

BOLINAS COMMUNITY PUBLIC UTILITY DISTRICT

BCPUD

BOX 390 270 ELM ROAD BOLINAS CALIFORNIA 94924

415 868 1224



MEMORANDUM

TO: Board of Directors

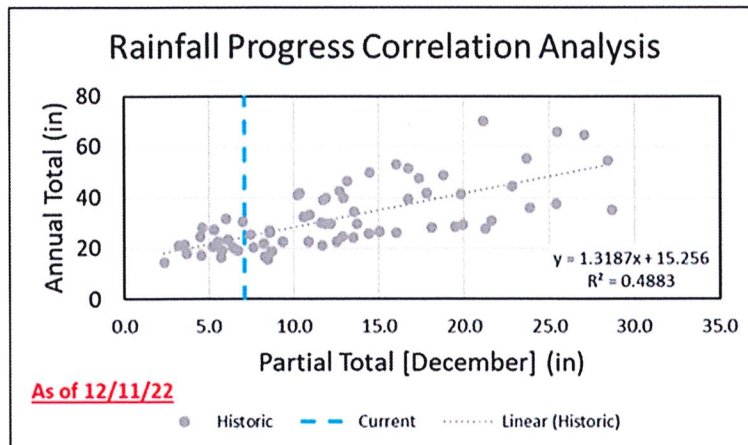
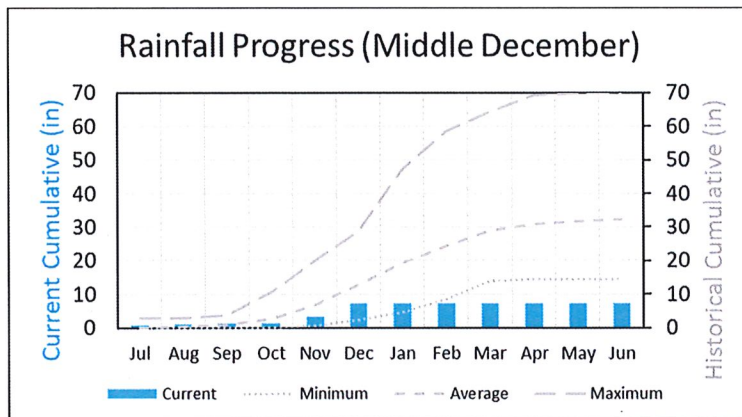
FROM: Jennifer Blackman *JNB*

RE: Update on Water Supply

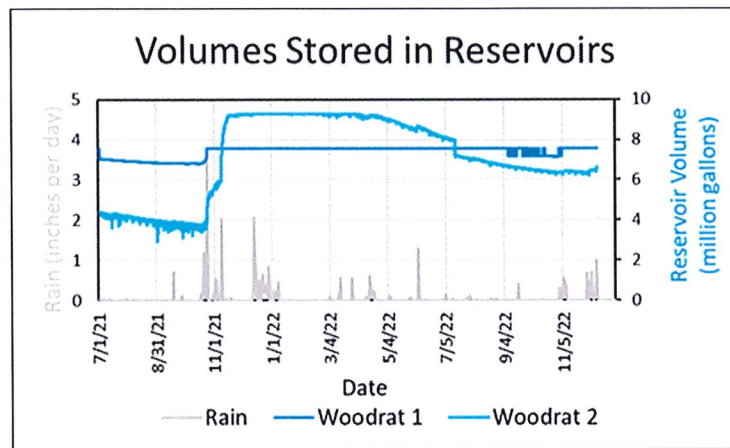
DATE: December 14, 2022

This memorandum provides a summary of the status of the District's water supply and related data and projections since the last memorandum to the Board dated November 15, 2022.

