

WALTER BOUREZ, III, P.E.
DON TRIEU, P.E.
DARREN CORDOVA, P.E.
NATHAN HERSHEY, P.E., P.L.S.
LEE G. BERGFELD, P.E.
BEN TUSTISON, P.E.
THOMAS ENGLER, P.E., CFM
MICHAEL MONCRIEF, P.E.
NICOLE ORTEGA-JEWELL, PMP
KYLE KNUTSON, P.E.
ANNE WILLIAMS, P.E.

FOUNDERS:
ANGUS NORMAN MURRAY
1913-1985
JOSEPH I. BURNS
1926-2021
DONALD E. KIENLEN
1930-2023

MEMORANDUM

DATE: July 11, 2023
TO: Erik Ekdahl, Deputy Director for Water Rights
FROM: Angela Bezzone P.E. and Wesley Walker P.E., MBK Engineers
SUBJECT: Walker River Irrigation District Release Plan for 2023 Temporary Water Transfer and Instream Flow Dedication

The purpose of this memorandum is to address Condition 6 of the Division of Water Rights' (Division) Order dated April 12, 2023 (Order), authorizing releases for temporary transfer of water and instream flow dedication by the Walker River Irrigation District (District) under Licenses 6000 and 9407 (Applications 2221 and 1389, respectively). This condition relates to a schedule of releases for the proposed temporary water transfer. In particular, Condition 6.b of the Order requires, in part: "The release plan must identify the historic range of releases during the irrigation season and evaluate whether water to be transferred during the irrigation season is within the historic range of releases." The purpose of this memorandum is to provide this "release plan" to the Division.

BACKGROUND

On January 23, 2023, the District filed two Petitions for Temporary Transfer and Instream Flow Dedication (Petitions) in order to assist with increasing the flow into Walker Lake for environmental restoration in the Walker River Basin as provided in Public Law 111-85, which established the Walker River Restoration Program. The District has an agreement with the National Fish and Wildlife Foundation, predecessor to the Walker Basin Conservancy (referred to as "WBC" herein), to administer and manage a "Stored Water Program" (SWP) in the Walker River Basin. The purpose of the SWP is to release surface water from Bridgeport Reservoir (License 9407) and/or Topaz Reservoir (License 6000) for instream dedication to and including Walker Lake. The total quantity of surface water proposed for the temporary water transfer is up to 25,000 AF under the District's Licenses 6000 and 9407. The SWP has previously been administered three times; in 2019, 2021, and 2022.

On July 3, 2023, the Walker River Court entered its Order temporarily modifying the Walker River Decree consistent with the SWRCB decision. As a result, the District will manage the fourth year of the SWP during the 2023 irrigation season. The SWP is a voluntary program

through which individual farmers within the District may dedicate a portion of their allocated stored water supply to the SWP. The District solicited participation in the SWP, which has resulted in 10,964 AF to be released from Bridgeport Reservoir and 14,036 AF to be released from Topaz Reservoir. Therefore, a total of 25,000 AF of transfer water will be released during the 2023 SWP.

HISTORICAL RANGE OF RELEASES

Condition 6.b of the Order identifies the historical range of releases as “those releases that have taken place under existing license conditions, including any requirements for reservoir surface water elevation, minimum pool, bypass flows, or ramping schedules.” For Bridgeport Reservoir, releases are measured at United States Geological Survey (USGS) Station 10293000 *East Walker River Near Bridgeport, CA*. Figure 1 provides the daily minimum and maximum rate of flow as measured at Station 10293000 during the period 1971 through 2022.

