

California rice: 2015

Cass Mutters
UC Cooperative Extension
2016 Rice Growers'
Meetings



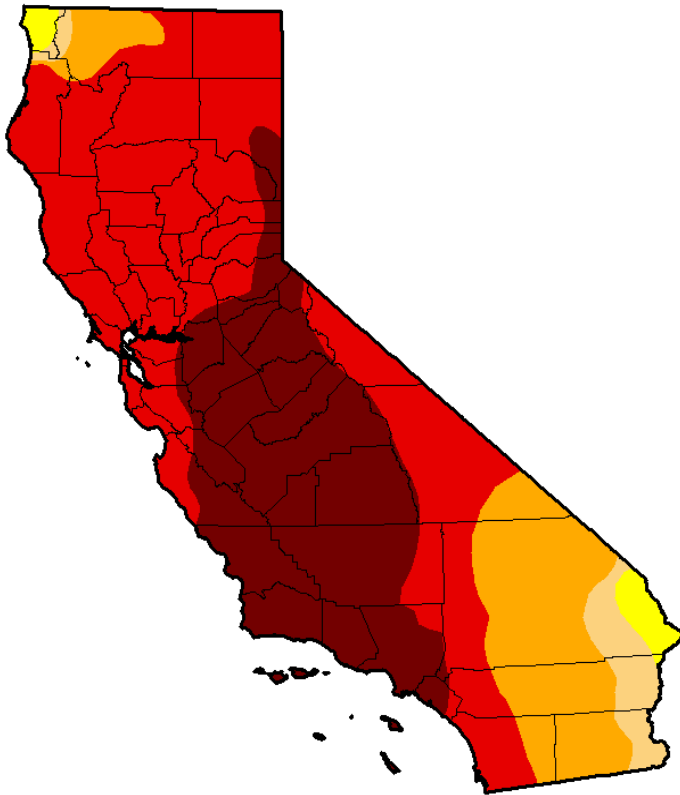
Drought Conditions: not much change

Intensity:

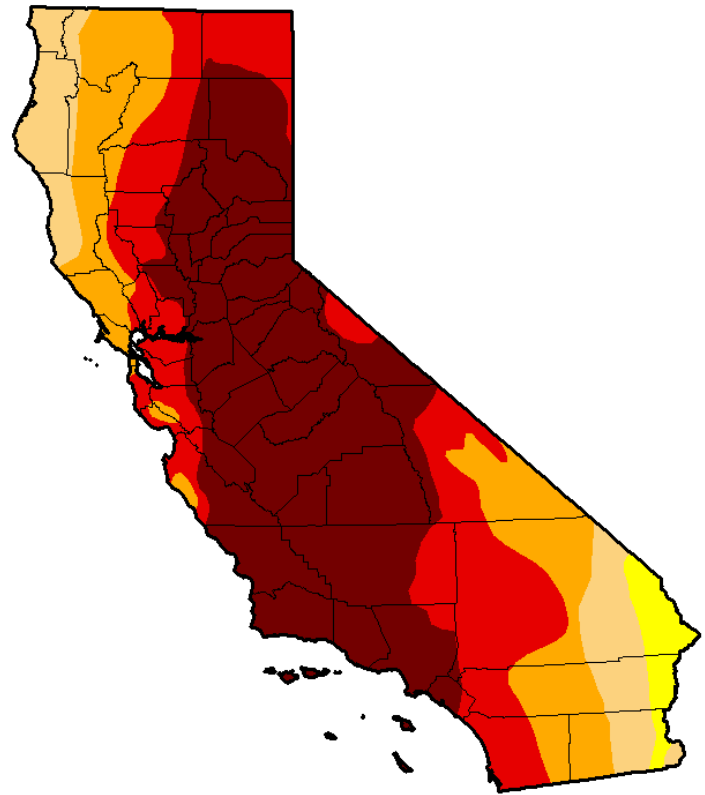
D0 - Abnormally Dry
D1 - Moderate Drought
D2 - Severe Drought

