

April 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 April 6, 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 May 4th 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 |
|---------------------|---------------------|---|
| 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 May 4th, 2004 at 10:00 a.m. in the State Engineer's Office conference room. Our special guest will be Marge Bedessem who is an assistant professor of Civil Engineering at the University of Wyoming. Ms. Bedessem will be speaking to us about field evaluation of the fate of wastewater components from septic systems. Please plan to join us for this informative session.

WYOMING STATE WATER FORUM MEETING MINUTES

April 6, 2004

Pat Tyrrell called the two hundred and thirty-eighth 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@nwo02.usace.army.mil |
| Pepper Herman | WY Assoc. Rural Water | wyogw@yahoo.com |
| Mike Jennings | WARWS | mikejennings@wyoming.com |
| Ed Kouma | USBR | ekouma@gp.usbr.gov |
| Harry LaBonde | SEO | hlabon@state.wy.us |
| Sue Lowry | SEO | slowry@state.wy.us |
| Bill Lockett | Casper Star-Tribune | lockett@trib.com |
| Erika Olson | AG | eolson@state.wy.us |
| John Shields | SEO | jshiel@state.wy.us |
| Mike Sweat | USGS | mjsweat@usgs.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

Sue Lowry reported the following:

The Yellowstone River Compact Commission will meet in Sheridan on April 15. The Commission has generally met in December, but this year the Commission decided to meet in the spring to review the water condition forecasts prior to the water year main irrigation deliveries. The Technical Committee of the Commission will meet the day prior, April 14, also in Sheridan.

The Bear River Commission will hold its spring meeting on April 20, in Salt Lake City. Due to the extended drought conditions, Bear Lake is at a historic low elevation and downstream irrigation deliveries will be severely curbed this coming season.

The Western Governors' Association has completed a report on Drought Information and the need to better integrate the data collected for drought response and planning. The report can be found at their web site: <http://www.westgov.org/>

The National Academy of Sciences review of the endangered species in the central Platte River basin is now expected out April 28. As the Bureau of Reclamation anticipated the public being able to review the NAS study while reviewing the draft Environmental Impact Statement for the Cooperative Program, the deadline for comments on the dEIS may be extended beyond its current deadline of June 1, 2004.

The North Platte Decree Committee will be holding its semi-annual meeting on April 13 in Scottsbluff, Nebraska.

John Shields reported the following:

Upper Colorado River Endangered Fish Recovery Program:

Copies of the Recovery Program's 2003-2004 Program Highlights briefing book prepared for the Congressional delegation and committee staff briefings held in mid-March in Washington, DC were passed out to the attendees. These meetings, along with ones with Administration and select NGO officials, are held annually to engender support for federal appropriations for fiscal year 2005 for the Upper Colorado Recovery Program and its sister program in the San Juan River basin. The Congressional delegation for CO, NM, UT and WY indicated great support for the Program's funding needs and nearly all of them signed onto joint delegation funding support letters submitted to the appropriation subcommittees for USBR and USFWS.

Colorado River Basin Salinity Control Forum:

The next meeting of this group will be June 3, 2004 at the Holiday Inn in Rock Springs. A tour of the Big Sandy Salinity Control Project, Pinedale area (Jonah CBM development) and Fontenelle and Seedskaatee National Wildlife Refuge will be held on June 2nd.

Wyoming Water Association:

The summer board meeting has been scheduled for the evening of July 8th at the Holiday Inn in Sheridan. The summer educational tour will be held the next day, Friday, July 9th in the Sheridan/Bufalo area of water project facilities and water quantity and water quality issues of local and regional concern.

The 2004 WWA Annual Meeting and Educational Seminar will be held October 27-29th at the Radisson Hotel in Casper, WY.

WATER RESOURCES DATA SYSTEMS (WRDS)

Jan Curtis submitted the following report:

Climate Atlas

The new climate atlas will be delivered in about a week. Jan has identified over 500 local, state, and federal agencies within Wyoming that will receive this atlas. We have received individual orders for about 20 copies (\$30 each) thus far. The on-line version has received many good comments across a broad spectrum of stakeholders. http://www.wrds.uwyo.edu/wrds/wsc/climateatlas/title_page.html

CoCoRaHS

CoCoRaHS has been launched in Wyoming and volunteers are being equipped with rain gauges and instructed on how to report their values. <http://www.cocorahs.org>

NWS Coop

WRDS anticipates having a live data feed from the Lagoons weather station (2 miles NW of Laramie 2NW Coop Weather Station) on its website by the end of June. This station has been operated since 1966 and Tony is currently working on establishing a radio communications link between the site and his office.

Drought

The next Governor's Drought Task Force will be on Friday, 30 April 2004.

