the mountain; hopefully we can build up a good base and get back to more normal runoff conditions for a change.

## **REPORT OF THE SUPERINTENDENT WATER DIVISION III**

Loren Smith, Riverton

This report will summarize Water Year 2007 for the Wind River / Big Horn River system as well as that of the Clark's Fork Drainage in North Central Wyoming. Water Division III is made up of thirteen water districts served by a staff of seven hydrographer-commissioners, one field adjudication inspector, one lead hydrographer, one assistant-superintendent and one division secretary.

Carry over storage going into WY2006 did not paint a very rosy picture. The gains made in 2005 were quickly erased through 2006 and going into WY2007 most reservoirs in division III were carrying over anywhere from zero to 68% of their capacity. Minimal inflows through the winter caused most reservoirs to lose capacity through that period and very little hope of filling existed going into the normal runoff period. Runoff never came in most drainages and reservoir operators were projecting a tough delivery season. Late July and early August rains in this division essentially bailed everyone out this year. The heavy rains described in the following sections served to at least maintain reservoir levels through the end of the season and in many cases allowed substantial gains in reservoir levels leaving most of the smaller reservoirs in much better shape than they were a year prior. The two largest reservoirs serving lands in this division, Buffalo Bill and Boysen were significantly lower at the end of this year than they had started out. This is primarily due to senior appropriators having a call for the much of the increased inflows and the high demand after the storms had passed more than negated the gains realized.

District	Reservoir Name	Usable Capacity	Usable Contents on Sept. 30, 2007	% Capacity Sept. 30, 2007	Usable Contents on Sept. 30, 2006	% Capacity Sept. 30, 2006	Change in Contents
3	Boysen Reservoir	757,851	389,566	51%	466,005	61%	-76,439
3	Bull Lake	151,951	47,672	31%	33,039	22%	14,633
3	Pilot Butte Reservoir	34,600	9258	27%	4,158	12%	5100
5	Anchor Reservoir	9,252	30	0.3%	0	0%	30
7	Adelaide Reservoir	4,764	1,100	23%	450	9%	650
8	Greybull Valley Reservoir	33,169	2800	8%	322	1%	2478
9	Buffalo Bill Reservoir	644,540	417,910	65%	441,121	68%	-23,211
15	Bighorn Lake	1,312,000	956,743	73%	767,787	59%	199,956
16	Upper Sunshine Reservoir	52,987	5,698	11%	5,960	11%	-262
16	Lower Sunshine Reservoir	58,748	5,129	9%	720	1%	4409

Precipitation in the early winter of the water year left us looking at a 70% snow pack in the entire division by February first. Shell Creek was hanging on as the bright spot at 83% of the long term average. Snow pack continued to drop as the season wore on and those normal spring storms that everyone hoped for never materialized. By May first snow pack numbers had dropped to a scary 47% of normal above Boysen, 56% in the Shoshone River basin, 70% in the Clark's Fork River basin while the Big Horn basin as a whole was sitting at 79% of normal due to a good snow pack on the west slope of the Big Horn Mountains.

What has become the typical cropping pattern for Division III was once again evident this season. There are always minor shifts of a bit more corn versus a bit more acreage going into sugar beets while it seems that the bean acreage and alfalfa acres remain fairly consistent. The rains of late July preempted some of the earliest second cutting alfalfa but the impacts were negligible division wide. From most reports, it appears that

the beet harvest was quite good this season and was quoted as having “piled well” this year. The sugar content was actually down slightly being attributed to the warm nights in September and October preventing the beets from maturing properly and setting the sugar.

Regulation was once again the big time sink for the field staff of this water division. The first call of the year was not on Owl Creek this year as has typically happened. This season a futile call came in on January 19 for regulation of upstream storage to allow a senior reservoir the opportunity to fill on Kirby Creek. Upon investigation of the drainage it was determined that there was zero flow in Kirby Creek for many miles upstream from the calling facility and what water was found near the head of the drainage was completely entrained in ice. Once again, as in recent years I issued an order instream stock use only on Owl Creek at the request of all but a couple appropriators on that drainage, this request was signed on July 18. The table below indicates the 21 request for regulation received for priority administration during Water Year 2007.

