

...NOVEMBER 2012 REGIONAL CLIMATE SUMMARY...

SUMMARY FOR THE SAN FRANCISCO BAY AREA AND MONTEREY BAY AREA...

...A WARM AND WET MONTH...

NOVEMBER 2012 WAS DOMINATED BY TWO WEATHER EVENTS...A RECORD-BREAKING WARM SPELL NEAR THE BEGINNING OF THE MONTH AND A WET STORM AT THE END OF THE MONTH.

THE MONTH BEGAN WITH LIGHT RAIN EARLY ON THE MORNING OF THE 1ST...THE LAST VESTIGES OF A WEAK WEATHER SYSTEM THAT BEGAN SPREADING RAIN ACROSS THE REGION ON HALLOWEEN. A FEW DAYS LATER A STRONG RIDGE OF HIGH PRESSURE DEVELOPED ALONG THE WEST COAST AND WINDS TURNED OFFSHORE. A WARMING TREND OCCURRED OVER THE WEEKEND OF THE 3RD AND 4TH AND TEMPERATURES THEN CLIMBED INTO RECORD TERRITORY BY MONDAY THE 5TH. HIGHS ON THE 5TH WERE IN THE UPPER 70S AND 80S ACROSS MOST OF THE AREA...WITH SOME HIGHS IN THE LOWER TO MID 90S JUST INLAND FROM MONTEREY BAY. RECORD-BREAKING HEAT CONTINUED INTO TUESDAY THE 6TH...ELECTION DAY. 18 DAILY HIGH TEMPERATURE RECORDS WERE SET OR TIED ON THE 5TH AND 6TH. IN ADDITION...FOUR CLIMATE STATIONS SET OR TIED ALL TIME NOVEMBER HIGH TEMPERATURE RECORDS ON EITHER THE 5TH AND 6TH. THEY INCLUDED:

STATION	HIGH TEMP	DATE	PREVIOUS NOVEMBER RECORD/DATE
OAKLAND MUSEUM	84	11/05	84 11/02/1997
PINNACLES NM	94	11/06	94 11/04/2010
SALINAS	94	11/05	94 11/02/1997
SALINAS AIRPORT	96	11/05	95 11/01/1966

A DRASTIC CHANGE OCCURRED BY THE END OF THAT SAME WEEK. A COLD UPPER TROUGH DEEPENED ALONG THE WEST COAST FROM THE 7TH THROUGH THE 9TH. BY THURSDAY THE 8TH TEMPERATURES HAD COOLED INTO THE UPPER 50S TO MID 60S AND LIGHT RAIN HAD FALLEN ACROSS THE AREA. TEMPERATURES COOLED FURTHER ON FRIDAY THE 9TH WHEN HIGHS WERE MOSTLY IN THE 50S. MORE RAIN FELL ON THE 9TH AND MOUNT HAMILTON PICKED UP AN INCH OF SNOW THAT DAY. THE COLD AIRMASS THAT SETTLED ACROSS THE AREA WITH THIS WEATHER SYSTEM SET THE STAGE FOR A COUPLE OF VERY CHILLY NIGHTS ONCE PRECIPITATION ENDED AND SKIES CLEARED. WIDESPREAD FROST OCCURRED IN THE INTERIOR VALLEYS ON THE 10TH AND 11TH...PARTICULARLY IN THE NORTH BAY VALLEYS AND INTERIOR VALLEYS OF MONTEREY COUNTY. THESE WERE THE COLDEST NIGHTS OF THE MONTH.

GRADUAL WARMING OCCURRED OVER THE NEXT SEVERAL DAYS AND BY THE MIDDLE OF THE MONTH TEMPERATURES WERE ONCE AGAIN ABOVE NORMAL. A SERIES OF WEATHER SYSTEMS BROUGHT LIGHT TO MODERATE AMOUNTS OF RAIN TO THE AREA FROM THE 16TH THROUGH THE 21ST. THESE SYSTEMS WERE RELATIVELY MILD AND TEMPERATURES REMAINED NEAR NORMAL OR EVEN SLIGHTLY ABOVE NORMAL. A DRY AND MILD PERIOD OF WEATHER FROM THE 21ST THROUGH THE 25TH ENDED WITH A DENSE FOG EVENT ON THE MORNING OF MONDAY NOVEMBER 26. WIDESPREAD DENSE FOG WAS OBSERVED IN THE NORTH BAY VALLEYS AND AROUND SAN FRANCISCO BAY DURING THE EARLY

MORNING HOURS.

