

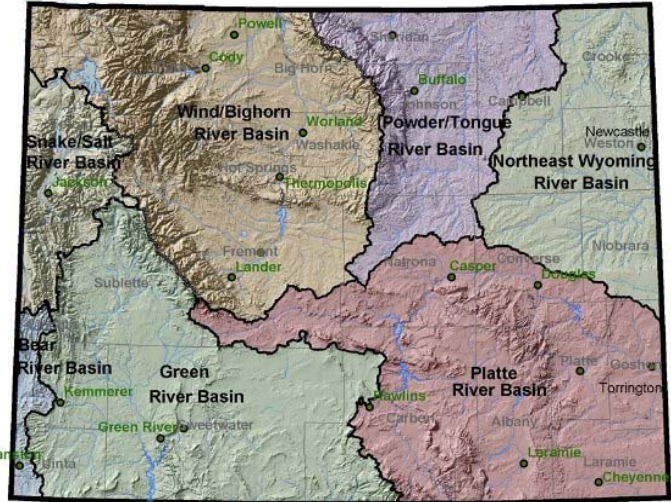


# Water News

## Green River Basin and Wind/Bighorn River Basin Plan Updates near Completion

The Statewide River Basin Planning Process was initiated in 1999 with an appropriation from the legislature for the Bear River and Green River Basin Plans. Those plans were completed in 2001 and the planning process was continued through the other five major river basins (Powder/Tongue, Northeast, Wind/Bighorn, Snake/Salt, and Platte). The Platte River Basin Plan was completed in 2006 and was the last plan to be completed. With completion of the Platte Plan, an update of the State Framework Water Plan was begun. The 2007 Framework Water Plan was to update the 1973 framework water plan and to consolidate information from the seven basin plans.

The Statewide River Basin Planning Process is a continuing effort to maintain and update river basin plans and the Framework Water Plan. With completion of the Framework Water Plan in 2007, the second round or phase of river basin planning began. The first plan scheduled to be reviewed and updated was the Green River Basin Plan because the basin was experiencing unprecedented growth and changes in land and water use. Additionally,



there are other pressures on water resources within the Colorado River system which made an update important and timely. The Green River Plan update was initiated in 2007.

The second basin plan to be reviewed and updated was the Wind/Bighorn River Basin Plan. The plan update was to enhance surface water modeling for the basin, and to improve and update the basin economic growth scenarios. The

Wind/Bighorn River Basin Plan Update was started in 2008.

As part of the second phase of river basin planning, groundwater resources are being considered in more detail. Agreements were developed with the Wyoming State Geological Survey in cooperation with the U.S. Geological Survey and the University of Wyoming, Water Resources Data System to conduct a groundwater resources evaluation for the Green River Basin and the Wind/Bighorn River Basin.

### Green River Basin Plan II

The Green River Basin Plan Update (Green River Basin Plan II) is nearing completion. Revised surface water modeling for the update includes the last 10 years of hydrologic data in

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**Check out the Calendar of Water Events for upcoming basin advisory group meetings in your area.**

**The newsletter is available online at (<http://wwdc.state.wy.us/newsletter>)**

Table 1. Green River Basin Water Availability Estimates 2001 v. 2010

	<i>Normal</i>
Black's Fork	-15%
Henry's Fork	-13%
Little Snake	-9%
Upper Green	-10%
	- 215,000 AC-FT

