



# State Engineer's Office

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GOVERNOR

PATRICK T. TYRRELL  
STATE ENGINEER

April 20, 2010

## MEMORANDUM

TO: Members of the State Water Forum

FROM: Patrick Tyrrell, Chairman

SUBJECT: Attached for your review and information is a copy of the April 6, 2010 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 May 4<sup>th</sup> in the State Engineer's Conference Room at 10:00 a.m.

### WATER FORUM SCHEDULE 2009-2010 1<sup>st</sup> TUESDAY OF EACH MONTH

| DATE                | INVITED GUEST | DISCUSSION ITEM |
|---------------------|---------------|-----------------|
| May 4 <sup>th</sup> |               |                 |

### SPECIAL REPORT

The next meeting of the Water Forum will be May 4, 2010 at 10:00 a.m. in the State Engineer's Office conference room.

# WYOMING STATE WATER FORUM MEETING MINUTES

April 6, 2010

Pat Tyrrell called the two hundred and ninety-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>                     |
|------------------|--------------------|-----------------------------------|
| Matt Bilodeau    | COE                | matthew.a.bilodeau@usace.army.mil |
| Nephi Cole       | NRCS/WACD          | nephi.cole@wy.usda.gov            |
| Paul Dey         | WY G&F             | paul.dey@wgf.state.wy.us          |
| Kristi Hansen    | UW – Ag Econ Dept. | khanse18@uwyo.edu                 |
| Art Hill         | USBR               | ahill@usbr.gov                    |
| Rick Huber       | WY G&F             | rick.huber@wgf.state.wy.us        |
| Harry LaBonde    | SEO                | hlabon@seo.wyo.gov                |
| Chris Nicholson  | WRDS               | cnichol5@uwyo.edu                 |
| Jodee Pring      | SEO                | jpring@seo.wyo.gov                |
| John Shields     | SEO                | jshiel@seo.wyo.gov                |
| Pat Tyrrell      | SEO                | ptyrre@seo.wyo.gov                |
| Mahonri Williams | USBR               | mlwilliams@usbr.gov               |
| Steve Wolff      | SEO                | swolff@seo.wyo.gov                |
| Marion Yoder     | AG                 | myoder@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. For more information on the following reports, please contact the agency representative listed above.

### STATE ENGINEER'S OFFICE (SEO)

Pat Tyrrell reported the following:

The SEO was appropriated money by the Legislature during this past budget session for operation and maintenance on e-permit. The SEO e-permit system went live to the public on February 5, 2010.

The SEO was also appropriated \$974,000 to add more gaging sites. Approximately 25 of these sites are on streams and 75 are on ditches, canals and reservoirs.

Jodee Pring reported the following:

The following Basin Advisory Group (BAG) meetings have been scheduled:

May 19<sup>th</sup> – Platte BAG

May 20<sup>th</sup> – Wind/Bighorn BAG

May 25<sup>th</sup> – Green BAG

May 26<sup>th</sup> – Snake/Salt BAG

May 27<sup>th</sup> – Bear BAG  
June 16<sup>th</sup> – Powder/Tongue BAG – Sheridan  
June 17<sup>th</sup> – Northeast BAG – Gillette

The Water Planning team is currently reviewing the draft reports for the Green River Basin Plan Update and the Wind/Bighorn Basin Plan Update.

The draft report for the Wind/Bighorn Basin Plan Update is available for public review and can be found at: <http://waterplan.state.wy.us/plan/bighorn/bighorn-plan.html>

The draft report for the groundwater portion of the Green River Basin Plan Update is also available for review and can be found at:  
<http://waterplan.state.wy.us/plan/green/green-plan.html>

During this last legislative session, the Water Development Commission was appropriated \$175,000 for a Level I Bear River Basin groundwater study. This study will be conducted by the Wyoming State Geological Survey (WSGS) and the United States Geological Survey (USGS).

Work continues by the Water Planning team on the Bear River Basin Water Plan surface water update. We continue to make progress on updating tech memos and portions of the original plan.

