

Water Review

A Perspective On Western Water Issues Prepared By The Family Farm Alliance And Its Members

WYOMING

Budget Surplus, Water Deficit Driving Water Policy Issues

INTRODUCTION

While the State of Wyoming has a sizeable budget surplus due to the continuing, ongoing energy boom, nearly all of the state continues to be in an equally enduring grip of severe drought that began in 1999.

This dual dynamic drives the actions and policies of groups such as the Wyoming Water Development Commission and the State Engineer's Office that for the past several months, have been deeply involved in the debate over how to better manage water produced in the development of coal bed natural gas resources.

This dynamic also impacts the ability of the state to fund water development projects and participate with other states and the federal government on cost-shared water management projects.

THIS ISSUE of the Alliance's FAMILY FARM WATER REVIEW examines some of the classic challenges that are being faced by water users across Wyoming, as well as the opportunities that are within their reach.

Local Government Plays Sponsor Role In Water Development Commission's Studies Of Green River Storage

Efforts are under way to create new water supplies in the Green River Basin of Wyoming, and local partners are a key to moving things from investigation to implementation.

Created in 2004 by the County Commissioners of Sweetwater, Lincoln and Sublette counties, the Upper Green River Basin Joint Powers Board ("Joint Powers Board") remains concerned by the potential for rapid development of uses for Wyoming water, especially Green River Basin water. The Joint Powers Board has functioned as a project sponsor for three projects under investigation by the Wyoming Water Development Commission ("Commission").

Viva Naughton Reservoir

Viva Naughton Reservoir is one of several alternative storage sites under investigation on the Hams Fork River above Kemmerer.

THR RECENT drought has greatly changed the water use agreement between downstream irrigators and PacifiCorp, the owner of Viva Naughton Reservoir.

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Viva Naughton: Hams Fork River Storage Sites

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Local sponsors are interested in proceeding forward with permitting of the most desirable reservoir alternatives, but that process cannot begin until more information is obtained on site-specific geology and wetlands.

Investigations completed for the Green River Groundwater Recharge and Alternate Storage Study published in late 2001 indicate enlarging Viva Naughton Reservoir is one of the more efficient water development projects in the state.

THE RESERVOIR HAS an existing capacity of 42,393 acre-feet. PacifiCorp has filed a water right application for an additional 39,502 acre-feet of storage.

The permitted enlargement of Viva Naughton Reservoir reserves 10,752 acre-feet for irrigation on the Hams Fork downstream of the dam, and would provide a much needed source of late season water for users below the dam, like the Hams Fork Water Users Association, and the Towns of Kemmerer and Diamondville.

Boultner Lake

The tri-county board is also sponsoring a study of Boultner Lake, located in a roadless area adjacent to the Bridger Wilderness in the Bridger National Forest, east of Boulder (WYOMING). The existing reservoir was built in the 1920s and has only limited motorized access, which restricts maintenance of the outlet works unless extensive U.S. Forest Service permits are secured. Now, the outlet works are unusable and the stored water behind it cannot be used by the Sublette County irrigators downstream. The study will assess methods to rehabilitate the outlet works and identify the permitting which will be needed to access the structure.

Upper Green River

The Joint Powers Board is also the sponsor for the state-funded investigation of potential reservoir sites on the main stem of the Green River above Fontenelle Reservoir.



