

2015 El Niño Briefing

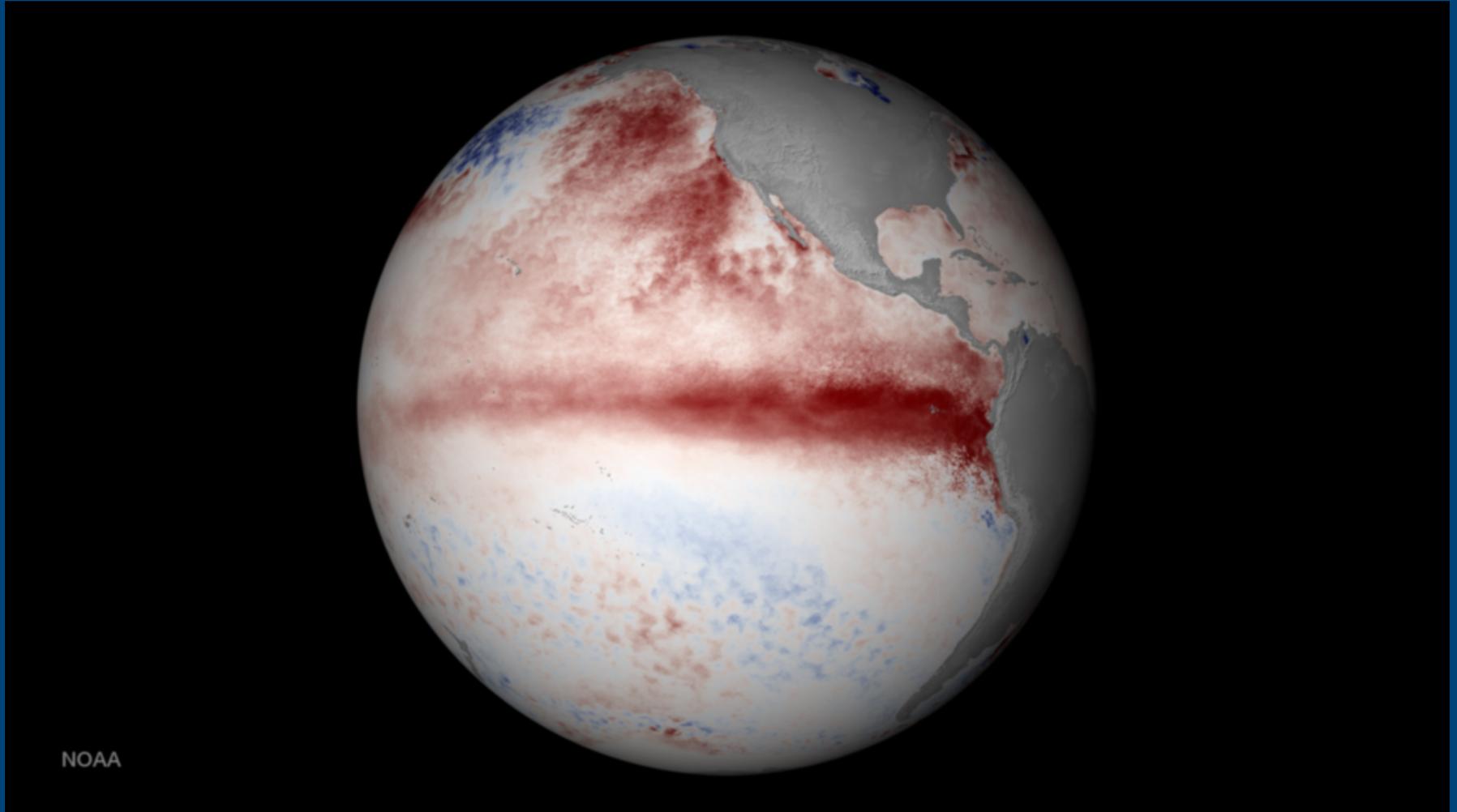
Bay Conservation and Development Commission

