



State Engineer's Office

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GOVERNOR

PATRICK T. TYRRELL
STATE ENGINEER

March 12, 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 March 4, 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 April 1st in the State Engineer's Conference Room at 10:00 a.m.

WATER FORUM SCHEDULE 2007-2008 1ST TUESDAY OF EACH MONTH

	INVITED GUEST	DISCUSSION ITEM
April 1 st	John Lawson, Bureau of Reclamation	Water Forecast
May 6 th	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 April 1, 2008 at 10:00 a.m. in the State Engineer's Office conference room. We will be hearing from John Lawson, Area Manager, Great Plains Region for the Bureau of Reclamation. Mr. Lawson will be giving us the water forecast for this upcoming water year.

WYOMING STATE WATER FORUM MEETING MINUTES

March 4, 2008

Jodee Pring called the two hundred and seventy-third 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>
Brian Anderson	USBR	bjanderson@gp.usbr.gov
Kent Becker	SEO - Torrington	kbecke@seo.wyo.gov
Ryan Athey	Trihydro Corporation	rathey@trihydro.com
Matt Bilodeau	USACE	matthew.a.bilodeau@usace.army.mil
Lee Hackleman	NRCS	lee.hackleman@wy.usda.gov
Beth Hoobler	SEO	bhoobl@seo.wyo.gov
Greg Kerr	UW-Office of Water Programs	rrek@uwyo.edu
Cody Moser	UW	codymo@uwyo.edu
Chris Nicholson	WRDS	cnichol5@uwyo.edu
Suzy Noecker	WY Farm Bureau	snoecker@wyfb.org
Jodee Pring	SEO	jpring@seo.wyo.gov
Brian Pugsley	SEO - Torrington	bpugsl@seo.wyo.gov
Ty Soukup	UW	tsoukup@members.asce.org
Steve Wolff	SEO	swolff@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)

Jodee Pring reported the following:

Legislative activity:

House Bill 18 - State Engineer Rulemaking Authority - failed introduction

House Bill 55 - Water Well Drilling and Pump Installation Licensure - passed the House and the Senate and will be signed by the Governor later next week.

Senate File 46 - Discharged Water Management - failed third reading

The update of the Green River Basin Water Plan is underway and a Green River Basin Advisory Group (BAG) meeting will be held March 26th in Pinedale, 6:00 pm, Sublette County Library. Topics to be discussed include a presentation by the town engineer, Gene Ninnie and a presentation from Scott Yates, Director of the Trout Unlimited, Western Water Project.

Meetings will also be held with the other BAGs during the month of April. Those meetings are also follows:

April 2 - Platte BAG - Douglas

April 3 - Northeast and Powder/Tongue BAG - Gillette

April 7 - Wind/Bighorn BAG - Riverton

April 8 - Snake/Salt BAG - Jackson

April 9 - Bear BAG - Evanston

The Wind/Bighorn Basin Water plan is the next plan that is scheduled to be updated. This plan was appropriated \$250,000 by the legislature and will begin this summer.

A Yellowstone River Compact Commission meeting will be held April 16 and 17 in Cody, WY at the Big Horn Federal Community room.

The Interstate Streams Division of the SEO has hired a new North Platte Coordinator. Matt Hoobler will be joining our group on March 24th. Matt comes to us from the Department of Agriculture.

The Wyoming Agriculture and Natural Resource Mediation Program will be holding a mediation workshop on April 3rd at Little America in Cheyenne. For more information concerning this day-long workshop, please contact Lucy Pauley at (307) 777-8788 or lpaule@state.wy.us.

UNIVERSITY OF WYOMING - OFFICE OF WATER PROGRAMS

Greg Kerr reported the following:

The following is a list of Water Research Program projects for FY08. Abstracts and annual reports of projects are at: www.wng.uwyo.edu/civil/research/wwrp/

“Precipitation Measurement and Growth Mechanisms in Orographic Wyoming Snowstorms”. J. Snider and Bart Geerts, Dept. of Atmospheric Science, UW, Mar 06 - Feb 09.

“Tracing Glacial Ice and Snow Meltwater with Isotopes”. Dave Williams, Dept. of Renewable Resources, UW, Mar 07 - Feb 09.

“Integrated Management of Groundwater and Surface Water Resources: Investigation of Different Management Strategies and Testing in a Modeling Framework”> Fred Ogden, Civil and Architectural Engineering and Melinda h. Benson, Ruckleshaus Institute of Environment and Natural Resources, UW, Mar 07 - Feb 10.

“Detecting the Signature of Glaciogenic Cloud Seeding in Orographic Snowstorms in Wyoming Using the Wyoming Cloud Radar”. Bart Geerts, Dept. of Atmospheric Science, UW, Mar 07 - Feb 10.

“Weather Modification Impacts and Forecasting of Streamflow”. Glenn Tootle, Civil and Architectural Engineering, UW and Tom Piechota, University of Nevada, Mar 07 - Feb 10.

“A New Method for Tracing Seepage from CBNG Water Holding Ponds in the Powder River Basin, Wyoming”. Shikha Sharma and K.J. Reddy, Dept. of Renewable Resources and Carol Frost, Dept. of Geology and Geophysics, UW, Mar 08 - Feb 10.

