

1 Attachment E

2  
3 2026 Drought Response Operations Plan

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5 Operations at Navajo Reservoir

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8 1. Navajo Reservoir Operations Without Drought Response

9 Navajo Reservoir Operations are guided by the Record of Decision (ROD) for Navajo  
10 Reservoir, Navajo Unit which implements the operating criteria contained in the  
11 Preferred Alternative of the 2006 Navajo Reservoir Operations Final Environmental  
12 Impact Statement (FSEIS).

13 The U.S. Fish and Wildlife Service transmitted to the U.S. Bureau of Reclamation  
14 (Reclamation) the Final Biological Opinion for Navajo Reservoir Operations on January  
15 5, 2006, which outlined the intent for Reclamation through the proposed operations in the  
16 preferred alternative to mimic the San Juan River's natural hydrograph downstream from  
17 its confluence with the Animas River.

18 The ROD provides for potential refinement of the flow recommendations based on  
19 relevant new information that may be gained over time through an adaptive management  
20 process. The range of downstream releases specified in the Navajo Reservoir Operations  
21 ROD can vary from 250 to 5,000 cfs.

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23 The Navajo Dam Operating Procedures for implementing the operating criteria are  
24 evaluated and revised as needed. The most recent operating procedures were adopted by  
25 the SJRIP and Reclamation in 2018. The Revised Operating Procedures document  
26 prescribe a year-round target baseflow in the San Juan of 500 to 1000 cfs in the critical  
27 habitat reach (from Farmington, NM to Lake Powell).

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29 The flow recommendations recommend mimicry of a natural hydrograph in terms of flow  
30 magnitude, duration, and frequency during the spring runoff period. Duration and  
31 frequency minimums are specified in the Flow Recommendations document and are  
32 based on modeling of hydrology from 1928 to 1993. A spring peak release is considered  
33 every year to meet recommended flow targets in the critical habitat reach, based on water  
34 availability forecasts, projected contract water use, and releases to meet the target  
35 baseflow. A spring peak release calls for 5,000 cfs of water to be released continuously,  
36 over a period varying from 21 to 60 days.

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38 The End of Water Year Storage Target (EWYST) is one of two target reservoir elevations  
39 on September 30th of each year. The lower EWYST, 6,050 ft, is used for the calculation  
40 of forecast available water for a spring peak release to benefit endangered fish and critical  
41 habitat. If there is not enough available water for a spring peak release, or after the spring  
42 peak release occurs, then the EWYST changes to 6,063 ft for the calculation of Excess  
43 Water (Excess Water). If there is water in the reservoir above 6,063 ft, that water is  
44 considered Excess Water. If Excess Water is available in a given year, it could be

45 released based on a request from the SJRIP to meet a variety of goals of the SJRIP.

46 Spring Peak Releases and Excess Water are both examples of water which release is  
47 timed to benefit the goals of the SJRIP.

48 In case of severe drought with anticipated shortages to the Navajo Reservoir water users,  
49 the ROD allows for consideration of a temporary revision to the spring peak release  
50 criteria or lowering of baseflow targets in the critical habitat reach.

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## 52 2. Current Hydrology

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54 As of April 7, 2026, Navajo Reservoir is at 6,036.5 ft of elevation, or 1,024 kaf of live  
55 storage (62% of live capacity) and 398 kaf of active storage (39% of active capacity).

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57 The April modified unregulated inflow forecast for Navajo Reservoir in water year 2026  
58 ranges from a minimum probable of 79 thousand acre-feet (kaf) (13 percent of average to  
59 a maximum probable of 360 kaf (57 percent of average) with the most probable forecast  
60 for water year 2026 of 173 kaf (28 percent of average). The inflow forecast for the  
61 minimum probable is the 2<sup>nd</sup> lowest since water year 1991 and is the 3<sup>rd</sup> lowest under the  
62 most probable. There is a 10 percent chance that inflows could be higher than the current  
63 maximum probable forecast and a 10 percent chance that inflows could be lower than the  
64 minimum probable forecast.

