Wyoming
State Engineer's Office

2012 ANNUAL REPORT

WATER YEAR
October 1, 2011 – September 31, 2012

STATE OF WYOMING

2012

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, 2011 through September 30, 2012

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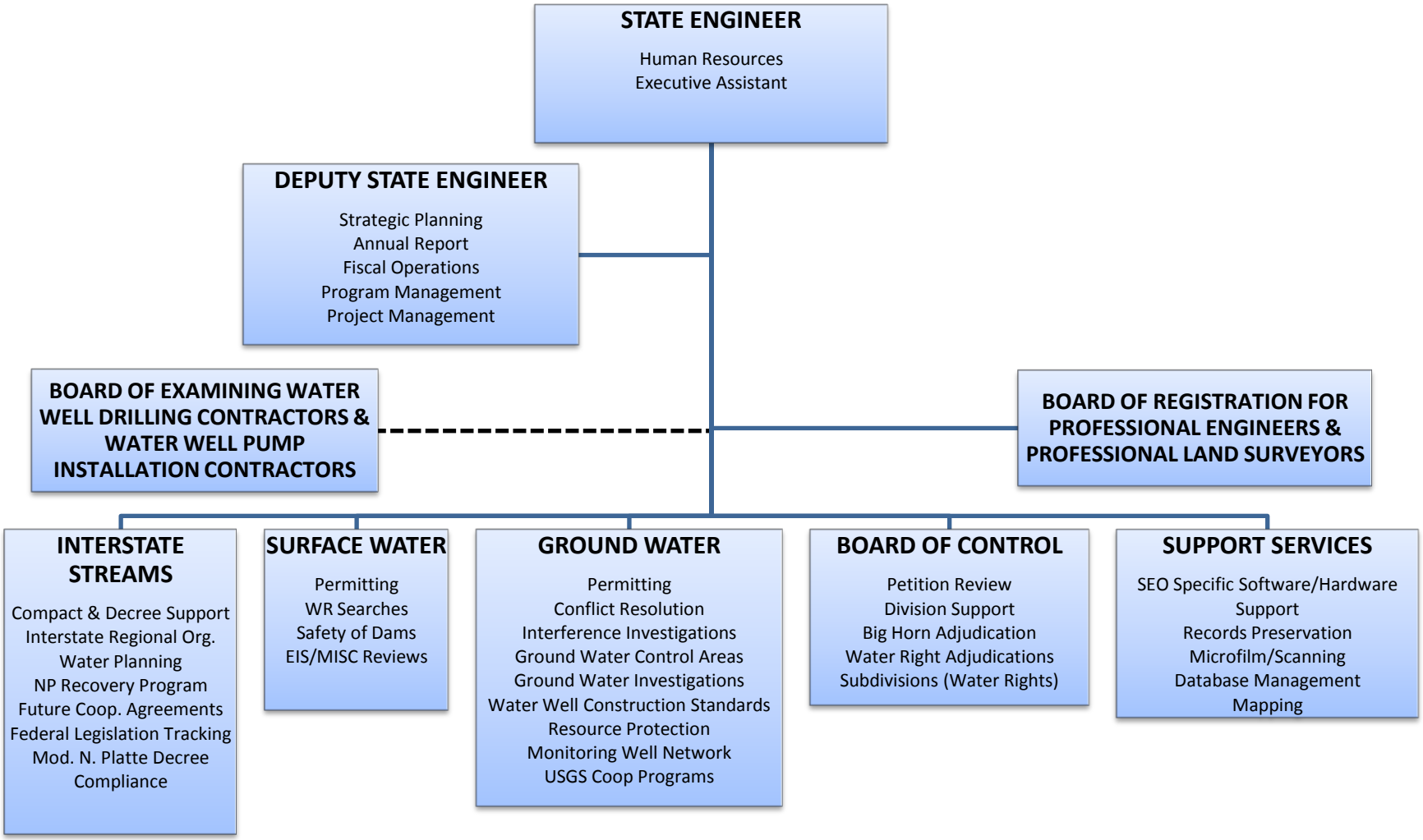
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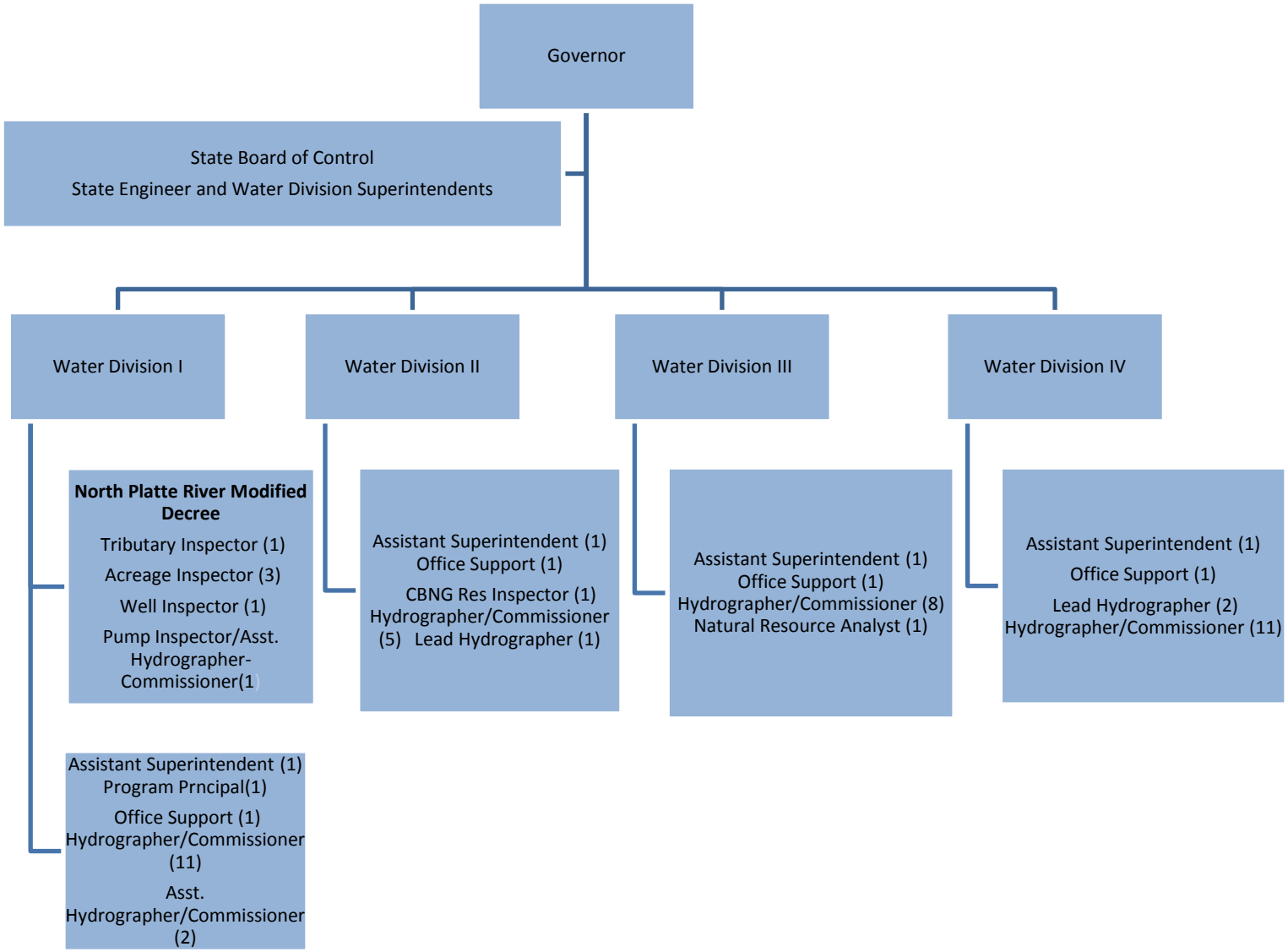
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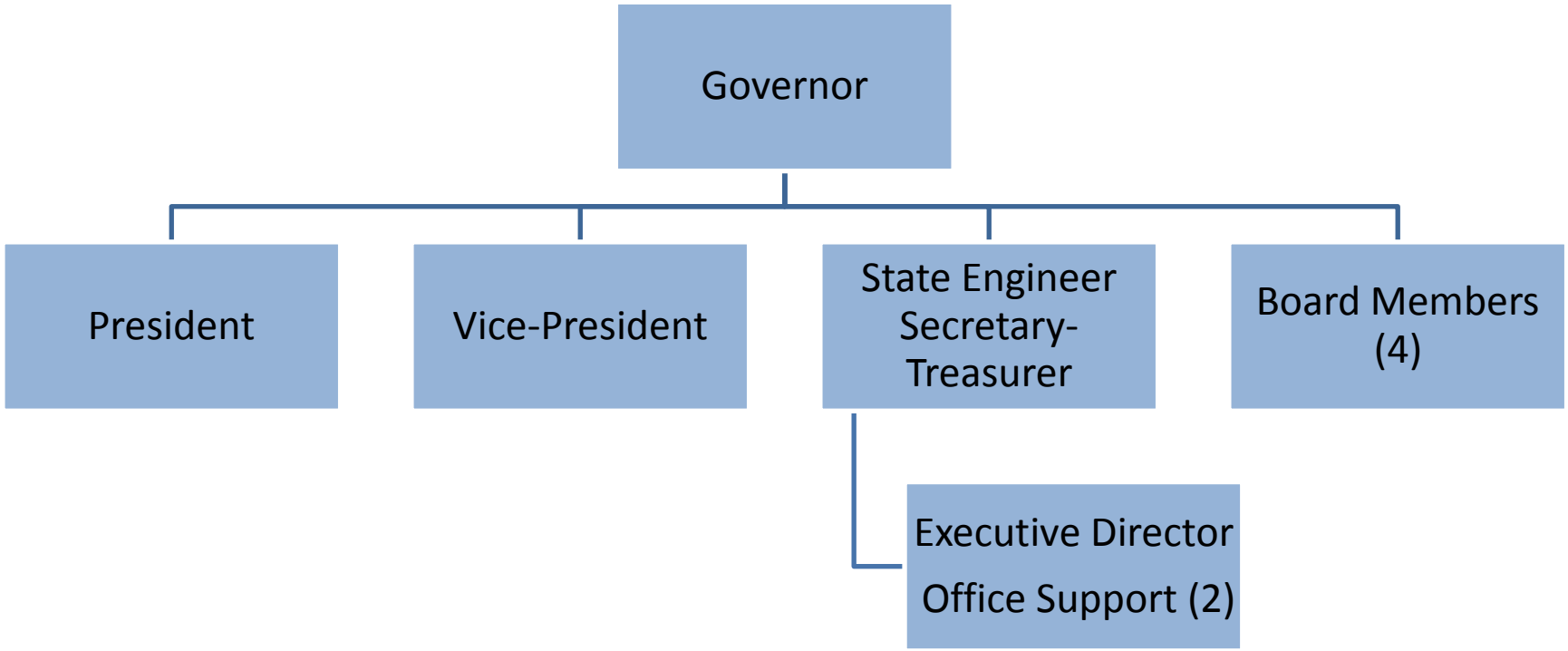
2012 ORGANIZATIONAL CHART



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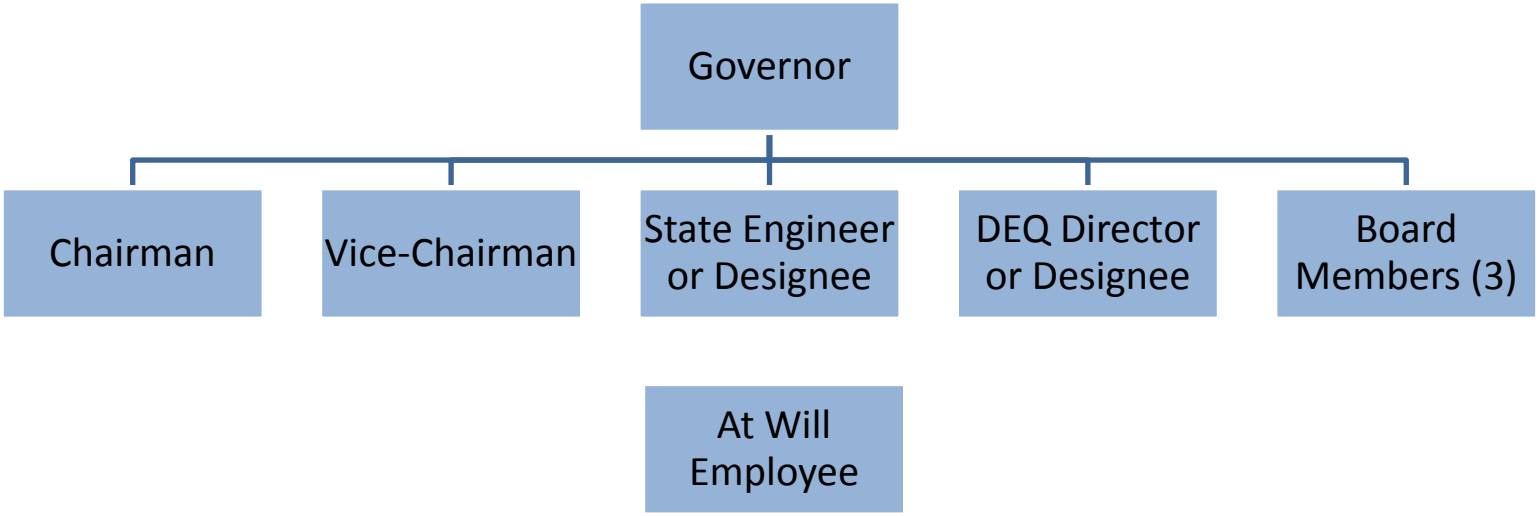


STATE ENGINEER

Patrick T Tyrell, P.E.

WATER YEAR 2012

In this first part of my annual report I typically review the year from a water supply standpoint for the state, and will do so again here. But, it is one of the odd reports I have written. If the reader were to review these reports for 2010 and 2011 you would see we had two outstanding years with plenty of water, comparatively little regulation, and as much flood management as anything. We set records in places for runoff peak or volume in both those years. Then, within one short year, 2012 arrived and all the water went away. In recent memory, only 2002 was possibly a worse year in many places. Late 2011 became dry, snow pack lagged over the winter, and rain during the summer was sparse. By some climate measures, the summer of 2012 was the hottest, and driest, in Wyoming in perhaps 118 years. By those two measures, Wyoming was also the worst state in the intermountain west.

If we had any good luck at all, it was that our mainstem reservoirs across the state carried over a good water supply from 2011. If not for that storage, 2012 would have been even more difficult for our appropriators. If you lived below a reservoir, like the USBR reservoirs on the North Platte River, Boysen Reservoir on the Wind River, or Buffalo Bill Reservoir on the Shoshone River, you likely had water. If you farmed or ranched above them, your year was very skinny. But, that storage is not infinite. If the winter of 2012-2013 is similarly poor, water shortages could spread much more widely in 2013.

From a water supply standpoint, 2012 was a year to forget.

THE 2012 ECONOMY

There seemed to be improvement in the national economy in 2012. However, in Wyoming, the economy did not turn in ways that favored state coffers. As a state dependent on mineral revenue for governmental operations, key indicators of our future revenue lie in the selling price of coal, natural gas, petroleum, and other products. Natural gas and coal are traditional leaders, and 2012 prices for these commodities dropped. With a relatively mild summer and winter, and natural gas stocks increasing due to the country's increased

production, gas prices plummeted to the $2 per MCF range. This in a state that had used cost projections of $4.10 per MCF only six months prior. The drop in gas prices meant more gas was used in the thermal market, reducing demand for coal for those plants that could switch fuels. So, coal production also dropped. In a relatively short time, two of Wyoming's primary revenue streams – natural gas and coal – were on the ropes.

I mention all that as a precursor to describing its effect on our budget. At the direction of the Governor, our approved 2013-2014 budget included very little in the way of new requests, knowing the revenue situation. Following the 2012 budget session, additional standard budget reductions were mandated by the legislature. These included an 8 percent reduction for FY2014, and direction to have a total of 8 percent cut from the agency's standard budget for the 2015-16 biennium. This totals about $2.2 million in cuts for a biennium, in two steps, for the SEO. As a snapshot, that amount is manageable. In the larger picture, it begins to cut bone.

Here is the larger picture. Starting in about 2008, the national economic troubles spread to Wyoming, and agencies dealt with a request to cut budgets by 10 percent. The SEO obliged, and those cuts largely came from 900 series contract funds, and a few other areas. Then, the State of Wyoming instituted hiring restrictions while the SEO had 8 open positions. Those positions were lost in the process, effectively adding another 2.5 percent cut. With the impending reductions for 2015, then, the SEO will see a total 20 percent reduction in our resources in four short years. That cannot happen without some pain. We are an agency that prides itself on prudent fiscal management, so the cuts will have to come from programs, services to the public, and, as a last resort, personnel. One example of our historic conservative practice involves staffing. If the personnel added in 2003-2004 due to the settlement of the North Platte River lawsuit with Nebraska are ignored, we actually have 8 fewer staff than the agency had in 1999. And if anything, public expectations of our office continue to increase.

TRADITIONAL OIL AND GAS – SOUTHEAST AND CENTRAL WYOMING

In general, the Niobrara play in southeast Wyoming saw continued pull back in 2012. Drilling activity slowed, and water management issues related thereto were less than 2010 or 2011. However, drilling activity has increased in east-central Wyoming, primarily north of the North Platte River. Termed by some the "Parkman/Sussex" play, the water needs for this activity are somewhat

more manageable as no ground water control areas are involved, and opportunity for conflicts with other appropriators is less. We are issuing a number of time-limited ground water permits for this activity, and pressure is increasing to provide water for this demand through municipal temporary water use agreements. The use of these agreements leads to the following section on policy considerations during the year.

POLICY ISSUES

For two years now the SEO has debated internally the propriety of using temporary water use agreements (TWUAs) to acquire water from municipalities, as demand for oil and gas water has squarely presented us that question. Here is the discord – under W.S. 41-3-110, only the consumptively used portion of a water right can be sold under a TWUA. If the selling right is an irrigation right, the analysis is simple – one simply doesn't irrigate his lands, and the use is foregone. The temporary user then places no additional stress on the source – as long as his consumption never exceeds the amount seen under the original use. With Municipalities, how does one tell them to forego a use, or forego a demand? They would be hard pressed to turn off faucets and sprinklers in an amount equal to any TWUA they enter. Historically, the issuance of small TWUAs to municipalities (for such things as highway projects) was not problematic because the amount was within the "noise" or variation in their annual deliveries. All that was checked was whether the amount kept them within their water right limits.

The recent oil play brought in such a demand for water from the City of Douglas that at one point up to 30 percent of their annual use came to be embraced in TWUAs, and all the while they stayed within the diversion limits of their water rights. But – the question remains – can a municipality enter into a TWUA and not show a foregone use, and still comply with the requirements of the law? Even in this office we can be of differing minds on the issue, and other solutions such as filing enlargements or amending municipal service areas have been debated. I suspect this will see more work in 2013.

THE 2012 BUDGET SESSION

The 2012 saw a bill seeking to acquire lessee or permittee approval of actions related to water rights on federal lands. Feeling such an issue was not appropriate in statute, the SEO, led by deputy LaBonde, sought MOU's with the USFS, BLM, and the Office of State Lands and Investments. We signed those MOUs very close to the session, and the bill did not proceed.

The Board of Registration for Professional Engineers and Surveyors and Professional Land Surveyors (BORPEPLS) also sought to amend, in fact rewrite, its practice act, an effort that has been attempted for 7 or 8 years now. Ultimately the bill failed in the House. The Board, on which I serve as Secretary/Treasurer by statute, will try to get its bill introduced again next year.

INTERSTATE STREAMS

The issues facing us in interstate matters are largely described in that section of this report. However, a few items are notable.

First, Minute 319 to the Mexican treaty was signed after the end of the water year, though most of its preparatory work occurred during the year. This minute is historic in that allows Mexico to create ICMA, or saved water, and store it in Lake Mead. That water can be sold to U.S. interests. Mexico also gets to participate, nominally, in surpluses, if declared in the basin. The Minute also is Mexico's agreement to take voluntary shortages, under certain conditions. Additionally, it outlines way in which the U.S. and Mexico can cooperate on conservation projects and pulse flows for the lower river. It is a five-year agreement, and its continuation after that will be determined by successes it sees in that period.

In 2012, and at my request of the Governor, Sue Lowry was named to replace me as Wyoming's commissioner for the Bear and Yellowstone River Compact Commissions. This action was intended to free up some of my obligations under our reduced budget landscape, and Sue certainly deserves this recognition. I want to congratulate Sue on her appointment to these important positions, and look forward to her continued outstanding service with both groups.

LITIGATION

I will not opine on litigation better covered in the AG's section, other than to discuss two groundwater permit decisions that *could* have ended in court, but did not. These involve two well permit applications, one by Mark Ruppert and one by 4 Quarters Land and Livestock, that were initially denied by me in part. In both cases, my denial of water for oil and gas drilling purposes, for public interest reasons, were appealed back to this office for failure to follow proper statutory guidance. In a negotiated process, both appeals were heard in front of the Office of Administrative Hearings (with me as hearing officer), and a complete record was created as the public interest question was heard anew. In both cases, my final determination was that we could not simply deny an otherwise acceptable use (oil and gas drilling purposes) while ostensibly continuing to issue permits for other uses such as irrigated agriculture. So, in both cases some water was allowed to be used for oil and gas purposes. The final orders probably represent some of the seminal public interest instruments in the history of this office, and for that reason alone deserve mention in this report. What followed those decisions also deserves mention, because I could see that it would be thereafter difficult to deny permits as a matter of course in a ground water control area. So, on April 11, 2012, two days after the 4 Quarters order was entered, I issued another temporary order implementing spacing requirements and disallowing high capacity wells in the High Plains Aquifer in the Laramie County Control Area until a ground water study could be completed. That study, due to be complete in late 2013, should inform future management of ground water in the control area.

AGENCY NOTES

Water year 2012 was notable for the retirements of several long-term employees. Phil Velez, long time Surface Water Division employee, retired after 35 years. Phil was a trainer in water rights, a historian of our records, and well known among our staff and constituents. I wish Phil well in his retirement. We also saw the retirement of long-term Division I Superintendent Randy Tullis. I have great appreciation for Randy's efforts in implementing the NE v. WY settlement, and he was simply a fine man with which to work. In addition, Larry Stockdale, and Roger Ralph both retired after stellar service. I wish them all well. As a final note, since this report is necessarily written after the end of the water year it describes, we also received word of the retirement of John Barnes, Surface Water Administrator, effective in January of 2013. John's service and leadership will also be missed.

Replacing Mr. Tullis in Torrington is Brian Pugsley, formerly Randy's Assistant Superintendent. As Division I Superintendent, Mr. Pugsley will manage our important work in that division, including compliance with the settlement and modified decree. I look forward to Brian's contributions to the Board of Control, and congratulate him on his appointment.

Finally, my long time deputy Harry LaBonde left our service to take over as Director of the Wyoming Water Development Office. I will miss Harry and wish him well. Shortly after the end of the water year his replacement, Greg Lanning, was hired. Greg comes to the SEO from his most recent stint as Director of Public Works for Pocatello, Idaho. Greg is a Wyoming guy, having grown up in Casper, attended UW, and worked in Powell, Lander, and Green River before going to Idaho. I look forward to Greg's growth in the deputy position.

ADMINISTRATION DIVISION

Greg Lanning
Deputy Agency Director
&
Steve Winders
Senior Accounting Analyst

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

This section is supervised by Mr. Steve Winders and is responsible for processing all fiscal transactions of the agency. In 2011 the agency developed its FY 2013-2014 biennium budget proposal which was submitted to Governor Mead in August 2011. The agency requested a total of $30,745,165 for the biennium, later reduced to $29,817,282. A breakdown of the budget is as follows, with half allocated to this year:

TABLE 1 - 2012 - 2014 BIENNIAL BUDGET

Administration Division	$ 2,339,019
Ground Water Division	3,851,553
Surface Water & Engineering Division	3,193,935
Board of Control Division	12,887,214
Support Services Division	3,112,806
Board of Registration PE & LS	868,804
Interstate Streams Division	2,042,046
Special Projects	12,730
North Platte Settlement	1,333,624
Water Well Drillers	175,551
	$29,817,282

The majority of the biennial budget, $23,796,139 is salaries and benefits for agency personnel. In 2011 the agency's employee count was authorized at 147 employees of which eight (8) positions were vacant, frozen and subsequently eliminated. As such the agency's budget includes the following positions:

TABLE 2 - AGENCY PERSONNEL – STANDARD BUDGET

Full Time	126
Part Time	11
At-Will Employee Contract (AWEC)	1
	138

GROUND WATER DIVISION

This Water Year 2012 (WY-12) report covers the time period from October 1, 2011 to September 30, 2012 and 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 (GW); the Cooperative Programs section reports on the two programs currently administered by GW, including 1) the Snow Survey, and 2) Subdivision Review Program.

GROUND WATER

Lisa Lindemann, P.G., Administrator
John Harju, Assistant Administrator

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 groundwater within the State of Wyoming and maintain a database of approved permits.
2. To resolve conflicts between groundwater users.
3. To conduct Control Area Advisory Board meetings.
4. To coordinate groundwater 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 groundwater resources.
7. To investigate the occurrence of groundwater resources.
8. To monitor groundwater levels across the state.

ACCOMPLISHMENTS

Application Processing and Recording

During WY-12, 2,453 *Applications for Permit to Appropriate Ground Water*, were submitted to the State Engineer's Office. Of the applications received, 2,115 applications were determined to be "complete" (i.e., acceptable for processing). A total of 2,130 applications were approved to permit status and 24 applications were rejected. In addition to applications for new appropriations of groundwater, 115 *Applications to Relocate &/or Deepen an Existing Domestic &/or Stock Well* were received and processed. Of those 115 applications, 74 requests to deepen and/or relocate, 24 deepen requests, and 17 relocate requests were approved.

Permit Cancellation Program

During WY-12, 1,228 *Applications for Permit to Appropriate Ground Water* were cancelled because the permittee either failed to submit the required notices (i.e., the *Statement of Completion and Description of Well or Spring* and *Proof of Appropriation and Beneficial Use of Ground Water* forms) within the statutory time limits, or the permittee requested cancellation of the permit. Abandoned wells for which the attendant water rights were cancelled totaled 1,055 (Note: The number of abandoned/cancelled permits is separate from the number of cancelled permits where the required notices were not filed. These wells were in use and were subsequently abandoned - generally for physical failure).

Expiration letters notify applicants that their well permits are about to expire because the *Statement of Completion and Description of Well or Spring* or *Beneficial Use of Ground Water* forms had not been properly submitted. Three thousand five hundred twelve (3,512) expiration letters were prepared and mailed in WY-12.

One hundred eighty-seven (187) Coal Bed Methane (CBM) use permits were suspended due to the long-term production of water and the failure to produce gas as part of the State Engineer's "show cause" effort.

Permit Maintenance Program

The ownership of 161 permits to appropriate groundwater was assigned to different owners during WY-12.

Requests for 857 extensions of time to provide a *Statement of Completion and Description of Well or Spring* or *Proof of Appropriation and Beneficial Use of Ground Water* forms were received, processed, and approved. Fifteen (15) requests for additional points of use were received, processed and approved. Three thousand nine hundred eighty-seven (3,987) permits were updated with *Statement of Completion and Description of Well or Spring* or *Proof of Appropriation and Beneficial Use of Ground Water* forms.

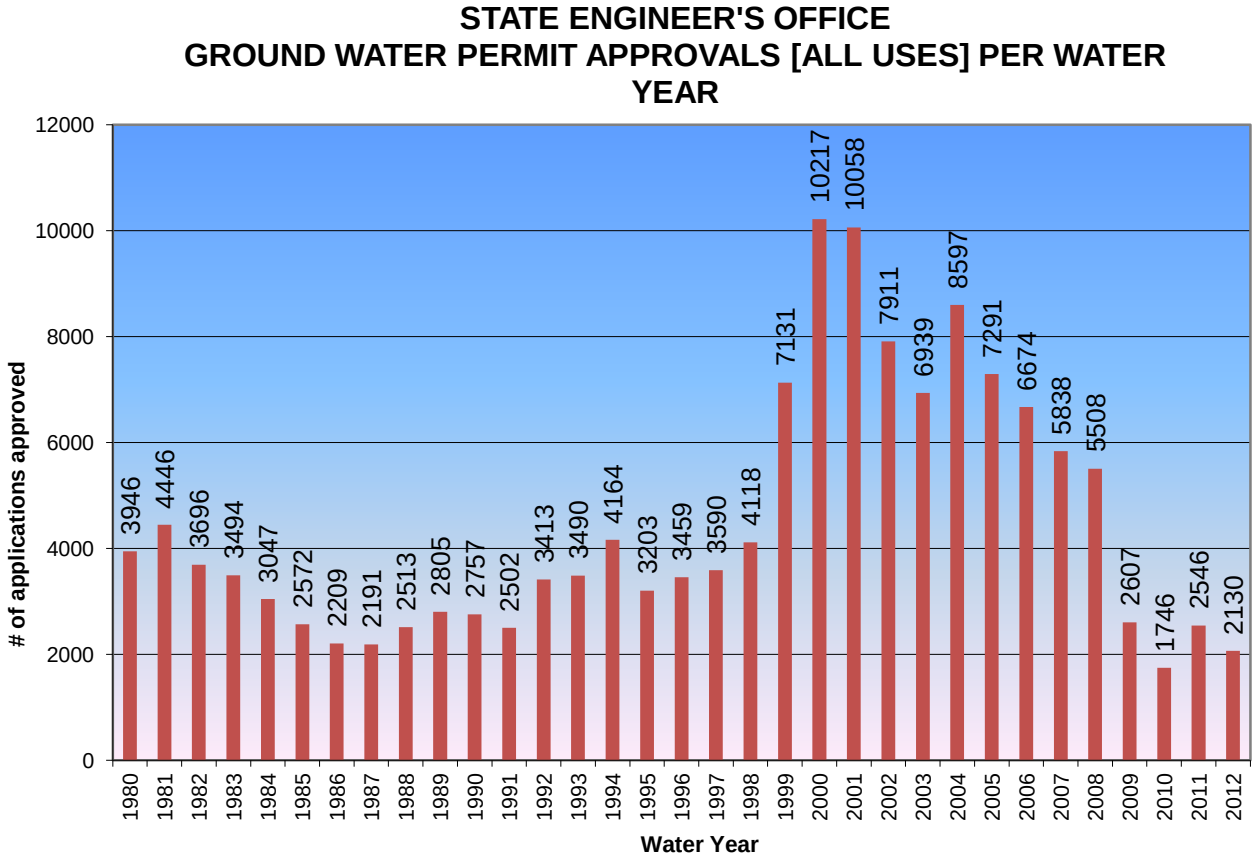


FIGURE 1

Water Right Search Requests

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 simple water right searches are requested daily, either by telephone request or in person. It is estimated the simpler requests range from 10,000 to 15,000 per year.

Adjudication of Water Rights

One hundred seventy six (176) *Maps to Accompany Proof of Appropriation and Beneficial Use of Ground Water* were received in WY-12, representing 226 water rights to be inspected by GW staff (maps may depict more than one well or an enlargement of a permit).

Approximately 51.1% of the maps (90 of 176) were original submittals and 48.9% of the maps (86 of 176) were draft or revision submittals.

During WY-12, 334 water rights inspected by GW staff were adjudicated by the Board of Control, including 172 water rights at the November 2011 meeting, 2 water rights at the February 2012 meeting, and 162 at the May 2012 meeting.

Per a Board decision made at the November 2007 meeting, GW will no longer present new carryovers at Board meetings.

EXISTING BACKLOG

It is important to note that while the number of CBM permit applications received by GW has decreased from a high of 6,093 (2001) to a current volume of 180 (WY-12), a tremendous backlog of work accumulated from approximately 1999 through 2008 while GW devoted the majority of their limited resources to processing CBM applications in as timely a manner as possible. GW is still feeling the effects of deferred permit management activities created by the CBM boom and is trying to address those activities with existing administrative support and technical staff.

While current permit data is input into e-Permit as it is received, the backlog of data that need to be input is enormous. Permit processing and data entry take additional staff time since implementation of e-Permit in September 2008. GW

must utilize many "work arounds" in e-Permit until needed enhancements and/or refinements to the system are authorized and funded.

GW requested two additional employees in the 2013-2014 Biennium Budget Request to assist in reducing the backlog, including, 1) one ENNR09 position, and 2) one BAAS06 position. The request for the ENNR09 position was included in the final Budget Request. The Governor subsequently recommended denial of the request for a full-time position but, recognizing the need to begin addressing the backlog, recommended a one-time allocation of $75,000 to address the backlog issue through contract services. The first contract employee provided by Express Employment Services began work on September 10, 2012 and began effectively filing Miscellaneous Notices and entering batches of historic *Statements of Completion and Description of Well or Spring* and *Proof of Appropriation and Beneficial Use of Ground Water* forms in e-Permit.

Data Entry (approximately 4,000 permit documents)

These permit documents comprise cancellations, abandonments, statements of completion, assignments, beneficial use forms, amendments, etc. This information needs to be input into e-Permit and has been accumulating since approximately 2005. This task has historically been relegated to low priority but is critical to the proper maintenance of an active water right. A rough estimate indicates GW is at least two to three years behind in updating the electronic database after an action with a water right occurs. This is a source of frustration both to the GW staff and to the public who is gradually becoming more reliant upon the electronic database (i.e., e-Permit) as a source of accurate water right information.

