

**BUREAU OF RECLAMATION
NAVAJO RESERVOIR
APRIL 23rd, 2019 MEETING NOTES**

SENT VIA FAX AND E-MAIL

Dear Interested Party:

Enclosed is a summary of our April 23rd, 2019, meeting to coordinate Reclamation's operation of the Navajo Unit. The meeting was held at the Civic Center in Farmington, New Mexico.

Summary points of the meeting:

- Peak snow water equivalent over Navajo was 29.9 inches (148% of median peak) on April 5th.
- Current most probable forecast into Navajo is 875kaf.
- A short maintenance release is planned for spring 2019.
- End of water year reservoir elevation is forecast to be near 6055 ft.
- Outside of the maintenance release, releases will likely range between 300 and 800 cfs for the remainder of the water year, that necessary to maintain target baseflow in the critical habitat reach.
- An evening public meeting will be held on Tuesday April 30th at 6pm at the Bloomfield City Council Chambers, 915 North First Street, Bloomfield, NM. The meeting will cover general Navajo Operations and plans for 2019 releases. San Juan County Office of Emergency Management will be present and there will be opportunity for discussion, comments, and questions.

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, August 20th 2019 at 1:00 at the Farmington Civic Center, Farmington, New Mexico (200 West Arrington Street)**. If you have questions, please call Susan Behery at 970-385-6560 or email sbehery@usbr.gov.

NAVAJO UNIT OPERATIONS MEETING

April 23rd, 2019

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, Aspinall 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.

Review of Water Year 2019 Operations to date

Since the last meeting (January 2019), releases have been near 300 cfs to conserve as much water as possible while maintaining the minimum target baseflows downstream in the critical habitat reach.

Navajo lost four feet of storage throughout the winter due to low inflows into the reservoir. Despite heavy snowpack, early winter inflows were below normal due to the dry conditions of 2018. That all changed in late March, when a series of storms brought low elevation snow and rain, increasing the inflows into the reservoir. From October 1 through February 28, the reservoir lost 50kaf of storage. From March 1 to April 23rd (the meeting date), the reservoir gained back nearly 200kaf.

The recommended target baseflow has been maintained between 500 and 1000 cfs throughout the winter.

The reservoir began the water year (October 1st, 2018) at 6020.6 ft (917 kaf) and by the date of the meeting the reservoir elevation was 6034.1 ft (1,050 kaf) (62% full and 37% of active capacity). The weekly average inflow was 3,400 cfs and the release was 340 cfs. NIIP diversions were at a weekly average of 380 cfs and San Juan Chama Project was diverting a weekly average of 415 cfs.

WY 2019 Weather and Hydrologic Forecast

Greg Smith of the Colorado River Basin Forecast Center (CBRFC) presented a look at how the runoff forecasts evolved over the winter and spring, and the latest information on forecast flows for the remainder of the spring and summer.

The current modified unregulated inflow forecast for Navajo Reservoir is 875 kaf, which is 119% of average. This would be the largest inflow since 2008. The forecast is largely driven by the large storms of February and March, resulting in high snowpack conditions (snowpack peaked around 150% of average). While high snowpack conditions exist, the dry soils and low streamflow conditions that existed at the start of the year are a factor in reducing the overall runoff calculated to flow into the reservoir. The impact soil moisture will have on the overall runoff forecast is a big unknown.

The Animas is currently forecast to peak between 4600 and 5600 cfs (mean daily flow). Typical peak period is late May or early June. The model uses average historic climatology to make these calculations. The true peak will be almost completely dependent on local weather systems and temperatures during May and June. Heavier snowpack typically melts out later than average.

The weather outlook for the spring (from NOAA's Climate Prediction Center) shows slightly warmer-than-average temperatures and slightly higher-than-average precipitation for the coming months.

Water Year 2019 Operations

Though snowpack over the San Juan River Basin is considerable this year, inflows will mostly be stored in the reservoir to make up for record low hydrology from water year 2018. A small maintenance release (described below) is planned for the end of May, which will be timed to coincide with the peak of the Animas River. Outside of the maintenance release, base releases will likely range from 300 cfs to 800 cfs throughout the summer to maintain the environmental flows downstream.

The current proposed maintenance release will include a 4-7 day ramp-up to 5,000 cfs, to be coordinated for safety with the San Juan County Office of Emergency Management, U.S. Army Corps of Engineers, and other entities. The release will peak at or near 5,000 cfs for five days, and then ramp back down to base releases over 3 days. The volume of this release should total 60-70kaf over base releases.

The planned maintenance release is part of an ongoing strategy to improve and maintain existing channel capacity in the river downstream of the dam. According to DOI Technical Report SRH-2016-33, "San Juan River Channel Processes and Flow Conveyance below Navajo Dam, NM" from September of 2016, "...the magnitude of the peak river flow is more important than the duration. The release of high flows for even one or two weeks will help maintain the flow conveyance capacity of the downstream channel."