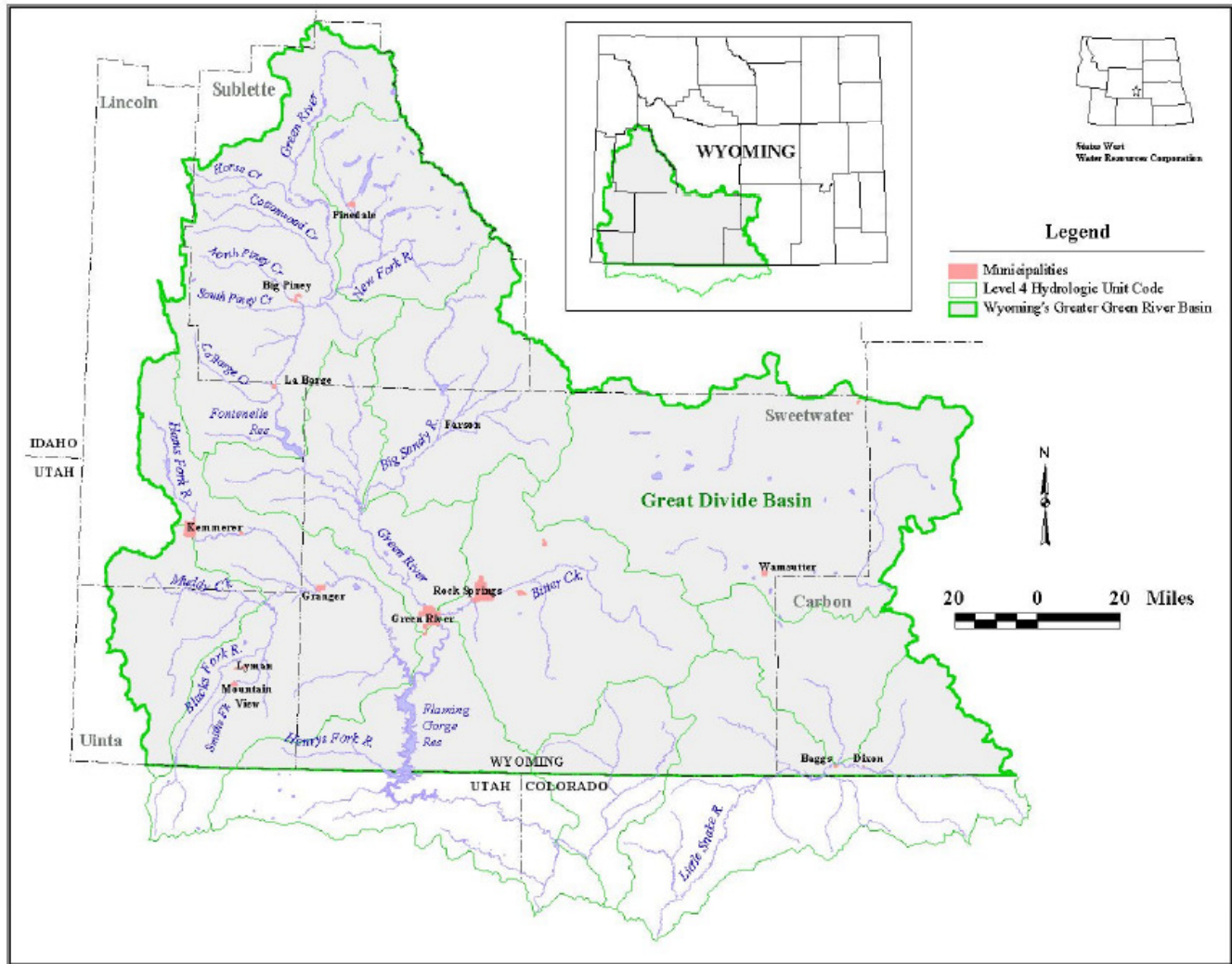
Viva Naughton Reservoir's dam

This study is set to review and update investigations conducted in the past, and to assess possible new options in light of that review.

At the request of Joint Powers Board, the Commission recommended, and the 2005 Wyoming Legislature provided, an appropriation the "Upper Green River Storage Study."

THE RESULTING STUDY study provided an analysis of water supply shortages and identified potential on-channel and off-channel storage sites. A subsequent computer modeling effort identified those sub basins that showed the greatest irrigation shortages. Then, potential reservoir sites to capture spring runoff and provide late-season supplies were identified within those sub basins. The final analysis yielded four new sub-basin reservoir sites, adding to the three sub-

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Location of Wyoming’s Upper Green River Basin and its potential water storage sites.

Upper Green River: Reservoir Sites Identified

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basin sites that had been previously recommended in a 2001 study.

ADDITIONAL STUDY will focus primarily on hydrologic analysis and site investigations to determine the most viable storage locations. The study will also include an alternatives analysis to preliminarily determine the “least environmentally damaging practical alternative” as outlined by Section 404 of the Clean Water Act.

“This study will utilize the work that has already been completed within the Green River Basin and hence will not duplicate any efforts,” said John Shields, Executive Secretary for the Wyoming Water Association.

An economic analysis will be conducted to determine the benefits to the state and the project sponsor, as well as the sponsor’s ability to pay. In past communications with the county commissions, the Joint Powers Board has expressed concern over benefit/cost analysis.

“The region’s populations’ current ability to pay will always have difficulty in funding these projects given current funding mechanisms,” the Joint Powers Board has told the three county commissions. “The board must look into alternative funding mechanisms if any major project is to be realized.”

Wyoming Water Panel Considers Program Operating Criteria Changes

Despite the State of Wyoming's current budget surplus, the severe drought conditions that have plagued Wyoming since 1999 have led to funding problems for water development projects.

The high number of project applications seeking water project assistance and funding have outstripped the State's water development account balances.

Dollars that are sought by applicants exceed the inflow of dedicated severance and excise tax revenues to the new development, rehabilitation and dams and reservoirs accounts.

This situation has led to the Wyoming Water Development Commission having to defer or turn down recent project applications.