Statements of Completion and Beneficial Use Forms (approximately 2,500 documents)

When a Statement of Completion or Beneficial Use form is received, the administrative support staff must review the data submitted, and return the form to the appropriator or agent if a signature, global positioning system (gps) data, or pump information is not provided. Staff also writes letters for additional information concerning the completion of the well (e.g., static water levels, gallons per minute produced, perforated interval, depth of pump, etc.). Approximately 60% of forms received are missing data that staff need to obtain from the appropriator. The backlog from this process comprises approximately 1,000 forms.

As of February 2010, the in-house process was revised so that two of the technical staff reviewed the Statement of Completion and Beneficial Use forms for completeness. If additional information is needed, the technical staff contacts the appropriator or agent for additional information instead of the technical support staff, freeing their time to address other issues. Once the Statement of Completion and Beneficial Use form is complete, the form is returned to the technical support staff to endorse the permit and update the status in e-Permit. The technical support staff then checks for errors and if none are found, the permit is returned to the permit book. The backlog from this process comprises approximately 1,500 forms.

Assignments (approximately 4,500 documents)

Current assignments are primarily for CBM permits and oil and gas production wells. This is a backlog that was originally generated subsequent to the 2001 CBM industry ramping up and exacerbated by recent economic events which is forcing the smaller production companies to sell their assets to larger producers, and coincidentally, "assigning" the water rights to the new owners. The current backlog is primarily from 2009 and 2010 requests for assignments. In WY-12, GW received a request from one appropriator to "assign" 4,000 water rights.

Permit Compliance and Reporting (approximately 3,500 water rights)

This is a task made possible by the actions of the 2006 Legislature who approved a "compliance coordinator" position for the GW Division. To date, the Compliance Coordinator has concentrated on reviewing the water rights of appropriators who have applied for a new permit or requested a change to an existing permit. GW estimates an additional 3,500 municipal, industrial and miscellaneous use appropriators still require compliance reviews. Currently, appropriators are brought into compliance with their existing water rights when they request a new permit or a change to an existing permit, thus opening up review of their existing water rights.

Field Inspections (286 inspections)

These are field inspections that need to be conducted by GW staff in order to adjudicate a water right.

2-year Reviews (approximately 3,600 permits) – Task Eliminated

These are reviews of groundwater-monitoring well permits, conducted every two years per the Additional Conditions and Limitations attached to the permits. Two-year reviews have not been conducted for several years as it was deemed more important to dedicate GW staff time to entering historic data into e-Permit.
In WY-12, the State Engineer concurred with GW's recommendation to eliminate this activity due to its programmatic ineffectiveness.

Map Notification/Adjudication Required (approximately 6,050 maps) – Task Eliminated

These are water rights that need to be adjudicated but a proper Beneficial Use map has not yet been submitted by the appropriator. By statute, the appropriator has 2 years to adjudicate his water right. Since this process is appropriator-driven, compliance is low. It then falls on GW to generate the correspondence required to get the appropriator to submit the required information. This is an ongoing process – the 6,500 maps are a subset of approximately 194,000 permits (less Domestic and Stock Watering Use water rights). A proactive campaign by GW (via letter writing and phone communication) has successfully reduced this number in the past several years.

In WY-12, the State Engineer concurred with GW's recommendation to eliminate this activity until such time that the State Engineer finds it necessary to order the adjudication of all applicable water rights.

CONTROL AREAS

Laramie County Control Area

Four Laramie County Control Area Advisory Board meetings were held during WY-12; December 13, 2011, January 19, 2012, March 13, 2012 and June 14, 2012.

The Laramie Control Area Advisory Board election was held on July 12, 2012. Board members elected to serve until 2016 include Todd Martin, District 2 and

Casey Epler, District 3. A Board member from District 1 has not yet been elected.

The following nine Miscellaneous Use applications were received and approved during WY-12:

King Cattle Co.: Permit No. U.W. 197129, King #6, (Formerly King #2 Irrigation Well). This application is for a 25-gpm well to be located in the NW¼NW¼ of Section. 34, T16N, R62W to supply water to three single family dwellings located in Section 34 and a stock watering pipeline totaling 13 stock tanks to be located in Sections 2, 27, 34 and 35 of T16N, R62W. There will be a total volumetric quantity of water produced of 11 acre feet per year. This is an existing well previously used for irrigation purposes for which the irrigation water right is being abandoned.

Champ, LLC and Bella Farms: Permit No. U.W. 199214, 3rd. Enl. Marvin Anderson No. 2 Well is an enlargement for additional use and points of use only. The Marvin Anderson No. 2 Well, Permit No. U.W. 6845, located in the NE¼SW¼ of Section. 34, T17N, R60W is adjudicated for 1,050 gpm to irrigate a total of 122 acres located within the SW¼ of Section 34.

Champ, LLC and Bella Farms: Permit No. U.W. 199215, 1st. Enl. 3M Trout No. 1Well is an enlargement for additional use and points of use only. The 3M Trout No.1 Well, Permit No. U.W. 139366, located in Lot 3 of Section 34, T17N, R60W is permitted for 600 gpm to supply water for all hog-related uses and aquaculture uses served by primary supply under the 3M Trout No. 1 Well, Permit Number U.W. 139366, at the hog facilities located in the SE¼SE¼ of Section 33, Lot 4 of Section 26 and Lots 1 and 2 of Section 35, and the aquaculture facilities located in Lot 1 of Section 35, all in T17N, R60W, 6th P.M., Laramie County Wyoming, and in Lot 2, Section 31, T17N., R.58W., adjacent in Nebraska and one stock tank located in each of the following quarter-quarters NE¼NE¼, NE¼SE¼, SW¼SE¼ of Section 34, T17N, R60W, and the SE¼SE¼ of Section 27, T17N, R60W. Water under this enlargement is to be a redundant supply and will be used for these purposes only if the 3M Trout No. 1 Well fails, is out of service for any reason, or to augment supply if the 3M Trout No. 1 Well diminishes in yield below its permitted appropriation. The two wells are not intended to be used for the same purpose at the same time. Effluent generated from water appropriated under this Enlargement will be stored in the same reservoirs and applied to the same lands as described in Permit No. U.W. 139366 for the 3M Trout No. 1 Well. Water from this enlargement will also serve two homes and approximately seven acres of trees and landscaping located in the SW¼SE¼ of Section 22, T17N, R60W and to

supply watering for ten stock tanks, all contained in the NE¼NE¼ and the NW¼NE¼ of Section 27, T17N, R60W and for 12 stock tanks contained within the SW¼SE¼ and the SE¼SE¼ of Section 22, T17N, R60W, and two tanks in the NE¼NW¼ of Section 3, T16N, R60W and one tank in each of the following locations, SW¼NE¼, SE¼NW¼, SW¼SW¼, of Section 27, T17N, R60W, and the NE¼NE¼, SW¼NW¼, NE¼SW¼ of Section 33, T17N, R60W. There was no increase in the amount of water produced (gpm) or total volumetric quantity of water (gallons or acre-feet) used per year supplied from this well.

Laramie County School District #1. Permit No. U.W. 198175; North School No. 1 Well; NE¼SE¼ of Sectioin 36, T15N, R67W; a new 125-gpm well. The well will provide water for potable and sanitary supply within a school building, landscape watering totaling one acre or less and construction purposes and dust suppression during the school construction phase. All points of use will be located within the NE¼SE¼ and the SE¼SE¼ of Section 36, T15N, R67W. The total volumetric quantity of water produced would be 4.75 acre feet per calendar year.

Burnett Land and Livestock:

- Permit No. U.W. 198235; 2nd Enl. Burnett Dairy No. 1 Well; Location: SE¼NW¼ of Section 7, T12N, R61W.
- Permit No. U.W. 198236; 2nd Enl. Burnett Dairy No. 2 Well (NE); Location: SW¼NE¼ of Section 7, T12N, R61W.
- Permit No. U.W. 198237; 2nd Enl. Burnett Dairy No. 3 Well (SE); Location: SE¼NW¼ of Section 7, T12N, R61W.
- Permit No. U.W. 198238; 2nd Enl. Burnett Dairy No. 4 Well (SW); Location: NW¼NE¼ of Section 7, T12N, R61W.
- The original permits provide water for a 2,941-head dairy operation and a feed lot. The 1st Enl. of the Burnett Dairy Wells is permitted for 0 gpm for expansion of the existing feedlot and an additional area of use to allow for land application of the effluent. The enlargement applications are for additional areas of use only. Each enlargement application is to allow for land application of the effluent on the following lands: All of Section 7, T12N, R61W; NE¼ of Section 10, T12N, R62W; NE¼, NW¼, SW¼ and the NE¼SE¼ of Section 18, T12N, R61W; NW¼ and the SW¼ of Section 17, T12N, R61W; NW¼ and the SW¼ of Section 8, T12N, R61W; NE¼ and the NW¼ of Section 19, T12N, R61W; and the NE¼ of Section 24, T12N, R62W.

- Champ, LLC, Permit No. U.W. 42-7-574; Champ Feed Mill Well; This application is for a new 25-gpm well to be located in the NE¼SE¼ of Section 9, T16N, R60W to supply water to a feed mill for potable and

sanitary supply and one outside hydrant for cleanup and equipment washing. There will be a total volumetric quantity of water produced of two acre feet per calendar year.

The following Board of Control petitions were received during WY-12.

- Fornstrom Farms, LLC: Board of Control Petition Docket No. I-U-2012-2-3 for amended land description, partial voluntary abandonment and change in place of use of the John Prosser No. 1 Well, Statement of Claim No. U.W. 359, priority of June 1, 1946; and the Prosser No. 3 Well, Permit No. U.W. 2428, priority of December 27, 1968; and the voluntary abandonment of the Enlargement of the John Prosser No. 1 Well, Permit No. U.W. 24686, priority of August 29, 1973. The John Prosser No. 1 Well is located in the SW¼NW¼ of Section 23, T14N, R61W and is adjudicated for 500 gpm to irrigate 160 acres located in the NW¼ of Section 23. The Enl. John Prosser No. 1 is adjudicated for an additional 132.2 irrigated acres only, part of the same lands are irrigated by the Prosser No. 3. The Prosser No. 3 Well, Permit No. U.W. 2428, is located in the SW¼SW¼ of Section 23, T14N, R61W and is adjudicated for 750 gpm to irrigate 292 acres located in the NW¼ and the SW¼ of Section 23. The reason for the requested change is the petitioner would like to remove the north center pivot from production and to use both of the wells in this petition to irrigate the lands under the pivot to the south with original supply and additional supply. There was no increase in the instantaneous flow rate, total volumetric quantity of water used per calendar year, or number of acres irrigated. There will be 160 irrigated acres voluntary abandoned if this proposal is approved.

- Donald L. Judy Jr. & Retta M. Judy: Board of Control Petition Docket No. I-U-2012-1-5 for change in place of use and means of conveyance of the Hutchinson No. 1 Well, Permit No. U.W. 858, priority date of May 25, 1962. The Hutchinson No. 1 Well is located in the SW¼NE¼ of Section 23, T16N, R62W and is adjudicated for 400 gpm for 70.9 acres. The reason for the change in place of use and means of conveyance is to replace a sideroll sprinkler with a center pivot sprinkler. There was no increase in the instantaneous flow rate, total volumetric quantity of water used per calendar year, or number of acres irrigated.

Application for Permit to Appropriate Ground Water by Cody and Coralee Smith, TF. No. U.W. 42-1-310, Versatile Ag No. 1 Well

On September 24, 2009, Cody and Coralee Smith applied to the State Engineer's Office for a permit to construct a test well (T.F. No. U.W. 41-2-553, the Smith Baby #1 well), near Carpenter, Wyoming, in the Laramie County Control Area). The Smiths proposed that the Smith Baby #1 test well be 450 feet deep and located in T12N, R62W, Section 2, NWSW. The application did not indicate that the test well was intended to replace an existing well. On October 20, 2009, the State Engineer's office approved the Smiths' application for a permit to construct a test well.

On September 8, 2010, the Smiths filed a Statement of Completion and Description of Well or Spring with the State Engineer which stated the name of the well was the Phillips No. 1 well, and listed the permit number as S.C. No. U.W. 375. The Phillips No. 1 is an existing well and is not the same well as the Smith Baby #1 test well. The State Engineer's Office communicated this permit number and well name discrepancy to Cody Smith. The Statement of Completion and Description of Well or Spring was then amended to indicate the name of the well as the Versatile Ag #1 well, previously named the Smith Baby #1 test well, not the Phillips No. 1 well.

On February 24, 2011, the Smiths filed with the State Engineer an Application for Permit to Appropriate Ground Water (T.F. No. U.W. 42-1-310) for the Versatile Ag #1 well. The Smith's application sought approval to withdraw 1,200 gallons of water per minute from the Versatile Ag #1 well for irrigation use to be applied to twenty-six acres located in T12N, R62W, Section 2. The Smiths proposed that the well be 520 feet deep, with an estimated production interval of 430 to 520 feet, and located in T12N, R62W, Section 2, NWSW.

Beginning on March 17, 2011, notice of the Versatile Ag #1 application, T.F. No. U.W. 42-1-310, was published for three consecutive weeks in the *Pine Bluffs Post*. Within ten days of the final date of notice of publication, the State Engineer's Office received objections to the application from Helen Boyd and Gary W. Smith.

On June 9, 2011, the State Engineer's Office convened a pre-hearing conference. The pre-hearing conference was stayed when the State Engineer's Office expressed concern that the Versatile Ag #1 well was completed in both the High Plains and Lance aquifers, contrary to a July 2006 State Engineer's Office policy prohibiting dual completions in these aquifers. On agreement of

the parties, the proceedings were stayed pending investigation of the Versatile Ag #1 well to confirm the completion interval.

On July 8, 2011, the Smiths, through their counsel, requested proceedings be held in abeyance for an additional sixty days because the Smiths' consultant, Chris Lidstone of Lidstone and Associates, had advised that conducting a pump test, creating a video log of the well, and sampling water quality were required in order to determine lithologic completion information for the Versatile Ag #1 well.

On September 15, 2011, the Smiths, through their counsel, informed the State Engineer's Office and the Contestants, Gary W. Smith and Helen Boyd, that the Smiths wished to proceed with the pending permit application.

Notice of the Smith application hearing was published in the *Pine Bluffs Post* on November 3, 2011 and the *Wyoming Tribune-Eagle* on November 2 and 3, 2011. A hearing in the matter of T.F. No. 42-1-310, the Versatile Ag #1 well, Docket No. 2011-5, was held before the State Engineer's designee and the Laramie County Control Area Advisory Board on November 3, 2011.

On April 24, 2012, the State Engineer issued *Findings of Fact and Conclusions of Law* in support of approving Cody and Coralee Smith's application subject to conditions and limitations.

Appeal from the State Engineer's Endorsement: 4 Quarters Land & Livestock, LLC

The 4 Quarters Land & Livestock, LLC enlargement application (T.F. No. 42-8-183), requested Miscellaneous Use (Enlargement of Permit No. U.W. 173371 for additional use, points of use and volumetric quantity). Water from the Torrie #1 well was to be used for "oil and gas well production and completion, road construction, construction, fire protection for Laramie and Albany County".

The Laramie County Control Area Advisory Board reviewed this application on February 3, 2011 and recommended that the application be denied. The State Engineer approved the road construction, construction, fire protection uses in Laramie County (but not Albany County), and denied the oil and gas well production and completion use for Laramie and Albany County.

4 Quarters Land & Livestock filed an *Appeal from the Endorsement of the State Engineer Upon the Application for Permit to Appropriate Ground Water, Permit No. U.W. 195230*. At the request of the applicant, the appeal was vacated by the BOC on August 17, 2011. The matter came on for hearing before the State

Engineer and the Laramie County Control Area Advisory Board on February 28, 2012, in Cheyenne, Wyoming. On April 9, 2012, after consideration of the *Findings of Fact* and *Public Interest Analysis,* the State Engineer ordered 1) the applicant be affirmed the previously granted 20 acre-feet per year for construction and fire protection purposes, as described in Permit No. U.W. 195230, with Albany County restored as a place of use, and 2) the applicant be granted an additional 90 acre-feet for sale for oil and gas well drilling purposes only. Such purposes shall be temporary and shall cease December 31, 2014 unless an extension is applied for and granted. The State Engineer will consider water levels information when evaluating any extension request. The total annual production authorized under the existing permits U.W.173371 and UW. 195230, and this order for the Torrie #1 well, is 110 acre-feet (35,840,000 gallons).

Appeal from the State Engineer's Endorsement: Mark and Julia Ruppert

Mark and Julia Ruppert filed an application (T.F. No. 42-3-168, the Ruppert Irrigation Well #1) with the State Engineer on August 11, 2010, which sought to withdraw 60,500,000 gallons of water per year from that well. The Ruppert application requested 60,500,000 gallons of water (approximately 185.67 acre-feet) per year first for mineral/oil exploration drilling to then be converted into an irrigation well.

On February 24, 2011, the State Engineer approved the application for 60,500,000 gallons per year to be used for irrigation purposes within the NW1/4 of Section 23, T16N, R66W of the 6th Prime Meridian. The State Engineer did not grant Ruppert's request within the application to use water for mineral/oil exploration.

The Rupperts filed a timely appeal with the State Board of Control under Wyo. Stat. §41-4-517 concerning that portion of the State Engineer's decision which denied them the ability to use the water for oil and gas development purposes.

The Rupperts and the State Engineer stipulated to vacate the scheduled Board of Control hearing in favor of holding a hearing in accordance with Wyo. Stat. §41-3-932(b), which had not been held previously. The parties agreed that the Rupperts would be allowed to keep the irrigation use previously granted to them under the permit.
The proposed Ruppert Irrigation Well #1 and all lands permitted to be irrigated under it are located within the Laramie County Control Area.

By an affirmative vote of the majority of its members at a regular meeting held on February 3, 2011, the Laramie County Control Area Advisory Board recommended approval of the Ruppert's application.

The hearing scheduled in this matter was as required under Wyo. Stat. Ann. § 41-3-923(b) because the State Engineer was of the opinion that to issue the permit as applied for would be detrimental to the public interest. The applicants conditionally waived such hearing according to the terms of their Conditional Stipulation Regarding Information and Records Upon Which the State Engineer May Rely In Making His Determination and Conditional Waiver of Public Hearing on May 1, 2012.

On July 11, 2012, after consideration of the Findings of Fact, Conclusions of Law, and Public Interest Analysis, the State Engineer ordered 1) the applicant be affirmed the previously granted 60,500,000 gallons per year to use for the irrigation of 120 acres of land located within the NW1/4 of Section 23, T16N, R66W of the 6th Principal Meridian, and 2) the applicant be granted an additional beneficial use for the sale of water for oil and gas well drilling purposes within Laramie, Platte, and Goshen counties, Wyoming. Only 39,102,120 gallons (120 acre-feet) per year of the total 60,500,000 gallons authorized under existing Permit No. U.W. 194979 may be used for the sale of water for oil and gas well drilling purposes. The total annual production for all uses authorized under the existing Permit No. U.W. 194979 and this order for the Ruppert Irrigation Well #1 is 60,500,000 gallons.

Additionally, the State Engineer ordered that the use of water from the Ruppert Irrigation Well #1 to sell for oil and gas well drilling purposes shall be temporary and shall cease on June 1, 2017, and the use of water for such purposes shall not be extended as part of the additional beneficial use approved in paragraph 2. After June 1, 2017, the applicant may seek to enter temporary water use agreements for such purposes provided the applicant has satisfied all conditions and requirements of Wyo. Stat. Ann. § 41-3-110. The State Engineer will not approve temporary water use agreements for this well from June 1, 2012, through June 1, 2017. In no event shall the sale of water from this well for oil and gas well drilling purposes be considered for demonstration of sufficient years of use to qualify for issuance of temporary use agreements after June 1, 2022.

State Engineer's Temporary Order Adopting Well Spacing Requirements within the Laramie County Control Area

Responding to mounting concerns over increasing development and use of groundwater resources in southeast Wyoming, the State Engineer issued a *Temporary Order Adopting Well Spacing Requirements within the Laramie County Control Area* on April 11, 2012. The Order temporarily limits groundwater development in the Laramie County Control Area until October 1, 2013. The order establishes well spacing restrictions (horizontally and vertically), as well as use limitations for most new groundwater applications and changes to existing water rights in the Control Area.

Subsequent to October 1, 2013, the State Engineer may wish to adopt more permanent corrective controls in the Control Area to effectively manage a diminishing groundwater resource. However, between now and October 1, 2013, the State Engineer is mandated by statute to perform several activities before he can proceed with either adopting corrective controls of a more permanent nature or proceeding with rulemaking which would authorize mandatory corrective controls. The first and foremost of these activities of which is to determine if there is *appropriable* water available in the Control Area.

A public information meeting was held on May 3, 2012 to discuss the State Engineer's April 11, 2012, Temporary Order Adopting Well Spacing Requirements within the Laramie County Control Area, the history of the Control Area, the conditions of the groundwater resources, and options for corrective actions which may be implemented in the future.

Platte County Control Area

Two Platte County Control Area Advisory Board meetings were held on December 12, 2011 and July 31, 2012.

The Platte County Control Area Advisory Board elections were held on July 10, 2012. Richard Johnson and James Rietz were re-elected to serve on the Advisory Board until 2016. No Board member was elected to serve in District 1.

Four *Applications for Permit to Appropriate Ground Water* were received in the Platte County Control Area during WY-12.

Tyler Lauck.: Permit No. U.W. 198528, Glen No. 1. This application is for a new 1,000-gpm irrigation well, to be located in the NE¼SW¼ of Section 18, T24N, R68W, to provide an Additional Supply to 156.8 acres in the SW¼ of Section 18. These lands receive an Original Supply from the Wheatland Irrigation District (WID). Proposed depth of the well is 400 feet. There will be a total volumetric quantity of water produced of 161 acre feet per year.

Flying H Land and Cattle : Permit No. U.W. 198529, Flying H No. 2. This application is for a new 100 gpm well, to be located in the SE¼NE¼ of Section 19, T23N, R68W, to provide water to a 6,000-head feedlot. Proposed depth of the well is 700 feet. There will be a total volumetric quantity of water produced of 20 acre feet per calendar year.

Christopher Wright: Permit No. U.W. 198469, Wright No. 1. This application is for a new 50 gpm well, to be located in the SE¼SE¼ of Section 32, T25N, R68W, to supply water for a concrete plant. There will be a total volumetric quantity of water produced of 650,000 gallons per calendar year.

Prairie Center Control Area

No Prairie Center Control Area Advisory Board elections or Advisory Board meetings were held during WY-12.

Observation Well Network

Previous Annual Reports outline the development and spatial distribution of the observation well network maintained by the SEO. GW maintains a network of approximately 260 active observation wells throughout the state and a number of inactive observation wells pending rehabilitation or abandonment. Four GW staff are responsible for the observation well network. Field operations continued to be handled by three staff through WY-12. Data reduction and data transfer for the U.S. Geological Survey (USGS) Cooperative Programs were conducted by one staff member in WY-12. Two additional staff were trained to assist with data processing activities - one of who is no longer with GW.

WY-12 saw the end of the USGS Cooperative Ground Water Level Program. Budget reductions resulted in the loss of this program and will result in changes to data processing and dissemination.

WY-12 has seen continued improvement to the groundwater observation well network and data collection efforts of GW, including continued development of

quality control and quality assurance programs for groundwater level data, in-house programming of software for data warehousing and analysis to replace legacy software, acquisition and installation of new recording equipment, and continued compliance with the health and safety plan of the agency. Ongoing work began in WY-09 to facilitate the transition from legacy software to a new platform. The intended platform is the AQUARIUS 3.0 Standard Edition Time series data reduction software package which is being used for Surface Water record processing and data warehousing. This effort will continue in WY-13.

WY-12 saw the implementation of an equipment inventory control program and tracking of site status and maintenance needs, as well as continued change, use, and dissemination of data from the SEO and Cooperative observation well networks. The following sections will expand on the activities of the observation well program.

Thermopolis Observation Well

One observation well remains in service in the Thermopolis area. Observation well GTW-3 continues to support projects in the Thermopolis area relative to the flow of the Hot Spring and potential impacts that groundwater development may have on that geologic feature. Site maintenance and data collection activities are conducted by the SEO; data review and publication is conducted by USGS personnel. Observation Well GTW-1 continues to exhibit down-hole mechanical problems. Based on a video log conducted by GW staff during WY-10, recommendations for rehabilitation or abandonment were made but funding is not available. Recording equipment has subsequently been removed from the well site.

Albany County Casper Formation Observation Wells

Two groundwater observation wells are installed in the Laramie area. These wells are used to monitor water levels in the Casper Formation. Data from these wells continue to be used as support for groundwater development projects in the vicinity of Laramie.

Laramie, Platte, and Goshen County Observation Wells

Data from observation wells in Laramie, Platte and Goshen counties are utilized for decision support on issues before the Laramie County, Platte County, and Prairie Center Control Areas, as well as monitoring general trends in groundwater levels.

Two groundwater observation wells, Laramie County #15 and CC Meier (near LaGrange, Goshen County) remain in an un-usable state and need rehabilitation, abandonment, and/or replacement. Funding is currently unavailable to support those efforts.

Data from the Laramie County observation well network were used extensively by the Laramie County Control area Advisory Board in making their recommendations to the State Engineer as to whether a permit application should be approved or denied. These data sites continue to be invaluable in support of processing and review of permit applications submitted for all uses both within the Laramie County Control Area and within Laramie County.

- Data from observation wells in the vicinity of LaGrange, Goshen County, continue to be used to monitor surface water/groundwater interactions (e.g., the Horse Creek Groundwater/Surface Water Connection Investigation, Goshen and Laramie Counties, Wyoming, 2011).

Prairie Center Control Area and Madison Observation Wells

The Prairie Center Control Area and Madison Formation observation well network is comprised of thirty two (32) observation wells. Twenty (20) of the observation wells are equipped with float driven digital water-level recorders. Four of the deeper observation wells have been equipped with pressure-sensing transducers and electronic data recorders. Water levels in six (6) wells are measured by hand using steel drop tape, airline systems, or pressure gages. The final two (2) observation wells are in need of rehabilitation, however funding was not available during WY-12. Wells needing rehabilitation are maintained in a temporary shut in status and will be rehabilitated or abandoned when resources allow.

Gillette Area Observation and Subdivision Wells

These wells continue to be a source of information related to groundwater developments in Campbell County and the City of Gillette. One well, G-Mon-7, remains inactive and in need of rehabilitation, abandonment, and/or relocation.

Data from observation wells and active subdivision production wells in this area were used in WY-12 to address private, subdivision, and municipal use and to support actions of the State Engineer on new and existing permits. These wells are also being used for verification of reported water level declines

in the Fort Union Formation, the details of which will be mentioned in the interference investigation section of this report.

Coal Bed Methane Observation Wells

Although CBNG development and production has slowed, it remains a large segment of the mineral extraction industry in the Powder River Basin and other areas of the state. As the CBNG fields reach the end of their financially useful life, this series of monitor wells will provide data that will assist in the long term analysis of the water resources post development.

Data from this series of wells continued to be provided to Gillette Area Ground Water Monitoring Organization (GAGMO) for modeling efforts related to the surface coal mining activities in the Powder River Basin.

USGS Cooperative Data Program

As discussed earlier, the cooperative groundwater level data program between the SEO and USGS came to an end, due to funding constraints, in WY-12.

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

Well Maintenance/Rehabilitation

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 funding is available for rehabilitation or abandonment. A down-hole video camera to evaluate the suitability for rehabilitation or abandonment of well bores was acquired in WY 2008 for evaluation of sites experiencing issues. The equipment will be utilized as staff and financial resources allow, addressing existing or new issues that arise.

Continued changes and additions to this program are aimed at better serving requests from governmental and public entities and to support the needs of the agency in providing support to permitting and management of the groundwater resource of the State of Wyoming.

INTERFERENCE INVESTIGATIONS

WY-06 - U.S. Fish and Wildlife Service – Saratoga Fish Hatchery

A formal interference complaint was filed by the U.S. Fish and Wildlife Service on July 17, 2006, which requested the SEO investigate interference to Lake Creek Lake from junior irrigation pumping by Kelly Land and Cattle Company. This second interference investigation for the U.S. Fish and Wildlife's Saratoga National Fish Hatchery will proceed in WY-13.

WY-11 – Mr. Gary Pettigrew – City of Gillette Fort Union Pumping

On August 24, 2010, Mr. Pettigrew contacted GW and claimed that the Pettigrew #1 Well (Permit No. U.W. 11026) was experiencing problems subsequent to the drilling, completion, and test pumping of three of the City's Municipal Use wells which were recently relocated and deepened. On September 14, 2010, GW received a letter (dated September 10, 2010) which described the three wells Mr. Pettigrew felt were contributing to the decline of the Pettigrew #1 Well.

GW decided, based on the nature of the complaint, to investigate whether a formal Interference Investigation was necessary. An informal investigation noted:

1. Valid water rights appear to exist for all involved wells,
2. The Pettigrew #1 is completed the shallowest of the involved wells,
3. It appears that the pump in the Pettigrew #1 could be lowered,
4. Gillette did change the screened zone during re-drilling activities,
5. It is not unreasonable to assume that development and aquifer testing of the new wells may have affected local water levels,
6. Hydrograph data indicate recent abnormal declines in Fort Union Aquifer water levels,
7. Increased pumping of Gillette's Fort Union Aquifer wells most probably is creating a greater impact on area wells that previously experienced, and
8. Drawdown-curve estimates indicate that production from Gillette's Fort Union Aquifer wells could impact the static water level in and around the Pettigrew #1 well.

These observations were presented in a December 29, 2010 letter to Mr. Pettigrew. Also in that letter, GW recommended that Mr. Pettigrew not submit

a formal interference investigation request. The letter further explained that any investigation would likely recommend that the pump be set lower in the Pettigrew #1 or that the City of Gillette provide temporary water until the severe pumping stops.

A formal interference complaint was filed by Mr. Gary Pettigrew on February 18, 2011, which requested the SEO investigate interference to his domestic use well by the City of Gillette. As of August 2011, Gillette had exceeded their annual Fort Union Aquifer production cap for the second year in a row. The Ground Water Division issued the Interference Investigation Report for this project during May, 2012.

GROUNDWATER INVESTIGATIONS/STUDIES

Hydrogeologic Study of the Laramie County Control Area

In August 2012, the SEO contracted with AMEC Environment & Infrastructure, Boulder, CO, Hinckley Consulting, Laramie, WY, and HDR, Cheyenne, WY to conduct hydrogeologic study using existing geologic, hydrogeologic, and water rights information within the Laramie County Control Area to model the groundwater resources in the Control Area. Results will be used to confirm or redescribe the boundaries of the Control Area and Districts within the Control Area. Using those results, the study will provide recommended methods for corrective controls within each of the districts or areas. Resulting information will be used by the State Engineer to evaluate and determine if there is appropriable water in the Control Area.

While these temporary measures are in effect, the State Engineer will hold one or more public hearings to determine whether the ground water is adequate for the needs of all appropriators in the area. After the hearings and upon receipt of Advice from the Laramie County Control Area Advisory Board, the State Engineer may order the adoption of one or more corrective controls identified to replace the temporary corrective measures adopted.

USGS/SEO Lance/Fox Hills Study

As part of the Cooperative Agreement with the U.S. Geological Survey, the SEO authorized the USGS to conduct a study that would provide additional

characterization of the High Plains aquifer system in eastern Laramie County, as well as characterization of underlying Upper Cretaceous aquifers (Lance Formation and Fox Hills Sandstone) which likely have some potential to be utilized as a supplemental or alternative water supply to the High Plains aquifer system.

The objectives of the study are to:

Improve understanding of the physical and chemical characteristics of the Tertiary High Plains aquifer system (primarily White River Group) and underlying Upper Cretaceous aquifers (Lance Formation and Fox Hills Sandstone) in eastern Laramie County, Wyoming, and initially evaluate the relative hydraulic connection between the aquifer system and aquifers; and

1. Improve understanding of recharge to and apparent groundwater age of the High Plains aquifer system and Upper Cretaceous aquifers at the location selected for objective 1 through the use of chemical tracers in the unsaturated and saturated zones.

2. A USGS Scientific Investigations Report (SIR) will be prepared describing the results of the study. The report will consist of text, tables, illustrations, and photographs of core and/or thin sections, as well as one or two plates—the plates will graphically show/describe the physical, chemical, and geophysical characteristics of the entire exploratory borehole at the drilling site. The results of this study will be placed in the context of all previous investigations in order to improve understanding of these critically important aquifers in southeast Wyoming and in the United States.

Horse Creek Investigation

An interference complaint was submitted, and accompanied by a $100 filing fee, to GW on April 1, 2009. The complaint, signed by 33 local irrigators, expressed concerns relative to changes that have occurred regarding irrigation practices for some areas adjacent to Horse Creek. According to the complaint, there have been a large number of shallow alluvial irrigation wells drilled adjacent to Horse Creek and these additional wells and changes to off-season irrigation practices have resulted in a significant reduction in stream flow available to fill Hawk Springs Reservoir and Springer Reservoir.

Based on the request that “all wells in the area to be regulated in priority to allow Hawk Springs Reservoir to fill”, the SEO-GW determined that the request

was not for an interference investigation, but rather a call for regulation (which should be appropriately directed to the local Hydrographer). W.S. §41-3-603 provides the Hydrographer with the authority to "divide, regulate and control the use of the water of all streams, springs, lakes or other sources of water within his district as will prevent the waste of water or its use in excess of the volume to which the appropriator is lawfully entitled".