<b>Date of Call</b>	<b>District</b>	<b>Stream System</b>	<b>Calling Facility</b>	<b>Calling Party</b>	<b>Action</b>
7/10/2007	1	Big or Middle Fork Popo Agie River	Cemetery Ditch	Joe Crofts	Approved
7/25/2007	1	Little Popo Agie River	Reservoir Delivery	Little Popo ID	Approved
6/20/2007	3	Little Warm Springs	Grey Wolf Ditch	Brian Brewer	Approved
3/14/2007	5	Owl Creek	Bader Ditch	Matt Brown	Approved
1/19/2007	6	Kirby Creek	Reservoir	Everett L. Jones	Denied
7/24/2007	6	Nowood River	Shafer Ditch	Robert Redland	Approved
4/18/2007	8	Greybull River	Reservoir Delivery	Lee Allen	Approved
4/25/2007	8	Greybull River	Sandstone Ditch	Lee E. Adams	Approved
4/25/2007	8	Greybull River	Farmers Canal	Carter Piotubie	Approved
4/25/2007	8	Greybull River	Wood & Burnett Ditch	K. Bullinger	Approved
4/25/2007	8	Greybull River	Bench Canal	Ken Cauffman	Approved
5/2/2007	8	Greybull River	Wood & Burnett Ditch	Bret Bullinger	Approved
4/12/2007	9	Canyon Creek	Canyon Creek Ditch	Martin Moon	Approved
4/26/2007	9	Canyon Creek	Canyon Creek Ditch	Mary Lou Moon	Approved
5/2/2007	9	Bretesha	Bretesha Ditch	Thomas Yearsley	Approved
5/18/2007	9	Jim Creek	Nuchols Ditch	Kenneth O. Lange	Approved
8/15/2007	12	Medicine Lodge Creek	George & Bayne Ditch	John F. Mercer Inc.	Approved
9/4/2007	12	Paint Rock Creek	Go Ahead Ditch	Tom Shirren	Approved
3/19/2007	13	Gooseberry Creek	Holland Ditch	Mark Nogle	Approved
3/23/2007	13	Cottonwood	Brassington Ditch	Jim Buttefield	Approved

Interstate issues were on the forefront of this superintendents work load this year attending the many meetings of the Yellowtail, long term issues group with members of our state legislature, congressional representatives, county commissions, special interest groups and other state agencies to work toward solutions to the many issues which exist between the water users and public in Montana and Wyoming. Lake levels, outflow rates, sedimentation, recreational areas, access and the trans-park highway are just a few of the issues being discussed during these meetings. Caught in the middle is the USBR, who are in charge of operating the Yellowtail dam on Big Horn Reservoir. Finding themselves in the unenviable position of trying to balance all of these stake holders, the bureau has made only a token effort to scientifically look toward a solution, and at times they have looked as if they would rather make politically based operating decisions.

Water Division III was short handed again this past water season with the departure of the district 3 hydrographer in mid-March. Advertising took place locally, regionally and nationally before a replacement was finally hired in late August. District 3 encompasses the entire mainstem of the Big Horn River and the Big Wind River basin. With this critical position vacant all season, all division staff was called upon to pick up extra work as the assistant superintendent and myself were spending much time covering the duties of the district 3 position as well as our own workloads. Our new division secretary has quickly worked herself into a good fit and even though this was her first water season, she too stepped up to take on additional duties and help us get through a tough, tough year.

General adjudication field work continues to flow from Cheyenne to the Riverton field office. The assistant superintendent and lead hydrographer both spent time working on field inspections for the adjudication staff that were beyond the experience level of the field adjudication inspector who continued to work through the tedious task of doing the final clean up of the dangling use files. My time was spent meeting with many objectors in the division in an effort to answer their concerns and educate them so they could fully understand the processes and what their rights are. Throughout the year all objections were settled except one which was to go to trial at the close of the water year. Additional time is needed reviewing the work products of the staff completing inspections as well as the recommendations of the contract inspector and completing re-inspection field work on those files needing more scrutiny.

Division III staff have continued to work hard on staying current with dam safety inspections and the snow survey program this year. Even with the continued drought and heavy regulation workloads Division III found the necessary time to complete many proof inspections. With the recent winding down of the phase III field work for Ryan Mikesell and our concentrated efforts we are making good progress on our proof inventory.