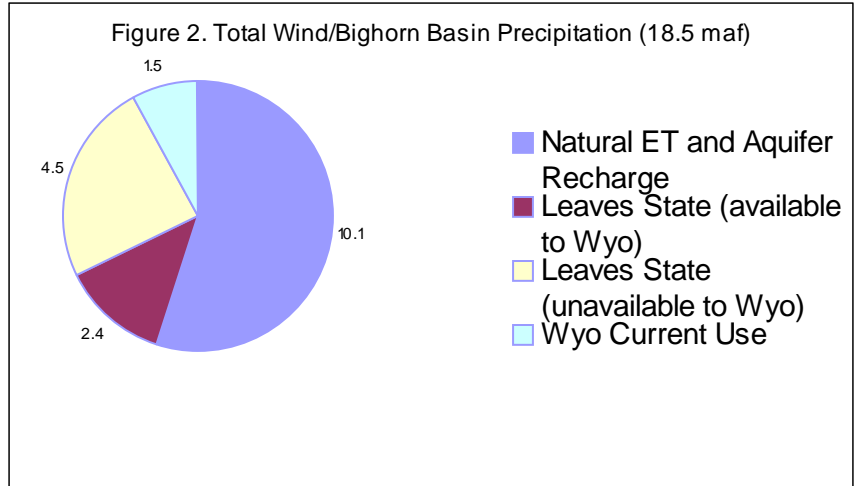
**Green River Basin and Wind/Bighorn River Basin Plan Updates Near Completion**

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the analysis. This 10 year period includes the 2000's drought. Results are as expected, showing changes in water availability and use. Municipal and domestic water use increased by 5% in the basin, while irrigation use decreased by 1% and industrial use decreased by 14%. There is an overall decrease in the basin's water supply of 13% (see Figure 1). Availability estimates show a decrease in water throughout the basin with total average flow decreased by 215,000 acre feet (see Table 1 on page 1).

**Wind/Bighorn River Basin Plan Update**

The Wind/Bighorn Basin Plan Update is also nearing completion. One key component of this project was to update the spreadsheet models used in the 2003 plan. The most recent hydrology, which included the 2000's drought, has been incorporated into the modeling. Additionally, PRISM precipitation data have been incorporated in the analysis. Figure 2 shows how the basin precipitation is divided

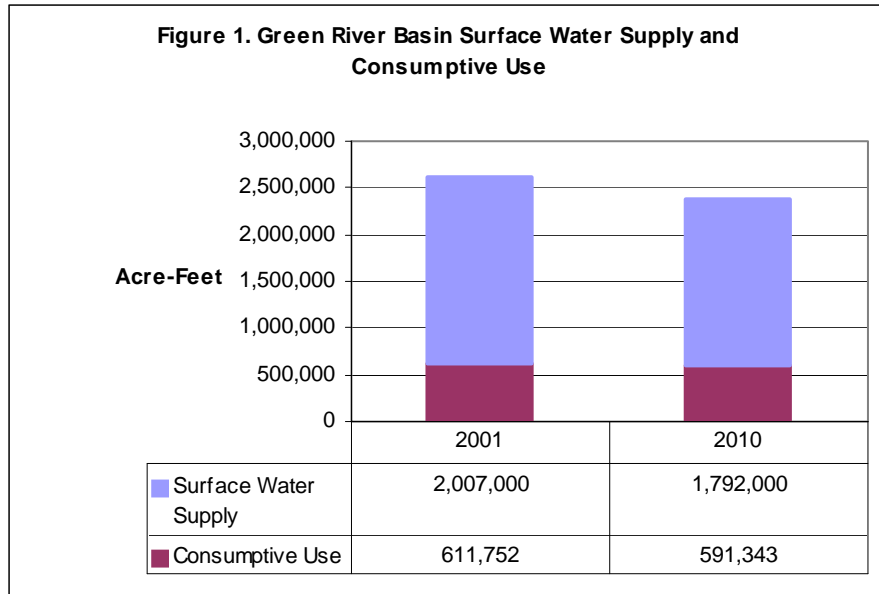


with the greatest amount (10.1 million acre feet per year) going to plant transpiration or to aquifer recharge. The smallest segment on the chart, 1.5 million acre feet, is the amount of water consumptively used in the basin

annually. There is an estimated 2.4 million acre feet of water per year leaving the basin that is available for use in Wyoming. Estimates for this update show a decrease in available water of about 90,000 acre feet per year under average conditions, or approximately a 4% reduction in water supply from the 2003 plan.

