



# State Engineer's Office

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GOVERNOR

PATRICK T. TYRRELL  
STATE ENGINEER

February 6, 2008

## MEMORANDUM

TO: Members of the State Water Forum

FROM: Patrick Tyrrell, Chairman

SUBJECT: Attached for your review and information is a copy of the February 5, 2008 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 March 4th in the State Engineer's Conference Room at 10:00 a.m.

### WATER FORUM SCHEDULE 2007-2008 1<sup>ST</sup> TUESDAY OF EACH MONTH

	<b>INVITED GUEST</b>	<b>DISCUSSION ITEM</b>
March 4 <sup>th</sup>	Cody Moser & Ty Soukup - Graduate Students - Civil & Architectural Engineering - UW Office of Water Programs	Improved Streamflow Forecasting of the North Platte River
April 1 <sup>st</sup>	John Lawson, Bureau of Reclamation	Water Forecast
May 6 <sup>th</sup>	Bruce Brinkman - WY Water Development Office/Paul Ivancie - JR Engineering	Laramie County Aquifer Study

### SPECIAL REPORT

The next meeting of the Water Forum will be March 4, 2008 at 10:00 a.m. in the State Engineer's Office conference room. We will be hearing from Cody Moser and Ty Soukup, both graduate students in the College of Civil and Architectural Engineering. Mr. Moser and Mr. Soukup will be speaking to us on "Improved Streamflow Forecasting of the North Platte River".

## WYOMING STATE WATER FORUM MEETING MINUTES

February 5, 2008

Sue Lowry called the two hundred and seventy-second 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>
Kent Becker	SEO	kbecke@state.wy.us
Tim Bartos	USGS	ttbartos@usgs.gov
Matt Bilodeau	USACE	matthew.a.bilodeau@usace.army.mil
Greg Boughton	USGS	gkbought@usgs.gov
Kevin Boyce	WWDO	kboyce@state.wy.us
Myron Brooks	USGS	mhb Brooks@usgs.gov
Jim Cannia	USGS	jcannia@usgs.gov
Steve Gray	WRDS/State Climatologist	sgray8@uwyo.edu
Lee Hackleman	NRCS	lee.hackleman@wy.usda.gov
Beth Hoobler	SEO	bhoobl@seo.wyo.gov
Scott Horgen	SEO	shorge@seo.wyo.gov
Rick Huber	WY G&F	rick.huber@wgf.state.wy.us
Sue Lowry	SEO	slowry@seo.wyo.gov
Becky Mathisen	SEO	bmathi@seo.wyo.gov
Kirk Miller	USGS	kmiller@usgs.gov
Kathy Muller Ogle	WDEQ-LQD	kmogle@state.wy.us
Lyle Myler	BOR	lmyler@gp.usbr.gov
Chris Nicholson	WRDS	cnichol5@uwyo.edu
Mark Opitz	NRCS	mark.opitz@wy.usda.gov
Jodie Pavlica	WWDO	jpavli@state.wy.us
Jodee Pring	SEO	jpring@seo.wyo.gov
Phil Stump	SEO	pstump@seo.wyo.gov
Mike Sweat	USGS	mjsweat@usgs.gov
Chace Tavelli	SEO	ctavel@state.wy.us

### 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](mailto:jpring@seo.wyo.gov). For more information on the following reports, please contact the agency representative listed above.

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

Sue Lowry reported the following:

The Interstate Council on Water Policy (ICWP) Western States Water Council Joint meeting will be held March 3-7 in Washington, DC.

Phil Stump, the North Platte Coordinator, will be leaving our office. He will be working for HDR, Inc. here in Cheyenne.

The Yellowtail Long Range Planning Group will be meeting in Lovell on March 13 and 14.

Phil Stump reported the following:

A survey of irrigation practices has been sent out to irrigators in the North Platte basin. Response to this survey has been good.

The SEO is working on a draft depletions plan that is due in mid-March as part of the Platte River Recovery Implementation Program.

#### WATER RESOURCES DATA SYSTEM (WRDS)

Steve Gray reported the following:

Steve provided a handout that depicted Wyoming precipitation and the departures from normal.

The Drought Task Force met recently and are looking for recommendations from agencies on what should be the next steps for this group.

Chris Nicholson reported the following:

The Statewide Framework Water Plan is now online and can be found at:

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

#### DEPARTMENT OF ENVIRONMENTAL QUALITY - LAND QUALITY DIVISION (WDEQ-LQD)

Kathy Muller-Ogle reported the following:

Carbon Basin Mine has submitted an expansion request. This mine is near Elk Mountain and would be a combination of surface and underground mining.

#### WYOMING WATER DEVELOPMENT COMMISSION

Jodie Pavlica reported the following:

The update of the Wind/Bighorn Water Plan will begin this summer. Statements of Interest and Statements of Qualifications for this project are due this Friday, February 8<sup>th</sup>.

#### UNITED STATE GEOLOGICAL SURVEY (USGS)

Kirk Miller reported the following:

##### 2008 Funding

The FY08 Omnibus Appropriations bill signed December 26 included \$20.1 million in funding for the National Streamflow Information Program (NSIP), a 21.2% increase over FY07 levels. Of that amount, \$12 million was allocated for expenses related to the NSIP streamflow-gaging network. The Wyoming Water Science Center (WWSC) received

\$302,948, an increase of 3.2% over FY07. In addition, the WWSC received a one-time allocation of \$33,371 to be used for expenditures other than ongoing costs (e.g. O&M).

