

**BUREAU OF RECLAMATION**  
**NAVAJO RESERVOIR COORDINATION MEETING**  
**April 20<sup>th</sup>, 2021**  
**MEETING NOTES**

Dear Interested Party:

Enclosed is a summary of our April 20<sup>th</sup>, 2021 meeting to coordinate Bureau of Reclamation's (Reclamation) operation of the Navajo Unit. The meeting was held virtually over Microsoft Teams video conferencing.

Summary points of the meeting:

- Extreme to Exceptional drought remains entrenched over the headwaters and Four Corners and is predicted to remain.
- Snowpack peak was below-average for the San Juans, and runoff has begun early.
- The April-July runoff most probable forecast for Navajo is 370kaf (50% of average). Other basins in the San Juans have similarly low forecasts.
- Antecedent soil moisture was record low entering this winter, which is another driver of below-average forecast runoff.
- Based on current conditions (snowpack and reservoirs), and the range of forecast possibilities provided by CBRFC, no spring peak release is planned
- Expect low releases throughout the runoff season (300-500 cfs) as minimum releases to meet the target baseflows will be made. Summer releases will likely be higher than normal, between 600 and 1,000 cfs releases will be likely unless we have a wet summer.
- Currently no shortage is in the forecast for the San Juan River Basin in water years 2021-2022.

Copies of the material presented, and past meeting notes are available online at:

<http://www.usbr.gov/uc/water/crsp/cs/nvd.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 24<sup>th</sup>, 2021 at 1:00 PM. This meeting will most likely be in a virtual format. A meeting notice with conferencing information will be sent out prior to the meeting date.**

## NAVAJO UNIT OPERATIONS MEETING

April 20<sup>th</sup>, 2021

**Participation:** This meeting was held virtually via Microsoft Teams. 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 2021 Operations to date**

The release at the beginning of the water year was 750 cfs. By early mid-November, irrigation tapered off and the release was decreased to 300 cfs, while maintaining the downstream target baseflow minimum of 500 cfs, as recommended by the San Juan River Recovery Implementation Program (SJRIP). The release was increased to 400 cfs in January. At the time of the meeting, the dam is releasing 500 cfs. This release is meeting the minimum base flow targets of 500 cfs.

The SJRIP recommends a target base flow of between 500 cfs and 1,000 cfs through the critical habitat area. The target base flow is calculated as the weekly average of gaged flows throughout the critical habitat area from Farmington to Lake Powell. As a precipitation deficit has materialized and baseflows have continued to decline throughout the winter, the release has slowly been increased to maintain the downstream target baseflows.

Navajo has been slowly losing storage over the winter. The reservoir began the water year (October 1st, 2021) at an elevation of 6043 ft (1.145 maf of live storage). This is 20 feet lower than the reservoir elevation at the start of the previous water year.

Due to the below-average runoff from last spring and the below-average precipitation through the fall, baseflows in the basin have been below-average.

### **Water Year 2021 Current Conditions**

Reservoirs in the San Juan River Basin are all at below average storage levels for this time of year. Navajo Reservoir is 62% full, or 37% of active storage. Other area reservoirs are as follows: Vallecito, 41% full; Lemon, 31% full; Nighthorse, 93% full; McPhee, 45% full, and Jackson, 34% full. All reservoirs have begun gaining storage.

Winter baseflows throughout the basin have been well below normal. The Animas River has shown the lowest flows in its 120-year record this fall and winter. Cumulative flows this water year are record low, indicating the poor hydrologic conditions and severe drought.

### **Water Year 2021 Weather**

*Aldis Strautins, National Weather Service, Grand Junction*

Since the first of the water year, temperatures over southeastern Utah were cooler than normal and over southwestern Colorado temperatures were warmer than normal. Precipitation has been well below normal over the headwaters since the beginning of the water year.

Storms in late February and March brought some brief relief to portions of the Four Corners, but the first half of April has been very dry.

Extreme to Exceptional drought remains entrenched over the headwaters and Four Corners.

ENSO-neutral conditions are present and are expected to continue this spring into summer, and then transition to a weak La Niña next fall.

A more progressive weather pattern is indicated for the second half of January, which would allow more storms and increased precipitation chances.

The forecast into spring and summer show higher chances of below normal precipitation and a higher chance of above normal temperatures. This is contributing to the seasonal drought outlook for the Four Corners area, in which drought is expected to persist.

Snowpack in the basin peaked at the end of March at 96% of normal.