Wyoming March climate summaries can be found at:

http://www.wrds.uwyo.edu/wrds/wsc/monthsum/2004Mar/2004Mar_summary.html

Library

The WRDS library is expected to receive a large and unique donation of books from Thomas Hanly, Sr. who began working for the USGS, Water Resources Division in 1929. In 1946 he moved to Worland to do water quality studies on the Upper Missouri River Basin. He was the District Engineer from 1958-1969. <http://library.wrds.uwyo.edu>

Powder River Basin Project

The Powder-Tongue IMS for the coal and water quality mapping project in the northern Powder River Basin is nearing completion and data are being reviewed. 386 bubble plot maps of twelve constituents (bicarbonate, calcium, carbonate, chloride, dissolved solids, fluoride, magnesium, potassium, sodium, SAR, specific conductance, and sulfate) have been developed. 179 contour maps covering the same constituents have been developed. The IMS has the following map layers: surface and groundwater sampling locations, roads, towns, project boundary, hydrography, geology, counties, PLSS, coal extents, formations, and constituent concentrations.

Water Plan

Platte – Next Platte meeting is April 13th in Torrington. The agenda for the meeting is online.

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

Snake/Salt – Final report is online and the GIS shapefiles are now being reviewed.

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

Wind/Bighorn – With the exception of diversions, the website is finished.

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

All Basins: Meeting records and power point presentations from the last BAG swing are online.

<http://waterplan.state.wy.us/BAG/BAG.html>

U. S. ARMY CORPS OF ENGINEERS – WYOMING REGULATORY OFFICE

Matt Bilodeau reported the following:

In a published ruling issued on March 2, 2004, the 10th Circuit Court of Appeals ruled on the merits of the lawsuit filed against the Corps by the Greater Yellowstone Coalition, et.al., over issuance of the Canyon Club permit. In a unanimous decision, the Appeals Court affirmed the District court decision

and upheld the Corps issuance of the Section 404 permit to Canyon Club. Issuance of the Corps permit was originally upheld by the 10th District Court in a decision issued in April 2003 by Judge William Downes. The lawsuit concerned a permit issued by the Corps to Canyon Club, Inc. for the development of a golf course in Teton County, Wyoming. Tom Johnson was the Corps project manager who prepared the NEPA and Statement of Findings document for the permit and who worked over the past several years with U.S Attorneys to defend it.

BUREAU OF RECLAMATION / WYOMING AREA OFFICE

John Lawson submitted the following:

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

March 31, 2004 Reservoir Conditions

| | <u>Elev. (Ft)</u> | <u>Content (AF)</u> | <u>% Full Conservation Storage</u> | <u>% Avg.</u> |
|------------|-------------------|---------------------|------------------------------------|---------------|
| Seminole | 6302.11 | 293,208 | 29 | 60 |
| Pathfinder | 5804.82 | 338,268 | 33 | 48 |
| Alcova | 5488.23 | 156,561 | 85 | 98 |
| Glendo | 4619.80 | 356,617 | 69 | 84 |
| Guernsey | 4407.59 | 20,088 | 44 | 90 |

March 31, 2003 Reservoir Conditions

| <u>Reservoir</u> | <u>Elev. (Ft)</u> | <u>Content (AF)</u> | <u>30 Year Average (AF)</u> |
|------------------|-------------------|---------------------|-----------------------------|
| Seminole | 6290.63 | 212,696 | 491,200 |
| Pathfinder | 5807.80 | 365,673 | 708,100 |
| Alcova | 5488.96 | 158,212 | 159,200 |
| Glendo | 4615.59 | 319,370 | 426,700 |
| Guernsey | 4405.52 | 16,790 | 22,400 |

1/ Ten year average (1994-2003)

October through February Inflows

| <u>Reservoir</u> | <u>Inflows</u> | <u>% of Average</u> |
|-------------------------|----------------|---------------------|
| Seminole | 159.9 | 83 |
| Pathfinder (Sweetwater) | 51.3 | 133 |
| Alcova to Glendo Gains | 35.6 | 45 |
| Glendo to Guernsey | 8.0 | 74 |

April 1, 2004 Snowpack

Snow in the basin above Seminole is at 64% of average, in the Sweetwater Basin above Pathfinder Reservoir it is at 81% of average and in the lower basin (Pathfinder to Glendo) it is at 61% of average.

