



Water News

The Wyoming Water Strategy

Inside this issue:

Basin States Salinity Control Program	2
Upper Colorado River Basin Fund MOA	2
Probable Maximum Precipitation Study for Wyoming	3
Powder/Tongue & NE Basins Plan Updates	3
News from WRDS	3
Calendar of Events	5



Recently, Governor Mead introduced the Wyoming Water Strategy. Following review of the Strategy, the WY Water Development Office (WWDO) was very excited to find this will have a strong influence on our future. Five of the ten Water Management Initiatives (WMI) have an impact on the WWDO. Three of the five initiatives specifically target storage which is one of the primary functions of the WWDO through our Dams and Reservoirs Division. **WMI 4, Fontenelle Dam and Outworks Infrastructure Completion Project** describes the need for updating the infrastructure at the reservoir and putting rip-rap on the remaining face of the dam to increase the active storage to 345,000 acre-ft. **WMI 5, Glendo Reservoir Full Utilization Project** outlines, “seek federal authorization to re-purpose a portion of the flood control space and use that water for operational purposes, thereby extending and more efficiently using water during good runoff years.” So rather than evacuate

the water that occupies the flood control space, one option could be to release the water for downstream irrigators. **WMI 6, Ten in Ten Project** states, very directly, that the goal is to complete a minimum of ten small reservoirs in the next ten years. At this time, the Dams and Reservoirs division has many ongoing reservoir storage projects with some reaching the design and permitting stage.

- ◆ Fontenelle Dam
- ◆ Glendo Reservoir
- ◆ Ten in Ten
- ◆ Collaborative Planning
- ◆ Fish Passage

This is a very ambitious goal and the WWDO is eager to take on the challenge. **WMI 7, Collaborative Planning and Authorization Process** emphasizes the need “to develop a modular framework for information sharing, planning, and decision making that allows for building

on existing plans, or utilizing decisions and planning of one agency to meet prerequisites for actions by another”. This stems from agencies doing independent projects that have similar data needs. Through collaboration it is anticipated there can be cost savings. Collaboration within our agency as well as with other agencies will be a focus as we move forward. The final initiative, **WMI 10, Collaborative Fish Passage Restoration** sets forth, when repairs and replacement of infrastructure are being pursued, whether it’s for irrigation projects or municipal projects, fish friendly structures will be considered. Wildlife is important to the State of Wyoming so its protection will be integrated into projects as they move forward. The importance the Water Strategy puts upon the WWDO creates a very exciting time in our history. We embrace these new challenges and are taking steps to implement the initiatives outlined in the Strategy.

Platte River Basin Plan Update

The original Platte River Basin Plan was completed in 2006 and is now 8 years old. It is time for an update. WENCK and Associates was hired in May 2014 to complete the project which includes updating all components of the 2006 plan plus the addition of a few new

items. With this update a hydrologic model will be developed for the basin. It will include results for dry, wet, and average water years. Also, this plan will include a new Environmental and Recreational Water Use Analysis to better define the effects of consump-

tive and nonconsumptive uses. Open houses to discuss the plan were recently held in Saratoga, Casper and Wheatland. Stay tuned for more information or contact this office to get involved.

The newsletter is available online at:

<http://wwdc.state.wy.us/newsletter/>

Basinwide Salinity Control Program

The Colorado River and its tributaries provide municipal and industrial water to about 27 million people and irrigation water to nearly four million acres of land in the United States. The river also serves about 2.3 million people and 500,000 acres in Mexico. The threat of salinity impacting agricultural, municipal and industrial water users is a major concern in both the United States and Mexico.

In June 1974, Congress enacted the Colorado River Basin Salinity Control Act (Act), Public Law 93-320,

which directed the Secretary of the Interior to proceed with a program to enhance and protect the quality of water available in the Colorado River for use in the United States and Republic of Mexico. The Basin States Salinity Control Program was subsequently created through amendments to the original Act. The Bureau of Reclamation manages the Basinwide Salinity Control Program and individual states can elect to participate in the Basin States program.

In 2015, Wyoming will be joining Colorado and Utah in

implementing a Basin States Salinity Control Program (BSSCP). Wyoming's BSSCP will be managed by the Wyoming Water Development Office and will have \$2,800,000 in available funding. The funding is available for competitively selected projects that reduce salinity contributions to the Colorado River. Applicants seeking funding will need to submit an application to the Bureau of Reclamation's Funding Opportunity Announcement (FOA). The 2015 FOA is planned to be released on May 1, 2015 and close July

17, 2015. Please review the Bureau of Reclamation's Salinity website for the most up-to-date information: <http://www.usbr.gov/uc/progact/salinity/>.

Wyoming is looking forward to the opportunity to work with the Bureau of Reclamation on implementing Wyoming's BSSCP. Please contact Keenan Hendon at the Water Development Office for questions or additional information regarding the program.

