

**BUREAU OF RECLAMATION  
NAVAJO RESERVOIR  
AUGUST 27, 2013 MEETING NOTES  
SENT VIA FAX AND E-MAIL**

Dear Interested Party:

Enclosed is a summary of our August 27, 2013, meeting to coordinate Reclamation's operation of the Navajo Unit. The meeting was held at the Civic Center in Farmington, New Mexico. Highlights of the meeting include:

- Precipitation for the 2013 water year was below average for most of the San Juan River Basin.
- April through July modified unregulated inflow to Navajo Reservoir, was 267,178 acre-feet, or 36% of the 30-year average. The reservoir inflows continued to be below average throughout the water year.
- The reservoir elevation on August 26, 2013 was 6,014.93 feet (63% of the 30-year average for the month of August) which corresponds to 865,484 acre-feet of live storage. The reservoir is presently at 51% of the live capacity and 19% of active capacity.
- A 34% shortage is forecast for 2014 under the most recent minimum probable forecast. This number will continue to be monitored and updated with twice-monthly forecasts.
- The most probable unregulated inflow forecast (based on the CBRFC's ESP August Model Run) for water year 2014 is 71% of average, and the calculated available water is not enough to qualify for a spring peak release. This is very preliminary and will likely change as updated forecasts become available. Climate models indicate a wide variance centered over average conditions.

Copies of these meeting notes and the material presented at the meeting are available online at <http://www.usbr.gov/uc/wcao/water/rsvrs/mtgs/nmcurrnt.html>.

If you have any suggestions for the operation meetings or the summaries of the meetings, please let us know. The next meeting will be held on **Tuesday, January 21, 2014 at 1:00 at the Farmington Civic Center, Farmington, New Mexico (200 West Arrington Street)**. If you have questions, please call Ryan Christianson at 970-385-6590 or email [rchristianson@usbr.gov](mailto:rchristianson@usbr.gov).

## NAVAJO UNIT OPERATIONS MEETING

August 27, 2013

**Participation:** This meeting was held in Farmington, New Mexico at the Civic Center. The attendance list is attached.

**Purpose of Meeting:** The purpose of these meetings, held annually in January, April, and August, is to gather input for determining upcoming operations for Navajo Reservoir. This input is used in Reclamation's development of an overall 24-month study for operation of Reclamation projects in the Upper Colorado River Basin, which includes plans for Glen Canyon, Flaming Gorge, Aspinal Unit and Navajo. Input from individuals, organizations, and agencies along with other factors such as weather, water rights, endangered species requirements, flood control, hydro power, recreation, fish and wildlife management and reservoir levels, will be considered in the development of these reservoir operation plans. In addition, the meetings are used to coordinate activities and exchange information among agencies, water users, and other interested parties concerning the San Juan River and Navajo Reservoir.

### Water Year 2013 Hydrologic Conditions

With the exception of December, January, and July, precipitation throughout the San Juan River Basin has been below average throughout the 2013 water year. The water year totals through July show the San Juan River Basin has received between 50% and 90% of average precipitation.

San Juan River Basin snowpack above Navajo Reservoir had below average snowpack this winter. The maximum Snow Water Equivalency (SWE) was 13.9 inches on March 13<sup>th</sup>, which is 70% of the average peak. For comparison, the 2012 SWE was 13.8 inches on March 22.

The April through July modified unregulated inflow to Navajo Reservoir, was 267,178 acre-feet (ac-ft), or 36% of the 30-year average.

Precipitation for early August was encouraging, with average to above-average precipitation falling throughout most of the San Juan River Basin so far.

### Review of Water Year 2013 Operations to date

A spring peak release was not conducted during the 2013 water year. This, coupled with below-average natural flows in the San Juan River Basin during the April-July runoff, prevented any SJRIP Spring Peak flow goals from being met in 2013.

Releases to the river have ranged from 250 to 1,000 cubic feet per second (cfs) from Navajo Reservoir, which has been sufficient to meet target base flows in the critical habitat area. The observed inflow for April through July was 241,625 acre-feet (ac-ft) (39% of average). The outlet works release volume for the same months was 136,205 ac-ft (35% of average).

A drier than average fall and spring resulted in a lower-than-average reservoir elevation. The reservoir elevation was the second-lowest in the last thirty years for the end of July.

## **Current Conditions**

Navajo Reservoir was at approximately 865,484 ac-ft of storage which is 63% of the 30-year average. The reservoir was 51% of the live capacity, and 19% of active capacity. The release to the river was approximately 650 cfs on that date.