DURING THE LAST FEW DAYS OF NOVEMBER A SIGNIFICANT PATTERN CHANGE DEVELOPED OVER THE EASTERN PACIFIC. A DEEP UPPER TROUGH FORMED OFF THE WEST COAST AND A FLOW OF VERY MOIST AIR ORIGINATING IN THE TROPICS TOOK AIM AT NORTHERN CALIFORNIA. THE FIRST IN A SERIES OF STORMS MOVED ASHORE ON WEDNESDAY THE 28TH. THIS FIRST STORM MOVED THROUGH RATHER QUICKLY AND SO RAINFALL TOTALS WERE ONLY MODERATE...MAINLY LESS THAN AN INCH AT LOWER ELEVATIONS. AS MUCH AS TWO INCHES FELL IN THE NORTH BAY MOUNTAINS. SOUTHERLY WINDS AHEAD OF THE SYSTEM WERE STRONG AND GUSTY FROM TUESDAY NIGHT THROUGH THE MORNING OF WEDNESDAY THE 28TH. WIND GUSTS OF BETWEEN 40 AND 50 MPH WERE COMMON NEAR THE COAST AND IN THE HILLS AND SOME OF THE WINDIER HIGH ELEVATION LOCATIONS SAW WIND GUSTS IN EXCESS OF 50 MPH.

LESS THAN TWO DAYS LATER THE NEXT STORM SYSTEM BEGAN TO PUSH ONSHORE. THIS ONE CONTAINED MORE MOISTURE THAN THE FIRST AS IT ENTRAINED A NARROW PLUME OF ENHANCED MOISTURE (SOMETIMES REFERRED TO AS AN ATMOSPHERIC RIVER). RAIN BECAME HEAVY IN THE NORTH BAY ON THURSDAY NIGHT...AND AN AREA OF HEAVY RAIN THEN MOVED SLOWLY SOUTH ACROSS THE REST OF THE REGION ON FRIDAY THE 30TH. BECAUSE THIS STORM CONTAINED A GREAT DEAL OF MOISTURE...AND BECAUSE IT MOVED SLOWLY...RAINFALL TOTALS WERE MUCH HIGHER COMPARED TO THE STORM THAT MOVED THROUGH A FEW DAYS EARLIER. BY THE END OF FRIDAY THE 30TH...RAINFALL ACCUMULATIONS RANGED FROM 1 TO 3 INCHES AT LOWER ELEVATIONS AND FROM 3 TO 7 INCHES IN THE HILLS. A FEW ISOLATED LOCATIONS IN THE SONOMA AND MONTEREY COUNTY COASTAL MOUNTAINS PICKED UP IN EXCESS OF EIGHT INCHES OF RAIN. NUMEROUS FLOOD ADVISORIES WERE ISSUED ON FRIDAY THE 30TH AND ONE FLASH FLOOD WARNING WAS ISSUED FOR A PORTION OF MONTEREY COUNTY. WINDS WITH THIS STORM WERE OF SIMILAR MAGNITUDE TO THE ONE A FEW DAYS EARLIER. THESE GUSTY WINDS CAUSED SCATTERED POWER OUTAGES ACROSS THE AREA. ONE MORE WET AND WINDY STORM WAS YET TO COME A FEW DAYS LATER ON DECEMBER 2ND.

THE WET STORM SYSTEM ON THE LAST DAY OF THE MONTH CONTRIBUTED SIGNIFICANTLY TO NOVEMBER'S RAINFALL TOTALS. IN FACT...THE RAIN THAT FELL ON THE 30TH WAS ANYWHERE FROM 30 TO 50 PERCENT OF THE TOTAL FOR THE MONTH AT MOST CLIMATE STATIONS AND AS MUCH AS 60 PERCENT OF THE TOTAL FOR SOME LOCATIONS IN MONTEREY COUNTY. HAD IT NOT BEEN FOR THE RAIN ON THE 30TH...RAINFALL TOTALS FOR THE MONTH WOULD HAVE BEEN ONLY NEAR NORMAL...OR EVEN BELOW NORMAL...AT MOST LOCATIONS. BUT THE DELUGE ON THE 30TH HELPED PUSH THE MONTHLY TOTALS WELL ABOVE NORMAL...EVEN AS MUCH AS TWICE NORMAL IN SOME LOCATIONS.

