



State Engineer's Office

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STATE ENGINEER

March 9, 2005

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 1, 2005 Water Forum meeting minutes. Please take a few moments and pencil into your calendar the Water Forum dates for this year.

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

| DATE | INVITED GUEST | DISCUSSION ITEM |
|-----------------------|----------------------|-------------------------------------|
| 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 April 5, 2005 at 10:00 a.m. in the State Engineer's Office conference room. During this session of the Water Forum, we will have an update on the Water Forecast from the Bureau of Reclamation.

WYOMING STATE WATER FORUM MEETING MINUTES

March 1, 2005

Jodee Pring called the two hundred and forty-sixth 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> |
|---------------|--------------------------|-----------------------------------|
| Matt Bilodeau | COE | matthew.a.bilodeau@usace.army.mil |
| Liberty Blain | LCCD | liberty@lccdnet.org |
| Tamara Boyd | RMIT | tamara.boyd@rmit.edu.au |
| Mark Conrad | WDEQ-WQD | mconra@state.wy.us |
| Jan Curtis | WRDS/State Climatologist | jcurtis@uwyo.edu |
| Mike Jennings | WARWS | mikejennings@wyoming.com |
| Jeremy Lyon | WDEQ-WQD | jlyon@state.wy.us |
| Kirk Miller | USGS | kmiller@usgs.gov |
| Justin Mulbay | WRDS | jmulbay@uwyo.edu |
| Mark Opitz | NRCS | mark.opitz@wy.usda.gov |
| Jodie Pavlica | WWDC | jpavli@state.wy.us |
| Jodee Pring | SEO | jpring@seo.wyo.gov |
| Shane Schulz | Hageman and Brighton | sschulz@hblawoffice.com |

AGENCY REPORTS

In order to assure accuracy in the reporting of the minutes, forms are passed out at the meeting to be completed by the representative of each agency. 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.

This month's Water Forum topic was Water Planning. Jodie Pavlica of the Wyoming Water Development Office (WWDO) gave a short update on what is going on with the Platte River Basin Plan. She also gave a short presentation on the upcoming Framework Water Plan. A copy of Ms. Pavlica's presentation can be found [here](#).

Justin Mulbay, Water Resources Data Systems, shared with the group that all of the information coming out of the Basin Plans has been posted on the Water Planning website. When the Platte River Basin Plan is completed, all of that information will also be posted.

Liberty Blain of the Laramie County Conservation District gave a presentation on the Crow Creek Watershed Plan. This plan has been filed with the Laramie County Clerk's Office and will be updated every five (5) years. Public meetings on this document will be held March 8th in Cheyenne and March 10th in Laramie. A copy of Ms. Blain's powerpoint presentation can be found [here](#).

The attendees then discussed the different methods and avenues their respective agencies have taken towards water planning and water conservation.

We also had a special guest join us for this meeting. Her name is Tamara Boyd and she is under a Fellowship awarded by the Victorian Government of Australia. She is studying groundwater management, with particular emphasis on the practice of trade in groundwater entitlements. Ms. Boyd gave a short presentation on the information she has been gathering and what else she hopes to accomplish on this trip.

BUREAU OF RECLAMATION / WYOMING AREA OFFICE

John Lawson submitted the following:

1. Water Supply Conditions of the North Platte River Basin

February 28, 2005 Reservoir Conditions

| <u>Reservoir</u> | <u>Elev. (Ft)</u> | <u>Content (AF)</u> | <u>% Full Conservation Storage</u> | <u>% Avg.</u> | <u>30 Year Average (AF)</u> |
|------------------|-------------------|---------------------|------------------------------------|---------------|-----------------------------|
| Seminoe | 6298.69 | 267,300 | 26 | 53 | 506,700 |
| Pathfinder | 5793.60 | 248,700 | 24 | 38 | 656,600 |
| Alcova | 5487.92 | 155,900 | 85 | 100 | 155,700 |
| Glendo | 4613.11 | 298,600 | 58 | 79 | 375,600 |
| Guernsey | 4407.20 | 19,400 | 43 | 142 | 13,700 |

