

BOLINAS COMMUNITY PUBLIC UTILITY DISTRICT

BCPUD

BOX 390 270 ELM ROAD BOLINAS CALIFORNIA 94924

415 868 1224



MEMORANDUM

TO: Board of Directors

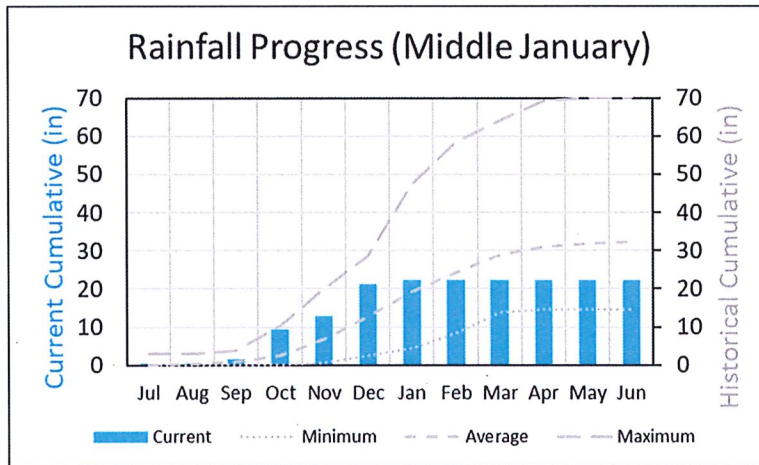
FROM: Jennifer Blackman *JNB*

RE: Update on Water Supply

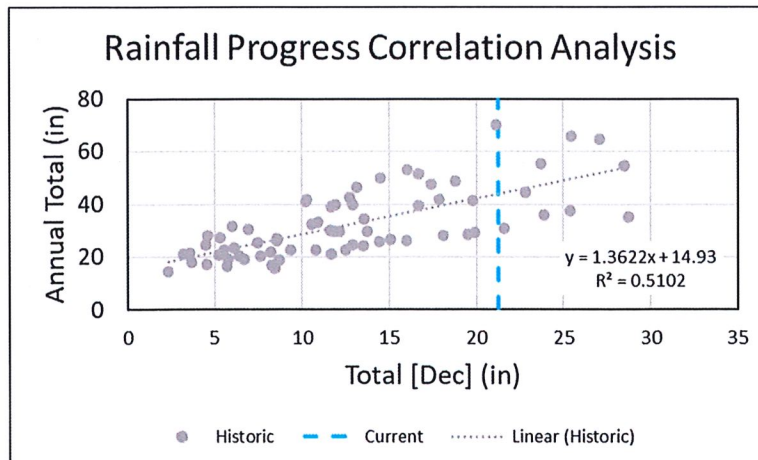
DATE: January 18, 2022

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, 2021.

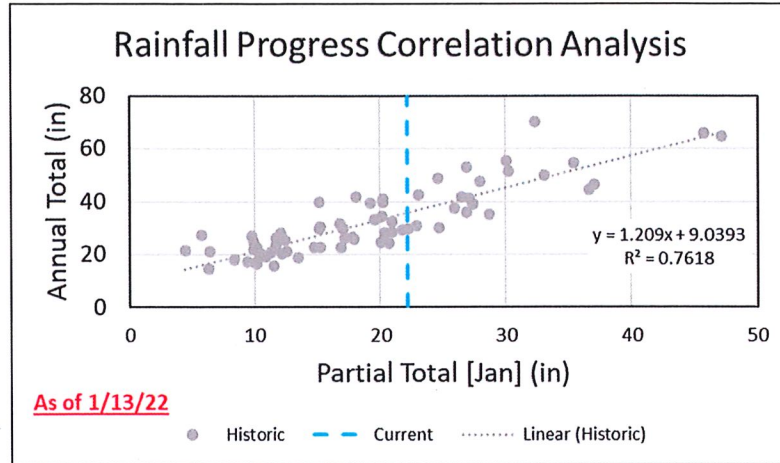
- Rainfall:** The good news continues to be improved rainfall in the district as compared to this time last year. As of January 18, 2022, the district has recorded 22.21 inches of rain. Last year at this same time, the district had received approximately 10 inches of rain. As depicted in the graph below, the district has received slightly above-average rainfall so far this rain year.



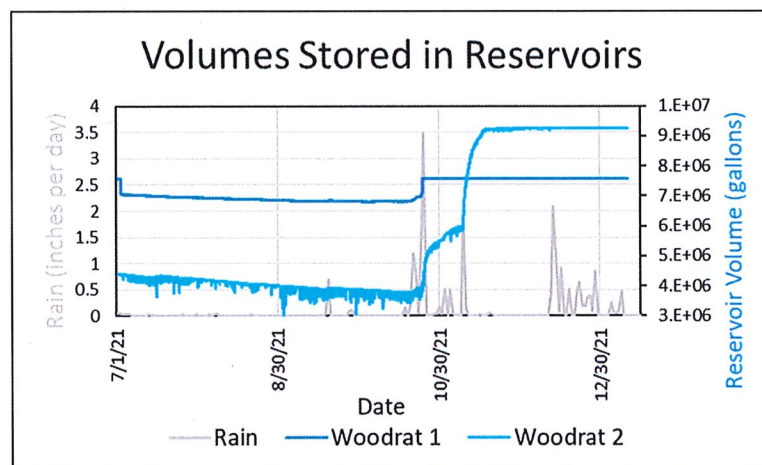
As for what the current rainfall total suggests for the full rain year total, the range of potential outcomes (based on data from prior years) was still quite uncertain as of the end of December:



There is a bit more certainty as of mid-January; since there is less scatter in the data, the potential range on outcomes (based on a simple statistical analysis) is smaller.