### **Water Year 2021 Hydrologic Forecast**

*Ashley Nielson, Colorado Basin River Forecast Center, Salt Lake City*

Soil moisture conditions are below normal and are generally in the bottom three years for the 1981 – 2020 time period. Soil moisture conditions are similar to last year in the eastern headwaters but worse over the remainder of the basin. Two consecutive years of poor monsoon seasons have exacerbated antecedent soil moisture conditions. There has been limited groundwater recharge since 2019 runoff. A portion of the snowmelt will be absorbed into the dry soils, and the forecasts are accounting for this loss.

Snowpack in the San Juan Basin is much below normal. Snow did not reach the normal peak snow water equivalent (SWE) and significant early melt has occurred. It is important to note that SWE does not have a one-to-one relationship with runoff. For example, the years 1988, 2003, and 2013 have similar snowpack accumulation profiles, but vastly different total runoff volumes. Spring weather plays a role in the final outcome.

Current Most Probable inflow forecasts (as of April 15<sup>th</sup>) for the April-July runoff season are as follows:

Navajo: 370 kaf (50% avg)  
Vallecito: 92 kaf (47% avg)  
Lemon: 22 kaf (40% avg)  
Animas: 185 kaf (45% avg)  
McPhee: 95 kaf (32% avg)  
Powell: 2,700 kaf (38% avg)

Early runoff is also being exacerbated by considerable dust conditions. Jeff Derry of the Center for Snow and Avalanche Studies gave an update on his latest Dust on Snow tour, where dust was notably present across all high elevations in the state.

### **Water Year 2021 Proposed Operations**

Based on current storage levels and the latest forecast from the CBRFC, an SJRIP-prescribed spring peak release of at least 21 days at 5,000 cfs is not planned.

Based on latest modeling, the most probable forecast peak pool elevation will be near 6043 ft. The most probable end of water year (September 30<sup>th</sup>) pool elevation will be near 6035 ft.

As there is no spring peak release planned, and the forecast for Animas runoff is also very low, flows at Four Corners this spring are unlikely to meet the SJRIP recommended targets this year.

Currently modeling does not show a shortage for WY 2021.

Releases through the spring will likely range from 300 cfs to 600 cfs, and will continue to be as low as possible to conserve water while meeting the downstream flow targets. This summer, releases will likely range between 600 cfs and 1,000 cfs to meet the downstream targets.

### **Agency/Organization Reports**

NAPI – Alfalfa and wheat are beginning, planting has begun.

SJRIP (FWS)- The Annual Meeting is scheduled for May 5<sup>th</sup> and will be in a virtual format. For meeting information, please send an email to [james\\_sykes@fws.gov](mailto:james_sykes@fws.gov)

**Next Coordination Meeting** - The next meeting will be held on **Tuesday, August 24<sup>th</sup>, 2021 at 1:00 PM. The meeting will most likely be in a virtual format. A meeting notice with conferencing details will be sent out prior to the meeting date.**



## Attendance List – April 20, 2021 Navajo Operations Meeting

Aldis Strautins	NOAA - NWS - Grand Junction
Ali Effati	NMISC
Allen Adkins	
Alyssa Richmond	SJWG
Ashley Nielson	NOAA - CBRFC - Salt Lake City
Brandt Hart	BLM
Carrie Padgett	Southwestern Water Conservation District
Chad Niehaus	BLM
Christina Noftsker	NMISC
Clay Johnston	Turley Manzanarnes
Colleen Cunningham	NMISC
Dex Lewis	Reclamation
Dominique Work	NMISC
Duane Joe	NAPI
Ed Warner	Reclamation WCAO
Erik Knight	Reclamation WCAO
Fletcher Brinkerhoff	USGS - NMWSC
Gary Horner	
Gordon Miller	San Juan Water Commission
James Miller	
Jamie Shockey	City of Farmington
Jeanette Joe	NAPI
Jeff Derry	Center for Snow and Avalanche Studies
Jeffrey Morris	
Kathi Smith	Hammond Conservancy District
Les Larson	Hillside Irrigation District
Marc Miller	Reclamation WCAO
Melanie McCabe	BLM Canyon Country District, Moab
Michele Truby Tillen	San Juan County OEM
Mike Greene	PNM
Nathan Franssen	San Juan Recovery Program, Fish and Wildlife Service
Nathaniel Todea	Reclamation UCRB Power Office
Pamela Norris	APS Four Corners Power Plant
Paul Montoia	City of Farmington
Roselyn Yazzie	NAPI
Ryan Christianson	Reclamation WCAO
Scott Branham	Reclamation - Navajo Dam
Scott Durst	San Juan Recovery Program, Fish and Wildlife Service
Scott Miller	Arizona Public Service, Co

Shannon Hatch  
Stacy Dodd  
Ted Dunn  
Tom Fowlds  
Tyrell Lee

Reclamation WCAO  
Bloomfield Irrigation District  
Reclamation WCAO  
Reclamation WCAO  
NAPI