Upper Colorado River Basin Fund Memorandum of Agreement

With the passage of SF0051 in the 2015 Legislative Session, the Wyoming Water Development Commission (WWDC) is now authorized to select projects for the Upper Colorado River Basin Fund Memorandum of Agreement (MOA). The MOA was entered into on January 24, 2011 by the states of Colorado, Utah, New Mexico, and Wyoming; the Colorado River Energy Distributors Association, Inc. (CREDA); the Bureau of Reclamation (BOR); and the Western Area Power Administration

(WAPA). The MOA provides the framework for the expenditure of a percentage of collected hydropower revenues defined under section 5(e) of the Colorado River Storage Project Act (CRSPA). The utilization of these funds in the four upper basin states is targeted for very specific uses. MOA requirements include the following:

- ~ Projects have to be located in the Colorado River Basin (Green River or Little Snake Rivers in Wyoming).

- ~ Projects have to benefit CRSPA projects (Stateline

Dam, Meeks Cabin Dam, Fontenelle Dam, Eden Project).

The types of projects include:

- ~ *Replacements, additions and extraordinary maintenance*

- ~ *Water conservation activities*

- ~ *Environmental compliance activities*

- ~ *Stream gaging*

- ~ *Consumptive use and quality of water*

- ~ *Salinity control*

The WWDC will be accepting applications for new MOA

projects in Wyoming this spring. It is the intent of the WWDC to then review and rank these projects at their June 4, 2015 meeting in Cheyenne. Successful projects will then be forwarded to the BOR for approval. Under the MOA program, the BOR is responsible for contract administration and implementation of the approved projects.

To find out more information about the MOA program, contact Keenan Hendon at the Wyoming Water Development Office, 307-777-7626.

Powder/Tongue & Northeast River Basin Plan Updates

During the 2015 legislative session, \$375,000 was appropriated for the updates of the Powder/Tongue and Northeast River Basin Plans. The Northeast River Basin Plan and the Powder/Tongue River Basin Plan were first completed in 2002 during the initial round of

river basin planning. For this update, these plans have been combined. This plan will include an update of information that was developed in the first set of plans, as well as the following new items: annual and peak runoff estimates for each of the hydrologic unit code

(HUC) 12 watersheds in the study area and a task to identify forested watersheds that contribute to reservoirs for municipal and irrigation water supplies that may be at risk due to the effects of catastrophic forest fires.

Data gathered under this

plan update will provide advances to the basin planning process by providing much needed information. This information will be incorporated into watershed studies as well as a number of other studies with the WWDO, including dams and reservoir studies.

Probable Maximum Precipitation Study for Wyoming

New Statewide PMP Numbers

The Wyoming Water Development Office, in conjunction with the Wyoming State Office of the Natural Resources Conservation Service, has recently received the final deliverables for the Wyoming Statewide Probable Maximum Precipitation (PMP) study.

The study provides PMP values for any drainage basin within Wyoming which may be used in the computation of the Probable Maximum Flood (PMF). PMP values in the study supersede PMP values in the four outdated Hydrometeorological Reports (HMRs) for locations in Wyoming, including: HMR 49 (Hansen et al., 1977); HMR 51 (Schreiner and Riedel, 1978); HMR 55A (Hansen et al., 1988); and HMR 57 (Hansen et al., 1994).

The Need for Updated PMP Numbers

Major cost components for a dam include the construction of a spillway and emergency spillway facilities at locations that warrant a high or a significant hazard classification. A high hazard dam is one where loss of life can be expected due to a failure of a dam. A signif-

icant hazard dam is one where a loss of a million dollars or more is expected due to dam failure. If a dam is classified as a high or significant hazard, PMP estimates are necessary for computing the PMF which is used to size spillway facilities for dams.

The Wyoming State Engineer's Office indicates that

design and construction of smaller, less expensive spillways.

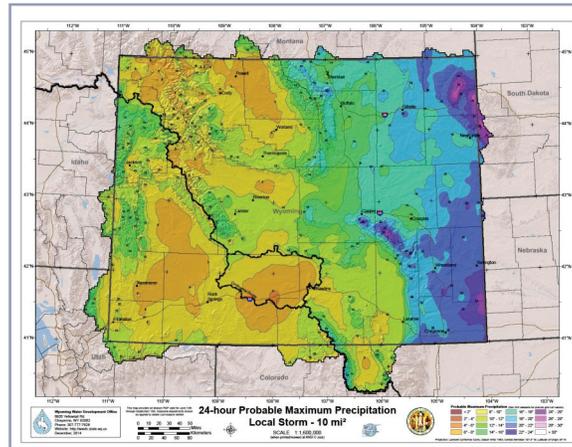
The prior standards for computing the PMP are outlined in the HMRs that were compiled by federal agencies. None of these HMRs dealt well with differences in Wyoming's local terrain (elevation) which has proven to drastically influ-

gone the expense of conducting new PMP studies. They estimate that their PMP studies have reduced the size of reservoir spillways from 20 to 40 percent. These state funded PMP studies also revealed a significant reduction in precipitation at higher elevations.