John Shields reported the following:

June 2-4, 2010 at Little America in Cheyenne, WY, the Salinity Control forum will be meeting.

June 9-10, 2010 the Upper Colorado River Commission will be meeting, also at Little America in Cheyenne, WY.

#### WATER RESOURCES DATA SYSTEM

Chris Nicholson reported the following:

Chris passed two handouts: one on Wyoming Precipitation: Departures from Normal and the other showing the April temperature average max, record max, average min and record min in Casper from 1948 – 2009 and the April temperature average max, record max, average min and record min in Cheyenne from 1915 – 2009. A copy of these handouts can be found **here**.

Chris also announced that irrigation surveys were sent out in February. The deadline for returning these surveys is April 30<sup>th</sup>.

#### NATURAL RESOURCES CONSERVATION SERVICE (NRCS)

Nephi Cole reported the following:

Conservation Districts around the state will be working on Total Maximum Daily Loads (TMDLs) this summer. TMDLs will be taking place in the Big Horn Basin, the Belle Fourche, the Tongue River, the North Platte and Crow Creek.

The NRCS is moving forward, with contract help from the University of Wyoming, a web-based GIS tool. The hope is to have an alpha version out at the end of the summer.

The Wyoming Association of Conservation Districts (WACD) is hosting an EPA workshop at Laramie County Community College on April 20<sup>th</sup>. The workshop will be showcasing the EPA internet tools for watershed management. For more information on this workshop, please contact the Wyoming Association of Conservation Districts at <http://www.conservewy.com/>

A water quality/monitoring course will be held in Lander, WY April 21-23. This workshop is open to the public. More information can be found at <http://www.conservewy.com/>

A copy of the Monday Morning Snow Report for April 5<sup>th</sup>, 2010 can be found **here**.

#### WYOMING GAME AND FISH (WY G&F)

Paul Dey reported the following:

The Game and Fish Department has submitted 19 applications to the Wyoming Wildlife Trust Fund totaling approximately \$733,000. Twenty aquatic projects have also been submitted for FY 2011 for a total of \$1.8 million.

During this last legislative session, \$1.5 million was appropriated to the Game and Fish to begin developing a program to handle invasive species. The legislation also allows for inspection, impoundment and cleaning of watercraft.

This summer, a sticker will be required for all water craft. The fee will be dependent on the size of the craft. The stickers will be available April 17<sup>th</sup> on the G&F website.

The G&F is also hiring 2 permanent positions for invasive species coordination.

Rick Huber reported the following:

The department will present the final Wildlife Protection recommendations for Wind Energy Development in Wyoming at the April 23, 2010 Wyoming Game and Fish Commission meeting. The Commission will be listening to public testimony at this meeting. A copy of this document has been posted to the Game and Fish website.

A copy of the decision tree for progressive channel monitoring recommendations associated with wind energy development can be found **here**.

#### BUREAU OF RECLAMATION / WYOMING AREA OFFICE

John Lawson submitted the following:

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

##### March 31, 2010 Reservoir Conditions

| <u>Reservoir</u> | <u>Elev. (Ft)</u> | <u>Content (AF)</u> | <u>% Full Conservation Storage</u> | <u>% Avg.</u> |
|------------------|-------------------|---------------------|------------------------------------|---------------|
| Seminole         | 6338.28           | 689,763             | 68                                 | 147           |
| Pathfinder       | 5835.94           | 736,425             | 72                                 | 121           |
| Alcova           | 5488.76           | 157,758             | 86                                 | 100           |
| Glendo           | 4621.63           | 373,634             | 72                                 | 92            |
| Guernsey         | 4408.69           | 21,973              | 48                                 | 112           |

