

February 27, 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 February 3, 2004 Water Forum meeting minutes. Please take a few moments and pencil into your calendar the Water Forum dates for this year. **The schedule has changed, so please take note. The next meeting will be March 2nd in the State Engineer's Conference Room at 10:00 a.m.**

WATER FORUM SCHEDULE
2003-2004
1st TUESDAY OF EACH MONTH

DATE	INVITED GUEST	DISCUSSION ITEM
March 2 nd	Steve Jackson – UW	Tree Ring Study
April 6 th	John Lawson - Bureau of Reclamation	Water Forecast
May 4 th	Marge Bedessem - UW	Field evaluation of the fate of wastewater components from septic systems

SPECIAL REPORT

The next meeting of the Water Forum will be March 2, 2004 at 10:00 a.m. in the State Engineer's Office conference room. Our special guest will be Steve Jackson from the University of Wyoming. The title of Mr. Jackson's presentation is: "Droughts, megadroughts and gigdroughts: a long view of drought risk through paleoclimatology". Please plan to attend and hear about this fascinating topic.

WYOMING STATE WATER FORUM MEETING MINUTES

February 3, 2004

John Shields called the two hundred and thirty-seventh 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>
Liberty Blain	Laramie Co. Conservation Dist.	liberty@lccdnet.org
Dawn Colarusso	WOHS/EMA	dcolar@state.wy.us
Mark Conrad	DEQ	mconra@state.wy.us
Debra Cook	WRDS	decook@uwyo.edu
Jan Curtis	WRDS/State Climatologist	jcurtis@uwyo.edu
Rick Huber	G&F	rick.huber@wgf.state.wy.us
Jerry Pierce	BLM	jpierce@blm.gov
John Shields	SEO	jshiel@state.wy.us
Phil Stump	SEO	pstump@state.wy.us
Bob Swanson	USGS	rswanson@usgs.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@state.wy.us. For more information on the following reports, please contact the agency representative listed above.

STATE ENGINEER'S OFFICE

Phil Stump reported the following:

The Platte River Recovery Implementation Program Draft Environmental Impact Statement (PRRIP DEIS) is out for review. A 60-day comment period has been established but that deadline will more than likely be extended to allow the National Academy of Sciences to complete their review. The DEIS can be found at the following website: www.platteriver.org.

The water supply outlook is forthcoming. In all probability, the inflow forecast will be less than 1.1 million acre-feet (maf), which means priority administration for Pathfinder and Guernsey will be initiated.

UNITED STATES GEOLOGICAL SURVEY (USGS)

Bob Swanson reported the following:

The U.S. Geological Survey (USGS) has received \$225,000 to support Interdisciplinary science in the Powder River basin for fiscal year 2004. The USGS anticipates the same level of support for fiscal

years 2005 and 2006. Under this initiative, the Geography Discipline will perform a landscape change analysis using aerial photography from 1994 to the present. The Biology discipline will be studying invasive and exotic plant species. The water discipline and geologic discipline are involved in a joint investigation of hydrologic processes and the geochemistry of disposed water at Skewed Reservoir and Burger Draw.

Senator Conrad Burns (MT) initiated and was successful in obtaining a line item for coal bed methane monitoring in the Tongue River basin for fiscal year 2004 and beyond. The first years' funding is just over \$900,000. The funding will support 13 streamgaging stations with real time discharge and water quality sensors, discrete samples, development of regression equations for sodium adsorption ratio (SAR) estimation, data management and delivery and research for real time direct measurement of SAR. Three of the streamgaging water quality stations will be located in Wyoming.

DEPARTMENT OF ENVIRONMENTAL QUALITY – WATER QUALITY DIVISION

Mark Conrad reported the following:

Wyoming's Draft 2004 305(b) State Water Quality Assessment Report and Wyoming's Draft 2004 303(d) List (included in the Draft 305(b) Report), are available for review and comment until February 17, 2004. This document is available on the DEQ-WQD website under current events <http://deq.state.wy.us/wqd/events.asp>.

LARAMIE COUNTY CONSERVATION DISTRICT (LCCD)

Liberty Blain reported the following:

The Crow Creek Watershed Plan was approved by the Steering Committee on January 20, 2004. The plan will be presented to the LCCD Board of Supervisors for their approval on February 12, 2004.

The National Association of Conservation Districts is holding the 2004 National Convention in Hawaii this week. District Manager, Jim Cochran and District Supervisor, Keith Schoene, are attending the convention.

Later this month, LCCD and Laramie Rivers Conservation District (LRCD) will be meeting with the U.S. Forest Service and Department of Environmental Quality representatives to discuss the new listing of the North Branch and Middle Fork of Crow Creek in the Pole Mountain area. The meeting will focus on the options available in addressing the fecal coliform concerns in those areas.

