



# State Engineer's Office

HERSCHLER BUILDING, 4-E CHEYENNE, WYOMING 82002  
(307) 777-7354 FAX (307) 777-5451

[seoleg@state.wy.us](mailto:seoleg@state.wy.us)

**DAVE FREUDENTHAL**  
GOVERNOR

**PATRICK T. TYRRELL**  
STATE ENGINEER

September 3, 2009

## MEMORANDUM

**TO:** Members of the State Water Forum

**FROM:** Patrick Tyrrell, Chairman

**SUBJECT:** Attached for your review and information is a copy of the September 1, 2009 Water Forum meeting minutes. Please take a few moments and pencil into your calendar the Water Forum dates for this year. The next meeting will be October 6th in the State Engineer's Conference Room at 10:00 a.m.

### WATER FORUM SCHEDULE 2009-2010 1<sup>st</sup> TUESDAY OF EACH MONTH

<b>DATE</b>	<b>INVITED GUEST</b>	<b>DISCUSSION ITEM</b>
October 6th	Beth Bear, WY Game and Fish	Aquatic Invasive Species
November 3 <sup>rd</sup>	Barry Lawrence, Bruce Boe	Weather Modification
December 1 <sup>st</sup>	Cheryl Miller	Groundwater, Surface Water Interaction
January 5 <sup>th</sup>	TBD	
February 2 <sup>nd</sup>	TBD	
March 2 <sup>nd</sup>	TBD	
April 6 <sup>th</sup>	Bureau of Reclamation	Water Supply Forecast
May 4 <sup>th</sup>	Tim Bartos	High Plains Aquifer Study

### SPECIAL REPORT

The next meeting of the Water Forum will be October 6, 2009 at 10:00 a.m. in the State Engineer's Office conference room. We will be hearing from Beth Bear of the Wyoming Game and Fish on their work on aquatic invasive species and the "Don't Move a Mussel" program.

## WYOMING STATE WATER FORUM MEETING MINUTES

September 1, 2009

Pat Tyrrell called the two hundred and eighty-fifth meeting of the State Water Forum to order at 10:00 a.m. The following were in attendance:

<u>Name</u>	<u>Agency</u>	<u>E-mail</u>
Paul Dey	WY G&F	Paul.Dey@wgf.state.wy.us
Lee Hackleman	NRCS	lee.hackleman@wy.usda.gov
Matt Hoobler	SEO	mhoobl@seo.wyo.gov
Greg Kerr	UW – Office of Water Programs	rrek@uwyo.edu
Sue Lowry	SEO	slowry@seo.wyo.gov
David Mott	USGS	dmott@usgs.gov
Teresa Nealon	Trihydro	tnealon@trihydro.com
Chris Nicholson	WRDS	cnichol5@uwyo.edu
Jodee Pring	SEO	jpring@seo.wyo.gov
Pat Tyrrell	SEO	ptyrre@seo.wyo.gov

### AGENCY REPORTS

In order to assure accurate reporting in the minutes, forms are passed out to be completed by the representative of each agency at the meeting. These minutes consist of a compilation of the written reports received. Please complete a form either at the Forum meeting or return within a couple of days to Jodee Pring, State Engineer's Office. This will increase the efficiency and accuracy of completing the minutes for the Water Forum. Reports can also be sent via e-mail to: jpring@seo.wyo.gov. For more information on the following reports, please contact the agency representative listed above.

#### STATE ENGINEER'S OFFICE (SEO)

Pat Tyrrell reported the following:

The upcoming 2010 Legislative session will be a budget session. The exception budget for the SEO has been cut by one-third. Money has been requested to telemeter approximately 240 sites around the state.

This past summer was a good summer water-wise. There was no major regulation in the state.

E-permit and the document management system that is tied to e-permit continue to make progress. The Groundwater division has been using the system for about a year now, and the Surface Water and Board of Control divisions are now using the system. The target date to go live for the general public is January 19, 2010.

The SEO is still awaiting the first official report from the Special Master on MT v. WY. The hope is that the report will be available in the next two months.

Sue Lowry reported the following:

The Missouri River Association of State and Tribes (MoRAST) met June 16<sup>th</sup> and 17<sup>th</sup> in Bismarck, ND. One of the topics of the meeting was the Sec. 108 study that will be conducted by the Army Corps of Engineers. This study will look at the Missouri River projects within the Missouri River Basin and its tributaries to review the original project purposes based on the Flood Control Act of 1944, as amended, to determine if changes to the authorized project purposes and existing Federal water Resource infrastructure may be warranted.

Jodee Pring reported the following:

The update of the Green River Basin Water Plan continues to move forward. WWC Engineering is completing tech memos with the final report to be completed by December 2009.

Short Elliott Hendrickson Inc. (SEH) is progressing well on the update of the Wind/Bighorn River Basin Plan. The next Basin Advisory Group (BAG) meeting will be held Sept. 17<sup>th</sup> in Powell.

The Water Planning team continues to work on the update of the Bear River Basin plan. We are working on updating tech memos and certain aspects of the report.