A brief update on nearby reservoirs was provided. At the Animas-La Plata Project (ALP), the reservoir (Lake Nighthorse) pool elevation was 6,875.8 feet and the current storage was 105,986 ac-ft, which was 92% of live capacity. The ALP facilities and lake were transferred on April 1, 2013 from Reclamation to the Animas La-Plata Operation, Maintenance and Replacement Association (OM&RA). Vallecito Reservoir elevation was 7,617.9 with storage of 26,339 ac-ft (21% full, 35% of average). The release was 195 cfs and the inflow was 553 cfs. The April through July actual inflow was 91,000 ac-ft (47% of average). Lemon Reservoir elevation was 8,060.4 feet with a current storage of 5,462 ac-ft (13% full, 22% of average). The release was 26 cfs and the inflow was 109 cfs. The April through July actual inflow was 23,000 ac-ft (42% of average).

## **Water Year 2014 Forecasts**

Forecasts from the Climate Prediction Center show a high probability of above-average temperatures for the 2014 water year. It shows equal chances for above or below-average precipitation. Currently, ENSO-neutral conditions are favored for 2014. It should be noted that there isn't a very strong correlation for ENSO in the San Juan River Basin.

The possibility of a shortage over the 2014 year was discussed. A shortage occurs when under minimum probable conditions, the pool elevation drops to below 5,990 feet at any time during the year. This is the elevation required to maintain NIIP diversions. If this possibility exists, several water-saving measures are implemented as prevention measures.

The first water-saving measure was discussed during the August 2012 Operations meeting, and involved invoking the Record of Decision "goal" base release of 350 cfs. This measure is applied under the condition that target base flows are still being met through the critical habitat reach of the San Juan River.

The second water-saving measure is to reduce the base release further to 250 cfs. This is the minimum agreed-upon release documented in the Record of Decision. This measure is applied when the flexibility no longer exists to release anything beyond the absolute minimum required to maintain target base flows through the critical habitat reach. This measure was implemented in January of 2013.

If these measures are not enough to prevent the elevation from dropping below 5,990 feet at any time of the year, shortage-sharing measures go into effect. The calculated amount of shortage still unaccounted for by the previous three water-saving measures will be distributed equitably as agreed upon by the endorsing parties.

Currently, the first two measures have been implemented, and are enough to prevent a forecasted shortage in the basin in 2013. However, under the most recent minimum probable forecast,

Navajo Reservoir could be drawn down below the elevation of 5,990 ft on August 3, 2014, under normal operations. A minimum forecasted pool elevation of 5,958 ft is forecast for mid-February of 2015, constituting a total volumetric deficit of 204,590 acre-ft. For calendar year 2014, under minimum probable conditions, this 34% shortage has been applied to all endorsing parties of the Shortage Sharing Agreement to maintain a minimum reservoir elevation of 5,990 ft. This minimum probable forecast is very preliminary and represents a very extreme probability. It will likely change with each subsequent forecast and with accumulating snowpack. A meeting with the parties involved in the shortage sharing agreement was held on August 22, 2013.

The most probable forecast for spring of 2014 is 439,532 acre-ft (71% of average). The minimum and most probable forecast are not sufficient for a spring peak release. The maximum probable forecast would likely allow a one week hydrograph spring peak release, consisting of seven days at 5,000 cfs. A base release of 250-500 cfs will continue through the winter and into the spring unless hydrologic conditions change. This is a very preliminary forecast that will likely change as the season progresses.

### **Maintenance Activities**

Rehabilitation work is scheduled next spring on the right groin seepage area including the toe drain system. The early warning system within the dam requires updating with improved technology for dam safety. Work is planned for the installation of a new roof on the old shop building. Fall vegetation control on the face of the dam is an ongoing task required for the spring and fall of each year.

### **Agency/Organization Activities and Discussion of Related Activities**

Fish & Wildlife – SJRIP – Planning to install remote PIT tags to fish for monitoring near Mexican Hat the week of November 11<sup>th</sup> and the PNM area of the river the week of December 2nd. The SJRIP Biology Committee will hold meetings from 8:00 a.m. to 4:30 p.m. on November 19<sup>th</sup> and 20<sup>th</sup> in the Durango public lands room at the Forest Service Building. Annual river-wide fish community monitoring and stocking of razorback sucker from the NAPI ponds will occur this fall. Colorado pikeminnow and razorback sucker from FWS hatcheries are also scheduled to be stocked this fall.