**Becky Smyth, West Coast Director
NOAA Office of Coastal Management
November 5, 2015**



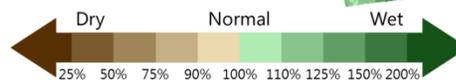
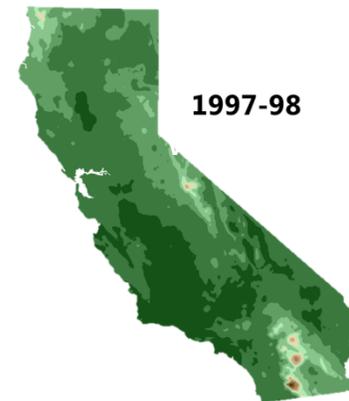
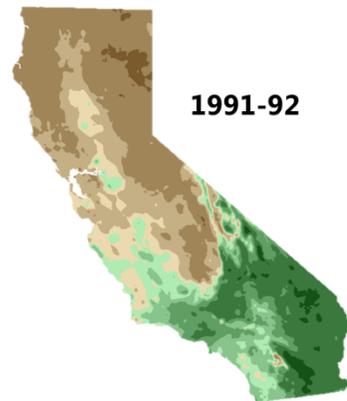
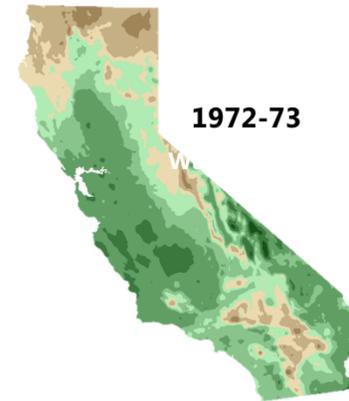
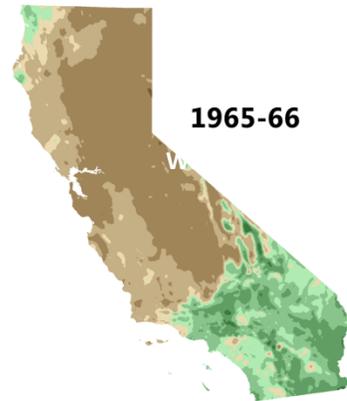
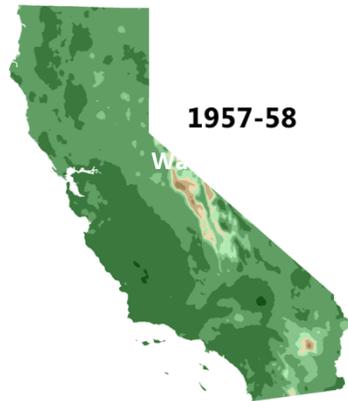
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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

El Niño is here!



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What Past El Niño's have done

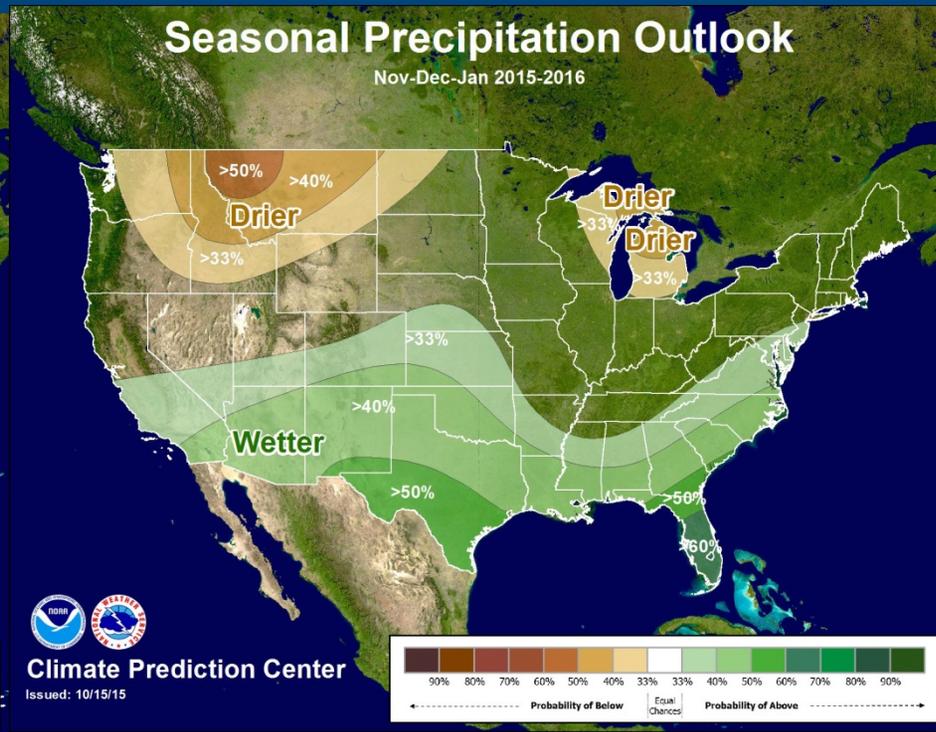
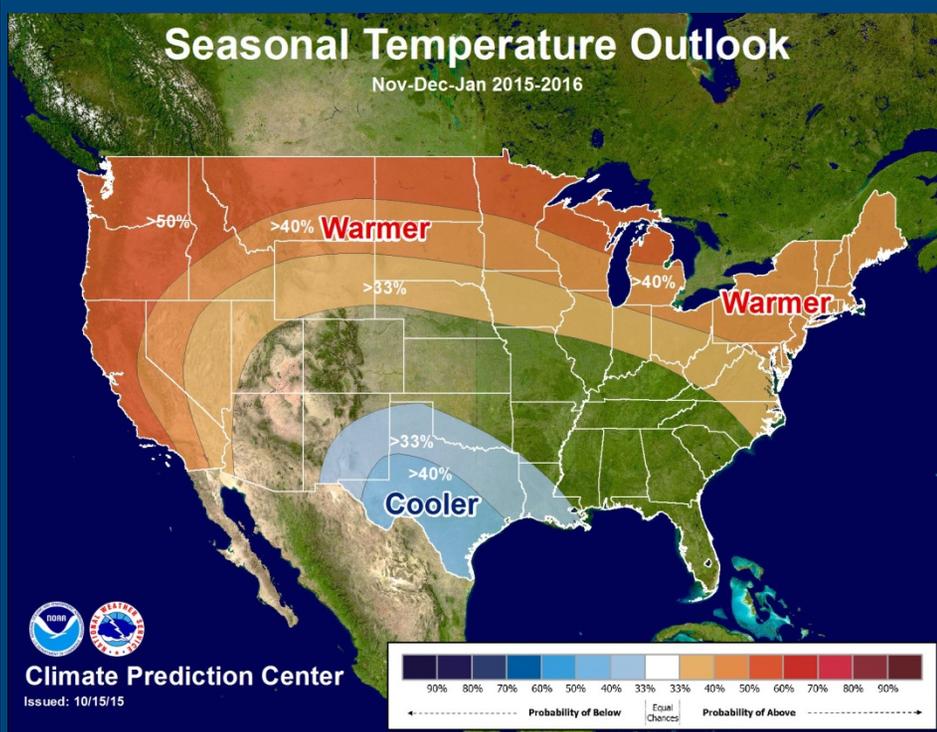


