

**BUREAU OF RECLAMATION
NAVAJO RESERVOIR
APRIL 23, 2013 MEETING NOTES**

SENT VIA FAX AND E-MAIL

Enclosed is a summary of our April 23, 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:

The most probable April through July modified unregulated inflow to Navajo Reservoir, based on the mid-April forecast, is 370,000 acre-feet (af), (50% of average). The actual April-July inflow during 2012 was 310,000 af.

The reservoir elevation on April 22, 2013 was 6,022 feet which corresponds to approximately 929,228 af of live storage (55% of average).

Snowpack for the months of January through March in the San Juan Basin above Navajo Reservoir was below average with a seasonal peak snowpack of 13.9 inches on March 13.

Releases from Navajo ranged from 250 cubic feet per second (cfs) to 800 cfs since the start of the water year. As of meeting time, the release from Navajo Reservoir is 800 cfs, which is the amount currently necessary to meet target base flows downstream.

Based on the most probable inflow forecast, there will not be a spring peak release this year.

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 on improving the operation meetings or the summaries of the meetings, please let us know. The next meeting will be held on **Tuesday, August 27, 2013 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 Susan Behery at 970-385-6560 or Ruth Swickard at 970-385-6523.

NAVAJO UNIT OPERATIONS MEETING

April 23, 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's Colorado River Storage Project (CRSP) in the Upper Colorado River Basin, which includes plans for Glen Canyon, Flaming Gorge, Aspinall, and Navajo Units of the CRSP. Input from individuals, organizations, and agencies along with other factors such as hydrological conditions, water rights, endangered species requirements, flood control, hydro power, recreation, fish and wildlife management and current reservoir conditions, 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.

Guest Speaker

A special presentation was presented by Senior Hydrologist, Greg Smith from the Colorado Basin River Forecasting Center (CBRFC) in Salt Lake City, Utah. He discussed how the near-term and long-range water supply forecasts are compiled for Reclamation's guidance.

Review of Water Year 2013 Operations to date

Since late October, the release to the river was between 250 and 800 cfs from Navajo Reservoir, which was sufficient to meet target base flows in the critical habitat area. A drier than average fall and spring resulted in a lower-than-average reservoir elevation. The reservoir elevation was the third-lowest in the last thirty years for the end of March.

The reservoir hit a low elevation of 6021 (55% Full) with storage at 925,458 af in late April. The observed inflow for January was 3,344 af (62% of average), for February was 9,917 af (35% of average), and for March was 4,186 af (61% of average). The outlet works release volume for the month of January was 19,735 af (39% of average), for February was 22,391 af (47% of average), and for March was 35,615 af (33% of average). The Navajo Indian Irrigation Project (NIIP) began diverting water from Navajo on March 1st.

Water Year 2013 Hydrologic Conditions and Forecast

The reservoir elevation on April 22, 2013 was 6,022 feet which corresponds to approximately 933,294 af of storage (74% percent of the 30-year average). The reservoir is 55 percent of total capacity. As of April 22, the release to the river is approximately 800 cfs. The release may be decreased if the tributary inflow downstream of the Navajo Reservoir increases enough to be sufficient to maintain the target base flows downstream.

Water Year 2013 precipitation was well-below average. Due to low inflow volumes last year and below average precipitation throughout the summer and fall, modeled soil moisture levels entering the water year were well-below average. The average snowpack above Navajo Reservoir, as of April 22, 2013, was at 71 percent of average with a snow water equivalent (SWE) of 12.6 inches. Maximum SWE for the year above Navajo Reservoir was 13.9 inches of SWE (74% of the average peak), reached on March 13th.

The most probable April-July 2013 modified unregulated inflow, based on the mid-April forecast, is 370,000 af, which is 50% of average. The minimum probable and maximum probable April-July inflow forecasts are 250,000 af (34% of average) and 590,000 af (79% of average), respectively.

Water Year 2013 Operations

Based on the most and minimum probable inflow forecast, no spring peak release is expected. Under maximum probable conditions, a 1-week spring peak release is possible. Under the mid-April forecast, the reservoir is not projected to have shortages this year, however, the minimum probable forecast shows a minimum pool elevation of only 5 feet over the NIIP intake, where shortage sharing would begin. A minimum release of 250 cfs will be used when possible, however, the release will be increased as necessary throughout the spring and summer to maintain the target base flows in the critical habitat.

Using the current most probable forecast, the San Juan River at Bluff will see below normal flows, peaking at just over 2,000 cfs in late May or early June. This estimate is based on models using comparable historical years, the current Animas forecast, and current forecasted releases from Navajo Reservoir. Flows throughout the San Juan River Basin are anticipated to be much lower than average.

The possibility of a shortage occurring was summarized. While a shortage is not currently forecasted, the possibility of a forecasted shortage exists if water supply forecasts continue to decrease. A shortage occurs when under minimum probable conditions, the pool elevation drops to below 5990 ft at any time during the year. If this possibility exists, several water-saving measures are implemented.

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.

Currently, the first two measures have been implemented, and are enough to prevent a forecasted shortage in the basin. If the forecast continues to decrease, and a shortage forecast becomes imminent, further measures will be undertaken. The third water –saving measure would be a resulting release based on a joint discussion between the Fish and Wildlife Service biologists and Reclamation. The agreement would involve temporarily reducing the goal target base flow through the critical habitat reach in order to save water in the reservoir.