## Area Highlights

Phase II of the Big Horn River stream gaging upgrades was completed this past spring. Much of the planning and finer points of the proposed upgrades had been taken care of by the district 3 hydrographer who left us in mid-March to pursue other career goals. This left us pondering where all the equipment was meant to be installed and how he had planned to interface the different gages. We quickly pulled together a plan and all proposed sites were constructed, outfitted and online by early June. Again, this increased accuracy and real time data provision pays dividends on a daily basis as we make flow adjustments and work to efficiently deliver the precious commodity, water.

On the Greybull River system, I reported last year, that shrink of the delivered storage water volumes was a hotly contested matter. It was attempted this year, to work with the Greybull Valley Irrigation District to come to a workable solution to the ongoing problem of direct flow water being shorted in order to deliver the ordered storage. A proposal was finally thrown on the table during a contentious meeting in Emblem on July 12. We did a test run on the lower river for ten days at a rate of 2.5% shrink of all reservoir deliveries. Data was gathered and compared to the Has further study on this system from 1993. At the conclusion of the study period it was again attempted to work with the district and in the end even though they understood the reasoning and the need for this to happen they did not want to make that decision. It was then decided by this superintendent that the 2.5% was inadequate and that for the remainder of the year we would apply a 5% shrink on all reservoir water deliveries as measured at the point of delivery. The 1993 study identified approximately a 14% water loss across the system yet we found that the 5% seemed to fairly protect the delivery of natural flow volumes in this drainage.

WY2007 was fairly quiet in the Shoshone River drainage as the predominant activities centered around Phase III Big Horn General Adjudication inspections, conflict resolution and re-inspection work along with the plethora of subdivision development and continual flow of "authorization for detachment of water rights" coming into this office.

The Nowood drainage was one of two lucky drainages in the division this year. Adequate stream flows were evident most of the season. Just as flows began to diminish and regulation was requested in late July it began to rain. Regulation was thus relaxed until mid-August when it was reinstated, even though regulation continued for some time after that it was at a much more relaxed level as most folks had made their second cutting and the demand had diminished significantly. The two districts, 6 and 12 covering the Nowood and its tributaries will experience a new hydrographer next season as long time commissioner, Mr. Rod Delker has decided to retire at the close of this water year.

Elsewhere in the division, new and old water issues of interest continually crop up. On the Gooseberry, the appropriators there have long looked for new storage possibilities but the reality of limited supply when it would be most needed changed their mindset this year as they began the process of looking to the Water Development Commission

for funding assistance in an effort to rehabilitate their diversions and canals so as to best take advantage of what water is available when they have the chance. In district 1, the City of Lander continues to look toward converting the many water rights within their town limits to municipal supply since that is how they have been historically been served. The Dubois area continues to be our quickest growing area of concern. With the influx of people moving into this area as part time residents, they seem to bring with them an escalating tone of conflict. We spent much time in this area this past season with regulation on Warm Springs, Horse Creek development problems, Lava Creek inquiries and neighbor problems as well as illegal diversions in the Red Creek area causing flooding of neighboring properties during the heavy rains of late July. Shell Creek on the west slope of the Big Horn mountains receives this year's award for the quietest of all areas in Division III this year. Very few problems were realized in district 7 this year due to a couple contributing factors. First of all Gary Anders, long time hydrographer does a superb job of keeping the peace on some very tough drainages. Secondly, it never hurts to have more snow in the hills than has been seen in recent years. Coming down US highway 14A in July I was amazed this year at how much snow still remained even on the south facing slopes near the summit.

Much time was spent this fall investigating, meeting with parties and looking into authorities in the law for dealing with drainage districts, irrigation districts and municipalities as a small landslide on the south side of Lovell was threatening the integrity of the Globe canal as it tracks through town. It appears that a broken drain tile above town may have been the culprit, repairs have been made and the Globe canal is scheduled to have the threatened section of canal put into pipe and buried in an effort to protect it and the town should the hillside continue to move.

Other issues taking considerable effort and time this season included the review and response to the newly created Natural Resource Conservation Service water rights verification forms. Division III processed 118 of these requests this past fall as the various district conservationist prepared projects seeking funding. The goal of these forms is to identify any water rights deficiencies up front so that they may be corrected prior to the project receiving federal funding. This is a necessary step from our point of view as it puts the water user on notice that irrigation outside of the permitted lands or other water use not properly permitted could be shut off in the future for non-compliance.