D3 - Extreme Drought
D4 - Exceptional Drought

January 6, 2015



January 5, 2016



Driest Years in California

STATEWIDE	
YEAR	PRECIPITATION (IN)
1924	9.23
1977	11.81
2014	12.08
2015	13.21
1898	13.35
1920	13.43

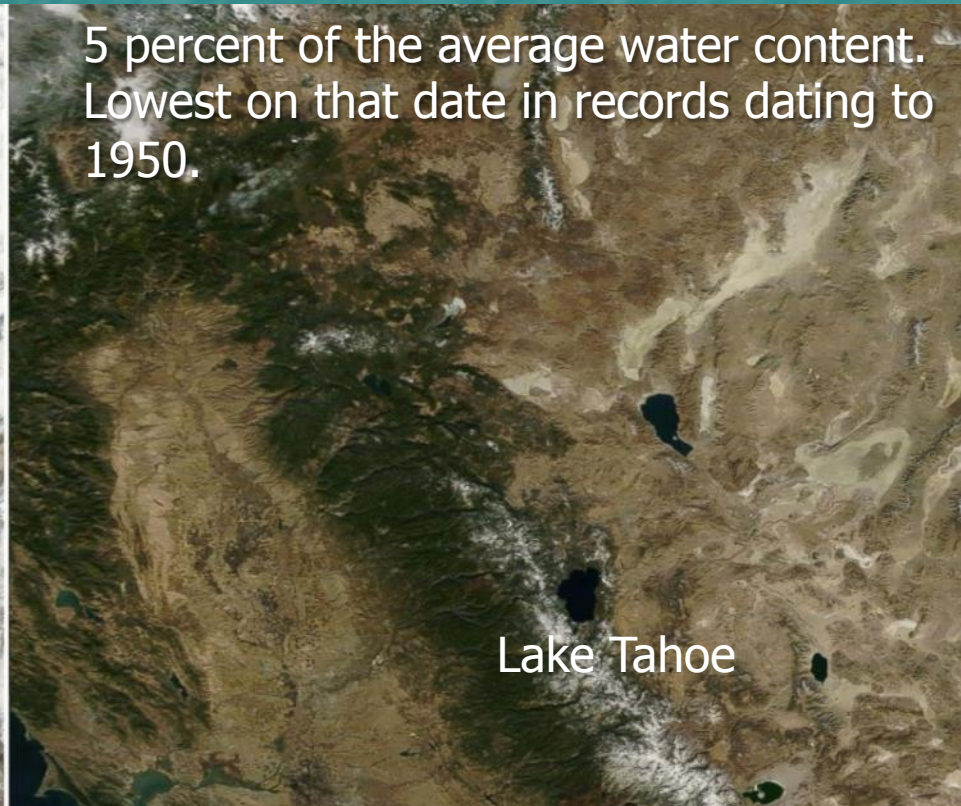
Snow pack: April 1

2013



2015

5 percent of the average water content.
Lowest on that date in records dating to
1950.



The winter average minimum temperature for the Sierra Nevada region was 32.1 degrees Fahrenheit.

25% mandatory water use reduction

USBR Central Valley Project record low deliveries: zero project water to south-of-Delta agricultural contractors

SWP provided only 20 percent of its urban and agricultural contractors' requested amounts.