For information on any of the updates on the water plans, please go to:

<http://waterplan.state.wy.us/>

The Missouri River Recovery Implementation Committee (MRRIC) meeting will be held November 2-5 in Cheyenne at Little America. For a copy of the agenda, please go to [www.mrric.org](http://www.mrric.org).

The annual meeting of the Yellowstone River Compact Commission will be held December 1 in Powell. For more info, go to: <http://yrcc.usgs.gov/>

Matt Hoobler reported the following:

The Stateline Gage Committee has completed their final report and recommendations and the report will be presented to the North Platte Decree Committee (NPDC).

The Consumptive Use Committee along with Riverside Technology is attempting to gather Landsat images with cloud free data. It has been challenging as the years that have the best photos are some of the worst water years. Riverside Technology will perform the consumptive use study in the North Platte basin.

Inflow and outflow data has been gathered on the "Big 11" reservoirs. These are private reservoirs and all are now transmitting real-time data.

The Platte River Recovery Implementation Program (PRRIP) Water Advisory Committee has approved the 2008 depletion plan. Industries in the basin are reporting usage monthly and the 2009 depletions report is underway.

#### WATER RESOURCES DATA SYSTEMS (WRDS)

Chris Nicholson reported the following:

The Water Development Office – Public Water System Survey has been completed.

The staff at WRDS is assisting with the update of the Bear River Basin Plan. Right now, they are assisting Chace Tavelli with the modeling information.

A project to scan all of the reports in the Water Development Office library is halfway completed. This includes some of the older, historical water planning documents.

Chris passed out a handout showing July 2009 precipitation. WRDS is obtaining this information from the CoCoRaHS program and the plan is to produce this report monthly.

Chris also passed out a handout showing Wyoming Precipitation: Departures from Normal. This information can be found at: <http://www/wrds/uwyo.edu/>.

U.S. GEOLOGICAL SURVEY (USGS)      <http://wy.water.usgs.gov/>

David Mott reported the following:

### Current Streamflow Conditions

Streamflow conditions for August were normal for most of the State except for the Tongue and Powder River basins (above normal) and the Belle Fourche River Basin (much above normal). Streamflow conditions last year or the same period ranged from above normal in the Belle fourche River basin to normal for the rest of the State.

Streamflow conditions are based on USGS gaging stations with 30 or more years of record. More information on streamflow conditions in Wyoming is online at: <http://waterdata.usgs.gov/wy/nwis/rt>

Wyoming has received \$30 million from the American Recovery and Reinvestment Act. This money must be used to upgrade current stream flow sites and clean up abandoned sites.

The National Stream Information Program, NSIP, will receive an increase of approximately \$5 million nationally in the FY2010 budget. The USGS Cooperative programs will receive a cost of living adjustment only.

Some projects in which the USGS is involved include:

- a joint project with Department of Environmental Quality (DEQ), Environmental Protection Administration (EPA), and the USGS conducting a groundwater assessment in the Green River basin looking at shallow, domestic wells.
- a project under the Wyoming Landscape Conservation Initiative (WLCI) was granted \$50,000 - \$60,000 to look at deep groundwater wells and aquifers.
- a project to review the equations used to estimate bank full flow
- a project to investigate some salinity issues in Muddy Creek near Baggs, WY

### Publications

Bowen, Z.H., and others, 2009, U.S. Geological Survey science strategy for the Wyoming Landscape Conservation Initiative: U.S. Geological Survey Scientific Investigations Report 2008-5195, at <http://pubs.usgs.gov/sir/2009/5195/>

Clark, M.L., and Davidson, S.L., 2009, Specific conductance and dissolved-solids characteristics for the Green River and Muddy Creek, Wyoming, water years 1999-2008: U.S. Geological Survey Scientific Investigations Report 2009-5168, online only at <http://pubs.usgs.gov/sir/2009/5168/>

Nelson, P.H., Trainor, P.K., and Finn, T.M. 2009, Gas, oil, and water production in the Wind River Basin, Wyoming: U.S. Geological Survey Scientific Investigations Report 2008-5225, at <http://pubs.usgs.gov/sir/2009/5225/>

USGS publications related to water resources of Wyoming can be searched online at: <http://wy.water.usgs.gov/pubs/statebiblio/index.htm>

NATURAL RESOURCES CONSERVATION SERVICE (NRCS)

Lee Hackleman reported the following:

Terry Gonzales will be retiring from the NRCS on November 1<sup>st</sup>.

Snotel equipment has been installed at one site on Black Hall Mountain and 2 sites near Pinedale. Farson Creek and Pocket Creek will be installed next week.

The two Snotel sites that were to be installed near Sheridan won't be installed this year. There are some issues as the area in which the equipment is to be installed is in a roadless area.

WYOMING GAME AND FISH DEPARTMENT (WY G&F)

Paul Dey reported the following:

The Wagonhound Instream flow application has been signed.

Muddy Creek Wind Development – this is a PacifiCorp filing in the Little Medicine Bow Creek drainage. Game and Fish is concerned with culverts and road crossings that are being constructed in conjunction with this project. All of the permits for this type of construction go through DEQ.

