February 27, 2018 Rainfall Forecast for the UC Berkeley and Richmond Field Station Campuses

NWS SF Bay is forecasting likely rain beginning tomorrow night Wednesday February 28 and continuing through Saturday with a lingering chance of rain on Sunday. Precipitation probabilities are as high as 100% on Thursday morning when the heaviest rainfall is expected (see forecast table below). The current quantitative precipitation forecast calls for 1.67 inches for the Berkeley area through Saturday.

Also note that winds will pick up significantly on Thursday morning. Winds are forecast to be 30 MPH on Thursday morning with locally higher gusts. Therefore wind damage and downed trees are the greatest risk with this storm and local power outages are possible. Flooding is not expected (see discussion below), except for spotty local urban areas with blocked storm drains.

NWS forecasts a weak ridge on Sunday and Monday with dry conditions followed by another round of rain beginning Tuesday. This is consistent with this morning’s computer model runs which show continued periods of rain through mid-March with a cumulative rainfall total in the range of 3-4 inches in Berkeley with much higher totals in northern California and significant snowfall in the Sierra.

If you are going to the Sierra this weekend, expect hazardous road conditions early in the weekend. NWS Sacramento is forecasting 3- 5 feet of snow through Saturday.

What does this much needed rain mean for us from a drought or flood-risk perspective. Unfortunately we need a lot more rainfall to bring our totals up to seasonal normals. This water year’s annual rainfall so far is in the 8.5- 9.0 inches regionally (Berkeley-Richmond). Rain through mid March will bring us up to seasonal totals similar to recent drought years 2011 and 2013 which had annual totals of 15.64 and 12.54 inches (SF). Records of San Francisco rainfall dating back to 1849 show a similar trend to this year with low December rainfall resulting in low annual totals. Exceptionally dry years were 1989 with zero inches of rainfall in December and a seasonal total of 14.32 inches and 1975 with 0.58 inches in December and an annual total of 8.05 (the start of the great 1976-77 drought). Rainfall to the Northern California reservoirs is tracking well below seasonal averages, and only slightly above the driest year as shown in the 8 - Station Index below:
Rainfall estimates through March 15 (based on this morning's 12Z GEFS run, see below) calls for totals in the range of 10 inches for these northern CA stations which will help with recovery of reservoir storage in some locations where storage has fallen below historic averages. So far, due to the record rainfall last season, conditions in many northern CA locations are good despite the recent dry conditions. Lake Shasta for example is a 103% of average for this date. Pardee reservoir, where we get our EBMUD supply, is currently at 91% capacity (and also at 103% of seasonal average).
Flood risk is currently low and not expected to increase through mid-March although the forecast rain will move the area closer to saturation. Compared to the Contra Costa County Flood Control priming algorithm (7-5-3-2-Flood!), we have attained the seasonal priming of 7 inches total precipitation, but we have fallen well below the 30 day requirement of 5 inches (see Richmond City Hall chart below). Our 30 day total is now only around 0.3 inches and so we have quite a way to go and may not even reach that total for the rest of the season. Nevertheless, these rains will move soils toward saturation and anything can happen before we get into the normally dry season in June.
I will provide an update next week if it looks like significant rainfall is forecast. Currently NWS Climate Prediction Center has a > 50% above normal for the Bay Area through March 23.

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