Water Transfers: 2015

GCID growers idled a total of 17,727 acres of cropland

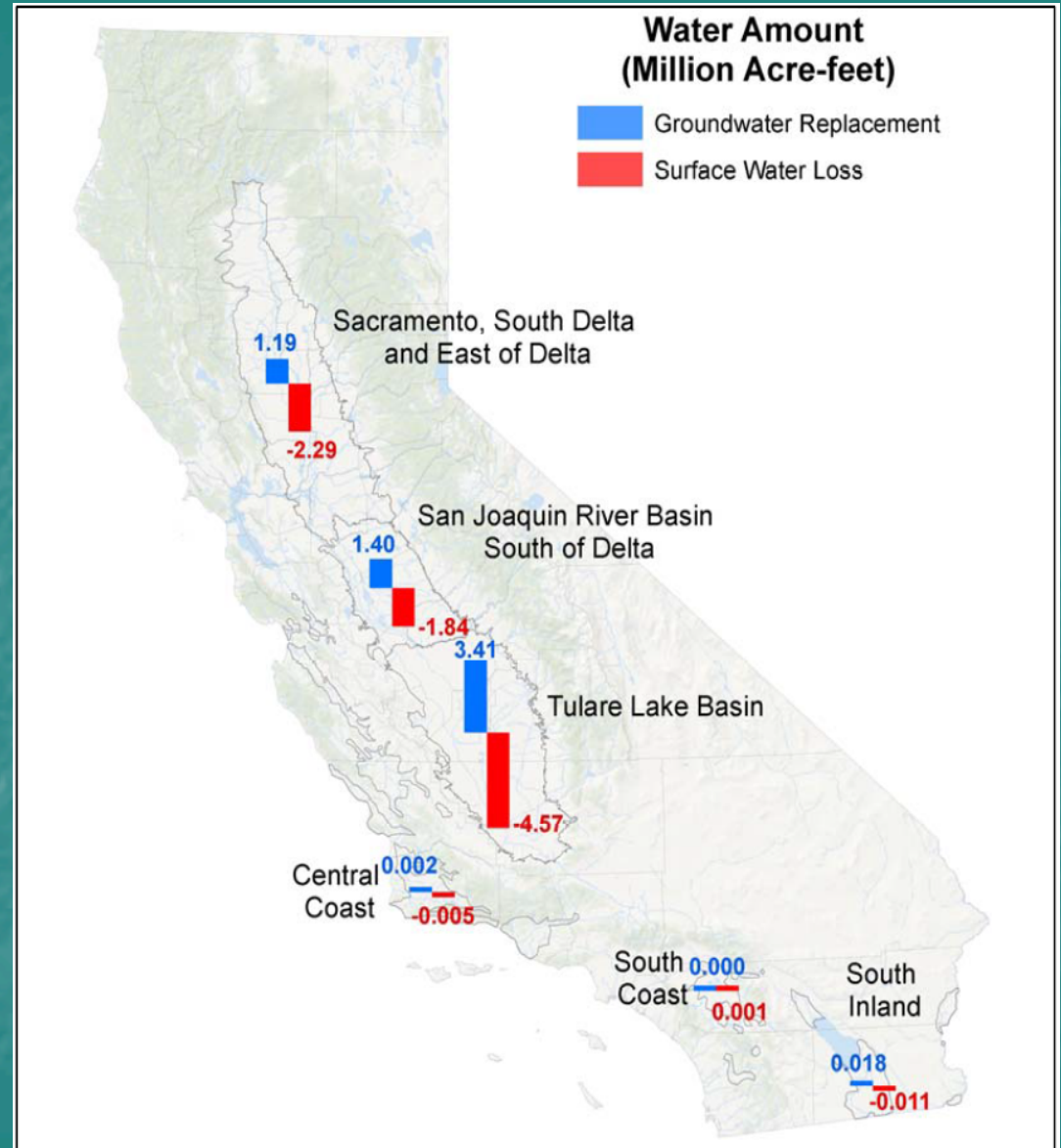
Transferred: 58,019 acre-feet of water
Tehama-Colusa Canal Authority (3,375 AF)
San Luis & Delta Mendota Water Authority (54,644 AF).