WATER RESOURCES DATA SYSTEMS (WRDS)

Jan Curtis reported the following:

CLIMATE ATLAS:

Jan is working with the University's Publishing people and expects to have a publisher for the Climate Atlas selected by the end of this week. Depending on the price, there will be several options on the look of the atlas (hard vs. soft cover). Since this is a state funded grant, most state agencies (departments, libraries, schools) and county level authorities will receive the atlas for free. We're hoping to have between 500 and 1,000 copies printed by the end of April.

The on-line version has received very good feedback thus far and we are looking forward to updating and expanding this document over time.

http://www.wrds.uwyo.edu/wrds/wsc/climateatlas/title_page.html

COMMUNITY COLLABORATIVE RAIN AND HAIL STUDY (CoCoRaHS):

Jan and Tony Bergantino attended a meeting with the CoCoRaHS staff in Fort Collins, with favorable results. Nolan Doeskan and Tony believe they will have the software running by the end of February at which time we should start to see Wyoming precipitation reports appearing on-line and in near-real time. We are closely coordinating this effort with the National Weather Service Offices in Cheyenne and Riverton. The CoCoRaHS data will be accessed through an IMS.

DROUGHT:

There will be a workshop of the Western Governor's Association, "Improving the Application of Science in Western Drought Management" along with a planning meeting in Tempe, AZ on March 11-12. Since various drought initiatives will be prioritized and the final list forwarded to Congress in the Spring, Jan Curtis will attend this conference to discuss Wyoming's priorities.

The next drought task force management meeting is scheduled for Friday, 26 March 2004 at 10:00 AM, Hathaway Basement Conference Room (Cheyenne). The next drought status update will be released on 19 February 2004. Other drought related meetings Jan Curtis will attend in the next few months:

- 10 Feb.: Scottsbluff, North Platte Valley Annual Water Policy meeting
- 12 Feb.: Worland, West-AG Days
- 22-25 March and 6-8 April: Basin Advisory Group tours.

POWDER RIVER BASIN:

Northern Basin (T49N to T58N) – Current Project

300 Bubble Plot maps of twelve constituents (bicarbonate, calcium, carbonate, chloride, dissolved solids, fluoride, magnesium, potassium, sodium, SAR, specific conductance, and sulfate) have been developed. We are currently working on contour maps for the same constituents. The data will be accessed through an IMS.

Southern Basin (T38N to T48N) – Proposed Project

Tony Bergantino will be meeting with ENSR from Ft Collins about doing Southern Part of the PRB. He will be updating them on what we are doing with the Northern portion of the basin and the issues that we ran into (NPDES, locations, etc.). Plans are for WRDS and WSGS to put in a proposal to BLM to continue south of 49N and go down to at least 38N (still using the K-T outcrop boundary as the east-west restriction).

We're planning on giving two options:

- We just maintain and add to the current IMS, format/add water quality, provide water quality for analysis or adding any additional features that might be necessary.
- A more robust option is for us to do the Completion Report scanning (roughly 20,000 wells) and augment the database with data from those forms (open intervals, lithology, elevations, etc). We have already had conversations with SEO about the feasibility of doing this again and it would be possible.

WATER PLAN:

Platte – Next Platte Meeting is February 10th in Saratoga. Agenda for the meeting and minutes from the last meeting are online.

<http://waterplan.state.wy.us/BAG/platte/BAG-platte.html#mr>

Snake/Salt – Technical Memos are now online in both PDF and HTML format.

<http://waterplan.state.wy.us/plan/snake/techmemos/techmemos.html>

Wind/Bighorn – Executive Summary and the Final Report are now available online in PDF format.

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

Bridging the Headgate Survey – Overview Data, Detail Data, and information about the survey are now available on the Wyoming Water Development Commission (WWDC) website. An email has been sent to all entities requesting review, additions, and corrections.

<http://wwdc.state.wy.us/surveys.html>

Legislative Report – The 2004 WWDC Legislative report is now available online in PDF and HTML format.

<http://wwdc.state.wy.us/legreport/2004/toc.html>

Requests for Services – WWDC currently has 25 professional service requests to perform water resources studies online at:

<http://wwdc.state.wy.us/projappl/services.html> . Necessary forms, codes, and instructions are also available online.