PRISM, Oregon State University



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NOAA 3 Month Outlooks Nov/Dec/Jan



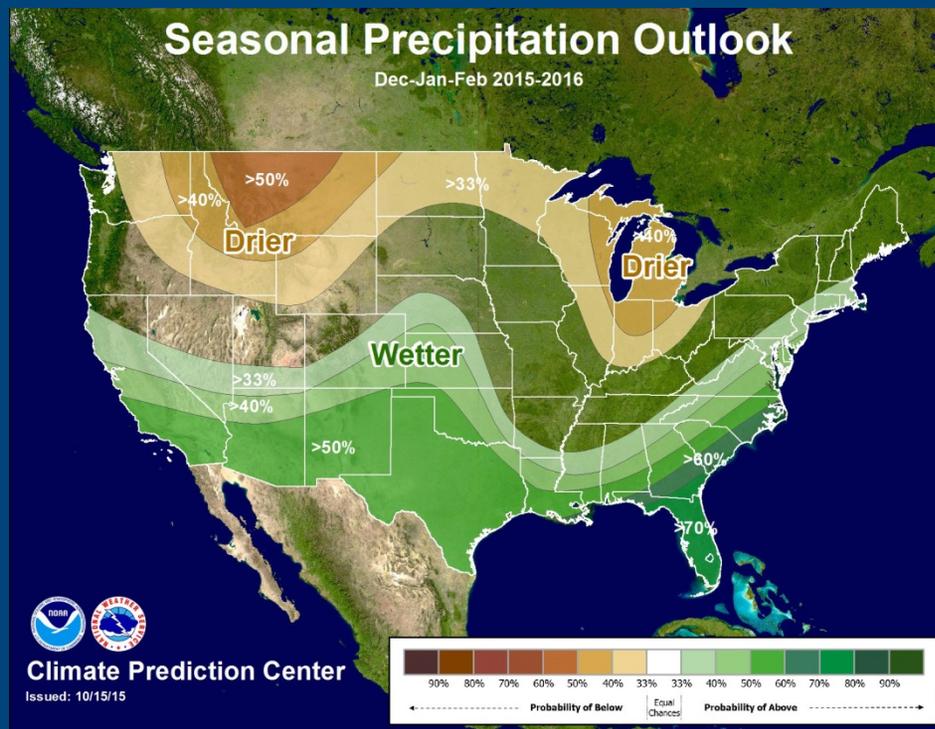
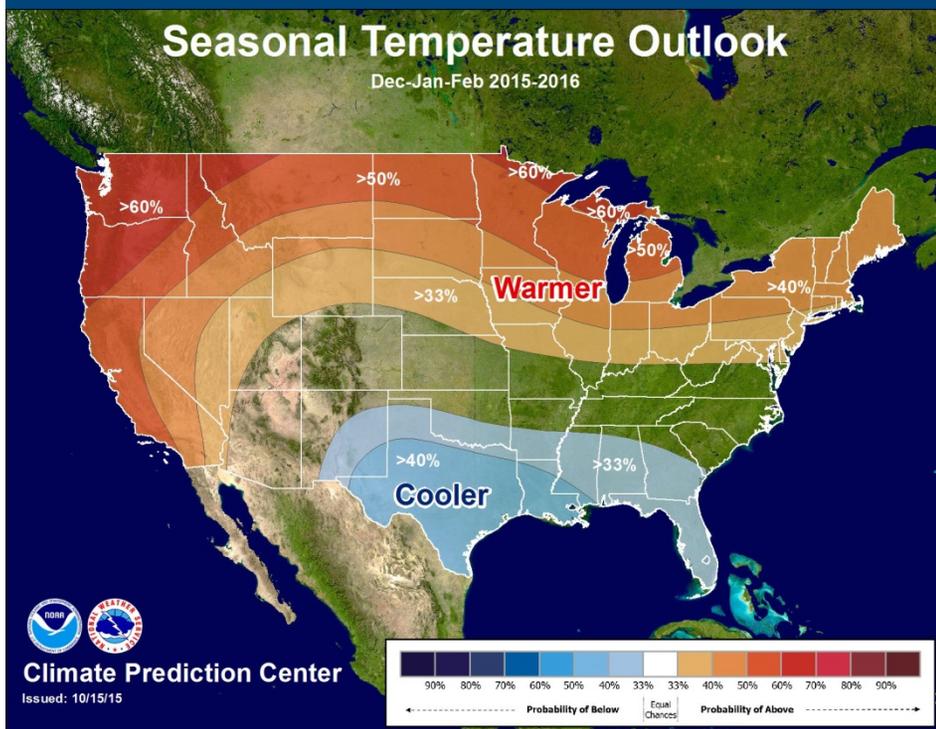
Unshaded areas = Equal Chances, No Strong Indicators

