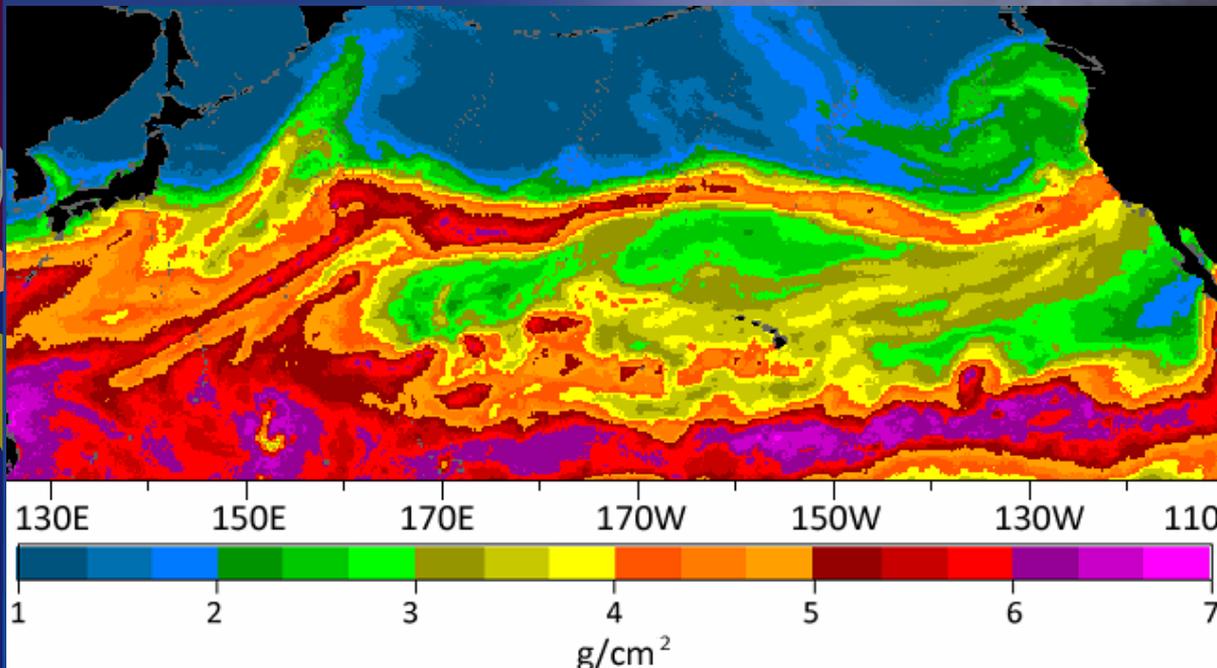




# Winter Weather Outlook 2013-2014



**Logan Johnson**

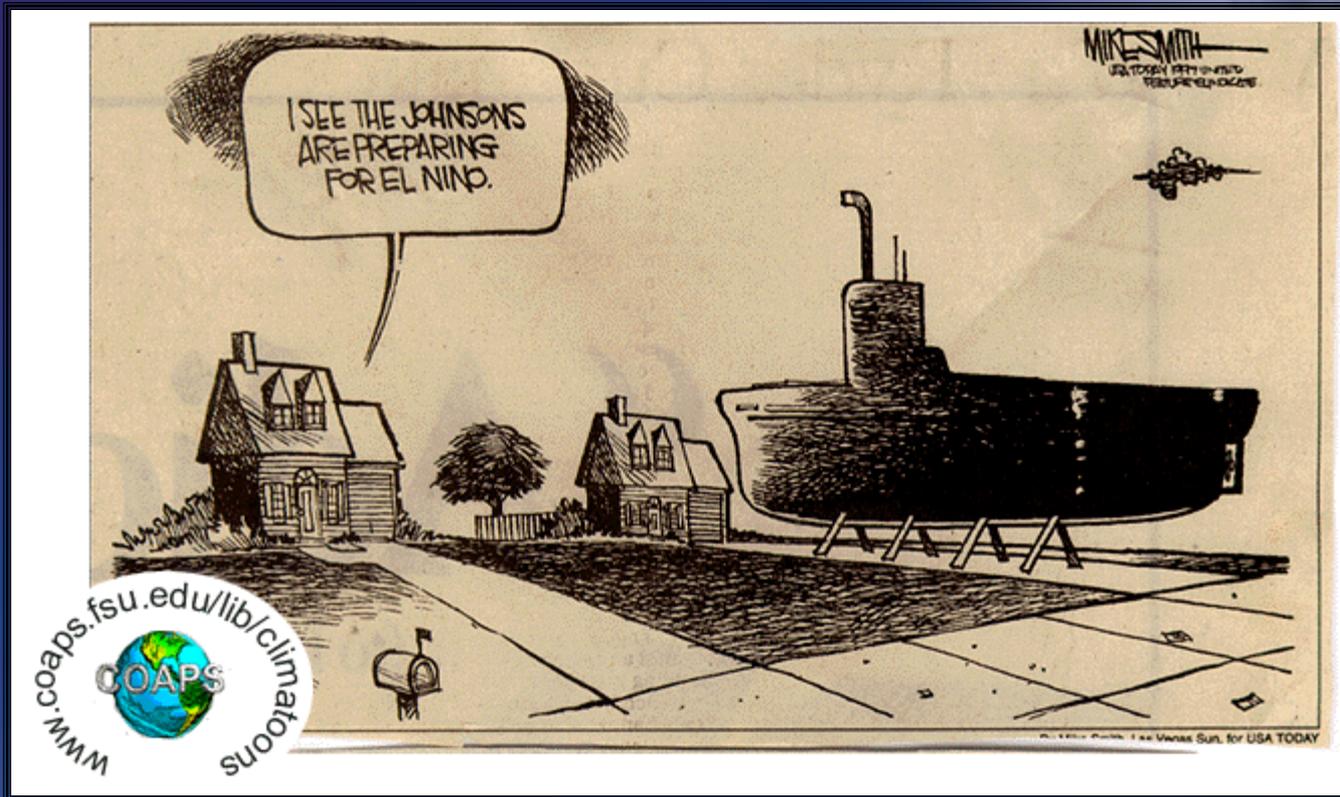
Warning Coordination Meteorologist

**Mark Strudley**

Service Hydrologist

**National Weather Service  
San Francisco Bay Area**

November 20, 2013



Is an El Niño expected this year?



# Today's Topics

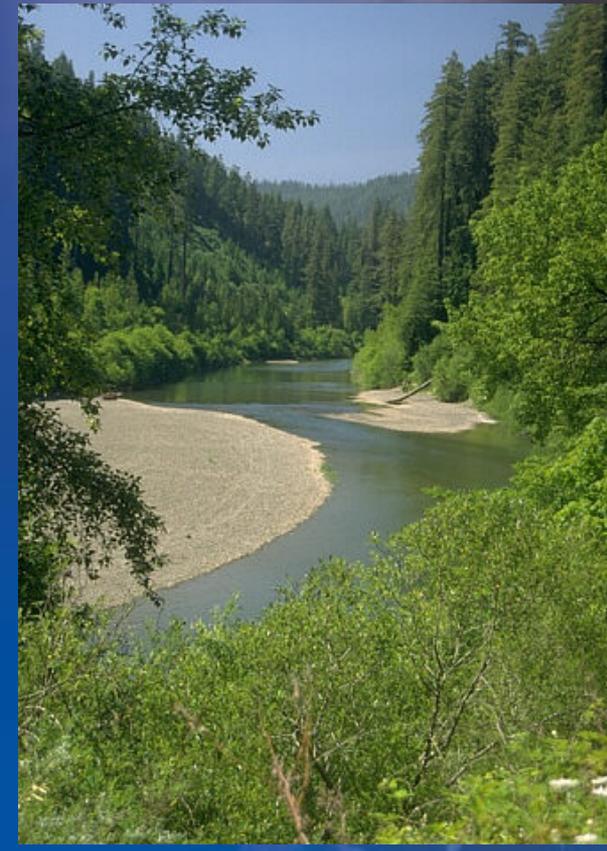
- ❖ Brief intro to the National Weather Service (NWS)
- ❖ A look back on last winter
- ❖ Winter Weather Factors: El Niño / La Niña
- ❖ Seasonal Forecasts for winter 2013/14
- ❖ Changes to NWS Products/Services
- ❖ Decision Support Services



# Weather Forecast Office

## San Francisco Bay Area

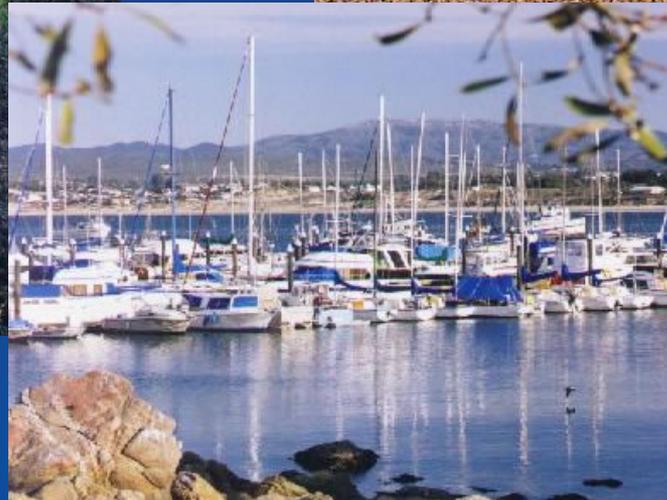
### Monterey, California



Serving the San Francisco Bay Area...

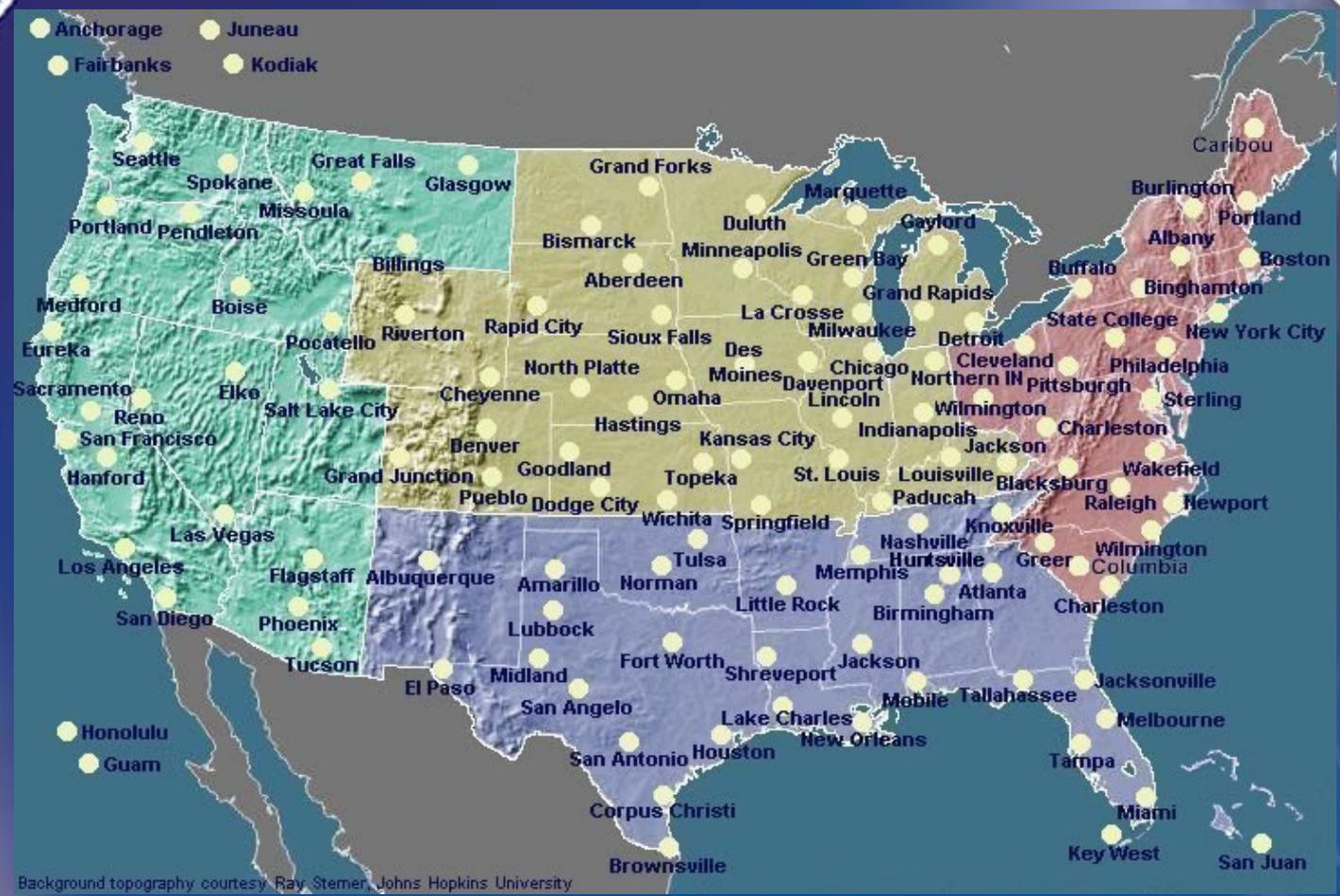


# ...and the Monterey Bay Area





# 123 NWS Forecast Offices



providing forecasts and critical weather warnings and decision support - 24 hours a day, every day.



# California - Areas of Responsibility



Ten NWS forecast offices



# Local Area Forecast Zones



Forecast zones are based on climatology and topography instead of county lines.



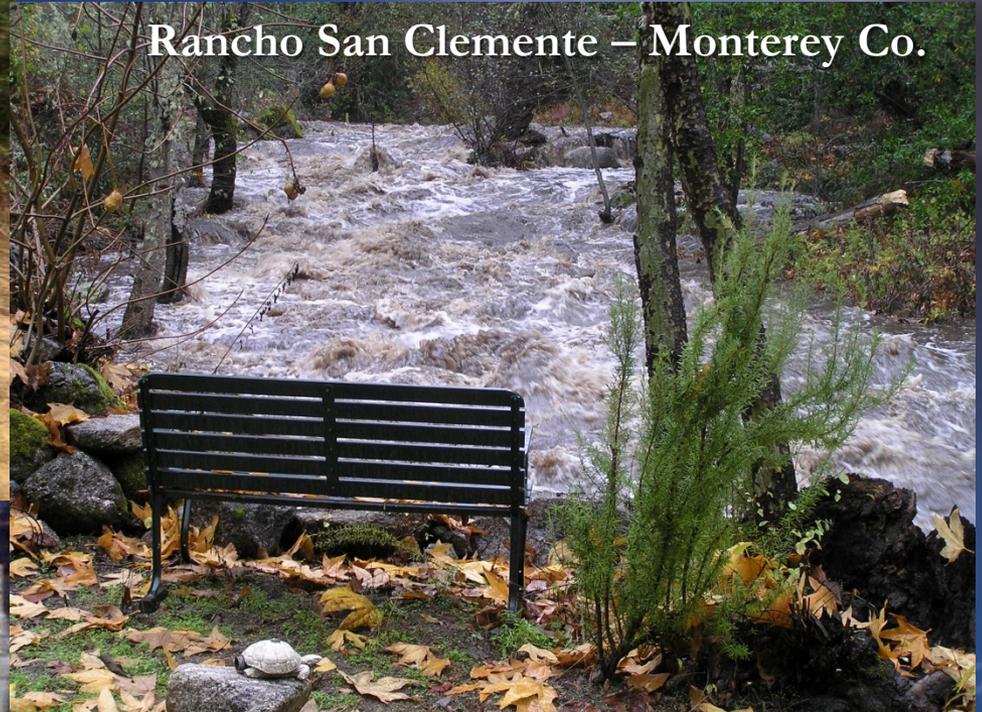
# Winter 2012/13



## Wrapup



Vine Hill Slide – Santa Cruz Co.



Rancho San Clemente – Monterey Co.



San Francisco Street Flooding

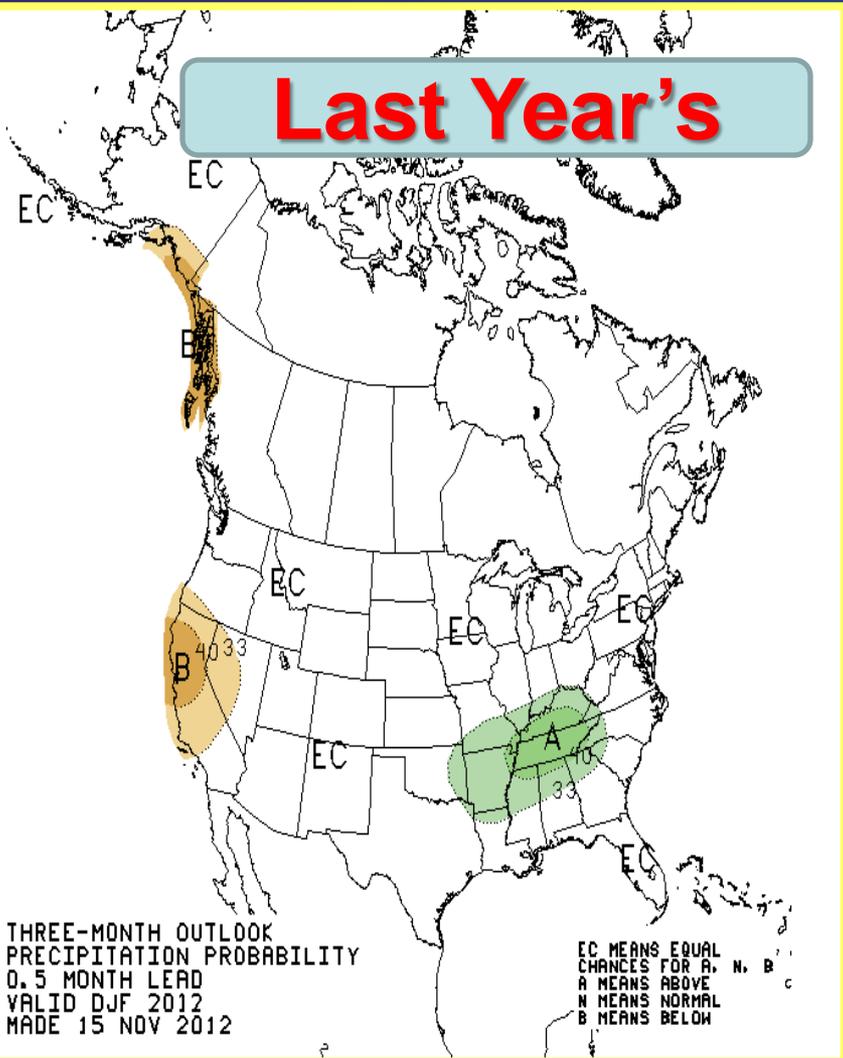
What did we see?