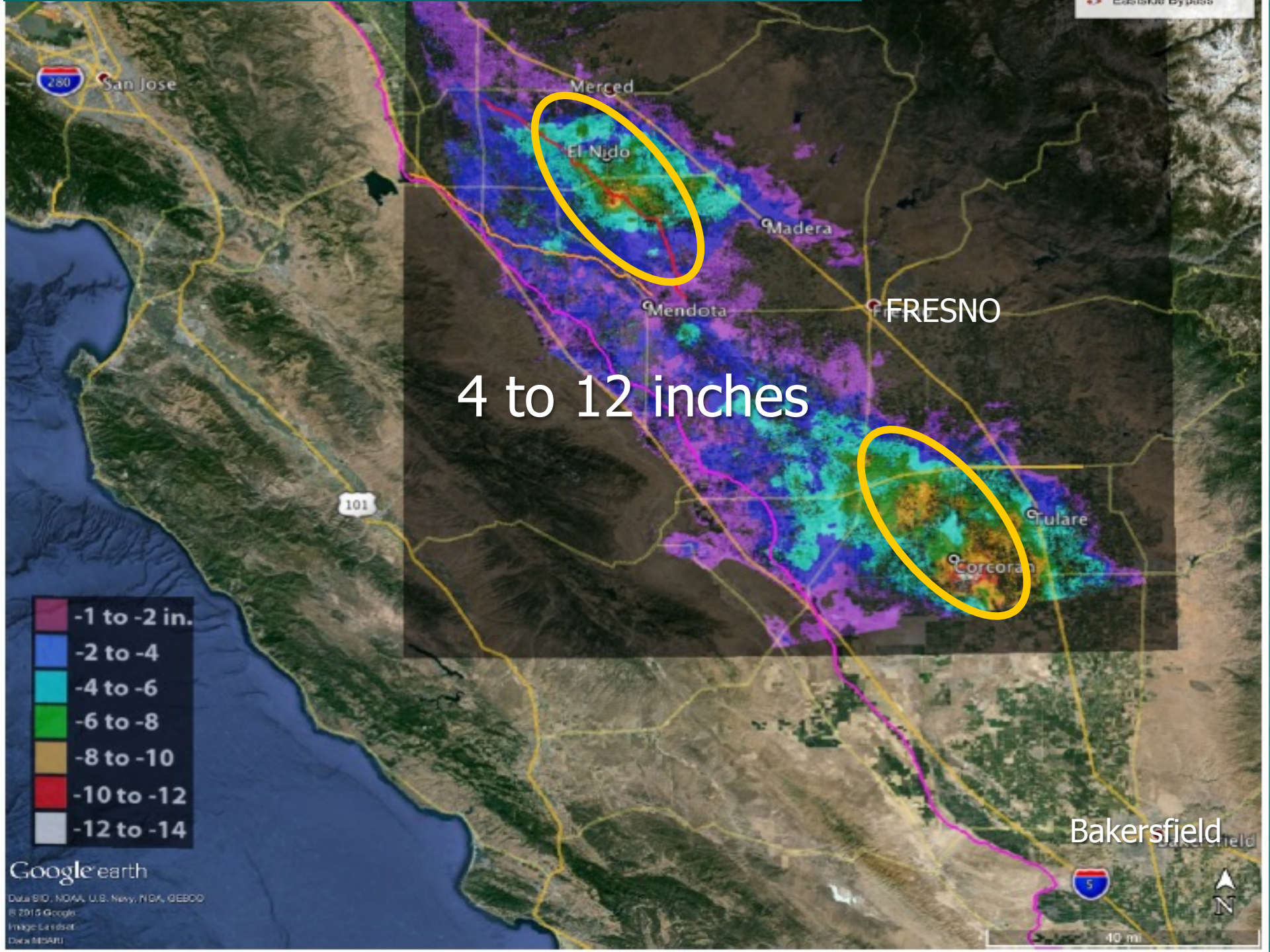
Rice	17,118.36
Sudan	366.48
Corn	57.49
Alfalfa	36.2
Vine Seed	17.90
Tomato	130.50