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NOAA 3 Month Outlooks Dec/Jan/Feb



Unshaded areas = Equal Chances, No Strong Indicators

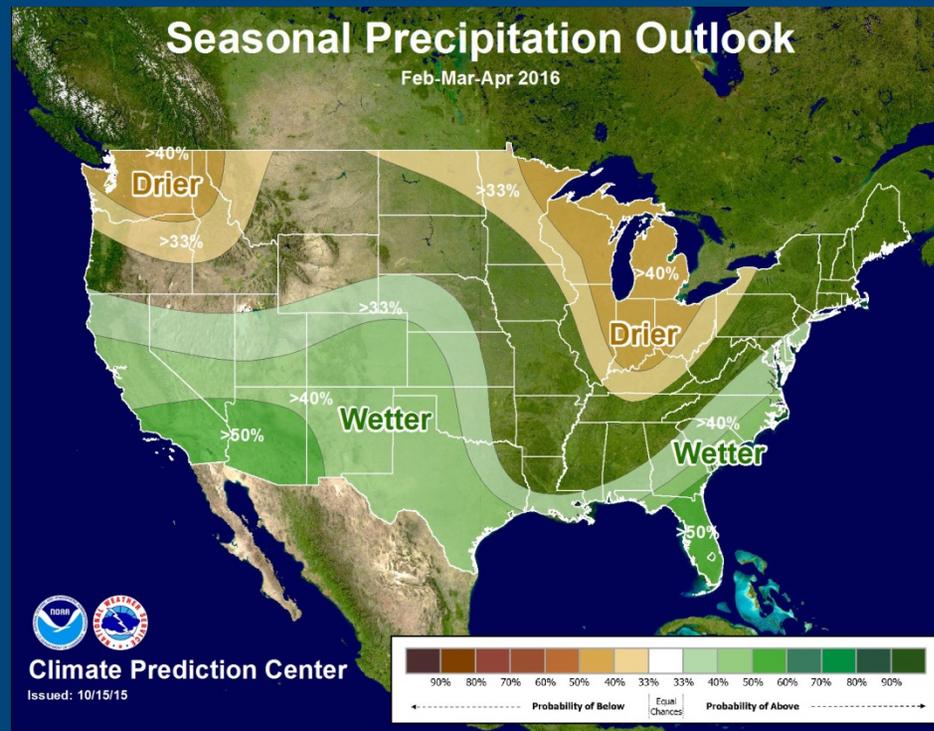
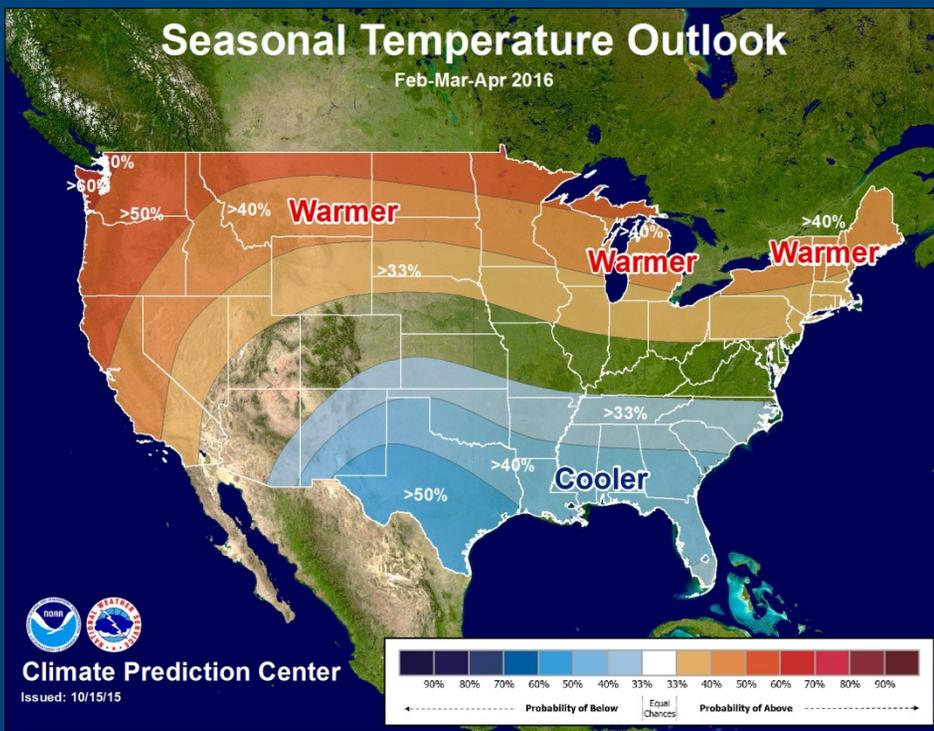
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NOAA 3 Month Outlooks