The bill included \$62.8 million in funding for the Cooperative Water Program (CWP), a 2.3% decrease from FY07 levels. Of that amount, \$876,105 was allocated to the WWSC, a decrease of 2.9%.

### 2009 Budget

The Administration's proposed 2009 budget for the USGS is \$968.5 million, a 3.8% decrease from FY08 levels. Proposed funding for NSIP is \$23.8 million (+18.4%); proposed funding for CWP is \$62.3 million (-0.9%). A news release with more information about other USGS programs is online at:

<http://www.usgs.gov/newsroom/article.asp?ID=1867>

### Publications

No new Wyoming USGS publications to report. 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:

Lee handed out a copy of the Feb. 4<sup>th</sup> Monday Morning Snow Report. The state as a whole is up 4% from last week.

### BUREAU OF RECLAMATION / WYOMING AREA OFFICE (USBR)

John Lawson submitted the following:

1. Water Supply Conditions of the North Platte River Basin.

#### January 31, 2008 Reservoir Conditions

<u>Reservoir</u>	<u>Elev. (Ft)</u>	<u>Content (AF)</u>	<u>% Full Conservation Storage</u>	<u>% Avg.</u>
Seminole	6287.77	195,400	19	37
Pathfinder	5787.37	206,800	20	36
Alcova	5488.18	156,400	85	101
Glendo	4607.88	257,600	50	80
Guernsey	4402.65	12,800	28	119

January 31, 2007 Reservoir Conditions

<u>Reservoir</u>	<u>Elev. (Ft)</u>	<u>Content (AF)</u>	<u>30 Year Average (AF)</u>
Seminole	6298.74	276,700	522,400
Pathfinder	5792.23	239,100	570,100
Alcova	5488.10	156,300	155,100
Glendo	4610.35	276,500	320,100
Guernsey	4402.59	12,700	10,800

January 2008 Inflows

<u>Reservoir</u>	<u>Inflows</u>	<u>% Of Average</u>
Seminole	19.9	79
Pathfinder (Sweetwater)	5.5	98
Alcova to Glendo Gains	6.3	62
Glendo to Guernsey Gains	0.6	40

Kendrick ownership was 354,900 acre-feet (AF) on January 31, 2008 and approximately 40% of average (895,400 AF), which compares to the ownership of 439,100 AF last year at this date. The January 31, 2008, North Platte ownership was 411,200 AF, which was approximately 78% of average (529,400 AF), which compares to 472,100 AF of North Platte ownership on this date last year. The Glendo ownership was 52,400 AF on January 31, 2008, which was approximately 41% of average (127,600 AF), which compares to the 28,000 AF of Glendo ownership on this date last year.

Flows in the Miracle Mile below Kortes Dam are approximately 530 cubic feet per second (cfs). Releases from Gray Reef Reservoir are approximately 500 cfs. The level of Alcova Reservoir is at the normal winter operating range of 5488± one foot.

Total expected April through July runoff in the North Platte Basin above Glendo Dam is expected to be 815,000 acre-feet (AF) of 93% of the 30 year average of 887,000 AF. Approximately 700,000 AF (99% of average) of the runoff is expected to enter Seminole Reservoir with an additional 40,000 AF (65% of average) being provided to Pathfinder Reservoir from the Sweetwater River, and the balance of 75,000 AF (62% of average) coming from the basin between Pathfinder Reservoir and Glendo Reservoir.

2. Water Supply Conditions of the Big Horn Basin

January 31, 2008 Reservoir Conditions

<u>Reservoir</u>	<u>Elev. (Ft)</u>	<u>Content (AF)</u>	<u>% Full Conservation Storage</u>	<u>% Avg.</u>
Bull Lake	5769.79	57,100	37	74
Boysen	4704.63	422,700	57	76
Buffalo Bill	5367.14	447,300	69	108
Pilot Butte	5452.81	27,500	82	103

### January 31, 2007 Reservoir Conditions

<u>Reservoir</u>	<u>Elev. (Ft)</u>	<u>Content (AF)</u>	<u>30 Year Average (AF)</u>
Bull Lake	5770.54	58,800	77,300
Boysen	4707.81	463,100	559,300
Buffalo Bill	5366.86	445,300	415,000*
Pilot Butte	5436.29	15,500	26,600

\* The average used for Buffalo Bill Reservoir reflects data from 1993 through 2007. 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.

### January 2008 Inflows

<u>Reservoir</u>	<u>Inflows (KAF)</u>	<u>% Average</u>
Bull Lake	2.0	91
Boysen	27.9	76
Buffalo Bill	13.5	91

The total release from Buffalo Bill Reservoir to the river is approximately 150 cfs and with addition from the springs is approximately 200 cfs as measured at the Cody river gage. The release from Boysen Dam is approximately 400 cfs.

The total expected April through July runoff in the Shoshone River Basin above Buffalo Bill Dam is expected to be 600,000 acre-feet (93% of average), compared to a 30 year average of 644,000 acre-feet. The total expected April through July runoff to Boysen Reservoir is 400,000 acre-feet (72% of average).

### SPECIAL REPORT

James Cannia, who is with the USGS Nebraska Water Science Center in Mitchell, NE, was our special presenter today. Mr. Cannia gave a very interesting presentation entitled, "Using Surface Geophysical Data to More Accurately Account for Canal Leakage in a Groundwater Model: Western NE and Eastern WY." A copy of Mr. Cannia's publication can be found at: <http://pubs.usgs.gov/sir/2006/5032/>

The meeting adjourned at 12:00 pm.