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## 66 3. Navajo Reservoir Operations without Drought Response during Plan year

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68 Based on the April 2026 most probable forecast of 173 kaf modified unregulated inflow  
69 for water year 2026, the Colorado River Mid-term Modeling System 24-Month Study  
70 (24-Month Study) projects Navajo Reservoir elevation will end water year 2026 near  
71 6,010.4 feet with approximately 784 kaf in live storage (48 percent of live capacity), or  
72 158 kaf in active storage (15 percent of active capacity). The total live capacity at  
73 Navajo Reservoir is 1,647,940 acre-feet. The active capacity at Navajo Reservoir is  
74 above elevation 5990 ft, and totals 1,021,910 acre-feet. Below the elevation of 5990 ft,  
75 contract deliveries can no longer be made.

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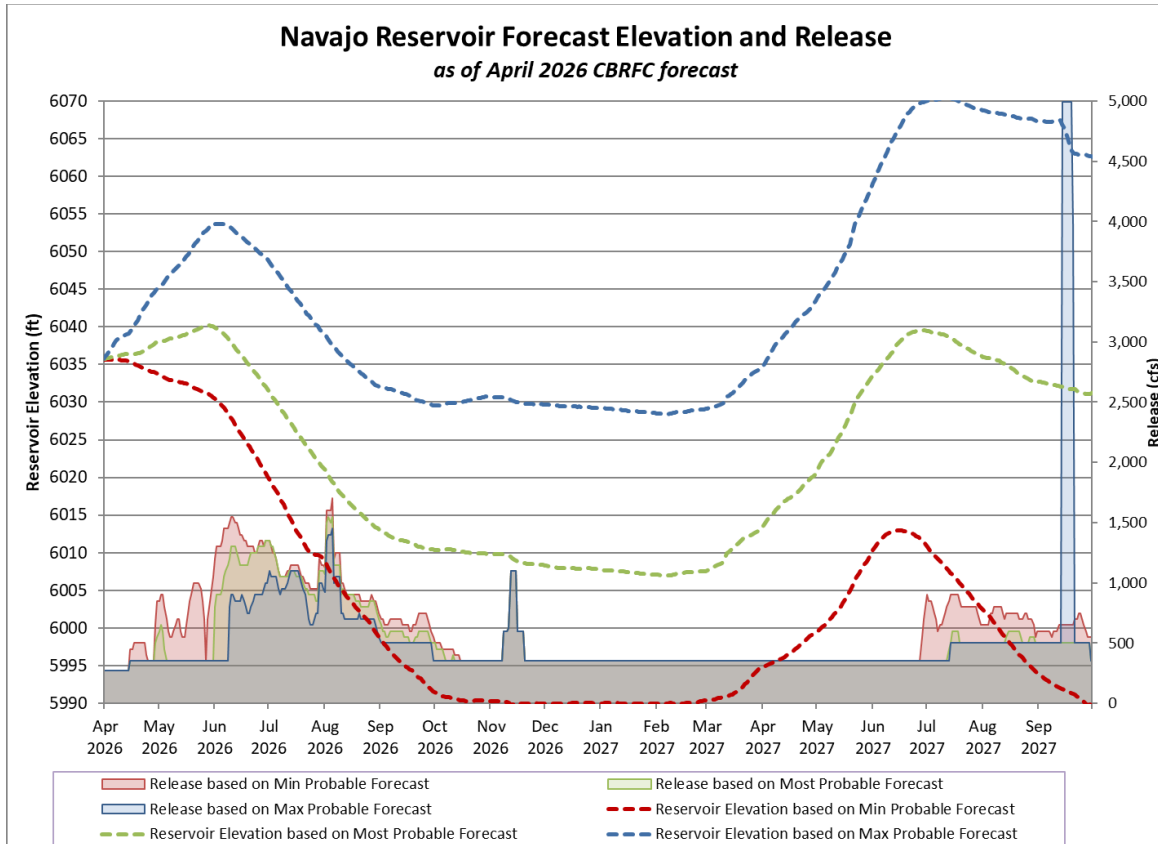
77 Note that projections of elevation and storage for water year 2026 have considerable  
78 uncertainty at this point in the season. Projections of end of water year 2026 Navajo  
79 elevations using the April 2026 24-Month Study Minimum Probable (drier hydrology)  
80 and Maximum Probable (wetter hydrology) inflow forecasts are 5,991.9 feet (39 percent  
81 of live capacity, 1 percent of active capacity) and 6,029.8 feet (58 percent of live  
82 capacity, 32 percent of active capacity), respectively (Figure 1). Under these scenarios,  
83 there is a 10 percent chance that inflows will be higher, resulting in higher elevation, and  
84 10 percent chance that inflows will be lower, resulting in lower elevation.