Tribal relations were again a news worthy topic this past water year. The legislatively funded Tribal-State summit was held in October after a couple planning meetings during the year. The Tribal presenters gave their history of water rights as well as their interpretation of the "Law of the River" as handed down in the many controlling court decisions that make up this long standing case. The State then gave its interpretation of the same Law and case. In August the Tribes put forth a draft of their Water Plan for development and use of their court awarded reserved water rights. At the time of this writing the State Engineer's Office is in preparation of our response to this draft plan. The future of water administration in Division III will never be a dull job.

## **Summary**

Nine years, nine long years of this drought, last year's report asked the question; when will it ever end? Well with confidence I can say it didn't happen in 2007. The good rains we did receive saved our bacon and that of many appropriators along the way. The daily ebb and flow of work in Division III is constant. The challenges faced seem to take on a life of their own and there always seems to be an increasing level of magnitude as the years go by and the drought continues to worsen. As I do every year I must compliment my entire staff for such dedication and a can do attitude that just never ceases to amaze me. Through education and technological advances we constantly must keep doing more and more with the limited staff numbers we have. The Cheyenne staff continues to do yeoman's work in support of the Division III staff as well. Lastly, I cannot express the appreciation I have for the support and hard work of the State Engineer and my counterparts on the Board of Control.

## **REPORT OF THE SUPERINTENDENT WATER DIVISION IV**

Jade Henderson, Cokeville

The following annual report is a summary of Water Year 2007 as experienced in the drainages of Wyoming's Green, Snake, and Bear Rivers located west of the Continental Divide. It is written generally from the perspective of field administration of water rights. More detailed accounts of respective local areas can be obtained from the individual Reports of the Hydrographer/Water Commissioners. (The Little Snake drainage, although part of the Green [Colorado River] basin, is administered under Water Division I.) More complete interstate, co-operative streamgaging, and Board of Control information is found under their separate reports.

### **General Conditions**

Once again, snowpack declined from fairly high in early winter to poor in the spring. And springtime warming again came sooner than it used to, bringing runoff and streamflow peaks remarkably early, two months early on Bear Lake inflow. Good fall precipitation going into the Water Year, and ending it, proves to help drought runoff amounts that in turn boost reservoir storage and early ditch conveyance. But spring and summer weather stayed mostly dry, and saw a cool early growing season with frosts that stunted initial crop growth. Reservoirs with good carryover from 2006 generally filled or came close; but carryover in major reservoirs entering WY 2008 is generally lower, except for some along the Wind River Mountains and Grassy Lake north of the Tetons. We hired two new Water Commissioner replacements in Bridger Valley, making three in all who had their first regulation season, each performing superbly. Budget requests to replace failed ATVs and change one more seasonal Water Commissioner to year-round for the lower Green River basin were denied. The Superintendent's excess hours went back up this year, making it a little more challenging again to find time for adequate detail in quasi-judicial responsibilities on the Board of Control (such as the carefully composed fact-finding Order Records of its final action on each water right contest, which decisions are then appeal-able to the courts).

### **Green River**

The eighth year of ongoing drought has furthered Wyoming's funding for data collection to quantify and defend its water use in the Green River basin. This will be needed if the precedent of interstate curtailment is imposed on the Upper Colorado River sometime in the future. Telemetry data loggers at scattered diversions in the basin, particularly on regulated streams, will aid this documentation. They will also provide on the Internet real-time diversion rates to users and regulators alike for improving and speeding accurate water delivery. But it will require diversion owners to provide pre-rated measuring devices. All single appropriations pre-dating the original Colorado River Compact of 11-24-1922 are protected from impairment under its Article VIII, but still

need to be counted. Pine Creek accounting with Fremont Lake Reservoir similarly requires these usually-shift-free measuring devices for accurate instantaneous reading.

Public demands on the Pinedale office require us to prioritize the work load between our responsibilities and the services that are not our urgent responsibility. This year Middle Piney Creek rejoined the ranks of usually-regulated streams near Big Piney in what proved to be perhaps a record long regulation season, beginning early and continuing to November. Longer regulation in the upper Green basin has cut into time available for taking proofs, so non-supervising staff have been conscripted for delegated inspections. The season ended with a comprehensive headgate inventory on these streams in the Big Piney area, and issuance of some three dozen orders to install or repair for prompt regulation control. Changed ownership and operation on tiny Meyer Creek, in the South Beaver drainage northwest of Daniel, is typical of increased calls Division-wide to start regulating streams that have new uses for pond water rights. Reduced return flows in some of these situations, as with pivot sprinklers in areas like Eden Valley Irrigation & Drainage District, are stirring controversy. Land use changes prompt New Fork Lake Irrigation District to continue seeking outside support in their struggles to control and manage water administration within their jurisdiction. The death of their board member Stan Murdock has been a significant loss. We are resisting suggestions that we restrict diversion by Green River Supply Canal in favor of rights in the downstream Soap Hole Ditch. We first require any users on this shared side channel to bring flow available from their mainstem source upstream. We can, however, support that whole group of various water right priorities in working with the users to assure their continued accommodation by Seven Mile River Ranch, whose expensive properties with newer fly-fishing flow interests must allow access for delivery of adequate Green River water down Tom Poole Slough.