# Winter 2012/13 Forecast



**Last Year's**



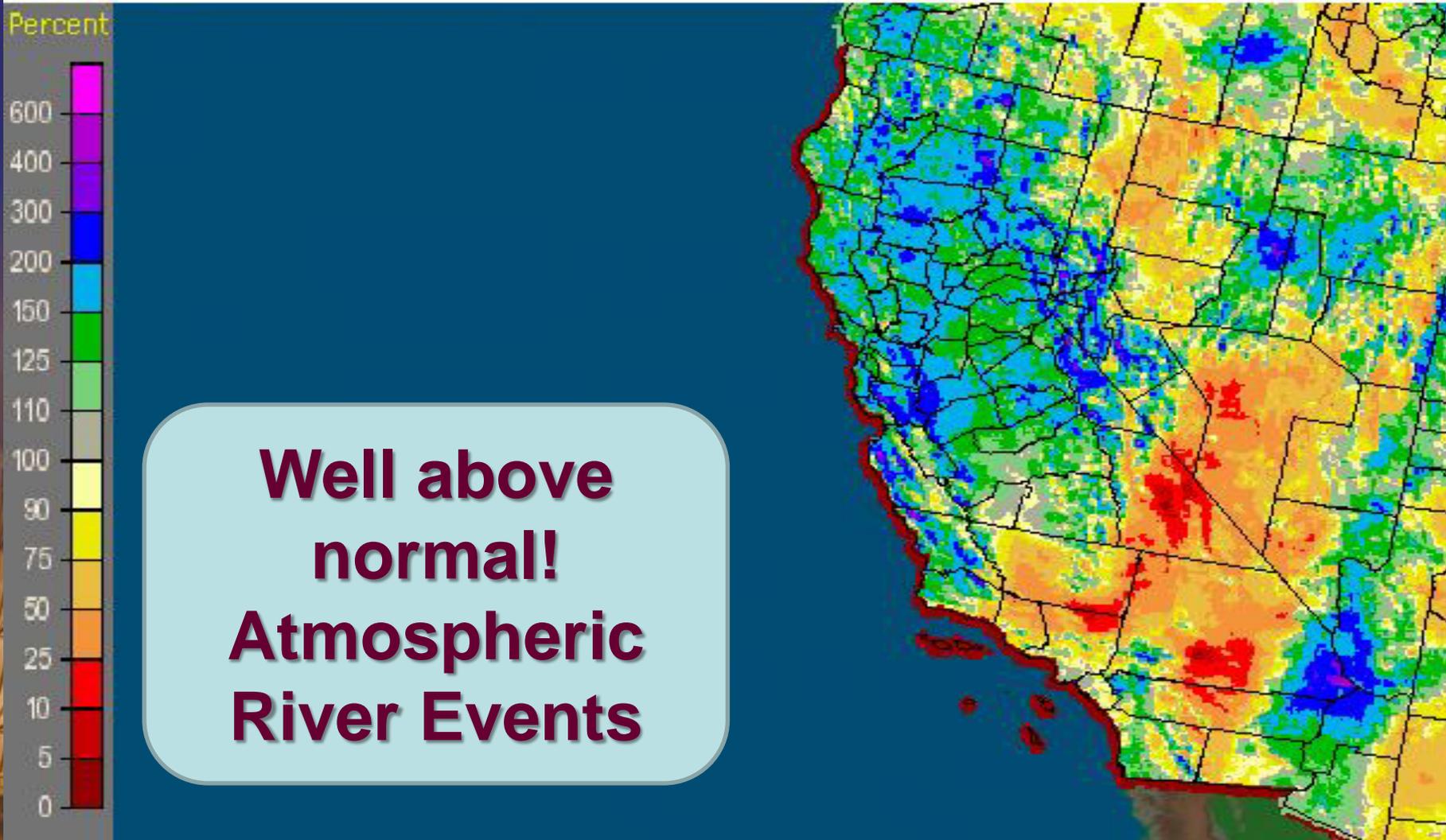
- Initially El Nino was expected
- Revised shortly before winter started
- Forecast of Neutral Conditions
- Dry Winter Was most likely



# December 2012



California: December, 2012 Monthly Percent of Normal Precipitation  
Valid at 1/1/2013 1200 UTC- Created 1/3/13 21:41 UTC



**Well above normal!  
Atmospheric River Events**



# December 2012

GRATON (043578)  
Daily Data for a Month  
Month: Dec 2012

Day	MaxT	MinT	AvgT	HDD	CDD	Pcpn
1	59	54	56.5	8	0	1.25
2	62	53	57.5	7	0	1.87
3	63	35	49.0	16	0	0.04
4	63	39	51.0	14	0	0.00
5	57	51	54.0	11	0	1.71
6	61	51	56.0	9	0	0.07
7	65	33	49.0	16	0	0.00
8	64	32	48.0	17	0	0.00
9	62	35	48.5	16	0	0.00
10	71	35	53.0	12	0	0.00
11	71	36	53.5	11	0	0.00
12	59	35	47.0	18	0	0.12
13	60	28	44.0	21	0	0.00
14	59	30	44.5	20	0	0.00
15	56	29	42.5	22	0	0.01
16	44	33	38.5	26	0	0.21
17	49	43	46.0	19	0	0.82
18	60	29	44.5	20	0	0.00
19	56	25	40.5	24	0	0.00
20	55	29	42.0	23	0	0.00
21	54	43	48.5	16	0	1.96
22	54	46	50.0	15	0	1.37
23	58	43	50.5	14	0	1.68
24	59	33	46.0	19	0	1.30
25	55	40	47.5	17	0	0.03
26	47	38	42.5	22	0	1.45
27	58	37	47.5	17	0	0.00
28	59	31	45.0	20	0	0.00
29	47	36	41.5	23	0	0.22
30	59	28	43.5	21	0	0.00
31	60	27	43.5	21	0	0.00
Smry	58.3	36.7	47.5	535	0	14.11

**December Average  
Precipitation at Graton  
(Sonoma County):  
8.27 inches**

**December 2012 = 171%  
of normal.**



# December 2012



SANTA CRUZ (047916)  
Daily Data for a Month  
Month: Dec 2012

Day	MaxT	MinT	AvgT	HDD	CDD	Pcpn
1	63	57	60.0	5	0	0.48
2	61	54	57.5	7	0	1.08
3	61	46	53.5	11	0	0.00
4	59	49	54.0	11	0	0.00
5	63	56	59.5	5	0	0.66
6	60	53	56.5	8	0	0.02
7	63	41	52.0	13	0	0.00
8	61	37	49.0	16	0	0.00
9	64	41	52.5	12	0	0.00
10	67	41	54.0	11	0	0.00
11	65	39	52.0	13	0	0.00
12	59	45	52.0	13	0	0.18
13	58	34	46.0	19	0	0.00
14	53	34	43.5	21	0	0.00
15	47	33	40.0	25	0	0.12
16	55	45	50.0	15	0	0.05
17	58	51	54.5	10	0	0.66
18	53	35	44.0	21	0	0.00
19	54	31	42.5	22	0	0.00
20	59	30	44.5	20	0	0.00
21	55	41	48.0	17	0	0.35
22	56	51	53.5	11	0	0.61
23	56	49	52.5	12	0	2.08
24	56	41	48.5	16	0	0.22
25	51	39	45.0	20	0	0.74
26	53	42	47.5	17	0	0.34
27	56	39	47.5	17	0	0.00
28	52	34	43.0	22	0	0.00
29	52	43	47.5	17	0	0.36
30	56	33	44.5	20	0	0.00
31	53	31	42.0	23	0	0.00
Smry	57.4	41.8	49.6	470	0	7.95

**December Average  
Precipitation at Santa  
Cruz  
5.68 inches**

**December 2012 = 140%  
of normal.**



# December 2012



San Francisco Airport Area ([ThreadEx Sta](#))  
Daily Data for a Month  
Month: Dec 2012

Day	MaxT	MinT	AvgT	HDD	CDD	Pcpn
1	64	58	61.0	4	0	0.82
2	64	51	57.5	7	0	0.92
3	59	46	52.5	12	0	0.00
4	62	52	57.0	8	0	T
5	62	58	60.0	5	0	0.50
6	60	51	55.5	9	0	0.00
7	60	46	53.0	12	0	0.00
8	59	46	52.5	12	0	0.00
9	65	46	55.5	9	0	0.00
10	66	52	59.0	6	0	0.00
11	58	46	52.0	13	0	T
12	55	46	50.5	14	0	0.10
13	54	42	48.0	17	0	0.00
14	53	42	47.5	17	0	T
15	49	40	44.5	20	0	0.12
16	57	47	52.0	13	0	0.01
17	59	50	54.5	10	0	0.15
18	53	44	48.5	16	0	0.00
19	51	36	43.5	21	0	0.00
20	60	37	48.5	16	0	0.00
21	58	52	55.0	10	0	0.32
22	59	50	54.5	10	0	0.57
23	61	51	56.0	9	0	1.35
24	56	46	51.0	14	0	T
25	54	44	49.0	16	0	0.90
26	55	48	51.5	13	0	0.20
27	54	46	50.0	15	0	0.00
28	50	41	45.5	19	0	0.17
29	54	44	49.0	16	0	0.11
30	55	40	47.5	17	0	0.00
31	53	37	45.0	20	0	0.00
Smry	57.4	46.3	51.8	400	0	6.24

**December Average  
Precipitation at San  
Francisco  
4.03 inches**

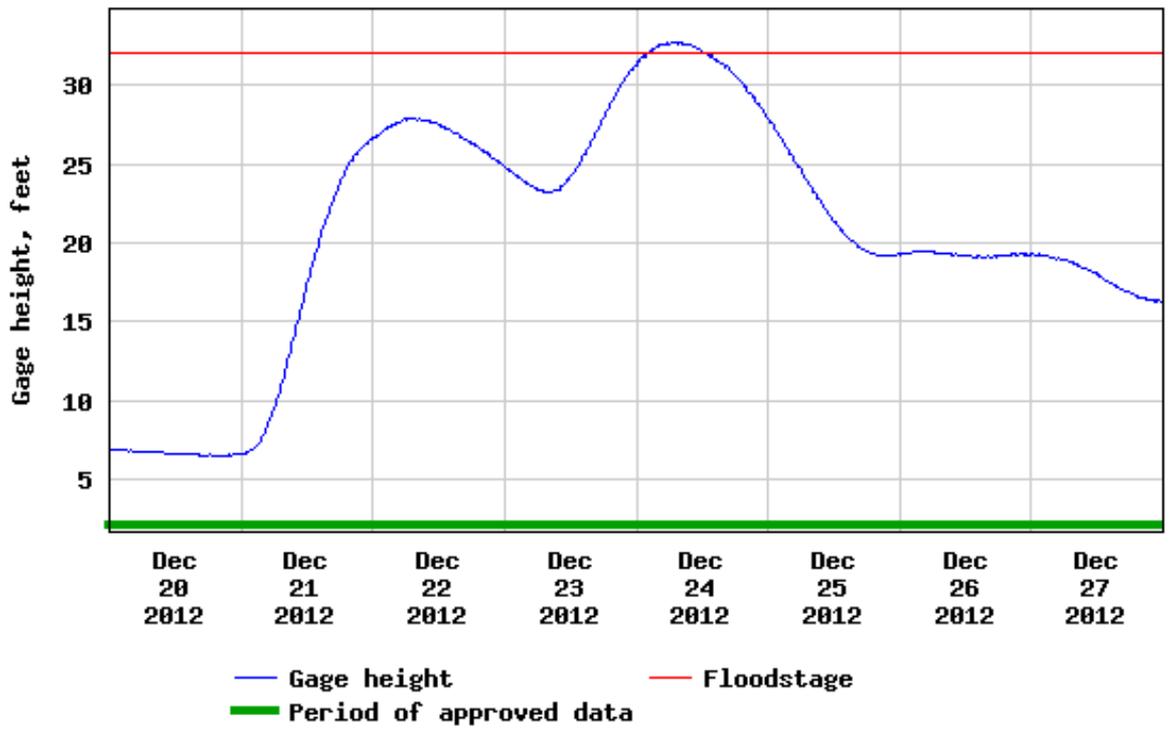
**December 2012 = 155%  
of normal.**



# December 2012



USGS 11467000 RUSSIAN R NR GUERNEVILLE CA



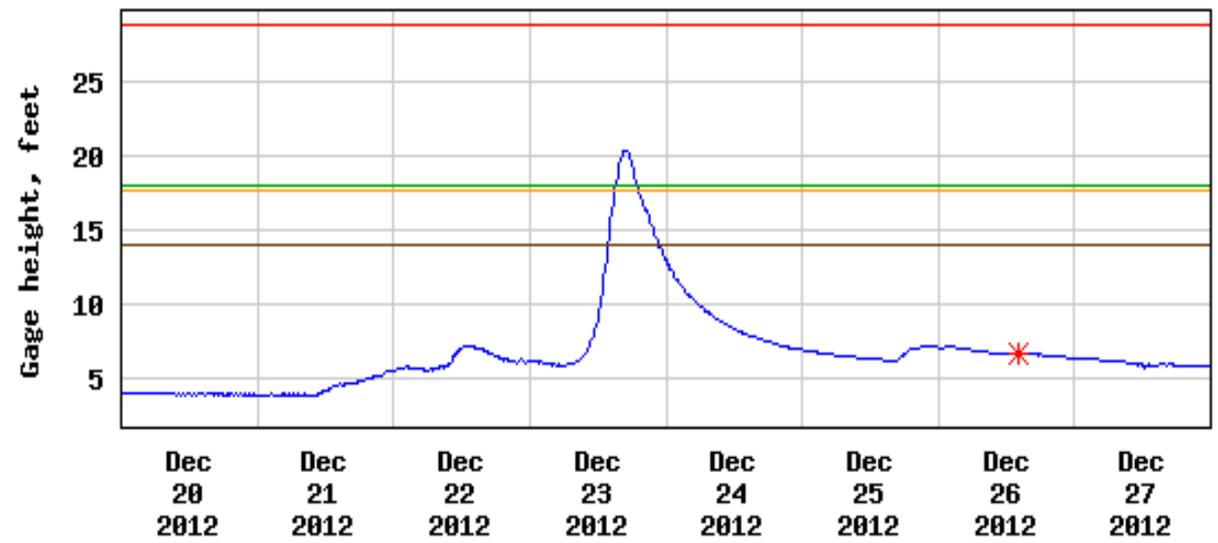
**Minor River Flooding in North Bay**



# December 2012



USGS 11160500 SAN LORENZO R A BIG TREES CA



----- Provisional Data Subject to Revision -----

- Gage height
- \* Measured gage height
- PEAK STAGE OF RECORD AT CURRENT GAGE LOCATION JAN. 5, 1982
- Flood Stage (source is Santa Cruz County)
- PEAK OF DECEMBER 16, 2002
- Monitor Stage (source is Santa Cruz County)

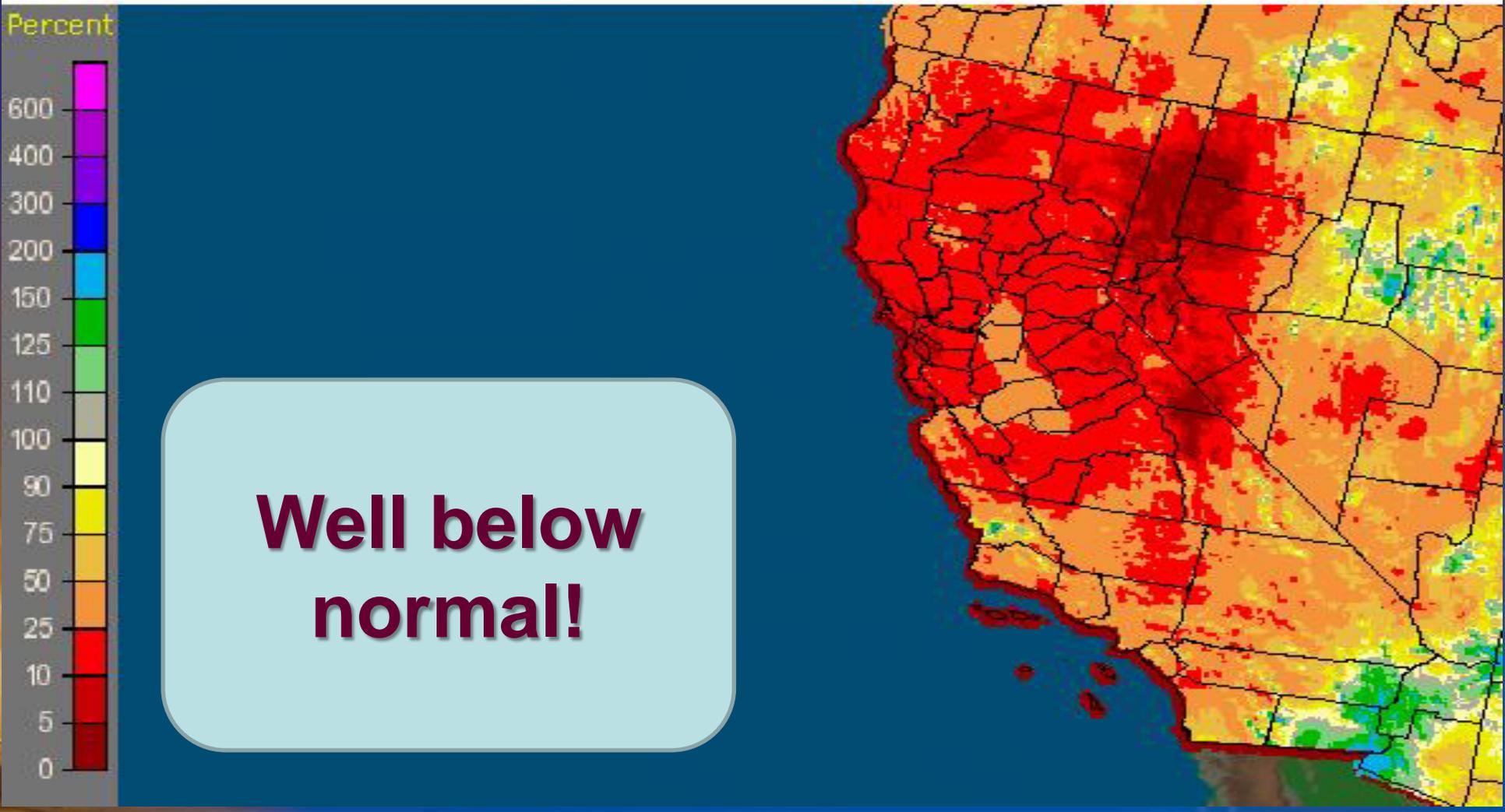
**Minor  
River  
Flooding in  
Santa Cruz  
County**



# January 2013



California: January, 2013 Monthly Percent of Normal Precipitation  
Valid at 2/1/2013 1200 UTC- Created 2/3/13 21:39 UTC



**Well below  
normal!**



# January 2013



GRATON (043578)  
Daily Data for a Month  
Month: Jan 2013

Day	MaxT	MinT	AvgT	HDD	CDD	Pcpn
1	55	29	42.0	23	0	0.00
2	61	24	42.5	22	0	0.00
3	60	25	42.5	22	0	0.00
4	57	28	42.5	22	0	0.00
5	61	29	45.0	20	0	0.00
6	53	30	41.5	23	0	0.53
7	57	32	44.5	20	0	0.00
8	57	36	46.5	18	0	0.00
9	62	36	49.0	16	0	0.00
10	50	28	39.0	26	0	0.00
11	52	29	40.5	24	0	0.00
12	52	26	39.0	26	0	0.00
13	52	24	38.0	27	0	0.00
14	54	25	39.5	25	0	0.00
15	58	29	43.5	21	0	0.00
16	58	25	41.5	23	0	0.00
17	60	26	43.0	22	0	0.00
18	65	26	45.5	19	0	0.00
19	65	26	45.5	19	0	0.00
20	65	25	45.0	20	0	0.00
21	66	28	47.0	18	0	0.00
22	67	28	47.5	17	0	0.00
23	66	31	48.5	16	0	0.00
24	59	45	52.0	13	0	0.49
25	59	47	53.0	12	0	0.00
26	64	39	51.5	13	0	0.00
27	62	30	46.0	19	0	0.00
28	63	29	46.0	19	0	0.00
29	64	32	48.0	17	0	0.00
30	67	33	50.0	15	0	0.00
31	71	32	51.5	13	0	0.00
Smry	60.1	30.1	45.1	610	0	1.02