BUREAU OF RECLAMATION / WYOMING AREA OFFICE

John Lawson submitted the following:

The following is a listing of reservoir conditions on January 31, 2004:

1. Water Supply Conditions of the North Plate River Basin

January 31, 2004 Water Supply Conditions

<u>Reservoir</u>	<u>Elev. (ft)</u>	<u>Content (AF)</u>	<u>% Full Conservation Storage</u>	<u>%/Avg</u>
Seminole	6299.72	274,937	27	49
Pathfinder	5802.96	321,997	32	50
Alcova	5488.28	156,673	85	101
Glendo	4610.33	276,320	53	83
Guernsey	4404.96	15,954	35	165

January 31, 2003 Water Supply Conditions

<u>Reservoir</u>	<u>Elev. (ft)</u>	<u>Content (AF)</u>	<u>30 Year Average (AF)</u>
Seminoe	6291.53	218,350	560,200
Pathfinder	5805.90	347,995	646,600
Alcova	5488.04	156,133	155,100
Glendo	4605.44	239,616	333,800
Guernsey	4401.81	11,735	9,700

October through January Inflows

<u>Reservoir</u>	<u>Inflow (KAF)</u>	<u>% of Average</u>
Seminoe	76.1	70
Pathfinder (Sweetwater R.)	25.7	126
Alcova to Glendo Gains	15.9	35
Glendo to Guernsey	5.4	68

Kendrick ownership was 746,600 acre-feet (AF) on January 31, 2003, and approximately 77% of average (966,100 AF), which compares to the ownership of 768,500 AF last year at this date. The Kendrick ownership was the fifth lowest January ownership in the last 30 years. The January 31, 2004, North Platte ownership was 180,000 AF, which was approximately 31% of average (576,400 AF). This compares to the ownership of 101,700 AF of North Platte ownership on this date last year. The North Platte ownership was the sixth lowest January ownership in the last 30 years. The Glendo ownership was 102,300 AF on January 31, 2004, which was approximately 74% of average (137,700 AF). This compares to 87,200 AF of Glendo ownership on this date last year. The Glendo ownership was the fifth lowest January ownership in the last 30 years.

Flows in the Miracle Mile below Kortess Dam are approximately 535 cubic feet per second (cfs). Releases from Gray Reef Reservoir are approximately 500 cfs. The level of Alcova Reservoir was lowered to the normal winter operating range of 5488 ± one foot.

NORTH PLATTE RUNOFF FORCAST

Total expected April through July runoff in the North Platte Basin above Glendo Dam is expected to be 550,000 acre-feet (AF) or 59% of the 30 year average of 926,900 AF. Approximately 450,000 AF (61% of average) of the runoff is expected to enter Seminoe Reservoir with an additional 55,000 AF (83% of average) being provided to Pathfinder Reservoir from the Sweetwater River, and the balance of 45,000 AF (35% of average) coming from the basin between Pathfinder Reservoir and Glendo Reservoir.

2. Water Supply Conditions of the Big Horn Basin

January 31, 2004 Water Supply Conditions

<u>Reservoir</u>	<u>Elev. (ft)</u>	<u>Content (AF)</u>	<u>% Full Conservation Storage</u>	<u>%/Avg</u>
Bull Lake	5770.19	58,105	38	73
Boysen	4702.84	401,094	54	77
Buffalo Bill	5369.45	463,731	72	117
Pilot Butte	5452.90	27,597	82	121

January 31, 2003 Water Supply Conditions

<u>Reservoir</u>	<u>Elev. (ft)</u>	<u>Content (AF)</u>	<u>30 Year Average (AF)</u>
Bull Lake	5763.58	43,863	79,200
Boysen	4693.09	294,790*	524,300
Buffalo Bill	5355.17	368,418	397,300**
Pilot Butte	5453.53	28,118	25,800

*Storage in Boysen Reservoir was the sixth lowest of record (1953-2004) for the end of January.

**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 January Inflows

<u>Reservoir</u>	<u>Inflow (KAF)</u>	<u>% of Average</u>
Bull Lake	7.3	58
Boysen	136.3	72
Buffalo Bill	54.7	72

The total release from Buffalo Bill Reservoir to the river is approximately 100 cfs and with addition from the springs is 200 cfs as measured at the Cody river gage. The release from Boysen Dam is approximately 350 cfs and will be maintained at this release for the winter.

BIGHORN BASIN RUNOFF FORECAST

The Bighorn Basin forecast indicates inflows from the Shoshone River to Buffalo Bill Reservoir during the April through July period will be 530,000 acre-feet (AF), which is 77% of average, compared to a 30 year average of 684,000 AF.

The Wind River portion of the Bighorn River Basin April through July inflow forecasts include snowmelt runoff into Bull Lake Reservoir from Bull Lake Creek, which is expected to be 110,000 AF (78% of average) and snowmelt runoff in the Wind River above Bull Lake Creek, which is expected to be 320,000 AF (75% of average). The expected inflows to Boysen Reservoir for the April through July period are 350,000 AF (59% of average). With Boysen Reservoir storage well below average and below average inflow forecasted for April through July of this year, water users will need to take measures to conserve the available water supply.

SPECIAL REPORT

Jerry Pierce of the Bureau of Land Management in Kemmerer was today's special presenter. He spoke about the Cumberland allotment and other BLM activities. A copy of his powerpoint presentation can be found on the State Engineer's Office website under State Water Forum meetings.

The meeting adjourned at 11:40 a.m.