Feb/Mar/Apr



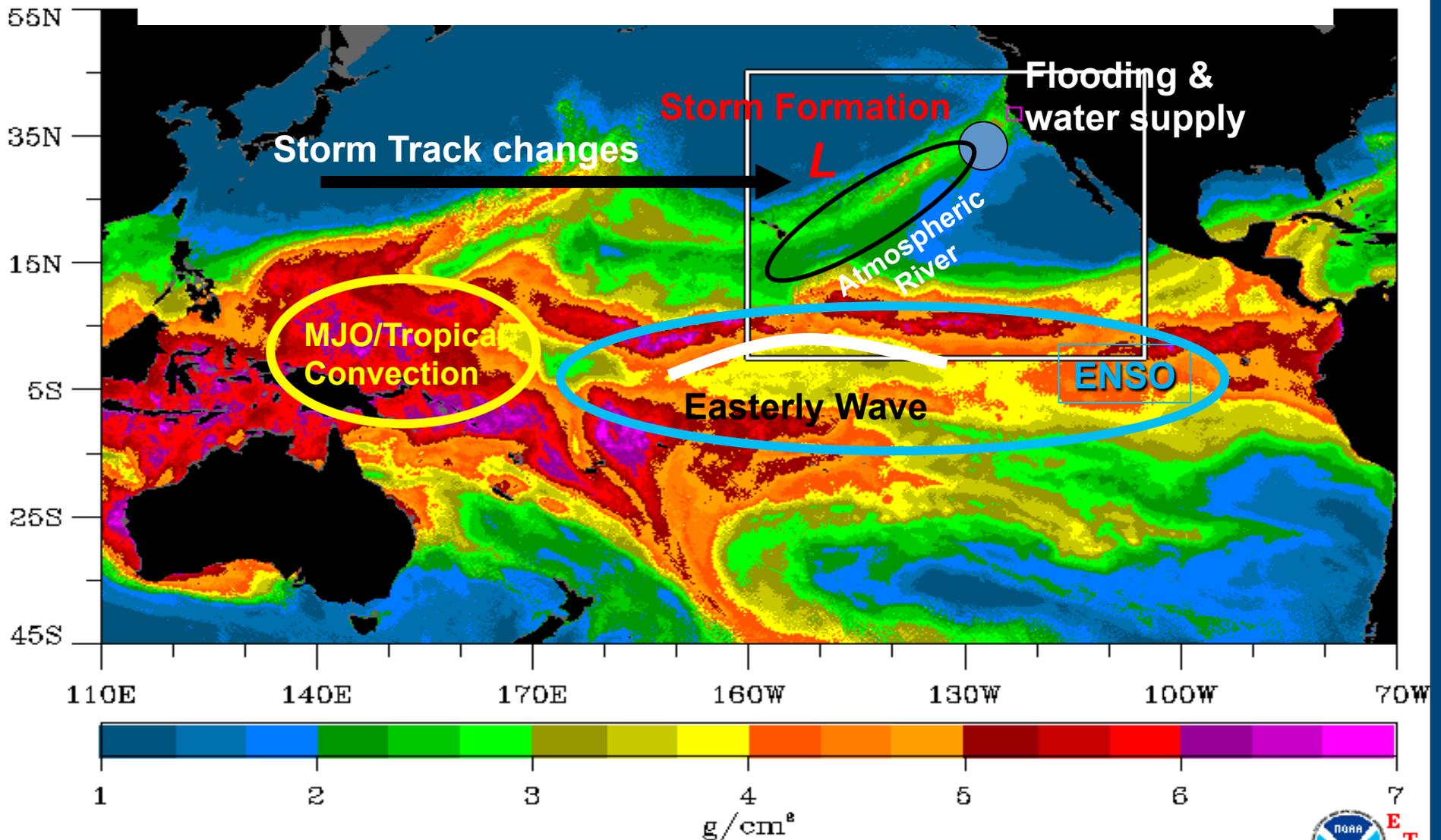
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Atmospheric River and Water Supply



