



State Engineer's Office

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GOVERNOR

PATRICK T. TYRRELL
STATE ENGINEER

September 14, 2004

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 2, 2004 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 5th in the State Engineer's Conference Room at 10:00 a.m.

WATER FORUM SCHEDULE 2004-2005 1ST TUESDAY OF EACH MONTH

DATE	INVITED GUEST	DISCUSSION ITEM
October 5 th	Scott Zimmerman	Coalition for Wyoming's Water
November 2 nd	Laura Hudson	Drought Response and Altitude Trend of Limber Pine in Southeastern WY
December 7 th	Joe Deschamp	Casper Refinery Water Usage
January 4 th	Brad Anderson	Midvale Conservation Program
February 1 st	Tom Annear	Behavioral and Physiological Effects of Winter Habitat on Trout
March 1 st	Brad Anderson	Midvale Conservation Program
April 5 th	John Lawson	Water Forecast
May 3 rd	Rik Gay	Kendrick Selenium Watershed Project

SPECIAL REPORT

The next meeting of the Water Forum will be October 5th, 2004 at 10:00 a.m. in the State Engineer's Office conference room. Our special guest will be Scott Zimmerman who is with the Rocky Mountain Farmers Union. Mr. Zimmerman will be speaking to us about the organization that has recently formed called the Coalition for Wyoming's Water.

WYOMING STATE WATER FORUM MEETING MINUTES

September 2, 2004

Pat Tyrrell called the two hundred and fortieth 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>
Dale Anderson	WWDC	dander@state.wy.us
Tim Bartos	USGS	ttbartos@usgs.gov
Paul Caffrey	WYGISC	caffrey@uwyo.edu
Jane Cramer	DEQ/WQD	jcrame@state.wy.us
Jim Cranmer	DEQ	jcranm@state.wy.us
Jan Curtis	WRDS/State Climatologist	jcurtis@uwyo.edu
Russ Dahlgren	Dahlgren Consulting	dahlgrenconsult@aol.com
Lou Harmon	DEQ	lharmo@state.wy.us
Ed Kouma	USBR	ekouma@gp.usbr.gov
Harry LaBonde	SEO	hlabon@state.wy.us
Britt Long	AG	blong2@state.wy.us
Jeremy Manley	SEO	jmanle1@state.wy.us
Jon Mason	USGS	jpmason@usgs.gov
Hugh McFadden	AG	hmcfad@state.wy.us
Cheryl Miller	USGS	cemiller@usgs.gov
Kirk Miller	USGS	kmiller@usgs.gov
Stan Mitchem	NRCS	stan.mitchem@wy.usda.gov
Evan Murray	NRCS	evan.murray@wy.usda.gov
Erika Olson	AG	eolson@state.wy.us
John Passehl	DEQ	jpasse@state.wy.us
Jodee Pring	SEO	jpring@state.wy.us
Larry Robinson	DEQ/WQD	lrobin@state.wy.us
John Shields	SEO	jshiel@state.wy.us
David Taylor	NRCS	david.taylor@wy.usda.gov
Pat Tyrrell	SEO	ptyrre@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@state.wy.us. For more information on the following reports, please contact the agency representative listed above.

STATE ENGINEER'S OFFICE

Pat Tyrrell reported the following:

The State Engineer's Office (SEO) has been appropriated more than \$1 million from the legislature to proceed with their IT initiative. The first phase of this initiative will focus on documenting the business processes of all SEO employees. Those business processes will then be analyzed to determine where changes and/or improvements can be made. This process will lead the office into establishing the ability to file applications electronically and guide us toward other advancements that need to be made.

Montana has raised some issues regarding the Yellowstone River Compact. We are currently working with the representatives of that state to answer the questions and concerns that they have over water in the Tongue River.

The SEO has finalized a comment letter on the Platte River Recovery Implementation Program Draft Environmental Impact Statement. The deadline for comments is September 20th. Representatives from the State Engineer's Office and the Attorney General's Office attended three public meetings held July 26th in Saratoga, July 27th in Casper and July 28th in Torrington.

BUREAU OF RECLAMATION / WYOMING AREA OFFICE

John Lawson submitted the following:

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

August 31, 2004 Reservoir Conditions

<u>Reservoir</u>	<u>Elev. (Ft)</u>	<u>Content (AF)</u>	<u>% Full Conservation Storage</u>	<u>% Avg.</u>
Seminole	6301.75	290,403	29	40
Pathfinder	5784.98	192,060	19	34
Alcova	5498.82	181,501	98	101
Glendo	4578.34	92,278	18	65
Guernsey	4395.98	6,060	13	20

August 31, 2003 Reservoir Conditions

<u>Reservoir</u>	<u>Elev. (Ft)</u>	<u>Content (AF)</u>	<u>30 Year Average (AF)</u>
Seminole	6309.46	354,542	734,400
Pathfinder	5796.94	273,229	573,200
Alcova	5497.43	178,112	179,900
Glendo	4582.79	110,382	142,100
Guernsey	4399.75	9,426	30,200

October through August Inflows

<u>Reservoir</u>	<u>Inflows</u>	<u>% Of Average</u>
Seminole	454.8	47
Pathfinder (Sweetwater)	81.4	56
Alcova to Glendo Gains	64.1	31
Glendo to Guernsey	20.7	63

Seminole and Pathfinder Reservoir storage was the lowest August storage in the last 30 years and both had not been this low since water year 1961 and 1960 respectively. The total North Platte system storage was the lowest August storage in the last 43 years.