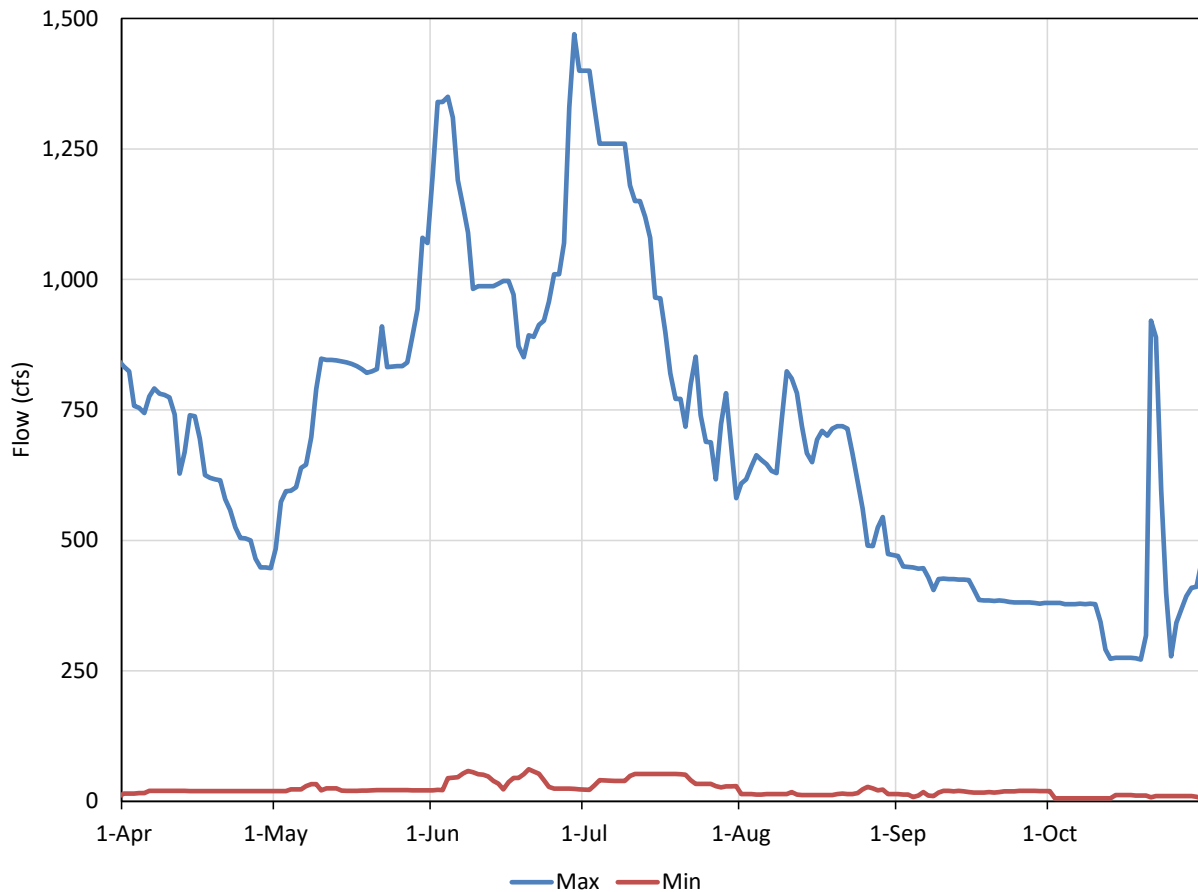


Figure 1. Daily Historical Range of Bridgeport Reservoir Releases

For Topaz Reservoir, the nearest streamflow gage to measure releases that has a long period of historical data is USGS Station 10297500 *West Walker River at Hoyer Bridge near Wellington, NV*. Figure 2 provides the daily minimum and maximum rate of flow as measured at Station 10297500 during the period 1971 through 2022.