Colorado State Parks and Wildlife – CSPW at Arboles reported losing approximately 40% of their revenue and 30% of their visitation due to low water levels. The docks had to be moved often due to the low elevation of the reservoir. The marina was shut down July 4<sup>th</sup> to maintain boat ramp operations. The staff will take advantage of the low elevation to resurface the boat ramp this fall.

NM State Parks – The Recreation Plan will be open to Public Comment Sept 5<sup>th</sup> at 6pm.

NIIP – Navajo Indian Irrigation Project will close their diversion gate in Navajo reservoir on October 21, 2013.

NAPI– Navajo Agricultural Products Industry will be relining 400-ft of canal system to increase irrigation efficiency. Automated controls installed in 2012 have helped increase management efficiency with sprinklers and other equipment.

Jicarilla- Navajo Settlement was approved.

PNM- Environmental Implementation Board meets Sept 5 to discuss the plan to discontinue units 2 and 3 on the San Juan Generating Station, for compliance with the Clean Air Act.

**Next Meeting** - Scheduled for **1:00 p.m. on Tuesday, January 21, 2014** at the Civic Center in Farmington, New Mexico (200 West Arrington Street).

## **Attendance List – August 27, 2013 Navajo Operations Meeting**

Ashcroft, Nick, West Hammond Domestic Water Assoc., Bloomfield NM  
Becker, Herb, Jicarilla Apache Nation, Dulce NM  
Begay, JC, San Juan River Water Dineh Water Users, Inc., Shiprock NM  
Begay, Shantel, Navajo Agricultural Products Industry, Farmington NM  
Ben Shannon, City of Farmington, Farmington NM  
Benally, Aaron, Navajo Agricultural Products Industry, Farmington NM  
Benally, Ray, Water Resources Department, Navajo Nation, Fort Defiance, AZ  
Chavez, Aaron, San Juan Water Commission, Farmington NM  
Christianson, Ryan, Bureau of Reclamation, Durango CO  
Crawford, Carroll, Bloomfield Irrigation District, Bloomfield NM  
Day, Henry, Arizona Public Service, Phoenix AZ  
Duncan, Martin, San Juan River Water Dineh Water Users, Inc., Shiprock NM  
Durst, Scott, U.S. Fish and Wildlife Service, Albuquerque NM  
Etcitty, Albert, Navajo Agricultural Products Industry, Farmington NM  
Garcia, Ryan, Navajo Agricultural Products Industry, Farmington NM  
Greene, Mike, Public Service of New Mexico, Bloomfield NM  
Harms, Paul, New Mexico Interstate Stream Commission, Albuquerque NM  
Harry, Elden, Navajo Agricultural Products Industry, Farmington NM  
Harvey, Jason, BHP Billiton, Farmington NM  
Haskie, Lionel, Navajo Agricultural Products Industry, Farmington NM  
Howe, Michael, BIA, Navajo Indian Irrigation Project, Farmington NM  
Joe, Jeanette, Navajo Agricultural Products Industry, Farmington NM  
Johnson, Morris, San Juan River Water Dineh Water Users, Inc., Shiprock NM  
Young, Rick, US Army Corp of Engineers, Albuquerque NM  
Lane, Teresa, Hammond Conservancy District, Bloomfield NM  
Lile, Carrie, Southwest Conservation District, Durango CO  
McFadden, Curtis, US Army Corp of Engineers, Albuquerque NM  
Miller, Richard, City of Farmington, Farmington NM  
Moline, Cheryl, Navajo Lake State Park, Navajo Dam NM  
Montoia, Paul, City of Farmington, Farmington NM  
Oxford, Robert E., Citizen, Aztec NM  
Pablo, Renea, Navajo Agricultural Products Industry, Farmington NM  
Robinson, Kelly, Western Refining, Bloomfield NM  
Scott, Leonard, Navajo Agricultural Products Industry, Farmington NM  
Secrist, Doug, CO Parks and Wildlife, Arboles, CO  
Skeet, Raynaldo, Navajo Agricultural Products Industry, Farmington NM  
Smoke, Jeff, City of Farmington, Farmington NM  
Swickard, Ruth, Bureau of Reclamation, Durango CO  
Tensfield, Jerry, Bureau of Reclamation, Navajo Dam NM  
Travis, Nigel, CO Parks and Wildlife, Arboles, CO  
Valdez, Anthony, Navajo Agricultural Products Industry, Farmington NM  
Whitmore, Sharon, US Fish and Wildlife Service, Albuquerque NM  
Wimsatt, Marian, BHP Billiton, Farmington NM  
Yazzie, Roselyn, Navajo Agricultural Products Industry, Farmington NM