Black's Fork and Smith's Fork Creek are regulated every year as a result of summertime storage and delivery from Meeks Cabin and Stateline reservoirs with headwaters in Utah. The Superintendent submitted a recommendation for refining agency rules to file for "storage of direct flow rights." This provision in our water law has potential to protect Wyoming's use, particularly in Bridger Valley and on Ham's Fork, against an interstate curtailment of post-Compact storage priorities.

The Berman-Bond lawsuit appears to be desperately trying to prolong its final breath in their Utah court. A tiny amount of second-fill water was stored out-of-priority in Utah's upstream China Lake Reservoir, but not called-for until after our usual regulation on Wyoming's end of the Smith's Fork drainage had ended September 30. We shepherded its delivery anyway – upon pass-through by Utah's Stateline Reservoir – to their two ditches in Wyoming, only to have part of it go on by un-diverted because of their failure to adequately raise and tighten their diversion dams.

An interesting appeal originated from the local Hydrographer/Water Commissioner decision on out-of-priority storage in Meeks Cabin Reservoir. The Superintendent's adjustment of that ruling was further appealed to the State Engineer, and further adjusted. Prevailing each time was the indictment that the Reservoir owner cannot

ignore the Water Commissioner's direction to increase pass-through for senior calls downstream. Also enduring each appeal was the requirement that the most downstream calling right must divert the flow available to its side channel before calling-out an upstream junior. Another part of the Superintendent's ruling which remained unadjusted was his requirement that a complaint of out-of-priority storage be made promptly, rather than hold their Direct Flow water in someone else's reservoir for future drafting (without properly subscribing for a legal account with the Reservoir owner).

Workable priority schedules – for both Wyoming and Utah in the Henry's Fork drainage – have yet to be polished into a comprehensive combined list under the Upper Colorado River Basin Compact. They have also not been edited to flag junior duplicate or overlapping water rights. But mapping that shows the overlap of natural flow rights from both states is essentially complete, with Utah continuing its effort to find staff time for delineating the sole-supply acreages of their own over-filings. New Wyoming proofs on lands involved with Utah rights have therefore been put on hold.

### **Snake River**

Calls for regulation on the lower Gros Ventre River were un-approvable since flow before the braided channels exceeded the total appropriations on all those channels, and the calling appropriator's changed Point Of Diversion was not recorded. In the Salt River drainage: Crow Creek near Fairview was called into regulation, and competition between new filings on Bradshaw Spring Creek near Grover imposed unprecedented priority regulation there through a mild autumn into November. It also triggered further enforcement over proper pond permitting. After another season of struggle ended inside Stewart Creek Irrigation Company near Etna, some of its shareholders sought a written response for the Superintendent to address two of their internal issues. While written information and guidance were explained, this office declined to preempt the Company and its shareholders' prerogative and responsibility over their own internal bylaws and operations.

Incidents requiring proper permitting for ponds also occurred again near Afton, Alta, and Jackson (as well as mentioned earlier in Sublette County). A letter previously sent to consultants in Teton County was revised and sent to warn Lincoln County engineers and surveyors against advising construction before a permit is first issued. Letters from the State Board of Control – invoking the statute requiring recent historical use in order to change the Use or Place Of Use – have caught the attention of consultants and users seeking such changes on existing water rights, particularly in subdividing areas. Education is similarly advancing with the tighter scrutiny and caution given to limit misuse of Authorizations For Detachment.

### **Bear River**

Interstate regulation of this compacted River's Central Division around Cokeville was imposed this summer. But allocations turned out to be improperly low while some diversions in the calling state (Idaho) were not counted until their new River

Commissioner became more familiar. While official interstate regulation was not imposed in the Upper Division around Evanston, unofficial general co-operation with Compact allocations (sometimes imposing State priorities) allowed more flexibility again this year. Wyoming and Utah Sections were thus able to trade surplus within the timing of actual demands, and without having late storage halted by official interstate regulation.