April 1, 2004 Snowmelt Runoff Forecast

April forecasts of April-July runoff were prepared for the following forecast points in the North Platte Basin:

| <u>Forecast Point</u> | <u>Most Probable Inflow</u> | <u>Percent of Average</u> |
|--|-----------------------------|---------------------------|
| North Platte River above Seminoe Reservoir | 250,000 AF | 34 |
| Sweetwater River above Pathfinder Reservoir | 50,000 AF | 76 |
| Alcova to Glendo Reach | 40,000 AF | 31 |

Ownership of North Platte River Storage Water

Kendrick ownership was 741,258 acre-feet (AF) on March 31, 2004, and approximately 77% of average (957,800 AF), which compares to the ownership of 767,655 AF last year at this date. The March 31, 2004, North Platte (Pathfinder and Guernsey) ownership totaled 304,630 AF, which was approximately 46% of average (669,300 AF). This compares to the 201,713 AF of North Platte ownership on this date last year. The Glendo ownership was 101,118 AF on March 31, 2004, which was approximately 69% of average (147,400 AF). This compares to the 86,023 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 at 500 cfs. The level of Alcova Reservoir is at the normal winter operating range of 5488 ± one foot. Beginning April 1, Alcova Reservoir will be increased during the month to its summer operating range of 5498 ± one foot by April 30.

2. Water Supply Conditions of the Big Horn Basin

March 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 | 5770.23 | 58,105 | 38 | 74 |
| Boysen | 4706.18 | 442,045 * | 60 | 89 |
| Buffalo Bill | 5372.25 | 483,550 | 75 | 127 |
| Pilot Butte | 5452.87 | 27,572 | 82 | 111 |

* Except for last year storage in Boysen Reservoir for the end of February has not been lower since 1961.

March 31, 2003 Reservoir Conditions

| <u>Reservoir</u> | <u>Elev. (Ft)</u> | <u>Content (AF)</u> | <u>30 Year Average (AF)</u> |
|------------------|-------------------|---------------------|-----------------------------|
| Bull Lake | 5763.92 | 44,556 | 79,000 |
| Boysen | 4697.97 | 345,821 | 498,900 |
| Buffalo Bill | 5357.64 | 384,063 | 380,900** |
| Pilot Butte | 5453.50 | 28,093 | 24,900 |

** 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 February Inflows

| <u>Reservoir</u> | <u>Inflows</u> | <u>% of Average</u> |
|------------------|----------------|---------------------|
| Bull Lake | 9.5 | 59 |
| Boysen | 220.5 | 78 |
| Buffalo Bill | 87.3 | 80 |

April 1, 2004 Snowpack

Snowpack in the basin above Bull Lake is at 69% of average, above Boysen Reservoir it is at 66% of average and above Buffalo Bill Reservoir it is at 65% of average.

April 1, 2004 Snowmelt Runoff Forecast

April forecasts of April-July runoff were prepared for the following forecast points in the Bighorn Basin:

| <u>Forecast Point</u> | <u>Most Probable Inflow</u> | <u>Percent of Average</u> |
|----------------------------------|-----------------------------|---------------------------|
| Buffalo Bill Reservoir | 400,000 AF | 58 |
| Boysen Reservoir | 200,000 AF | 34 |
| Bull Lake Reservoir | 100,000 AF | 71 |
| Wind River above Bull Lake Creek | 260,000 AF | 61 |

The release from Buffalo Bill Dam is approximately 100 cfs, which with addition of flow from the springs results in a flow of approximately 190 cfs at the Cody river gage. The release from Boysen Dam is approximately 360 cfs and will be maintained at this release for the winter.

Other events:

The Bureau of Reclamation in cooperation with the Wyoming Game and Fish Department, conducted a series of flushing flows in the North Platte River below Gray Reef Dam on March 8 through March 12, 2004. On March 8 the flows in the river below Gray Reef Dam were rapidly

increased from 500 cfs to 2000 cfs between 1 a.m. and 3 a.m., with the flows being reduced to 500 cfs by 12 a.m. On March 9 through March 12, the flows in the river below Gray Reef Dam were rapidly increased from 500 cfs to 4000 cfs between 1 a.m. and 3 a.m. with the flows again being reduced to 500 cfs by 12 a.m. After completing the flushing flow on March 12, the flows were stabilized at approximately 500 cfs for the rest of the month.

On March 12, a meeting was held at the Hampton Inn on the west side of Scottsbluff, Nebraska to continue discussions of individual storage water accounts for 13 irrigation districts which contract for North Platte Project storage water. The individual accounts are being considered as a water conservation measure.

Water Information meetings are being held in the various basins to inform the public of water conditions and to encourage water conservation. A meeting on Boysen Reservoir was held in Worland on March 18, a meeting on Buffalo Bill Reservoir was held in Powell on April 5 and a meeting on the North Platte Reservoirs will be held in Scottsbluff, Nebraska on April 12, 2004.

The North Platte Decree Committee meeting is scheduled for April 13 in Scottsbluff, Nebraska.

UNITED STATES GEOLOGICAL SURVEY

Mike Sweat reported the following:

The Annual Data Report has been completed, and consists of two volumes. Volume 1 contains surface-water records for water year 2003, and volume 2 contains groundwater records for water year 2003. Both volumes will be available from the District web site at: <http://wy.water.usgs.gov/pubs/adr/index.htm> in the near future. Printed copies will not be available, but copies will be available on CD. Contact Bob Swanson if you'd like a copy.