- Rainfall:** Thus far in the 2022-23 rain year, the district has received 7.12 inches of rain, with 3.74 inches of rain thus far in December. This cumulative rainfall is less than the average rainfall for this time of year (see Rainfall Progress graph). A rainfall progress correlation analysis (see second graph below) indicates that there are 17 years in the BCPUD's rain records when the district has received 7.12 inches or less of rain through the end of December; during those 17 years, the district subsequently received a minimum annual rainfall of 14.49 inches, a maximum annual rainfall of 31.63 inches, an average annual rainfall of 22.18 inches, and a "best fit" of 24.65 inches



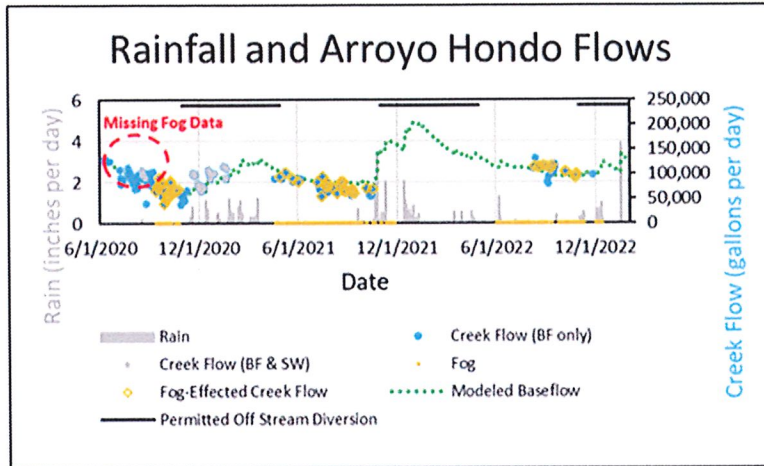
- Water Production and Consumption: From November 15, 2022 – December 12, 2022, water *production* in the district averaged 62,393 gallons per day (GPD), which is a decline of approximately 6% in production as compared to the last reporting period, when production averaged 66,311 GPD. Note that the water treatment plant was off for five (5) days during this reporting period for operational reasons. Water *consumption* during this same timeframe averaged 65,159 GPD (approximately 110 GPD per connection), and is a slight decline as compared to the last reporting period, when consumption averaged 67,123 GPD, or approximately 114 GPD per connection. Note that there was a significant leak on the district’s water system on December 8, 2022, resulting in 128,066 GPD water consumption for that day.
- Water in Storage:



The graph above depicts the volumes of water stored in each of the district’s reservoirs (Woodrat 1 and Woodrat 2) from July 1, 2021 through mid-December 2022, with the rain events also shown. The district’s stored usable water supply in the two reservoirs as of December 11, 2022 (combined), plus the amount of treated water in storage, is estimated to be approximately 13.52 million gallons. The Woodrat 1 Reservoir is essentially full (7.6 million gallons, 6.9 million of which are usable) and the Woodrat 2 Reservoir is approximately 70% full (6.6 million gallons, 5.9 million of which are usable) – the recent rains have offset any losses from evaporation or seepage from the reservoirs.

- Updated Base Flow Recession Model:

The graph on the following page is the district’s base flow (BF) recession model for the Arroyo Hondo Creek, updated to depict predictions of creek flows for the remainder of the calendar year and through January 31, 2023. Creek flows have responded to recent rains in early December, with the projected creek flow for December 31, 2022 just under 113,000 GPD. Prior to the early December rains, the projected creek flow for December 31, 2022 was just under 104,000 GPD.



5. Scenario Summary:

The graph below is an updated Scenario Summary reflecting the actual data recorded as of December 11, 2022 (the five black diamonds) and the “fork” of projections as to how much stored water the district will have available through January 2023 and beyond based on differing rates of overall community water consumption and based on no further rain in December and 3.9 inches of rainfall in January and predictions of available creek flows. The most recent seven-day running average community consumption is approximately 55,000 GPD placing the district on the orange line. Based on the healthy creek flow and low seasonal water consumption it does not appear that the district will need to draw upon its reservoirs to meet demand, so the reservoirs are projected to fill during the upcoming rainy season.