The extended drought's new imposition of other little-known rules is also taking time for even long-term users and us regulators to realize the implications. Utah imposed their state's maximum irrigation duty in the Randolph area of 3 acre-feet per acre, which surprisingly includes both natural flow and storage. Utah's accounting of these amounts at each Utah ditch has caused reductions in diversion rates, as their ditch companies conserve to spread their limited volume over a longer irrigation period. In turn the Woodruff Narrows Reservoir Company has cut back releases, and further accounted storage deliveries to specific ditches. When the two Upper Wyoming diversions right below the Reservoir (which are not subject to the Utah cap) use up all their newly-accounted storage share allotments, they now call upon their natural flow seniority ahead of other Wyoming rights upstream that are not accustomed to that call. The larger volume of unused Utah storage shares results in the Reservoir carrying-over more storage each year. But the Lower Wyoming Section is noticing less flow in the River, as well as a shorter period of reservoir release. They may have to try calling for the specific limited delivery of their storage shares.

A call from Pixley West Ditch for internal distribution and State regulation of Bear River south of Cokeville was denied. Their rights were essentially filled, with much of the available flow leaking through their diversion dam, and the three joint owners in the Ditch were not fulfilling their responsibilities to maintain and manage internally. Their blame of constriction on the required ramp-flume was disproved when an experimental cut around the measuring device provided no increased flow down the Ditch. As described previously, these measuring devices are necessary for accuracy of the real-time diversion data that we are posting on the Internet. Further cost-share for expanding this telemetry upstream in the Evanston area was awarded to the Wyoming State Engineer's Office from the Bureau of Reclamation. Idaho and Pacific Power have finally joined the pursuit of telemetry immediately downstream, which should help resolve decades of doubt surrounding accurate accounting for total divertible flow in the Central Division. Separate interstate storage restrictions are becoming another topic of education as storage allocations subject to out-of-state Bear Lake levels are contrasted with those exempt from Bear Lake.

## **Conclusion**

Streamgaging continues to be an expensive and difficult program to maintain. For purposes of expert training on flow measurement and recording, Division IV seeks to operate one formal USGS streamgage by each full-time Hydrographer (on streams where we need to know the current flow anyway). This is funded, and our work credited, under the agency's statewide co-operative streamgage program with the

Wyoming District of USGS. The spring record at the new co-operative site below Viva Naughton Reservoir failed again this year when the logger inside a transducer replacement was not properly initialized. We still need to convert another site for our fifth Hydrographer, and for the newest year-round Hydrographer/Water Commissioner in Big Piney. Our lack of cableways and time still make it difficult to meet the meticulous high-flow standards of the USGS in achieving a federally-publishable gage record. With our attention and accuracy focused at low-flow, other responsibilities demand our time during high-flow. Any additional new streamgaging sites without a crest for a pre-determined rating curve should likely be contracted to the USGS. We have budgeted for new substitute technology to measure flows in seven non-wade-able channels (with a single [transportable] less-expensive and safer acoustic doppler "River Surveyor"). So we continue to store some parts, and hold-off purchasing more, which were originally funded for expensive construction of individual bank-cableways. Some of this stored equipment may become spare for use statewide.

We finally found a bigger office in Pinedale, but have run out of file cabinet and storage space in the Cokeville office. So we are encouraging our landlord (the Town of Cokeville) to speed funding and construction of a building expansion. There is a delay in the Hydrographers Diversion Database portion of the agency's comprehensive e-Permit development. This has forced our return for another year to the struggling process of interfacing Access lists to Excel spreadsheets, of data back to Access, then to Sequel, and finally to Crystal Reports for publication. A motivated and ambitious team is critical and appreciated as we continue to face both old and new challenges. We have good staff; and our improvements in integrity, work ethic, and attention to accuracy are important goals for the agency's entire team.

**BOARD OF REGISTRATION FOR  
PROFESSIONAL ENGINEERS AND  
PROFESSIONAL LAND SURVEYORS**

Christine Turk  
Executive Director

**Objectives**

The primary responsibility of the Board is self-regulation of the engineering and land surveying professions for protection of the public in Wyoming. Careful processing of applications from individuals, corporations and partnerships registered in other states, and administration of examinations for new applicants in Wyoming occupy most of the Board's efforts. In addition, the Board investigates complaints against engineers, land surveyors, corporations and partnerships. It is the Board's goal to reduce the backlog of enforcement cases, and enhance the website by ensuring information is relevant and current.