The Commission earlier this month met to consider changes

to the criteria, which are reviewed on an annual basis.

"The Commission wants to ensure that the criteria will direct the Wyoming Water Development Program in an efficient and effective manner," said Commission Director Mike Purcell. "Those criteria must also serve to continue to address the needs of Wyoming in a manner consistent with available program resources."

Wyoming State Engineer's Office Scores Water 2025 Challenge Grant

On July 26, 2007, Secretary of the Interior Dirk Kempthorne announced his approval of \$9.2 million in Water 2025 challenge grants for water conservation projects across the Western United States.

Including the matching contributions of those who will be implementing the 44 projects selected within 11 states, the projects represent a combined investment in water management improvements totaling more than \$32 million.

"**THE WYOMING** State Engineer's Office was extremely pleased to learn that a project proposal submitted by our Office and Bureau of Reclamation personnel had been selected as one of the projects receiving challenge grant funds at this time," said Water Division 4 Lead Hydrographer Kevin Wilde.

The State Engineer's Office will install real-time monitoring and control systems at 43 diversion sites. The project is estimated to save 11,000 acre-feet of water per year (the water

savings will come from less storage release and less waste of water, not transit loss). The total project cost is \$548,580, including the Water 2025 contribution of \$262,405.

THE PROPOSED WORK is installing telemetry and automating select diversions in the Bear River Basin to help monitor and regulate diversions pursuant to the terms of the Bear River Compact.

In the area around Evanston, there are approximately 35 select diversions where telemetry instrumentation will be installed. At some of these sites, the headgate diversion works will also be automated.

Near Cokeville, about 10 diversions will have telemetry and automation improvements made with the challenge grant funds. Additionally, the project will require the installation of radio transmission repeater towers to provide radio communication

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Proposals for Management of CBM Water: The State Engineer's Perspective

This article previously appeared as an editorial in the August 4th issue of the Wyoming Livestock newspaper and in the Sunday, August 12th edition of the Wyoming Tribune-Eagle newspaper in Cheyenne. It is being re-printed with permission granted by the Wyoming State Engineer's Office.

▪ **By Patrick T. Tyrrell**, Wyoming State Engineer

Over the past few months, the Wyoming State Engineer's Office has been deeply involved in the debate over how to better manage water produced in the development of coal bed natural gas resources.

In particular, my office's involvement in the legislatively-authorized Coal Bed Methane (CBM for short) Water Task Force (TF) has brought specific attention to what our existing authorities are, or reasonably might be.

Part of this directive for additional scrutiny comes from our existing language describing the State Engineer's authority for supervision of waters of the state, and part comes from failed attempts to add water quantity management authorities to the Wyoming Department of Environmental Quality.

WHAT I'D LIKE TO DO is walk through my view of how the most recent proposals came to be, and what they try to do. These proposals, starting first as concepts, have been in front of the TF since May.

At several TF meetings, our agency has described why we do what we do, even before the new proposals surfaced.

Briefly stated, we historically have been involved on the "use" side of water issues, and with the exception of being able to order in agricultural return flow ditches or drains, we have not regulated the discharge of water or return flows once they reach a natural channel.

In a typically water-short environment, most return flows are eagerly gobbled up by downstream users all around the state. In fact, much public testimony at the TF meetings has come from landowners who said, in essence, "Send us all the

water you can, and we'll use it." So, the oft-quoted desire for additional regulation of produced water was not, and still is not, a unanimous (or likely even a majority) position.

HOWEVER, THERE ARE THOSE who simply do not want to deal with produced water flowing down otherwise ephemeral drainages and across their lands 24/7. These interests make strong arguments for the effects on their bottomlands, ranching operations, and the hydrologic environment.

A particular problem exists on lands where, for whatever reason, very little or no hydraulic (channel) capacity exists in a valley bottom to contain and carry natural runoff events, much less produced water discharges which are more perennial than ephemeral. The flooded areas that can result are problematic for the landowner. Some have sued to keep the water off, and the results of those suits, in two cases, appear to have been less than satisfactory for the plaintiffs.

What the courts have said, so far, confirms the easement the state holds to flow its water down a natural watercourse.

AND, SINCE the production of water to produce CBM has been determined by the State Engineer to be a beneficial use (a determination with which not all have agreed, but with which courts even in Colorado are now concurring), if an operator is discharging under a valid WYPDES permit it would be very difficult, if not impossible, legally, to simply stop the flow of water.

But the water could and should be more efficiently managed in places.

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State Engineer ■ CBM Water Management

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So, what are ways in which this could occur?

Prior to the May meeting, we began a review of W.S. 41-3-504 (which allows Division Superintendents to order in drains) to consider whether a modification of this language could allow the construction of channel capacity to control the flow. Such capacity would be limited to the ability of the natural channel to convey water, as determined in nearby reaches where the channel is evident and well-formed.