Ownership of North Platte River Storage Water

Kendrick ownership was 656,024 acre-feet (AF) on August 31, 2004, and approximately 67% of average (978,500 AF), which compares to the ownership of 762,500 AF last year at this date. The Kendrick ownership was the fourth lowest August ownership in the last 30 years. The August 31, 2004, North Platte ownership was 42,894 AF, which was approximately 8% of average (524,700 AF). This compares to 54,600 AF of North Platte ownership on this date last year. The North Platte ownership was the third lowest August ownership in the last 30 years. The Glendo ownership was 65,426 AF on August 31, 2004, which was approximately 44% of average (149,500 AF). This compares to 107,100 AF of Glendo ownership on this date last year. The Glendo ownership was the lowest August ownership in the last 30 years.

Flows in the Miracle Mile below Kortez Dam are approximately 700 cubic feet per second (cfs). Releases from Gray Reef Reservoir are approximately 500 cfs. The level of Alcova Reservoir will be maintained at the normal summer operating range of 5498 ± one foot during September.

2. Water Supply Conditions of the Big Horn Basin

August 31, 2004 Reservoir Conditions

<u>Reservoir</u>	<u>Elev. (Ft)</u>	<u>Content (AF)</u>	<u>% Full Conservation Storage</u>	<u>% Avg.</u>
Bull Lake	5790.04	107,976	71	104
Boysen	4711.45	513,065	69	88
Buffalo Bill	5369.39	463,721	72	94
Pilot Butte	5446.79	22,767	68	117

August 31, 2003 Reservoir Conditions

<u>Reservoir</u>	<u>Elev. (Ft)</u>	<u>Content (AF)</u>	<u>30 Year Average (AF)</u>
Bull Lake	5773.50	65,590	104,300
Boysen	4698.50	351,612	585,600
Buffalo Bill	5378.54	530,468	495,400*
Pilot Butte	5436.96	15,934	19,500

* The average used for Buffalo Bill Reservoir reflects data from 1993 through 2003. 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.

October through August Inflows

Reservoir	Inflows	% Of Average
Bull Lake	147.3	83
Boysen	580.8	62
Buffalo Bill	516.0	61

The total release from Buffalo Bill Reservoir to the river is currently 832 cfs as measured at the Cody river gage. The release from Boysen Dam is currently 895 cfs and is being maintained in response to irrigation demands.

UNITED STATES GEOLOGICAL SURVEY <http://wy.water.usgs.gov/>

Kirk Miller submitted the following:

Streamflows <http://waterdata.usgs.gov/wy/nwis/rt>

Average streamflows in Wyoming for the month of August were about 64 percent of the monthly average. The average is based on long-term USGS gaging stations with 30 or more years of streamflow data. As during May, June, and July, average August streamflows were lowest in the northeast part of the State. At long-term USGS gaging stations in the Tongue, Powder, and Cheyenne River Basins, August streamflows were about 41 percent of the monthly average. Because of the low streamflows in the Tongue and Powder Rivers during the last three to four months, it is likely annual flows in those rivers will be the lowest on record for the last 70 years. Elsewhere in Wyoming, August streamflows at long-term USGS gaging stations ranged from about 57 percent of average in the North Platte River Basin to about 91 percent of average in the Wind River Basin. August streamflows were about 60 percent of average in the Bighorn River Basin and about 67 percent of average in the Green River Basin. Streamflows at some stations are influenced by upstream reservoirs or diversions.

Additional information describing year-to-date streamflows is available at <http://wy.water.usgs.gov/projects/drought/runoff04/>.

New Publications <http://wy.water.usgs.gov/pubs/>

Available now from the Wyoming District Office and online:

- [Fact Sheet 2004-3080](http://pubs.water.usgs.gov/fs20043080/) Pesticides in Ground Water - Teton County, Wyoming, 2001-02 by Cheryl A. Eddy-Miller and Kendra J. Remley (August 2004)
- [Fact Sheet 2004-3079](http://pubs.water.usgs.gov/fs20043079/) Pesticides in Ground Water - Natrona County, Wyoming, 2001-02 by Cheryl A. Eddy-Miller and Kendra J. Remley (August 2004)
- [Fact Sheet 2004-3078](http://pubs.water.usgs.gov/fs20043078/) Pesticides in Ground Water - Sweetwater County, Wyoming, 2001-02 by Cheryl A. Eddy-Miller and Kendra J. Remley (August 2004)
- [Scientific Investigations Report 2004-5017](#) Water-quality characteristics of the Snake River and five tributaries in the upper Snake River Basin, Grand Teton National Park, Wyoming,

1998-2002, by *M.L. Clark, W.J. Sadler, and S.E. O'Ney* (May 2004)

<http://pubs.water.usgs.gov/sir20045017>

At the printer:

- Water-Resources Investigations Report 02-415 Relations Between Total-Sediment Load and Peak Discharge for Rainstorm Runoff on Five Ephemeral Streams in Wyoming by *James G. Rankl* (September 2004)

National Research Program Guest Lecture Series

As part of the USGS-NRP Guest Lecture Series, the Wyoming District is sponsoring a presentation at the September Water Forum by groundwater chemist J.K. Bohlke. The title of the presentation is "Approaches for Quantifying Movement and Reaction of Nitrate in Ground Water and Surface Water."

For more information contact Kirk Miller at (307) 778-2931 ext. 2716, kmiller@usgs.gov

SPECIAL REPORT

Mr. John Karl Bohlke, who is a hydrologist with the U.S. Geological Survey in Reston, VA, was today's special presenter. Mr. Bohlke received his PhD in geology from Berkley and has been with the USGS National Research Program for 13 years. His major interests are isotope hydrology and geochemistry. Mr. Bohlke gave a very interesting and informative presentation entitled "Approaches for Quantifying Movement and Reaction of Nitrate in Ground Water and Surface Water." After questions and discussion on Mr. Bohlke's presentation, the meeting adjourned at 12:00 p.m.