The SEO-GW agrees that the shallow wells in the Horse Creek area of investigation are most likely completed in the alluvial aquifer and are in connection with Horse Creek and its tributaries. As such, the wells could be subject to regulation and correlation with surface water rights, if groundwater and surface water are determined to be interconnected

In response to the April 1, 2009 request, the SEO-GW agreed to conduct a review of existing hydrogeologic data and literature for the area and determine if wells in the vicinity of Horse Creek, Bear Creek, and other tributaries are, in fact, so interconnected with surface water as to constitute one source of supply.

To regulate groundwater rights in conjunction with surface water rights, the State Engineer must have defensible data supporting the determination that "*underground waters and the waters of surface streams are so interconnected as to constitute in fact one source of supply"* in order for the field Hydrographer to correlate the priorities of rights to the use of all such interconnected waters and establish a single schedule of priorities which relate to the whole common water supply.

The purpose of this hydrogeologic study is to provide those data through development of a numerical model that will identify optimal conjunctive-use strategies. The model should address the effect of pumping wells on streambed infiltration and in-stream flows. The water management model will then be used by GW to analyze various water management plans and their impact on the stream-aquifer system and the delivery of irrigation water to groundwater and surface water appropriators.

GW released a Request for Proposal in May 2009. During June 2010, the Division secured Hinckley Consulting to conduct the Horse Creek Hydrogeologic Study. Hinckley Consulting issued the Final report in October 2011. A public meeting was held on November 1, 2011 to present the results of the study to interested parties.

MODIFIED NORTH PLATTE DECREE

Previous Annual Reports outline the chronology of events that led to the creation of the Modified North Platte Decree.

During WY-12, GW continued to report to the North Platte Decree Committee (NPDC), on a monthly basis, 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 that is subject to these provisions of the Modified North Platte Decree were reported, including two applications for irrigation use permits within Wheatland Irrigation District, three applications for municipal use permits, and fifteen applications for industrial use permits. All of the previous applications were subsequently reported as approved permits.

GW also reported the annual pumpage of groundwater under 60 irrigation use permits within the Wheatland Irrigation District to the NPDC during WY-12.

COAL BED NATURAL GAS

Previous Annual Reports have detailed the development of the Coal Bed Methane (CBM) or Coal Bed Natural Gas (CBNG) industry in Wyoming. The volume of Coal Bed Methane (CBM) exploration and production permit applications has continued to decline during WY-12. The SEO received 180 CBM applications during WY-12. The Table 3 provides a comparison of permits approved per water year.

In WY-12, the number of traditional CBM applications received by GW continued to decline – most probably due to lower natural gas prices. It appears that the region's CBM operators are waiting for gas prices to rebound before investing in drilling new wells. The increase in gas production from many new regions on a national scale has resulted in a condition in which the supply of this commodity greatly exceeds the current demand. During WY-12, thousands of CBM wells in the Powder River Basin were "shut-in", or were not producing any gas or water.

TABLE 3 – GW PERMITS APPROVED

Annual Report Year	Total Applications	Number of Companies
2012	180	*
2011	654	*
2010	747	*
2009	706	*
2008	2157	30
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

* *This search is no longer available.*

During WY-12, CBM companies continued to focus on correcting past permitting errors or expanding existing permits by filing miscellaneous and/or stock enlargement applications for their existing CBM wells to add additional uses for stock tanks, reservoir supply and/or irrigation. These enlargement applications are not part of the total CBM application count.

It appears that operators have discovered that a fraction of the wells drilled actually produce CBM gas and are not going to be capable of producing CBM gas in amounts that will make continued operation of those wells economically viable. In many instances, instead of completely plugging and abandoning these CBM wells, the operators are partially plugging the wells by isolating the zone that was producing CBM gas and conveying the remaining well bore to the underlying landowner to be used for some other use, typically domestic or stock watering use. During WY-12, GW issued approximately 100 permits for the use of these "converted" CBM wells for some other purpose, a trend that will likely continue in the foreseeable future.

Although staff time needed to process CBM applications has decreased proportionately to the amount of applications being received, GW continued activities in WY-12 to identify CBM wells which, according to Wyoming Oil and Gas Conservation Commission (WOGCC), have at least a five-year history of

water production with no attendant gas production. In WY-12, GW also reviewed CBM wells that were three-years old and had to meet a water/gas ratio of 10 bbl/mcf to maintain compliance. This most recently completed action in the Powder River Basin targeted 427 wells and 21 operators. In this effort, 18 wells were plugged and abandoned or were pending plugging and abandoning, 92 permits were suspended, 24 were cancelled, and 281 permits were kept active after providing additional technical information. The current "show cause" letters provide the opportunity for operators to provide additional information to justify why their SEO well permits should remain in good standing.

On January 18, 2012, the CBM Conditions and Limitations that are attached to each permit were restructured to include correct and updated dates and include a requirement for the operators to begin "self-reporting" the water/gas ratio for all of their wells beginning in WY-13.

OIL AND GAS RELATED ACTIVITIES

Oil and gas related activities in southeastern Wyoming (i.e., Laramie, Platte, Goshen and Converse counties) has created a demand for water supplies – some of which occur within the states three Ground Water Control Areas.

Contract Field Inspectors

H2X, LLC continued under contract to the SEO in WY-12, providing professional services related to "Water Right and Usage Compliance Associated with Oil and Gas Related Activities". The contract began June 13, 2011 and will end June 30, 2013. Renewal of the contract beyond June 30, 2012 is unlikely given the Agency's current budget reduction requirements.

H2X LLC provides 5 to 6 field inspectors who are authorized to act on behalf of the SEO to access wells and related facilities associated with oil and gas development in Converse, Goshen, Platte and Laramie Counties. H2X, LLC inspectors verify that wells and other facilities subject to review by the State Engineer are duly permitted and are being operated in accordance with permit conditions and limitations. H2X, LLC is authorized to inspect, photograph, and verify locations of wells and associated facilities and to inspect Temporary Water Use Agreements (TWUAs) upon request.

H2X, LLC inspectors provide the following contract services:

- Insuring oil and gas-related water hauling activities are conducted in accordance with applicable State Engineer's Office-issued permits or TWUAs.

  In WY-12, H2X, LLC inspectors identified four illegal wells in Converse County – all of which were issued Cease and Desist orders and which were subsequently permitted. H2X, LLC inspectors also identified three unauthorized points of diversion which were brought into compliance – either by the issuance of TWUAs or permitting.

- Insuring water haulers have a copy of the current valid State Engineer's Order authorizing the use of water for oil and gas-related activities in each vehicle used to haul water.

  H2X, LLC inspectors stopped approximately 57 trucks hauling water without appropriate permits or TWUAs. An additional 12 truck drivers failed to document water haul loads and meter tallies

- Insuring appropriators, who are providing water through permits or TWUAs, installed back flow prevention devices and meters on the diversion from which they are producing water.

  H2X, LLC inspectors identified 63 diversion points under approved TWUAs or time-limited permits without backflow prevention devices as required by permit or order. H2X, LLC inspectors identified 24 diversion points under approved TWUAs or time-limited permits metering devices as required by permit or order.

- Insuring appropriators who are providing water through permits or TWUAs are reporting the quantity of water produced on a weekly basis, including separate reporting of any water which was produced for use outside the State of Wyoming.

  H2X, LLC inspectors identified four sites where the appropriator had sold more water than what was allowed, or had sold water under a permit or TWUA that was no longer valid.

During WY-12, H2x, LLC's inspectors proactively approached new oil field service providers to explain SEO policies and to seek voluntary compliance, avoiding future potential enforcement actions. GW staff accompanied H2X,

LLC's inspectors to Converse County on three separate occasions to help facilitate these meetings as well as answer questions posed by the oil and gas service sector. GW staff also facilitated a meeting with the State Engineer's Office Field Staff in Douglas to discuss time-limited permits, TWUAs, and compliance.

H2X, LLC staff has also been instrumental in:

- Assisting field staff in insuring the acreage identified in a Temporary Water Use Agreement is not being irrigated in exchange for providing water for oil and gas-related activities.
- Investigating and documenting suspected misappropriations of groundwater and surface water.
- Reading meters and verifying production values reported to the are true and accurate.
- Identifying current and proposed drilling locations and assessing future water needs and potential water sources.
- Developing and maintaining field contacts with personnel in the oil and gas industry.
- Developing a working knowledge of the water requirements of the oil and gas industry, as well as timing of potential hydraulic fracturing activities.
- Tracking information relative to local rig counts and water demands.
- Developing a working knowledge relative to the agriculture industry, including irrigation methods and acreage accounting.
- Conducting routine field inspections of both permitted and unpermitted points of diversion.

TEMPORARY WATER USE AGREEMENTS

The Surface Water Division currently issues all TWUAs which allow a temporary change of use from the original permitted use to a different, temporary use for a period not to exceed two years, including not only surface water rights but also groundwater rights.

GW continues to request the State Engineer allow GW to approve groundwater-related TWUAs and the Surface Water Division to approve surface water-related TWUAs. Review, approval, and tracking groundwater-related TWUAs will assist GW in not only tracking withdrawals from the groundwater resource, but to maintain some control over what diversions are allowed from the resource.

HOT SPRINGS AREA OF CONCERN

In 1999, in response to concerns from the Hot Springs County Commission regarding an apparent decline in the flow of the Big Horn Hot Spring and the threat of residential development to the Big Horn Hot Spring, the SEO and the Hot Springs County Commission agreed to utilize the Commission in reviewing all ground water permit applications submitted within the "Hot Springs Area of Concern", providing an opportunity for local review and participation in the State Engineer's permitting process. That agreement was renewed in 2004.

In WY-12 three (3) water well applications located within the Hot Springs Area of Concern were received. The applications (U.W. 196817, Cindy #1, U.W. 197130, Lutz #1, U.W. 198866, McDonald #1, were approved to permit status.

To-date, the has not received an unfavorable recommendation from the Commission.

INDUSTRIAL SITING PROJECTS

Previous Annual Reports outline the role of the State Engineer in the required preparation of a "Water Supply and Water Yield Analysis" for projects under the jurisdiction of the Industrial Siting Administration which meet certain criteria. During WY-12, there were no projects initiated which required the State Engineer to prepare a Water Supply and Water Yield Analysis.

During WY-08, the Industrial Siting Administration began requiring project proponents to consult with the SEO to identify any concerns related to the potential water sources for projects which could result in significant delays in the issuance of SEO permits for the projects, regardless of whether the overall water use for the project met the threshold for the preparation of a Water Supply and Water Yield Analysis. During WY-12, GW met with representatives from the FMC Granger Plant and Power Company of Wyoming to discuss anticipated water use and permitting requirements.

CUMULATIVE HYDROLOGIC IMPACT ASSESSMENTS (CHIAS)

GW staff reviewed the following Cumulative Hydrologic Impact Assessments (CHIAs) in WY-12, at the request of the Wyoming Department of Environmental Quality – Land Quality Division:

Draft Cumulative Hydrologic Impact Assessment (CHIA - #30) for the Saddleback Hills Amendment (TFN 5 6/090) at the Carbon Basin Mine, Permit 730; and

Draft Cumulative Hydrologic Impact Assessment (CHIA - #29) for the Haystack Mine (TFN 5 5/170).

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. Draft rules and regulations were delivered to the Deputy State Engineer for review in January 2012; the State Engineer in February 2012; and the Groundwater Division Advisory Committees in March, 2012. Comments from the Agency's Attorneys General were received in July 2012. A final draft of the Rules and Regulations is anticipated to be presented to the State Engineer, the Deputy State Engineer, and the Agency's Attorney General for review in January 2013. If approved, the draft will be submitted for public comment and review prior to July 1, 2013.

GROUNDWATER MANAGEMENT STRATEGY

As noted in the "Objectives" portion of this report, GW's responsibilities include protecting the State's groundwater 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 groundwater management issues facing the SEO, the need for the SEO to take a proactive stance relative to groundwater management, and the need to develop the management tools necessary to effectively manage Wyoming's groundwater resources.

On December 31, 2009, GW requested the State Engineer obtain an opinion on the agency's legal ability to proceed with the development of a management plan under existing statutes. A meeting with the Agency's attorney general, the State Engineer, Deputy Engineer, and GW staff was held July 7, 2010 to review the ensuing opinion. During that meeting, it was determined that rules, not policies should be developed as needed to implement the plan, as policies do not enjoy the benefit of public input. The State Engineer also requested GW to provide their first deliverable in the form of a recommendation, i.e., what strategy or combination of strategies do we recommend be implemented in the state, as well as alternatives, together with an analysis of how the proposed strategy or strategies will affect both current appropriators and those who wish to appropriate groundwater in the future. The only limitation provided by the State Engineer was that he would not support a "no mining policy."

Receiving approval and support from the JAC, GW proceeded with the first of three defined tasks relative to the implementation of a plan to develop a groundwater management strategy for the state". Those tasks, together with target completion dates (if available) established by the State Engineer, are provided below:

1. Develop and analyze alternatives (December 1, 2011);
2. Public outreach; and
3. Develop statutory revisions if needed.

The first task, "Develop and Analyze Alternatives," entailed learning what other states and/or governmental entities have done relative to groundwater management. This included:

a) Collecting information on groundwater management in other jurisdictions.
b) Comparing and compiling the data.
c) Evaluating the different approaches to management and determining what may work in Wyoming.
d) Developing a list of the key components in a management plan.

e) Developing a list of practical management goals.

This first task was completed during June 2011 by submitting a brief synopsis of the alternatives that may be viable groundwater-management goals. The Division expects that many of these alternatives (in conjunction) may be necessary in order to manage the multitude of hydrologic conditions and situations present across the state. GW is currently awaiting direction from the State Engineer on how to proceed with implementation of a statewide groundwater-management strategy.

GROUND WATER ADVISORY COMMITTEES

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.

Several vacancies on the Ground Water Advisory Committees were created when members' terms expired. GW's recruiting campaign was marginally successful in generating interest from new members. Due to the formation of the interagency *State Ground Water Committee,* the difficulty in finding volunteers to participate on the Ground Water Advisory Committees, and the redundancy of duties of both committees, the State Engineer considered presenting legislation in WY-11 which would repeal W.S. §41-3-908.

In response, Governor Mead's staff recommended the vacancies be filled with Water Development Commission commissioners.

Three Ground Water Advisory Committees meetings were held in WY-12. The meetings were scheduled to coincide with the regularly scheduled Water Development Commission meetings on January10, March 8, and June 6, 2012.

OUTREACH

GW's time and resources were also spent attending public meetings, inviting speakers to address GW on timely issues, making presentations, coordinating with other regulatory agencies, reviewing water management and usage proposals, investigating groundwater supply problems, maintaining the agency's

monitoring well network, and fulfilling a broad variety of information requests. GW staff presented at, or attended the following venues in WY-12:

- Public Meeting – State Engineer's Temporary Order Adopting Well Spacing Requirements within the Laramie County Control Area, Cheyenne, WY, May 3, 2012;
- Shallow Exploration Driller's Clinic, Cheyenne, WY, April 17-19, 2012;
- SEO's Water Well Minimum Construction Standards, Wyoming Water Well Association, Casper, WY, January 26, 2011; and
- Community Meeting re Horse Creek Groundwater/Surface Water Connection Investigation, Goshen and Laramie Counties, Wyoming, La Grange, WY, November 1, 2011.

STAFF CHANGES

New Additions

Niesey (Onies) Heckart joined GW in November 2011. Niesey is a Wyoming native, having been born and raised in Laramie. After high school, Niesey lived in California, Idaho and Jackson Hole, Wyoming. After a 14 year career in cabinetmaking, Niesey returned to Laramie and earned an Associate's Degree in Engineering Technologies from Laramie County Community College in 2010. That same year, she began working for the State Engineer's Office, first as an intern for the Interstate Streams Division, and then as an Office Support Specialist I with the Board of Control.

Liberty Blain joined GW in May 2012 as a Natural Resource Analyst. Liberty spent the previous ten years working on water quality, conservation, and watershed planning for the Laramie County Conservation District. Liberty has a B.S. in Horticulture from Michigan State University and worked at the Cheyenne Botanic Gardens and UW Cooperative Extension before transitioning to water resources. She recently received a M.S. in Rangeland Ecology Watershed Management/Water Resources from the University of Wyoming.

Moved On

Lee Arrington began working with GW in July 2011 as a Natural Resources Program Principal. Lee accepted the Assistant Administrator position in the Surface Water Division in June 2012.

PJ Wilber, a Natural Resources Analyst with GW since January 2004, accepted a position with the Wyoming Department of Environmental Quality/Solid and Hazardous Waste Division in March 2012.

GW wishes you both well on your new endeavors!

COOPERATIVE PROGRAMS

Mike Ebsen
Cooperative Programs Coordinator

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

1. Snow Survey and Stream Flow Forecast Program: provide current information for the State Engineer and all water users, managers, and planners on seasonal mountain snowpack accumulations as the season progresses, and the resulting projected snowmelt stream flow prior to runoff. This information, in turn, helps water users to realize the most efficient benefit from this limited and transient resource.

2. Subdivision Review Program: identify and comment on water right issues associated with county subdivision permit applications that have been submitted by the Department of Environmental Quality for State Engineer review.

SNOW SURVEY AND STREAM FLOW FORECAST PROGRAM

Accomplishments

Snow surveys are conducted by 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 64 manually measured snow courses, and daily at the 88 automated snowpack telemetry (SNOTEL) sites throughout 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. These activities regularly 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 SNOTEL sites that measure snow depth was recently increased to 53. SNOTEL sites electronically relay data, at regular intervals, to a central collection point in Portland, Oregon. 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 SNOTEL 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 measurements will be reduced.

Stream flow forecasts are the end result of these snow data collection efforts, and have proven a valuable tool for those involved in water management and planning. Stream flow forecasts are currently available at 71 locations in Wyoming. Flows at these sites are forecast six (6) times per year beginning on the 1st of January and ending on June 1st. Virtually all of these stream flow prediction sites have been selected as the direct result of input from local water users. These sites require the presence of an active stream gage at or near 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 proficiently 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. This snowpack and stream-flow prediction data are available to users via the Internet at:

http://www.wrds.uwyo.edu/wrds/nrcs/nrcs.html

Problem Areas and Recommendations

In an attempt to identify and remediate potential problems and coordinate these intra agency activities; and annual snow survey coordination meeting is held each fall, prior to the onset of the snow season. In attendance at this year's meeting were Pat Tyrrell, Randy Tullis, Lee Hackleman, Ken VonBuettner and Mike Ebsen.

Personnel reassignments and retirements periodically 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 Loren Smith proposed and Pat Tyrrell supported additional intensive employee training, through the West-Wide Snow Survey Training School, for Ryan Bjerke.

Ken VonBuettner was recently hired as the NRCS's Snow Survey Coordinator and works out of the NRCS Casper office. He reported that NRCS policy mandates West-Wide Re-training every 5 years for active NRCS surveyors. In an attempt to keep SEO staff current, Ken has provided In-State refresher training (in January) for the more experienced SEO snow survey staff, and anticipates offering this training every other year.

Certain instrumentation components continue to exhibit some degree of unreliability and may require additional site visits to verify that these sites are operating optimally. These annual meetings attempt to recognize, identify, and plan how these and other concerns are to be dealt with.

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.

SEO personnel and others, should recognize and focus on how changes in funding, personnel, and activities within other water data programs (i.e. stream gage discountenances) have and 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 Existing Water Rights

Wyoming Statute 18-5-306 (a) (xi) provides for the disposition of any water rights appurtenant to the lands involved in a proposed subdivision development prior to its approval by county officials. Original State Engineer involvement under this statute began in 1980. Effective January 1, 2006, all in-depth reviews associated with this type of submittal have been turned over to the Board of Control Division (BOC). However, it remains necessary to correlate the BOC activity, with the Ground Water Division activity associated with proposed subdivision water supply and waste water adequacy statutes, to meet the Agency subdivision review obligation.

To meet this obligation, a total of 36 BOC reviews were logged and tracked during this report year (compared with 18 last report year, and 51 the year before that). Of these reviews, 30 BOC water right distribution plan reviews are not currently associated with a corresponding Department of Environmental Quality proposed water supply review.

Accomplishments involving Proposed Water Supplies

More recent State Engineer involvement under this statute, concerning a subdivision's water supply and waste water adequacy, first became effective in July of 1997. Past reports discuss how this original legislation has been amended. Current State Engineer responsibilities in this area are outlined under Wyoming Statute 18-5-306 (c) (i). These review responsibilities remain with the Ground Water Division's Cooperative Programs Section. A database correlating, past and present agency subdivision activity, is available at: http://intranet/wrdb/SubdivisionStatus.aspx

Basically, the State of Wyoming's Department of Environmental Quality (DEQ) may request assistance from the State Engineer, and the SEO is to fully cooperate to the extent possible and is to furnish the information or recommendations requested within the time period specified by DEQ. Typically DEQ requests that SEO determine if water right issues have been addressed, and provided 16 such requests during this report year (compared with 12 last report year, and 20 the year before that).

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 and potential

existing water right concerns, as well as concerns associated with the new subdivision's proposed water supply and waste water adequacy, are identified.

Based on the issues as identified in the DEQ submittal, and in the SEO search results, appropriate water right actions are proposed. This may involve coordinating appropriate Surface Water Division, Ground Water Division, and/or Board of Control Division input, as well as conveying this input to the County, the Subdivider, DEQ, appropriate SEO field and main office 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. This program currently accepts review requests directly from, and directs SEO review comments to, the individual responsible DEQ District Office. Wyoming is divided into four DEQ districts - the Northwest (Lander), Northeast (Casper), Southwest (Lander), and Southeast (Cheyenne) Districts.

Problem Areas and Recommendations

With the implementation of the subdivision water supply and waste water adequacy legislation (now the primary Ground Water Division involvement) compliance with county subdivision statutes appears to be improving. However, subdivisions continue to be approved by county officials before water right issues have been reviewed and resolved. Contributing to this problem is the practice on the part of DEQ to favorably comment to County Planning entities prior to State Engineer review and resolution of existing and/or proposed water right concerns.

A review of the Ground Water Division tracking process for the last 3 years, associated with the Agency's existing water right review obligations, indicates that the number of BOC reviews associated with subdivision activity has rebounded, and is again on the rise. This may have a negative impact on timely subdivision reviews and program workload.

Correspondingly, the program workload associated with subdivision water supply and waste water adequacy responsibilities, for this same 3 year period, has bottomed out and risen slightly. This may ultimately lead to negative impacts on priorities associated with this and other programs under this Section, as well as allowing fewer resources to be devoted to other GW Division priorities.

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, 2011 through September 30, 2012, which is referred to as Water Year (WY) 2012.

SURFACE WATER RIGHTS SECTION

John Barnes, P. E.
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 statuses 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

The 2011-2012 winter showed a much below-normal snow pack over the state. Appropriators used what natural flow was available plus releases from reservoirs to meet their irrigation demands. Many streams quit flowing in July or early August. Direct flow appropriators were short on water. Those with stored water fared better. There continues to be a large number of inquiries regarding water rights, water law, and related matters to assist in preparing for future flooding.

Drilling in the Niobrara Formation is southeast Wyoming slowed down this water year but in the Parkman Formation is northern Converse County and southern Campbell County there was an increased the demand for water. Temporary water use agreements were processed to change the use of water from irrigation and municipal to oil and gas drilling. The AWEC position to monitor and check on the water use under the temporary water use agreements terminated at the end of June, 2012.

Categorized work submitted to the Surface Water Division during the period included: a) applications for permits - 593; b) petitions - 36; c) Temporary Water Agreements - 144; d) water rights information searches - 334. 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 593 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 WY 2006 and continuing through WY 2012. The end-of-period backlog is 564 applications.

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

TABLE 4 - BACKLOGS

WY	APPLICATIONS			PETITIONS		
	No. Recd	Approve/ Reject	EOY Backlog	No. Filed	Approve/ Dismiss	EOY Backlog
06	1413	1610	1347	22	34	108
07	1003	1439	911	23	15	104
08	913	1042	812	22	25	101
09	798	953	585	62	25	144
10	657	502	740	25	10	159
11	432	520	652	15	7	167
12	593	742	564	36	25	178

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. No instream flow applications were received during the period and no hearings were held.

TABLE 5 - APPLICATIONS RECIEVED

COMPARISONS OF TYPES OF APPLICATIONS RECEIVED				
Category	WY2009	WY2010	WY2011	WY2012
Ditches/Pipelines	125	100	70	122
Enlargements	38	40	26	24
Reservoirs	221	193	136	139
Stock Reservoirs	322	210	103	141
Temporary Use	192	114	97	153
Instream Flow	0	7	0	14
Totals	798	657	432	593

Petition Processing

Table 4 enumerates petitions submitted to the Surface Water Division of 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 178 on hand. Many of these petitions are associated with cleaning up permits associated with how reservoirs were constructed in Water Division No. 2 during CBM production.

Temporary Water Use Agreements (TWUAs)

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. TWUAs 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, TWUAs are quickly reviewed and approval Orders are normally issued within a few days of receipt. In reporting period, a total of 144 TWUAs were received and approved. A comparison with previous years follows:

TABLE 6 - TEMP WATER USE AGREEMENTS

WY	Water Agreements
2007	179
2008	120
2009	106
2010	114
2011	123
2012	144

Again, much of the activity for TWUAs involved water for oil and gas drilling in southeast Wyoming where there is a shortage of available surface water. For this reason, the majority of TWUAs were filed to use ground water wells as a source of supply. The fact that eastern Laramie County in southeast Wyoming is within a ground water control area brought about the need for closer scrutiny of historical water use and the reduction of irrigation and exchange for a simultaneous trading of the sale of water for oil and gas well drilling.

Permit Endorsements

Once a permit is issued, it is recorded in the computer information system and a scanned image is made. The records must be updated each 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 computer system. 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 computer record including the creation of new scanned images of each amended record.

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 2012, a total of 334 requests were answered requiring records searches. The following table shows the history in the numbers of requests received.

TABLE 7 - SEARCH REQUESTS

WY	SEARCH REQUESTS
2006	95
2007	72
2008	122
2009	324
2010	187
2011	186
2012	334

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. This was a low water year so no site visits occurred except for site visits 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 Methane Reservoir Impacts

The number of new CBM reservoir applications has continued to fall due to the decline in the price of natural gas and the fact that regulatory changes make disposal of produced water in a reservoir a less attractive method of dealing with the produced water. Most of the reservoir applications are for the 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 records in the Surface Water and Engineering Division. Damaged maps are now being scanned and are available electronically so the original map gets used less and may ultimately be permanently retired. Map records that need to be updated and maintained include the paper plats, USGS maps, county maps, and permit maps-all of which are used daily for supporting the water rights records and in providing information to the public. So they will be available to the public, all current permits and maps are being scanned and uploaded in the e-Permit database.

Upgraded Technology

The new e-Permit system along with the new water rights data base have been in operation during this reporting period. As will happen with any new system, problems with the system are being encountered. Some of the problems are resolved quickly and some are must await funding and approval of a contract for enhancements to upgrade the programming.

We continue to update our current computers with new, higher speed hardware to be able to use them with the geographic information systems. Documents within the office continue to be scanned. The public has more access to the scanned documents than ever before. We need to continue to update our computer capability as funds are available.

Division personnel have spent an inordinate amount of time verifying and inputting older permits into the e-Permit system as well as answering calls from the public about e-Permit and the new data base.

State Engineer's Instructions and Regulations

Work has continued on the State Engineer's Office rules and regulations as time allows. 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.

Sage Grouse Protection

In accordance with Executive Order 2011-5, the Surface Water Division has implemented a series of limitations and policies that ensure compliance with the Order. This compliance has relied heavily on the mapping efforts of our GIS section.

Retirements and Reorganization

The Division had three long term employees retire. They were Phil Velez, Assistant Administrator, Larry Stockdale, Safety of Dam's Engineer, and Monica Lane, Clerical Staff. This was a brain drain for the Division and they will be sorely missed. The retirements led to a reorganization of the Division. Two new lead tech positions were created and the tech section was reorganized to spread the duties of preparing performance evaluations.

In addition, on June25, 2012, Lee Arrington joined the Surface Water Division as Assistant Administrator. Lee came to the Division from the Ground Water Division where he served as a Natural Resource Program Principal since July 5, 2011. Lee has broad knowledge of Wyoming surface Water law, having served as the Manager of the Midvale Irrigation District in Pavillion, Wyoming. Prior to Midvale, Lee served as the manager of the South Plains and Llano Estacado Groundwater Conservation Districts in Texas. We welcome Lee to the Division.

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

Four permits were issued for weather modification (cloud-seeding) purposes during this reporting period. Permit Number 113 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 program 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-ninth year of cloud seeding activities in cooperation with the University of Wyoming, Department of Atmospheric Sciences.

Permit No. 114 was issued to North American Weather Consultants for weather modification in the Unita Range south of Lyman, WY. This project is intended to increase flows in the streams flowing into Wyoming on the north side of the Uinta Mountain Range.

Permit Nos. 111 & 112 were issued to Weather Modification, Inc. for cloud-seeding in the Medicine Bow and Sierra Madre Mountains west of Laramie and the Wind River Mountains from Pinedale to Lander. These projects are funded through the Wyoming Water Development Commission. This is the sixth year for these projects.

SAFETY OF DAMS SECTION

Michael Hand, PE
Nathan Graves, PE

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.

While a permit from the State Engineer is required for all dams, the Safety of Dams Law (SOD) pertains to dams which are greater than 20 feet high 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. Essentially, the SOD law requires SOD size facilities to be designed by a professional engineer and to be inspected every 10 years. Agency policy however, requires all SOD size dams to be inspected every five years.

OBJECTIVES

The objective of the Wyoming Safety of Dams (SOD) Program is to protect the public 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 SOD 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

During calendar year 2012, 18 projects were referred to the Safety of Dams section for review. Of this number, 3 applications were for permits for new jurisdictional size reservoirs. The remaining applications breakdown as follows: Modifications to existing dams or existing designs-4; rehabilitation of existing dams-1; enlargement of existing dams/reservoirs-3; reduction or reclamation of existing dams-7. Construction was commenced on 7 projects and completed on 5 projects. Of these five, two are new facilities.

In addition to the work involved with design review and/or construction monitoring activities, a considerable amount of time is spent on the other 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, 1513 dams meet the criteria of the Safety of Dams law. A total of 322 dams were inspected in calendar year 2012 and 363 are due for inspection in 2011-2013.

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, inspections are coordinated 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.

The Safety of Dams section has continued to function at a high level during staff changes. One engineer retired in June and was replaced soon thereafter. The transition resulted in little or no disruption in service to the public.

PROBLEM AREAS

A problem area has been the construction or modification of new reservoirs without proper review by SOD staff. The discovery of a new dam that has been constructed without regard to downstream hazards or material science can pose a threat to persons or property downstream. Attempts have been made to ameliorate this problem however, much time and energy is expended bringing these facilities into compliance with the SOD law.

OTHER ACTIVITIES

Work is ongoing updating the Wyoming portion of the National Inventory of Dams (NID). Periodically, all information regarding the 1508 Wyoming Dams included in the NID is submitted to the U. S. Army Corps of Engineers (USACE). The criteria for inclusion in the NID differ slightly from the State of Wyoming criteria. This accounts for the difference in the number of dams included.

Data from state dam safety organizations is compiled by the USACE and published in CD-ROM format periodically. This information is also available on the USACE web site.

Considerable assistance to the dam safety program has been provided by Federal Emergency Management Agency (FEMA) grant funds.

Grant funds were used to conduct three dam owner workshops around the state in 2012. These were held in Little America, Cody, and Douglas. The workshops were designed to give dam owners insight into common dam safety issues and solutions to these issues. The response was overwhelmingly favorable.

During 2012, grant funds were also utilized to partner with dam owners to prepare Emergency Action Plans for ten significant hazard dams and one high hazard dam. States West Water Resources of Cheyenne completed the inundation mapping for these dams. Through this process, the Safety of Dams Engineers will meet with the dam owners and with local emergency responders to review the new Emergency Action Plans. Two dams that were classified as having significant hazard potential were found to have high hazard potential. This is an added benefit to conducting this project. Future grants will be used to continue this project for other dams.

BOARD OF CONTROL DIVISION

The Board of Control is comprised of two (2) sections: the Board of Control Section and the Water Division No. III - General Adjudication Section. The two (2) sections under this Division are incorporated within this Board of Control Division Report.

BOARD OF CONTROL SECTION

Allan Cunningham, Administrator
Cheryl Verplancke, Assistant Administrator
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 (October 1, 2011 to September 30, 2012), the Board of Control Division received 163 petitions, a decrease of 32 petitions or 16% from the previous reporting period, throughout the State in addition to those already on the agenda. These new petitions are listed by division as follows:

TABLE 8 - PETITIONS RECIEVED

	SURFACE	GROUND	TOTAL
DIVISION NO. 1	42	18	60
DIVISION NO. 2	26	3	29
DIVISION NO. 3	39	11	50
DIVISION NO. 4	23	1	24
TOTAL	130	33	163

Final action was taken on 162 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.

Seven hundred and forty seven (747) proofs of appropriation were approved by the Board of Control during this reporting period. Three hundred and thirty six (336) or 45% of these proofs were for ground water rights (wells), and four hundred and eleven (411) or 55% were for surface water rights. In addition to these 747 proofs, 1,308 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 10 petitions or 6%. Additionally, the number of proofs of appropriation approved increased by 187 proofs for an increase of 33%. The

number of stock reservoirs inspected and found to be constructed within the terms of the permit increased by 1,110 facilities or an increase of 560%.

Twenty nine (29) water distribution plans and/or authorizations for detachment of water rights were received during this reporting period, a decrease of 9 plans and/or authorizations or a 24% decrease from the previous reporting period.