**January Average  
Precipitation at Graton  
(Sonoma County):  
8.37 inches**

**January 2013 = 12% of  
normal.**



# January 2013



SANTA CRUZ (047916)  
Daily Data for a Month  
Month: Jan 2013

Day	MaxT	MinT	AvgT	HDD	CDD	Pcpn
1	58	35	46.5	18	0	0.00
2	63	31	47.0	18	0	0.00
3	59	31	45.0	20	0	0.00
4	62	34	48.0	17	0	0.00
5	55	40	47.5	17	0	0.39
6	52	44	48.0	17	0	0.23
7	57	35	46.0	19	0	0.00
8	63	38	50.5	14	0	0.00
9	55	39	47.0	18	0	0.00
10	53	35	44.0	21	0	0.03
11	54	30	42.0	23	0	0.00
12	54	33	43.5	21	0	0.00
13	53	28	40.5	24	0	0.00
14	54	29	41.5	23	0	0.00
15	58	28	43.0	22	0	0.00
16	63	30	46.5	18	0	0.00
17	72	33	52.5	12	0	0.00
18	72	35	53.5	11	0	0.00
19	73	36	54.5	10	0	0.00
20	76	35	55.5	9	0	0.00
21	74	35	54.5	10	0	0.00
22	68	36	52.0	13	0	0.00
23	59	48	53.5	11	0	0.02
24	57	51	54.0	11	0	0.22
25	72	51	61.5	3	0	0.01
26	63	47	55.0	10	0	0.00
27	60	35	47.5	17	0	0.00
28	62	37	49.5	15	0	0.00
29	59	38	48.5	16	0	0.00
30	67	38	52.5	12	0	0.00
31	71	35	53.0	12	0	0.00
Smry	61.9	36.5	49.2	482	0	0.90

**January Average  
Precipitation at Santa  
Cruz:  
6.28 inches**

**January 2013 = 14% of  
normal.**



# January 2013



San Francisco Airport Area ([ThreadEx Sta](#))  
 Daily Data for a Month  
 Month: Jan 2013

Day	MaxT	MinT	AvgT	HDD	CDD	Pcpn
1	53	42	47.5	17	0	T
2	55	37	46.0	19	0	0.00
3	53	37	45.0	20	0	0.00
4	55	40	47.5	17	0	0.00
5	53	41	47.0	18	0	0.06
6	52	47	49.5	15	0	T
7	57	41	49.0	16	0	0.00
8	56	43	49.5	15	0	0.00
9	55	43	49.0	16	0	0.04
10	51	44	47.5	17	0	0.00
11	52	44	48.0	17	0	0.00
12	49	38	43.5	21	0	0.00
13	50	36	43.0	22	0	0.00
14	52	36	44.0	21	0	0.00
15	54	34	44.0	21	0	0.00
16	52	36	44.0	21	0	0.00
17	59	38	48.5	16	0	0.00
18	62	39	50.5	14	0	0.00
19	60	39	49.5	15	0	0.00
20	62	39	50.5	14	0	0.00
21	56	38	47.0	18	0	0.00
22	57	41	49.0	16	0	0.00
23	55	50	52.5	12	0	0.10
24	56	50	53.0	12	0	0.00
25	63	51	57.0	8	0	0.00
26	56	49	52.5	12	0	0.00
27	54	44	49.0	16	0	T
28	56	45	50.5	14	0	0.00
29	56	45	50.5	14	0	0.00
30	61	43	52.0	13	0	0.00
31	62	42	52.0	13	0	0.00
Smry	55.6	41.7	48.6	500	0	0.20

**January Average  
 Precipitation at San  
 Francisco:  
4.19 inches**

**January 2013 = 5% of  
 normal.**

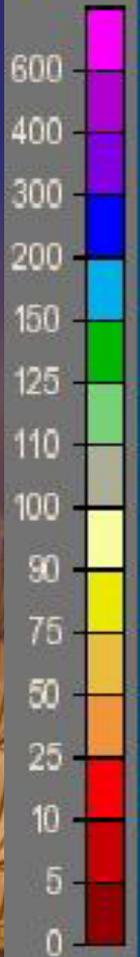


# February 2013

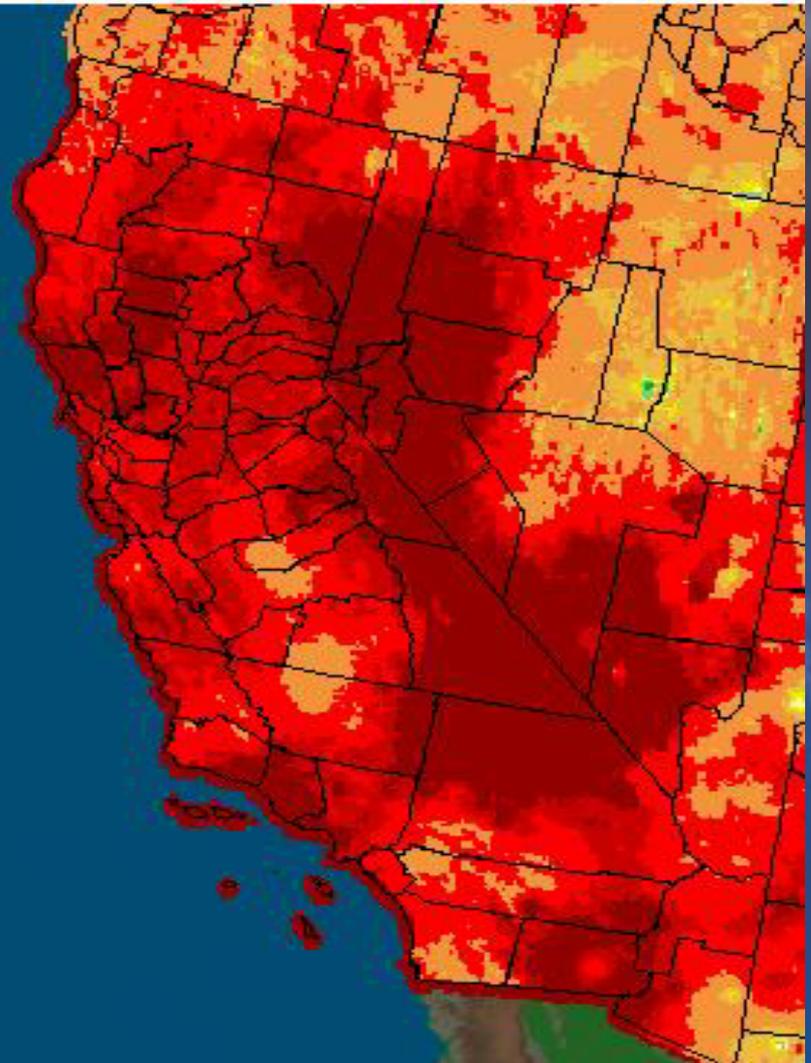


California: February, 2013 Monthly Percent of Normal Precipitation  
Valid at 3/1/2013 1200 UTC- Created 3/3/13 21:39 UTC

Percent



**Well below  
normal!**





# February 2013

GRATON (043578)  
Daily Data for a Month  
Month: Feb 2013

Day	MaxT	MinT	AvgT	HDD	CDD	Pcpn
1	71	30	50.5	14	0	0.00
2	72	32	52.0	13	0	0.00
3	66	40	53.0	12	0	0.00
4	66	35	50.5	14	0	0.00
5	58	41	49.5	15	0	0.00
6	66	28	47.0	18	0	0.00
7	65	36	50.5	14	0	0.17
8	62	31	46.5	18	0	0.04
9	64	28	46.0	19	0	0.00
10	66	28	47.0	18	0	0.00
11	63	29	46.0	19	0	0.00
12	72	30	51.0	14	0	0.00
13	67	29	48.0	17	0	0.00
14	70	31	50.5	14	0	0.00
15	74	31	52.5	12	0	0.00
16	77	35	56.0	9	0	0.00
17	75	36	55.5	9	0	0.00
18	69	32	50.5	14	0	0.00
19	58	35	46.5	18	0	0.19
20	56	26	41.0	24	0	0.01
21	66	30	48.0	17	0	0.00
22	68	30	49.0	16	0	0.00
23	69	37	53.0	12	0	0.00
24	65	26	45.5	19	0	0.00
25	72	31	51.5	13	0	0.00
26	73	28	50.5	14	0	0.00
27	74	29	51.5	13	0	0.00
28	73	36	54.5	10	0	0.00
Smry	67.8	31.8	49.8	419	0	0.41

**February Average  
Precipitation at Graton  
(Sonoma County):  
7.76 inches**

**February 2013 = 5% of  
normal.**



# February 2013



SANTA CRUZ (047916)  
Daily Data for a Month  
Month: Feb 2013

Day	MaxT	MinT	AvgT	HDD	CDD	Pcpn
1	68	38	53.0	12	0	0.00
2	61	43	52.0	13	0	0.00
3	61	41	51.0	14	0	0.00
4	63	36	49.5	15	0	0.00
5	58	42	50.0	15	0	0.00
6	63	34	48.5	16	0	0.00
7	57	37	47.0	18	0	0.00
8	57	39	48.0	17	0	0.03
9	61	29	45.0	20	0	0.00
10	62	30	46.0	19	0	0.00
11	63	32	47.5	17	0	0.00
12	64	35	49.5	15	0	0.00
13	68	34	51.0	14	0	0.00
14	75	35	55.0	10	0	0.00
15	80	40	60.0	5	0	0.00
16	75	42	58.5	6	0	0.00
17	64	43	53.5	11	0	0.00
18	53	39	46.0	19	0	0.00
19	51	39	45.0	20	0	0.28
20	65	31	48.0	17	0	0.00
21	64	34	49.0	16	0	0.00
22	64	33	48.5	16	0	0.00
23	64	44	54.0	11	0	0.00
24	67	38	52.5	12	0	0.00
25	67	33	50.0	15	0	0.00
26	69	35	52.0	13	0	0.00
27	73	34	53.5	11	0	0.00
28	74	40	57.0	8	0	0.00
Smry	64.7	36.8	50.7	395	0	0.31

**February Average  
Precipitation at Santa  
Cruz:  
6.24 inches**

**February 2013 = 5% of  
normal.**



# February 2013



San Francisco Airport Area ([ThreadEx Stat](#))  
Daily Data for a Month  
Month: Feb 2013

Day	MaxT	MinT	AvgT	HDD	CDD	Pcpn
1	64	44	54.0	11	0	0.00
2	56	47	51.5	13	0	0.00
3	56	47	51.5	13	0	0.00
4	54	44	49.0	16	0	0.00
5	55	47	51.0	14	0	0.00
6	56	40	48.0	17	0	0.00
7	55	42	48.5	16	0	0.14
8	52	41	46.5	18	0	0.11
9	56	41	48.5	16	0	0.00
10	59	38	48.5	16	0	0.00
11	63	41	52.0	13	0	0.00
12	58	41	49.5	15	0	0.00
13	59	41	50.0	15	0	0.00
14	68	42	55.0	10	0	0.00
15	68	46	57.0	8	0	0.00
16	66	48	57.0	8	0	0.00
17	59	48	53.5	11	0	0.00
18	52	45	48.5	16	0	T
19	49	41	45.0	20	0	0.42
20	55	40	47.5	17	0	0.00
21	57	44	50.5	14	0	0.00
22	60	40	50.0	15	0	0.00
23	56	47	51.5	13	0	T
24	60	46	53.0	12	0	0.00
25	58	43	50.5	14	0	0.00
26	63	41	52.0	13	0	0.00
27	64	40	52.0	13	0	0.00
28	60	46	53.0	12	0	0.00
Smry	58.5	43.2	50.9	389	0	0.67

**February Average  
Precipitation at San  
Francisco:  
4.06 inches**

**February 2013 = 17% of  
normal.**



# Winter 2012/13 Summary

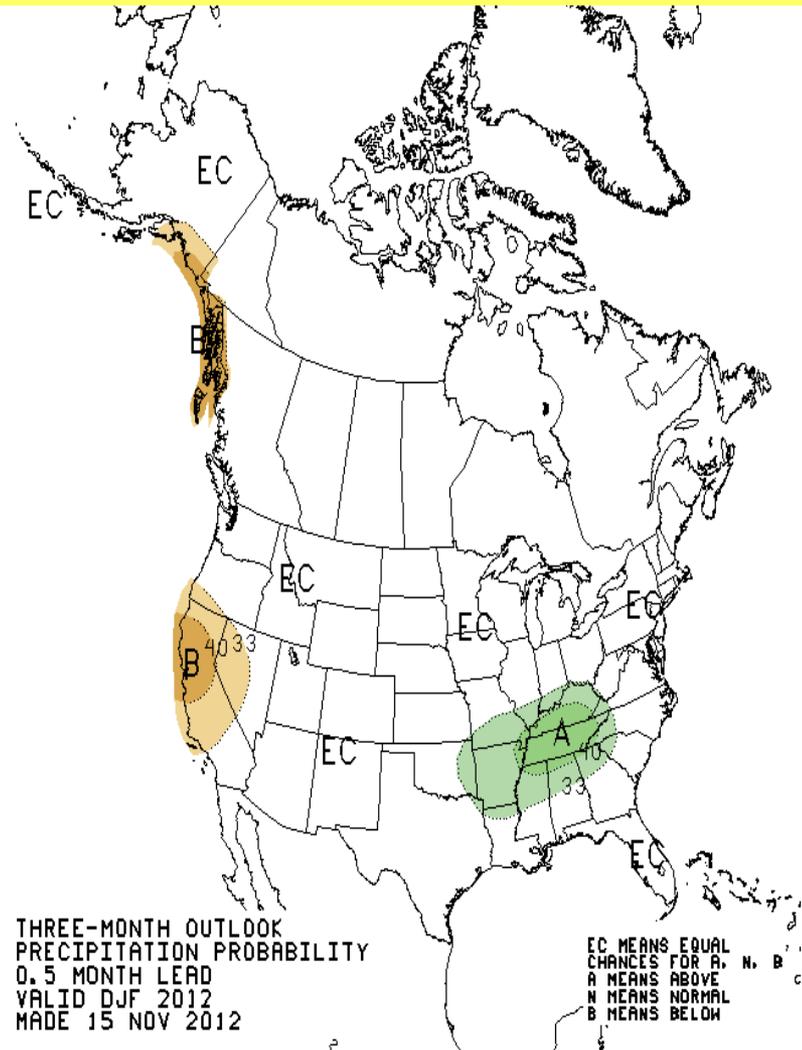
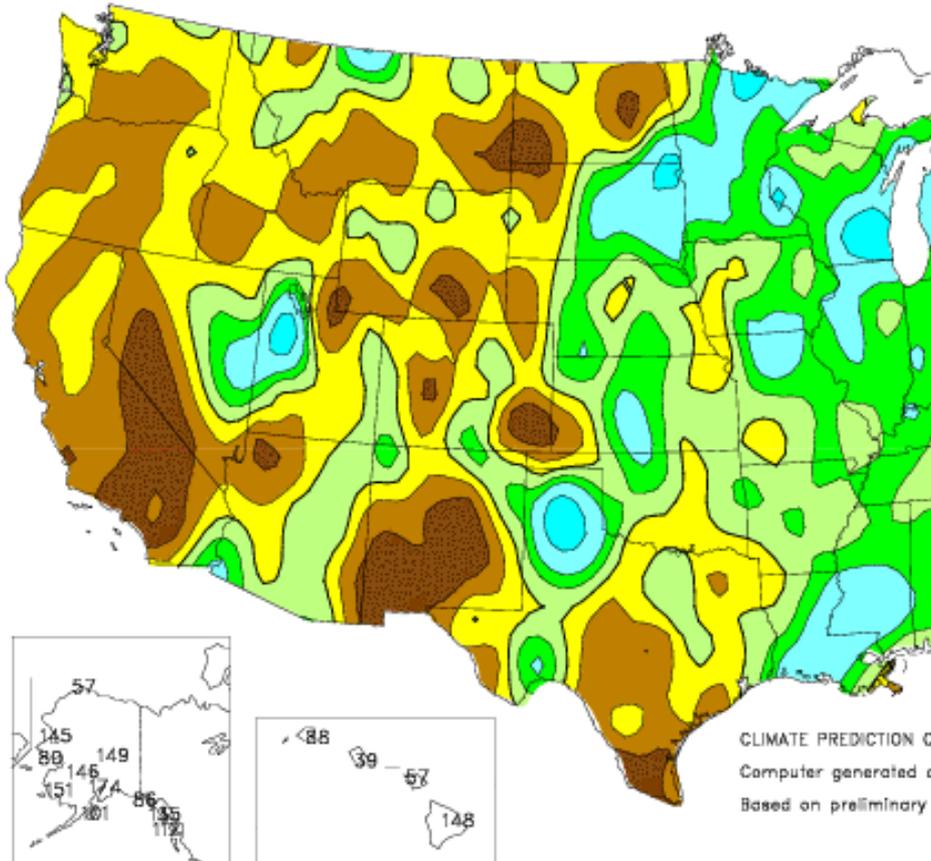
- Started off extremely wet
- AR events Dec. with some flooding
  - Became extremely dry
  - Led into extremely dry spring
- Calendar Year 2013 on pace for driest ever