“Water Quality Criteria for Wyoming Livestock and Wildlife”. Merl Raisbeck, Dept. of Veterinary Sciences, Cynthia Tate, Wyoming Game and Fish Dept., and Michael Smith, Dept. of Renewable Resources, UW, Mar 08 - Feb 11.

“Multi-Century Droughts in Wyoming’s Past: Evidence of Prolonged Lake Drawdown”. Bryan Shuman, Dept. of Geology and Geophysics, Jacqueline Shinker, Dept. of Geography, UW, and Thomas Minckley, Asst. EPSCoR/IDeA, Mar 08 - Feb 09.

WATER RESOURCES DATA SYSTEM (WRDS)

Chris Nicholson reported the following:

The statewide irrigation survey will be out tomorrow. This survey is conducted every two years. The results should be out by April 30th and will be posted online.

WRDS is working on an Arc IMS site. It will be based in the Green River basin first, and then go statewide.

NATURAL RESOURCES CONSERVATION SERVICE (NRCS)

Lee Hackleman reported the following:

Lee handed out a copy of the March 3rd Monday Morning Snow Report. The state as a whole is at 99% of average, up 1% from the previous week.

BUREAU OF RECLAMATION / WYOMING AREA OFFICE (USBR)

John Lawson submitted the following:

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

February 29, 2008 Reservoir Conditions

<u>Reservoir</u>	<u>Elev. (Ft)</u>	<u>Content (AF)</u>	<u>% Full Conservation Storage</u>	<u>% Avg.</u>
Seminole	6285.95	184,900	18	38
Pathfinder	5788.45	213,700	21	36
Alcova	5488.24	156,600	85	101
Glendo	4612.30	292,000	56	80
Guernsey	4404.22	14,900	33	102

February 28, 2007 Reservoir Conditions

<u>Reservoir</u>	<u>Elev. (Ft)</u>	<u>Content (AF)</u>	<u>30 Year Average (AF)</u>
Seminoe	6298.40	265,200	486,700
Pathfinder	5793.16	245,600	599,300
Alcova	5488.15	156,400	155,700
Glendo	4614.64	311,300	364,800
Guernsey	4403.99	14,600	14,600

February 2008 Inflows

<u>Reservoir</u>	<u>Inflows</u>	<u>% Of Average</u>
Seminoe	22.7	84
Pathfinder (Sweetwater)	3.2	52
Alcova to Glendo Gains	9.1	68
Glendo to Guernsey Gains	0.3	23

Kendrick ownership was 354,600 acre-feet (AF) on February 29, 2008 and approximately 40% of average (895,400 AF), which compares to the ownership of 438,500 AF last year on February 28, 2007. The February 29, 2008 North Platte ownership was 444,200 AF, which was approximately 78% of average (568,000 AF), which compares to 512,900 AF of North Platte ownership on February 27, 2007. The Glendo ownership was 52,100 AF on February 29, 2008, which was approximately 40% of average (130,800 AF), which compares to the 27,900 AF of Glendo ownership on February 28, 2007.

Flows in the Miracle Mile below Kortez 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 820,000 acre-feet (AF) or 92% of the 30 year average of 887,500 AF. Approximately 700,000 AF (99% of average) of the runoff is expected to enter Seminoe Reservoir with an additional 40,000 AF (65% of average) being provided to Pathfinder Reservoir from the Sweetwater River, and the balance of 80,000 AF (66% of average) coming from the basin between Pathfinder Reservoir and Glendo Reservoir.

2. Water Supply Conditions of the Big Horn Basin

February 29, 2008 Reservoir Conditions

<u>Reservoir</u>	<u>Elev. (Ft)</u>	<u>Content (AF)</u>	<u>% Full</u> <u>Conservation Storage</u>	<u>% Avg.</u>
Bull Lake	5770.03	57,700	38	75
Boysen	4705.27	430,600	58	79
Buffalo Bill	5367.85	452,200	70	110
Pilot Butte	5452.69	27,400	81	103

February 28, 2007 Reservoir Conditions

<u>Reservoir</u>	<u>Elev. (Ft)</u>	<u>Content (AF)</u>	<u>30 Year Average (AF)</u>
Bull Lake	5770.41	58,500	77,300
Boysen	4707.53	459,500	548,400
Buffalo Bill	5366.85	445,100	411,100*
Pilot Butte	5445.48	21,800	26,700

* 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.

February 2008 Inflows

<u>Reservoir</u>	<u>Inflows (KAF)</u>	<u>% Average</u>
Bull Lake	1.8	113
Boysen	31.2	83
Buffalo Bill	13.9	106

The total release from Buffalo Bill Reservoir to the river is approximately 150 cfs and with addition from the springs is approximately 230 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

Cody Moser and Ty Soukup, both graduate students in the College of Civil and Architectural Engineering were our special presenters today. Mr. Moser and Mr. Soukup gave an interesting presentation on "Improved Streamflow Forecasting of the North Platte River". A copy of the presentation can be found [here](#).

The meeting adjourned at 12:00 pm.