STOCK RESERVOIR COOPERATIVE PROJECT

This cooperative project between the Board of Control and Surface Water Divisions began in early 2011 with intent to identify stock reservoirs that need to move through the proof process in e-Permit, either to be adjudicated or for the submittal of endorsement as a "stock reservoir not to be adjudicated." Since the last reporting period, the Board Staff completed the review of remaining 35 stock reservoir books in February 2012. The final steps of the Stock Reservoir Project were completed in May 2012 by the Surface Water Division. This project benefitted the Agency by: 1. Correcting data in e-Permit, filling gaps in data and uploading of the stock reservoir permit scans to the database. 2. The verification process helped ascertain if all previous "stock reservoirs not to be adjudicated" have the appropriate endorsement within e-Permit so that these permits will show up within the Tabulations of Adjudicated Water Rights (Tab Books). 3. Statuses of permits were updated and corrected. Completion of this cooperative project now allows the Agency to be in a current maintenance mode for new stock reservoirs being completed. In addition, this project quantified the number of stock reservoirs ready for field inspections. The number of completed field inspections of stock reservoir permits has increased significantly and is noted in the major accomplishments of the Board of Control.

REGULATIONS AND INSTRUCTIONS

At the last reporting period, it was reported the Board of Control rules were approved November 1, 2011. When the rules were approved, the Governor's Office directed the Agency to provide further clarification regarding Chapter V, Section 6d(1). In this reporting period, the Board of Control began the rule-making process to amend its 2011 rules to provide further clarification to the extent of the specified chapter/section and also to propose amendments to the

agency fee schedule. The Board held open for comment the proposed amendments and clarifications to the rules and held a public hearing in 2012. No public comments were received. At the August 2012 Board meeting, the Board of Control adopted the rules as amended and submitted these rules to the LSO and Governor for approval.

E-PERMIT UPDATE

As reported in WY11 the following enhancements were not uploaded to the production server; they were successfully tested and uploaded in WY12:

- Township and Ranges were added for adjoining states so that Wyoming water rights which fall outside of the Wyoming state boundary can be added to e-Permit.
- Changes were made to reservoir Certificates of Construction (Certificates) to allow the appropriation amounts to function like the Surface Water permit.
- Validation rules were changed on the Point of Use screen to eliminate an error message that was being generated on Reservoir Certificates.
- Tab Book enhancements which include:
    - Update proof numbers for BOC records
    - Amended Ground Water certificates to display Ground Water Districts on the Point of Diversion screen so that Ground Water certificates would print in the proper order.
    - Added the ability to make Territorials "inactive" (thus not print in the tab book) when the Territorial has been entirely replaced by a Certificate; this is to avoid duplicate entries for the same water right(s).
    - Ability to delete Certificates and Order Records created in error using "historic" data entry procedures.
    - Changed the procedures for tab book reports being saved on the Document Management System (DMS). There will be two (2) tab book reports on the DMS at a time. One report titled "Official Published Version" and one report titled "Latest Unpublished Version." The "Official Published Version" will be the latest version that was printed and distributed to the public and staff. The "Latest Unpublished Version" will be a BOC working copy with updates since the last published version.
    - Expanded the "source" field for stream sequences to allow for more than 50 characters.

- For facility names, enlargement naming nomenclature for BOC certificates was changed to allow for the different naming procedures used by BOC vs. the Surface Water permit naming procedures. In addition, the facility name character limit was expanded to allow for up to 100 characters.
- Displaying the beneficial use(s) on the Summary Screen; beneficial use(s) is not displayed currently on the Summary Screen.
- An additional report for "Unadjudicated Stock Reservoirs" was created. This new report will follow all the rules for the existing Surface Water report except it will only contain unadjudicated stock reservoirs.
- A few small programming changes to aid in data entry were also made.

Also during WY12, the following Board of Control enhancements were successfully tested and uploaded to the production server:

- The permanent deletion of Certificate Records was modified to allow for the re-creation of deleted certificates. The ability to re-create deleted records was prohibited in that e-Permit did not see the deletions as "permanent".
- All instruments created by using the Historic Instruments module will not be shown in the Related Transactions grid in the Certificate Summary page.

During the reporting period, the Board of Control Division continued to docket all new petitions received in e-Permit; however, future modifications to be added in WY13 will allow for the finalization of these petitions resulting in the issuance of a Certificate Record. This ability is not currently available in e-Permit and will allow the Board of Control to discontinue the use of the Clipper Program, which is an outdated DOS based program.

During WY12, Support Services mass uploaded Certificate Records to the Document Management System in e-Permit. This made scanned images of Certificate Records available for anyone to view in e-Permit. From this mass upload effort, the Board of Control was able to obtain a list of Certificate Records that were not entered in e-Permit. In March 2012, a list of 3,000+ missing Certificates was distributed to staff to enter into e-Permit. At the end of this reporting period, approximately, 2,200+ missing Certificates were entered into e-Permit. The remaining 800+ should be completed during WY13.

In WY12, the Board of Control Staff also continued the Certificate "verification" process. All Certificates Records need to be verified in order for all four (4) water division Tab Books to be printed accurately. During WY12, staff concentrated on Division IV. In late WY12, some of the staff began to verify Division I records.

During WY12, a draft Division IV Tab Book was given to the Division IV Superintendent and Board of Control staff for proofing. The goal is to have a final Tab Book printed by July 1, 2013. Proofing by staff and the Superintendent has brought some unknown issues to light. They include, but are not limited to, the following:

- An index based on stream sequence is needed.
- If the supply type is Supplemental; no CFS should be displayed. Should display "SS".
- Printing errors at the end of a page when facility name takes up two (2) lines.
- Character limits on Appropriator Name(s) needs to be extended.
- Stream sequence issues; need to print entire sequence not just the first two (2).
- Once the above stream sequence issue is resolved; need to check that they print in the proper order.
- Change GPM on Unadjudicated Stock Reservoir report to AC-FT
- Need to verify that territorial priorities are printing in the correct order. i.e., those that only indicates a year, season or month/year.
- The current Stream Source Access table will no longer interface with e-Permit when the servers are moved from the State Engineer to ETS; will need a new way to interface between e-Permit and this table.

These refinements to the e-Permit Tab Book process are needed during WY13 to meet this Tab Book goal.

The above "verification" process for Tab Books and missing certificates has allowed the Division to establish "Board of Control e-Permit data entry rules". This has been instrumental in staff following the same rules for data entry which increases data integrity. The Board of Control Division continues to note improvements, defects, enhancements, etc. that can be made to e-Permit for improvements in functionality and consistency of records.

PROBLEM AREAS

Once the requested refinements are made available to BOC staff on the production server, this should help the BOC in working towards meeting their goal of releasing an "Official Published Version" (Final) of the Tab Book during the next reporting period; however, there are still some problematic issues with entering the large amount of missing and back-logged data into e-Permit with a limited BOC staff and making sure other divisions, who have their own priorities, can assist in the work that we require to print an accurate Tab Book.

As it appears that Wyoming is well on its way to recovering from a multi-year drought; focus of the Board of Control has now shifted from water administration to adjudication. During the drought years, water administration was priority and, as a result, there is a rather large backlog of proofs needing field inspections. To that end, the field staff in each division has worked diligently in decreasing the backlog of proofs. This resulted in a rather large increase in the number of proofs and the number of stock reservoirs inspected and found to be constructed within the terms of the permit submitted to the Board of Control.

RECOMMENDATIONS

For Tab Books: The latest set of identified Tab Book enhancements need to be successfully tested and uploaded to the production server for Board of Control use; without them, a Final Tab Book cannot be printed. Tab Book verification has a high job priority in the Board of Control; however, so do petition and adjudication actions which affect the Tab Books. With only two (2) Board of Control technical staff assigned to work on Tab Books full-time and with current backlog; it will be difficult to meet the goal set out above. All Board of Control staff aid in this effort as time allows and it still is not enough. An additional time-limited technical position, or two (2), to help with data verification would greatly benefit our efforts to meet the statutory requirements of printing Tab Books in a timely manner. If additional temporary staff is not possible, a summer intern position or, possibly, offering overtime to those staff eligible may aid our efforts.

Once the existing data has been verified and back-logged data has been entered, it will not have to be done again; only updates and maintenance would be required for which the two (2) technical staff members currently assigned would be sufficient. Once this effort has been completed, the production of Tab Books could occur at any interval, as all data would be up-to-date.

For the proof backlog: As the field staff worked through their back log of pending proofs; the number of proofs submitted to the Board of Control for review and advertising has increased. The Board of Control developed a plan to deal with the backlog of proofs that we received. The following is list of plan accomplishments completed in WY12:

- Determined the actual number of pending proofs in each division.
- Entered all pending proofs in e-Permit for easier tracking.
- Set priorities to complete the oldest proofs first; especially, those with funds already paid to the Agency.
- Established a maintenance plan to keep proofs current; no more than six (6) months old.
- Trained additional BOC staff to assist in the processing of newly received proofs and utilized them when needed.
- Completed the Stock Reservoir Project.

During WY13, refinements to e-Permit for the ability to change the status on proofs and create Certificate Records, as well as, work flow modifications in e-Permit are expected to be successfully tested and uploaded. This will allow Board of Control staff to use e-Permit as it was intended and, hopefully, decrease processing time for Certificate Records. The goal is to have all Certificates Records from one meeting finished before the next Board meeting begins.

BIG HORN RIVER GENERAL ADJUDICATION

Nancy D. McCann
Natural Resources Program Principal

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 is known as the Big Horn River General Adjudication and continues to be 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). The staff provides on-going support to the Agency, public and parties on any water rights adjudicated through the Big Horn General Adjudication.

During this reporting period, the staff completed the recordation of key decisions and decrees in each of the county's within Water Division III as directed by court order with the exception of the Phase II decree. The Phase II decree recordation is being discussed by the key parties to find an alternative to recording the decree in the counties or request an exemption from the District Court. Phase III is coming to a close with one last file pending before the Special Master's Office and District Court. After the District Court issues the last Phase III order, the closeout of any Phase III legal issues will initiate the litigation process in 2013.

Phase I Decrees

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

The staff concluded the recordation of the Phase I Decrees. What remains ahead is the final integration of these decrees into the SEO records. While the Walton Rights were entered into e-Permit in the last reporting period, additional testing will be necessary into the next biennium to review the output in the Division III Tab Book. Subsequently, other decrees will need to be integrated into the Agency records as well as e-Permit.

Phase II Decree - Federal (non-Indian) Reserved Water Rights

Phase II Interlocutory Decree was entered by the District Court on November 29, 2005. No further activity is anticipated except integration into the Agency records along with entry into e-Permit during the next biennium.

Phase III - Surface Water and Ground Water Rights

The staff's focus continues on providing litigation support on the last file remaining in Phase III. Possible objections could arise prior to the issuance of the District Court's Order, and the staff remains available to provide assistance to the District Court, the parties and the Attorney General's Office.
The Big Horn Adjudication staff has made a smooth transition to the Board of Control with the responsibility of coordinating the Board's statewide adjudication program. This includes the review and analysis of incoming proofs of appropriation and inspections from the four division field offices, advertising of proofs, preparation of the proof reports for the Board's quarterly meeting, drafting of adjudication orders and review of adjudication certificates. For the Board of Control's adjudication statistics, refer to the Boards portion of this Annual Report.

GIS (GEOGRAPHIC INFORMATION SYSTEMS) PROJECTS

The use of GIS technology has been historically used to identify 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. As requests arise for water right maps and analysis of the water rights within the Wind River Indian Reservation, the staff remains available to provide assistance. The Big Horn map data and tabular data continue to be used to solve administration, litigation and jurisdictional issues for various state agencies.

BIG HORN RIVER ADJUDICATION WEBSITE

The staff continues to coordinate the cooperative scanning project with the Wyoming Supreme Court. Phase 1 of the scanning project (scanning of microfilm) was completed in 2012. The Big Horn River Adjudication Website is hosted by the Wyoming Supreme Court. The purpose of this project is to provide the parties and the public with easy access to over 30 years of Court record, Court Decrees and water rights data that was decreed to water appropriators within the scope of the Big Horn River General Adjudication. The staff provided decree data, design input and technical expertise about the Big Horn case to the project in coordination with the Special Master's Office and the Supreme Court. The next phase of Big Horn scanning project will begin in the next biennium and will include the scanning of thousands of paper records not contained or available in microfilm.

BIG HORN PROBLEM AREAS

While all Phase III state permits have been reported to the District Court, the staff continues to support the District Court technically by providing clarification of ownership, updating ownership and landowner addresses and providing the foundation of the land descriptions for the Court's orders, etc. This effort will continue until the District Court finalizes the last permit by the issuance of a Court Order. In addition, after the District Court issues its final order closing out Phase III of the Big Horn Case, it is anticipated that demands of staff time and resources will increase due to researching objections and providing technical information in support of the litigation process led by the Attorney General's Office.

BIG HORN RECOMMENDATIONS

While the Big Horn water case is full of complexities, the staff should continue to educate the Agency and the public through cross-training. Efforts will need to continue to integrate the various decrees into the e-Permit and the Agency records.

INTERSTATE STREAMS DIVISION

Sue Lowry
Division Administrator

and

John W. Shields	Matt Hoobler	Jodee Pring	Steve Wolff
Interstate Streams Engineer	North Platte Coordinator	Water Planning Coordinator	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. 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 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

Just as flooding dominated the activities of the Missouri River in summer 2011, severe drought dominated the basin in water year 2012. The Corps of Engineers was able to continue reconstruction of the damaged levee system in to the fall of 2011 due to the open weather and all federal levees in the Missouri system were back to the 25 year flood level of protection by the spring of 2012. Evacuation of water in the flood control space of the large mainstem

reservoirs was accomplished due to the lower level of runoff in 2012. The severe flooding in 2011 led to greater personal involvement in Missouri River issues by the basin governors. Three meetings were held by the Governors in October, 2011; December 2011; and May 2012. As it became clear that 2012 would not be another high runoff year, their personal interest declined to only two governors attending the May meeting hosted by Governor Dalrymple in Bismarck.

After the floods of 2011, the Corps of Engineers commissioned a review of their operations by an outside, independent review panel. One of the findings of this panel was the lack of adequate measurement of plains snowpack and the lack of understanding of the relationship of plains snowpack to runoff. The National Weather Service and the state climatologists from the basin states, along with USGS and Western Governor's Association have formed a group to look at the complete monitoring network in the basin and how to improve our forecasting capabilities.

Missouri River Association of States and Tribes (MoRAST)

The MoRAST had consisted of 7 of the Missouri River basin states (the state of Missouri declined to participate) and individual Indian tribes are eligible for membership. But the states of Nebraska and Iowa decided to terminate their membership in the organization prior to the March, 2012 MoRAST Board meeting. During the Governors' meetings in reaction to the severe floods, the Governors made a pledge to hold Missouri River meetings, but once the threat of flooding moderated, the Governors again had other pressing issues besides Missouri River management. A strong states' group seems beneficial to the basin, so MoRAST remains hopeful that the other basin states will again come back as members.

MoRAST still has an interest in the passage of funding for the Corps to carry out the Missouri River Authorized Purposes study (MRAPS). Taking a fresh look at the authorities for a basin as large as the Missouri was to be a precedent setting undertaking. Unfortunately, continued funding for the MRAPS appears unlikely as the lower basin states feel it is a threat to the continuation of the barge industry on the Missouri River.

A new issue that highlights the need for a state and tribal organization such as MoRAST is the surplus and storage re-allocation reservoir studies being conducted by the Corps. This issue arose when the state of North Dakota sought the ability to access temporary water use from Lake Sakakawea for industrial purposes. The Corps stated that the state of North Dakota didn't

have the right to access to reservoir water and the Corps had jurisdiction. North Dakota asserts that there are natural flow rights that are under the purview of the state. This issue is far from resolved and was one of the main topics at the Board of Directors meeting held in Bismarck in September, 2012.

Missouri River Recovery Implementation Committee (MRRIC)

The 2003 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. The Water Resources Development Act of 2007 defined and authorized the MRRIC. The Committee continues to meet quarterly face-to-face and at least once/year via video conferencing. Several work groups have been formed and are actively meeting between the formal MRRIC meetings. An Independent Science Review Panel studied the spring rise recommendations in the Biological Opinion and felt that the science did not support several aspects. Although the floods of 2011 were devastating in many aspects, there were ecological benefits associated with the huge sandbars created as the floods receded. The nesting success of terns and plovers was above targets levels in 2012 due to the large acreage of nesting habitat in the basin.

Missouri River Ecosystem Restoration Plan (MRERP)

A parallel process for prescribing the long-term restoration activities in the Missouri River basin (MRERP) was also authorized in the Water Resources Development Act (WRDA) of 2007. The Corps of Engineers was working with the basin states as cooperating agencies in the development of the Environmental Impact Statement and Ecosystem Plan for the Missouri River. Much work has been done to quantify and describe the Focal Natural Resources (FNR) that were in place in the basin prior to the construction of the reservoirs. Unfortunately, all of this good, cooperative work came to an end in early 2012 when the congressional delegation from the state of Missouri added a rider to the fiscal year 2012 omnibus federal budget denying the Corps the ability to spend any of their Missouri River budget allocation on MRERP activities.

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 the states of 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. The NPDC meets in the fall and spring every year. Mr. Brian Dunnigan, Nebraska Department of Natural Resources Director, assumed the role of Chairman in 2012. The NPDC maintains several subcommittees to assist in fulfilling its duties under the Modified Decree: Ground Water Wells, Control Crest, Finance, Consumptive Use, Replacement Water, and State Line Gage.

Wyoming performs the following tasks to comply with the Modified North Platte Decree and Final Settlement Stipulation and as a cooperating member of the NPDC:

1. 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. The weather stations funded by the NPDC and maintained by the High Plains Regional Climate Center near Lingle, Douglas, Elk Mountain and Encampment are operational and are collecting data since the original installation. During 2012, the Consumptive Use Subcommittee held a special workshop to discuss Exhibit 6 and the data needs, usage and availability associated with the completing the goals of the exhibit. The NPDC collects data which is not being used to calculate the Exhibit 6 Consumptive Use Report. Conversations were held and steps outlined for future discussions to improve the required reporting.

2. 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. As a recommendation from the State Line Gage Subcommittee, the NPDC approved the hiring of Water Resources Solutions (WRS) to develop a feasibility design study for placement of bendway weirs upstream of the Wyoming-Nebraska state line flow measurement site located on the North Platte River. In addition to the feasibility design study, WRS constructed a physical model of the state line gage to calibrate the 2D conceptual model based on existing flow and gage information. The physical model was reconfigured based on the concept design layout and re-run to determine if the concept layout provided satisfactory approach conditions to the weir and to determine if the proposed bendway weir's placement will be adequate to erode the existing sand bar in the channel. In preparation for construction of the bendway weirs at the state line gage, Wyoming gained all permits for construction and negotiated new landowner agreements with the affected parties. Construction of the weirs is scheduled to begin in February of 2013.

3. 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 reported that 222 wells were active in the triangle area during Water Year 2011, resulting in 5,417 acre-feet of replacement water requirement in Water Year 2012. Eight hundred thirty seven acre-feet of replacement water was required for out of priority tributary diversions. Wyoming replaced a total of 6,254 acre-feet from their Glendo account during the Water Year for the out of priority tributary diversions and triangle area wells.

4. For the 2011 irrigation season, Wyoming reported in a February 10, 2012 letter to the NPDC, that the intentionally irrigated acreage for the North Platte River basin above Guernsey Reservoir, exclusive of the Kendrick Project, was 203,599 acres and in the Lower Laramie River basin, exclusive of the Wheatland Irrigation District, was 29,646 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. Under the 2001 Modified Decree and Final Settlement Stipulation in the North Platte River drainage above Guernsey Reservoir, the State of Wyoming is required, within 10 years of the settlement, to designate the division of the 226,000 irrigated acreage limitation. During

2011, the SEO hosted two public meetings to discuss the 10-year review and internal comprehensive assessment for determining the division of the 226,000 acreage cap. Following this process, the acreage cap was divided into 169,100 acres above Pathfinder Dam and 56,900 acres between Pathfinder Dam and Guernsey Reservoir.

5. For the 2011 irrigation season, Wyoming reported in a May 11, 2012 letter to the NPDC that the ten year calculated consumptive use of irrigation water in the North Platte basin upstream of Pathfinder Dam was 1,040,000 acre feet for 2002 through 2011. In addition, Wyoming reported the ten year calculated total was 740,000 acre feet for the North Platte basin between Guernsey Reservoir and Pathfinder Dam.

6. Wyoming contracted to rehabilitate the hydrologic erosion at the Orin gage located on the North Platte River upstream from Glendo Reservoir. Due to the high runoff events since 2008, an underwater trench/hole located downstream of the low-flow notch on the weir had increased in size needed filled with large rock. The erosion trench/hole now holds 613 tons of large rock (36" to 60" diameter), which equates to 29 semi truck loads of large material. Additional site reseeding occurred to attempt restoration of the surface disturbance. The rehabilitation work at the Orin gage was conducted under a U.S. Army Corp of Engineers Nationwide Permit #3.

Seven (7) full-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 (Agreement) for Platte River Research and Other Efforts Relating to Endangered Species Habitat along the Platte River in Central Nebraska. 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 the 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 remains 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, represented Wyoming on the Governance Committee (GC) until his retirement. Harry LaBonde replaced Mr. Purcell as Director. The Deputy State Engineer serves as an alternate on the GC. Meetings are currently held on a quarterly basis. The program establishes key standing advisory committees to assist the GC in implementing the program. Those committees include the Technical Advisory Committee, the Land Advisory Committee, the Water Advisory Committee, the Independent Science Advisory Committee and the Finance Committee.

In addition, an Adaptive Management Working Group was formed to inform the GC on implementation of the program's adaptive management plan. Current issues for the GC include the reregulation and construction of the proposed J-2 Reservoir in order to supply water for critical flows; purchase of lands to support critical habitat; and evaluation of the timing and intensity of flows through the critical habitat.

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 (PMP), to recapture 54,000 acre-feet of space in Pathfinder Reservoir. The PMP 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.

On November 17, 2008, the Bureau of Reclamation and the Wyoming Water Development Commission jointly submitted a document entitled "Application to Export Storage Water from the Pathfinder Modification Project (PMP)" to the State Engineer's Office for review. Pursuant to Wyo. Stat. Ann. § 41-3-115 , the state engineer reviewed the application, rendered a preliminary analysis of it, advertised and held a public hearing about it in Natrona County (where the

proposed appropriation is located) and solicited public comment on the proposal. Upon consideration of the application, comments received at the hearing and during the comment period which followed, and all other information the state engineer deemed to be relevant, the state engineer prepared the final opinion and recommendation and submitted it to the Legislature in keeping with the requirements of Wyo. Stat. Ann. § 41-3-115(r) (i) – (x). Following deliberations and approval by both the House and the Senate of Wyoming's 60th Legislature, the Governor signed into law Wyo. Stat. Ann. § 41-2-1301, which authorizes the transfer (or export) of Wyoming's water to the PRRIP on behalf of the State of Wyoming for the purpose of providing regulatory certainty under the Endangered Species Act for the use in the Platte River basin. On-site construction of the PMP began in 2010 with substantial completion occurring in early January, 2012. Starting in January of 2012, Pathfinder Reservoir began storing 1,070,000 AF of water, versus the 1,016,000 AF that was allowed before the PMP.

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 Depletion 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 ESA because the PRRIP serves as the reasonable and prudent alternative for existing water related activities and certain new water related activities implemented after July 1, 1997.

Wyoming's Coordinator of Wyoming's Depletions Plan within the State Engineer's Office is tasked with preparing annual reports to satisfy the requirements of the Depletions Plan and performing federal and state consultations on new water-related projects. The Depletions Plan requires Wyoming to extensively track and report municipal, industrial, rural domestic, agricultural water uses, and various new water uses implemented since July 1, 1997. The first report addressed the new water uses since 1997 and compares Water Year 2007 water uses to the 1997 baselines. The second, third, fourth and fifth reports for Water Years 2008 through 2011, respectively, included all new water-related activities determined to be depletive by individual water years. All water year reports submitted to date have been approved by the GC.

Water year reports of any new water-related projects will be submitted to the GC by March 15, 2013.

More information regarding the status of the PRRIP is available at the following website: http://platteriverprogram.org

LARAMIE RIVER BASIN

After initial meetings in 2006 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 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. Special Master Barton H. Thompson, Jr. ruled during this reporting period that Montana could not bring proposed violations under Article V.B and has limited the number of years in which Montana may have placed a "call". Document production of large amounts of files from the Interstate Streams Division was made during this reporting period. Wyoming began deposing Montana officials in April, 2012.

The Compact Commission met on December 8, 2011 at Buffalo, WY. The Technical Committee met April 11, 2012 in Billings and that meeting was attended by Roger Muggli with the Tongue River Water Users Association. He remains concerned about water quality for his irrigation supply. Sue Lowry was named as Wyoming's commissioner replacing Pat Tyrrell on June 26, 2012.

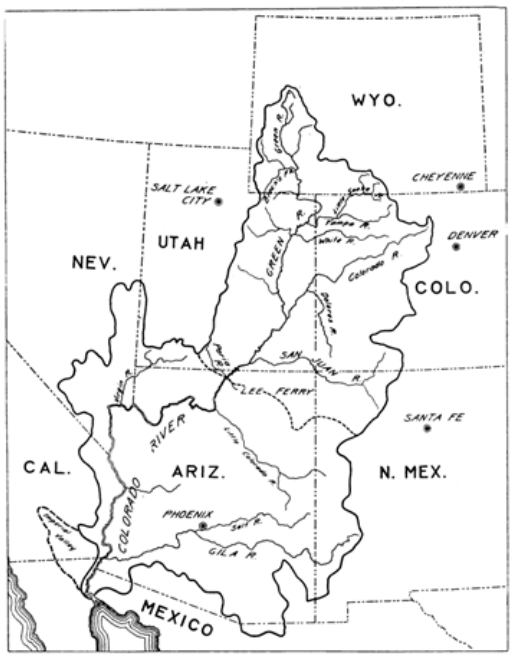
BELLE FOURCHE RIVER BASIN

The annual coordination meeting between Wyoming, South Dakota, Reclamation, US Geological Survey and the water users was held on January 11, 2012. 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 filled in March, 2012 from plains runoff and rains. Very dry conditions followed into the late spring and summer and irrigation water releases were made for both the Belle Fourche Irrigation District in South Dakota and for the Crook County Irrigation District in Wyoming.

NIOBRARA RIVER BASIN

Nebraska and Wyoming held their annual Niobrara compact meeting on October 21, 2011 in Torrington. Nebraska is continuing with their basin study with Reclamation under the WaterSMART program. Wyoming has been included on their technical group overseeing the completion of the study. The states technical group met via conference call on April 13, 2012. Nebraska provided an update on the groundwater modeling that is being completed to better understand the groundwater-surface water relationship in the Niobrara basin in Nebraska.

COLORADO RIVER BASIN (GREEN RIVER AND LITTLE SNAKE RIVER BASINS)



Colorado River Basin.

Below average stream flows were observed throughout much of the Colorado River Basin during water year 2012. Unregulated [1] inflow to Lake Powell in water year 2012 was 4.91 million acre feet (maf) or 45 percent of the 30-year average[2] which is 10.83 maf (this value compares to the water year 2011 inflow total of 16.79 maf). Unregulated inflow to Flaming Gorge, Blue Mesa, and Navajo Reservoirs was 71, 44, and 52 percent of average, respectively.

Precipitation[3] in the Upper Colorado River Basin was below average throughout most of water year 2012. During the fall and winter months (October through March) the overall precipitation rate was approximately 80 percent of average. During the spring runoff period (April through July), the precipitation rate was also below average at approximately 30 percent of average. The inflow during the peak April through July runoff season was just 2.06 million acre feet, which is 29 percent of average and the third-lowest April-to-July period on record, behind 1977 and 2002. On September 30, 2012, the cumulative precipitation for the Upper Colorado River Basin for water year 2012 was 74 percent of average (as compared to 122 percent of average at the end of water year 2011).

Provisional calculations of the natural flow for the Colorado River at Lees Ferry, Arizona, show that the average natural flow since water year 2000 (2000-2011, inclusive) is 12.82 maf. This is the second lowest twelve-year average in over

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[1] Unregulated inflow adjusts for the effects of operations at upstream reservoirs. It is computed by adding the change in storage and the evaporation losses from upstream reservoirs to the observed inflow. Unregulated inflow is used because it provides an inflow time series that is not biased by upstream reservoir operations.

[2] Inflow statistics throughout this document will be compared to the 30-year average, 1981-2010, unless otherwise noted. Last year's annual report used the 1971-2000 period; for which the average unregulated Lake Powell inflow was 12.04 maf.

3 Precipitation is an accumulated value representing both snow and rainfall measured at various mountain sites.

100 years of record keeping on the Colorado River. Table 9 summarizes Colorado River Basin conditions during the past twelve years:

Upper Colorado River Basin Inflow and Powell and Mead Reservoir Storage For Water Years 2000 through 2012

TABLE 9 - INFLOW AND STORAGE

Water Year	Unregulated Inflow into Lake Powell % of Average4	End of Water Year Combined Lakes Powell and Mead Storage in maf	EOWY Lakes Powell & Mead Storage as % of Capacity
2000	62	43.38	86
2001	59	39.01	78
2002	25	31.56	63
2003	52	27.73	55
2004	49	23.11	46
2005	104	27.24	54
2006	72	25.80	51
2007	68	24.43	49
2008	107	27.04	54
2009	92	26.90	53
2010	73	25.46	51
2011	122	30.57	61
2012	46	27.164	54

Over the past 13 years (2000 through 2013, inclusive), inflow to Lake Powell has been below the 1971-2000 thirty-year flow average value in all years except three (2005, 2008 and 2011).

Hydrologic conditions in water year 2012 in the Upper Green River Basin were abysmally dry. Fontenelle Reservoir began water year 2012 with 0.298 maf in storage, at 86 percent of full capacity. Snowpack development tracked below

[4] Prior to the 2012 water year, the 30-year average being used for computations was computed using the 1981through 2000 inflow values; starting in 2012 the 30-year average was shifted to the 1991-2010 period. No effort to make the conversion was done since the more recent 30-year period is drier than the preceding one.

average and melt began approximately three weeks earlier than average with the peak snow water equivalent reaching 84 percent of seasonal average on March 22, 2012. The April forecast for the April through July inflow to Fontenelle Reservoir was 0.665 maf or 92 percent of average. The actual observed inflow during the April to July season was 0.508 maf or 70 percent of average. Prior to 2011, the Upper Green River Basin has experienced a decade of drought conditions with below average inflows the past nine out of ten years. 2012's water supply demonstrated drought had not gone away.

Inflow to Flaming Gorge Reservoir during water year 2012 was below average. Unregulated inflow in water year 2012 was 1.03 maf (71 percent of average). On October 1, 2011, the reservoir elevation was at its maximum level for the 2012 water year at 6,033.03 feet, corresponding to 3.47 maf of live storage. The reservoir elevation showed an overall decrease during water year 2012; it ended the water year at elevation 6,021.90 feet, which is 18.10 feet below the full pool elevation (6,040.00 feet) with available storage space of 0.702 maf.

Interim Shortage Guidelines and Coordinated Reservoir Operations

Calendar year 2012 was the fifth year of operations under the Colorado River Lower Basin Interim Shortage Guidelines and Coordinated Management Strategies for the Operations of Lake Powell and Lake Mead (Interim Guidelines). The coordinated reservoir operational guidelines tie releases from Lake Powell to ranges of reservoir storage elevation levels, or tiers, depending on the storage levels in both Lake Powell and Lake Mead. The Guidelines specify Lake Mead elevations which dictate when the Secretary of the Interior will declare water use shortages in the Lower Basin and what the amount of those shortages will be during the interim period (2007-2026). The Guidelines also specify coordinated operational parameters for Lakes Powell and Mead, intended to operate the two reservoirs to avoid the risk of water use curtailments in the Upper Basin and minimize shortages in the Lower Basin. The Interim Guidelines provide mechanisms to create and deliver conserved system and non-system water in Lake Mead (Intentionally Created Surplus [ICS]) to create additional water supply flexibility in the Lower Basin, to encourage water conservation in Lake Mead and moderate the severity of potential future shortages. In addition, the Guidelines modified and extended the existing Interim Surplus Guidelines, through 2026.

Releases for Water Year 2012 totaled 9.466 maf. Pursuant to the 2007 Interim Guidelines, Lake Powell operated under the Equalization Tier in 2012. Due to the extremely dry hydrologic conditions experienced in 2012, the Equalization release objective was 9.463 maf, which is 8.23 maf plus 1.233 maf (the

Equalization release volume from 2011 that could not be achieved by September 30, 2011; the actual Lake Powell water year 2011 annual release volume ended up being 12.52 maf of water).

Upper Colorado River Basin Fund Memorandum of Agreement

The 2012 year was the second during which operations under the Memorandum of Agreement Concerning the Colorado River Fund (MOA) among the Upper Division States of Colorado, New Mexico, Utah and Wyoming, the Colorado River Energy Distributors Association (CREDA), the U.S. Bureau of Reclamation and the Western Area Power Administration was in operation. The MOA is an interim agreement that will end on September 30, 2025 unless extended by mutual agreement of the parties. During the interim period, the parties have agreed to alter the collection and distribution of hydroelectric power revenues, consistent with authority provided in the Colorado River Storage Project Act (CRSP Act) to do so, in order to 1) eliminate the collection of power revenues for repaying project construction purposes beyond those amounts needed to repay the costs of Colorado River Storage Project (CRSP) Act-authorized and constructed projects and 2) create a funding stream of MOA Revenues for CRSP operation, maintenance and replacement projects to be identified and prioritized by the States and for which the MOA Revenues will be administered by the U. S. Bureau of Reclamation.

