

BUREAU OF RECLAMATION
NAVAJO RESERVOIR COORDINATION MEETING
April 23, 2024
SUMMARY

Dear Interested Party:

Enclosed is a summary of the April 23rd, 2024 meeting to coordinate Bureau of Reclamation's (Reclamation) operation of the Navajo Unit. The meeting was held in person at the Farmington Civic Center, with a virtual option via Microsoft Teams video and by phone.

Summary points of the meeting:

- There is no spring peak release planned for this year.
- Snow accumulation so far in Water Year 2024 has, on the whole, been near but just below average. There is at least one more storm that will increase the snowpack at high elevations.
- Soil moisture conditions are below average, generally 50 to 70% below average. Soil moisture, along with spring weather and other factors, can have significant effects on the runoff efficiency.
- The most recent April-July runoff forecast of the year has a range of 320 kaf (51% of average) to 615 kaf (98% of average) with a median forecast of 410 kaf (65% of average).
- Reservoir is expected to peak between 6,050 and 6,060 ft, but this exact number depends on the timing of snowmelt.
- The NMISC and TNC have requested JAN subcontracted water to be released in late summer and early winter to study the effects of backwater habitats on species in the San Juan River. Details can be found in the last section of this document.

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.

Next meeting date: Tuesday, August (exact day TBD) 2024 at 1:00 PM. This meeting is currently planned to be held in-person at the Farmington Civic Center, in Farmington, NM with a virtual option. Please contact sbehery@usbr.gov for questions or updates.

NAVAJO UNIT OPERATIONS MEETING

April 23rd, 2024

Participation: This meeting was held in person and 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.

Operations in WY 2024 so far and Current Conditions in the Basin

Susan Behery, Reclamation, Western Colorado Area Office

The meeting began with a review of the releases and inflows from Navajo Dam since October. Water Year 2024 began on October 1, 2023, with Navajo holding 1,146 kaf of live storage (520 kaf active storage) at elevation 6046.6 ft. The Navajo Indian Irrigation Project (NIIP) ended their diversions for the year on October 27th. Since then, releases have averaged about 300cfs, with a slight increase this last month to maintain flows before spring runoff starts. Releases are made for the authorized purposes of the Navajo Unit, and to attempt to maintain a target base flow through the endangered fish critical habitat reach of the San Juan River (Farmington to Lake Powell). The San Juan River Basin Recovery Implementation Program (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.

So far inflows for this water year have been 54% of average for this time of year, or 161 kaf. Releases have managed to stay below average (158 kaf, or 72% of average) while maintaining the authorized purposes of the Reservoir and ESA commitments, described above. Calculated evaporation totals 7 kaf, NIIP has diverted 28 kaf, and San Juan-Chama has diverted 9 kaf.

Currently, we are below average for pool elevation, but only slightly. Based on similar water years as well as models for this year, we should expect it to increase by 10 to 20 feet at its maximum, leading to a maximum pool elevation of between 6,050 and 6,060 ft.

As of the meeting date, McPhee holds 292,333 af (77% of live storage). Lake Nighthorse is at 112,186 af (97% of live storage) and is planned for topping off this spring. Lemon is at 18,221 af (46% of live storage). Vallecito is at 80,609 af (64% live storage), and Jackson is at 5,687 af (57% of live storage). Navajo is at 1,084,837 af, or 66% of live storage (46% of active storage).

Around the Upper Colorado River Drainage Basin: Flaming Gorge is 86% full, Blue Mesa is 65% full, Fontanelle is 38% full, Morrow Point is 94% full, and Lake Powell is 33% full.

Hydrologic Outlook

Erin Walter, National Weather Service (NWS), Grand Junction

There has been a rapid decline in Now Water Equivalent (SWE) in many basins over the past couple weeks. Currently, most basins are between 30 to 50 % of average right now. Earlier this year saw SWEs above average, but early April has been warm and dry, causing a steep decline.

Piedra one of the few basins that still has above average SWE, but is still rapidly decreasing. Upper San Juan has dropped below average, and the Animas has dropped to 79% of normal for this time of year, whereas the peak SWE was just about average.