**But what does this all mean for
flooding and coastal impacts?**



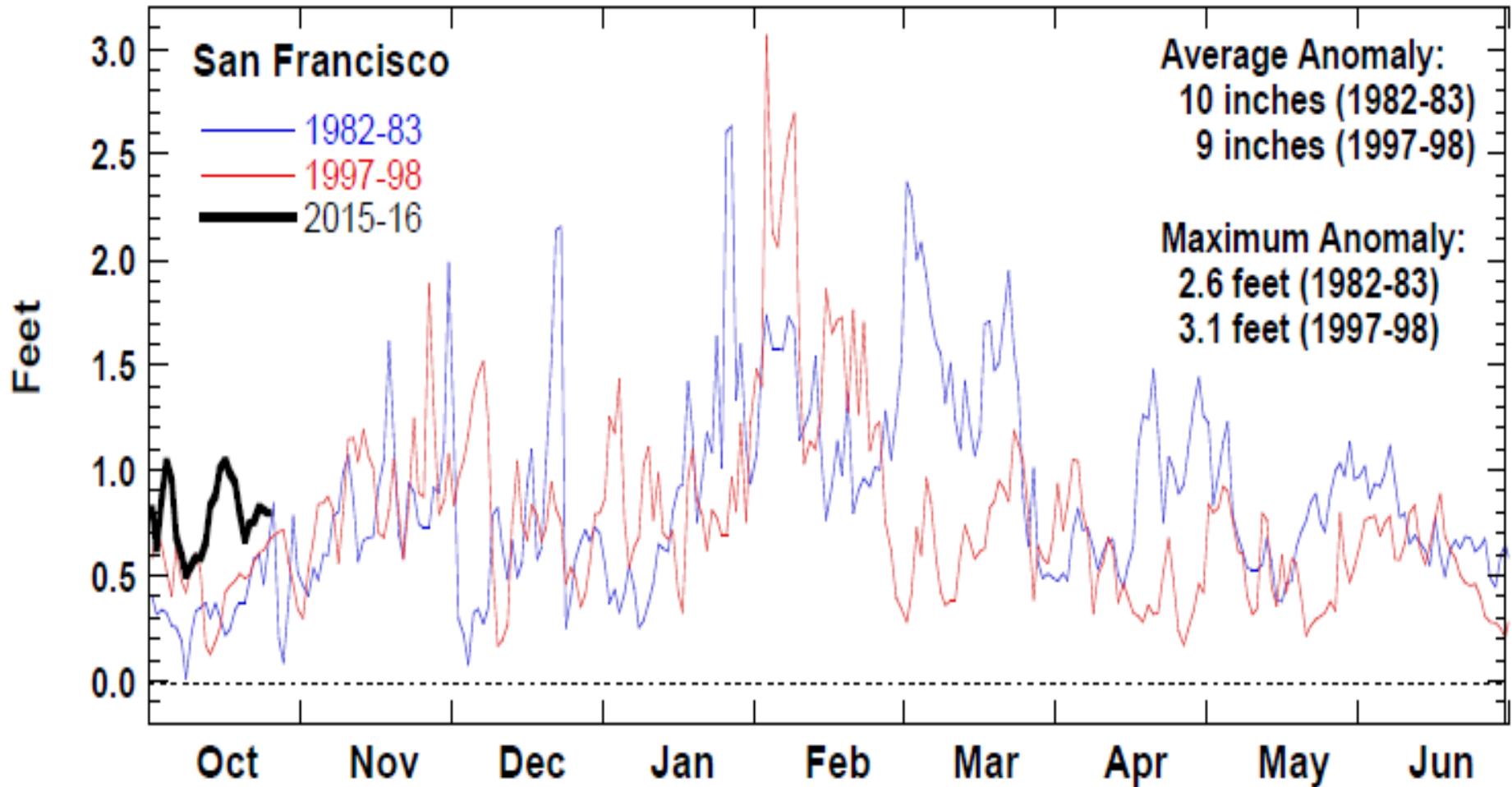
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COMMUNITIES IN THE U.S. THAT MAY SEE AN INCREASE IN NUISANCE FLOODING IN 2015 ABOVE TRENDS DUE TO EL NIÑO.