Through this process, the Wyoming State Engineer's Office has requested that MOA Revenues be expended through Reclamation's existing funding agreement with the U.S. Geological Survey (USGS) to pay for the reestablishment of the Blacks Fork River near Millburne, WY gaging station (USGS Gage no. 9218500) and for it to be operated by the USGS on a seasonal basis using MOA funding. This gaging station, below the Meeks Cabin Reservoir, would be quite useful for water administration purposes and we requested Reclamation modify its existing funding agreement to provide for its re-establishment and annual operation. In addition the Wyoming State Engineer's Office has requested Reclamation to begin using MOA funding as soon as practicable to pay for the ongoing operation of two other U.S. Geological Survey (USGS) gaging stations. The two gaging stations are:

- Big Sandy near Farson (USGS Gage no. 09213500) - This Station is operated seasonally by the USGS Wyoming Water Science Center in cooperation with the Wyoming State Engineer's Office.

- Green River near La Barge (USGS Gage no. 09209400) - This Station is operated by the USGS Wyoming Water Science Center in cooperation with the Wyoming State Engineer's Office.

The decision to request that the latter two gages be operated using MOA Revenues arose from efforts by the agency looking to other funding sources to meet current obligations so as to be able to comply with the Governor's Office directive for each agency to submit an agency budget reduction plan of 8 percent.

Negotiations with Mexico re: Delivery of Colorado River Water

Minute No. 319 to the Treaty between the United States of America and Mexico Respecting the Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande, Feb. 3, 1944, U.S.-Mex., 59 Stat. 1219, T.S. 994 ("Mexican Water Treaty") was signed by representatives of the United States and Mexico on November 19, 2012 in Coronado, California. Minute 319 is an interim (five-year term) agreement to proactively manage the Colorado River system to obtain binational benefits and mitigate risks associated with variable water supplies and growing demands. This Minute states, in part,

> "… it is in the interests of the United States and Mexico to partner in exploring various cooperative measures … including allowing for the creation of Intentionally Created Mexican Allocation (ICMA) when Mexico chooses to adjust its delivery schedule, sharing in the benefits of water that may be available temporarily through high elevation reservoir conditions, engaging in cooperative measures to reduce the likelihood of unprecedented drought-related reductions in water deliveries to water users in both countries and addressing the continuing impacts of the 2010 earthquake in the Mexicali Valley."

Minute No. 319 will provide benefits to both the U.S. and Mexico: including the sharing of Colorado River water shortages and surpluses under specifically defined Lake Mead water surface elevations. Mexico has agreed to voluntarily share in shortages when the Secretary of the Interior determines a shortage condition exists in the Lower Colorado River Basin. Mexico will also get to share in the temporary benefit of surpluses available within the U.S. when the Secretary determines a domestic surplus condition exists (e.g., when Lake Mead's elevation reaches 1145 feet) in the Lower Basin.

Mexico will be able to create Intentionally Created Mexican Allocation (ICMA) by deciding to defer delivery of water volumes through adjustments to its annual

delivery schedule resulting from water conservation projects or new water sources projects. As part of a joint-cooperative pilot program during the five-year interim period, Mexico agrees to allow some ICMA to be converted to Intentionally Created Surplus (ICS) for use within the U.S. as part of a pilot program intended to evaluate the aspects involved in creating water for the environment and an ICMA to ICS exchange project. This pilot program will enable the U.S. to fund water conservation projects in Mexico that will result in additional water being made available for use in the U.S., repair and improve water infrastructure and riparian area environmental enhancement in Mexico, and allow Mexico to provide water for environmental flows in the Colorado River limitrophe and its delta.

This Minute extends through December 31, 2017 the cooperative measures first established in Minute 318, "Adjustment of Delivery Schedules for Water Allotted to Mexico for the Years 2010 through 2013 as a Result of Infrastructure Damage in Irrigation District 014, Rio Colorado, Caused by the April 2010 Earthquake in the Mexicali Valley, Baja California [5] ," dated December 17, 2010. This extension is based upon the need to continue the work required to complete the earthquake-caused canal and related infrastructure repairs. It provides that, among other provisions, that all water previously deferred under Minute 318 can be treated as ICMA.

Minute No. 319 provides a mechanism for addressing salinity concentration concerns foreseen as a result of creating ICMA (and thereby reducing the volume of water delivered to Mexico in any given water year). Minute 242 specifies that the salinity concentration of the water delivered at the Northerly International Boundary (NIB) shall be no more than 115 parts per million, plus or minus 30 parts per million higher than the salinity of the Colorado River arriving at Imperial Dam. This is referred to as the "salinity differential." Pursuant to Minute No. 319, Mexico will calculate the differential as if the ICMA had been delivered to the NIB. At the same time, to mitigate actual salinity in the River, Mexico may choose to divert some of its apportionment through the Wellton-Mohawk bypass drain and/or discharge it directly to the channel of the Colorado River downstream from Morelos Dam.

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[5] Under the terms of Minute No. 318, up to 260,000 acre-feet of deferred delivery water may remain in Lake Mead through December 31, 2013, and can be delivered from Lake Mead into Mexico after their canal reconstruction occurs. Mexico's ability to store some of its apportionment in U.S. reservoirs may decrease the likelihood or duration of shortage in the next few years. This likelihood is further decreased through the mechanisms established in Minute No. 319, which allows the storage of ICMA in U.S. reservoirs.

Minute No. 319 further sets forth commitments for both countries to investigate longer-term projects that could provide binational benefits that would require additional specific Minute of the International Boundary and Water Commission. These include water conservation projects such as the proposed Alamo Canal Regulating Reservoir Conservation Pilot Project; a system operations project that would potentially convey Mexican water through the All-American Canal (and thence through a connection between the All-American Canal and Mexico's Colorado River-Tijuana Aqueduct, at Pump Station 0 that, at a minimum, could be used for water deliveries to Mexico in emergency situations); and new water sources projects, including a Binational Desalination Plant in Rosarito, Baja California, a Binational Desalination Plant near the Gulf of California (Sea of Cortez) and Beneficial Use of the New River.

Consistent with the commitment made by the Bureau of Reclamation and the U.S. Section of the International Boundary and Water Commission that they would not approve a Minute of this nature without the support and approval of the Basin States (as documented in their February 16, 2012 letter), several domestic agreements in connection with Minute No. 319 were executed on November 20, 2012, in Coronado, California. These included a Memorandum of Agreement between the U.S. Section of the International Boundary and Water Commission, the Department of the Interior, the seven Colorado River Basin States and various water agencies that will ensure that the U.S. will continue to involve the Basin States in future Colorado River negotiations with Mexico and will implement Minute No. 319 in accordance with the water management parameters agreed to by the States. An Operating Agreement, Forbearance Agreement, Funding Agreement and Delivery Agreements will ensure that the participating U.S. entities will receive the benefits they are expecting in connection with Minute No. 319.

Upper Colorado River Commission Activities

The 1948 Upper Colorado River Basin Compact divided the water apportioned to the Upper Basin states on an annual flow percentage, giving Colorado: 51.75 percent, New Mexico: 11.25 percent, Utah: 23 percent and Wyoming: 14 percent. The Compact created the Upper Colorado River Commission; an administrative agency addressing all matters affecting the operation and administration of the Colorado River system. The Commission met on May 24th in Page, Arizona and on December 14th in Las Vegas, Nevada. In addition, the Commissioners held several face-to-face work sessions (March 23rd in Albuquerque, November 16th in Denver) and participated in numerous ad-hoc conference calls in 2012.

Steve Wolff has been asked to represent Wyoming on two projects initiated by the Commission and undertaken by the Engineering Committee. The first is a project to review consumptive use methodologies currently utilized by each state, and to evaluate the possible use of remote sensing to assess consumptive use across the entire upper basin. A contractor has been hired to lead this effort. The second project is a study to look at the feasibility of implementing voluntary forbearance of consumptive uses of Colorado River and tributary water in the Upper Basin to meet the non-depletion obligation in very low flow river conditions; and then to compare benefits and impacts of voluntary forbearance to an enforced curtailment as outlined in the Upper Basin Compact. Although started in 2012, the majority of the work on both of these projects will occur in 2013 and 2014.

Colorado River Basin Salinity Control Program

Established by the Governors of the seven Colorado River Basin states in 1973, the Forum works jointly with federal agencies and the Congress to develop, fund and implement salinity reduction measures to meet national, international and state water quality objectives for the Colorado River system. The Salinity Program is a unique cooperative watershed effort resulting from EPA's interpretation that 1972 amendments to the Clean Water Act required water quality standards, including beneficial use designations, numeric salinity criteria, and a plan of implementation for the Colorado River. Numeric criteria stations were subsequently established (below Hoover Dam, below Parker Dam and at Imperial Dam) by the Forum. To date, the Program has controlled more than a million tons of salt discharge annually and has reduced the salt concentration in the Lower Colorado River basin by approximately 130 milligrams per Liter.

The Interstate Streams Division of the State Engineer's Office continues to actively participate in the activities of the Colorado River Basin Salinity Control Forum, the Forum's Work Group and the Colorado River Basin Salinity Control Advisory Council (established as a Federal advisory committee by the 1974 Salinity Control Act). The Forum and Advisory Council met in Midway, Utah on May 17-18th and in Phoenix, Arizona on November 7-8th. The Work Group met on several additional occasions during the year. In addition, the Division continues its longstanding efforts associated with reducing salt loading into the Green River's tributaries at the Big Sandy Unit of the Colorado River Salinity Control Project (contiguous with the boundaries of the Eden Valley Irrigation and Drainage District, which includes the communities of Eden and Farson).

Upper Colorado River Endangered Fish Recovery Program

As noted in last year's annual report, explicit authority granted in Public Law (P.L.) 106-392 to use Upper Colorado River Basin Fund power revenues for the Upper Colorado Endangered Fish Recovery Program's and the San Juan River Basin Recovery Implementation Program's annual base funding activities (except for annual operation and maintenance and monitoring activities) expired on September 30, 2011. With a sense of accomplishment and relief, it is reported herein that extension of that explicit legislative authority was accomplished through the end of Fiscal Year 2019, with Senate passage of H.R. 6060 occurring early in the morning of January 1, 2013.

Efforts have been underway since 2007 to address the expiration date for annual base funding authority, including the development of a draft report that the Secretary of the Interior was directed to send to the authorizing committees of the Congress by Sept ember 30, 2008. A recitation of the recovery programs' non-federal participants' efforts is herein below provided. Language to accomplish extension of the annual base funding authorization was included in, and subsequently removed (at the request of the programs' participants due to not having consensus) from, 2008 legislation that did, however, result in necessary capital program authorization extensions found in Section 9107 of Public Law 111-11, the Omnibus Public Land Management Act of 2009 signed into law on March 30, 2009.

Subsequently, annual base funding reauthorization was addressed with the introduction of H.R. 2288 on May 6, 2009. That bill was heard by the House Resources Water and Power Subcommittee on September 22, 2009. Wyoming State Engineer Patrick Tyrrell was one of four witnesses who testified at the hearing in support of the bill's enactment. When the House Resources Committee met to consider the bill on December 16, 2009, Water and Power Resources Subcommittee Chairwoman Grace Napolitano (D–CA) offered an amendment in the nature of a substitute to provide that funding authorized under the legislation for the recovery programs be subject to the availability of appropriations (which meant that appropriations, rather than CRSP power revenues, would have been the source of the annual base funding monies). This move was necessitated on account of the House "Pay-Go" rule and a Congressional Budget Office Cost Estimate determination that implementing H.R. 2288 would cost $12 million during the 2011 through 2015 period and $3 million to $4 million a year for 2016 through 2023. Under the "Pay-Go" rule as adopted by the House of Representatives, authorization of appropriations needed to be offset by a reduction in expenditures. The amendment in the nature of a substitute was agreed to and the bill, as amended, was then

ordered favorably reported to the House of Representatives by voice vote. It passed the House of Representatives on May 18, 2010.

A companion bill, S. 1453, was introduced on July 14, 2009 and was the subject of a hearing on July 23, 2009 (at which the only witness concerning the bill was Commissioner of Reclamation Mike Connor). Unfortunately, efforts to move a public lands omnibus bill that contained S. 1453 as a component, to the Senate floor at the conclusion of the 111th Congress in December 2010 were unsuccessful. During the 112th Congress, on June 16, 2011, Senate Energy and Natural Resources Committee Chairman Bingaman introduced S. 1224, (which read identical to the House-passed H.R. 2288 and was intended as a "place-holder" bill). After considerable interaction with staff of the House Natural Resources Committee's Water and Power Subcommittee (and a personal meeting with the Subcommittee Chairman and members of his staff on March 20th) , H.R. 6060 was introduced on June 29, 2012 by Representative Rob Bishop of Utah. Within a period of less than 24 hours, eleven of the four recovery programs' member States' House Members had come on as cosponsors of the bill and a twelfth Member signed on as a cosponsor on July 10th.

On July 10th, 2012, the House Natural Resources Water and Power Subcommittee held a hearing on H.R. 6060. Wyoming's Interstate Streams Engineer, was asked by the Subcommittee's Staff Director to be one of five witnesses to testify in support of the bill and did so, along with Randy Kirkpatrick, Executive Director of the San Juan Water Commission; Kevin Garlick, Energy Director of Provo City Power of Provo, Utah; Grayford Payne, Deputy Commissioner of Reclamation for Policy, Administration and Budget and Bennett Raley, former Assistant Secretary of the Interior for Water and Power and current Counsel to the Northern Colorado Water Conservancy District.

Very fortunately for the prospects of passage of this legislation, the Congressional Budget Office Cost Estimate ("Score") for the bill, dated September 12, 2012, advised that: "CBO estimates that enacting H.R. 6060 would not affect the federal budget. Because the bill would not affect direct spending or revenues, pay-as-you-go procedures do not apply to the bill." On this basis, it was not necessary to find a mandatory spending reduction offset in order for the bill to be sent to the House Clerk's desk. On September 19th, on motion to suspend the rules and pass the bill, H.R. 6060 was agreed to by voice vote and passed the House.

With the assistance of some very capable folks in Washington, D.C. and a good bit of luck, this bill was one of less than a handful of bills that was "hotlined" (each Senate office was contacted in advance seeking assurance that no objection to the bill's passage would be made) and brought up for passage (and passed) by unanimous consent in the waning minutes of the January 31st session that continued until 2:31 a.m. on the morning of January 1, 2013.

Glen Canyon Dam Adaptive Management Work Group

The Adaptive Management Work Group (AMWG) is a Federal Advisory Committee Act (FACA) federal advisory committee established pursuant to the 1996 Record of Decision on the Operation of Glen Canyon Dam Final Environmental Impact Statement. The AMWG is charged with making recommendations to the Secretary of the Interior on budgets, resources monitoring and other work to advance the purposes of the Grand Canyon Protection Act of 1992.

On July 6, 2011, the Department of the Interior announced the Bureau of Reclamation and the National Park Service were starting the development of a Long-Term Experimental and Management Plan (LTEMP) for Glen Canyon Dam on the Colorado River. The Federal Register notice of intent stated in part:

> "the purpose of the proposed LTEMP is to utilize current, and develop additional scientific information, to better inform Departmental decisions and to operate the dam in such a manner as to improve and protect important downstream resources while maintaining compliance with relevant laws including the GCPA, the Law of the River, and the Endangered Species Act (ESA). The National Environmental Policy Act (NEPA) process will document and evaluate impacts of the alternatives described in the EIS. The LTEMP is intended to develop and implement a structured, long-term experimental and management plan, to determine the need for potential future modifications to Glen Canyon Dam operations, and to determine whether to establish an ESA Recovery Implementation Program for endangered fish species below Glen Canyon Dam.

In early May 2012, the Basin states principals agreed to formally develop and submit a Basin states' alternative for inclusion and analysis in the LTEMP EIS process. The final draft of Basin states' alternative was formally submitted to the LTEMP EIS co-leads on July 2nd. The states' alternative is entitled "The Resource Targeted Condition-Dependent Strategy" and is intended to accomplish the following:

- To implement management actions to benefit key resources (i.e., humpback chub, and manage the trout, sediment resources, and benefit the aquatic foodbase);
- To use scientific experimentation and research to further identify and develop future management actions (i.e., utilizes the principles of adaptive management);
- To balance learning with improvements in key resources;
- To address the full-range of possible future hydrologic and reservoir conditions;
- To adhere to and conform with the 2007 Interim Guidelines; and
- To recognize and incorporate the provisions of the recently-issued FONSIs for the High-Flow Experimental Protocol and Non-Native Fish Control EAs.

The Basin states proposed alternative for analysis and evaluation in the LTEMP EIS process includes the following primary components: (1) elements addressing the long-term endangered species requirements of the humpback chub; (2) a non-native fish control element (based upon the monitoring of humpback chub population numbers); (3) provides a modification of the Glen Canyon flow-release regime to conserve and redistribute sediment resources, and (4) establishes a set of criteria that can be utilized to develop high-flow experiments to help manage non-native fish communities as well as conserve and redistribute sediment and enhance the aquatic foodbase. One of the significant strengths of the Basin states' alternative is the strong reliance upon the scientific knowledge that has been gained since the 1996 Record of Decision in the Glen Canyon Dam EIS. This alternative has fully incorporated the results of the series of high-flow release experiments that have been run at the dam, as well as makes use of all of the scientific research generated through the existing Adaptive Management Program.

Reclamation conducted a High-Flow Experimental (HFE) release from Glen Canyon Dam during November 18-23, 2012. This HFE release was conducted pursuant to the HFE Protocol that was adopted by the Secretary of the Department of the Interior in 2011. This HFE release was intended to redistribute approximately 500,000 metric tons of sediment that has accumulated in the Marble Canyon reach of the Colorado River below Glen Canyon Dam. This sediment appears to have largely accumulated in this reach of the Colorado River between July 1st and October 1st, and was the result of summer monsoonal precipitation events in the Paria River watershed.

The HFE release included a 24-hour release of water from Glen Canyon Dam of 42,300 cfs (27,300 cfs through the powerplant and 15,000 cfs through the river outlet tubes). This peak flow of 42,300 cfs was preceded and followed by fluctuating flows of 7,000 to 9,000 cfs for a total November monthly release of approximately 724,000 acre feet. To accomplish this HFE experiment, approximately 80,000 acre-feet of water was released via the river outlet tubes (i.e., jet-tubes) and bypassed Glen Canyon Dam power generating facilities. Besides sediment redistribution, ancillary purposes of the experiment were to examine the effects of such releases on sediment accumulation and transport, aquatic foodbase, rainbow trout population and condition, and impacts/effects upon riparian vegetation. Reclamation and the Grand Canyon Monitoring and Research Center focused specific monitoring activities on these resources during the HFE release and will continue to do so for several months following the HFE release.

Colorado River Basin Water Supply and Demand Study

On December 12, 2012, Secretary of the Interior Salazar held a press conference call announcing the completion of the Colorado River Basin Water Supply and Demand Study – authorized by Congress and jointly funded and prepared by the Bureau of Reclamation and the seven Colorado River Basin states – that projects water supply and demand imbalances throughout the Colorado River Basin and adjacent areas over the next 50 years. The purpose and objectives for the Study can be expressed in two fundamental questions: first, what is the future reliability of the Colorado River system to meet the needs of Basin resources through 2060? Secondly, what are the options and strategies to mitigate future risks to these resources? We are hopeful this study will lead to actions to improve the water supply and water management situation.

The Bureau of Reclamation's Upper Colorado and Lower Colorado Regions, in collaboration with representatives of the seven Colorado River Basin States (non-federal Cost Share Partners), submitted a Proposal in June 2009 to fund the "Colorado River Basin Water Supply and Demand Study" under Reclamation's Basin Study Program. In September 2009, the Study was selected for funding. The Study, which began in January 2010, was completed in December 2012. It defines current and future imbalances in water supply and demand in the Colorado River Basin and the adjacent areas of the Basin States that receive Colorado River water for approximately the next 50 years, and develops and analyzes adaptation and mitigation strategies to resolve those imbalances.

The Study characterizes current and future water supply and demand imbalances in the Basin and assesses the risks to Basin resources. Resources include water allocations and deliveries consistent with the apportionments under the Law of the River; hydroelectric power generation; recreation; fish, wildlife, and their habitats (including candidate, threatened, and endangered species); water quality including salinity; flow and water dependent ecological systems; and flood control.

The average imbalance in future supply and demand is projected to be greater than 3.2 million acre-feet by 2060, according to the study. The study projects that the largest increase in demand will come from municipal and industrial users, owing to population growth. The Colorado River Basin currently provides water to some 40 million people, and the study estimates that this number could nearly double to approximately 76.5 million people by 2060, under a rapid growth scenario. Throughout the course of the three-year study, eight interim reports were published to reflect technical developments and public input.

The Rand Corporation joined the team in February 2012 to support the Basin Study's overarching efforts by using Rand's Robust Decision Making (RDM) methodology to conduct a vulnerability analysis of baseline conditions in the region. The Rand team used RDM to identify vulnerabilities and compare strategies to alleviate the gap between water supply and demand in the Basin States. As part of the RDM process, the Rand team also developed interactive visualization software to display scenario results, compare options, and weigh final tradeoffs with the Basin Study Team and its stakeholders. It is visually striking and works well to communicate multivariate analysis differences resulting from the four water supply and four future water demand scenarios analyzed in this study.

The Colorado River Basin Water Supply and Demand Study also includes a wide array of adaptation and mitigation strategies proposed by stakeholders and the public to address the projected imbalances. The study includes over 150 proposals from study participants, stakeholders and the public presenting a wide range of potential options to resolve supply and demand imbalances. Proposals include increasing water supply through reuse or desalinization methods, and reducing demand through increased conservation and efficiency efforts. The scope of the study does not include a decision as to how future imbalances should or will be addressed.

The Dept. of Interior recognized the full Basin Study Team by giving it the 2012 "Partners in Conservation" award for being "a model of collaboration for future watershed planning across the country. The award ceremony was held in the Main Interior Building Auditorium in Washington D.C. on October 18, 2012. The seven Colorado River Basin States, Bureau of Reclamation, tribal representatives and water users worked together to establish a common factual and technical foundation for resolving future water supply and demand imbalances.

Colorado River Compacts Administration Program

The primary activities during 2012 were initiation of the remote sensing project, continued operation and upgrading capabilities of the weather station network, and continued operation of the hydrology monitoring network by Division IV staff. In addition, preliminary work was conducted to assess potential shortages in the basin as part of ongoing discussions with the basin states.

The focus of the consumptive use program during 2012 was the remote sensing project. We hired Riverside Technology as our prime contractor, with significant involvement from Dr. Rick Allen (Evapotranspiration, Plus) and Dr. Jan Hendrickx (New Mexico Tech). We held our initial scoping meeting in March. Landsat imagery for the 2011 growing season was deemed to be of sufficient quality to use for a complete METRIC analysis. That work is moving forward, as is Riverside's review of the irrigated lands layer developed by HydroBio in 2007. Steve Wolff took Drs. Allen and Hendrickx on a tour of the basin in September, 2012. Imagery for 2012 was also reviewed. However, due to heavy smoke from wildfires throughout much of the summer, as well as only having Landsat 7 operational, it is doubtful we can do much remote sensing analysis for 2012. We will reevaluate this after 2011 work is completed. This is unfortunate as the extreme water years we had in 2011 (high) and 2012 (low) would have made for a good comparison. Landsat 8 is scheduled for launch on

February 11, 2013. With the failure of Landsat 5 in late 2011 and the ongoing problems with Landsat 7, the successful launch of this new satellite is critical to the continued use of remote sensed data in this program.

Also during 2012, Steve Wolff made presentations and participated in panel discussions on remote sensing of western water management at the Western States ET Workshop in Boise and at the Water Education Foundation's Remote Sensing Workshop in San Diego. Steve also worked as an associate editor for the Journal of American Water Resources Association to compile a feature collection entitled "Assessing Consumptive Water Use via Remotely Sensed Data." This special issue should be published in early 2013.

A fifth station was added to the Green River Basin Automated Weather Data Network (AWDN) system in September. This station is located along the upper reaches of Middle Piney Creek on the Budd Ranch. The AWDN stations are operated continuously through the year, with data downloaded, QA/QC'd and archived daily by the High Plains Regional Climate Center. Locations for all five AWDN stations are shown in the Figure 1 below. We should be able to begin uploading these data into Aquarius in the near future. In addition, six additional weather stations were purchased in 2012. These stations are almost identical to the AWDN stations, but will not be connected to AC power so do not have heated precipitation gages. These stations will be operated only during the growing season, beginning in 2013. Site locations for these stations are being selected primarily selected to support the remote sensing project. Of the two original ET-107 stations installed in 2007, the Ryegrass station has been permanently removed while the Henry's Fork station continues to be operated by Lyman office staff.

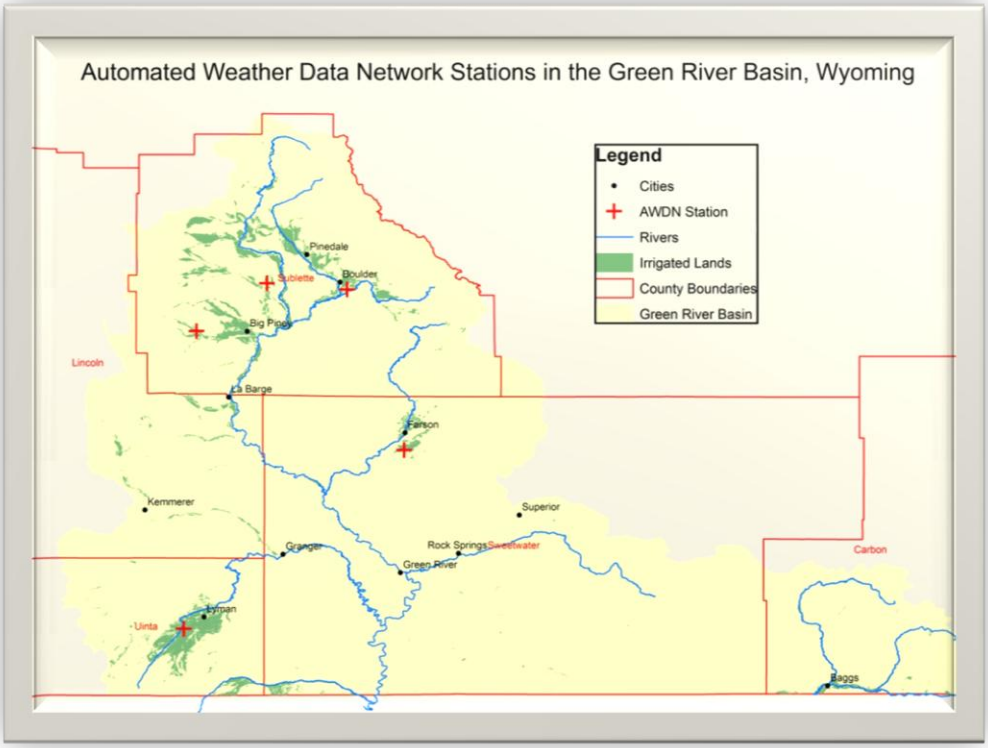


FIGURE 2 - AUTOMATED WEATHER DATA SITES

Efforts are ongoing to maintain and operate the stream and diversion data network in the Green River basin, as well as store the records in Aquarius. Figure 2 is a map showing location of Automated Weather Data Network stations in the Green River Basin. This work is led by Division IV staff and additional information can be found in that section of the report. The consumptive use program moved much closer to a more operational status in 2012. Annual consumptive use reports should be completed annual from this point forward.

Steve also completed a preliminary analysis of irrigation water shortages in the Colorado River basin of Wyoming (Green and Little Snake drainages). Wyoming does experience shortages in most years in certain areas of the basin. In severe drought years, shortages can become severe and widespread.

Conditions and assumptions used for this analysis include:

- Irrigated acreage was assumed to be 335,517 acres

- In average water years, storage can provide late season flows where available
- Actual shortage is highly variable dependent on run-off scenario, growing season precipitation, storage condition and pre-season soil moisture condition
- All acreage was assumed to be cool-season grass/grass hay crop

A summary of the results is shown in the table below.

TABLE 10 - COLORADO RIVER BASIN SHORTAGES

Summary of Preliminary Shortage Analysis	
Agricultural Depletions Full Water Supply	478,614 acre-feet
Agricultural Depletions Average Water Supply Condition	404,819 acre-feet
Estimated Shortage in Average Water Supply Years	73,795 acre-feet (15.4%)

The above numbers should be considered preliminary and based on incomplete data. I do think they are reasonable estimates we can continue to refine as additional data become available. Estimates of water shortages in drought years is ongoing.

BEAR RIVER BASIN

The Bear River Commission met November 15, 2011 and April 17, 2012. Bear Lake was in flood release mode at the beginning of water year 2012. But when dry conditions continued into the winter months, PacifiCorp decreased their releases in January, 2012 and saved much needed water as the drought continued into the irrigation season. Sue Lowry was named as Wyoming Commissioner, replacing Pat Tyrrell, on June 26, 2012. The Technical Advisory Committee (TAC) continues their work of estimating depletions that have occurred from 1976 to 2009. Acreage under irrigation in 2009 has been mapped and estimates of municipal and industrial changes since 1976 have

been completed. The next steps involve the values to use for the evapo-transpiration calculations and the rate to use to estimate the amount of water depleted from lands with supplemental water rights to pre-compact original supply lands.

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 delivered to lands downstream of Palisades in Idaho, the Bureau of Reclamation and the State of Idaho—Water District 01 allows Wyoming through a paper transfer to use the Palisades water right storage out of Jackson Lake. Winter releases for 2011-12 were 600 cfs. The fall agency meeting was held September 11, 2012 and the winter releases for 2012-13 will be 300 cfs. Following the September meeting, the agency group toured Spread Creek where a dam and been removed and new diversion works were installed that did not rely on a bank-to-bank dam. The Forest Service is already documenting fish passage above the historic dam.

Wild and Scenic: The congressional action designating segments in the Snake River basin occurred in March, 2009, and the Bridger-Teton Forest and the Grand Teton National Park personnel have been developing the Outstandingly Remarkable Values for each of the segments. The next step by the federal agencies will be issuance of the draft comprehensive river management plans and any necessary amendments to the Forest Plan or counterpart NPS document. Contact has been made with staff level planners. Also, Governor Mead sent a letter to the Regional Forester and the Regional NPS Director emphasizing his expectations about their filing for wild and scenic water rights with the State Engineer's Office.

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, federal, and county agency personnel as well as those in private practice, a regular opportunity to share information and insight on water activities that are ongoing in their respective agencies and businesses. Each month, a special program is presented providing a more in-depth view of a particular water related issue or topic. During this last season, topics for Water Forum ranged from a presentation on "Hydrologic Modeling of the Upper Colorado River Basin on the NCAR – Wyoming Supercomputer" given by Dr. Fred Ogden to information given to the Forum through a presentation by Ed Harvey of Harvey Economics on the Environmental and Recreational Water Use Study. The current schedule and past and current Water Forum minutes are kept on the State Engineer's Office website at:

https://sites.google.com/a/wyo.gov/seo/interstate-streams/water-forum

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), environmental assessments and resource management plans as well as other National Environmental Policy Act (NEPA) documents. The notices from the Army Corps of Engineers are notices of applications for Section 404 permits. During this last reporting period, 17 notices were received from the Governor's Planning Office and 3 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 other cooperators to help develop purpose and need statements and alternatives for projects are also attended by this division.

The Governor's Planning Office has 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 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). Members of this consortium met with Director McNutt on March 16, 2012 in conjunction with a joint meeting of the Western States Water Council and the ICWP annual Washington Roundtable.

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. ICWP led an effort to get the current work groups of ACWI better coordinated in their work on climate change issues. Steve Wolff is currently serving as ICWP's representative on the Water Resources Adaptation to Climate Change Workgroup (WRACCW) of ACWI. He also continues to serve on the Water Data & Science Committee of ICWP.

The ICWP Annual Meeting was held in St. Louis on October 11-14, 2011. This meeting was the conclusion of Sue Lowry's term as Chair of ICWP. A workshop was held with the USGS on how to improve the National Water Information System website.

WESTERN STATES WATER COUNCIL

The Western States Water Council, in cooperation with the Western Governors' Association (WGA), the U.S. Department of Energy (DOE), the DOE National Labs (led by the Sandia National Lab), and the Western Federal Agency Support Team (WestFAST) are undertaking a data exchange project to provide better access to water allocation, supply, and demand data that are maintained by the states. Steve Wolff serves on the methods and implementation workgroups for this project. Estimates of the impact of compact allocations on water availability were also given to consultants to Sandia Labs.

UPPER MISSOURI WATER ASSOCIATION

The Annual Congressional Briefing to Upper Missouri states was held in Washington DC on March 27, 2012 in conjunction with the National Water Resources Association meeting. The 2011 Annual Meeting was held on December 6-7, 2011 in Bismarck in conjunction with the North Dakota Water Association annual meeting.

OTHER COORDINATION MEETINGS

During this reporting period, the Division also served on the NRCS's State Technical Committee and coordinated the inter-agency meetings with Water Development Commission, NRCS, DEQ and Wyoming 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.

From 2000 – 2005, the first round of planning was conducted. By the end of 2005, each of the seven water basin plans had a completed plan. With completion of these plans, discussions turned to reviewing the 1974 Framework Water Plan and bringing it up to date.

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 as the firm to complete the updated Framework Water Plan. This plan contains two volumes. Volume I presents a statewide perspective on water resources, compiled from the seven basin plans. 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. A copy of the 2007 Framework Water Plan can be found at:

http://waterplan.state.wy.us/frameworkplan.html

One of the tasks that WWC was asked to perform as part of the Framework Water Plan 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, the process has started once again.