A bypass channel will be constructed around the Kendrick diversion by a Gillette contractor. Approximately \$300,000 has been appropriated for implementation.

The Game and Fish is working on a project, the Laramie River Restoration Project. This is a stream bank erosion project through the city of Laramie, from I-80 to Curtis Street.

UW OFFICE OF WATER PROGRAMS (OWP)

Greg Kerr reported the following:

Greg passed out a handout requesting proposals for water related research projects for FY2010. The deadline for the proposals is October 6<sup>th</sup>, 2009 at 5:00 p.m. This can also be found online at: <http://wwweng.uwyo.edu/civil/research/wwrp/>

BUREAU OF RECLAMATION / WYOMING AREA OFFICE

John Lawson submitted the following:

Buffalo Bill releases in June were the highest since 1952 at 375,000 acre-feet. The table below shows April through July inflows and percent of average (1979-2008) for the inflow points forecasted by the Bureau of Reclamation.

April through July 2009 inflows in thousand acre-feet (KAF)

<u>Reservoir</u>	<u>Inflows (KAF)</u>	<u>% of Average</u>
Seminole	963.6	137
Sweetwater River	48.1	78
Alcova to Glendo Gains	160.7	132
<u>Reservoir</u>	<u>Inflows (KAF)</u>	<u>% of Average</u>
Bull Lake	159.4	115
Boysen	803.0	148

1. Water Supply Conditions of the North Platte River Basin.August 31, 2009 Reservoir Conditions

<u>Reservoir</u>	<u>Elev. (Ft)</u>	<u>Content (AF)</u>	<u>% Full Conservation Storage</u>	<u>% Avg.</u>
Seminoe	6343.69	773,947	76	118
Pathfinder	5831.48	661,787	65	129
Alcova	5498.44	180,571	98	100
Glendo	4593.82	164,735	32	119
Guernsey	4411.87	27,906	61	99

August 31, 2008 Reservoir Conditions

<u>Reservoir</u>	<u>Elev. (Ft)</u>	<u>Content (AF)</u>	<u>30 Year Average (AF)</u>
Seminoe	6328.85	560,699	656,400
Pathfinder	5805.75	346,631	514,600
Alcova	5498.49	180,649	180,100
Glendo	4584.63	118,486	138,500
Guernsey	4411.91	27,985	28,100

August 2009 Inflows

<u>Reservoir</u>	<u>Inflows</u>	<u>% Of Average</u>
Seminoe	40.7	115
Pathfinder (Sweetwater)	-3.5	N/A
Alcova to Glendo Gains	4.2	N/A
Glendo to Guernsey Gains	-3.6	N/A

Kendrick ownership was 1,020,426 acre-feet (AF) on August 31, 2009 and approximately 115% of average (888,400 AF), which compares to the ownership of 512,900 AF last year at this date. The August 31, 2009, North Platte ownership was 664,009 AF, which was approximately 136% of average (488,200 AF), which compares to 634,100 AF of North Platte ownership on this date last year. The Glendo ownership was 123,023 AF on August 31, 2009, which was approximately 92% of average (133,600 AF), which compares to the 88,800 AF of Glendo ownership on this date last year.

Flows in the Miracle Mile below Kortez Dam are approximately 2500 cubic feet per second (cfs). Releases from Gray Reef Reservoir are approximately 1,000 cfs. The level of Alcova Reservoir is at the normal summer operating range of 5498± one foot.

2. Water Supply Conditions of the Big Horn BasinAugust 31, 2009 Reservoir Conditions

<u>Reservoir</u>	<u>Elev. (Ft)</u>	<u>Content (AF)</u>	<u>% Full Conservation Storage</u>	<u>% Avg.</u>
Bull Lake	5796.22	125,667	82	123
Boysen	4721.96	683,767	92	111
Buffalo Bill	5382.53	560,457	87	112
Pilot Butte	5443.44	20,302	60	94

August 31, 2008 Reservoir Conditions

<u>Reservoir</u>	<u>Elev. (Ft)</u>	<u>Content (AF)</u>	<u>30 Year Average (AF)</u>
Bull Lake	5790.59	109,511	101,800
Boysen	4719.02	631,241	617,800
Buffalo Bill	5382.36	559,173	498,500*
Pilot Butte	5444.32	20,936	21,600

\* The average used for Buffalo Bill Reservoir reflects data from 1993 through 2008. In 1992, the capacity of the reservoir was increased to approximately 646,565 AF as a result of raising the dam. A long term average cannot be calculated until several years of operation occur under the increased storage.

August 2009 Inflows

<u>Reservoir</u>	<u>Inflows (KAF)</u>	<u>% Average</u>
Bull Lake	19.0	90
Boysen	54.6	93
Buffalo Bill	51.3	115

The total release from Buffalo Bill Reservoir to the river and the springs is approximately 1,200 cfs as measured at the Cody river gage. The release from Boysen Dam is approximately 1,200 cfs.

The meeting adjourned at 12:00 pm.