AVERAGE TEMPERATURES FOR THE MONTH WERE ABOVE NORMAL AT ALL CLIMATE STATIONS. THIS WAS DUE IN LARGE PART TO THE RECORD-BREAKING HEAT EARLY IN THE MONTH. BUT THE MILD STORM SYSTEMS DURING THE SECOND HALF OF THE MONTH ALSO CONTRIBUTED TO A WARMER-THAN-NORMAL NOVEMBER...PARTICULARLY WITH REGARD TO MINIMUM TEMPERATURES.

...NOVEMBER REGIONAL TEMPERATURE SUMMARY...

LOCATION	AVG HIGH	NORMAL HIGH	DEPARTURE		AVG LOW	NORMAL LOW	DEPARTURE
			FROM NORMAL				FROM NORMAL
NORTH BAY...							
ANGWIN	61.6	59.5	2.1		43.6	42.8	0.8
KENTFIELD	64.2	62.3	1.9		47.5	45.3	2.2
NAPA	66.7	65.1	1.6		46.2	43.7	2.5
NAPA AIRPORT	65.3	63.7	1.6		42.7	38.8	3.9
OCCIDENTAL	62.2	61.6	0.6		46.5	45.9	0.6
PETALUMA AIRPORT	65.3	65.1	0.2		45.0	42.2	2.8
SAN RAFAEL	64.3	62.4	1.9		47.6	45.9	1.7
SANTA ROSA AP	65.8	64.3	1.5		42.8	40.4	2.4
SONOMA	64.7	64.8	-0.1		44.1	41.7	2.4
SAN FRANCISCO PENINSULA...							
HALF MOON BAY	64.8	62.4	2.4		48.4	43.7	4.7
REDWOOD CITY	66.6	64.5	2.1		46.2	44.3	1.9
SAN FRANCISCO AIRPORT	65.3	62.9	2.4		51.0	48.7	2.3
SAN FRANCISCO DOWNTOWN	64.0	63.1	0.9		52.6	50.1	2.5
EAST BAY...							
CONCORD AIRPORT	65.7	64.1	1.6		44.9	43.9	1.0
FREMONT	66.1	64.4	1.7		48.0	46.1	1.9
HAYWARD AIRPORT	65.7	63.6	2.1		49.2	47.4	1.8
LIVERMORE	66.0	64.4	1.6		45.4	43.4	2.0
LIVERMORE AP	67.1	64.6	2.5		44.6	42.5	2.1
MOUNT DIABLO JUNCTION	61.0	61.8	-0.8		47.7	44.5	3.2
NEWARK	64.9	64.4	0.5		48.7	47.5	1.2
OAKLAND	67.5	64.6	2.9		50.9	49.1	1.8
OAKLAND AIRPORT	66.5	63.1	3.4		49.1	45.4	3.7
SOUTH BAY AND SANTA CRUZ COUNTY...							
GILROY	69.3	67.8	1.5		44.6	42.1	2.5
MOFFETT FIELD	66.7	65.1	1.6		48.5	47.3	1.2
MOUNT HAMILTON	57.1	53.3	3.8		45.0	42.5	2.5
SAN JOSE	67.2	64.3	2.9		47.6	46.0	1.6
SANTA CRUZ	67.0	66.8	0.2		46.0	44.9	1.1
WATSONVILLE	69.2	66.5	2.7		46.4	43.3	3.4
WATSONVILLE AP	67.6	66.0	1.6		45.8	43.3	2.5
MONTEREY AND SAN BENITO COUNTIES...							
CARMEL VALLEY	70.4	68.0	2.4		45.0	42.7	2.3
HOLLISTER	68.5	67.1	1.4		44.8	41.7	3.1
KING CITY	71.8	69.7	2.1		43.5	40.5	3.0

MONTEREY AIRPORT	66.4	63.7	2.7	46.7	45.8	0.9
PINNACLES NM	71.4	69.0	2.4	36.6	36.6	0.0
SALINAS	69.8	67.5	2.3	44.6	42.9	1.7
SALINAS AIRPORT	71.9	66.7	5.2	50.0	44.6	5.4

...NOVEMBER REGIONAL PRECIPITATION SUMMARY...

LOCATION	NOV TOTAL	NORMAL NOV PRECIP	PERCENT OF NORMAL
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NORTH BAY...

ANGWIN	13.07	5.16	253
KENTFIELD	9.92	6.46	154
NAPA	4.80	3.45	139
OCCIDENTAL	14.10	7.34	192
PETALUMA AIRPORT	6.13	3.29	186
SAN RAFAEL	7.08	4.31	164
SONOMA COUNTY AP	8.29	4.69	177
SONOMA	5.17	3.86	134

SAN FRANCISCO PENINSULA...