Both the Green River update and the Wind/Bighorn update draft final reports will be available for review on the Wyoming Water Development Commission web page <http://wwdc.state.wy.us>, and the Wyoming State Water Plan web page <http://waterplan.state.wy.us>. These plans contain a great deal of information about water within the basins and are excellent planning tools.

The Green River Basin groundwater evaluation is complete and online at the above websites. The draft Wind/Bighorn River Basin groundwater evaluation will be available online in the near future.



**Irrigation System Survey Underway**

Every two years the WWDO and WRDS conduct a survey of all irrigation systems in Wyoming. This February, 175 entities from around the state were sent surveys to update information about their operations. Participants can take

the survey online ([http://wwdc.state.wy.us/PWS\\_S\\_Survey.html](http://wwdc.state.wy.us/PWS_S_Survey.html)) or submit a hardcopy to WRDS. Forms are available online at (<http://wwdc.state.wy.us/irrsys/form.pdf>). The survey provides valuable information to state agencies, irrigation districts and the public. It aids in prioritizing the

funds available for feasibility studies and project construction. In addition, this information allows irrigation districts and companies to compare operational issues, financial data, and general information with others around the state. Results from the survey will be made available online

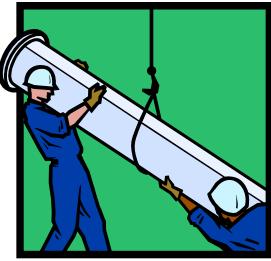
**News**



this May (see <http://wwdc.state.wy.us/surveys/surveys.html> for prior survey results). In the near future, WRDS plans to integrate these new results into our online web mapping tool.



# Legislature Approves New Water Construction and Planning Projects for 2010



## Eighteen New Construction Projects Approved by the 2010 Legislature

Eighteen new Level III construction projects were approved by the legislature as part of the Omnibus Water Bill - Construction. There were 12 new projects funded from the New Development Program, Water Account I, and 6 projects funded from the Rehabilitation Program, Water Account II. Appropriations for Water Account I totaled \$19,707,350 and appropriations for Water Account II totaled \$7,656,040. These totals do

not include additional funding for ongoing projects. For additional information concerning the projects, please contact the Water Development Office at 307-777-7626.

## Legislature Approves New Water Planning Projects for 2010

The 2010 Legislature approved the Omnibus Water Bill – Planning, which includes \$4,375,000 for 18 new Level I and II water projects.

Following is a brief description of each project. If additional information is desired, please contact the Water Development Office. Appropriations are shown in parentheses.

**Austin Wall:** This study will include a geotechnical

analysis of the dam and canal seepage loss investigations. (\$400,000)

**Basin Planning Environmental/Recreation:** This study is to assist the Water Development Office in developing methodologies to define environmental and recreational water demands and benefits, and incorporate this information into River Basin Planning. (\$75,000)

**Bear River Basin Groundwater Analysis:** This project is to conduct a groundwater analysis of the Bear River Basin similar to those currently underway for the Wind/Bighorn and Platte River Basins. (\$175,000)

**Buffalo Creek Watershed:** This watershed study will review existing information, assess surface and groundwater availability, and develop a rehabilitation and management plan for surface water storage, irrigation system rehabilitation, and upland water development. (\$250,000)

**Buffalo Northwest Water Supply:** This study will identify options and alternatives for expanding water supply to areas north of Buffalo between French Creek Road and the Interstate 90 corridor. (\$75,000)

**Cottonwood Lake Enlargement:** This study will include a geotechnical study on the Cottonwood Lake Dam, and will further refine initial design and construction cost estimates. (\$290,000)

**Kemmerer/Diamondville:** This study will include preparation of conceptual designs and cost estimates for several deficiencies in transmission and storage identified in the recent master plan. (\$100,000)

**Keystone/Farmers Canal Master Plan:** This study is to conduct an irrigation system inventory and master plan for the Keystone and Farmers Canals near Burlington. (\$250,000)