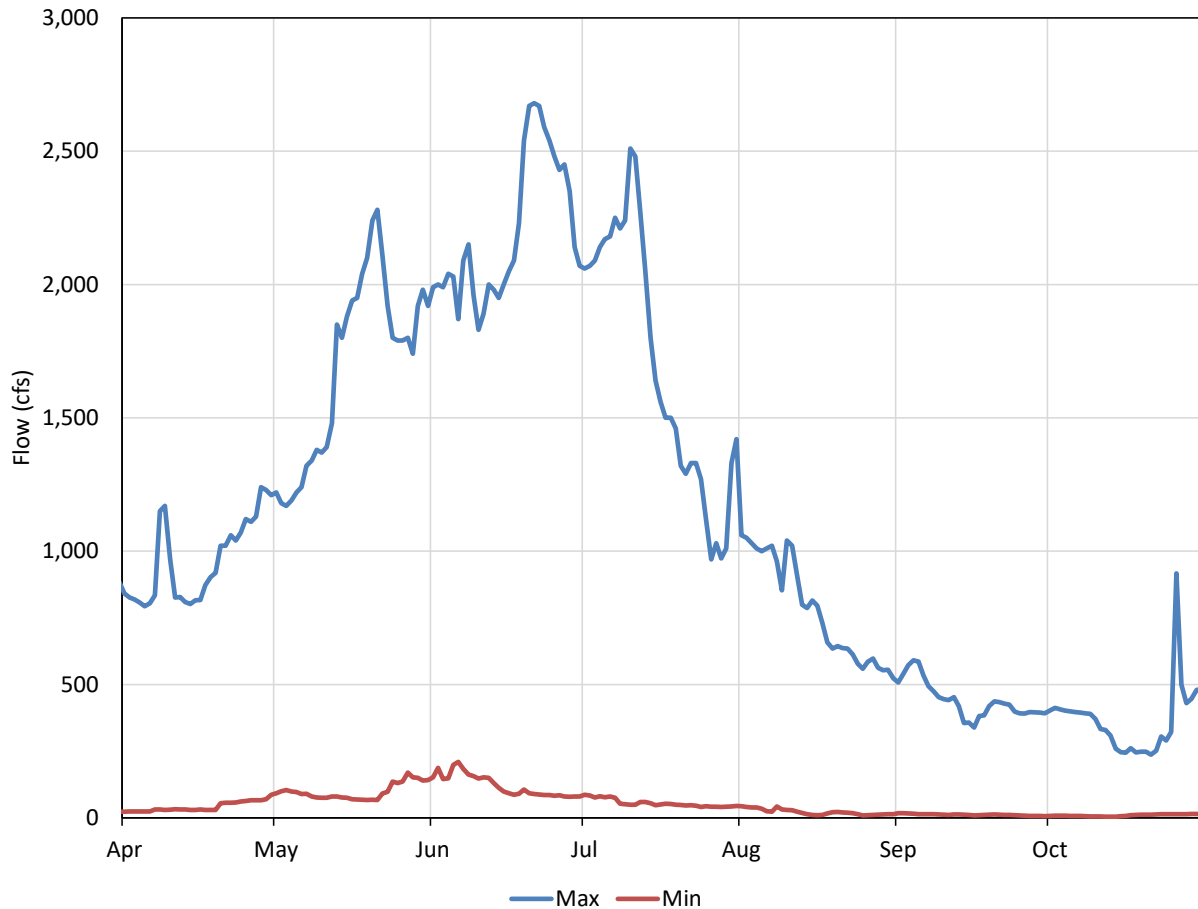


Figure 2. Daily Historical Range of Topaz Reservoir Releases

SCHEDULE OF RELEASES FOR THE TRANSFER

The objective of the SWP is to increase inflow of water into Walker Lake. In consideration of this objective, the District intends to minimize conveyance losses by delivering the transfer water at times when losses can be minimized. A review of available flow data and operations from the previous three years of the SWP, indicates the best time to do this is when sufficient natural flow is still present to support a larger volume of water available for Decree water right holders. This can range from anytime between May and August, depending on hydrologic conditions. Given the timeline of regulatory submittals required for the SWP and current hydrologic conditions, the earliest this can occur is mid-August. As such, releases for this year’s SWP are proposed for the mid-August through mid-October period.

In accordance with Condition 6 of the Order, the Watermaster, WBC, and the Walker River Paiute Tribe (“parties”) were consulted to develop a schedule of releases and to discuss associated details for the SWP.