STATION NAME	2014 FLOOD DAYS		OUTLOOK: 2015 FLOOD DAYS		
	EXPECTED FROM TREND	OBSERVED	EXPECTED FROM TREND	WITH EL NIÑO	% INCREASE ABOVE 2015 TRENDS WITH EL NIÑO
Montauk, NY	3	0	3	6	100%
Sandy Hook, NJ*	26	21	27	40	48%
Atlantic City, NJ	26	21	27	36	33%
Lewes, DE*	23	22	24	41	71%
Baltimore, MD	14	14	15	22	47%
Washington, DC*	31	33	32	53	66%
Norfolk, VA*	8	8	8	18	125%
Wilmington, NC	41	71	43	62	44%
La Jolla, CA	6	7	6	10	67%
San Francisco, CA	11	11	12	21	75%

**Cities that may experience the highest number of nuisance flood days on record. For the full chart of all 27 stations, please see the full report.*

Maximum Daily Anomalous Water Levels



Sam Iacobellis, RISA Program, Scripps Institution of Oceanography, using NOAA tide gauge data.



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San Francisco - November 2015 Dates for Extreme Tides Assuming 1 ft Anomaly due to El Nino and Warm Ocean

Mon	Tues	Weds	Thurs	Fri	Sat	Sun
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29



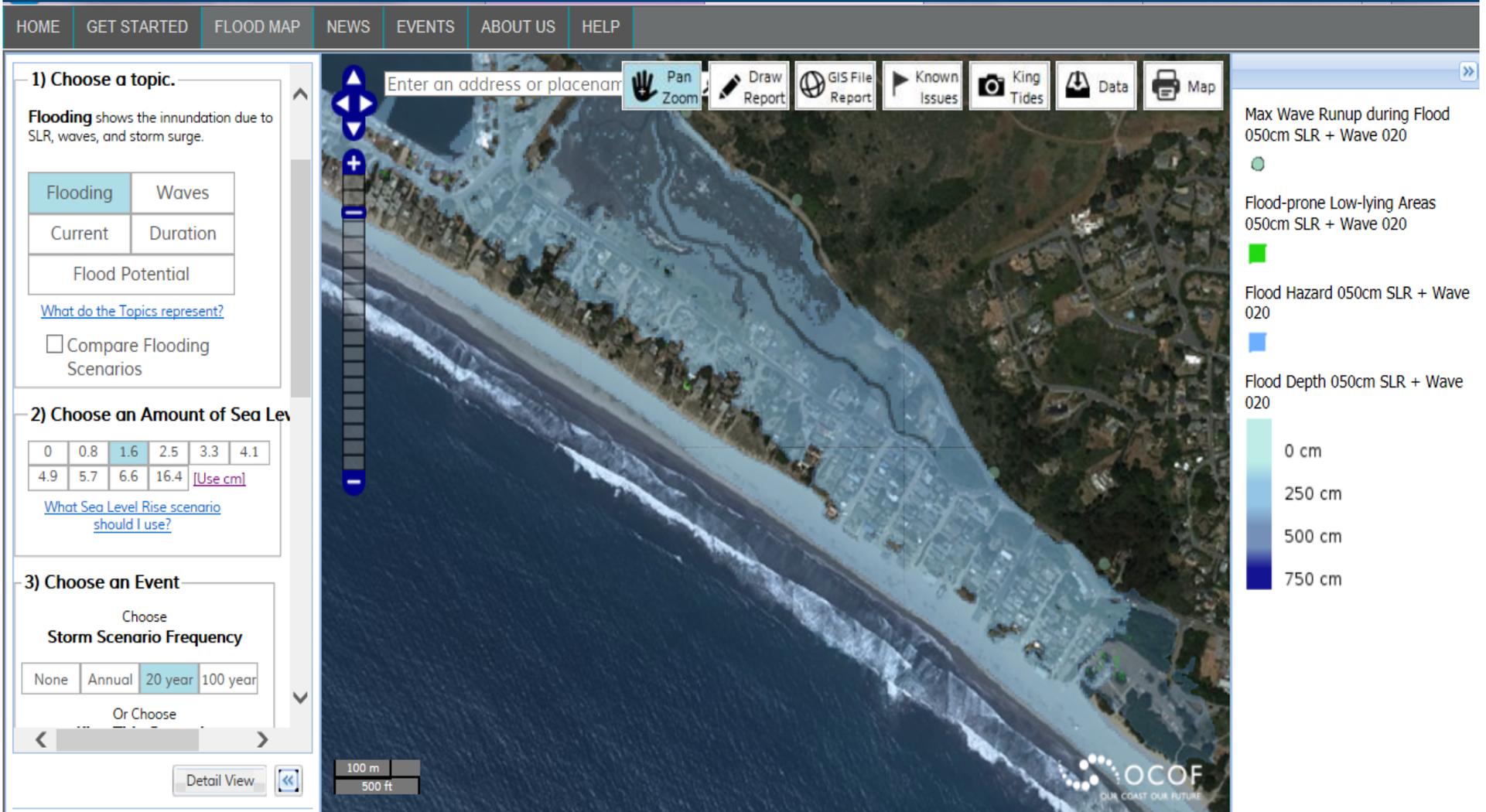
San Francisco – December 2015 Dates for Extreme Tides Assuming 1 ft Anomaly due to El Nino and Warm Ocean