**Major Accomplishments**

The Board continues to be efficient in processing applications, and properly completed comity applications are being processed and licenses are granted within a few short weeks of completion. The Board continues to be attentive to its registrants and keeping the public educated to the need of professional registration for protection of the public.

**Law Enforcement Activity**

The Board has vigorously pursued the requirement that persons offering professional engineering and land surveying services in Wyoming become licensed. Correspondence from the Board Office or the Attorney General's Office has usually been effective in obtaining compliance with the statute.

The Board continues to use the National Council of Examiners for Engineering and Surveying's (NCEES) national database for retrieving information on disciplinary matters, as well as providing information on Wyoming registrants who are disciplined.

The Board continues to investigate every complaint concerning the practice of our registrants. The Board now has the expertise of one investigator who investigates all Complaints. This has streamlined the process and in most cases, a resolution has been accomplished without a formal hearing.

Finally, the Board has provided exceptional leadership at the national level with several of its members serving as officers, committee chairs or committee members of the NCEES.

## PROBLEMS AND RECOMMENDATIONS

The Board continues to explore alternatives for providing a swifter means of completing resolution of complaint investigations. Due to the Board meeting on a quarterly basis however, some recommended resolutions are delayed due to the meeting schedule.

<b>SUMMARY OF REGISTRANTS AS OF SEPTEMBER 30, 2007</b>				
		RESIDENT	NON-RESIDENT	TOTAL
PROFESSIONAL ENGINEER	INDIVIDUAL	1,031	3,879	4,910
	CORPORATION	96	418	514
	TOTAL	1,127	4,297	5,424
PROFESSIONAL LAND SURVEYOR	INDIVIDUAL	116	175	291
	CORPORATION	14	11	25
	TOTAL	130	186	316
PROFESSIONAL ENGINEER & LAND SURVEYOR	INDIVIDUAL	79	47	126
	CORPORATION	40	28	68
	TOTAL	119	75	194
ENGINEER-IN-TRAINING		1,253	573	1,826
LAND SURVEYOR-IN-TRAINING		46	10	57
<b>GRAND TOTAL</b>		<b>2,697</b>	<b>5,141</b>	<b>7,817</b>

The purpose of the NCEES is to provide an organization through which state Boards may act and counsel together to better discharge their responsibilities of regulating the practice of engineering and land surveying as it relates to the welfare of the public in safeguarding life, health and property. Serving the NCEES at a national level has been very beneficial to the operations of the Board. While all Member Boards attempt to have uniformity in their requirements, without the involvement and exchange of information from state to state, achieving that uniformity would be essentially impossible.

## **STATE BOARD OF EXAMINING WATER WELL DRILLING CONTRACTORS AND WATER WELL PUMP INSTALLATION CONTRACTORS**

Lisa Lindemann, Administrator, Ground Water Division

The State Board of Examining Water Well Drilling Contractors and Water Well Pump Installation Contractors (the Board) was created by legislation in the 2003 session. The Board consists of seven members and has been a functioning entity since June 2003.

Current Board members include:

<u>Board Member:</u>	<u>Representing:</u>	<u>Term Expires:</u>
Jack H. Weber	At-large Water Well Drilling Contractor	3/31/11
Charles W. Wilson	Water Well Driller	3/31/09
LeRoy Christiansen	Irrigation Well Contractor	3/31/11
Steven R. Barbour	Water Well Pump Installation Contractor	3/31/09
Richard G. Stockdale	Public Who Owns an Active Well	3/31/09
Lisa Lindemann	SEO Designee	3/31/09
Kevin Frederick	DEQ Designee	3/31/11

The mission of the Board is to administer a voluntary certification program. The purpose of the certification program is to protect the public from incompetent or unethical water well drilling and water well pump installation contractors, as well as to promote excellence in the practice of their area of expertise.

The Board is responsible for examining the qualifications of anyone desiring to obtain a certification to engage in the business of water well drilling or the business of water well pump installing within the state. Under Wyoming's voluntary certification program, an applicant for a water well drilling contractor or pump installation contractor must:

- be at least 18 years old,
- provide written documentation of financial responsibility,
- pass an examination prescribed by the board (or provide evidence of current certification by the National Groundwater and Wells Association (NGWA), and
- pay the required fees.