Southwestern Colorado has been 0 to 2 degrees warmer than normal which is not helping our snowpack, and precipitation has been very low across the San Juans. Drought in the Four Corners area hasn't changed recently (still in the D0 to D2 range), but may expand further north.

Short term forecast: The Climate Prediction Center (CPC) predicts warm conditions for the next few days, but starting Thursday things will cool down and stay cool over the weekend and into next week. However, it is officially spring, and the San Juans may see lots of wind (gusts up to 40mph) leading to dust on snow events. There will likely be a sharp elevation gradient dividing where we see snowfall vs rainfall. The 6 to 10 day outlook hints at an active storm system, and the 8 to 14 day outlook shows the same thing. May looks to be near normal for both temperature and precipitation, which should hopefully help decrease the rate our snow is melting.

Seasonal Outlook: The CPC predicts hot and dry weather. Remember that climate predictions are tough. Snowpack can influence the timing of monsoons (more snow later in the season can lead to later/weaker monsoons), so at least that path of reasoning may not have as big of an impact as they are predicting, since our SWE has decreased so drastically recently.

Go to <https://www.cpc.ncep.noaa.gov/> for more information.

Streamflow Forecast and Weather Outlook

Ashley Nielson, Colorado Basin River Forecast Center (CBRFC), Salt Lake City

Animas River has been very low this water year. So far this year, cumulative inflow has been setting a new record low. The Piedra River isn't as bad.

Precipitation this April is well below average and temperatures are mostly warm, although this upcoming weekend will provide a slight bump in those statistics. SNOTEL sites are below average and melting earlier than average.

Snowpack has varied at different elevations in the region. In high elevations (above 11,000 ft) never got to the average snowpack. In mid-elevations (9500 to 11000 ft) eventually reached normal snowpack. Low elevations (6,500 to 9,500 ft) never saw normal snowpack.

Water supply forecast is staying below normal for this year. April 1st's most probable forecast was 420 KAF or 67% of average, and decreased slightly (to 410 kaf, or 65% of average) at the mid-month forecast. The entire inflow forecast ranges from 320 kaf (51% of average) to 615 kaf (98% of average). April 1st forecast has an average error of 18% and May 1st has an average error of 15%. Error comes from uncertainty in the future weather and possible extreme events.

Animas-Durango is forecasted to have a below average peak (57% of normal, or approximately 3,000 cfs). The Colorado Basin River Forecast Center makes 10-day stream forecasts during spring snowmelt, updated by 10am every day. Available at www.cbrfc.noaa.gov/lmap/lmap.php?interface=river

Proposed Operations for remainder of WY 2024

Susan Behery – Reclamation, Western Colorado Area Office

The latest (mid-April) CBRFC official Most Probable April-July runoff forecasts are as follows:

Navajo: 410 kaf (65%* avg)

Vallecito: 135 kaf (76% avg)

Lemon: 34 kaf (71% avg)

Animas: 285 kaf (74% avg)

McPhee: 170 kaf (67% avg)

Powell: 5400 kaf (85% avg)

**average of the 1991 – 2020 time period*

Currently, the forecast inflow and available storage are insufficient for a spring release. Based on the decision tree in the San Juan River Recovery Program's (SJRIP) most recent flow procedures, they did not recommend a release.

Navajo Reservoir could fill between 57 and 92% of average, but even with the 92% average there still wouldn't be a spring peak release. Without a spring peak release, releases will continue to target the recommended baseflow in the critical habitat reach (Farmington to Powell) of between 500 and 1000 cfs. Remember that this is not the release from the dam. The dam release will likely remain at 350 cfs through spring runoff, increasing to as high as 800 or 900 cfs to meet the target baseflow.

Maximum pool elevation in the reservoir will most likely be between 6,050 and 6,060 ft, but this depends greatly on inflows and timing of spring runoff. Pool elevation at the end of the water year (September 30th) is likely between 6,030 and 6,062 ft. The wide range accounts for the high variability in operations with and without monsoons.

