

Welcome to Wetville
Flood Alert

An unusually strong early season storm is producing a barrage of impacts across the state today. Remnants of a former typhoon have moved across the entire Pacific Ocean, which is rare for October. The storm will continue to spread rain and wind through Wednesday, with potential localized flash flooding.

A series of unfortunate events have conspired to make this storm a hazard. In addition to being relatively warm (snow levels rise to 9,000' today), several powerful intensification mechanisms are in place.

A wicked fast (for October) jet streak is taking aim at Central California right now. This core of upper level wind is racing at 140 knots (160mph!). That type of fast flow "lifts" the air, hence energizing the low pressure system. That intensification timing could have occurred well offshore, at any point in the travels eastward from Japan. But it is coinciding with the strike upon land. So the storm is building, and may due so throughout the day, at the same time that it gets additional "lift" from bumping into the coastal range and Sierra. That type of lift is called orographic. These mechanism both generate added rainfall. Combine all those ingredients with extremely moist air (typhoon remnants) and strong southerly winds, and you'll be looking at record-rate rainfall. Winds are southeasterly in the valley, southerly at the coast at this time. They'll go southerly (to slightly southwesterly tonight in places) as the storm crosses.

One additional possible characteristic of this pattern will be if the front 'stalls,' or hangs up in 8-24 hours. If it slows down, not budging from one general area, that will contribute to even greater precipitation totals.

This process of deepening is a big deal in the world of weather. Rapid intensification (lowering of pressure) is still occurring with the low yet off shore. The center is about 500 miles due west of Astoria/Portland, with pressure of 970mb; quite low. "Bomb-o-genesis" is a term used to describe rapid intensification of a low, in research terms. We may not be to that level yet, but can I say, "kudos to Dave Reynolds!?" If you know who I mean, you know what I mean!

Many areas will experience two- to three- times normal monthly/Oct. precipitation in just a day or two. Rainfall amounts will likely meet or exceed debris flow guidance criteria for most burn areas across the state; burns that occurred in either 2008 or 2009 are at risk for slides. This refers to USGS criteria ranging from one to a few hours in some locations, to 12- to 24- hour thresholds for other regions.

While mainstem rivers are likely to remain below monitor stage, smaller creeks are very likely to be overwhelmed. At first look, places that seem at most risk throughout the period are along the central coast; areas from just north of San Francisco, through the Big Sur area. That's based on timing, orientation, and accumulated rainfall totals.

Other risks include urban flooding, with so many leaves clogging drainage systems, and, of course, the burns and historically flood prone areas. For river watch:

Forecasted River Conditions :: <http://www.cnrfc.noaa.gov/>

Current River Conditions :: <http://cdec.water.ca.gov/river/rivcond.html>

Updated Predicted Storm Totals:

North Coast	2-6"
Northern/Central Valleys	1-2"
Shasta Area	4-6" +
Northern Sierra	3-7"
Central Coast	4-6" + (possibly 8-9" if storm stalls)
Central Sierra	3-6"
Southern Coast (L.A.)	3-5"
Southern Coast (San Diego)	1-2" (waiting to watch storm's southerly evolution)

Max wind gusts so far this morning (valley SE, coasts S):

Mt. Diablo	66mph
Travis AFB	55mph
Los Gatos	68mph!
Mill Valley	64mph
Pt. Reyes Lighthouse	63mph
Sac Int'l	52mph
Merced	33mph
Duncan (Sierra)	66mph
Yosemite Village	85mph
Santa Rita	54mph

Numerous watches, warnings and advisories are in place for rain, wind. Too many to iterate, so keep up at the best one-stop shop for these on the CA-NV River Forecast Center map page:

<http://www.wrh.noaa.gov/cnrfc/warnings.php>

The DWR Flood Center is on Flood Alert, enacted at 7am, due to the threat of debris flows.

Storm pattern draws to an end Wednesday.

(EL)

SIGN UP or modify your subscription settings at http://listhost2.water.ca.gov/mailman/listinfo/weather_and_climate_news

Weather_and_Climate_News is moderated by Elissa Lynn, Senior Meteorologist. Please send all replies to elynn@water.ca.gov and not to this list.