Three written water well driller exams must be completed; 1) a general exam, 2) a specialized category exam, and 3) a Wyoming-specific exam. The Board was able to offer their first certification exams by February, 2005.

### **New Rules**

In order for this Board to offer a certification program, the Board needed to promulgate a set of rules and regulations. The Board approved a draft version of the rules and regulations in July 2004 and the rules and regulations were submitted for public comment and review. The Board adopted the rules and regulations on October 18,

2004 and they were signed by the Governor and filed by the Secretary of State on December 29, 2004.

### **Emergency Rules**

The NGWA changed their testing procedures on January 1, 2005. Therefore, the Board's new rules and regulations, signed December 29, 2004, had to be revised to reflect NGWA's changes. Changes to the rules were filed as emergency rules since emergency rules would be effective for 120 days, allowing the Board to continue accepting applications for certification while sending the revised rules out for public review and comment. The emergency rules (Chapters 3 and 4) were signed by the Governor on January 19, 2006 and filed by the Secretary of State on January 20, 2006.

### **Amended Existing Rules**

Notice of intended rulemaking (amendments to existing rules (Chapters 3 and 4)) were filed with the Secretary of State on May 16, 2006. Notice of intended rulemaking and proposed rules in strike and underscore format were provided to the Legislative Service Office and courtesy copies of the notice and proposed rules were provided to the Attorney General and the Governor on June 13, 2006. The amended existing rules were filed with the Secretary of State on November 1, 2006.

### **Board Meetings**

The Board met on January 19, 2007, Casper, Wyoming. The second meeting of the fiscal year is scheduled in early in WY-08.

### **Voluntary Certification Applications**

In WY-06, the Ground Water Division received twenty-five requests for applications for certification from water well drilling and/or pump installation contractors from Wyoming, Colorado, South Dakota, Nebraska, Arizona, Hawaii, Montana, Texas, California and Utah.

### **Certified Contractors**

One applicant was successfully certified as both a water well driller and pump installation contractor in WY-07. Gary McCracken, of Charles Sargent Irrigation, Inc., Broken Bow, Nebraska, was certified as both a Water Well Driller (CWD-02) and Pump Installation Contractor (CPI-02).

One application for certification as a pump installation contractor was received in WY-07 from Jason Watson, Watson Well, Laramie, Wyoming.

## **Mandatory Licensing**

The State Engineer and the Ground Water Division presented information to the Joint Agriculture, Public Lands and Water Resources Interim Committee in April 20, 2006 and asked for the Committee's support in drafting legislation that would require mandatory licensing of water well drilling and pump installation contractors.

A revised bill was then presented to the Joint Agriculture, Public Lands and Water Resources Interim Committee in Sundance, Wyoming on October 27, 2006. Chairman Geis moved the draft bill which was seconded by Representative Samuelson. The 2007 Legislature passed House Bill 136/House Enrolled Act 122. Unfortunately, Governor Freudenthal vetoed the bill on March 9, 2007 due to a drafting error that rendered the Act incapable of accomplishing its intended purpose. The Governor acknowledged that this was a technical error which could be fixed during the next Session.

The SEO will attempt to move the licensing bill through the legislature during the 2008 session. The Wyoming Water Well Association has been, and will continue to be instrumental in supporting this important bill. To-date, the SEO's WY-07 efforts to license water well drilling and pump installation contractors include:

- **April 24, 2007, Joint Agriculture, State and Public Lands and Water Resources Interim Committee, Laramie, Wyoming.** The State Engineer presented draft language on the water well drilling and pump installation license to the Committee. Co-Chairman Geis moved to draft a bill for the September meeting; the motion was seconded by Senator Johnson. The motion passed.
  
- **September 12, 2007, Joint Agriculture, State and Public Lands and Water Resources Interim Committee, Douglas, Wyoming.** Representative Zwonitzer moved to sponsor the draft bill, motion was seconded by Representative Blake. Senator Bebout moved to amend the draft bill on page 4 to allow reciprocity if the other state offers reciprocity. Senator Johnson seconded the amendment and the amendment passed. The bill passed 11-2-1 with Representatives Semlek and Wallis voting no and Senator Perkins excused. The Committee bill will be introduced in the 2008 legislative session.