WATER PLAN UPDATES

The first basin chosen to begin the update process was the Green River Basin. WWC Engineering (WWC) of Laramie, WY, the consultant selected to develop the Green River Basin Plan II Study, completed all of the work on this plan and delivered a final draft December 2010.

Along with the surface water portion of the study, a groundwater portion was also completed. The Wyoming State Geological Survey (WSGS) was the lead, with the U.S. Geological Survey (USGS) and the Water Resources Data System (WRDS) providing technical support. The groundwater portion of the report was completed in September of 2009. Copies of both the surface water update and the groundwater report can be found here:

http://waterplan.state.wy.us/plan/green/green-plan.html

As an additional resource, the WSGS developed a very nice website outlining all of the information gathered for the Green River groundwater study. This website provides the user a very friendly way to get to specific information in the report. The website can be found here:

http://www.wsgs.uwyo.edu/Research/Water-Resources/GGRB/Default.aspx

Throughout the water planning process, the Basin Advisory Group (BAG) has played an important role. The BAG is made up of stakeholders from throughout the basin. During this reporting period, the Green River BAG met June 11, 2012 in Farson. At this meeting the BAG heard a presentation from Jason Mead, Wyoming Water Development Office (WWDO), on the Upper Green Watershed Study. The BAG also received an update from John Shields, State Engineer's Office (SEO), on Colorado River Basin issues.

The update of the Wind/Bighorn Basin plan started in October of 2008 with the work being performed by the consultant group MWH Americas, Inc. As

with the Green River Basin Plan II update, a surface water study as well as a groundwater study was conducted as part of the update. The surface water study was completed in May of 2010 and can be found here: http://waterplan.state.wy.us/plan/bighorn/bighorn-plan.html.

The groundwater project was led by the WSGS with the USGS and WRDS providing technical support. The team focused on gathering all available data relative to groundwater. They identified aquifers present in the basin and their associated quality and quantity and attempted to determine recharge areas, recharge rates and safe yield. Any information in existing reports, models and other studies pertinent to this study was gathered into a bibliography. All of this information was then synthesized into a report that lists the team's findings along with data gaps and future needs that were also discovered. The final groundwater report was completed in 2012 and can be found here:

http://waterplan.state.wy.us/plan/bighorn/bighorn-plan.html

Just as was done in the Green River basin, the WSGS also developed a website for the Wind/Bighorn groundwater study. The website can be found here:

http://www.wsgs.uwyo.edu/Research/Water-Resources/WBRB/Default.aspx

The BAG played an important role in this update as well. During this reporting period, a meeting was held April 25, 2012 in Thermopolis. At this meeting, the BAG received an update on the Westside Project from Hugh Miller with the Westside Irrigation District as well as presentations from Carla Thomas on programs and projects on which the Hot Spring Conservation District has been working and from Jodee Pring of the SEO on Missouri River activities.

The update of the Bear River Plan was initiated in 2009 and completed in June of 2012. The update was conducted in-house with the water planning team performing the work. The water planning team consists of members of the WWDO, WRDS, and the SEO. A copy of the updated report can be found here:

http://waterplan.state.wy.us/plan/bear/bear-plan.html

Just as has been done in the previously mentioned plans, a groundwater study is also being conducted in the Bear River Basin. This report is progressing with all geology mapping completed. Data acquisition is also complete. This report is anticipated to be published in late 2013.

A BAG meeting for the Bear River Basin was held June 12, 2012 in Evanston. At this meeting, the BAG heard an update on the Bear River Water Quality Task Force from Mitch Poulsen as well as a presentation from Kevin Payne, SEO, on the automated gaging project in the Bear River basin.

In October of 2011, the update of the Snake/Salt Basin Plan was initiated. This update is also being handled in-house, with the water planning team performing the work. This report is anticipated to be completed in the summer of 2013.

Along with the Snake/Salt update, a groundwater study is also being conducted, just as in the other basins. The WSGS and USGS continue to work diligently on this project with an anticipated publication date of February 2014.

A BAG meeting for the Snake/Salt Basin was held June 13, 2012 in Alpine. At this meeting, both the Teton Conservation District and the Star Valley Conservation District gave updates on water quality monitoring in the Snake and Salt River basins, respectively.

In the months of April and May 2012, the Water Planning team met with the other BAGs around the state. The team met with the Platte River Basin BAG on April 26th in Douglas, the Powder/Tongue BAG on May 23rd in Buffalo and the Northeast WY BAG on May 24th in Gillette.

At the Platte River BAG meeting, the group discussed the Platte River Basin Plan Groundwater Update. Funding for this study was approved during the 2008 reporting period and it is being conducted just as the other basins; with the Wyoming State Geological Survey as the lead and the U.S. Geological Survey and the Water Resources Data System providing technical support. Work has progressed well during this last reporting period and a full draft of this report should be ready by February of 2013 with a final report anticipated to be published in June of 2013.

At the Powder/Tongue BAG meeting, the group enjoyed an update on Missouri River activities from Jodee Pring of the SEO and a presentation from Chris Nicholson of WRDS on the PRISM Online Climate Data Retrieval Tool.

At the Northeast WY BAG meeting, those in attendance were given a presentation by Jodie Pavlica, WWDO, on the Gillette regional connections as well as a presentation from Jodee Pring on activities in the Missouri River basin.

Basin Advisory Group meetings will continue to be held in all of the basins approximately 2 times a year until it is time to update the river basin plans. When basins start into the active planning process, meetings will be conducted every other month.

Work on an additional study, the Basin Planning Environmental and Recreational Water Use Study, was completed during this reporting period. The purpose of this study was to refine the statewide water planning process to better address environmental and recreational water uses.

Harvey Economics of Denver, CO was awarded this project. The final report was completed April 2012 and can be found here:

http://library.wrds.uwyo.edu/wwdcrept/Wyoming/Wyoming-Environmental_and_Recreational_Water_Use_Study-Final_Report-2012.html

This report also includes a handbook to guide future planners in the methods developed by Harvey Economics as outlined in the final report. The handbook can be found here:

http://library.wrds.uwyo.edu/wwdcrept/Wyoming/Wyoming-Environmental_and_Recreational_Water_Use_Handbook-Final_Report-2012.html

SUPPORT SERVICES DIVISION

By

Martin Zimmerman and Staff

GENERAL

The Support Services division underwent major changes with the creation of a new centralized IT organization, Enterprise Technology Services (ETS). Two staff and their related roles and responsibilities were transferred to ETS. The Support Services division has a total of nine employees and is responsible for the following operations:

- Information Technology and Telecommunications
  - Enterprise Systems - Hardware, Software, Backup, and Business Continuity of Agency Specific Applications.
  - Help Desk & Support – Agency Specific Applications.
- Application Programming and Databases
  - Programming - Application development and support.
  - Database – SQL & Microsoft Access programming, reports, and queries.
  - Database management.
- Geographic Information Systems
  - GIS – ArcServer, 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.

INFORMATION TECHNOLOGY AND TELECOMMUNICATIONS

The group supported Agency users' for the Agency Specific Application of ePermit and Aquarius. The other duties of this group have been transitioned to ETS. Remaining staff continue to train and assist ETS staff in supporting the Agency.

APPLICATION PROGRAMMING AND DATABASES

The group worked with Field staff to add additional stations to the Aquarius database to receive near real-time stream gage data and present the data on the Aquarius Web Data Portal. The group worked with the vendor to test and validate upgrades of the Aquarius software to enhance the capabilities in support of the Agency.

GEOGRAPHIC INFORMATION SYSTEMS

GIS continued to manage geospatial efforts including geospatial software and data inventory, data conversion, and completing advanced geospatial projects. This year, staff has been heavily involved in statewide coordination. One coordination effort is participating on the Technical Advisory Group (TAG) that works jointly with the Governor's GIS Oversight Committee to make GIS-related decisions for the state. Another effort is attending the Cheyenne and Laramie County GIS Cooperative meetings. Both groups provide information sharing on current and future GIS programs, technology and training as well as promote minimizing duplication of effort among participants. The Bear River Technical Advisory Committee continues to seek enhancements to the GIS portion of the depletion effort. Another major project was the groundwater Water Haul map which updated the point of diversions for water hauling and kept track of the lands that had been taken out of production. Smaller projects included updating the Divisions maps, the Safety of Dams map, the Wild & Scenic Areas map, and the surface water Instream flow map. Staff completed online training with ESRI and conducted training for the annual Hydrographer's school.

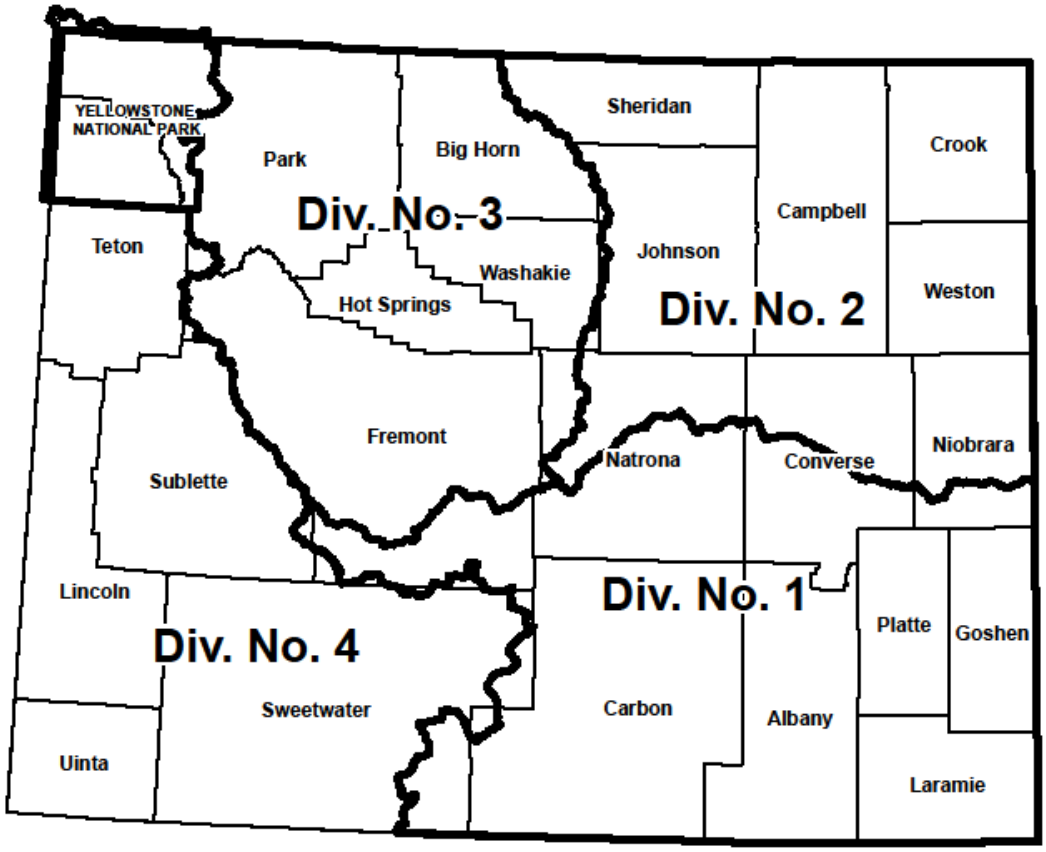
MICROFILM & IMAGING

Microfilm and Imaging group continued scanning the Agency's inventory of over 6,000,000 microfilm images along with millions of paper documents. The group supported other divisions in scanning daily incoming applications and correspondence for uploading into ePermit. As of September 28, 2012, there was 1,683,142 documents available to the public via ePermit.

SUMMARY

This department continues to support, advance and enhance agency specific applications use of technology to accomplish the Agency's mission.

WYOMING WATER DIVSIONS



WATER DIVISION I

Brian Pugsley
Torrington

This report is a summary of water related activities and trends within Water Division No. 1 for the period October 1, 2011 to September 30, 2012. Water Division I is comprised of the North Platte, South Platte, Niobrara, and Little Snake River drainages in southeast Wyoming. Water Division I is made up of twenty water districts served by a staff of one assistant-superintendent, one division secretary, twelve hydrographer-commissioners, one field investigator, three acreage inspectors, one well inspector, one pump inspector and tributary inspector.

GENERAL AND CLIMATIC CONDITIONS

If someone were to have told me back on October 1, 2011, that Water Year 2012 would be one of the driest years on record, I would not have believed them for one second. With individual carryover capacities in the North Platte River Federal storage system being average to well above average and the ownerships within those reservoirs also be well above average, things looked to be fairly normal going into the Water Year. Reservoir ownership carryovers on October 1 were as follows:

TABLE 11 - DIVISION I RESERVOIR STORAGE

District 14 Bureau Ownerships	
North Platte Project	696,515 Acre Feet (170% of 30 Yr. Avg.)
Kendrick	1,108,946 Acre Feet (127% of 30 Yr. Avg.)
Glendo Unit	176,620 Acre Feet (142% of 30 Yr. Avg.)
District 2 Reservoirs	
Hawk Springs Reservoir	5,654 Acre Feet (33% of Capacity)
Goshen Hole Reservoir	2,510 Acre Feet (50% of Capacity)
Goshen Reservoir	830 Acre Feet (43% of Capacity)
Districts 4 ABC Reservoirs	
Lake Hattie	45,800 Acre Feet (48% of Capacity)
Wheatland Res No. 3	63,500 Acre Feet (63% of Capacity)
Wheatland Res. No. 2	54,900 Acre Feet (55% of Capacity)
Grayrocks Reservoir	102,000 Acre Feet (69% of Capacity)

Snowpack conditions for Water Year 2012 started out below average to average for both the Upper and Lower North Platte basin. By mid to late December, snow water equivalent (SWE) conditions started to trend to the below average in the upper basin and tracked to the average to above average in the lower basin. With both basins SWE peaking on March 5, the upper basin only received 16.7 inches or 83% of average and the lower basin with 12.1 inches which was 128% of average. By May 21 both basins were reporting 0% of SWE and looked as though Division I was in for one short runoff and some very low stream and river flows.

Even with average to below average snowpack and below average stream flows this season, all of the federal reservoir ownerships with the exception of Kendrick and the Wyoming and Environmental accounts of the Pathfinder Modification were able to fill in Water Year 2012. Thanks to the above average carryover from Water Year 2011, Guernsey ownership filled on March 13, Glendo ownerships, consisting of the irrigation, evaporation and power pools all filled by March 18, Inland Lakes filled on April 5, and then the Pathfinder irrigation ownership on April 24. The Pathfinder Wyoming account accrued 14,910 acre feet and the Environmental Account accrued 24,972 acre feet in Water Year 2012. As far as some of the other larger reservoirs within Division I the only other reservoir to fill was Hawk Springs which filled on April 17.

The Bureau of Reclamation (Reclamation) snowmelt runoff forecast, along with the above average carryover storage ownership from Water Year 2011, prompted Reclamation to advise area irrigators that an allocation was not expected. Reclamation's forecasted supply throughout 2012 reported that the North Platte Project supply would be well above the 1,100,000 A.F. which is needed to meet the irrigation demand below Guernsey in accordance with the "Allocation Stipulation" as per the Modified North Platte Decree, Appendix E. Some of the peak flows within Division I this Water Year were as follows:

TABLE 12 - DIVISION I PEAK FLOWS

North Platte River nr. Sinclair	April 3	1,840 cfs
Medicine Bow River nr. Hanna	April 4	415 cfs
Sweetwater River nr. Alcova	April 5	303 cfs
North Platte River at Orin Jct.	June 8	3,570 cfs
North Platte River below Guernsey	May 18	4,490 cfs
North Platte River at WY-NE Stateline	Sept. 13	1,683 cfs
Laramie River nr. Woods Landing	April 28	332 cfs

NORTH PLATTE DECREE HIGHLIGHTS

The North Platte Modified Decree, Exhibit 10, obligates Wyoming to replace 24.4 A.F., per active "Triangle" irrigation well the following year. Water Year 2011 Wyoming determined that there were 222 active irrigation wells within the "Triangle" and resulted in 5,418 A.F. having to be replaced during Water Year 2012. Wyoming Water Development secured replacement water from the Bureau of Reclamation in the amount of 6,300 A.F. from Wyoming's uncontracted Glendo account. This replacement water is to be released from Guernsey Reservoir to supplement the natural flow in the Whalen Diversion Dam to State Line reach of the North Platte River and is provided each year during the May through September period when natural flows are insufficient to meet the demands of both Wyoming and Nebraska irrigators who divert from North Platte River at or above Tri-State Dam. Along with the well replacement, Wyoming is also obligated under the Modified North Platte Decree, Exhibit 11, to monitor the surface water rights from tributaries within the Whalen to Stateline reach and to replace 50% of the out-of-priority diversions the following month. For diversions in September, replacement occurs the following irrigation season as a supplement to natural flow upon first release of storage water from the North Platte Project. In September 2011 there were no out-of-priority diversions and therefore no replacement obligation incurred. However, throughout Water Year 2012 the natural flow availability in the North Platte was so diminished that most of the tributary diversions were out of priority throughout the season and therefore Wyoming was obligated to replace 50% of those diversions. Those replacement amounts are as follows:

TABLE 13 - DIVISION I REPLACEMENT WATER

MONTH	TOTAL DIVERSIONS (A.F.)	NATURAL FLOW (A.F.)	OUT OF PRIORITY DIVERSION (A.F.)	TOTAL REPLACEMENT (A.F.)
MAY	154.47	98.55	55.92	28.0
JUNE	325.34	170.62	154.72	78.0
JULY	767.08	128.43	638.65	320.0
AUGUST	953.42	130.87	822.55	411.0
SEPTEMBER	460.93	293.12	167.80	84.0
TOTAL	2661.24	821.59	1839.64	921.0

The State of Wyoming is required to monitor and limit the pump diversions from Alcova Reservoir to Guernsey Reservoir during allocation years. Under Exhibit 5 of the Modified North Platte Decree, the cumulative irrigation diversion of 6,600 acre-feet for each two-week period cannot be exceeded during allocation years. With 2012 not being an allocation year, Wyoming was not obligated to monitor or report these diversions to the North Platte Decree Committee (NPDC) for compliance of the decree. However, Wyoming continued to track these diversions for additional information and these diversion totals ranged anywhere from a maximum amount of 5786 A.F. during the June 23 to July 6 period, to a minimum of 2268 A.F. during the first two weeks in May.

This was the first year that the Pathfinder Modification was allowed to accrue water to the Environmental account and the Wyoming account since the completion of the modification and in turn was the first year that Wyoming was tasked with sheparding this water to the Stateline to then be conveyed by Nebraska on down to Lake McConaughy. During September the Bureau of Reclamation transferred 26,407 A.F. from the Pathfinder Environmental (21,607 A.F.) and Wyoming Accounts (4800 A.F.) To Glendo less conveyance loss of 940 A.F. and from there it was released from Guernsey Reservoir and transferred to Lake McConaughy.

Water Year 2012 accounting ended on September 30th with carry over in the individual ownerships as follows:

TABLE 14 - DIVISION I RESERVOIR CARRYOVER

North Platte Project	155,178 Acre Feet (36% of 30 Yr. Avg.)
Kendrick	961,645 Acre Feet (109% of 30 Yr. Avg.)
Glendo Unit	119,286 Acre Feet (95% of 30 Yr. Avg.)
Hawk Springs Reservoir	1541 Acre Feet (11% of Capacity)
Goshen Hole Reservoir	584 Acre Feet (11% of Capacity)
Goshen Reservoir	145 Acre Feet (8% of Capacity)
Lake Hattie	30,000 Acre Feet (31% of Capacity)
Wheatland Res No. 3	27,700 Acre Feet (27% of Capacity)
Wheatland Res. No. 2	16,300 Acre Feet (16% of Capacity)
Grayrocks Reservoir	76,500 Acre Feet (52% of Capacity)

Hydrographer's within Division I reported that with snowpack levels being what it was and with little to no precipitation throughout the spring and summer months, their creeks and streams saw very little water and in some cases they went completely dry in some areas. Along with the lack of early spring

moisture, extremely hot temperatures and strong winds, area producers had to start their irrigation early in order to get moisture to the seeds that had been planted so they could germinate. Some appropriators in the higher elevations weren't quite ready when the runoff began and by the time they were ready the runoff had come and gone or the creek had diminished to point that regulation was invoked, and senior appropriators were all that were in priority for the stream flows that remained. There were several areas where only single appropriations could be delivered and appropriators with post 1945 rights didn't see any water in there ditches this year.

SUMMARY

On September 12, 2012, Superintendent Randy Tullis retired from the Wyoming State Engineer's office and State Board of Control. Randy served as Hydrographer/Commissioner in Big Piney and then in Casper for several years before becoming Superintendent of Water Division I. He served on the Board of Control for 14 years before his retirement. Randy took with him a great deal of knowledge and information regarding Division I and he will be truly missed by this agency. I would like to thank Randy for all his help and insight that he gave me and the agency throughout the years and wish him well in all his future endeavors.

I would like to express my sincere thanks and appreciation of State Engineer Patrick Tyrrell and the other members of the Board of Control for all the support and guidance they have give me thus far in my learning phase of being Superintendent of Water Division I. I would also like to thank my staff for all that they do and the support that they have given me in this transition period. I look forward to working with and along side of each and every one of them in the coming years.

WATER DIVISION II

Carmine LoGuidice
Sheridan

The following annual report submitted for Water Division II is a summary of the individual water administrators and reservoir inspectors within the division. On-line reporting of data by the N.R.C.S. and the Bureau of Reclamation was also used in this report.

GENERAL CONDITIONS

The 2012 water year (W.Y.) began with a 26% reservoir storage capacity carryover in the Tongue River drainage, 77% in the Powder River drainage including Lake DeSmet (40% excluding Lake DeSmet) and 89% of the total storage at Keyhole Reservoir in the Belle Fourche River drainage.

The 2012 W.Y. started off with good reservoir carryover in the Powder/Tongue drainages and exceptional carryover on the Belle Fourche. Winter brought fairly normal snowfall and below normal precipitation, but the temperatures ran above normal all winter and into spring. By January 1, 2012, the snow water equivalent (S.W.E.) for the Powder River drainage was 112% of normal, 145% on the Tongue and the Belle Fourche/Cheyenne drainages were mainly melted out. On April 1 and the start of our irrigation season the high temperatures and below normal precipitation began taking their toll and the Powder River basin had dropped to 87% of normal, 85% on the Tongue and the Belle Fourche/Cheyenne basins were still melted out and 0% of average. About the time our drainages are historically receiving their peak flows, June 1, the high temperatures had really decimated our mountain snowpack despite the month of May precipitation recording slightly above normal in the Powder/Tongue and normal on the Belle Fourche/Cheyenne. S.W.E. had plummeted to 0% on the Powder, 40% on the Tongue and the low elevation Belle Fourche/Cheyenne basins remained at 0% of average. Division II, as was the entire state, was bracing for the possibility of a long, hot and dry summer.

Despite the hot and dry spring conditions all major reservoirs filled in Division II or stored up to a desired capacity. The primary example of this is Lake DeSmet, which filled all of the Piney, Rock, Shell and Box Elder Creek

appropriations and shut down its storage at 209,400 A.F., or 89% of total capacity. The Bureau of Reclamation, in order to control the spillway releases at Keyhole Reservoir, began early spring low level releases. The reservoir was allowed to spill for a brief period of time in May.

The peak flows in Division II were inconsistent as they were influenced by headwater elevations. On the Tongue River basin tributaries from the highest to lowest Big Goose Creek ran 90% of average, Little Goose Creek 80% of average and Wolf Creek 69% with all three peaking the first week of June. The south end of the Big Horn Mountains, the Powder River drainage, saw a much lower discharge with the basin average being only 49% of normal. The measured tributaries yielded only 38% on Clear Creek, 57% on Rock Creek and 53% on Piney Creek. The higher elevation drainages peaked on June 6 and the lower ones peaking on May 27. The Belle Fourche River peaked sometime prior to April 1 when our period of record started and this drainage was totally melted out prior to that date.

As a result of the high spring temperatures and below normal precipitation, there was very little low elevation snow at the start of the irrigation season. Streams in the Tongue River basin went into regulation in mid-May, but came out of regulation by the third week of May as temperatures rose at the higher elevations. Following a brief high water period, calls for regulation resumed by the end of June and continued right through into September. On the Powder River drainage calls for regulation started in early May on French Creek and between the dates of June 29 to July 13 all the remaining creeks went into regulation for the remainder of the summer. The Belle Fourche River basin in Wyoming went into regulation at the end of June and stayed under regulation until mid-September.

Reservoir storage releases began in mid-May on the Piney Creek from Lake DeSmet prior to the advent of our brief high water period. By mid-July all irrigation storage facilities were releasing water. The City of Sheridan began municipal releases from Twin Lakes on August 3rd and the City of Buffalo began their releases from Tie Hack Reservoir on August 27th. By the end of the 2012 W.Y. releases were terminated and storage began for the 2013 W.Y. Reservoir carryover for the Tongue River basin averaged 26% of total storage and 77% for the Powder River basin including Lake DeSmet (40% excluding Lake DeSmet). Keyhole Reservoir had a carryover of 150,576 A.F. or 81% of total capacity.

Our coal bed natural gas (CBNG) reservoir inspection program continued during the 2012 water year and 111 reservoirs were inspected and of those, 46

were approved. Of the 65 reservoirs not approved, 53 of them may require further permitting or construction work to bring them into compliance, and the remaining 12 were not permitted and will require a permit or be breached. We will continue the program into the 2013 water year with our one CBNG reservoir inspector and with additional help from our hydrographers as their time allows.

In addition to the CBNG reservoirs, an additional 1,370 reservoir permits were inspected by Division II hydrographers and the dam inspector. Of those, 1,178 were approved and sent to the Board of Control and the remainder will require some further permitting or construction modifications.

The Safety of Dams program involves the inspection every five years of reservoirs which exceed 20 feet in fill height or 50 A.F. in capacity. Of the 754 dams that fall into this program in Division II, 80 were scheduled for inspection in the 2012 and 76 were inspected.

This past year, 51 Surface Water and 59 Ground Water Final Proof of Appropriations were taken and submitted to the Board of Control for adjudication, along with the endorsement of 1,156 stock reservoir inspections not to be adjudicated, but included in the Tab Book. In addition, 35 petitions reflecting various changes to water rights were acted upon. On-site inspections were performed and proof of ownership, signatures and fees were collected for proofs. In the case of petitions, sometimes it is necessary to hold a public hearing. Two public hearings were scheduled and conducted. The 2 hearings involved 4 docketed petitions and testimony was taken for 3 of the petitions with no protestors showing up for the 4th.

SUMMARY

The 2012 W.Y. started off with great promise weather wise and with good reservoir carryover storage. It became quite obvious as the spring of 2012 progressed that unless we received some timely rains throughout the irrigation season that we would be back to experiencing drought conditions. The dry and warm spring weather was responsible for a short and low run off period. One minor saving grace was that high elevation temperatures were cool enough in May that the last of our snow melt did manage to peak in early June, giving irrigators some sense of normality. Irrigation and municipal storage facilities managed to fill and were heavily used throughout the summer and fall. Irrigated ground was fairly productive and none of the hay crops were affected

by rain after harvest and prior to baling. Our dry land farming regions and pasture lands were not as fortunate as they produced little and stock water became scarce. Another small victory for the producers was that the grasshopper cycle was at a low in most areas so there was limited damage to the already depleted forage supply. Carryover for the 2013 W.Y. is below normal except in the Belle Fourche drainage and our storage supply and pasture lands could sure use a wet winter and spring.

Once again CBM development was stagnant in N.E. Wyoming and we did not experience an increase in related reservoir construction. There has been a bump in the shale oil industry in the Cheyenne River basin and we have seen an increase for the need of temporary drilling water. Should the price of natural gas rise again, I expect to see some new activity in the CBM fields, but in the mean time no longer needed CBM reservoirs are being reclaimed or converted into stock reservoirs where they are needed and where there are naturally occurring surface water sources.

Division II staff remained consistent from previous years except for the departure of Roger Ralph, hydrographer/water commissioner for Districts 1 and 8, who retired on September 28, 2012. Mr. Ralph was an employee of the State Engineer's Office for 32 years and I would like to thank him for his years of dedicated service. I anticipate filling this vacancy this coming spring.

WATER DIVISION III

Loren Smith
Riverton

This report will summarize Water Year 2012 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.

Winter snow pack in the basin was slightly above normal going into March but then precipitation ceased for the year and the stream flow forecasts followed closely behind. Runoff forecasts for the Upper Wind River basin were above 100% of normal until the first of April but by the first of May the forecast had dropped to 44% of normal. The actual realized April through July inflow to Boysen Reservoir was 219,000 acre-feet which is 38% of the long term average inflow. The Eastern side of the Big Horn Basin was really no better with 93% inflow forecasted for Big Horn Lake Reservoir on April 1 but by June 1 that number had dropped to only 47% of normal, with an actual measured inflow of 693,100 acre-feet or 61% of the normal inflow being realized. This was tempered greatly by the Shoshone River drainage where the snows held up surprisingly well with a forecast still holding at 93% of normal by the first of June and an actual inflow measured at 87.4% of normal or 577,000 acre-feet of inflow to Buffalo Bill Reservoir. Precipitation was nearly non-existent the entire irrigation season and as such the drafting of reservoirs, if available was essential to growing a good crop in Division III this past year

Runoff, if you can call it that started about three to four weeks earlier than normal about mid-May across this basin. Flows were never very high and peaks were generally less than half of what was observed in 2011 and the duration of those peaks was very short lived. By mid June the major drainages in the upper basin had already come back down to typical late season levels. With the lack of any measureable precipitation throughout the irrigation season and the warmer temperatures indicated by the average daily means hovering between 0.8 and 5.1 degrees above normal being realized.

Reservoir carry over storage going into WY2012 was rather close to average which should be expected after the heavy runoff year realized in WY2011. Many reservoirs across Division III were not drafted hard or even at all in the fall of 2011 leaving them in good shape heading into the winter months. The major reservoirs on the Wind River drainage all filled to permitted capacity on the limited runoff in the spring of 2012. Bull Lake was a big surprise as it appeared that by June 1 it had about filled as much as it was going to. That week some heavy localized mountain rains occurred in that basin and the reservoir gained another roughly 40,000 acre-feet to fill to capacity. Table 13 below as reported to the Yellowstone Compact Commission includes information on all non-stock use reservoirs in the water division with a permitted capacity greater than 1000 acre-feet. Heavy irrigation demand and minimal direct flow water in the Greybull River drainage resulted in extensive drawdown of the three large reservoirs in this drainage as were most major irrigation reservoirs in the division. Carryover storage going into WY2013 is in far worse shape than we were going into this year and only time will tell whether the snowpack builds to an adequate level to bring these facilities back to normal levels.

TABLE 15 - DIVISION III RESERVOIR STORAGE

Bighorn River Basin						
Reservoir or Lake Name	Pre-Compact (1950) Capacity	Post-Compact (1950) Capacity	Usable Capacity	Usable Contents on Sept. 30, 2012	Usable Contents on Sept. 30, 2011	Change in Contents
Adelaide Reservoir	1,449	3,315	4,770	1,326	2,275	-949
Anchor Reservoir	17,412		9,252	299	396	-97
Bighorn Lake		1,312,000	1,312,000	891,969	1,025,004	-133,035
Boysen Reservoir	757,851		757,851	513,776	691,172	-177,396
Buffalo Bill Reservoir	456,600	187,940	644,540	448,858	482,678	-33,820
Bull Lake	151,951		151,951	73,231	92,967	-19,736
Greybull Valley Reservoir		33,169	33,169	328	9,394	-9,066
Pilot Butte Reservoir	34,600		34,600	13,901	23,537	-9,636
Upper Sunshine Reservoir	52,990		52,990	12,046	51,176	-39,130
Lower Sunshine Reservoir		58,750	58,750	7,496	28,571	-21,075
Christina Reservoir	3,860		3,860	0	3,800	-3,800
Corral Reservoir		1,027	1,027	397	640	-243
Diamond Creek Dike Reservoir		18,378	18,378	330	473	-143
Enterprise Reservoir	1,494	204	1,698	0	40	-40
Fairview Extension Reservoir	791	620	1,411	350	1400	-1,050
Harrington Reservoir	315	887	1,202	300	800	-500
Lake Cameahwait Reservoir		6,683	6,683	4,773	6683	-1,910
Lake Creek Reservoir	1,373		1,373	600	1370	-770
Newton Reservoir	4,525		4,525	715	250	465
Perkins and Kinney Reservoir	1,202		1,202	844	1040	-196
Sage Creek Reservoir	440	2,345	2,785	2,082	2580	-498
Shell Reservoir	1,949		1,949	64	75	-11
Shoshone Lake Reservoir	9,740		9,740	0	70	-70
Teapot Reservoir	1,578		1,578	0	0	0
Tensleep Reservoir	3,509		3,509	3,508	1716.2	1,792
Wiley Reservoir	689	331	1,020	887	632	255
Worthen Meadow Reservoir		1,504	1,504	920	1500	-580

Crop production actually turned out to be a bright spot. The warmer than normal temperatures and the heavy drafting of reservoir storage played a key roles in the producers realizing record or near record crops. Western Sugar in Lovell reported that the lower basin sugar production was at 28.81 tons to the acre in 2012, just shy of last year's record crop of 28.89 tons per acre. The sugar content was averaging 17.62 percent across the lower basin and the long, warm and dry fall enabled the producers to experience a near perfect

harvest season this year. Barley and corn production was down about 8% from 2011 while the drier spring resulted in about 30% increase in dry bean production from the previous year. With the lack of spring rains all crops were irrigated up this year and required continual irrigation through the summer.