PMP Products

Deliverables include a final report and digital appendices consisting of numerous PMP maps, GIS PMP files, and supporting spreadsheet data. In addition, a scripted, GIS-based, PMP Evaluation Tool was created to aid in calculating gridded PMP values. The tool produces final GIS PMP output datasets for user-designated drainage basins for general and local storm types at user-supplied durations and area extents.

The study was completed in January of 2015. All PMP products and supporting documents are now available on WWDO's website (<http://wwdc.state.wy.us/PMP/PMP.html>). A gradual rollout of additional PMP supporting material and formal adoption by Wyoming Dam Safety are planned for later in the year.



dams in the state are showing their age, and spillway design for high or significant hazard dams must use either the full PMF or ½ PMF, respectively. Significant savings would be available for owners of these dams provided that the state undertakes a PMP study that would provide justification for

ence precipitation estimates. This study divided the state into zones where local terrain was considered.

To take advantage of the additional climate and large storm data now available, several states, including Arizona, Nebraska, Montana, Colorado, and New Mexico, have under-

News from the Water Resources Data System (WRDS)

WRDS and the WWDO conducted the 2015 Irrigation District/Canal Company Survey from November 2014 through March 2015. This biennial survey of irrigation systems in Wyoming provides practical information to state agencies, irrigation entities and the public. Furthermore, it aids the WWDO in prioritizing Water Development Account funds available for feasibility studies and project construc-

tion, and also facilitates a means for irrigation districts and companies to compare operational issues, financial data, and general information with others state-wide. The 2015 survey questionnaires were sent to 152 irrigation entities. Preliminary findings from this latest survey indicate that with combined responses from 2010 and 2012, at least 104 out of 152 entities (68%) have responded within the past

five years. Watch for the final survey results online this April (<http://wwdc.state.wy.us/surveys/surveys.html>). For more information please contact Michelle Ogden at WRDS (mogden1@uwoyo.edu) or Chace Tavelli at WWDO (chace.tavelli@wyo.gov).

Additionally, WRDS has updated the Water Management and Conservation Assistance Programs Directory

(<http://wwdc.state.wy.us/wconsprog/wconsprog.html>). This 2014, Fifth Edition provides appropriate contact information along with an overview of local, state and federal programs that offer water users incentive and assistance programs.



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Calendar of Water Events

<p>April 20, 2015 - Northeast BAG Gillette WY - Rec Center, 6pm</p>	<p>April 28, 2015 - Bear River BAG - Evanston, WY - Bear Community Center, 6pm</p>	<p>May 11-12, 2015 - PRRIP Tech/Water Advisory Committees - Ogallala, NE</p>	<p>July 11, 2015 - WWA Summer Tour - Torrington, WY</p>
<p>April 21, 2015 - Powder/Tongue BAG - Buffalo, WY - Johnson Co. Library, 6pm</p>	<p>April 29, 2015 - Green River BAG - Rock Springs, WY - White Mountain Library, 6pm</p>	<p>May 12, 2015 - SEO, Water Forum - Cheyenne, WY</p>	<p>August 15, 2015 - New Project Applications Due to WWDO</p>
<p>April 21, 2015 - Bear River Commission - Salt Lake City, UT</p>	<p>May 5-7, 2015 - WWDC Consultant Selection Interviews, Cheyenne, WY</p>	<p>May 14, 2015 - Snake River Agency Meeting - Jackson, WY</p>	<p>August 19-21, 2015 - WWDC Summer Meeting & Tour - Worland, WY</p>
<p>April 22, 2015 - Wind/Bighorn BAG - Thermopolis, WY - Big Horn Federal Savings Bank, 6pm</p>	<p>May 8, 2015 - WWDC Meeting, Cheyenne, WY</p>	<p>May 18-21, 2015 - Colorado River Basin Salinity Control Forum - Salt Lake City, UT</p>	<p>August 27, 2015 - Snowpack Monitoring Workshop - Lander, WY</p>
<p>April 27, 2015 - Snake/Salt BAG - Alpine, WY - Alpine Town Hall, 6pm</p>	<p>May 11-15, 2015 - Board of Control Meeting, Cheyenne, WY</p>	<p>June 3-4, 2015 - WWDC/SWC Workshop/Meeting, Cheyenne, WY</p>	<p>September 8-9, 2015 - PRRIP Governance Committee Meeting - Kearney, NE</p>
	<p>May 11, 2015 - Platte River BAG - Cheyenne, WY - Water Development Office, 6pm</p>	<p>June 9-10, 2015 - PRRIP Governance Committee Meeting - Cheyenne, WY</p>	<p>September 22-24, 2015 - Colorado River Basin Salinity Control Forum - Salt Lake City, UT</p>
		<p>June 10-13, 2015 - WAM Convention - Cheyenne, WY</p>	