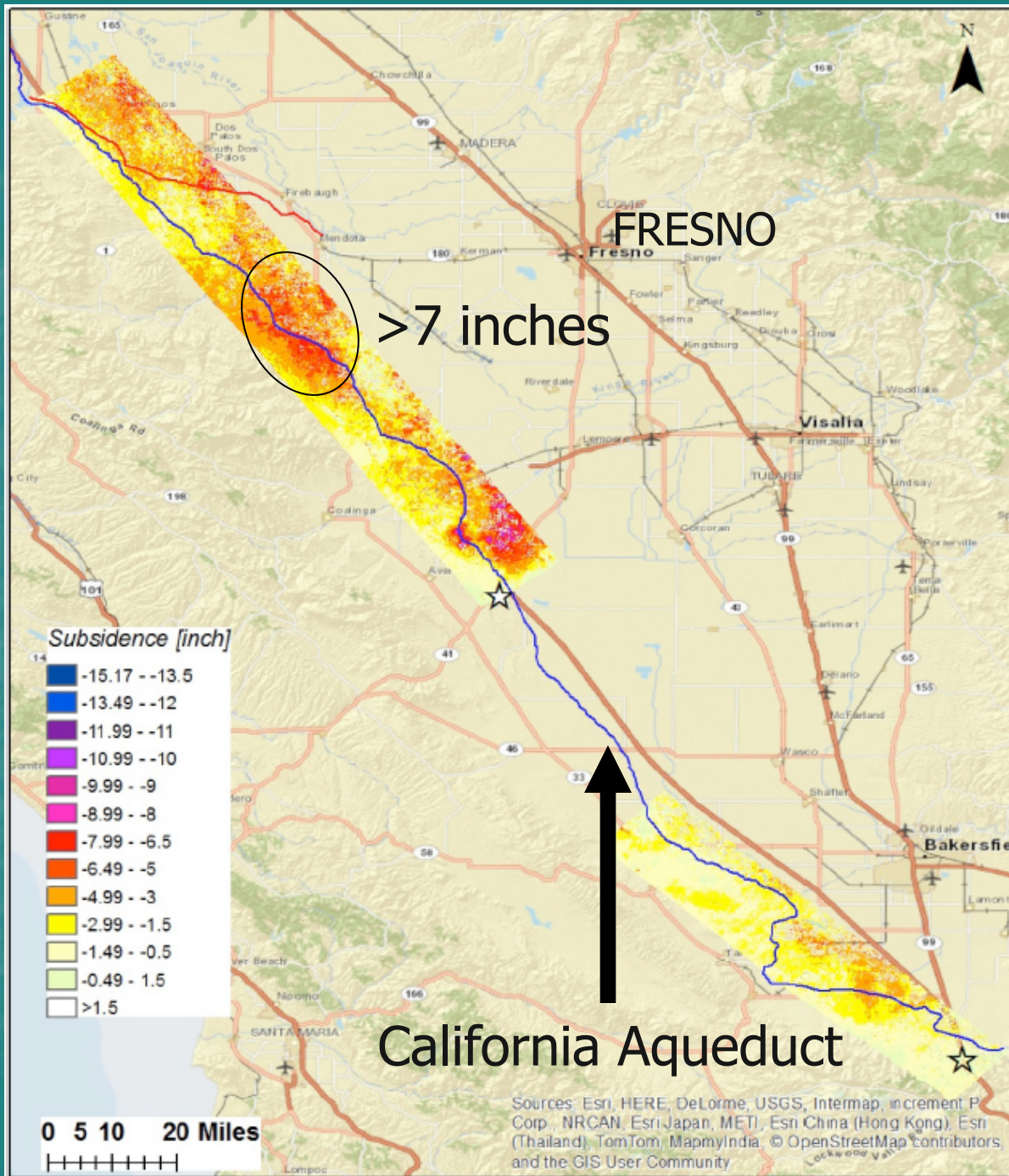
9,005 AF of water to the Tehama-Colusa Canal Authority through a groundwater substitution program.