As each year tends to be, WY2012 was another unique year when it came down to dealing with the distribution of Wyoming's great asset, water. The table below is a tabulation of the requests for regulation received this past year in division III. Pre-runoff regulation is the norm and is expected in certain drainages. There was no regulation request made on Middle Popo Agie in the Lander area this year as irrigators decided to work together allowing them greater flexibility to move water around to those in need rather than following the strict regulation of the past. The Little Popo Agie Irrigation District finally did call for the release of water from Christina Lake this year which is what typically triggers regulation of that drainage on August 6th. Below (Table 14) is a tabulation of the various regulation requests received in Division III this past year.

TABLE 16- DIVSION III CALLS FOR REGULATION

Regulation requests District Stream System		Tributaries	Date of Call	Calling Party	Action	Response date
13	Gooseberry Creek	Holland	3/29/2012	Marc Nogle	Denied	3-30-12
13	Gooseberry Creek	Holland	4/3/2012	Marc Nogle	Approved	4-3-12
13	Gooseberry Creek	Blake Denton	4/17/2012	Dan Madden	Approved	4-17-12
5	Owl Creek	Kirby	4/19/2012	Matt Brown	Approved	4-20-12
8	Greybull River	Bench Canal	4/20/2012	Ken Caufmann	Approved	4-20-12
5	Cottonwood Creek	Brassington	4/30/2012	Jim Butterfield	Approved	5-1-12
15	Bennett Creek/Little Rocky	Berry	5/3/2012	Jim Cox	Approved	5-4-12
6	D & J Draw	D & J Pumps	5/14/2012	John M. Dillard	Approved	5-14-12
12	Medicine Lodge Creek	George & Bayne	7/30/2012	Martin Mercer	Approved	7-30-12
1	Little Popo Agie River	Christina Lake Storage	8/6/2012	Daryl Van Vleet	Approved	8-6-12
12	Paint Rock Creek	Go Ahead, Luman & Allen & Military	9/5/2012	Tom Shirran	Approved	9-5-12
12	Medicine Lodge Creek	George & Bayne	9/30/2012	Martin Mercer	Approved	10-1-12

ACCOMPLISHMENTS:

The normal Board of Control duties that are completed in accordance with statute and rule take a large amount of time throughout any water year whether it is wet or not. Preparation for and attendance of the four quarterly Board of Control meetings during the past year where some 28 surface water petitions and 12 groundwater petitions were disposed of in some manner takes a minimum of about 8 weeks of the year. Division III staff has worked extremely diligently over the past year to complete proof inspections across the division. I presented 175 surface water permits for adjudication, 15 ground water permits were adjudicated and 94 stock reservoirs were presented for recordation as built within the terms of the permit to the Board. This hard work is in an effort by the entire division staff to achieve the highest numbers possible toward compliance with the Agency Strategic planning goals and the overall reduction of backlog proofs which have been in the field for inspection for quite some time. At the end of the water year the proof inventory for Division III stood at 156 total proof inspections on hand, 124 of these have a date of acceptance older than 3 years. This, when compared to one year ago when our inventory held 340 total inspections and at our peak when we had over 1000 inspections in our backlog shows a substantial improvement. Keeping up with the new inspections that endlessly stream into our inventory while chipping away at the backlog has been a division goal for the last few years and the division staff have all worked hard on succeeding in pursuit of this goal. Proofs for Instream flow permits will continue to take an exorbitant amount of time and effort to complete and these are making up a large portion of the inspections remaining in our backlog files.

Technologic advances continue to fall into my work flow. As the primary lead on the implementation of our new records computation software, centralized database for stream/canal flow data and the serving up of that data to the World Wide Web, I have spent a major portion of my time and effort on keeping this project headed in the right direction. This whole package of moving our gaging program statewide, toward a consistent system of data collection, transmission, storage and reduction has been a learning experience, but a challenge I have relish. Every year brings new challenges and it is hoped that our efforts to produce quality credible data which are consistent with the data produced by the USGS continues to succeed. This fall the USGS announced that they will be replacing their standard records computation software with the same software we have implemented and have been using since 2008, hopefully bringing our two final products even that much more in line. Moving into the future I see this program continuing with an effort to bring all of the non-recorded data, collected by the field staff into a centralized database

system as well. Division III has worked along these lines since I came to the division in 2003 but there is a renewed effort to bring the other divisions into line with searchable, secure database storage of their non-recorded data.

Just when it seemed that the Big Horn River Issues group and the Bureau of Reclamation (Burec) had made solid and acceptable progress with regard to the operation of Big Horn Reservoir, new interests came to the table in 2012 in response to the extremely high flows below Yellowtail dam during WY2011. Those high flows were the combination of releases from Big Horn Lake Reservoir and huge contributions from downstream tributaries following a phenomenal 100 year rain event in May of 2011.

About mid May 2011 the BOR received orders from the US Army Corps of Engineers to reduce releases significantly from Yellowtail to aid the flood fighting downstream. During the 10 days that followed those outflow reductions, Big Horn Reservoir increased nearly 25 feet in elevation forcing the reservoir into exclusive flood pool which in turn forced increased releases. Outside of this unique event the rule curves and operating plan that has been developed over the last 5-6 years has proven to be an excellent tool. The operating plan as developed doesn't make any one interest a higher priority than any other and the ability to predict future release levels and lake levels are leading to a higher certainty of satisfying the competing interests on both the river system and the lake levels. The late entry by this new vocal group of downstream users and residents who seem to be reacting to a highly uncommon event has disrupted what seemed to be a good win – win solution. Time will tell if this group can muster the necessary voice to change what has been working so well in the short term.

I continually find myself writing this report looking forward to the end of the General Adjudication. One of these years I hope to be able to say it is over, but not this year. This year saw the district court's decision regarding the adjudication of the Glen Foe Reservoir and supply permits handed down. This decision upheld the recommendation of the superintendent to adjudicate these water rights which had been overturned by the State Engineer through the submission of a recommendation to cancel the associated permits. Permit 1694E Taylor extension of the Dutch Flat Ditch near Lander has once again been re-advertised and reported to the Special Master for final disposition. This latest cycle of advertising has resulted in four new objections to the State's recommendations and early next year I will be scheduling field visits with each of the objectors in an effort to settle their objections prior to going to hearings. Permit 1694E is the last permit active in Phase III of the General Adjudication.

The field staff of Division III continued to work on staying current with dam safety inspections and the snow survey program this year. In conjunction with their other duties and their work on the reduction of the proof backlog, division staff has completed all required dam safety inspections and snow surveys this past year. Fall meetings with the NRCS have led to a change in the snow survey program for the Wind River basin in that the Division III staff will be charged with the taking the lead role in this project. After many years of service the veteran surveyor for the NRCS, Jeff Vanuga is retiring leaving our trained personnel in charge of the monthly surveys beginning in January 2013.

After five years of work on the NRCS water rights verification forms there appears to be no lack of projects being proposed for funding through the NRCS programs. These forms are used to verify that all lands under a cost share project being considered for funding are adequately covered so as to not leave or create conflict water rights or unpermitted water use on project lands. These reviews each take a lot of staff time to research and complete, but they do serve well to advise appropriators where the deficiencies are prior to them becoming a problem.

The Montana v. Wyoming lawsuit before the U.S. Supreme Court continues into its fifth year. To date this case has not taken much time or effort on the part of this superintendent and the field staff of division III. We are looking at the deposition schedules as the water year draws to a close and it appears that more time will be spent on this issue in the future.

AREA HIGHLIGHTS:

WY 2012 was declared an accounting year in May by the Burec in Mills on the Wind River and Big Horn River system above Worland. This declaration sets the stage for a busy year. Our accounting system is run every year but on an official "accounting year" it becomes much more involved and important as much of the water being ordered and used by the appropriators along the Wind River and Big Horn River is being purchased from the Burec storage accounts. Accuracy and communication is key to making this all work for everyone involved. After a couple of very wet, non-accounting years there was a lot of re-educating of canal managers, and water users necessary as it seemed everyone forgot how this all works on a dry year. Accounting has played an important role as well in the summation of the diversion amounts utilized by not just the non-Tribal canals but also the Tribal canals. In the early spring the City of Riverton noticed the town residents that due to the drought and that "we the

State" were going to shut off their water there would be strict rationing this whole year. This was all based on mis-information being spread as gospel and no one involved with the City calling or walking across the street to ask us if there was any truth to the rumor. All of this caused considerable consternation, stress and anxiety in many irrigators, and city resident until we could assemble the necessary people to have a meeting to properly explain the facts and possible scenarios easing these tensions and concerns. This fall at our request the Tribes ceased diversion into the Johnstown Canal near Kinnear because our accounting system indicated that this facility had significantly exceeded their awarded annual allocation of water. One other Tribal ditch had also exceeded their allotment but since this was the first year they had actually been accurately gaged and accounted we decided it best to utilize this information as an educational tool in an effort to prevent future over diversion by this smaller facility.

The Greybull River system was very hard hit by the drought this year. The Greybull Valley Irrigation District (GVID) nearly depleted their reservoir storage in an effort to produce their crops this year. The accounting and leveling system that has historically been utilized on this river system was really put to the test this year after the long term manager of GVID left their employ midseason. The new manager came in and immediately began changing how he utilized the leveling system which in turn left our hydrographers scrambling for water due to shortages in certain stretches of the system. Long days and many miles were spent by this superintendent and the field staff in gaining a deeper understanding of the program intricacies as well as efforts to better quantify flow levels, reservoir levels and releases to assist the district in fair distribution of the storage water and the direct flow availability. By the end of the season things seemed to have settled down quite a bit but work remains in preparation for next year. Next season will mark the maiden voyage for the impressive new diversion structure built as a WWDC project on the Sunshine Canal which feeds Upper and Lower Sunshine Reservoirs from the Greybull River. This is a gorgeous new automated diversion structure and hopefully it will operate as good as it looks.

The Shoshone drainage was blessed with its fifth good water year in a row. The northeastern boundary area of Yellowstone received very normal snowpack and early season precipitation this year. Historically on the South Fork of the Shoshone the irrigators have had an understanding of the water rights and who had prior rights. With this information they have generally been somewhat self regulated during times of shortage. From the sounds of some post irrigation season complaints it appears this old arrangement may be in

jeopardy and State regulation of this system may be necessary in the near future to prevent conflicts.

While further to the north in the Clark's Fork River drainage only minimal regulation was necessary this year on the small tributary drainages where we generally see early season administration. Once runoff began this administration was unnecessary and these drainages did not return to administration late in the year. The lack of administration did free up valuable field time for the completion of numerous proof inspections in this area during the irrigation season.

The Nowood River and Ten Sleep Creek got by on what water was available and I believe the shear presence of a qualified hydrographer in these areas goes a long way to promote better usage of the limited supply. No call for regulation was received on these mainstem systems but the tributaries Medicine Lodge Creek and Paint Rock Creek both did go into regulation during the season. The increased gaging efforts undertaken over the last few years by this division really pay off dividends on these dry years as we are much better equipped to monitor, advise and assist the appropriators with their questions as well as our administrative duties.

Frequent trips to the Shell Creek drainage this year were necessary on a couple of different fronts. Shell Reservoir and Adelaide Reservoir were outfitted in the fall of 2011 with transmitting gages on reservoir elevation and outflows. Work was necessary in getting this equipment up and running properly after the forest fires of September 2011 in the area. A couple meetings were attended in Shell with the board for the Shell Irrigation District and McDonald Ditch Company as they wrestled with what they believe are some inequities within their system in dealing with the bentonite mining companies and the water rights associated with their properties. Industrial use is not currently permitted but one of the companies owns a large tract of land permitted for irrigation that they are considering changing the permitted use for, to industrial. The District is not real clear as to how this may affect them or their assessments so more work will be needed before this issue is cleared up. Highline Ditch Company on Trapper Creek is planning on a large scale construction project this coming winter to convert their open ditch to a buried pipeline system. Multiple meetings were attended with this company to assist with the cleanup of acres within the Shell townsite which have duplicate original supply conflicting water rights. Much progress was made along this route and hopefully these issues can be cleared up soon. With all of this going on it was nice that Shell Creek basin had a near normal snowpack and no regulation was necessary this year.

The Owl Creek drainage in district 5 was especially hard hit by the drought this year. Regulation was called for just about the time the ice disappeared from the channel. The mid April call lasted essentially throughout the entire year and Anchor Reservoir only stored about 560 acre-feet at its peak. By the end of July the system was out of water and a request came in from nearly all appropriators on that system asking that a declaration of stock use only be issued for that drainage. I issued a response denying that request on August 2nd basically due to the fact that there was only a couple of CFS of water making it to the highway below Anchor Reservoir and that water was disappearing a short distance below that. I did say that if conditions improved due to precipitation that I would continue to scrutinize the request. In October I was actually able to grant the request after a rain/snow event and water was pushed past all diversions to the bottom of the system.

Turnover again is affecting Water Division III. After a year of no turnover in 2011, Division III is faced with the departure of a good qualified hardworking hydrographer. Every biennium that I have been in the position of superintendent, I have requested additional staffing to convert our part time positions into full time positions. The workload is there and it is real. The continual turnover we see as people move on to full time work is placing a huge burden on the staff of other divisions that are constantly in training mode and forced to neglect other assigned duties. We are never out of this training cycle. As has happened before, we spend a couple of years educating, training and spending valuable resources getting someone to the point they can confidently do their job and they leave to greener pastures and full-time employment. In this last budget session we had asked for the money to support the conversion of one of our part time positions to full time. This position is already equipped with vehicle, computer, office space and all of the tools necessary to do the job except for the monies to cover about 5 months of salary and benefits. Once again we were left without by the legislature and another quality trained employee has moved on to the USGS. We will once again embark into the expensive process of advertising, hiring and training another person to fill this slot and the appropriators will embark on their own process of learning to trust another new water administrator.

SUMMARY:

One of the hardest things about a wet year is when an extremely dry year follows it. WY2012 followed two very wet years and it is always amazing how

short the memory can be for some people. The early education and quelling of rumors took time but it was time well spent. Once we got into the season and worked frequently with the managers and irrigators involved things smoothed out considerably and we felt like we were quite successful in our administration. There are a few issues on the horizon which are new or coming out now because of the changing of land ownership and or managers. It appears that State regulation may become more prevalent in the South Fork Shoshone drainage in the future. Operation and regulation of rights in the Enterprise system south of Lander is changing every year and becoming more and more of an issue. Increased measurement and accuracy of data is leading us into the joint administration scenario that was envisioned in the settlement of the Big Horn lawsuit between the State and the Tribes. 2012 found us with a new area manager with the BOR in Mills and we got a new manager for Greybull Valley ID in the middle of the season. This next year there will be someone new at the helm of Midvale ID and at LeClair ID and with all of these changes the education process is never over. Another big change was the retirement of Randy Tullis as Division I superintendent, Randy's wisdom and calming demeanor will be greatly missed on the Board but I am confident that Mr. Pugsley will be a valuable member of the Board of Control into the future. My staff again has done yeomen's work in keeping their specific areas under control and they are to be commended for those efforts. From Dave in Worland and Jan in the Riverton office to everyone in Cheyenne it is always a pleasure to come to work every day. Thank you!

WATER DIVISION IV

Jade Henderson
Cokeville

This annual report is a summary of Water Year 2012 as experienced in the drainages of Wyoming's Green, Snake, and Bear Rivers located west of the Continental Divide that includes its westerly Red Desert Basin. 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 summaries published in the Hydrographers' Annual Report. (The Little Snake drainage, although part of the Green [Colorado River] basin, is administered under Water Division I which includes the easterly Separation / Soldier / Dry Lakes portion of the Great Divide Basin.) Separate reports include more complete information on interstate streams, Board of Control, Safety of Dams, and the co-operative programs of streamgaging and snow surveys.

GENERAL CONDITIONS

After a 4-year reversal from the severe drought of 2000-2007, this year was a complete relapse. Minimal snowpack and very little rain caused streamflow peaks to also be minimal. Water Year discharge on Bear River was in the low-to-mid 60s percentile, with regulation depths similar but earlier in the upper Bear than in 2003; not quite as early as 2007 in Star Valley and Henry's Fork, nor quite as severe as parts of the 8-year drought in Big Piney & Cokeville, but worse on Black's Fork. Desperate irrigation demands heavily drafted high carryover of stored water.

With continued resistance from all members of the Board of Control over expanding historical demand periods, a redrafted legislative water law proposal is proceeding for late-summer leasing of senior irrigation rights for temporary instream flows. The Board dismissed protests against 17 reduced Instream Flow proofs in Bear River's Smith's Fork drainage with Summary Judgment for statutory lack of water-right standing by Lincoln County Commission, Lincoln Conservation District, and Cokeville Development Company. Proof inventory tracking in Division IV has been completely converted to e-Permit for the Strategic Plan and PMI goals. Although we also reemphasized proof-taking during and after our own Division School this spring, the early stream regulation of water shortages moved proof inspections to a lower urgency for

the field staff, even behind finishing flow and reservoir telemetry installations and web-posting. Proof inspections by the Superintendent were increased, correlated with neighboring petitions. Aside from extra hours of the Superintendent, the workload of the helpful Assistant Superintendent was too large; his attention is shifting, though, to other backlogs as overtime-paid Lead Hydrographers and their staffs are expected to pick up more responsibility on increased telemetry. With PMIs, the lead staff focused and invited field input on a 3-point Mission statement for Water Division IV.

GREEN RIVER

Upgrades and new installations for telemetry's real-time data on remote reservoirs and flows are still progressing, as finishing in the Green (Colorado) River drainage cut again into time available for proofs by the assisting staff. Additions of two-way radio "automation" (remote control adjustments) at headgates have increased the interest from appropriators. Termination on October 1 of our stopgap website under extended contract with BuRec/StoneFly revived complaints from last year's frustration as our agency's IT group now migrates the Green River telemetry data-posting to our own Statewide SEOflow. After winter correspondence, in June we successfully swooped-in and quickly installed time-saving telemetry on the accurate new measuring device of the South Piney Canal without being halted, and without the damage later alleged, by the troublesome minority co-owner who thought I would not go check the complaint. Field staff installed the new automation-adjustable headgates on Cottonwood Canal in Green River Irrigation District. Hookup questions have been asked by the Surface Water Section of the new buyer for Green River Guest Ranch north or Cora before permitting the previous owner's enlargement application for unpermitted points of use on Middle Butte Pipeline, which have been shut-off upon complaint of co-owner Buffalo Head Springs Subdivision. Wildfire destroyed our Middle Piney Creek streamgage, and A&I's Risk Management insurance refused to cover it because we did not "risk" life & limb to predict the fire's progression, violate access restrictions, cease reliance on our remote telemetry, and retrieve it. Several "Notices of Violation" were issued to owners in the upper & lower Green basin for opened headgates that were regulated and tagged (also in Cokeville for repeat over-diversion during regulation). Several streams had unusual requests for end-of-season declarations for "instream stock use only." The Lead Hydrographer in Lyman was spread thin regulating Black's Fork for his full-time Hydrographer who was limited to helpful assistance in the office for most of the season; there the available water never exceeded half of the 1903

priority, and sunk to perhaps a record depth of 1889. Deep regulation even during runoff escalated a once minor abuse by Bridger Valley Water Conservancy District's counting reservoir spills toward fulfilling storage orders, without later making-up with storage release their draft on natural flow taken by project users.

Again, Berman's misguided Utah legal action did not attempt this year to get Wyoming to inappropriately shepherd their release of out-of-priority second-fill storage in Utah's China Lake Reservoir to their Wyoming diversions. After we won a decision from the Utah Supreme Court on his appeal, he re-filed back at the Utah district court for an injunction against Wyoming field administrators. We declined new out-of-state subpoenas on this finished case, and Berman did not comply with the court's direction to provide us a phone number for the court's Telephone Status Conference. The attempt to construe his straddling of the state line as being exempt from regulation by either state has essentially resulted in his now being subject to both.

Utah has not delineated the remaining sole-supply acreages of their own over-filings in the rest of the compacted Henry's Fork drainage. They are also reluctant to respond to our inquiries of avoiding the adjudication of newer Wyoming proofs over duplicate or overlapping Utah water rights. Utah has been supportive of telemetry on real-time flow data in this shared drainage under a joint water commissioner who is to regulate from a yet-to-be approved interstate priority schedule that does not double-list. Instead of allowing transfer of Wyoming's Peoples Canal rights inundated by Utah's 1958 Flaming Gorge Reservoir, the Board of Control will entertain a new proof for the same number of acres under that 1899 priority of lands irrigated in lieu thereof.

We continue to educate Eden Valley Irrigation & Drainage District and its members against allowing new pivot-sprinkler installations without verification from our office that they are not short on water rights or historical use. We also keep reminding the Bureau of Reclamation that their overdue project-wide petition to amend from squares to circles would help inventory a balance of available project acres. After presenting to a legislative committee, the Surface Water Section administrator and this Superintendent met with BuRec and USF&W on Seedskadee NWR questions about recording their uses (including pond permitting versus existing irrigation rights), temporary uses, and diversions under the balance of their unperfected permit.

SNAKE RIVER

Federal employees' interpretation of Wild & Scenic designations is encroaching on pre-existing water-righted diversions and rights to maintain headgates and side-channel deliveries to headgates. Grand Teton National Park mischaracterizes "dewatering" in some highly-visible channels of the lower Gros Ventre River, blaming over-diversion by upstream irrigation rights rather than the more significant natural and documented channel losses of 1/3rd to 2/5ths of the de-sedimented low flow through this deep-cobble reach between the 2 historic streamgages. USF&W's "Partners for Fish and Wildlife" program wants to consult to avoid triggering our requirements to permit enlargement of a ditch, when widening and deepening with new outlet control would suggest ponding use and consumption beyond growing-season irrigation. Proofs, diversion data, and reconnaissance for proper permitting and petitions all continue their increase in District 16. Idaho and Wyoming met and began drafting an interstate agreement for closing loopholes in the procedures for regulating and permitting/petitioning across the state line on the west slope of the Tetons. Though Teton Creek fell below the 90-cfs interstate Roxana Decree trigger, Wyoming demands were again less than our full half, so no curtailment was imposed.

Private-sector civil law violations sometimes request us to preempt where we don't have authority, instead of civil court which does (especially when a water right permit issued from our agency can be misconstrued as permission to infringe on another's property rights, or implicated to involve executive-branch government as judge between opposing civil claims). Lincoln Emergency Management has not succeeded in bringing together the affected parties competing between Kirkbride Ditch and the lower-elevation Boxes Reservoir on flooding. A non-shortage discharge struggle continues at Auburn's Sulfur Springs from unused and deteriorating hot artesian wells that happen to have permits from a previous owner's careless development. Without shortage or water regulation to give us jurisdiction, we declined participating in an Afton police arrest for adjusting others' headgates, burning ditch-bank grass, and trespass.

BEAR RIVER

Interstate regulation was imposed this summer only in this compacted river's Central Division, and there we participated with downstream Idaho's proficient River Commissioner in a short period of unprecedented co-operation. That

delayed formal regulation for more proactive sharing, plus produced a whole season's full accounting that shows none of the once-claimed losses in the Idaho reach. In the Upper Division, more flexibility is regularly found through unofficial general co-operation with Compact allocations (sometimes imposing State priorities) instead of formal interstate Compact regulation. The different states are thus able to trade their respective surpluses with the timing of actual demands, and without having late storage halted by official interstate regulation for irrigation. Since Bear Lake stayed above the base line 5911' elevation this year, upstream junior storage was allowed to fill; and even Amended Compact shareholder accounts in Sulphur Creek Reservoir were made whole without needing allocation transfers from carryover and un-built storage. Interesting permitting complications are being wrestled for the as-built Bear River Joint Powers Board extension of Evanston Pipeline and Ellis enlargement of Francis Lee Canal. The remote Whitney Reservoir Company's outflow sensor still needs repair to show the amount of their release without the long trip into the Uintas by the Water Commissioner to verify. Another Safety of Dams leak is being monitored with a drain line, this time at Heber/Broadbent Reservoir, also south of Evanston.

Our letter instructing additional water right filings by USF&W (Cokeville Meadows Refuge) has resulted in both agreement on some and reconsideration on other enhancement projects, to assure compliance with our joint Memorandum of Understanding and no unpermitted expansion of consumption for non-irrigation impoundments. We are close to presenting flow data obtained on WG&F Instream Flow proofs from the Smith's Fork drainage without extra funding for the difficult winter and spring periods when access is sometimes prohibitive. The measuring device for Pixley West Ditch was changed from a successful Ramp flume to a SonTek Argonaut sensor.

SUMMARY

Proof-reading has been delayed for an updated (statutory) Tabulation Book from the agency's comprehensive e-Permit database, where correcting mistakes on water-right source and status is more important now that some of the scanned Certificates and maps are not as readily available from the discontinued Old Water Rights Database. Hopes to publish the Hydrographers' Annual Report from the Aquarius streamgage reduction software have been scaled-back, particularly for spot-check diversion data; and with A&I's ETS takeover of our agency's Sequel & CrystalReports staff, our data-housing and publication may now have to be redesigned and streamlined to create spot-

check reports from 2 Water Divisions' Access database. The Aquarius software for our continuous records is still in transition for linking real-time data web-posting to SEOflow as we re-learn each year's sophisticated upgrades in its stand-alone licensing.

At the end of an overstressed year when anticipating use of some use-it-or-lose-it earned Annual Leave, we are faced with assignments and timelines from A&I that are costly for efficient statutorily at-will water law administration and morale: Un-updated inventory lists for Risk Management's location of fixed assets; denial of windshield coverage for waiting until seasonal down-time to travel and repair; ETS preemption of agency insight over our computer applications; continuing back-and-forth between at-will employees & supervisors and HR over regressive adjustments and grade-deflation as the norm in the new PMI evaluation program (yet time spent in measurable goal-setting was helpful to establish deadlines and focus performance).

It was a tough year for the field staff, both from water and bureaucratic constrictions. A motivated and ambitious team is critical and valued as we look at challenges and opportunities for protecting the rule of law in water rights. We have gifted staff; and expectations of integrity, work ethic, and attention to accuracy and follow-through in our Mission are important values for State government'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, and firms 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 and business entities. It is the Boards goal to reduce the backlog of enforcement cases, and enhance the website by ensuring information is relevant and current.

MAJOR ACCOMPLISHMENTS

The Board was successful in offering online renewals for the convenience of its registrants.

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 two investigators 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.

TABLE 17 - PE/LS REGISTRATIONS

SUMMARY OF REGISTRANTS AS OF SEPTEMBER 30, 2012				
		RESIDENT	NON-RESIDENT	TOTAL
PROFESSIONAL ENGINEER	INDIVIDUAL	1,133	4,918	6,051
	CORPORATION	90	557	647
	TOTAL	1,223	5,475	6,698
PROFESSIONAL LAND SURVEYOR	INDIVIDUAL	127	188	315
	CORPORATION	17	15	32
	TOTAL	144	203	347
PROFESSIONAL ENGINEER & LAND SURVEYOR	INDIVIDUAL	65	34	99
	CORPORATION	38	35	73
	TOTAL	101	69	172
ENGINEER-IN-TRAINING		1,516	914	2,430
LAND SURVEYOR-IN-TRAINING		69	16	85
TOTAL		3,055	6,677	9,732

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.

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

Lynn Ritter
Executive Director
Riverton

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.

MISSION

Since the 2008 Legislature passed HB0055, Water Well Drilling and Pump Installation Licensure, which requires mandatory licensing of water well drilling contractors and water well pump installation contractors, the Board's role is now one of administering a mandatory license program. The purpose of the licensing 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 authorized to suspend or revoke the license of water well contractors that fail to meet established standards of the profession. Additionally, licensing protects the ground water resources of the state and promotes excellence in water well drilling and pump installation practices.

APPLICABLE STATUTES

The statutes governing the mandatory licensing program can be found in Title 33 – Professions and Occupations, Chapter 42 – Water Well Drilling Contractors and Water Well Pump Installation Contractors, W.S. §33-42-101 through W.S. §33-42-117.

LICENSING

In WY10-11 there were fourteen (14) new licenses issued from October 10 to September 30, 2011. To date there are a total of 287 license holders to include: 89 Well Drilling Contractors (WD), 90 Pump Installation Contractors (PI) and 108 with both a Well Drilling and Pump Installation Contractors (WDPI) license.

ACCOMPLISHMENTS

- Adopted new Rules and Regulations.
- Updated Licensing Software.
- Updated Board Website.
- Issued 23 new licenses.
- Renewed 83 licenses out of 103 renewals.
- Drafted and submitted Annual Report WY 10-11.
- Docketed 12 complaints; investigated 10, finalized and cleared 3.
- Recorded 24 incident reports; noting non-verified public complaints.
- Performed approximately 35 public well inspections.
- Attended Wyoming Water Well Association Convention – met with other licensed contractors, gave presentation, attended educational classes offered.
- Attended SEDC Convention – met with other state regulators, attended educational classes offered.
- Worked closely with Wyoming Water Well Association – attended 5 Board Meetings, helped establish and attended educational classes throughout the state.
- Met with Senators to promote statute changes for upcoming legislative session.
- Wrote 2 Exception requests for permanent Executive Director Position and for a Board Vehicle.
- Worked closely with State Engineer's Office enforcing compliance with state minimum construction standards via sending 47 Advisory Letters to Contractors.

BUDGET

The State Engineer's Office according to statutory provision, W.S. §9-1-904(b) deposits an amount not to exceed $25 from each domestic, stock, irrigation, municipal, industrial, and miscellaneous well permit application fee into an account created under W.S. §33-42-116 for wells which require the use of a licensed well driller pursuant to W.S. §33-42-103. New license fees, license renewals and miscellaneous fees collected added to the revenue from permit fees comprise the boards budget.

TABLE 18 – WELL DRILLERS REVENUE

Permit fees collected	$76,738.00
Renewal license fees collected	$21,225.00
New license fees collected	$9,250.00

The State Board of Examining Water Well Drilling Contractors and Water Well Pump Installation Contractors currently struggles with having an adequate budget that will support a permanent full time executive director, a contract inspector, a state issued vehicle, and reimbursement for; travel to meetings, educational classes, and most importantly public inspections.

Increasing the permit fees for wells and depositing up to $75.00 per permit in the Water Well Contractors Account, would provide the necessary funding needed to operate and manage the Board. Likewise, increasing license and exam fees will help to increase revenue to support current inadequacies.

GOALS AND KEY INITIATIVES

Goal # 1: Make changes to Wyoming State Statutes applicable to the Board. W.S. §33-42-101 through W.S. §33-42-117.

Key Initiatives:

1. Re-define water well drilling contractor.
2. Re-define water well pump installation contractor.

3. Increase amount deposited into Board Account from the State Engineer's Permit fees. W.S. §9-1-904(b)
4. Increase amount of license fees.

Goal # 2: Make changes to Rules and Regulations.

Key Initiatives:

1. Re-define water well drilling contractor.
2. Re-define water well pump installation contractor.
3. Define the following; equipping, rehabilitating, maintaining,
4. Re-define Chapter 7 – CPC credits.
5. Increase exam fees to include new general and specific exams established and required by the board for licensure.

Goal # 3: Increase Budget and Board Revenue.

Key Initiatives

1. Increase budget by increasing amount deposited into Board Account from the State Engineer's Permit fees. W.S. §9-1-904(b)
2. Increase license fees from $200 per license for a 3 year period to an amount established and acceptable to the Board Members.
3. Increase Exam fees.
4. Continue to enforce license laws and increase the number of licensed contractors.
5. Send out license renewals and work closely with licensed contractors to support license renewal.

Goal # 4: Regulate compliance with State Minimum Construction Standards.

Key Initiatives:

1. Work closely with the State Engineer's Office to establish forms required to be filled out and sent to state from water well drilling contractors.
2. Work closely with the State Engineer's Office to establish forms required to be filled out and sent to state from water well pump installation contractors.

3. Continue to educate licensed contractors on compliance with minimum construction standards by sending advisory letters.
4. Meet with and establish a good working rapport with licensed contractors while attending continuing education classes.
5. Continue to work closely with State Engineer's Office in requiring compliance with current Rules and Regulations, Statutes, and Minimum Construction Standards.
6. Help to educate the public about required rules and standards.

Goal # 5: Establish Staff Positions.

Key Initiatives

1. Establish Executive Director Employee position as a permanent state employee position.
2. Hire contract inspector.

Goal # 6: Establish Public Support.

Key Initiatives

1. Continue to perform well and pump inspections for the public.
2. Review public complaints for license violations.
3. Investigate public complaints.
4. Work closely with Board Members and Prosecuting Attorney General on docketed public complaints.

Goal # 7: Create and Submit Annual Report.

Key Initiatives

1. Review, evaluate, and update previous year's goals and initiatives, and create new ones for coming year.
2. List Accomplishments.
3. List on-going and new goals.

BOARD MEETINGS

In WY-12, the Board met three times as a quorum. Additional meetings were needed to assist in development of the proposed State Statute and Rules and Regulation changes.

- January 25, 2012, Casper, Wyoming
- March 30, 2012, Casper, Wyoming
- August 30, 2012, Casper, Wyoming

LEGAL ACTIVITIES

Christopher M. Brown
Senior Assistant Attorney General

NORTH PLATTE RIVER

In early 2012, the U.S. Supreme Court granted Wyoming, Nebraska, and the United States' joint motion to amend the Modified Decree to establish two separate limitations for intentionally irrigated acreage.

Throughout the rest of the year, the Attorney General's Office continued to advise the State Engineer's Office and the Water Development Commission on issues related to the river, including compliance with the Modified Decree's requirements on Wyoming that were triggered by the completion of the Pathfinder Modification Project.