# Winter 2012/13 Summary



Percent Of Normal Precipitation  
DEC 2012 - FEB 2013

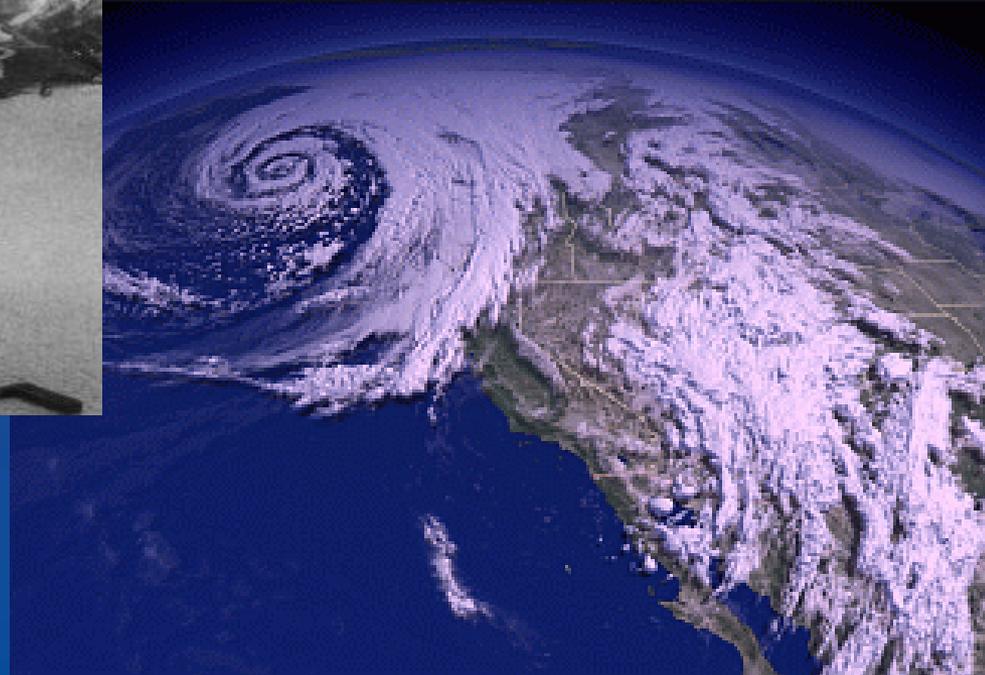




# Winter 2013-2014



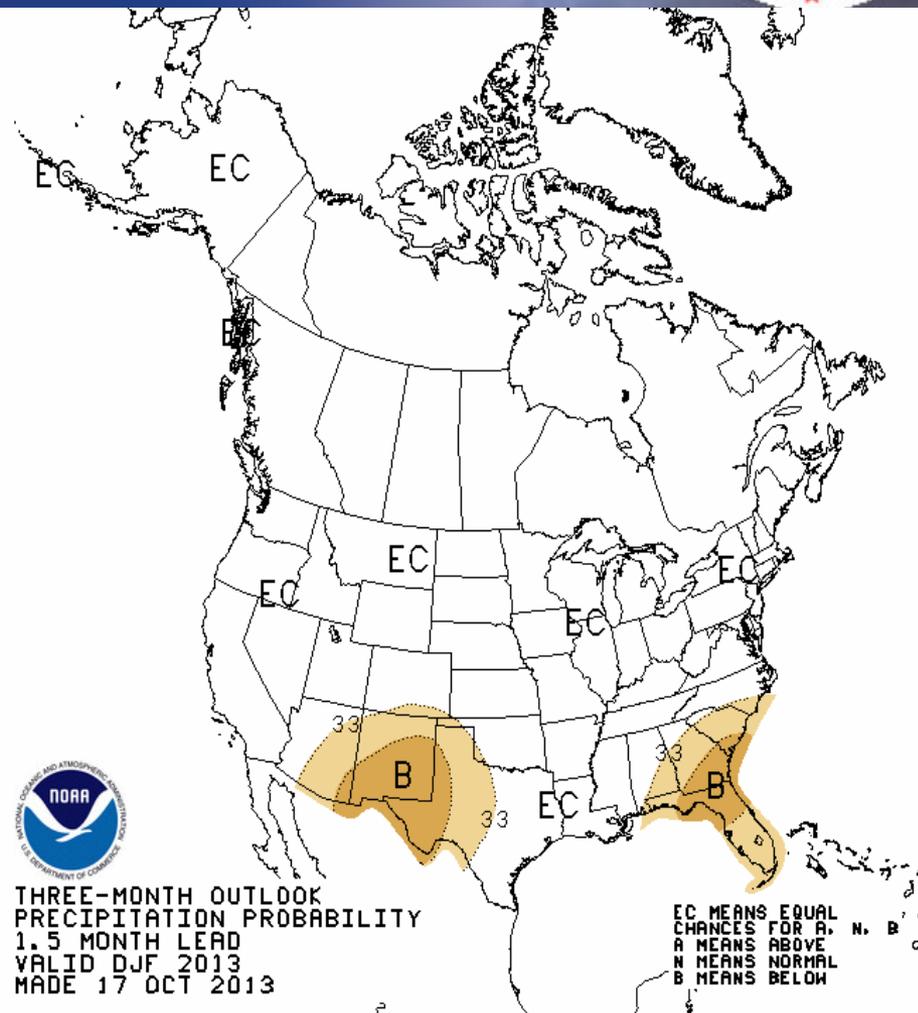
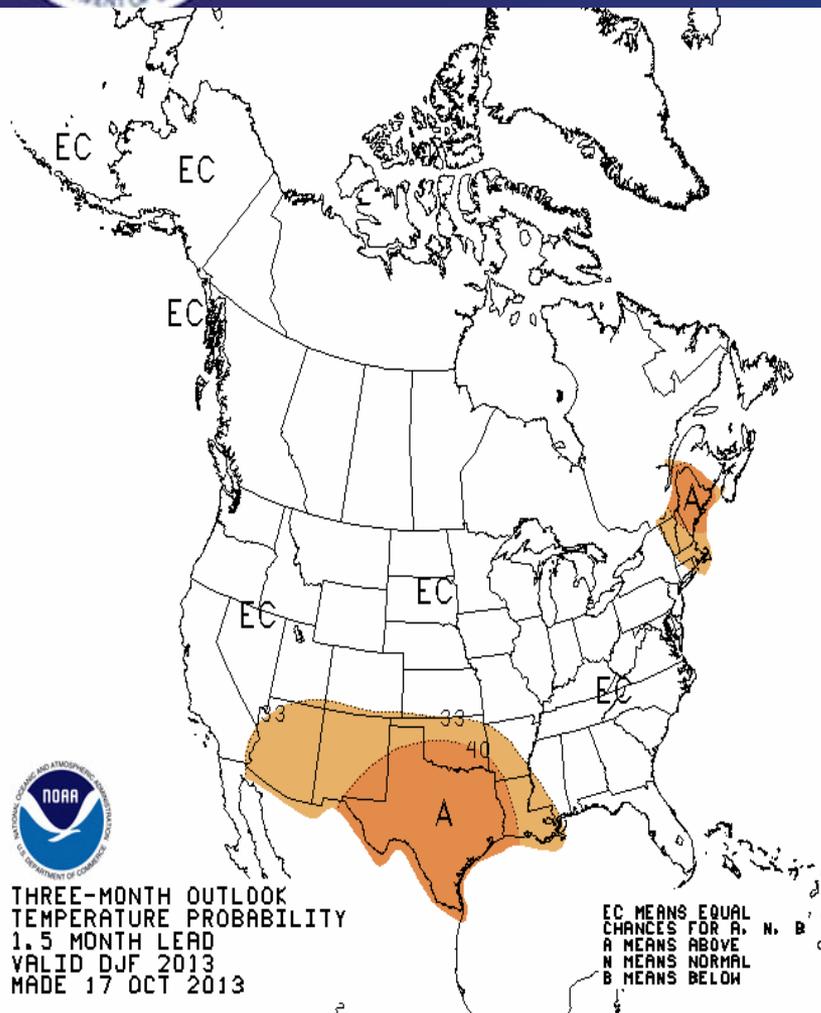
10.27.2000 10:30 PM EDT 07:30 PM PDT 02:30 GMT



What can we expect?



# Dec-Jan-Feb



## Temperature Outlook

## Precipitation Outlook



# Nice pictures, but....



- The forecast is for “equal chances,” does that mean rainfall/temperature for the season will be near normal?

**Answer:** NO. Equal chances means there is no clear signal as to which is most likely – above/below/near normal.





• How do El Niño & La Niña influence seasonal forecasts? Will they this year?

**Answer:** next several slides



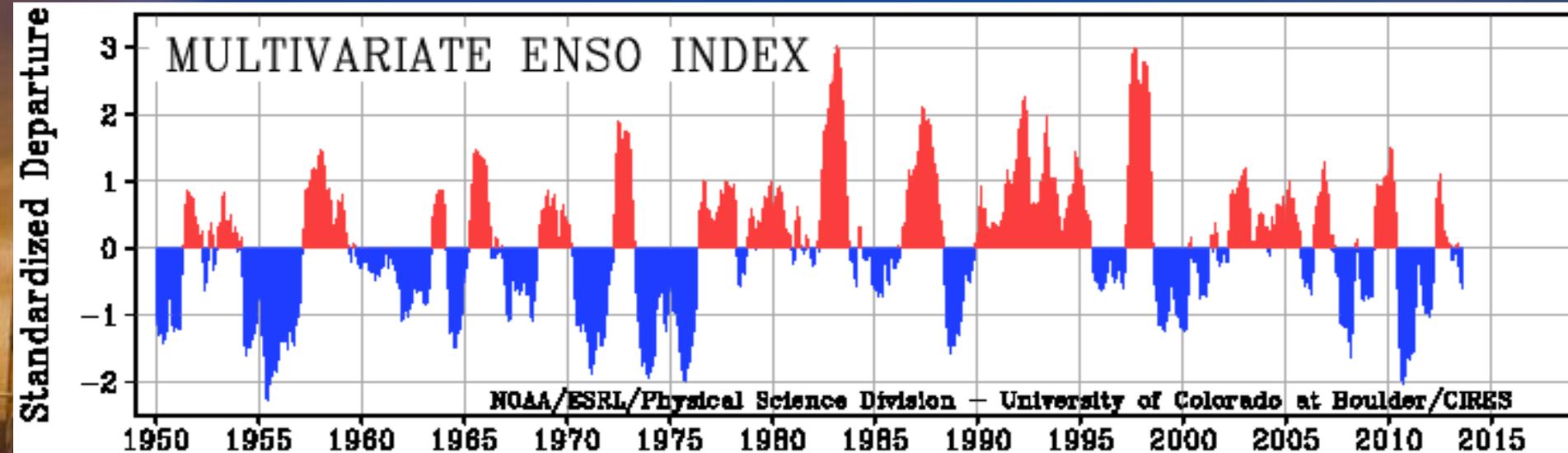
# ENSO



## El Niño & La Niña

- **ENSO** - El Niño/ Southern Oscillation.

ENSO cycle refers to the variations in sea-surface temperatures, rainfall, air pressure, and atmospheric circulation that occur across the equatorial Pacific.





# ENSO

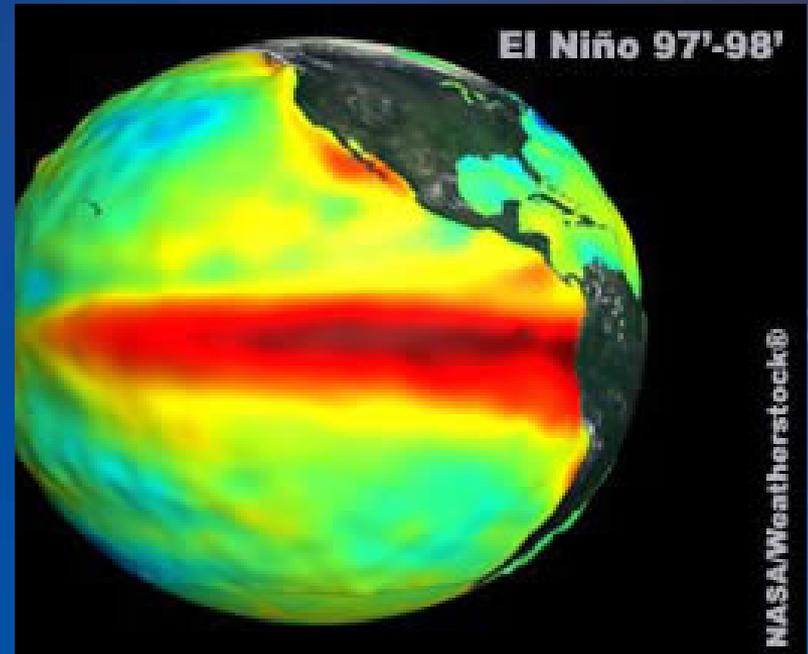


## El Niño & La Niña

**El Niño** - El Niño represents the warm phase of the ENSO cycle.

El Niño is first noticed along the South American coast around

Christmas. This is the origin of its Spanish name "the child", from Peruvian fishermen.





# ENSO



## El Niño & La Niña

- **La Niña** - The periodic cooling of ocean surface temperatures in the central and east-central equatorial Pacific. La Niña represents the cool phase of the ENSO cycle.

**ENSO-neutral** - Those periods when neither El Niño nor La Niña is present. These periods often coincide with the transition between El Niño and La Niña events. During ENSO neutral periods the ocean temperatures, tropical rainfall patterns, and atmospheric winds over the equatorial Pacific Ocean are near the long-term average.



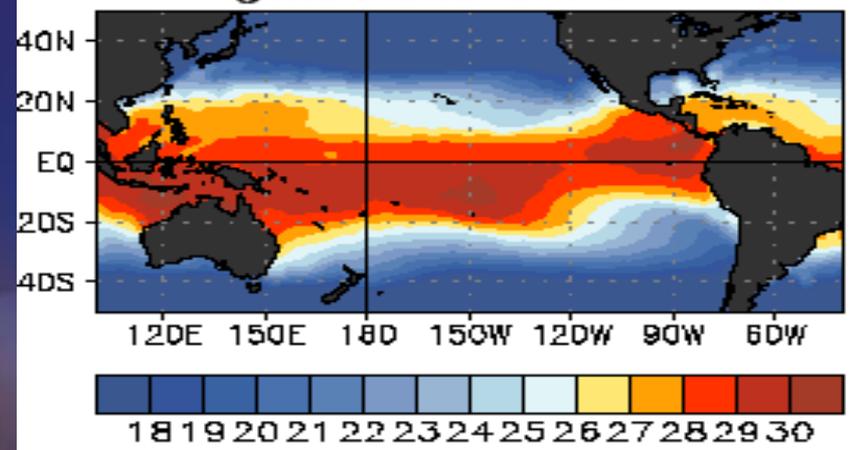
# 1997-1998 El Niño Event

## 1988-1989 La Niña Event

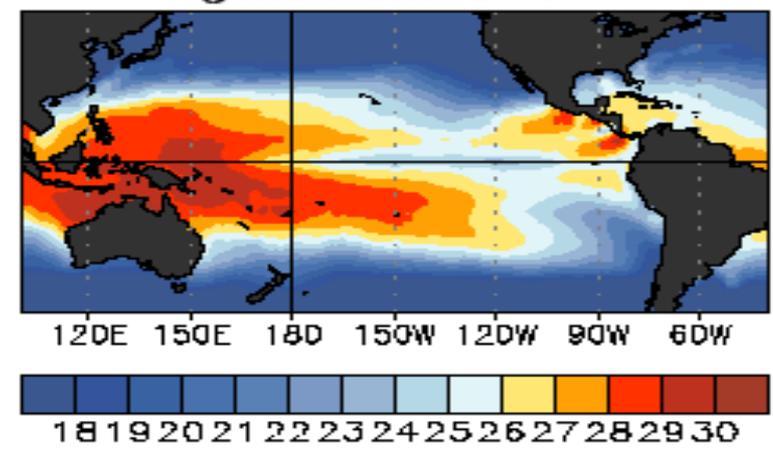


### OCEAN TEMPERATURES (°C)

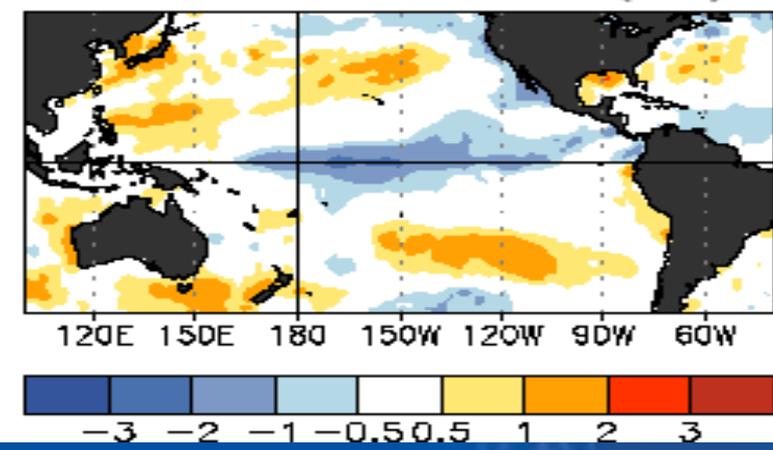
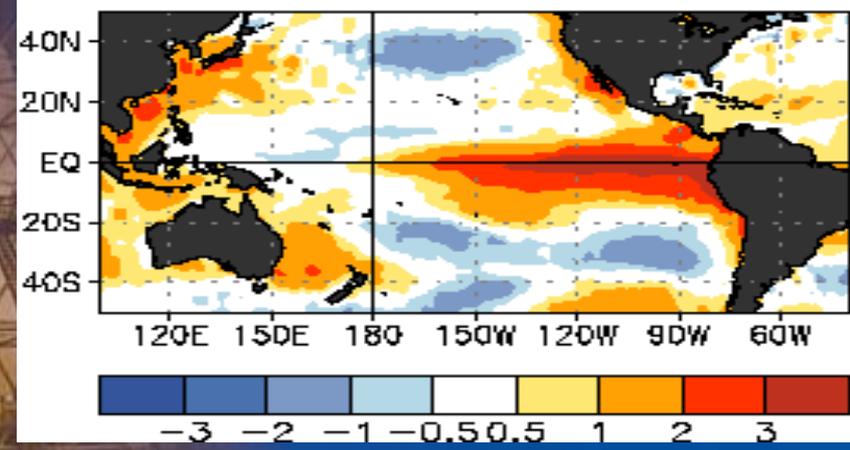
#### EL NIÑO Jan-Mar 1998



#### LA NIÑA Jan-Mar 1989



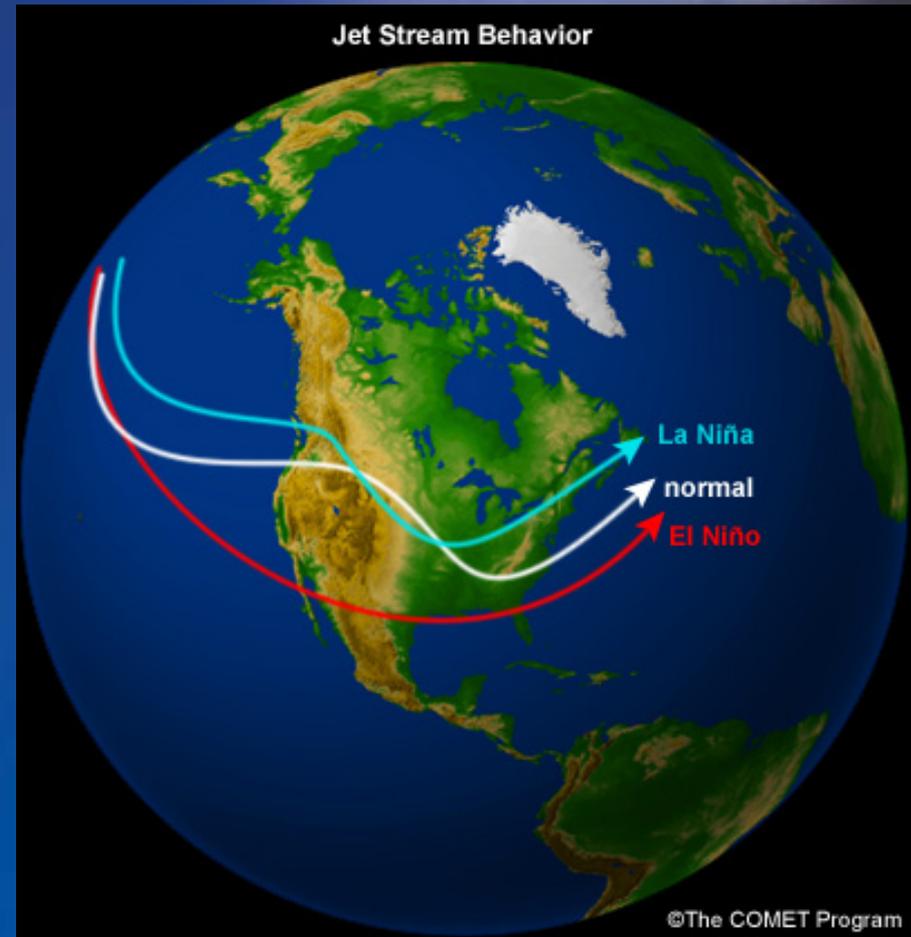
### OCEAN TEMPERATURE DEPARTURES (°C)





