Berkeley, CA rainfall July 1, 2015 to March 7, 2016 (9:00 am)

Current critical antecedent conditions status for UC Berkeley and BGC:
Both Berkeley campus and BGC are almost fully primed for flooding—however, no significant storm (2” in the next 24 hours) is forecast by NWS through the end of the forecast period (March 10), but a potential atmospheric river sets up on the upcoming weekend.

March 7, 2016 UC Berkeley weather update

* QPF = NWS Quantitative Precipitation Forecast through Saturday noon
Current National Weather Service forecast March 7, 2016 morning

Forecast synopsis (Monday March 7, 2016)

On Monday the SF Bay Area will see a break in the rain after the low pressure center associated with the weekend storm moves south and east. Unsettled weather is then expected mid week with slight chances of rain.

More rain is then expected beginning Thursday March 10 and through the weekend. How much is uncertain, but there is a potential for another atmospheric river to set up similar to Saturday’s storm.
East Bay rain fall totals since Friday. Note the significant variability due to orographic effects (the “wringer” effect from rain clouds being lifted over higher topography, but also a result of locally stronger storm cells moving through the Bay Area. The Strawberry Canyon hill area has received around 25% more rainfall than the Berkeley flatlands.
NOAA forecasts continued above rainfall through mid-March.

NCEP 6-10 day precipitation forecast (Made 3/6/16 for March 12-16, 2016)

NCEP 8-14 day precipitation forecast (Made 3/6/16 for March 14-20, 2016)

NCEP 3-4 week precipitation probability (Made 3/4/16 for March 19- April 1)
March 7, 2016 update
March 1 snowpack survey = 83% of average


“Mother Nature is not living up to predictions by some that a ‘Godzilla’ El Niño would produce much more precipitation than usual this winter,” said DWR Director Mark Cowin. “We need conservation as much as ever.”

Rainfall through March 7 has resulted in significant improvement in seasonal water resources.
March 1, 2016: The active phase of the Madden Julian Oscillation has propagated to the eastern Pacific and constructively interfering with (enhancing) the El Nino base-state enhancing convective activity. Note another active phase may lead to further enhancement in mid to later April. El Nino conditions (sea surface temperatures > 0.5 in the Nino3.4 region) may continue through the summer into early fall.

February 3, 2016 chart and forecast: Red contours = MJO active phase forecast- as in January 2016 which led to above normal precipitation for most of northern CA, the active phase of the MJO is expected to return in March and may enhance the El Nino base state, possibly bringing more rain to the state. (Figure from http://www.kylemacritchie.com_REAL-TIME-MAP/)

Why the pattern change now? Another active MJO period?
**Ensemble GFS (GEFS) MJO Forecast**

RMM1 and RMM2 values for the most recent 40 days and forecasts from the ensemble Global Forecast System (GEFS) for the next 15 days

- **light gray shading:** 90% of forecasts
- **dark gray shading:** 50% of forecasts

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The GFS ensemble MJO index forecast depicts a continuation of MJO activity during the period with eastward propagation through Phases 8 and 1, but with a predicted decrease in amplitude.