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86 Based on the current storage and the April 2026 inflow forecast, and pursuant to the ROD

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for the Navajo Unit, the available water calculated for water year 2026 is insufficient for a spring peak release as recommended by the SJRIP under all three forecasts. The release throughout water year 2026 will be the minimum required to maintain the minimum downstream target baseflow as specified in the ROD and is likely to range between 250 cfs and 1,500 cfs.



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Figure 1.

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#### 4. Navajo Reservoir Drought Response Operations

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Based on probabilistic modeling using the operational model used for the San Juan portion of the 24-Month Study with the Ensemble Streamflow Prediction (ESP) traces, there is a 0% risk of shortage in Water Year 2026, based on 0 of 30 traces that fall into inactive storage under normal operations without DROA.

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##### a. Releases

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No Drought Response Operations Release is contemplated for Water Year 2026.

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109 b. Recovery

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111 No releases have been made from Navajo Reservoir to date pursuant to DROA.

112 Therefore, no recovery is necessary as of April 1, 2026.

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114 Operational Flexibilities for Drought Response Recovery

115 a. Recovery Tools Under the Navajo Reservoir Operations:

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117 i. Recovery of the Cumulative Volume of the Drought Response Operation

118 Release

119 Recovery of the total Drought Response Operations volume can occur in one  
120 operation, or over several operations with partial recovery. The following are  
121 examples of potential operations that result in recovery. All recovery scenarios are  
122 dependent upon hydrological conditions. Recovery would not occur under any of  
123 the described scenarios if below-average hydrology persists in future years. Any  
124 reduction in Operations without Drought Response may count towards recovery.  
125 It should be noted that some of these scenarios for recovery may have an impact  
126 on the volume, frequency and duration of releases as specified in the Revised  
127 Operating Procedures document.

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129 The variables used in the equations for these scenarios are as follows:

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131  $D_{tot}$  = Total Drought Response Operations volume released in prior release(s)

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133  $D_o$  = Drought Response Operations volume recovered under any of these  
134 recovery scenarios. If  $D_o$  is less than or equal to zero, no Drought Response  
135 Operations volume is recovered.

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137  $D_{rem}$  = Remaining Drought Response Operations Volume to be Recovered =  $D_{tot}$   
138  $- \sum D_{oi}$  ( $i=1..n$ , representing total number of events that have resulted in the  
139 recovery of Drought Response Operations releases). Once  $D_{rem}$  is reduced to  
140 zero, full recovery has occurred.

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142  $S_{6063}$  = Storage volume at 6063 ft

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144  $S_{6085}$  = Storage volume at 6085 ft (maximum active storage)

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146  $S_{fcm}$  = Maximum flood control storage as defined by the USACE water control  
147 manual, based on forecast inflows and date.