# An Adjustment to the Jet Stream

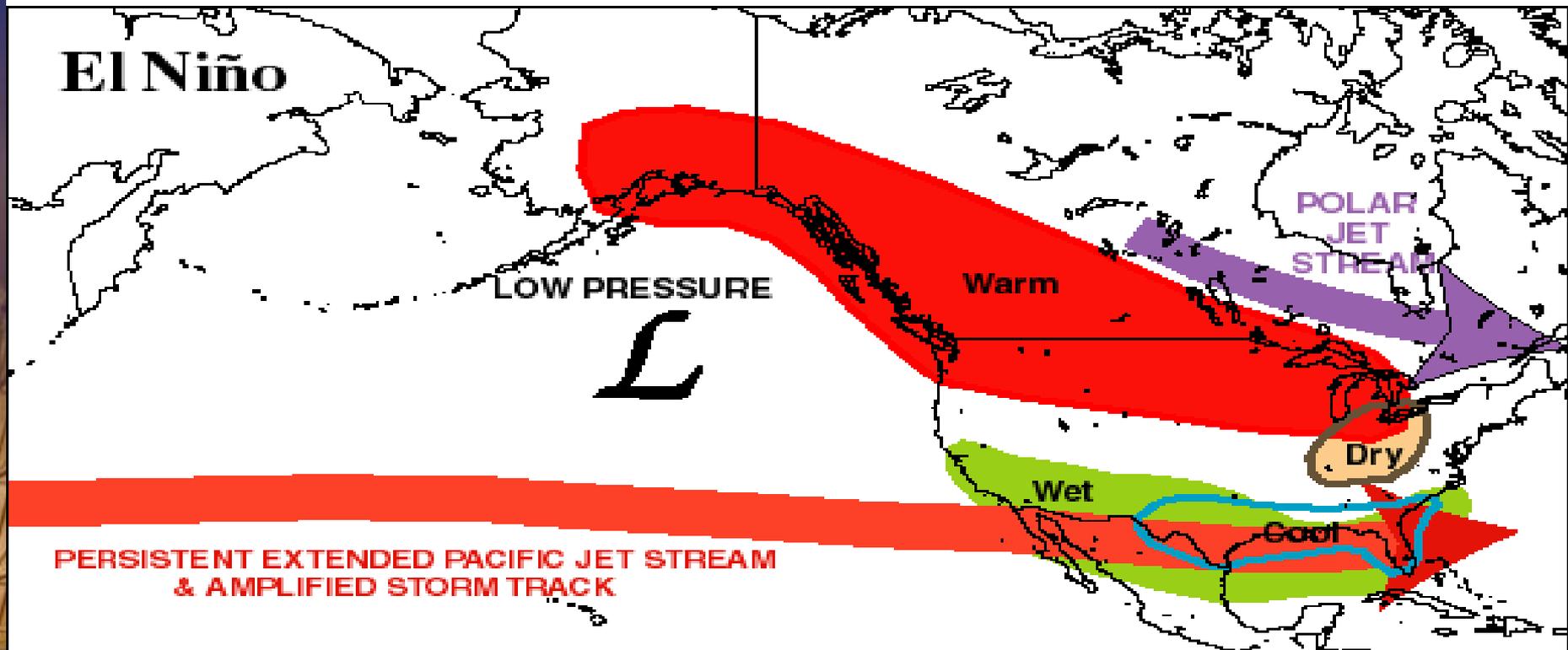
- The primary atmospheric response to the ENSO is an adjustment to the jet stream, and thus a change in the predominant winter storm track.





# Influence of El Niño on the winter weather pattern across North America

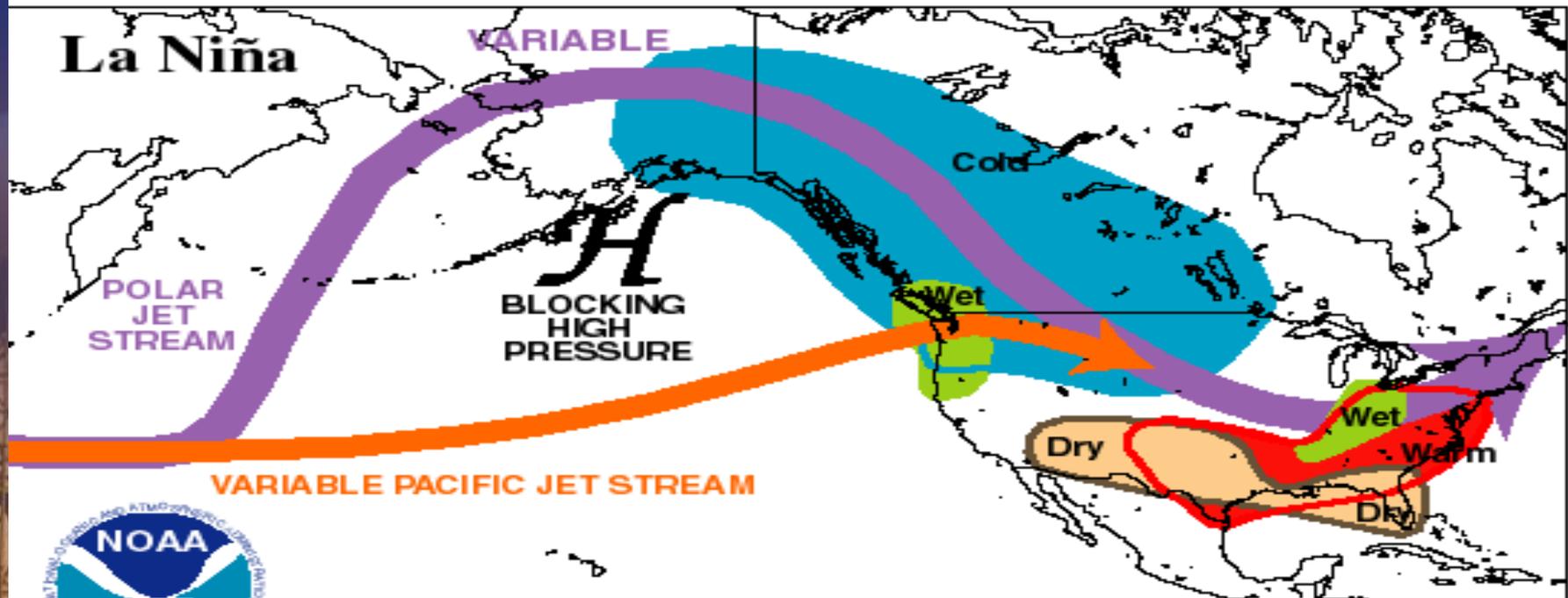
## TYPICAL JANUARY-MARCH WEATHER ANOMALIES AND ATMOSPHERIC CIRCULATION DURING MODERATE TO STRONG EL NIÑO & LA NIÑA





# Influence of La Niña on the winter weather pattern across North America

## TYPICAL JANUARY-MARCH WEATHER ANOMALIES AND ATMOSPHERIC CIRCULATION DURING MODERATE TO STRONG EL NIÑO & LA NIÑA





# The latest forecast from the Climate Prediction Center

---



Neutral conditions are expected this  
winter season.

- Conditions expected to remain neutral through the end of the winter.





# El Nino Impacts

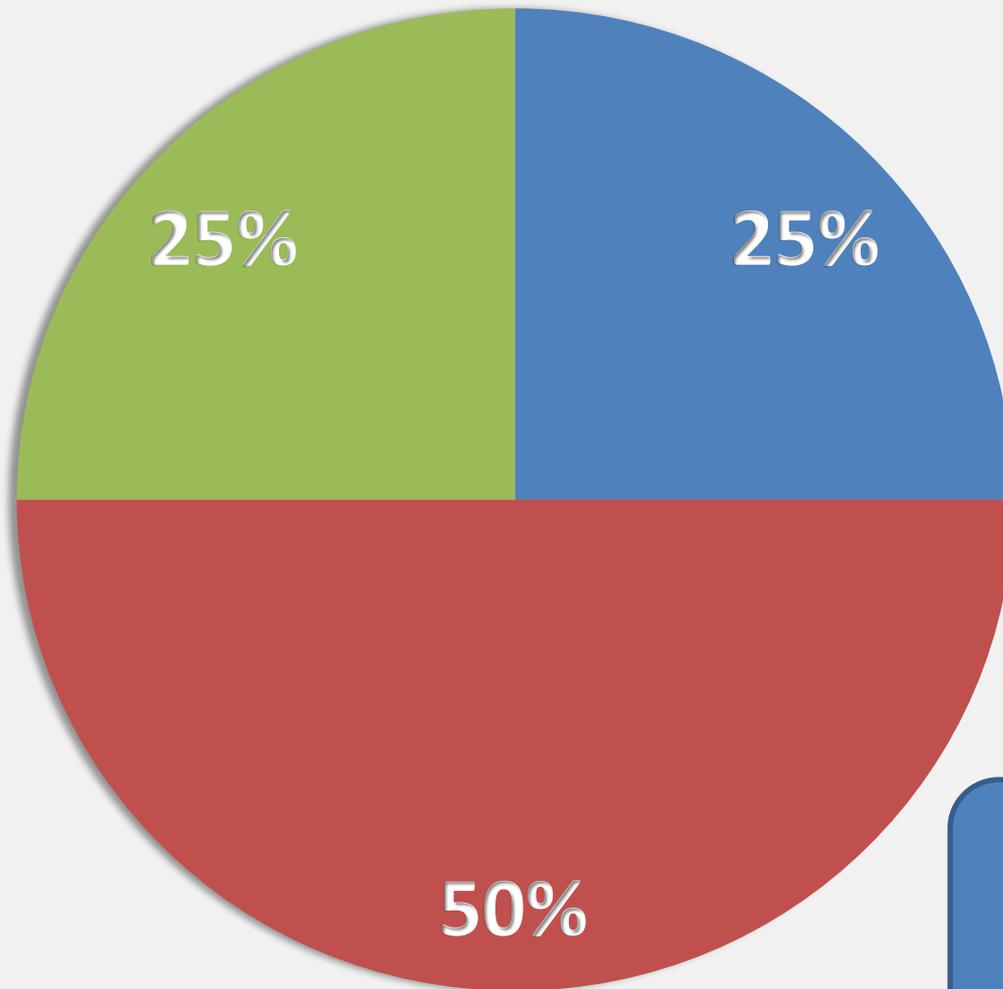


The following slides will present local historical data on precipitation during neutral El Nino winter seasons.

Averages shown are averages for past 30 years.

Historical data does not equal a forecast.

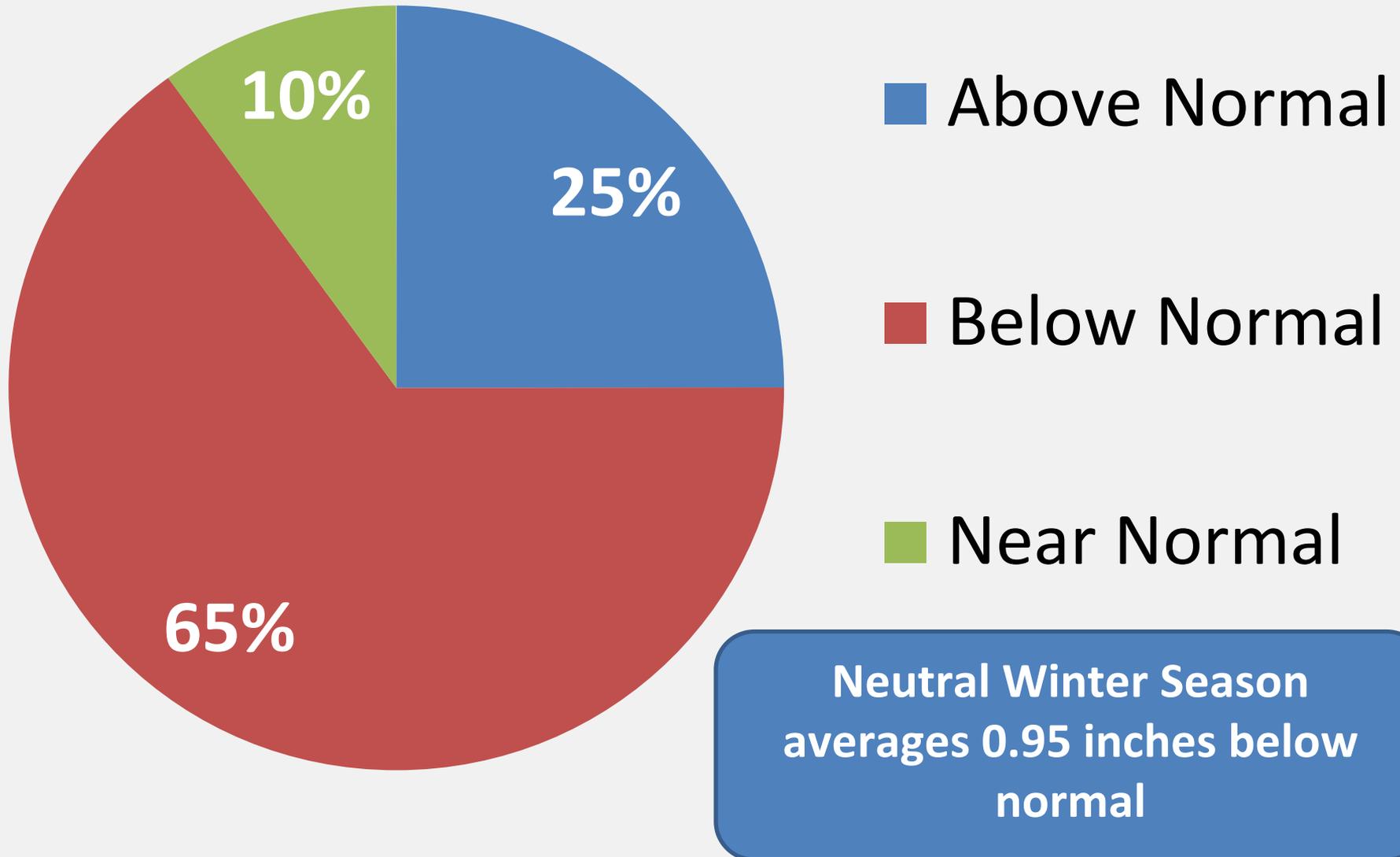
# Santa Cruz Winter Season Precipitation Neutral Years



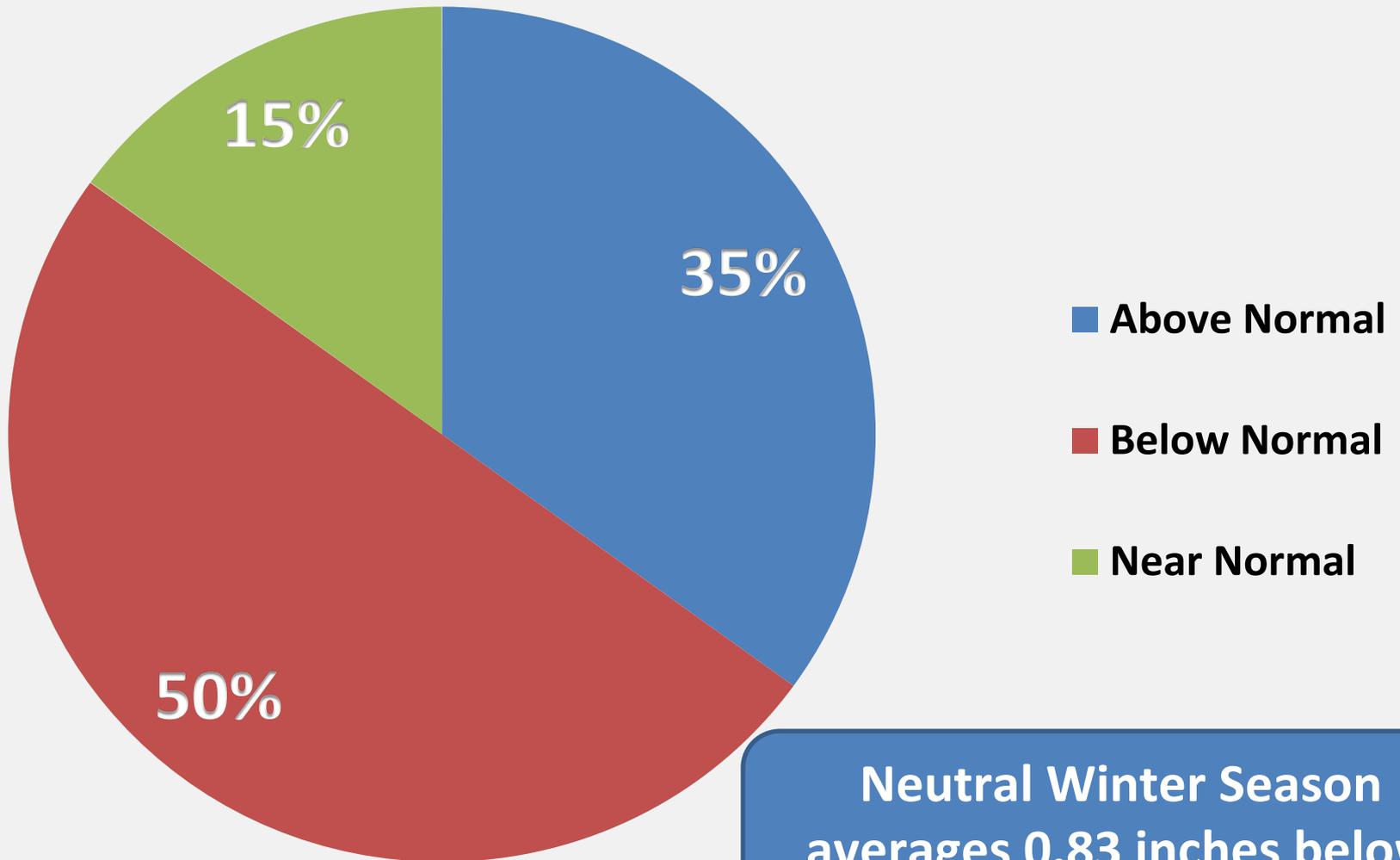
- Above Normal
- Below Normal
- Near Normal