For maximum benefit, the release will be timed with the Animas River peak. Based on history, a current estimate for starting ramp-up is the week of May 21st. **Please note that this is just an estimate. The release could begin earlier or later. An email notice will be sent out one week prior to beginning the release.** Two people during the meeting expressed a concern that a release running up to and through Memorial Day weekend was not preferred. Reclamation has taken that note and will avoid that weekend if there is any flexibility in operations, but it would be best to prepare for that possibility in the event it cannot be helped.

With anticipated releases for the spring and remainder of the summer, the reservoir is expected to peak in May near 6055 ft and end the water year around the same elevation.

Maintenance Activities

The 30-inch outlet works system at Navajo Dam has not been fully functional in the last 20 years. The recent rehabilitation project began in October of 2018 and involved removing the ring follower guard gate and hollow jet valve for re-machining to bring the components back to original specification dimensions. After the components were re machined, they were reinstalled and successfully tested. This project also included the replacement of the hydraulic system which operates those valves with a system that utilizes modern components and can be integrated into a supervisory control and data acquisition (SCADA) system. Completed in early April of 2019, the refurbished 30-inch outlet works system will give the Bureau of Reclamation more flexibility in operations, especially during low flow periods in the winter when the City of Farmington Power Plant is not releasing water.

Other Area Projects

Durango Pumping Plant plans to pump from the Animas River to top off Lake Nighthorse this year as bypass flows are met. Because natural inflows have already recovered over half the vacant storage, and the runoff from the 416 fire is expected to persist through May, ALPOMRA plans to pump for 1-2 weeks as needed in the month of June as long as conditions and water quality in the river allow.

Vallecito and McPhee reservoirs are both forecast to fill. McPhee will likely conduct a spill. Lemon will likely fill or will get very close to filling.

Agency/Organization Activities and Updates

San Juan River Dineh Water Users- Conversion of open ditch to underground pipeline completion expected 2021. Next step is seeking more funding for improved irrigation systems for farmers.

City of Farmington Power Plant- Plant was able to start up today (April 23rd) at 9:00 am and is currently releasing 400 cfs.

Colorado Parks and Wildlife- 180 square feet of boat ramp at Arboles was resurfaced and has now gone underwater as the reservoir rises.

SWWCD- Southwest is currently looking for a new Executive Director. Go to their website for more information.

City of Farmington – Gold King Mine forum is June 19th – 20th this year at San Juan College. They may sample the river as a field event.

Navajo Nation EPA – will be sampling the peak on the Animas

Next Meeting - Scheduled for 1:00 p.m. on Tuesday, August 20th 2019 at the Civic Center in Farmington, New Mexico (200 West Arrington Street).

Attendance List – April 23, 2019 Navajo Operations Meeting

Archuleta, Evelyn, Citizen, Bloomfield NM
Austin, Steve, Navajo Nation EPA, Shiprock NM
Baracker, Rob, Turley Manzanares Ditch Company, Largo NM
Behery, Susan, Bureau of Reclamation, Durango CO
Branham, Scott, Bureau of Reclamation, Navajo Dam NM
Brown, Rochelle, KB-Walkoma, Farmington NM
Bulloch, Ed, SJWG, Farmington NM
Corwin, Linda, Citizen, Bloomfield NM
Dodd, Stacy, Bloomfield Irrigation District, Bloomfield NM
Duncan, Martin, San Juan River Dineh Water Users, Shiprock NM
Durst, Scott, US Fish and Wildlife Service, Albuquerque NM
Freeman, Michael, Navajo Agricultural Products Industry, Farmington NM
Hathaway, Larry, NM Office of the State Engineer, Aztec NM
Johnston, Clay, Turley Manzanares Ditch Company, Largo NM
Horner, Gary, Citizen, Farmington. NM
Knoll, Cheryl, NM State Parks, Navajo Dam, NM
Juett, Miles, NM State Engineer's Office, Santa Fe NM
Lee, Tyrell, Navajo Agricultural Products Industry, Farmington NM
Miller, Gordon, San Juan Water Commission, Aztec NM
Miller, Marc, Bureau of Reclamation, Durango CO
Miller, Scott, Arizona Public Service, Phoenix AZ
Montoia, Paul, City of Farmington, Farmington NM
Morris, Jeffery, BLM Monticello, UT
Padgett, Carrie, Southwestern Water Conservancy District, Durango CO
Prda, Sam, West Hammond Water Users, Bloomfield NM
Royer Seamus, Ryan, BOR Four Corners Construction Office, Farmington NM
Serrano, Elizabeth, Bloomfield Irrigation District, Bloomfield NM
Shockey, Jamie, City of Farmington, Farmington NM
Smith, Kathi, Hammond Conservancy District, Bloomfield NM
Staub, Andrew, Southern Ute Indian Tribe, Ignacio CO
Stoliker, David, BOR Four Corners Construction Office, Farmington NM
Tsosie, Davidson, Navajo Agricultural Products Industry, Farmington NM
Truby-Tiller, Michele, NM Office of the State Engineer, Aztec NM
Wethington, Marc, NM Department of Game and Fish, Navajo NM
Yazzie, Letisha, NM State Engineer's Office, Aztec NM