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149  $S$  = Observed storage

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151  $AW$  = Available Water = Projected available water volume for a spring peak  
152 release

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SPR= minimum volume required to make a spring peak release

SPRING OPERATIONS: A spring peak release (Spring Peak) from Navajo Reservoir, as recommended and described by the SJRIP, will occur when, after accounting for forecast inflows, regular releases and contract uses, and evaporation, it is projected that there will be enough Available Water over the lower EWYST of 6050 ft to make a spring peak release for the recommended duration. There is opportunity for partial or full Drought Response Operations recovery under this scenario. The equation below illustrates how such recovery would be calculated.

$$Do = AW + Drem - SPR$$

FALL OPERATIONS: If the Excess Water is available, withholding some, or all of that Excess Water could result in partial or full Drought Response Operations recovery. If Excess Water is not available, there could still be a potential for partial recovery depending on the storage in the reservoir. The equation below illustrates how such recovery would be calculated.

$$Do = S + Drem - S6063$$

FLOOD CONTROL OPERATIONS: The US Army Corps of Engineers (USACE) defines variable flood control space to allow for forecast inflows without spilling during runoff season. This flood control space is based on the inflow forecast and day of the year. Partial or full Drought Response Operations recovery could occur if the difference between the maximum flood control storage volume and the actual storage is less than or equal to Drem. The equation below illustrates how such recovery would be calculated.

$$Do = S + Drem - Sfc$$

Similarly, partial or full Drought Response Operations recovery could occur if the difference between the top of active storage and the actual storage is less than or equal to Drem.

$$Do = S + Drem - S6085$$

There are four elevation targets, which, if reached, will “recover” all prior Drought Response Operation releases. These elevation targets are also used in the previous section for recovery by tracking volumes.

- September 30th: 6063 ft or higher
- September 30th: 6050 ft or higher – Recovery complete (only if a spring peak release was made that calendar year).

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- January 1st – July 15th: If the reservoir elevation intersects the maximum flood control elevation allowed by the U.S. Army Corps of Engineers at any point in this timeframe.
- Jan 1st – Dec 31st: 6085 ft

## 5. Contracts

Existing water supply contracts and agreements at Navajo Reservoir are described below. Any future contracts which become executed will be described here. Water supply contracts and agreements are not impaired by any Drought Response Operations because the water under contract is considered unavailable under DROA.

Navajo Reservoir contracted water volumes listed below represent the full allocation of water contract:

- Williams Gas Processing (expires 3/31/28): 50 af/yr.
- Navajo Nation Settlement Contract (no expiration): 508,000 af/yr for NIIP which includes 22,650 af/yr of diversion (20,780 af/yr of depletion) for the Navajo-Gallup Water Supply Project.
- Jicarilla Apache Nation Settlement Contract (no expiration): not to exceed 33,500 af/yr diversion (25,500 af/yr of depletion) from the Navajo Reservoir Supply for use by the Nation or for subcontracting outside the reservation, in accordance with the Jicarilla Apache Tribe Water Rights Settlement Act of 1992.
- Hammond Conservancy District Contract (no expiration): 23,000 af/yr of depletion.

Shortages to contracts at Navajo Reservoir will be handled according to the provisions of Public Law No. 87-483, as amended by Public Law No. 111-11.

## 6. Coordination

Navajo Unit stakeholder coordination meetings are held three times annually in January, April, and August. Operational plans are presented for comment and feedback at these meetings. Additionally, Reclamation reaches out to stakeholders as needed for input and coordination on operations outside of regularly scheduled meetings.

There is a formal process for coordination between Reclamation and the SJRIP on spring peak releases from Navajo Reservoir. Reclamation provides an available water calculation by April 1<sup>st</sup> to the SJRIP, and a recommendation for the size and shape of a

242 spring peak release is made by mid-April. This process can also be used for any Drought  
243 Response Operation that may occur as a spring peak. Outside of the spring, direct  
244 coordination between Reclamation and the SJRIP is conducted through updates at  
245 Biology Committee and Coordination Committee meetings, which are scheduled  
246 regularly throughout the year. Additional meetings with the SJRIP will be conducted as  
247 needed with each Drought Response Operation from Navajo Reservoir.

#### 248 7. Accounting

249 No releases have been made from Navajo Reservoir to date pursuant to DROA.  
250 Therefore, no accounting or recovery has been necessary as of April 1, 2026.

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252 Accounting for current DROA releases and recovery at Navajo can be found here:

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254 <https://www.usbr.gov/ColoradoRiverBasin/documents/dcp/DROA/DROSummarySheet.pdf>

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