Neutral Winter Season  
averages 1.95 inches below  
normal

# San Jose Winter Season Precipitation Neutral Years

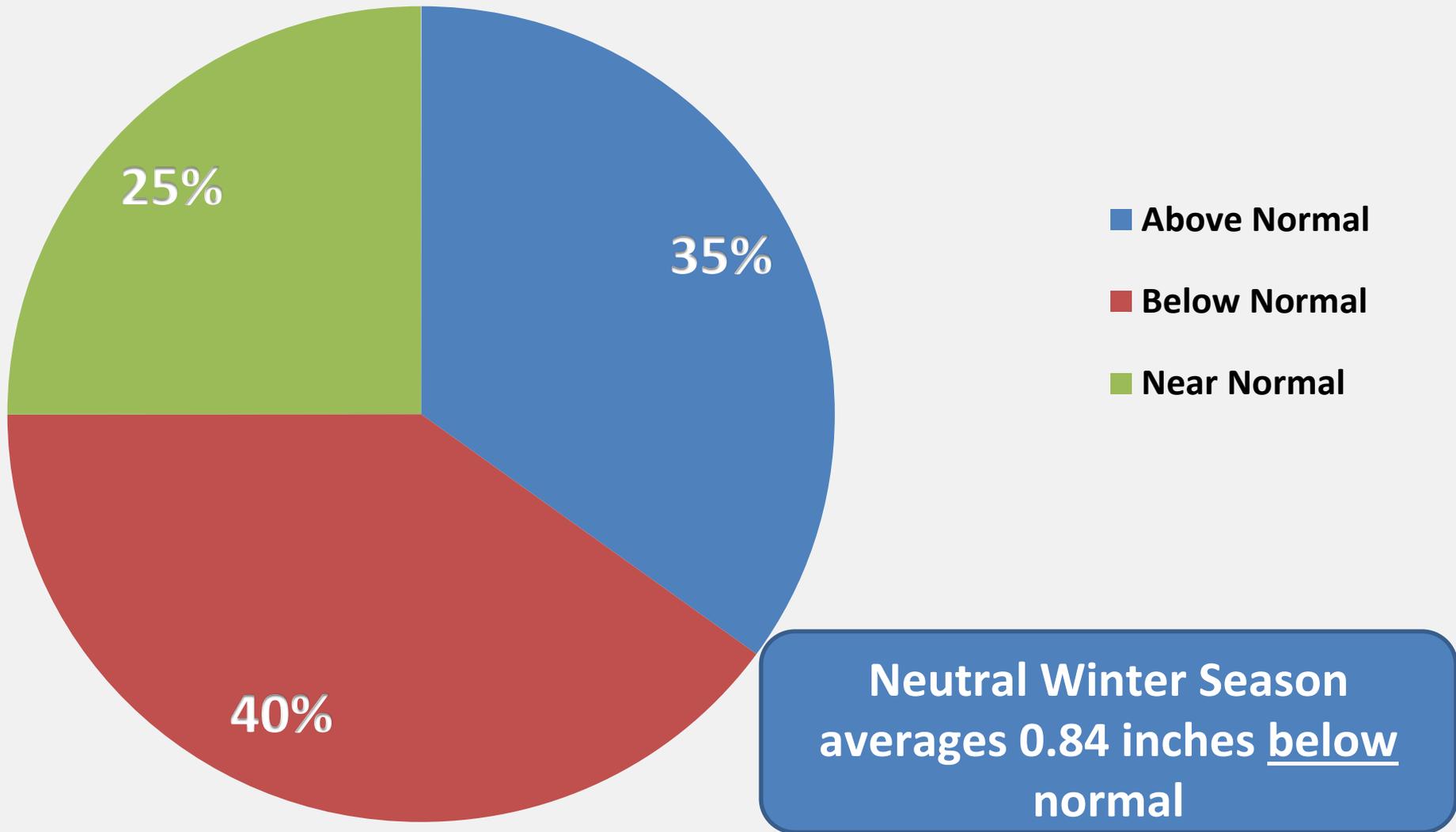


# San Francisco Winter Season Precipitation Neutral Years



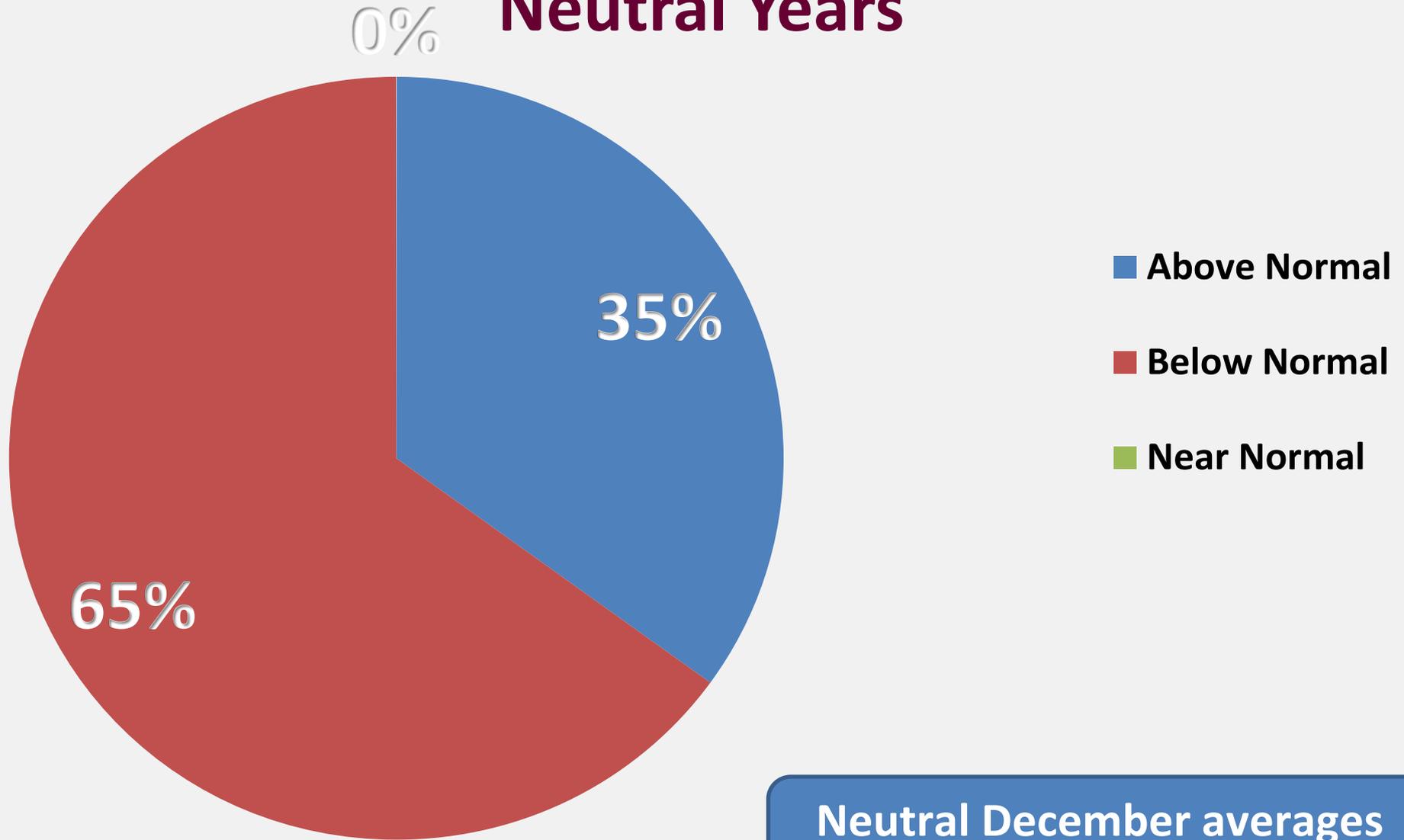
Neutral Winter Season  
averages 0.83 inches below  
normal

# Graton Winter Season Precipitation Neutral Years



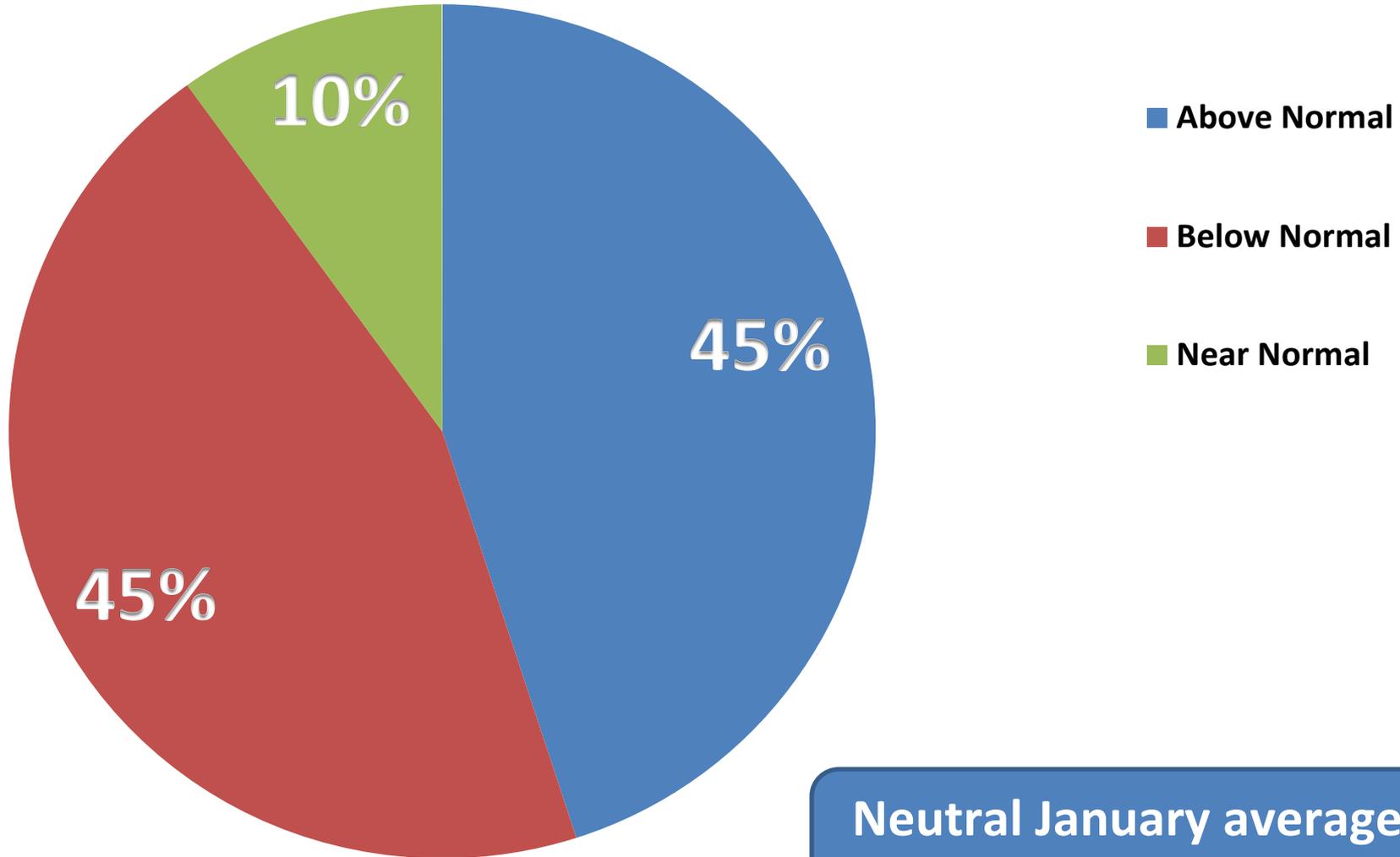
# Santa Cruz December Precipitation

## Neutral Years



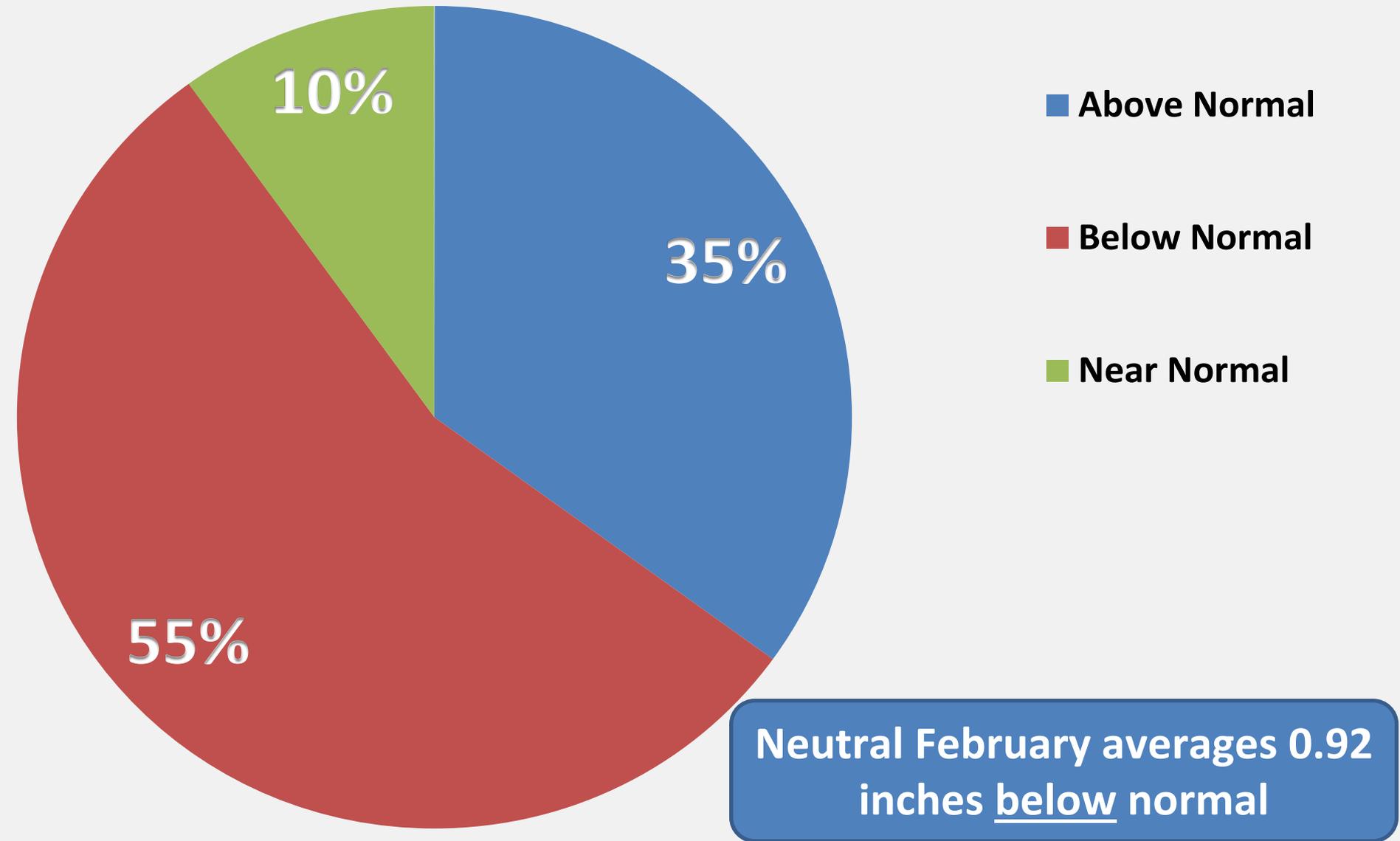
Neutral December averages  
1.01 inches below normal