However, simply providing the statutory authority to construct such capacity would be insufficient if not coupled with other benefits to the landowner, and recognition of the rights of the operators. Access is a huge issue, and the draft language needed to recognize that not all drainages will have issues with produced water. As much as I dislike clichés, it is true that the crafted solution could not be “one size fits all.”

SO WE WROTE THE DRAFT language (new W.S. 41-3-507) in a way that would require a landowner to object to a produced-water discharge (existing or proposed), and essentially invite us in to the process to potentially order construction of channel capacity, in ephemeral or intermittent drainages only, at the expense of the operator(s). This procedure avoids condemnation or takings claims, as we would do no capacity evaluation absent a request to do so.

Secondly, we felt the landowner should have some review and approval authority over any construction that was proposed, so that any work performed would fit their operation during and even after CBM operations. We would seek to encourage the construction of natural, hydrologically sensible, and pleasing conveyances, not simply dig “ditches.”

A companion piece of language, written under a new section W.S. 41-3-116, makes illegal the discharge of CBM-produced water in excess of the capacity of the natural channel (which does not include the entire floodplain). This piece is

somewhat broader, and dovetails with the 507 language in that even where restored capacity is not needed it is still an infraction to discharge in excess of the main channel’s ability to carry the water away. Language was included to tie violations of both proposed statutes to penalties as established elsewhere in our law.

OUR INTENT in crafting the 507 and 116 language, with the assistance of the TF, is to add discipline to the water management issue and offer a solution that keeps both parties at the table. The landowner can seek constructive solutions to manage water on his place, and reasonable facilities to use it, if he sees the process through (and at less expense and over less time than a lengthy court battle).

The operator is allowed to discharge, as limited by the natural capacity of the channel, but must stay involved to a successful end because he is under an order of this office to do so. Violation of the order could result in penalty. All in all, it is a reasonable approach to a very tricky and contentious issue.

IN A RELATED EFFORT, our office will continue to evaluate adding conditions to CBM groundwater (well) permits that require a threshold water-to-gas ratio as a test of meeting beneficial use.

Clearly, there are areas where water is being produced with little or no attendant gas production. Sometimes there are valid reasons for high water/gas ratios (such as in early field development or for field margin wells), but long-term, high volume water production without gas must be scrutinized for conservation of the ground water resource. To the extent that such wells inappropriately add to the water management issues addressed earlier, or unnecessarily remove large amounts of ground water, it is reasonable that their operation be questioned and even halted.

The most recent versions of the proposals are presented in their entirety on the TF website: <http://cbm.moose.wy.gov>.

Water 2025 Grant: It's Won By Wyoming

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Wyoming Plans 2007 Conference

If you want to learn more about Wyoming water resources issues, check out the Wyoming Water Association's statewide water resources association annual conference

It will be held on October 31-November 2 in Cheyenne. The Association's 2007 Education Seminar (October 31) and Annual Meeting (November 1-2) will take place at the Little America Hotel and Resort, which is in the midst of a multi-million dollar expansion that will feature a new convention center.

THIS YEAR'S conference will focus on opportunities and challenges that face Wyoming's leaders and policy makers dealing in the water and natural resources realm. For more information about the conference, or to sign up to be an exhibitor or underwriting sponsor, please contact Executive Secretary John Shields (see below for contact information) or Program Committee Chairman Jack Meena at (307) 634-7848 or via e-mail at jmeena@stateswest.com.

For more information on the topics discussed in this Water Review, please contact:

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"links" to each diversion site to be equipped with the telemetry equipment. An Internet connection will be established to facilitate the data collection. Upgrades to the existing website will be made to include the additional diversion sites and the instantaneous data that will be collected – and always available – at each site.

THERE ARE FIVE MAJOR RESERVOIRS in the Evanston area that help supply storage to diversions when natural flow is depleted.

After new gages and telemetry are installed, the water commissioner will have a better tool to release storage water from the two upstream reservoirs.

"In the past, the water commissioner had to guess when the water level would reach certain points before releasing stored water," said Wilde. "With the proposed project, water can be released and tracked to head gates with great accuracy."

THIS PROJECT IS EXPECTED to reduce water user conflicts since affected parties will be able to examine the real-time diversion and flow data on a dedicated website and determine how the water is being distributed.

As a result, interstate suspicions will be eased, excess diversions will be reduced, and water theft can be curtailed.

"Improvements in the tracking of storage deliveries will facilitate quicker adjustments during regulation," Wilde noted.

"These challenge grant funds will provide real time instantaneous data and will directly contribute to more effective water management in the Bear River Basin."

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