March 31, 2009 Reservoir Conditions

| <u>Reservoir</u> | <u>Elev. (Ft)</u> | <u>Content (AF)</u> | <u>30 Year Average (AF)</u> |
|------------------|-------------------|---------------------|-----------------------------|
| Seminoe          | 6326.24           | 528,612             | 470,300                     |
| Pathfinder       | 5811.75           | 404,822             | 608,600                     |
| Alcova           | 5489.11           | 158,552             | 158,800                     |
| Glendo           | 4617.34           | 334,551             | 404,800                     |
| Guernsey         | 4407.62           | 20,138              | 19,700                      |

March 2010 Inflows

| <u>Reservoir</u>         | <u>Inflows</u> | <u>% Of Average</u> |
|--------------------------|----------------|---------------------|
| Seminoe                  | 48.9           | 85                  |
| Pathfinder (Sweetwater)  | 13.6           | 114                 |
| Alcova to Glendo Gains   | 15.2           | 89                  |
| Glendo to Guernsey Gains | 2.6            | 173                 |

Kendrick ownership was 1,004,075 acre-feet (AF) on March 31, 2010 and approximately 117% of average (858,600 AF), which compares to the ownership of 520,389 AF last year at this date. The March 31, 2010 North Platte ownership was 824,740 AF, which was approximately 128% of average (643,100 AF), which compares to 833,350 AF of North Platte ownership on this date last year. The Glendo ownership was 121,692 AF on March 31, 2010, which was approximately 94% of average (129,300 AF), which compares to the 83,199 AF of Glendo ownership on this date last year.

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 being raised 10 feet during the month of April and will be at its summer operating range of 5498± one foot by May 1. A flushing flow was conducted on the North Platte River in coordination with the Wyoming Game and Fish during the week of March 22-26. The flush flows consisted of increasing releases from Gray Reef Dam from 500 cfs to 4,000 cfs for 4 hours and back down to 500 cfs for five consecutive days.

North Platte Water Supply Forecast

(1000 acre-feet)

| Forecast Points                             | April 1, 2010 Forecast of April-July Runoff |          |                                 | 30 Yr. April-July Runoff Avg. <sup>2</sup> | Expected % of Avg. | Comparative Actual April - July Runoff |             |             |             |
|---------------------------------------------|---------------------------------------------|----------|---------------------------------|--------------------------------------------|--------------------|----------------------------------------|-------------|-------------|-------------|
|                                             | Reasonable Maximum <sup>1</sup>             | Expected | Reasonable Minimum <sup>1</sup> |                                            |                    | W. Yr. 2009                            | W. Yr. 2008 | W. Yr. 2007 | W. Yr. 2006 |
| Seminoe Reservoir                           | 950                                         | 650      | 350                             | 706                                        | 92                 | 964                                    | 956         | 425         | 546         |
| Sweetwater River Above Pathfinder Reservoir | 60                                          | 40       | 30                              | 61                                         | 66                 | 48                                     | 52          | 24          | 32          |
| Alcova to Glendo                            | 200                                         | 120      | 60                              | 125                                        | 96                 | 161                                    | 209         | 102         | 45          |

<sup>1</sup> The probability is estimated to be 9 chances in 10 that the actual volume will fall between the reasonable minimum and reasonable maximum.

<sup>2</sup> Average is based on the 1980-2009 period.

## 2. Water Supply Conditions of the Big Horn Basin

### March 31, 2010 Reservoir Conditions

| <u>Reservoir</u> | <u>Elev. (Ft)</u> | <u>Content (AF)</u> | <u>% Full<br/>Conservation Storage</u> | <u>% Avg.</u> |
|------------------|-------------------|---------------------|----------------------------------------|---------------|
| Bull Lake        | 5779.95           | 81,236              | 53                                     | 107           |
| Boysen           | 4716.84           | 594,760             | 80                                     | 111           |
| Buffalo Bill     | 5363.96           | 425,925             | 66                                     | 104           |
| Pilot Butte      | 5454.55           | 28,971              | 86                                     | 100           |