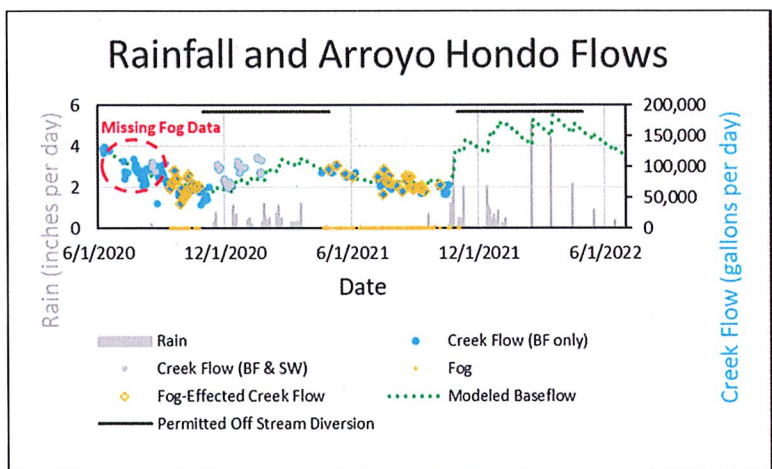


2. Water Production and Consumption: From November 13, 2021 – January 14, 2022, water *production* averaged 63,179 GPD, or 107 GPD per connection. Water *consumption* during this same timeframe averaged 59,301 GPD, which is 101 GPD per connection.
3. Water in Storage: Our stored usable water supply in the Woodrat reservoirs as of January 18, 2022 (combined), plus the amount of treated water in storage, is estimated to be 16,256,079 gallons (100% of capacity), an increase of 3,717,024 usable gallons of water in storage as compared to the 12,539,055 usable gallons of water in storage on November 15, 2021.
4. Updated Models:

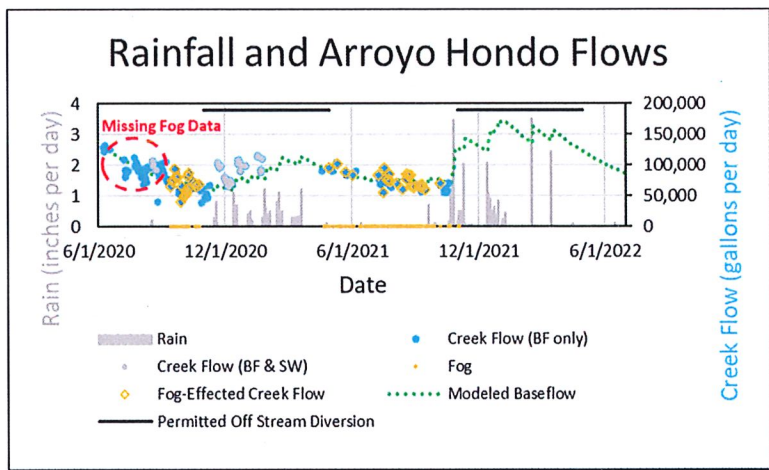


The new graph above depicts the volumes of water stored in each of the district’s reservoirs (Woodrat 1 and Woodrat 2) from July 1, 2021 through mid-January 2022, with the rain events also shown. As previously noted, both reservoirs are full and spilling, a significant improvement from last year at this time, when the reservoirs were at less than 60% capacity

The next two graphs are the district’s base flow (BF) recession model for the Arroyo Hondo Creek, updated to reflect the recent rain events and, in each case, to depict predictions about creek flows for the remainder of the rain year.¹ The first graph shows actual conditions through January 13, 2022 and assumes no more rain for this month (it has not rained since January 12, 2022 and no rain currently is in the forecast for the rest of the month); this graph then *assumes average monthly rainfall for Bolinas for February – June 2022*. An additional somewhat pessimistic assumption is that there will be no fog during the spring. If the district does receive average rainfall in February - June, the model predicts that creek flows will be quite a bit higher than last year as we enter the dry season.



The second graph shows actual conditions through January 13th and assumes no more rainfall this month, but it then *assumes the same amount of rainfall we received last year for February – June 2022 and no fog in the spring*. If that lower amount of rainfall occurs, the model predicts creekflows at about the same level as last year heading into the dry season.



¹ It has not been possible for staff to collect actual creek flow data per our existing methods since the October rains when the gate was raised in anticipation of the “atmospheric river” rain storm. As such, staff is using this model to assess creek base flow response to rains, but we currently are unable to check the model against actual flow data. Staff will work to develop a means by which to measure creek flows at the upper diversion point.