A fact sheet has been released by the USGS Montana District office about surface-water quality monitoring in the Tongue River Watershed, and can be accessed at: <http://tonguerivermonitoring.cr.usgs.gov/projects/fs3011.pdf>. The project website is at <http://tonguerivermonitoring.cr.usgs.gov/> and includes links to the fact sheet, as well as information about real-time determination of sodium absorption ratio (SAR): (<http://tonguerivermonitoring.cr.usgs.gov/saranalyzer.htm>). Copies of the fact sheet can be obtained from the District office.

The Yellowstone River Basin NAWQA has released a new report, USGS Circular 1234, "Water Quality in the Yellowstone River Basin: Wyoming, Montana, and North Dakota, 1999-2001". This report is to be released soon by the national NAWQA program and will be available from the Cheyenne office as soon as it is released. It will also be available at <http://infotrek.er.usgs.gov/pubs/> after it is released.

Following are comments concerning spring runoff, and the early date at which ice cover is ending, originally provided by Kirk Miller for the Governor's Drought Task Force:

Ice cover is moving out at many streamflow-gaging stations in and around Wyoming. During the winter months, ice on streams results in gage heights that are not directly usable for computing real-

time discharge. With the ice gone, however, reliable real-time discharge data are again available for these sites. You can access those data for USGS sites at:

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

You might note several stations reporting larger than median streamflows for this time of year. That information should be used with caution. For at least some of these sites, the ice has come off earlier than during an average year. Also, temperatures in many parts of the State have been warmer than average for this time of year and have probably contributed to early snowmelt-runoff. So, the larger streamflows are expected; however, these larger streamflows do not necessarily translate to larger (or even average) streamflows being sustained by snowmelt during the coming runoff period given the below average snowpack being reported by NRCS.

Over the next weeks and months, I would encourage those interested in using streamflow data for planning to use the weekly products (URL follows) in lieu of the real-time data. These weekly products are available in the same format as the real-time data (i.e. dot maps and index graphs). In the past, individuals associated with the Drought Task Force have used the real-time data to summarize streamflow conditions. Real-time data can be substantially influenced by storm events and other natural and human-related factors. The weekly products do a better job of integrating overall streamflow conditions and are more useful for drought planning than the real-time data.

http://water.usgs.gov/cgi-bin/waterwatch?state=wy&map_type=weekd&web_type=map

http://water.usgs.gov/cgi-bin/waterwatch?state=wy&map_type=weekd&web_type=plot

Related to the onset of snowmelt runoff, recent work by the USGS and others has shown the timing of snowmelt runoff over much of the Western U.S. over the last 50 years has trended toward coming earlier in the spring. Most recently, a paper (URL follows) by USGS and Scripps personnel builds on this observation and predicts the trend will continue through the century resulting in even earlier snowmelt runoff. The practical implications of these trends are summarized in the last paragraph of the conclusions.

http://tenaya.ucsd.edu/~dettinge/stewart_acpi.pdf

Additional information can be obtained by contacting Kirk Miller (kmiller@usgs.gov, 307-778-2931 x2716)

NATURAL RESOURCES CONSERVATION SERVICE (NRCS)

Cheryl Grapes wanted to pass on this information:

Wyoming Natural Resources Conservation Service (NRCS) will receive \$1,624,819 for the Agricultural Management Assistance (AMA) program this year. The program provides financial assistance to agricultural producers who wish to implement conservation practices that address resource concerns on their operations.

AMA, administered by the NRCS, is a voluntary conservation program available in Wyoming and 14 other states where participation in the Federal Crop Insurance Program is historically low.

The purpose of the program is to reduce risk to agricultural producers. Priorities for 2004 AMA:

1. Livestock waste management (applications to address risk management concerns linked to water quality issues, such as making changes to existing livestock waste systems)

2. Irrigation infrastructure and watershed structures (for water savings or erosion control)
3. Individual or group comprehensive conservation plan

AMA is limited to agricultural operators on private lands. There is a \$50,000 per person per year payment limit and a \$150,000 per person contract limit. Contracts may be written with groups of landowners sharing a project. Contracts are written for a 5-10 year period and provide 75% cost share. Local NRCS offices are taking applications, and those received through May 1, will be considered for this year's program assistance.

For more information, contact your local USDA NRCS office, or contact Cheryl Grapes, 307-233-6762 or Bruce Petersen, 307-233-6760.

SPECIAL REPORT

Ed Kouma, who is with the Water Management Branch of the Bureau of Reclamation, Wyoming Area Office, was today's special presenter. Mr. Kouma gave a very interesting and informative presentation on the water supply forecast. 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 12:00 p.m.