Mon	Tues	Weds	Thurs	Fri	Sat	Sun
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			



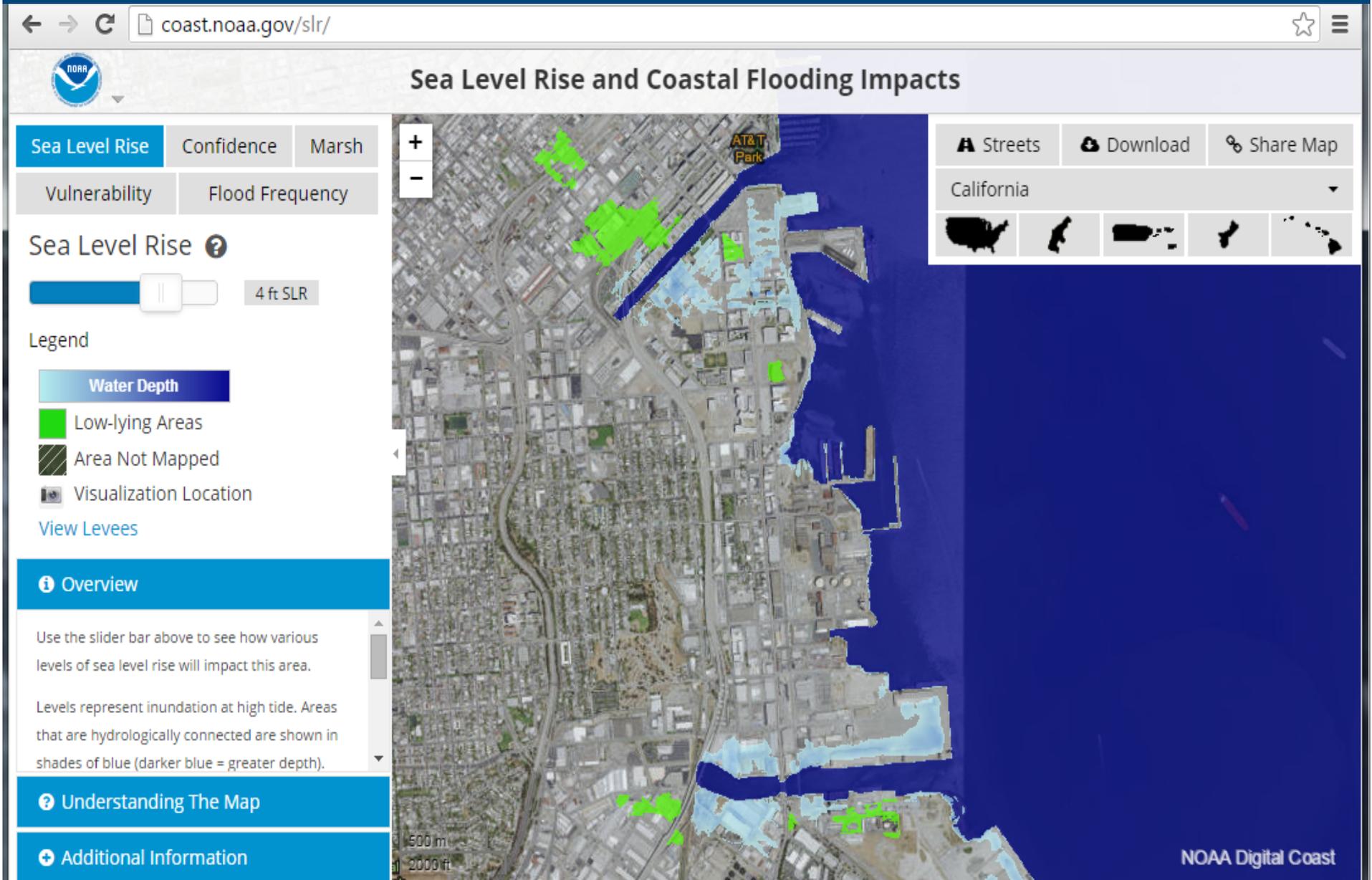
Stinson Beach

1.6 ft above MHHW plus 20 year storm PRBO and USGS Our Coast Our Future /Coastal Storms Modeling



San Francisco

NOAA Sea Level Rise Viewer – El Nino, King tide and storm



Resources and References:

<http://storms.ca.gov/>

<http://www.elnino.noaa.gov/>



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