February 28, 2004 Reservoir Conditions

| <u>Reservoir</u> | <u>Elev. (Ft)</u> | <u>Content (AF)</u> |
|------------------|-------------------|---------------------|
| Seminoe | 6298.22 | 263,900 |
| Pathfinde | 5804.18 | 332,600 |
| Alcova | 5488.38 | 156,900 |
| Glendo | 4614.39 | 309,200 |
| Guernsey | 4406.46 | 18,200 |

February 2005 Inflows

| <u>Reservoir</u> | <u>Inflows (KAF)</u> | <u>% of Average</u> |
|----------------------------------|----------------------|---------------------|
| Seminoe | 28.1 | 105 |
| Pathfinder (Includes Sweetwater) | 6.4 | 103 |
| Alcova to Glendo Gains | 6.5 | 45 |
| Glendo to Guernsey Gains | 0.8 | 62 |

The February inflows were above average for Seminoe and Pathfinder reservoirs, and below average for Glendo and Guernsey reservoirs. The February inflow into Glendo Reservoir was the lowest inflow of record since the construction of Glendo Dam in 1958. The February inflow into Guernsey Reservoir was the 4th lowest inflow in the last 30 years

Kendrick ownership was 638,300 acre-feet (AF) on February 28, 2005, and approximately 67% of average (952,500 AF), which compares to the 744,300 AF of Kendrick ownership on this date last year. The February 28, 2005, North Platte ownership was 276,400 AF, which was approximately

47% of average (588,700 AF), which compares to the 217,000 AF of North Platte ownership on this date last year. The Glendo ownership was 62,900 AF on February 28, 2005, which was approximately 44% of average (141,400 AF), which compares to the 102,100 AF of Glendo ownership on this date last year. The Kendrick ownership was the 4th lowest February ownership in the last 30 years. The Glendo ownership was the 2nd lowest February ownership in the last 30 years.

Flows in the Miracle Mile below Kortez Dam are approximately 516 cubic feet per second (cfs). Releases from Gray Reef Reservoir are approximately 500 cfs.

a. North Platte River Basin Forecast

The March 1, 2005, water supply forecast indicates below average April - July runoff for the North Platte River Basin.

North Platte Water Supply Forecast

| Forecast Points | March 1, 2005 Forecast of April-July Runoff | | | 30 Yr. April-July Runoff Avg. ² | Most Probable % of Avg. | Comparative Actual April - July Runoff | | | |
|--|---|---------------|---------------------------------|--|-------------------------|--|-------------|-------------|-------------|
| | Reasonable Maximum ¹ | Most Probable | Reasonable Minimum ¹ | | | W. Yr. 2004 | W. Yr. 2003 | W. Yr. 2002 | W. Yr. 2001 |
| Seminole Reservoir | 670 | 470 | 270 | 706.8 | 66 | 277 | 530 | 118 | 387 |
| Sweetwater River above Pathfinder Res. | 95 | 60 | 25 | 64.0 | 94 | 34 | 17 | 15 | 21 |
| Alcova to Glendo | 135 | 55 | 20 | 126.0 | 44 | 34 | 93 | 18 | 113 |

¹ The probability is estimated to be 8 chances in 10 that the actual volume will fall between the reasonable minimum and reasonable maximum.

² Average is based on the 1975-2004 period.

2. Water Supply Conditions of the Big Horn Basin

February 28, 2005 Reservoir Conditions

| <u>Reservoir</u> | <u>Elev. (Ft)</u> | <u>Content (AF)</u> | <u>% Full Conservation Storage</u> | <u>% Avg.</u> | <u>30 Year Average (AF)</u> |
|------------------|-------------------|---------------------|------------------------------------|---------------|-----------------------------|
| Bull Lake | 5788.87 | 104,700 | 69 | 137 | 76,300 |
| Boysen | 4719.46 | 638,900 | 86 | 127 | 503,400 |
| Buffalo Bill | 5370.42 | 470,600 | 73 | 118 | 398,100* |
| Pilot Butte | 5452.34 | 27,100 | 80 | 116 | 23,400 |

* The average used for Buffalo Bill Reservoir reflects data from 1993 through 2004. In 1992, the capacity of the reservoir was increased to approximately 646,565 AF as a result of raising the dam.