**Little Snake Canals:** This study will examine replacement of the 4 Mile Spill, installing a parshall flume on the State Line Canal, and identification of alternatives to mitigate canal bank sloughing and canal seeps. (\$100,000)

**Lucerne:** This study will include preparation of a water system master plan and a feasibility study for potential expansion. (\$150,000)

**Nowood Storage:** This study will further explore storage opportunities, and will focus primarily on purpose and need, hydrologic analysis, and site investigations. (\$250,000)

**Rolling Hills Master Plan:** This study is to conduct a water system inventory and master plan for the Rolling Hills public water supply system. (\$250,000)

**Shell Canal Tunnel:** This study will further evaluate rehabilitation of the Shell Canal Tunnel, including a geotechnical investigation and conceptual designs and cost estimates. (\$150,000)



**Table 2. Level III Construction Projects Funded for 2010 New Development Program - Account I**

Project	Appropriation
Arapahoe Water Supply	\$385,250
Buffalo Pipeline	\$1,182,000
Burns Storage Tank	\$930,000
Casper Zone IV Improvements	\$663,300
Cook Road Well	\$1,290,000
Ethete Water Supply	\$2,000,000
Farview Water Supply	\$100,000
Jackson Storage Tanks	\$4,000,000
Owl Creek Water Supply	\$3,182,500
South Laramie Water Supply	\$3,100,000
South Thermopolis Water Supply	\$2,117,200
Wamsutter Well 2010	\$757,100
<b>Rehabilitation Program - Account II</b>	
Casper Alcova Rehabilitation 2010	\$477,040
Heart Mountain Rehabilitation 2010	\$1,180,000
Little Snake Diversion	\$990,000
Midvale Rehabilitation 2010	\$263,000
Rawlins Atlantic Rim Reservoir	\$4,000,000
Willwood Rehabilitation 2010	\$746,000

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**WYOMING WATER DEVELOPMENT OFFICE**

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**Legislature Approves New Water Construction and Planning Projects for 2010**

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**Shell Valley Storage:** This study will further explore storage opportunities, and will focus primarily on purpose and need, hydrologic analysis,

and site investigations. (\$250,000)

**Squaw Creek:** This study will include a comprehensive feasibility study to address supply deficits associated with the sponsor's present groundwater sources. (\$175,000)

**Thayne Storage:** This study will investigate the

potential for additional storage as necessary to address concerns identified in the recent master plan. (\$85,000)

**Thunder Basin Watershed:** This watershed study will review existing information, assess surface and groundwater availability, and develop a rehabilitation and

management plan for surface water storage, irrigation system rehabilitation, and upland water development. (\$250,000)

**Wright Well:** This study will include construction of a new Fort Union Formation well. (\$1,100,000)



**Calendar Of Water Events**

April 20, 2010 - Bear River Commission Meeting, Salt Lake City, UT

May 7, 2010 - Water Development Commission Meeting, Cheyenne, WY

May 10-14, 2010 - Board of Control Meeting, Cheyenne, WY

May 19, 2010 - Platte BAG Meeting

May 20, 2010 - Wind/Bighorn BAG Meeting

May 25, 2010 - Green II BAG Meeting

May 26, 2010 - Snake/Salt BAG Meeting

May 27, 2010 - Bear BAG Meeting

June 2-4, 2010 - Colorado River Basin Salinity Control Forum, Cheyenne, WY

June 3, 2010 - Joint Water Development Commission/Select Water Committee Meeting, Cheyenne, WY

June 9-10, 2010 - Upper Colorado River Commission Meeting, Cheyenne, WY

June 16, 2010 - Powder/Tongue BAG Meeting

June 17, 2010 - Northeast WY BAG Meeting

July 21-23, 2010 - Western States Water Council Meeting, Lake Tahoe, NV

August 18-20, 2010 - Joint Water Development Commission/Select Water Committee Workshop/Summer Tour/Meeting, Cody, WY