BOLINAS COMMUNITY PUBLIC UTILITY DISTRICT

BCPUD BOX 390 270 ELM ROAD BOLINAS CALIFORNIA 94924 415

415 868 1224



MEMORANDUM

TO:	Board of Directors
FROM:	Jennifer Blackman
RE:	Update on Water Supply
DATE:	November 14, 2023

This memorandum provides a summary of the current status of the District's water supply as well as related data and projections.

1. Rainfall:

Thus far in the 2023-24 rain year, which began on July 1, 2023, the district has received 2.71 inches of rain as of November 13, 2023, which is depicted in the chart below, followed by a chart depicting historical rainfall. At the present time, the district has received less than the average rainfall for this time of year (see Rainfall Progress graph); however, the plotted data only reflect part of November.





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A rainfall progression analysis (see next graph) indicates that there are 11 years in the BCPUD's rain records when the district received 2.71 inches or less of rain through the end of November; during those 11 years, the district subsequently received a minimum annual rainfall of 14.49 inches, a maximum annual rainfall of 34.49 inches and an average annual rainfall of 23.6 inches, and a best fit of 24.8. Note, however, it is very early in the rain year and there is a lot of "scatter" in the data, with a R² value of 0.4 (an R² factor of 1.0 is considered perfectly correlative). There is considerable potential for more annual rainfall this rain year, as many forecasts are suggesting.



- <u>Water Production and Consumption</u>: October 17, 2023 November 13, 2023, water *production* in the district averaged 70,307 gallons per day (GPD), which is a slight drop as compared to the last reporting period which was 73,314 GPD. Water *consumption* during this same timeframe averaged 68,392 GPD (approximately 117 GPD per connection), which is also a drop as compared to the last reporting period, when consumption averaged 73,314 (approximately 126 GPD per connection).
- 3. Water in Storage:

The Woodrat 1 Reservoir is close to full and Woodrat 2 contains more stored water than at this point last year (roughly 6.9 million gallons as compared to 6.4 million gallons in November 2022). (The Woodrat 2 Reservoir has a greater surface area and experiences more losses from evaporation and seepage.) The total usable available stored water is slightly less than at this time last year.





4. <u>Updated Base Flow Recession Model</u>:

The graph below is the district's base flow (BF) recession model for the Arroyo Hondo Creek, updated to depict predictions of the base flow portion of creek flows through December 1, 2023. Creek flows continue to be much higher than in recent prior (drought) years as a result of the above-average annual rainfall received last year. Current creeks flows are approximately 135,000 GPD, higher than last year (when creek flows were approximately 101,000 GPD at this point in November) as a result of carryover from the last rainy season. The creek has been flowing over the impoundment structure all year, which is in stark contrast to the recent drought years when the creek stopped spilling by mid to late spring. The district continues to meet demand with the Arroyo Hondo Creek water source and has not had to divert from either of the Woodrat Reservoir sources.