# Santa Cruz January Precipitation Neutral Years

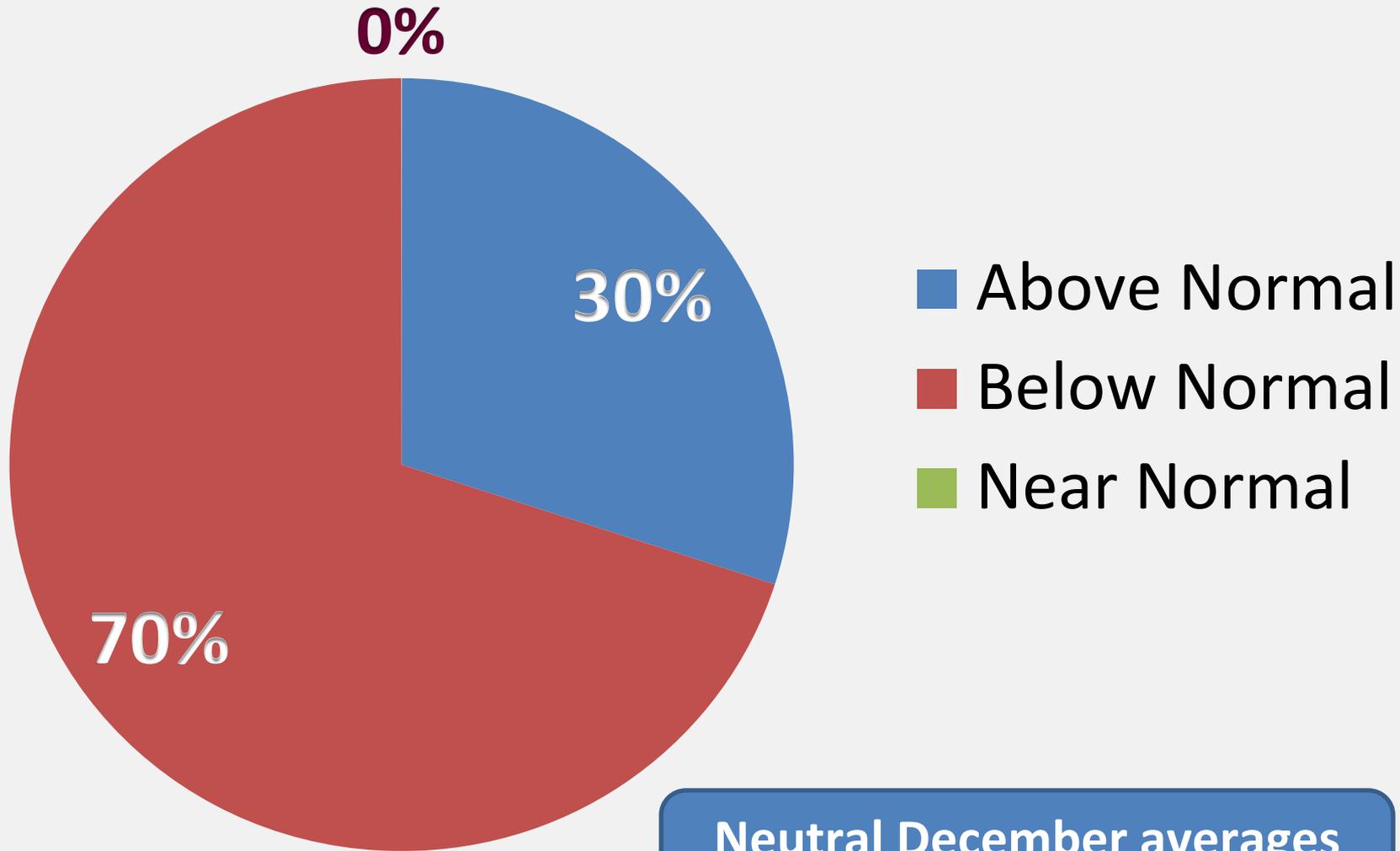


Neutral January averages 0.03  
inches below normal

# Santa Cruz February Precipitation Neutral Years

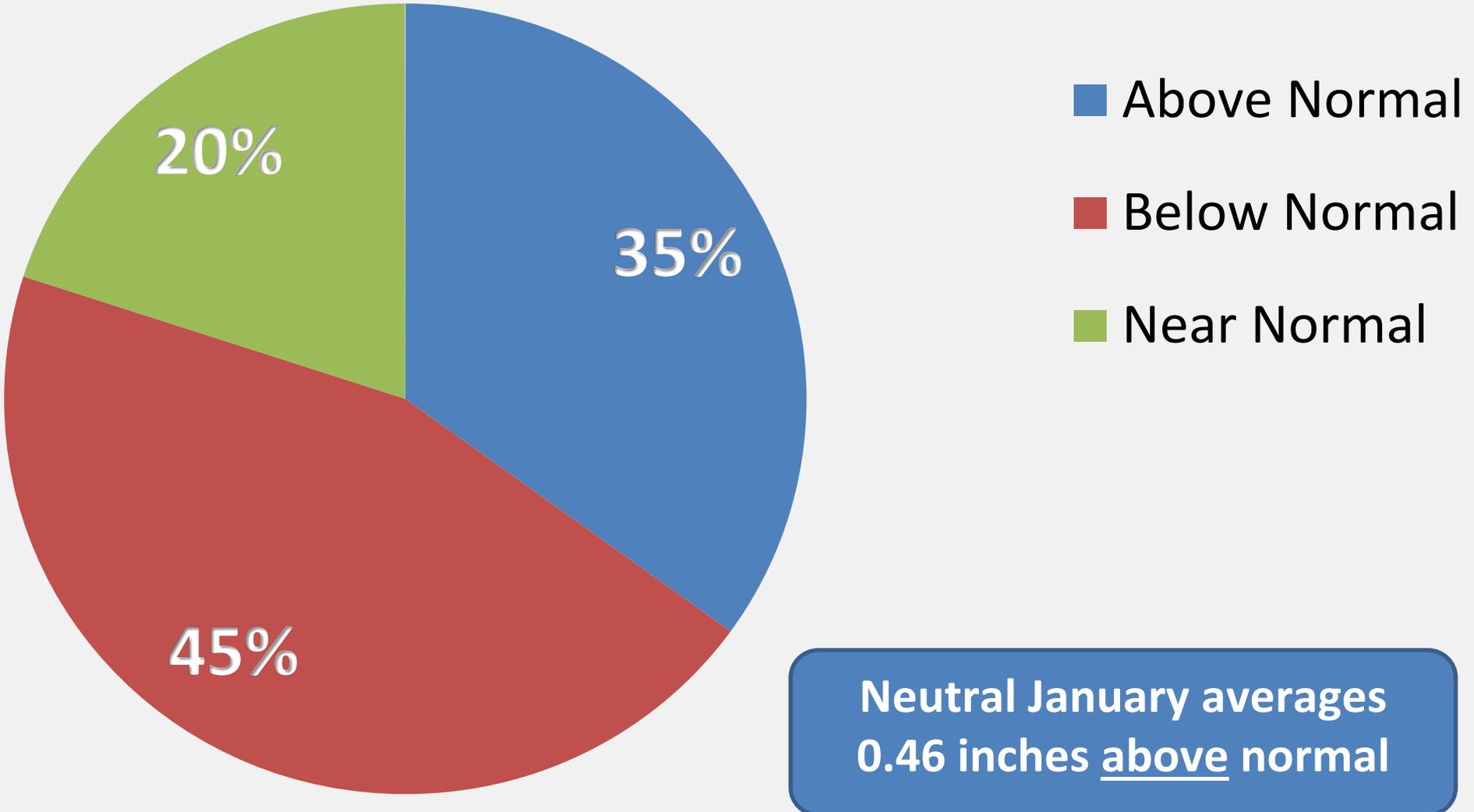


# San Jose December Precipitation Neutral Years

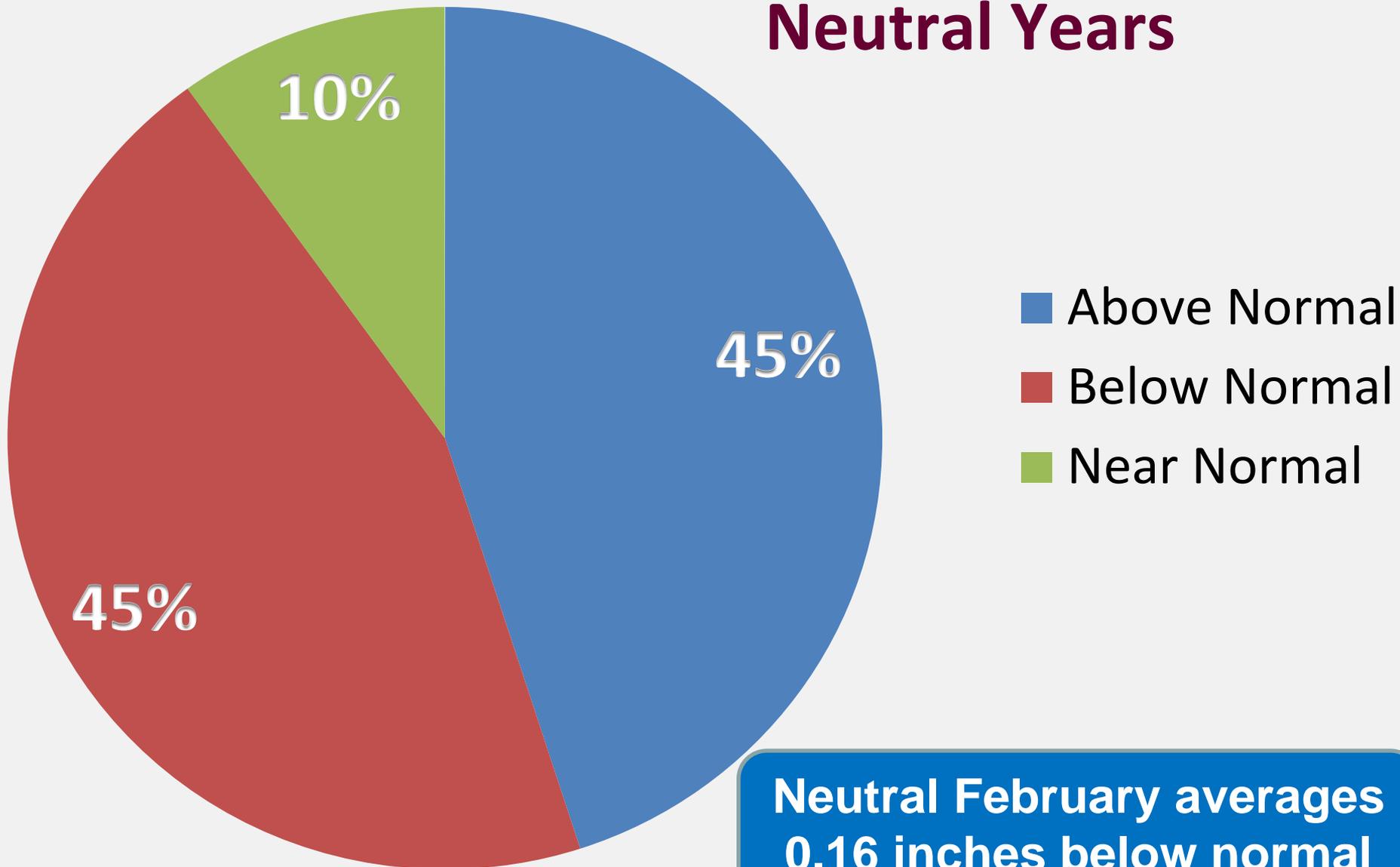


Neutral December averages  
0.22 inches above normal

# San Jose January Precipitation Neutral Years

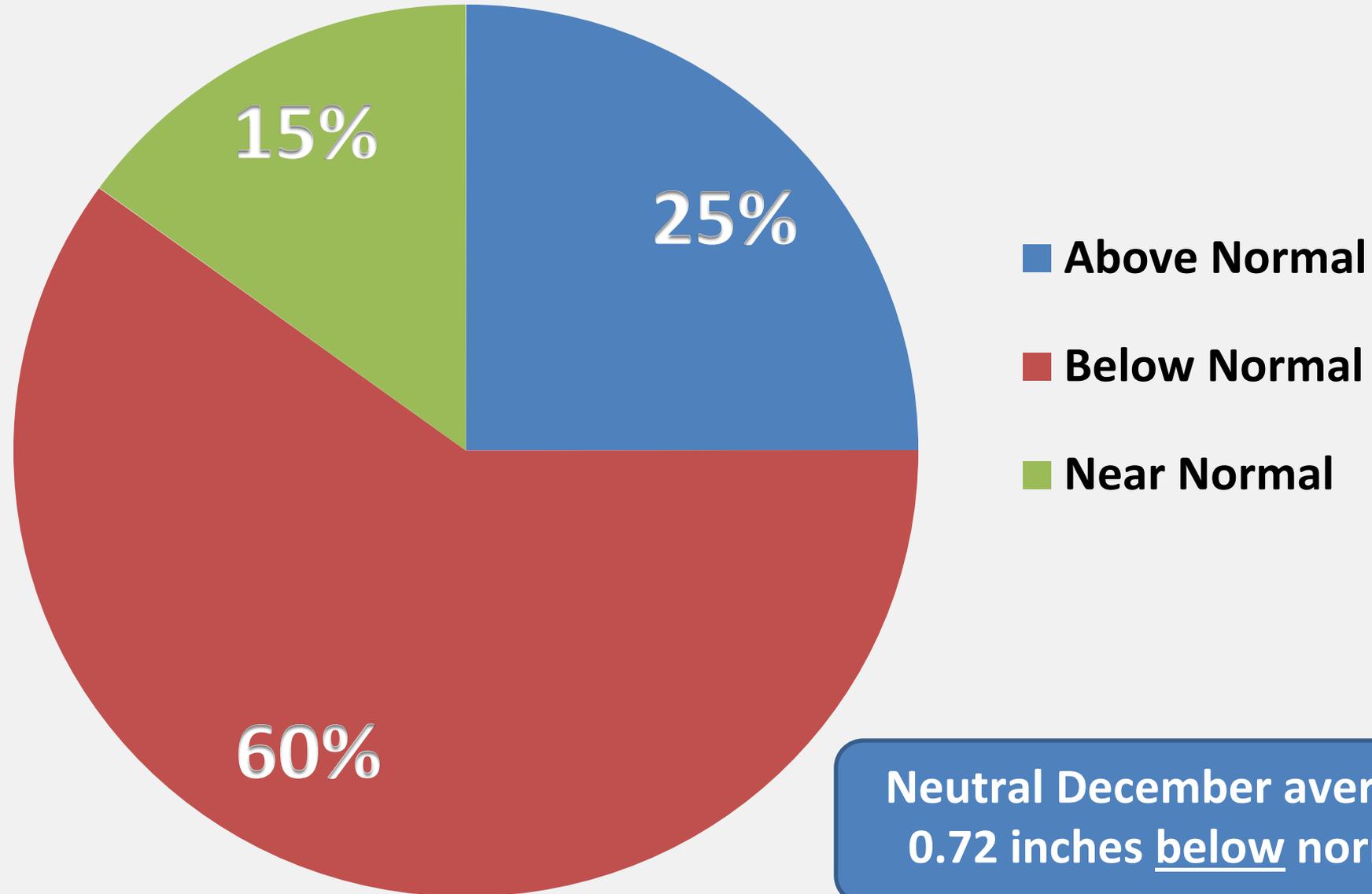


# San Jose February Precipitation Neutral Years



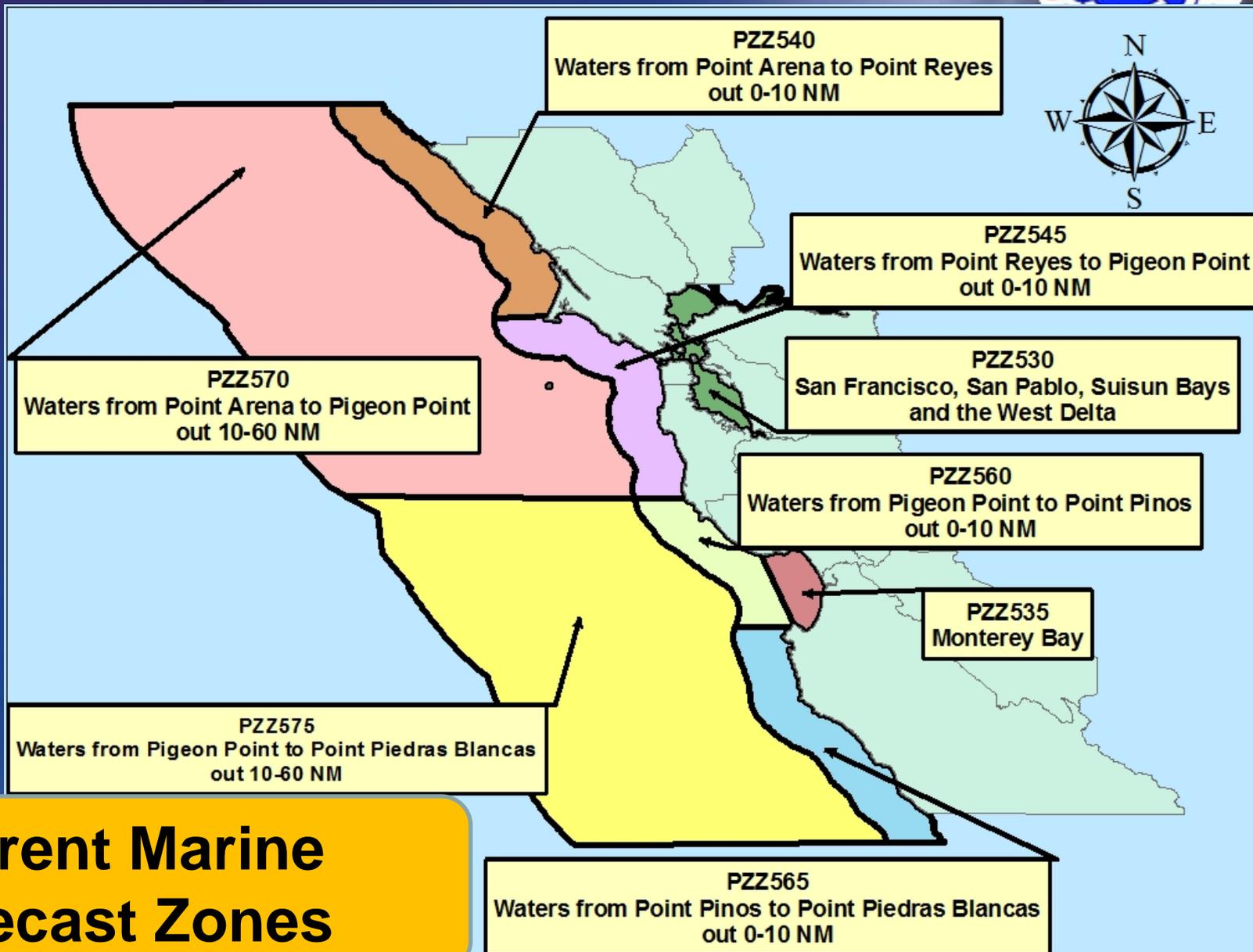
Neutral February averages  
0.16 inches below normal

# San Francisco December Precipitation Neutral Years





# Changes to NWS Products



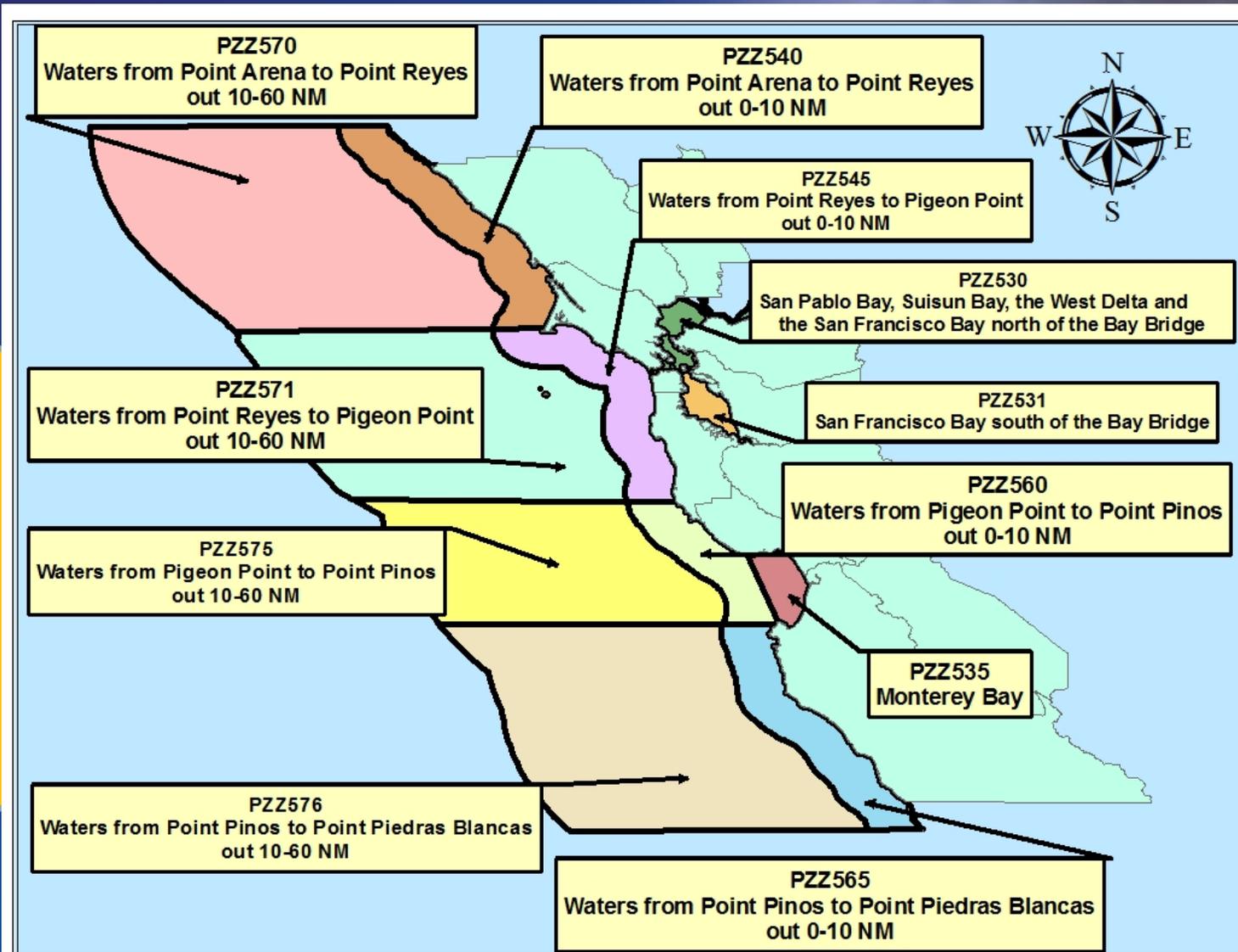
**Current Marine  
Forecast Zones**



# Changes to NWS Products



**New  
Marine  
Forecast  
Zones  
Dec. 3 2013**





# Changes to NWS Products



## Brand New Tool! User Defined Area Forecasts



This table displays the range of values for each weather element during each period. Forecast presented is based on 81 forecast grids, covering an area of 192 sq miles. The elevation ranges from 20 ft. to 1046 ft.

	Tue	Tue Night	Wed	Wed Night	Thu	Thu Night	Fri	Fri Night	Sat
Temp (F)	75 85	52 57	79 90	54 59	83 95	55 61	84 96	58 64	83 95
PoP (%)	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
QPF (in)	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Sky	0 100	0 100	0 95	0 100	0 70	0 85	0 0	0 0	0 0
Wind (mph)	5 15	10 15	5 5	10 15	5 5	5 15	0 5	5 10	0 5
Wind Dir	SW	W	W	WNW	NW	WNW	NNW	WNW	WSW
Weather		Fog		Fog					

The NWS is developing a web-based tool that allows you to create a customized weather forecast for any area. Please check it out at <http://www.nws.noaa.gov/wtf/udaf/area/?site=mtr>. After testing it out, please take the survey to leave your feedback. You can also leave your feedback here and we will pass it along to the programmers. Thanks!!