Additionally, extensive coordination occurred before and after the 2019, 2021, and 2022 SWPs, which has led to a common understanding of how to operate the program during 2023. Below is a list of dates when consultation regarding the 2023 SWP occurred with all parties:

- February 27, 2023
- July 6, 2023

In addition to the above, there have been numerous instances of direct coordination with the individual parties, and particularly with WBC. Based on these discussions, comments were incorporated to the release plan and associated accounting of transfer water.

The transfer water released from the reservoirs for the SWP will comprise a portion of the total releases from each reservoir. In addition to the SWP transfer water, releases will include natural flow which is bypassed for diversion under Decree water rights and stored water released for irrigation within the District. The goal of the District is to maintain a relatively constant rate of release from the reservoirs during the transfer period. To demonstrate that releases will be within the historical range of releases, the releases of natural flow for Decree water rights and stored water for irrigation are estimated. These estimates are based on the California Nevada River Forecast Center's forecasts for the East and West Walker Rivers as reservoir inflow, along with estimated storage releases for irrigation purposes based on a review of 2017 and 2019 releases for stored water demands.

Figures 3 and 4 identify the estimated average daily releases for each component of water proposed to be released from Bridgeport Reservoir and Topaz Reservoir during July through October 2023. Releases for the transfer are expected to occur during the mid-August through mid-October timeframe, in coordination with other releases, and are estimated as shown below; however, releases may begin slightly later¹ depending on hydrology and coordination with the parties. In addition, Figures 3 and 4 demonstrate that the expected release from each reservoir during 2023, including transfer water released for the SWP, will be within the historical range of releases. This expected release schedule may fluctuate on a daily basis from the release rates shown in Figures 3 and 4 due to hydrology and operations. Based on this proposed release schedule, the District will not release water outside of the historical range of releases nor conduct releases for the SWP after the end of October.

¹ Releases are currently shown to begin on August 14th, which is 34 days after submission of this plan. This assumes approval of the plan by Division within 30 days of submission.

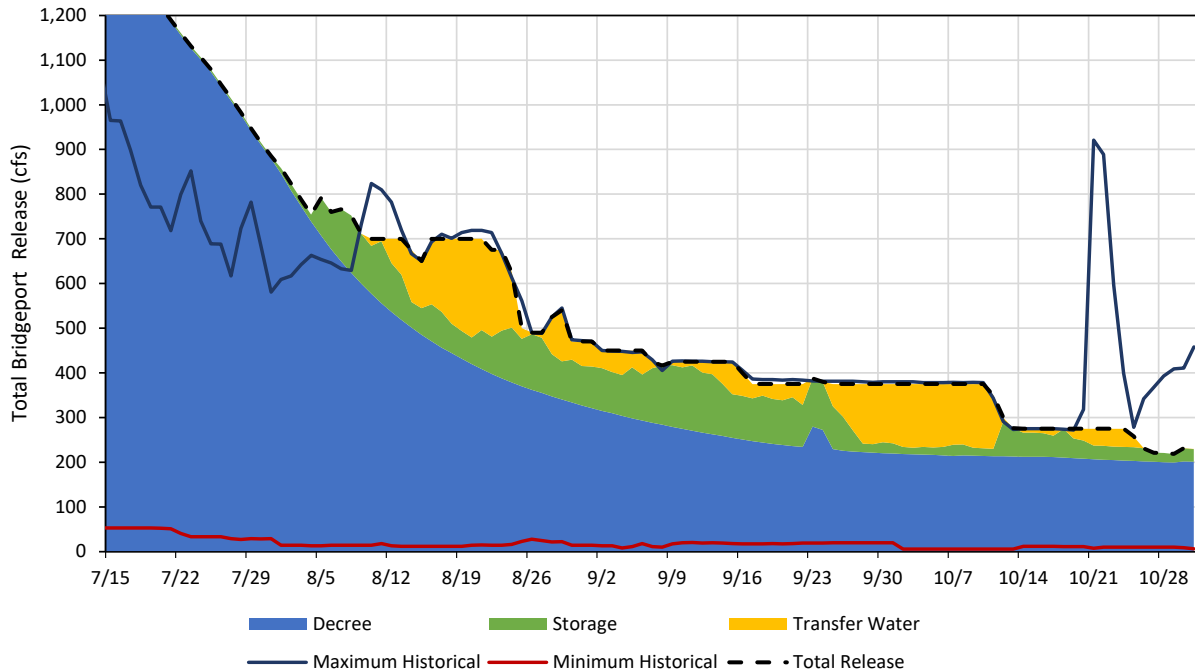


Figure 3. Bridgeport Reservoir Historical Range of Releases with Total Estimated Releases