HALF MOON BAY	4.26	3.32	128
PACIFICA	4.46	3.60	124
REDWOOD CITY	3.71	2.37	157
SAN FRANCISCO AIRPORT	4.06	2.38	171
SAN FRANCISCO DOWNTOWN	4.50	3.16	142

EAST BAY...

CONCORD AIRPORT	3.51	1.54	228
HAYWARD AIRPORT	2.77	2.17	128
LIVERMORE	3.40	1.84	185
LIVERMORE AIRPORT	3.60	1.98	182
MOUNT DIABLO JUNCTION	6.36	3.11	205
NEWARK	3.20	1.70	188
OAKLAND	5.04	2.89	174
OAKLAND AIRPORT	4.34	2.45	177
RICHMOND	4.20	3.24	130

SOUTH BAY AND SANTA CRUZ COUNTY...

BEN LOMOND	9.47	6.09	156
GILROY	2.78	2.28	122
LOS GATOS	3.73	2.37	157
MOFFETT FIELD	2.80	1.64	171
MOUNT HAMILTON	5.22	3.57	146
SAN JOSE	2.59	1.68	154

SANTA CRUZ	5.56	3.75	148
WATSONVILLE AP	4.46	2.10	212

MONTEREY AND SAN BENITO COUNTIES...

CARMEL VALLEY	4.13	2.35	176
KING CITY	2.11	1.11	190
MONTEREY AIRPORT	3.50	1.88	186
PINNACLES NM	1.78	1.54	116
SALINAS	3.90	1.76	222
SALINAS AIRPORT	3.13	1.40	224

...DAILY TEMPERATURE RECORDS FOR NOVEMBER 2012...

		RECORD MAXIMUM TEMP	PREVIOUS RECORD
11/05	SANTA ROSA	84	83 IN 1980
11/05	SAN FRANCISCO AIRPORT	79	78 IN 1993
11/05	OAKLAND MUSEUM	84	77 IN 1976
11/05	OAKLAND AIRPORT	79	78 IN 1951
11/05	REDWOOD CITY	84	81 IN 1997
11/05	MOFFETT FIELD	83	83 IN 1993
11/05	SAN JOSE	84	82 IN 1901
11/05	GILROY	90	89 IN 2010
11/05	SALINAS	94	86 IN 1976
11/05	SALINAS AIRPORT	96	86 IN 1934
11/06	OAKLAND MUSEUM	80	80 IN 1978
11/06	OAKLAND AIRPORT	82	78 IN 1976
11/06	SAN FRANCISCO AIRPORT	78	76 IN 1991
11/06	REDWOOD CITY	80	80 IN 1961
11/06	SAN JOSE	80	80 IN 1961
11/06	GILROY	91	88 IN 1976
11/06	SALINAS AIRPORT	88	88 IN 1941

...MONTHLY RANKS FOR DOWNTOWN SAN FRANCISCO...

AVERAGE HIGH TEMPERATURE....64.0....41ST WARMEST OUT OF 138 YEARS  
 AVERAGE LOW TEMPERATURE.....52.6....21ST WARMEST OUT OF 138 YEARS  
 PRECIPITATION..... 4.50 IN....26TH WETTEST OUT OF 162 YEARS

...MONTHLY EXTREMES FOR SELECT LOCATIONS...

LOCATION	WARMEST DAY(S)	COOLEST DAY(S)	WETTEST DAY(S)
SANTA ROSA AIRPORT	11/05 82 DEG	11/10 11/11 30 DEG	11/30 2.17 INCHES
SAN FRANCISCO	11/05 78 DEG	11/09 45 DEG	11/30 1.39 INCHES
LIVERMORE AIRPORT	11/06 83 DEG	11/11 34 DEG	11/30 1.85 INCHES
SAN JOSE	11/05 84 DEG	11/11 38 DEG	11/30 1.14 INCH
SALINAS AIRPORT	11/05 81 DEG	11/11 38 DEG	11/30 2.22 INCH

NOTE: THIS CLIMATOLOGICAL DATA IS PRELIMINARY. FOR OFFICIAL  
 CERTIFIED CLIMATOLOGICAL DATA PLEASE CONTACT THE NATIONAL  
 CLIMATIC DATA CENTER AT 828-271-4800 OR <http://www.ncdc.noaa.gov>.  
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