# Changes to NWS Products



WFO San Francisco/Monterey - MTR <a href="#">(Back to Top)</a>		
Outlooks	<a href="#">Hazardous Weather Outlook</a>	Expires in: 4h 31m Oct 02 3:00pm PDT
Alameda County	<a href="#">Fire Weather Watch</a> <ul style="list-style-type: none"><li>• East Bay Hills &amp; Diablo Rng</li></ul>	Expires in: 67h 31m Oct 05 6:00am PDT
Contra Costa County	<a href="#">Fire Weather Watch</a> <ul style="list-style-type: none"><li>• East Bay Hills &amp; Diablo Rng</li></ul>	Expires in: 67h 31m Oct 05 6:00am PDT
Marin County	<a href="#">Fire Weather Watch</a> <ul style="list-style-type: none"><li>• North Bay Mountains</li></ul>	Expires in: 67h 31m Oct 05 6:00am PDT
Monterey County	<a href="#">Small Craft Advisory</a> <ul style="list-style-type: none"><li>• Pigeon Pt to Piedras Blancas 20-60</li></ul>	Expires in: 31h 31m Oct 03 6:00pm PDT
Napa County	<a href="#">Fire Weather Watch</a> <ul style="list-style-type: none"><li>• North Bay Mountains</li></ul>	Expires in: 67h 31m Oct 05 6:00am PDT
San Benito County	No Current Hazards	
San Francisco County	No Current Hazards	
San Mateo County	<a href="#">Small Craft Advisory</a> <ul style="list-style-type: none"><li>• Pt Arena to Pigeon Pt 20-60nm</li></ul>	Expires in: 31h 31m Oct 03 6:00pm PDT
	<a href="#">Fire Weather Watch</a> <ul style="list-style-type: none"><li>• Santa Cruz Mountains</li></ul>	Expires in: 67h 31m Oct 05 6:00am PDT
Santa Clara County	<a href="#">Fire Weather Watch</a> <ul style="list-style-type: none"><li>• East Bay Hills &amp; Diablo Rng</li><li>• Santa Cruz Mountains</li></ul>	Expires in: 67h 31m Oct 05 6:00am PDT
Santa Cruz County	<a href="#">Fire Weather Watch</a> <ul style="list-style-type: none"><li>• Santa Cruz Mountains</li></ul>	Expires in: 67h 31m Oct 05 6:00am PDT
Sonoma County	<a href="#">Fire Weather Watch</a> <ul style="list-style-type: none"><li>• North Bay Mountains</li></ul>	Expires in: 67h 31m Oct 05 6:00am PDT

**Quick Look:  
Watches, Warnings,  
Advisories by  
County**

[http://www.wrh.noaa.gov/mtr/fastpage/wwa\\_bc.php?wfo=mtr](http://www.wrh.noaa.gov/mtr/fastpage/wwa_bc.php?wfo=mtr)

<http://1.usa.gov/1f8QNMmr>



# Social Media



[www.facebook.com/US.NationalWeatherService.SanFranciscoBayArea.gov](http://www.facebook.com/US.NationalWeatherService.SanFranciscoBayArea.gov)

US National Weather Service San Francisco Bay Area/Monterey California

You are posting, commenting, and liking as US National Weather Service San Francisco Bay Area/Monterey California — [Change to Logan Johnson](#)

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image by Kevin Hobbs



**US National Weather Service San Francisco Bay Area/Monterey California** [Update Page Info](#) [✓ Liked](#) [\\*](#)

3,873 likes · 555 talking about this · 86 were here

Government Organization  
Facebook posts do not always reflect the most current information. For current official info, visit: <http://weather.gov/>

About [Photos](#) [Likes](#) [Map](#) [Radar](#)

3,873




Highlights



# Social Media



## High Surf Through Tonight!



### IMPACTS:

- \*Rip Currents
- \*Sneaker Waves
- \*Moderate to Large Surf

Beach HAZARD Statement  
Through 11:00 PM Tonight

Pt. Reyes

Pillar Pt.

Santa Cruz

Monterey

Pt. Sur

High Surf ADVISORY  
Through 5:00 AM Tues

- \***NEVER** Turn Your Back To  
The Ocean
- \***AVOID** Climbing On Rocks  
or Jetties



# Social Media



NWS San Francisco Bay Area/Monte...

Subscribe

49 subscribers

3,812 video views

Browse videos

Search Channel

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Feed

Comments

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About NWS San Francisco Bay Area/Monterey, CA

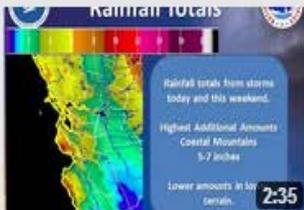
National Weather Service

Weather Forecast Office

Monterey, CA



NWSBayArea uploaded a video 1 week ago



San Francisco Bay Area NWS: High Impact Weather Briefing

260 views

November 30 update on coming weekend storm system to San Francisco and Monterey Bay areas with additional heavy rainfall and



NWSBayArea uploaded a video 1 week ago



San Francisco Bay Area NWS - High Impact Weather Briefing

800 views

NWS San Francisco Bay Area - High Impact Weather Briefing for a series of Pacific storms to impact the area. Do not use after

# YouTube

[www.youtube.com/nwsbayarea](http://www.youtube.com/nwsbayarea)

by NWSBayArea

Latest Activity

Nov 30, 2012

Date Joined

Oct 18, 2012

Location

Monterey, CA

Country

United States

Send feedback

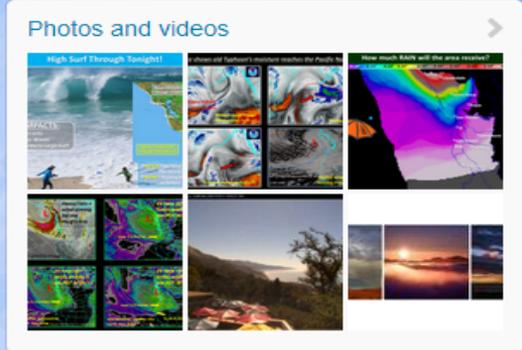


# Social Media



Home Connect Discover Me Search Settings

- Tweets
- Following
- Followers
- Favorites
- Lists



- Who to follow · Refresh · View all
- Chris Treadway** @christreadway
  - Allie Rasmus KTVU** @arasmusK... Followed by KTVU and others
  - Oakland North** @northoaklandnow Followed by Daniel M. Jimenez an...
- Popular accounts · Find friends

**NWSBayArea**

@NWSBayArea

This is an experimental service to explore Twitter to extend the reach of NWS information. Visit [goo.gl/C9g6i](http://goo.gl/C9g6i) for details and to provide comments.

San Francisco/Monterey Bay, CA · [weather.gov/sanfrancisco](http://weather.gov/sanfrancisco)

4,947 TWEETS    160 FOLLOWING    3,474 FOLLOWERS      

- Tweets All / No replies
- NWSBayArea** @NWSBayArea 2h  
HIGH SURF ADVISORY issued for beaches near #SantaCruz southward into #Monterey and #BigSur through 5am Tue [pic.twitter.com/BdGDafambb](http://pic.twitter.com/BdGDafambb)
  - NWSBayArea** @NWSBayArea 2h  
Wow big seas out there! #PtReyes is reporting a 18 foot swell at 17 seconds! #bayareaseas #casurf
  - NWSBayArea** @NWSBayArea 3h  
Light rain continues in the North and East Bay this morning. 0.08" in the last six hours in the Berkeley Hills, 0.02" in Bodega Bay.

<http://twitter.com/nwsbayarea>

@nwsbayarea



# Local Weather Ready Nation Initiatives



← → ↻ <https://nwschat.weather.gov/live/> ☆ 🔍

**NWSChat Live** | Available | 🔊

**Buddies**

- NWSChat Admin Team
- Daryl Herzmann
- nwsbot
- Brad Small

**Google Map Panel**

Map Valid: 12:20 PM | Tools | Opacity

**Layers Control**

- Base Layer
  - Blank
  - Google Street
- Satellite
  - GOES Water
  - GOES West V
  - GOES East Vi
  - GOES Visible
  - GOES IR
- Precip/RADAR
  - NMQ Q2 3 Day
  - NMQ Q2 2 Day

Help | All Chats | mtrchat | stochat

Clear Room Log | Print Log | View As HTML | Hide NWSBot | Sounds On | A A

**Message**

**(9:44 AM) nwsbot:** MTR extends area+time of [Small Craft Advisory](#) valid at Sep 08, 5:00 PM PDT for Coastal Waters from Point Reyes to Pigeon Point California out to 10 nm [PZ] till Sep 09, 3:00 AM PDT

**(9:44 AM) nwsbot:** MTR extends area+time of [Small Craft Advisory](#) valid at Sep 08, 1:00 PM PDT for San Francisco/San Pablo/Suisun Bays and the West Delta [PZ] till Sep 08, 9:00 PM PDT

**(9:44 AM) nwsbot:** MTR extends area+time of [Small Craft Advisory](#) valid at Sep 08, 1:00 PM PDT for Monterey Bay [PZ] till Sep 08, 9:00 PM PDT

**(9:44 AM) nwsbot:** MTR extends area of [Small Craft Advisory](#) valid at Sep 08, 11:00 AM PDT for Coastal Waters from Pigeon Point to Point Pinos California out to 10 nm [PZ] till Sep 09, 5:00 PM PDT

**(9:44 AM) nwsbot:** MTR extends [Small Craft Advisory](#) for Waters from Pt. Arena to Pigeon Pt. CA from 10 to 60 nm [PZ] valid at Sep 08, 5:00 PM PDT till Sep 09, 3:00 AM PDT

**(9:44 AM) nwsbot:** MTR extends [Small Craft Advisory](#) for Coastal Waters from Point Arena to Point Reyes California out to 10 nm [PZ] valid at Sep 08, 3:00 PM PDT till Sep 09, 5:00 AM PDT

**(9:44 AM) nwsbot:** MTR extends [Small Craft Advisory](#) for Waters from Pigeon Pt. to Pt. Piedras Blancas CA from 10 to 60 nm [PZ] valid at Sep 08, 1:00 PM PDT till Sep 10, 9:00 AM PDT

**(9:44 AM) nwsbot:** MTR extends [Small Craft Advisory](#) for Coastal Waters from Point Pinos to Point Piedras Blancas California out to 10 nm [PZ] valid at Sep 08, 11:00 AM PDT till Sep 10, 9:00 AM PDT

**(10:48 AM) nwsbot:** MTR continues [Beach Hazard Statement](#) for Southern Monterey Bay and Big Sur Coast [CA] till Sep 09, 5:00 PM PDT

**(10:53 AM) nwsbot:** MTR issues [Hazardous Weather Outlook \(HWO\)](#)

Chatroom Bookmarks | Chatrooms | Send

**7 people in room**

- nws-jim.andersen
- nws-kevin.quinn
- nws-logan.johnson
- nws-suzanne.sims
- nws-sven.nelaimischkies
- nwsbot
- nwslox-Smith

# NWSChat

<https://nwschat.weather.gov/live/>



# Local Weather Ready Nation Initiatives



NOAA – National Weather Service  
San Francisco Bay Area – Monterey, CA  
831.656.1717 [www.weather.gov/sanfrancisco](http://www.weather.gov/sanfrancisco)

## Overview

Moisture and energy in the upper levels of the atmosphere will continue to move across the San Francisco Bay area. Isolated to Scattered Thunderstorms are expected across the area with the potential for lightning strikes as well as measurable amounts of rainfall this afternoon and tonight. Enhanced fire danger from dry conditions and lightning strikes will be greatest over the north and east Bay regions.

## TIMING

- Increasing thunderstorm chances this afternoon, with greatest chances over the SF Bay and north/east bay locations from 5 PM through tonight.

## LOCATIONS

- Thunderstorms possible across the entire area through late afternoon, then focus shifting to SF Bay and north/east Bay locations for late afternoon into tonight.

## IMPACTS

### \*Hazards:

- *Red Flag Warning in effect from 5 PM this afternoon through 11 PM this evening for the north and east bay. View the latest text on our website [www.weather.gov/Sanfrancisco](http://www.weather.gov/Sanfrancisco)*

### \*Impact 1 (Lightning Strikes) :

- *Isolated to Scattered thunderstorms can produce numerous cloud to ground lightning strikes. This will be capable of local fire starts and will be hazardous to those engaged in outdoor activities.*

### \*Impact 2 (Critical Fire Weather Conditions):

- *Dry weather, low relative humidity, and gusty thunderstorm winds will create critical fire weather conditions. Wildfires could be started by cloud to ground lightning and develop quickly given critical conditions.*

### \*Impact 3 (Gusty Thunderstorm Winds):

- *Wind gusts to 40 mph will accompany thunderstorms. Winds this strong can produce minor*

## High Impact Weather Briefing Emails Are you on the list?

- Fire
- Law Enforcement
- Public Works
- OES
- Red Cross
- Public Health
- Agriculture
- Water Resources
- Anyone who makes decisions that are impacted by weather



# Mobile NWS Site



Verizon 3G 7:19 AM 95%

 National Weather Service

Del Rey Oaks CA

### Current Conditions

Monterey, Monterey Peninsula Airport  
Lat: 36.59056 N Lon: -121.84750 W Elev: 253 ft  
Last Updated: 07 Nov 6:54 am PST

 <b>Overcast</b> 53°F	<b>Wind Speed</b> E 3 MPH 
---	---

Navigation icons: back, forward, refresh, home, multitasking

Mobile.weather.gov



# Local Weather Ready Nation Initiatives



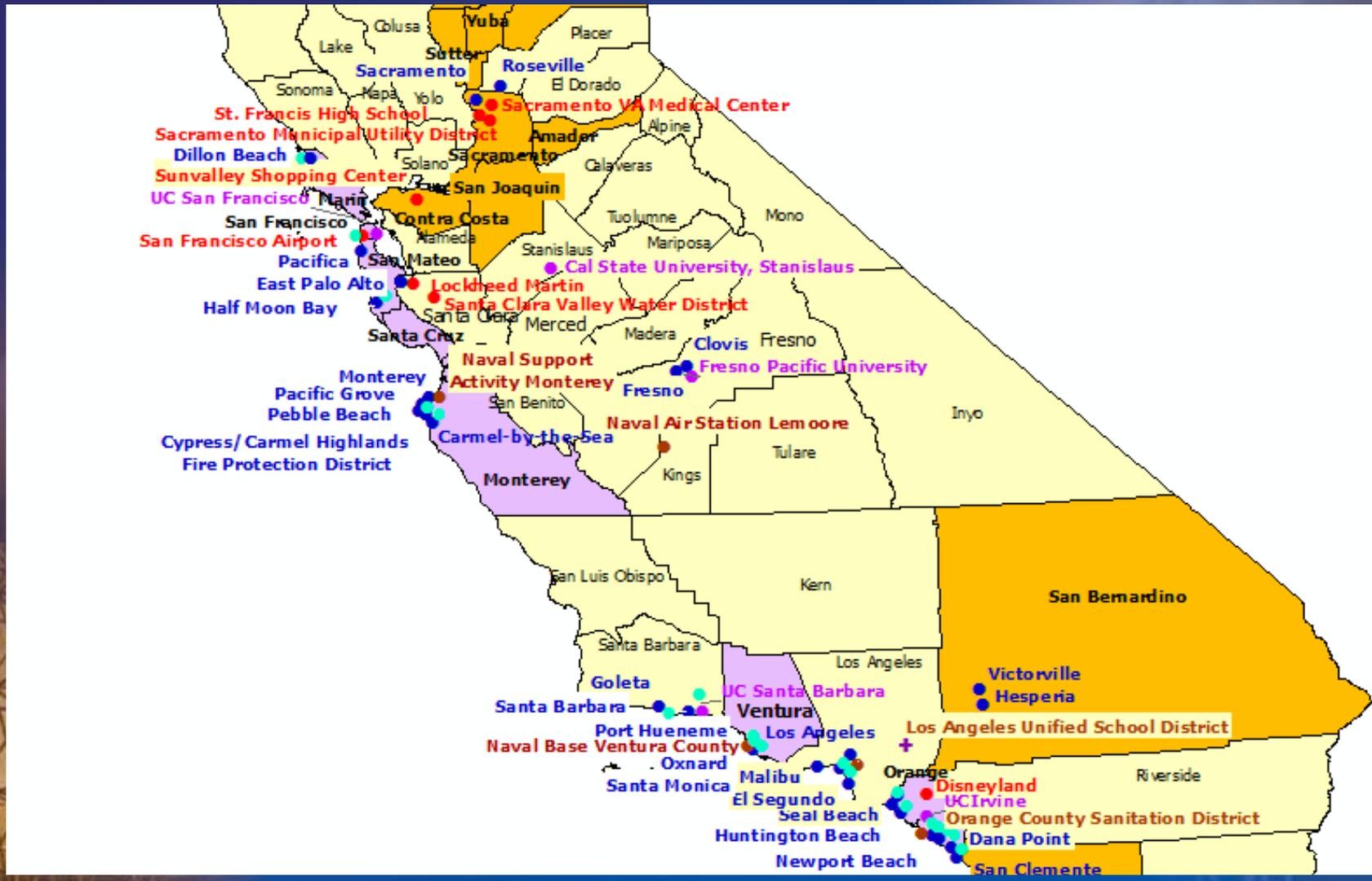
Storm/Tsunami Ready  
Programs

[www.stormready.noaa.gov](http://www.stormready.noaa.gov)

Program that allows communities/counties to work closely with the National Weather Service to strengthen their local emergency management, response, and communication plans as it relates to weather related hazards.



# Local Weather Ready Nation Initiatives





# Decision Support Year in Review

## NWS SF Bay Area



<b>Date</b>	<b>Event</b>	<b>Partnership</b>
September 2012	Salinas Airshow	Salinas FD
October 2012 (onsite)	Urban Shield	Multiple
October 2012 (onsite)	America's Cup/Fleet Week	SFPD, USCG
October 2012	San Martin PGA	CalFire
November 2012	Daly City Mudslide Recovery	City of Daly City
January 2013	E Palo Alto Flood Recovery	City of E Palo Alto
April 2013	Big Sur Marathon	CalFire
May 2013	Amgen Tour of California	San Ramon Valley Fire
May 2013	Wildflower Triathlon	Monterey County Parks
May 2013 (onsite)	Golden Guardian	Monterey County OES
June 2013	Hollister Motorcycle Rally	San Benito County OES
June 2013	NASCAR Race	Sonoma County OES/Fire
July 2013	Fourth of July Events	Santa Cruz/Sonoma County OES
July 2013	SFO Aircraft Crash	SFO Emergency Operations
October 2013	Urban Shield	Multiple



# 2012-13 a big year for NWS Onsite Decision Support



NWS Boston – Boston Marathon and the bombing  
April 2013



NWS New Orleans – The Super Bowl

NWS Charleston, WV – National Boy Scout Jamboree

NWS Atlanta – Labor Day NASCAR Races

NWS Indianapolis – Indianapolis 500 Race

NWS Tampa – Sun 'n Fun Airshow



# What Can the NWS do for you?



- Support emergency operations
  - Support planning
  - Support event public safety response
- 
- Email briefings
  - Phone briefings and conferences
  - On-site DSS in an EOC/DOC
  - Spot forecasts



# Your NWS Contact:

Warning Coordination Meteorologist

Logan Johnson

[logan.johnson@noaa.gov](mailto:logan.johnson@noaa.gov)

(831) 656-1710 x223