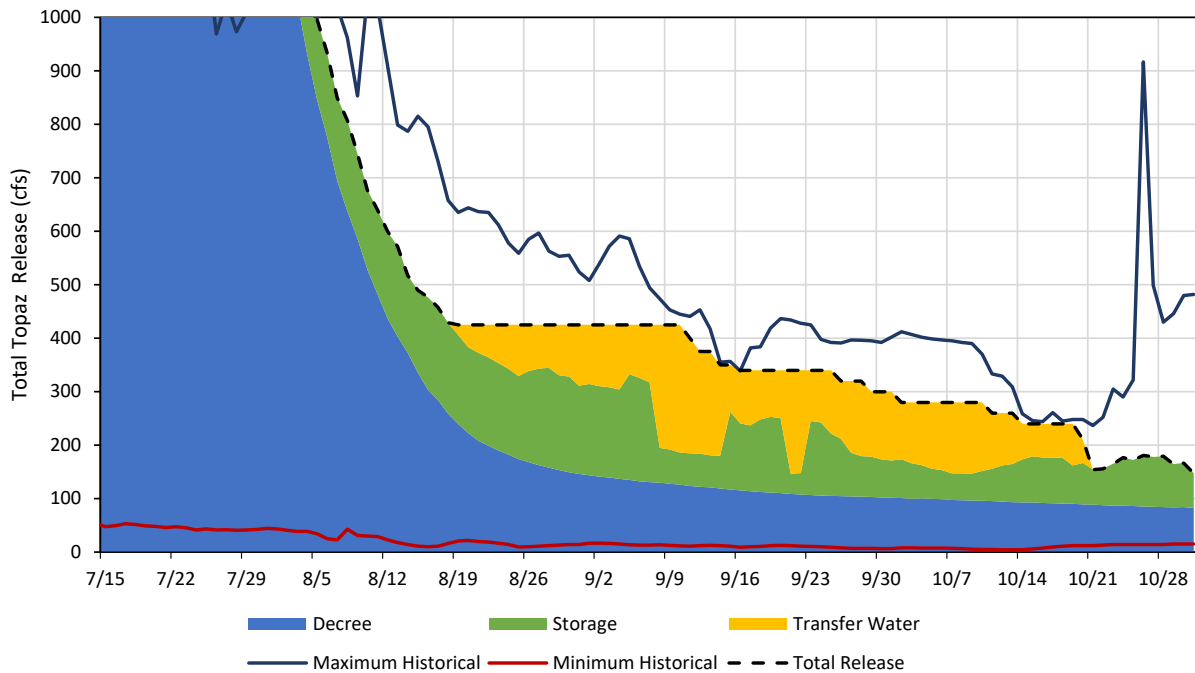



Figure 4. Topaz Reservoir Historical Range of Releases with Total Estimated Releases


CONCLUSION

We believe the information contained in this memorandum addresses Condition 6 of the Division’s Order. In addition, Condition 7 of the Order identifies requirements if the release of

water for the SWP causes releases to exceed the historical range; however, this is not proposed during the 2023 SWP. Condition 8 of the Order identifies requirements if the release of water for the SWP occurs in April and May, which is not proposed. As such, this memorandum also addresses Conditions 7 and 8 of the Division's Order. In accordance with these Conditions, the District will coordinate with the Watermaster, WBC, the Tribe, and the Division if any changes to the release schedule are considered.



Angela Bezzone, P.E.



Wesley Walker, P.E.