There will be two 10,000 af releases (one in late summer and the other in early winter) for the New Mexico Interstate Stream Commission (NMISC) and The Nature Conservancy (TNC)'s

requested release of their subcontracted water from the Jicarilla Apache Nation (JAN). These releases are expected to support endangered species and compact requirements. This year, they will be doing an experiment to elevate baseflow during two periods. Summer (sometime July through September, maybe late July early August if things stay dry and hot) would help the protected fish species by maintaining connectivity of backwater habits and/or increasing the quality of those habits (more dissolved oxygen and lower temperatures) where larval fish are developing. Early winter (outside of irrigation season) will still be looking at the same backwater habitats to see what other fish species are using these areas, and also the difference in transit losses (evapotranspiration) between late summer and early winter. In both cases, it will be a 15-day release period and the additional flows will be added to the release made to meet the target baseflow. Each release will be structured in the following way: 5 days of adding 250cfs, 5 days of adding 500cfs, and finally another 5 days adding 250cfs. The dam release total will likely peak between 1,000 cfs and 1,500 cfs, depending on the weather at the time.

Reclamation's exploratory drilling project on the dam will continue through 2025, but the roads will be open during the summer recreation season (Memorial day through Labor Day). The drilling will give Reclamation the necessary information to learn how to best address the seepage issues at Navajo Dam. For road closure information, visit NMDOT or Reclamation's updates at this link: <https://www.usbr.gov/uc/wcao/water/rsvrs/notice/pdfs/RoadClosureUpdates.pdf>

Agency Updates

San Juan River Recovery Implementation Program (SJRIP): On May 14th and 15th, SJRIP will be having another meeting in Durango, Colorado. If interesting in joining, contact Scott Durst (scott_durst@fws.gov) for the meeting information.

NM Office of the State Engineer (NMOSE): There may be up to a weeklong outage on the website's real-time diversion information as the switch is made to radio from satellite telemetry. This change is being made to hopefully get rid of some of the issues with stations not reporting properly.

Links

- Navajo Project Notices: https://www.usbr.gov/uc/wcao/water/rsvrs/notice/nav_rel.html
- Navajo Monthly Forecast Update: <https://www.usbr.gov/uc/water/crsp/cs/nvd.html>
- UC Water Operations Home: <https://www.usbr.gov/uc/water/index.html>
- Teacups: <https://www.usbr.gov/uc/water/basin/index.html>
- 24-Month Study: <https://www.usbr.gov/uc/water/crsp/studies/index.html>
- DROA: <https://www.usbr.gov/dcp/droa.html>

Attendance List

Ashley Nielson	CBRFC
Carrie Padgett	SWWCD
Catherine Galvan	City of Bloomfield
Christina Noftsker	NMISC
Colleen Cunningham	NMISC
Danielle Urich	Bureau of Reclamation
Dave Zeller	NAPI
Elizabeth Serrano	Bloomfield Irrigation District
Erik Knight	Bureau of Reclamation
Erin Walter	National Weather Service, Grand Junction
Jason Sullivan	RSI
Jeff Derry	Center for Snow and Avalanche Studies
Joe and Julie Razor	Local Landowners
Julia Bowman	NMISC
Justyn Liff	Bureau of Reclamation
Kelsey Deckert	Bureau of Reclamation
Kilian Carey	Farmington Fire
Lee Traynham	Bureau of Reclamation
Marc Miller	Reclamation WCAO
Mike Mestas	SJC OEM
Norman Norvells	SJWG
Pam Norris	APS
Prudence Brady	City of Bloomfield
Reece Carpenter	Bureau of Reclamation
Renaë Pablo	NAPI
Richard Blecha	NMOSE
Roselyn Yazzie	NAPI
Rowan Hannan	Albuquerque-Bernalillo County Water Utility Authority
Scott Durst	FWS, SJRIP
Scott Miller	APS
Shawn Williams	NMOSE
Sherice Snell	San Juan Water Commission
Stacy Dodd	Bloomfield Irrigation District
Susan Behery	Bureau of Reclamation
Tom Chart	Grand River Consulting
Tom Miller	Farmington Fire