### March 31, 2009 Reservoir Conditions

| <u>Reservoir</u> | <u>Elev. (Ft)</u> | <u>Content (AF)</u> | <u>30 Year Average (AF)</u> |
|------------------|-------------------|---------------------|-----------------------------|
| Bull Lake        | 5783.70           | 90,865              | 76,100                      |
| Boysen           | 4716.63           | 591,362             | 538,000                     |
| Buffalo Bill     | 5365.04           | 432,923             | 410,000*                    |
| Pilot Butte      | 5453.18           | 27,828              | 29,100                      |

\* The average used for Buffalo Bill Reservoir reflects data from 1993 through 2009. 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 2010 Inflows

| <u>Reservoir</u> | <u>Inflows (KAF)</u> | <u>% Average</u> |
|------------------|----------------------|------------------|
| Bull Lake        | 2.2                  | 122              |
| Boysen           | 53.9                 | 104              |
| Buffalo Bill     | 15.4                 | 81               |

The release from Buffalo Bill Reservoir to the river and the springs is approximately 410 cfs as measured at the Cody river gage. The release from Boysen Dam has been decreased to approximately 700 cfs. A flushing flow was conducted on the Wind River in coordination with the Wyoming Game and Fish on March 30-31. The flush slows consisted of increasing releases from Boysen Dam from 700 cfs to 5,000 cfs for 10 hours and gradually decreased back to 700 cfs.

## Bighorn Water Supply Forecast

(1000 acre-feet)

| Forecast Points                  | April 1, 2010 Forecast of April-July Runoff <sup>3</sup> |          |                                 | 30 Yr. April-July Runoff Avg. <sup>2</sup> | Expected % of Avg. | Comparative Actual April - July Runoff |             |             |             |
|----------------------------------|----------------------------------------------------------|----------|---------------------------------|--------------------------------------------|--------------------|----------------------------------------|-------------|-------------|-------------|
|                                  | Reasonable Minimum <sup>1</sup>                          | Expected | Reasonable Maximum <sup>1</sup> |                                            |                    | W. Yr. 2009                            | W. Yr. 2008 | W. Yr. 2007 | W. Yr. 2006 |
|                                  | Bull Lake Reservoir                                      | 95       | 110                             |                                            |                    | 125                                    | 140.4       | 78          | 159         |
| Wind River above Bull Lake Creek | 180                                                      | 230      | 280                             | 404.3                                      | 57                 | 546                                    | 412         | 199         | 282         |
| Boysen Reservoir                 | 250                                                      | 400      | 550                             | 553.4                                      | 72                 | 803                                    | 522         | 211         | 201         |
| Buffalo Bill Reservoir           | 375                                                      | 450      | 550                             | 659.7                                      | 68                 | 954                                    | 955         | 427         | 546         |

<sup>1</sup> The probability is estimated to be 9 chances in 10 that the actual volume will fall between the reasonable minimum and reasonable maximum.

<sup>2</sup> Average is based on the 1980-2009 period.

### SPECIAL REPORT

Art Hill, with the Bureau of Reclamation's Snake River Area Office and Mahonri Williams, with the Wyoming Area Office gave presentations on the Water Forecast for this upcoming year.

Some highlights from Art Hill's presentation include:

- Palisades should fill if irrigators don't have to turn on too early.
- American Falls filled April 1<sup>st</sup>
- The stop logs on the spillway of Lake Walcott are being replaced. Work should begin this coming fall.
- Twin Falls started taking water last week.
- Two fish passage projects for salmon have been initiated; one at Palisades and one at Milner.

A copy of Art Hill's presentation can be found [here](#).

Some highlights from Mahonri Williams' presentation included:

- A full water supply will be available for used in the Platte River Basin.
- Currently, Glendo Reservoir is 92% of average.
- Currently, Seminole Reservoir is 120% of average.
- A new spillway will be constructed at Glendo. The contract will be let out this summer and construction will start this fall.
- The Pathfinder Modification project is ongoing. The Water Development Commission is totally funding this project. Construction is scheduled to start this fall.

A copy of Mahonri Williams' presentation can be found [here](#).

The meeting adjourned at 12:00 pm.