COLORADO RIVER

Litigation between the Grand Canyon Trust and the United States continued in 2012 in the U.S. Court of Appeals for the Ninth Circuit. Wyoming was an intervening party, along with the other six Colorado River Basin states and several other public entities. The Grand Canyon Trust argued in the District Court that that the Bureau of Reclamation is violating various federal statutes and rules by the manner in which it releases water from Glen Canyon Dam. Last year, the District Court granted summary judgment to the United States on the Trust's claims. The Trust appealed to the United States Court of Appeals for the Ninth Circuit, which, on August 13, 2012, dismissed part of the appeal as moot and affirmed the remainder of the District Court's decision.

The United States Department of the Interior, together with the International Boundary Waters Commission, continued to engage in negotiations with the Republic of Mexico with regard to Mexico potentially participating with the Colorado River Basin States in water shortages and surpluses. Together with attorneys who represent the other six Colorado River Basin states and other stakeholders, the Attorney General's Office monitored the negotiations and advised the State Engineer on legal issues related to those negotiations.

The State Engineer's Office engaged in discussions with representatives from the other three Upper Colorado River Division States with regard to examination and development of Colorado River Compact compliance strategies in light of continuing drought conditions and increasing water demand. The Attorney General's Office worked with the State Engineer's Office and its counterparts in the other states to develop a framework through which such activities can take place.

The Million Resource Conservation Group has previously sought a permit from the State Engineer to allow construction of diversion structures on the Green River near Green River, Wyoming, to serve a pipeline that would transport the water across the continental divide to eastern Wyoming and communities along the Colorado Front Range. A permit application previously made by the Group to the Army Corps of Engineers was abandoned, and a similar application was initiated with the Federal Energy Regulatory Commission by WYCO Water and Power, Inc., referencing a new power generation element to the proposed project. The Attorney General's Office closely tracked the new filing and advised the Governor's office and the Wyoming Game & Fish Department regarding water issues. On February 23, 2012, FERC dismissed the application as premature.

YELLOWSTONE RIVER COMPACT

In early 2007, Montana sued Wyoming in the United States Supreme Court alleging violations of the Yellowstone River Compact within the Tongue and Powder River basins, and the Court later appointed a special master to preside over the case. On February 3, 2009, the Special Master heard arguments on Wyoming's Motion to Dismiss Montana's claims. After that hearing, the Special Master submitted a First Interim Report to the Court where he generally recommended that the Court deny Wyoming's motion, but supported Wyoming's position on a key issue. He determined that Wyoming water users in the Tongue and Powder River basins with water rights established before 1950 were not required to limit their consumptive water use to quantities that were consumed on their lands as of 1950. Thus, Wyoming irrigators could improve their irrigation methods to result in higher crop uptake without violating the Compact. In 2010, Montana filed a bill of exceptions with the United States Supreme Court on this issue, and on May 2, 2011, the Justices, in a 7-1 decision, agreed with Wyoming's position and the Special Master's Interim Report, and denied Montana's exception.

After the Supreme Court's decision, the Special Master proceeded to address other preliminary legal matters. These included the Special Master's finding that Montana needs to notify Wyoming when Montana's pre-1950 water rights are not being satisfied, and that Montana's bill of complaint only adequately pled the allegation that Wyoming has denied water needed for pre-1950 rights in Montana. As a result of the notification requirement, the Special Master limited Montana to nine years for which it could seek to assert Compact violations. During the 2012 water year, both states engaged in significant discovery related to the remaining issues in the case. Trial is currently scheduled for the Fall of 2013.

INTRASTATE LEGAL MATTERS

This office defended a suit against the State Engineer which challenged his decision to extend two surface water permits for the construction of a reservoir on the Middle Fork of the Powder River. This District Court has currently stayed this suit.

The Niobrara Shale Gas Play in southeastern Wyoming raised legal issues involving the change of use of water rights from agricultural or municipal use to industrial use for well fracking operations. Additionally, the Play raised issues related to new applications for ground water within control areas for the purpose of selling water for oil and gas development. The Attorney General's Office represented the State Engineer's Office regarding applications requesting groundwater use for oil and gas development purposes within the Laramie County Control Area. The State Engineer granted such applications in part, either following a contested case hearing or through a stipulated order. Additionally, the Attorney General's Office advised the State Engineer with regard to the Temporary Order Adopting Well Spacing Requirements Within the Laramie County Control Area adopted on April 11, 2012.

During the irrigation season, the State Engineer reversed a Water Commissioner's failure to regulate groundwater wells in priority with interconnected surface rights pursuant to Wyo. Stat. Ann. § 41-3-916. The groundwater users filed a petition for judicial review with the district court asserting that the State Engineer should have upheld the Commissioner's decision not to regulate their wells because such regulation would have been futile. The Attorney General's Office advised the State Engineer with regard to his initial decision and now provides representation in the district court action.

A surface water user in Division I appealed from an order of the Division Superintendant to the State Engineer regarding the proper location of a ditch point of diversion. Because other water users would be affected by a determination that the ditch in question is currently diverting water from the wrong location, the State Engineer's Office provided notice of the appeal and the ability to participate in the contested case hearing. The Attorney General's Office advised the State Engineer's Office regarding the appeal and will continue to provide advice during the contested case process.

The State Engineer's Office, Groundwater Division, has been working to draft amendments to the State Engineer's groundwater rules and regulations. The Attorney General's Office provided advice and comments related to the draft language and continues to aid in that process.

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 special master who is hearing objections on behalf of the District Court of the Fifth Judicial District. In the 2012 water year, there were several objections to the State Engineer's recommendations regarding the adjudication of state permitted water rights (Phase III) that went to hearing before the Special Master and, in some instances, before the district court. In the matter of the Enlarged Shell Canal, Glen Foe, the district court heard arguments from the objector and the State of Wyoming and reached a decision regarding the matter. In the matter of the Dutch Flat Ditch, various parties objected to the Special Master's report and the Special Master held a scheduling conference, where she requested that the State and the objectors attempt to settle differences and further set a deadline of February 15, 2013 for pre-hearing memoranda. Additionally, the State sought consensus from the United States, the Eastern Shoshone Tribe, and the Northern Arapahoe Tribe regarding an amended motion regarding the filing of various Phase II decree documents in county records.

OTHER MATTERS

In the previous year, the Utah Supreme Court upheld the denial of a Utah appropriator's motion to enforce a declaratory judgment of a Utah lower court against the State Engineer's Office. The court ultimately held that the motion to

enforce the declaratory judgment was procedurally impossible because there was no directive in the declaratory judgment to be enforced against any Wyoming water official. Notwithstanding that conclusion, the water user filed a motion for an injunction against the Wyoming water Commissioner in a Utah District Court and attempted to engage in prehearing discovery. However, the Utah appropriator failed to attend the hearing he requested and must now file a new motion if he wishes to proceed with the case.

PERSONNEL LISTS

STATE ENGINEER'S OFFICE
(As of September 30, 2012)

Tyrrell, Patrick T. ..... State Engineer
Greg Lanning .. .. Deputy State Engineer

ADMINISTRATION

NAME	TITLE
Bales, Nancy.	Senior Office Support Specialist
Branigan, Loretta	Human Resources Supervisor
Winders, Steve	Senior Accounting Analyst
Wertz, Tina	Accountant
Shappell, Madeline	Accounting Clerk

SURFACE WATER

NAME	TITLE
Vacant	**Natural Resources Program Manager**
Bratton, Leah	Natural Resources Analyst
Couch, Chris	Natural Resources Analyst
Cowley, Jeff	Natural Resources Program Principal
Blanks, Dana	Senior Office Support Specialist
Geyer, Jeffrey	Natural Resources Analyst
Engkvist, Claire	Office Support Specialist II
Feltner, Jason	Natural Resources Analyst
Hand, Mike	Principal Engineer
Lamblin, Cindy	Office Support Specialist II
Mumm, Kyle	Natural Resources Specialist
Robertson, Crystal	Office Support Specialist I
Graves, Nathan	Principal Engineer
Arrington, Lee.	Natural Resources Program Supervisor
Wright, Cheryl	Natural Resources Analyst

SUPPORT SERVICES

NAME	TITLE
Zimmerman, Martin	**Computer Technology Program Manager**
Castle, Daniela	Records & Data Management Technician
Cavaliere, Libby	Records & Data Management Technician
Irwin, Kay	Records & Data Management Specialist I
Hoobler, Beth	Geospatial Technology Manager
Morris, Sonia	Records & Data Management Technician
Rayburn, Nathan	Computer Technology Business Application Analyst
Vossler, Steve	Geospatial Technical Principal
Wickham, Brent	Senior Computer Technology Systems & Infrastructure Analyst

GROUND WATER

NAME	TITLE
Lindemann, Lisa	**Natural Resources Program Manager**
Harju, John	**Natural Resources Program Supervisor**
Carpenter, Terry	Office Support Specialist I
Culver, Sheri	Natural Resources Specialist
Ebsen, Mike	Natural Resources Analyst
Groth, Krissie	Office Support Specialist II
Lett, Sunny	Natural Resources Analyst
Leventis, Nick	Natural Resources Analyst
Linn, Cyndee	Office Support Specialist I
Manley, Jeremy	Natural Resources Program Principal
McDonald, Doug	Office Support Specialist II
Miller, Linda	Office Support Specialist II
Moser, George	Natural Resources Program Principal
Neely, James	Natural Resources Analyst
Bergstrom, Bret	Natural Resources Analyst
Tebben, Beth	Natural Resources Analyst
Vacant	Office Support Specialist II
Blain, Liberty	Natural Resources Analyst

STATE BOARD OF CONTROL

NAME	TITLE
Cunningham, Allan D.	**Natural Resources Program Manager**
Verplancke, Cheryl	**Natural Resources Program Supervisor**
Cecil, Jon	Natural Resources Analyst
	Natural Resources Analyst
Dudrey, Linda	Office Support Specialist II
Duncan, Bonnie	Office Assistant I
Hallberg, Debra	Natural Resources Analyst
Henschel, Nathan	Natural Resources Analyst
McCann, Nancy	Natural Resources Program Principal
Mumper, Karen	Natural Resources Analyst
Pierce, Dixie	Natural Resources Specialist
Rockweiler, Jedadiah	Natural Resources Analyst
Trujillo, Roxanne	Senior Office Support Specialist
Nichols, Trista	Office Support Specialist II
Pugsley, Brian.	**Superintendent**
Water Division No. I	Torrington
LoGuidice, Carmine.	**Superintendent**
Water Division No. II	Sheridan
Smith, Loren.	**Superintendent**
Water Division No. III	Riverton
Henderson, Jade	**Superintendent**
Water Division No. IV	Cokeville

INTERSTATE STREAMS

NAME	TITLE
Lowry, Sue	**Natural Resources Program Manager**
Hoobler, Matt	Natural Resources Program Principal
Pring, Jodee	Natural Resources Analyst
Shields, John W.	Natural Resources Program Principal
Wolff, Steve	Natural Resources Program Principal

WATER ADMINISTRATION PERSONNEL

(As of September 30, 2012)

Key to Title Abbreviations:

NRA	=	Natural Resources Analyst
NRS	=	Natural Resources Specialist
AI	=	Acreage Inspector
WI	=	Well Inspector
PI	=	Pump Inspector
LH	=	Lead Hydrographer
HC	=	Hydrographer-Commissioner
AHC	=	Asst.HydrographerCommissioner
TI	=	Tributary Inspector

DIVISION I: PERSONNEL AT LARGE

TITLE	NAME	ADDRESS
Superintendent	Brian Pugsley, brian.pugsley@wyo.gov	510 West 27th Torrington, Wyoming 82240
Assistant Superintendent	Doug Oliver, doug.oliver@wyo.gov	510 West 27th Torrington, Wyoming 82240
Program Principal	Rob Foreman, rob.foreman@wyo.gov	510 West 27th Torrington, Wyoming 82240
Office Support Specialist II	Sharon L. Hackett, sharon.hackett@wyo.gov	510 West 27th Torrington, Wyoming 82240

DIVISION I: WATER ADMINISTRATION PERSONNEL

DISTRICT	TITLE	NAME	ADDRESS
1	HC	Scott Ross, scott.ross@wyo.gov	PO Box 218 Meridan, WY 82081
2	HC	Gary Mehling, gary.mehling@wyo.gov	510 West 27th Torrington, Wyoming 82240
3,4C	HC	Doug Oliver, doug.oliver@wyo.gov	1560 B Johnston St. Wheatland, Wyoming 82201
4A	HC	Darren Parkin, darrin.parkin@wyo.gov	Laramie Civic Center 710 Garfield, Room 114 Laramie, Wyoming 82070
4B	HC	Trevor Hiegel, trevor.hiegel@wyo.gov	Laramie Civic Center 710 Garfield, Room 114 Laramie, Wyoming 82070
6,7,8,16, 17,18	HC	Kevin Pantle, kevin.pantle@wyo.gov	PO Box 710 Saratoga, Wyoming 82331
6,7,8,16, 17,18,	HC	Robin Blake, robin.blake@wyo.gov	PO Box 710 Saratoga, Wyoming 82331

DIVISION I: WATER ADMINISTRATION PERSONNEL (cont'd)

DISTRICT	TITLE	NAME	ADDRESS
9	HC	Rod Oliver, rod.oliver@wyo.gov	277 Dutton Creek Road Laramie, Wyoming 82070
13, 15-5, 20	HC	Jack Clark Jack.clark@wyo.gov	117 S. 2nd St., Rm. 3 Douglas, Wyoming 82633
10,11, 12, Asst 14	HC	Jack Gibson, jack.gibson@wyo.gov	2020 Fairground Rd., Ste. 104 Casper, Wyoming 82604
14	HC	Kent Becker, kent.becker@wyo.gov	510 West 27th Torrington, Wyoming 82240
North Platte River	TI	Tracy Brown, tracy.brown@wyo.gov	510 West 27th Torrington, Wyoming 82240
North Platte River	AI	J. Scott Haskamp, scott.haskamp@wyo.gov	2020 Fairground Rd. Ste. 104 Casper, WY 82604
North Platte River	AI	Chad Pickett, chad.pickett@wyo.gov	PO Box 710 Saratoga, Wyoming 82331
North Platte River	WI	Kelly Mehling, kelly.mehling@wyo.gov	510 West 27th Torrington, Wyoming 82240
North Platte River, 19	PI AHC	Wray Lovitt, wray.lovitt@wyo.gov	117 S. 2nd Street, Ste. 2B Douglas, Wyoming 82633
4A, 4B	AHC	Susan Kersey, susan.kersey@wyo.gov	Laramie Civic Center 710 Garfield, Rm. 114 Laramie, WY 82070
8	AHC	Susan Adams, Susan.adams@wyo.gov	PO Box 391 Baggs, WY 82321
North Platte River	AI	Connie Kersting, Connie.kersting@wyo.gov	1560 B Johnston St., Wheatland, WY 82201

DIVISION II: PERSONNEL AT LARGE

TITLE	NAME	ADDRESS
Superintendent	Carmine LoGuidice, carmine.loguidice@wyo.gov	1833 South Sheridan Ave. Sheridan, Wyoming 82801
Assistant Superintendent	William (Bill) Knapp, bill.knapp@wyo.gov	1833 South Sheridan Ave. Sheridan, Wyoming 82801
Office Support Specialist II	Deborah Reed, deb.reed@wyo.gov	1833 South Sheridan Ave. Sheridan, Wyoming 82801
CBNG Res. Inspector	Kim French, kim.french@wyo.gov	1833 South Sheridan Ave. Sheridan, Wyoming 82801

DIVISION II: WATER ADMINISTRATION PERSONNEL

DISTRICT	TITLE	NAME	ADDRESS
1,7,10	HC	Kody Steinbrecher, kody.steinbrecher@wyo.gov	113 S. 21st St. Sundance, Wyoming 82729
2,3,7,8,9, 10,11	LH	David Pelloux, dave.pelloux@wyo.gov	1833 South Sheridan Ave. Sheridan, Wyoming 82801
8	HC	Robert Furnival Bob.furnival@wyo.gov	P.O. Box 3 Kaycee, Wyoming 82639
5,6	HC	Pat Boyd, pat.boyd@wyo.gov	1833 South Sheridan Ave. Sheridan, Wyoming 82801
1,8	HC	Roger Ralph, roger.ralph@wyo.gov	2020 Fairgrounds Road Ste 104 Casper, Wyoming 82604
8,9,10,11	HC	David Schroeder, david.schroeder1@wyo.gov	1833 South Sheridan Ave. Sheridan, Wyoming 82801

DIVISION III: PERSONNEL AT LARGE

TITLE	NAME	ADDRESS
Superintendent	Loren Smith, loren.smith@wyo.gov	715 East Roosevelt Riverton, Wyoming 82501
Assistant Superintendent	David Deutz, dave.deutz@wyo.gov	2009 Big Horn Avenue, Ste 1 Worland, WY 82401
Office Support Specialist II	Janet Wempen, janet.wempen@wyo.gov	715 East Roosevelt Riverton, Wyoming 82501

DIVISION III: WATER ADMINISTRATION PERSONNEL

DISTRICT	TITLE	NAME	ADDRESS
1, 11	HC	Myron Smalley, myron.smalley@wyo.gov	715 East Roosevelt Riverton, Wyoming 82501
1,3	HC	Ryan Bjerke, ryan.bjerke@wyo.gov	715 East Roosevelt Riverton, Wyoming 82501
5, 14	HC		2009 Big Horn Ave., Ste 1 Worland, WY 82401
6,12	HC	Philip Beamer, phil.beamer@wyo.gov	2009 Big Horn Ave., Ste 1 Worland, WY 82401
7	HC	Gary Anders, gary.anders@wyo.gov	PO Box 263 Greybull, Wyoming 82426
8	HC	Heber Jensen, heber.jensen@wyo.gov	1201 E. 7th Powell, WY 82435
9,10,15	HC	Landis Webber, landis.webber@wyo.gov	1201 E. 7th Powell, WY 82435
13,16	HC	Mike Riley, mike.riley@wyo.gov	1201 E. 7th Powell, WY 82435

WATER DIVISION III - BIG HORN GENERAL ADJUDICATION

DISTRICT	TITLE	NAME	ADDRESS
Big Horn	NRA	Ryan Mikesell, ryan.mikesell@wyo.gov	715 East Roosevelt Riverton, Wyoming 82501

DIVISION IV: PERSONNEL AT LARGE

TITLE	NAME	ADDRESS
Superintendent	Jade Henderson, jade.henderson@wyo.gov	PO Box 277 Cokeville, Wyoming 83114
Assistant Superintendent	Kevin Payne, kevin.payne@wyo.gov	PO Box 277 Cokeville, Wyoming 83114
Office Support Specialist I	Carol Reed, carol.reed@wyo.gov	PO Box 277 Cokeville, Wyoming 83114

DIVISION IV: WATER ADMINISTRATION PERSONNEL

DISTRICT	TITLE	NAME	ADDRESS
1,3,9,14,15	LHC	John Yarbrough, john.yarbrough@wyo.gov	PO Box 1208 Lyman, Wyoming 82937
2,(4,8,12)	HC	Mike Johnson, mike.johnson@wyo.gov	PO Box 277 Cokeville, WY 83114
3	HC	Zach Rasmussen, zach.rasmussen@wyo.gov	PO Box 464 Lyman, WY 82937
4	HC	Don Shoemaker, don.shoemaker@wyo.gov	343 Ninth Street Evanston, Wyoming 82930
(7),10,11	HC	Jeff Davis, jeff.davis@wyo.gov	PO Box 1080 Big Piney, Wyoming 83113
6,7,10,(11)	HC	Courtney Skinner, courtney.skinner@wyo.gov	PO Box 61 Daniel, Wyoming 83115
5,6,7,10,11, 13,16	LHC	Ed Boe, ed.boe@wyo.gov	PO Box 1080 Big Pine, WY 83113
8,12	HC	Ed Bruce ed.bruce@wyo.gov	142 Allred Road Afton, Wyoming 83110
9	HC	Bill Marchione, bill.marchione@wyo.gov	PO Box 605 Kemmerer, Wyoming 83101
13	HC	Jim Wilson, jim.wilson@wyo.gov	275 Yellow Rose Drive Alta, Wyoming 83422
14	HC	Todd Covolo, todd.covolo@wyo.gov	PO Box 1165 Lyman, WY 82937
(3,14),15	HC	DeLynn Saxton, delynn.saxton@wyo.gov	PO Box 1208 Lyman, Wyoming 82937
16	HC	Bodean Barney, bodean.barney@wyo.gov	PO Box 9575 Jackson, Wyoming 83002

STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND PROFESSIONAL LAND SURVEYORS

NAME		POSITION	PHONE	E-MAIL	TERM EXPIRES
David L. Whitman		President	307-766-6466	Whitman@uwyo.edu	3-31-13
College of Engineering Dept. 3295 1000 E. University Ave. Laramie, WY 82071					
Jerry L. Jessen		Member	307-634-4197	jessen_gl@hotmail.com	3-31-14
3664 Foxcroft Rd. Cheyenne, WY 82001.					
Patrick T. Tyrrell		Secretary-Treasurer	307-777-6167	patrick.tyrrell@wyo.gov	Indefinite
State Engineers Office Herschler Bldg. 4th Fl. Cheyenne, WY 82002					
Thomas V. Anderson		Vice President	307-472-7381	tvanderpepls@bresnan.net	3-31-13
Steel Structures, Inc. 1020 Sussex Casper, WY 82609					
Shelley R. Macy		Member	307-631-4049	srnacy.wyo@icloud.com	3-31-14
Macy Engineering, P.C. 217 W. 18th St. Cheyenne, WY 82001					
Skylar V. Wilson		Member	307-367-6417	skwilson.bor@inbox.com	3-31-14
Wilson Land Surveying P.O. Box 938 Pinedale, WY 82941					
Corky Stetson		Member	307-682-8936	cstetson@vcn.com	3-31-13
Stetson Engineering P.O. Box 457 Gillette, WY 82717					

Attorney General Contact			
NAME	ADDRESS	PHONE	E-MAIL
Ken Nelson	2424 Pioneer Ave. Cheyenne, WY 82002	307-777-7890	Ken.nelson@wyo.gov
Bob Walters	2424 Pioneer Ave. Cheyenne, WY 82002	307-777-8662	Bob.walters@wyo.gov

NAME	POSITION
Christine Turk	Executive Director
Krista M. Wilson	Office Support Specialist
Troy A. Niesen	Office Support Specialist

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

NAME	ADDRESS	PHONE NO.	E-MAIL	TERM EXPIRES *
George Moser	Herschler Bldg. 4E Cheyenne, WY 82002	307-777-2974	george.moser@wyo.gov	3/31/2013
Jim O'Connor	510 Meadowview Drive Lander, WY 82520	307-332-3144	james.oconnor@wyo.gov	3/31/2015
Jack Weber	1305 Gregory Lane Jackson, WY 83001	307-733-3343 307-413-1596 (cell)	jackweber@qwestoffice.net	3/31/2015
Chuck Wilson	P.O. Box 113 Hawk Springs, WY 82217	307-532-3792	NA	3/31/2013
LeRoy Christianson	P.O. Box 749 Lusk, WY 82225	307-334-2817	FAX: 334-3676	3/31/2015
Steve Barbour	9406 N Hwy 14-16 Gillette, WY 82716	307-686-2573 307-660-2573 (cell)	steve.barbour@wyo.gov	3/31/2013
Richard G. Stockdale	1704 Cheshire Drive Cheyenne, WY 82001	307-635-3602 307-630-5860 (cell)	NA	3/31/2013

* All terms expire March 31st of the year indicated.

ATTORNEY GENERAL'S CONTACT: 307-777-3435 (Fax)

Ken Nelson	2424 Pioneer Street 3rd Floor North. Cheyenne, WY 82002	307-777-7890	Knelso3@state.wy.us

GROUND WATER ADVISORY COMMITTEES		
WATER DIVISION	NAME	TERM EXPIRES
DIV. I	Shawn Hall	9/30/17
	Michael Sweat	9/30/12
	Margo Harlan Sabec	9/30/17
DIV. II	Floyd Canfield	9/30/17
	Vacant	9/30/12
	James M. Wilson	9/30/17
DIV. III	Dan Wychgram	9/30/12
	Jeanette Sekan	9/30/17
	Doyle Ward	9/30/14
DIV. IV	Nick Bettas	9/30/17
	William Resor	9/30/17
	Robert Taylor	9/30/17

GROUND WATER CONTROL AREA ADVISORY BOARD MEMBERS				
CONTROL AREA	NAME	ADDRESS	TERM EXPIRE	DISTRICT NO.
LARAMIE COUNTY ESTAB. 9/2/81	Vacant		2016	DIST. 1
	David Cummings	10510 Powder House Cheyenne, WY	2014	DIST.4
	Todd Martin	169 Rd. 148 Carpenter, WY 82054	2016	DIST.2
	David Romsa	5638 County Road 228 Albin, WY 82050	2014	DIST. 5
	Casey Epler	P.O. Box 39 Hillsdale, WY 82060	2016	DIST.3
PLATTE COUNTY ESTAB. 10/7/81	Brooke Gerke	P.O. Box 1193 Wheatland, WY 82201	2015	DIST.5
	Doug Meyer	4018 Hwy 34 Wheatland, WY 82201	2016	DIST.1
	Richard Johnson	251 East Johnson Rd. Wheatland, WY 82201	2016	DIST.2
	James Rietz	418 Kittell Wheatland, WY 82201	2016	DIST.3
	Jennifer Reyes-Burr	203 Ferguson Rd. Wheatland, WY 82201	2015	DIST.4
PRAIRIE CENTER ESTAB. 12/2/77	John Ellis	12852 Road 51 Torrington, WY 82240	2014	
	Dennis Isakson	Road 47 Van Tassell, WY 82240	2015	
	Elden Baldwin	13093 Van Tassell Road Torrington, WY 82240	2015	
	Chuck Berry	5117b County Road 116 Torrington, WY 82240	2014	
	Steve Roth	5170 Road 118 Torrington, WY 82240	2014	

WYOMING MEMBERS OF INTERSTATE COMPACT COMMISSIONS AND REGIONAL AND INTERSTATE COMMITTEES RELATING TO WATER RESOURCES

(As of September 30, 2012)

BEAR RIVER COMMISSION
(Idaho, Utah and Wyoming)

NAME, TITLE	POSITION
Sue Lowry, Administrator Interstate Streams	Commissioner
Gordon Thornock, Citizen	Commissioner
Sam Lowham, Citizen	Commissioner
Erick Esterholdt, Citizen	Alternate Commissioner
David Waterstreet, Water Quality Div., Department of Environmental Quality	Water Quality Committee Member
Jade Henderson, Superintendent Water Division IV	Alternate Commissioner, Technical Advisory Committee Member
Jodee Pring, Interstate Streams Division	Technical Advisory Committee Member

UPPER COLORADO RIVER COMMISSION
(Colorado, New Mexico, Utah and Wyoming)

NAME, TITLE	POSITION
Patrick T. Tyrrell, State Engineer	Commissioner
Dan S. Budd, Interstate Stream Commissioner	Alternate Commissioner
Benjamin C. Bracken, Citizen	Alternate Commissioner
John W. Shields, Interstate Streams Engineer	Engineering Committee Member and Chairman
Steven W. Wolff, Colorado River Coordinator	Engineering Committee Member
Chris Brown, Senior Assistant Attorney General	Legal Committee Member
Matthias Sayer, Assistant Attorney General	Legal Committee Member

COLORADO RIVER MANAGEMENT (AOP) WORK GROUP

NAME, TITLE	POSITION
John W. Shields, Interstate Streams Engineer	Member

COLORADO RIVER COMMITTEE OF FOURTEEN

NAME, TITLE	POSITION
Patrick T. Tyrrell, State Engineer	Member
John W. Shields, Interstate Streams Engineer	Member

COLORADO RIVER BASIN SALINITY CONTROL ADVISORY COUNCIL

NAME, TITLE	POSITION
Patrick T. Tyrrell, State Engineer	Member
Dan S. Budd, Interstate Stream Commissioner	Member
John Wagner, Administrator, Water Quality Division, Department of Environmental Quality	Member

COLORADO RIVER BASIN SALINITY CONTROL FORUM

NAME, TITLE	POSITION
Patrick T. Tyrrell, State Engineer	Member
Dan S. Budd, Interstate Stream Commissioner	Member
John Wagner, Administrator, Water Quality Division, Department of Environmental Quality	Member
John W. Shields, Interstate Streams Engineer	Work Group Member
David Waterstreet, Water Quality Div., Department of Environmental Quality	Work Group Member

GLEN CANYON ADAPTIVE MANAGEMENT PROGRAM

NAME, TITLE	POSITION
John W. Shields, Interstate Streams Engineer	Adaptive Management Work Group Member and Technical Work Group Member
Don A. Ostler, Executive Director, Upper Colorado River Commission	Alternate Member

RECOVERY IMPLEMENTATION PROGRAM FOR ENDANGERED FISH SPECIES IN THE UPPER COLORADO RIVER BASIN

NAME, TITLE	POSITION
Patrick T. Tyrrell, State Engineer	Recovery Implementation Committee Member
John W. Shields, Interstate Streams Engineer	Management Committee Member and Chairman
Pete Cavalli, Wyoming Game and Fish Department	Biology Committee Member

COLORADO RIVER WATER USERS ASSOCIATION

NAME, TITLE	POSITION
John A. Zebre, Citizen	Board of Trustees Member, Exhibits Committee Member, Program Committee Member and Housing & Arrangements Committee Member
Alan W. Harris, Citizen	Member, Board of Trustees; Audit Committee Member and Nominations Committee Member
Benjamin C. Bracken, Citizen	Member, Board of Trustees
Bryan Seppie, Citizen	Exhibits Committee Member and Public Affairs Committee Member
Keith Burron, Citizen	Membership Committee Member and Program Committee Member
John W. Shields, Interstate Streams Engineer	Resolutions Committee Member and Chairman

MISSOURI RIVER ASSOCIATION OF STATES & TRIBES (MoRAST)

NAME, TITLE	POSITION
Sue Lowry, Administrator Interstate Streams	Director/Secretary
Jodee Pring, Interstate Streams Division	Alternate

YELLOWSTONE RIVER COMPACT COMMISSION

(Montana, North Dakota and Wyoming)

NAME, TITLE	POSITION
Sue Lowry, Administrator Interstate Streams	Commissioner
Jodee Pring, Interstate Streams Division	Advisor

YELLOWSTONE RIVER COMPACT COMMISSION

(Technical Committee)

NAME, TITLE	POSITION
Jodee Pring, State Engineer's Office	Member
Carmine Loguidice, Division II Superintendent	Member
Loren Smith, Division III Superintendent	Member

BELLE FOURCHE RIVER COMPACT

(South Dakota and Wyoming)

NAME, TITLE	POSITION
Patrick T. Tyrrell, State Engineer	Member
Sue Lowry, Administrator Interstate Streams	Advisor

UPPER NIOBRARA RIVER COMPACT

(Nebraska and Wyoming)

NAME, TITLE	POSITION
Patrick T. Tyrrell, State Engineer	Member
Sue Lowry, Administrator Interstate Streams	Advisor

PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM

NAME, TITLE	POSITION
Harry LaBonde, Administrator, Water Development Commission	Governance Committee Member
Lawrence Besson, Water Development Commission	Water Advisory Committee Member
Matt Hoobler, North Platte River Coordinator	Water Advisory Committee Member
Brian Pugsley, Superintendent	Reservoir Coordinating Committee Member
Brian Pugsley, Superintendent	Environmental Account Committee Member
Harry LaBonde, Administrator, Water Development Commission	Finance Committee Member
Harry LaBonde, Administrator, Water Development Commission	Land Advisory Committee Member
Lawrence Besson, Water Development Commission	Technical Advisory Committee Member
Lawrence Besson, Water Development Commission	Adaptive Management Group

NORTH PLATTE DECREE COMMITTEE

NAME, TITLE	POSITION
Patrick T. Tyrrell, State Engineer	Wyoming Representative
Brian Pugsley, Superintendent	Alternate Wyoming Representative
Matt Hoobler, North Platte River Coordinator	Official Files Subcommittee Member
Brian Pugsley, Superintendent	Crest Control Subcommittee Member
Lisa Lindeman, Administrator, Ground Water Division	Chair, Groundwater Wells Subcommittee
Matt Hoobler, North Platte River Coordinator	Finance Subcommittee Member
Matt Hoobler, North Platte River Coordinator	Chair, Consumptive Use Subcommittee Member
Matt Hoobler, North Platte River Coordinator	Replacement Water Subcommittee Member
Matt Hoobler, North Platte River Coordinator	State Line Gage Subcommittee Member

SNAKE RIVER COMPACT

(Idaho and Wyoming)

NAME, TITLE	POSITION
Patrick T. Tyrrell, State Engineer	Member
Sue Lowry, Administrator Interstate Streams	Advisor

SNAKE RIVER COMMITTEE OF NINE

NAME, TITLE	POSITION
Patrick T. Tyrrell, State Engineer	Advisory Member

WESTERN STATES WATER COUNCIL

NAME, TITLE	POSITION
Matthew H. Mead, Governor	Governor Member
Patrick T. Tyrrell, State Engineer	Member
Chris Brown, Senior Assistant. Attorney General, Attorney General's Office	Member
Todd Parfitt, Administrator, Department of Environmental Quality	Member
Harry LaBonde, Administrator Water Development Commission	Alternate
Sue Lowry, Administrator Interstate Streams	Alternate
John Wagner, Administrator, Water Quality Division, Department of Environmental Quality	Alternate

INTERSTATE COUNCIL ON WATER POLICY

NAME, TITLE	POSITION
Sue Lowry, Administrator Interstate Streams	Board Member