If these measures are not enough to prevent elevations from dropping below 5990 ft at any time of the year, shortage-sharing measures will 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.

Nearby Reservoirs

An overview of the conditions of nearby reservoirs was presented. The Animas-La Plata Project, Lake Nighthorse is currently at 6,877 (94% full). According to the forecasted inflow for Vallecito and Lemon Reservoirs neither is anticipated to reach full capacity this year. Vallecito Reservoir elevation was at 7,636, which correspond to 55,171 af, which represents 74 percent of average or 44 percent of total capacity. The April-July most probable inflow forecast is 110,000 (56% of average).

Lemon Reservoir elevation was 8,077, which correspond to 8,855 af of storage, which represents 41 percent of average or 22 percent of total capacity. The April-July most probable inflow forecast was 32,000 af (59% of average).

Maintenance Activities

Work on the Navajo unit buildings and parking lot will be started this summer. A toe drain repair on the right groin is planned to be accomplished during the fall.

San Juan River Improvement Program (SJRIP) Meetings

Fish and Wildlife Service announced upcoming SJRBRIP meetings in May:

- Biology Committee meeting is scheduled for May 7th;
- Annual meeting is scheduled for May 8th
- Coordination Committee meeting will be held on May 9th.

These meetings will occur in Durango, Colorado. All interested parties are invited to attend.

Agency/Organization Activities and Discussion of Related Activities

Colorado State Parks – The marina is approximately 25% online.

San Juan River Dineh Water Users – The agency is currently looking for grants to convert additional open ditches into pipes for water conservation.

Arizona Public Service (APS) – Agency is prepared for the possibility of a shortage sharing if it occurs.

Navajo Agricultural Products Industry – Cultivating, irrigation and farming have started.

San Juan River Basin Recovery Implementation Program (SJRBRIP) – The habitat restoration of installing fish passages and a fish weir at Hogback was completed.

Hammond Conservancy District – Diversions for the irrigation season have begun.

Next Meeting - Scheduled for **1:00 p.m. on Tuesday, August 27, 2013** at the Civic Center in Farmington, New Mexico (200 West Arrington Street).

Attendance List – April 23, 2013 Navajo Operations Meeting

Ashcroft, Nick, West Hammond Domestic Water Users Assoc., Bloomfield NM
Behery Novak, Susan, Bureau of Reclamation, Durango CO
Benally, Aaron, NAPI, Farmington NM
Campbell, Dave, Fish and Wildlife Service, Albuquerque NM
Charley, Chik, O&M, Bloomfield NM
Christianson, Ryan, Bureau of Reclamation, Durango CO
Day, Henry, Arizona Public Service, Phoenix AZ
Dickson, David, San Juan Sailing Club, Durango CO
Duncan, Martin, San Juan River Dineh Water Users Inc., Shiprock NM
Durst, Scott, US Fish and Wildlife Service, Farmington NM
Etcitty, Albert, NAPI, Farmington NM
Green, Kristin, NM Interstate Stream Commission, Santa Fe NM
Greene, Mike, PNM Resources, Albuquerque NM
Greenberg, Andy, Soaring Eagle Lodge, Navajo Dam, NM
Hecht, John, Crop Consultant, Dodge City, KS
Horner, Gary, Self, Farmington NM
Howe, Michael, BIA-NIIP, Farmington NM
Joe, Jeanette, Navajo Agriculture Products Industry, O&M, Farmington NM
Krakow, Bob, Western Refining, Farmington NM
Krakow, Matt, Western Refining, Farmington NM
Lane, Teresa, Hammond Conservancy District, Bloomfield NM
Lile, Carrie, Southwest Water Conservation District, Durango CO
Lindsay, Savannah, NM State Engineers Office, Aztec NM
Longhurst, Preston, Navajo Mesa Farms-R&G Potatoes, Farmington NM
Manwell, Judy, Jicarilla Apache Nation, Dulce NM
Martin, George, NAPI, Farmington NM
McFadden, Curtis, Corp of Engineers, Albuquerque NM
McKim, Doug, NM State Parks, Navajo Lake NM
McKinnon, Kristen, Wild Rivers Expeditions, Bluff UT
Moline, Cheryl, NM State Parks, Navajo Lake NM
Montoia, Paul A., City of Farmington NM
Murray, Cindy, V.W.E. Partners, Farmington NM
Oxford, Robert, Citizen, Farmington NM
Pablo, Renae, NAPI, Farmington NM
Prder, Sam, West Hammond Water Users, Bloomfield NM
Richmond, Linda, Bureau of Land Management, Bluff UT
Scott, Leonard, NAPI, Farmington NM
Skeet, Raynaldo, NAPI, Farmington NM
Smith, Greg, NWS-CO River Basin Forecast Center, Salt Lake City UT
Thomas, Art, NAPI & O&M, Farmington NM
Travis, Nigel, Navajo State Park, Navajo Dam NM
Trujillo, Leonard, Irrigator, Bloomfield NM
Williams, Shawn, NM State Engineers Office, Aztec NM
Yassie, Roselyn, NAPI, Farmington NM
Zimmerman, Paul, Aspire Computer Solutions LLC, CO