February 28, 2004 Reservoir Conditions

| <u>Reservoir</u> | <u>Elev. (Ft)</u> | <u>Content (AF)</u> |
|------------------|-------------------|---------------------|
| Bull Lake | 5770.23 | 58,100 |
| Boysen | 4703.87 | 413,400 |
| Buffalo Bill | 5370.14 | 468,600 |
| Pilot Butte | 5453.05 | 27,700 |

February 2005 Inflows

| <u>Reservoir</u> | <u>Inflow (KAF)</u> | <u>% of Average</u> |
|------------------|---------------------|---------------------|
| Bull Lake | 1.8 | 113 |
| Boysen | 38.7 | 102 |
| Buffalo Bill | 12.3 | 92 |

Inflow to Bull Lake and Boysen Reservoirs was above average during February while Buffalo Bill Reservoir inflow was below average. The total release from Buffalo Bill Reservoir to the river is currently 150 cfs pursuant to the new Winter Release Agreement signed in December 2004. With the inflow from the springs, the flow measured at the Cody river gage is 245 cfs. The release from Boysen Dam is currently 400 cfs.

a. Forecast

The March 1, 2005, water supply forecast indicates below average April - July runoff for Bull Lake, Boysen, and Buffalo Bill Reservoirs and the Wind River above Bull Lake Creek.

Bighorn Water Supply Forecast

| Forecast Points | March 1, 2005 Forecast of April-July Runoff | | | 30 Yr. April-July Runoff Avg. ² | Most Probable % of Avg. | Comparative Actual April - July Runoff | | | |
|----------------------------------|---|---------------|---------------------------------|--|-------------------------|--|-------------|-------------|-------------|
| | Reasonable Maximum ¹ | Most Probable | Reasonable Minimum ¹ | | | W. Yr. 2004 | W. Yr. 2003 | W. Yr. 2002 | W. Yr. 2001 |
| Bull Lake Reservoir | 165 | 135 | 100 | 139.4 | 97 | 117 | 110 | 99 | 86 |
| Wind River above Bull Lake Creek | 390 | 290 | 220 | 415.6 | 70 | 294 | 302 | 277 | 181 |
| Boysen Reservoir | 600 | 400 | 300 | 572.4 | 70 | 321 | 262 | 159 | 118 |
| Buffalo Bill Reservoir | 525 | 450 | 350 | 662.6 | 64 | 387 | 668 | 553 | 375 |

¹ The probability is estimated to be 8 chances in 10 that the actual volume will fall between the reasonable minimum and reasonable maximum.

² Average is based on the 1975-2004 period.

3. Snow Conditions (From NRCS February 28, 2005 Report)

The following table shows the current and preceding weeks' percentage of average snow water equivalent amounts for Wyoming basins. Average is based on all reporting Snotel sites in the basin. The reference period for average comparison is 1971-2000. The table does not include

manually read snow courses.

Snow Pack

| <u>Drainage Basin</u> | <u>2/28/05</u> | <u>2/22/05</u> | <u>2/14/05</u> | <u>2/7/05</u> | <u>2/28/04</u> |
|-----------------------|----------------|----------------|----------------|---------------|----------------|
| Wind River | 94 | 98 | 99 | 98 | 84 |
| Bighorn Basin | 65 | 68 | 68 | 65 | 83 |
| Shoshone | 58 | 61 | 60 | 57 | 76 |
| Upper North Platte | 97 | 101 | 97 | 95 | 85 |
| Lower North Platte | 87 | 91 | 88 | 88 | 79 |

4. North Platte Flushing Flows

A series of flushing flow releases is being planned for the North Platte River below Gray Reef Dam. They are scheduled to take place the week of March 6th.

The meeting adjourned at 12:00 p.m.