Greater ground water pumping

- 8.7 million AF shortage
- 6 million AF from ground water (70% of shortage)
- 540,000 fallowed acres

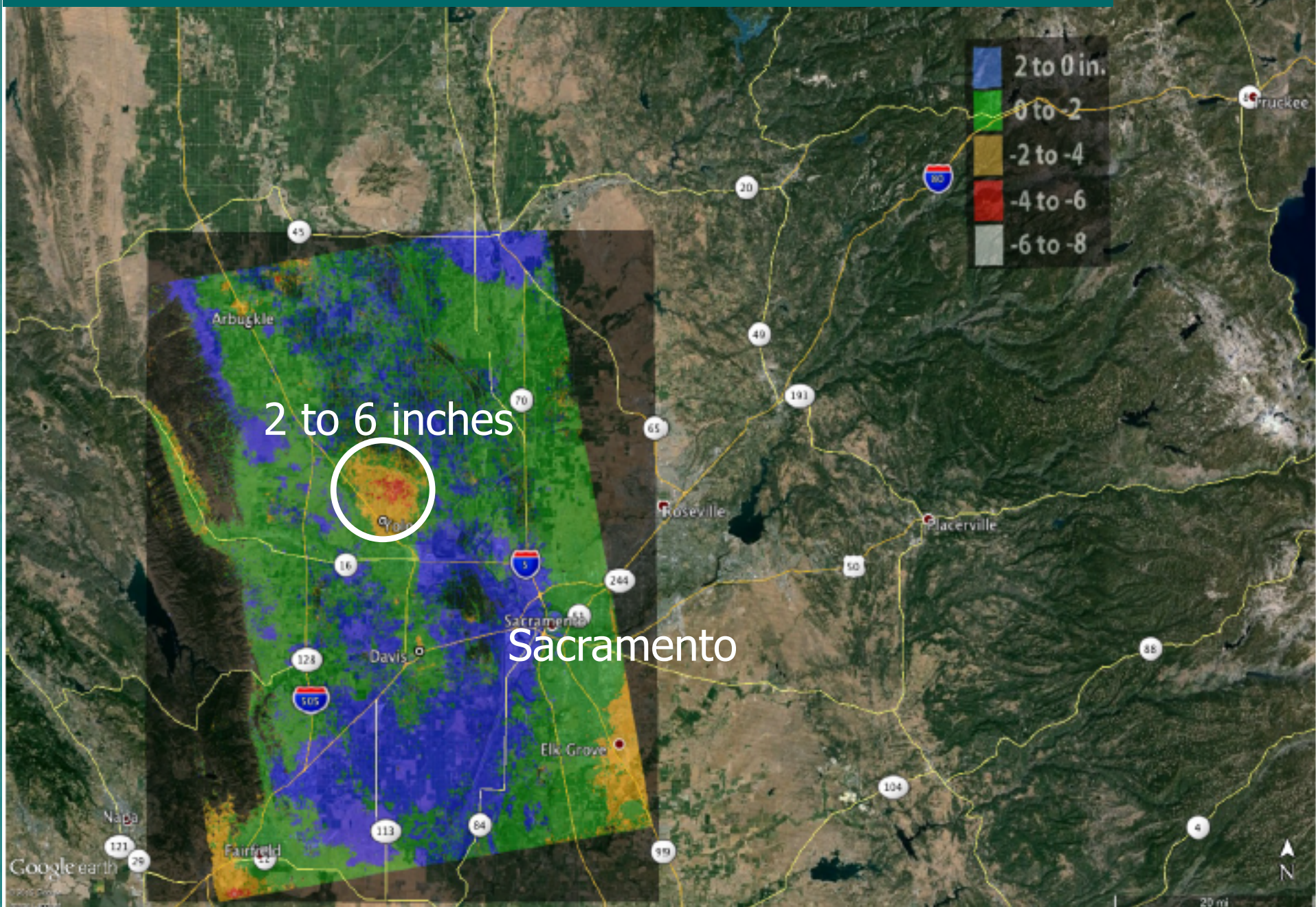


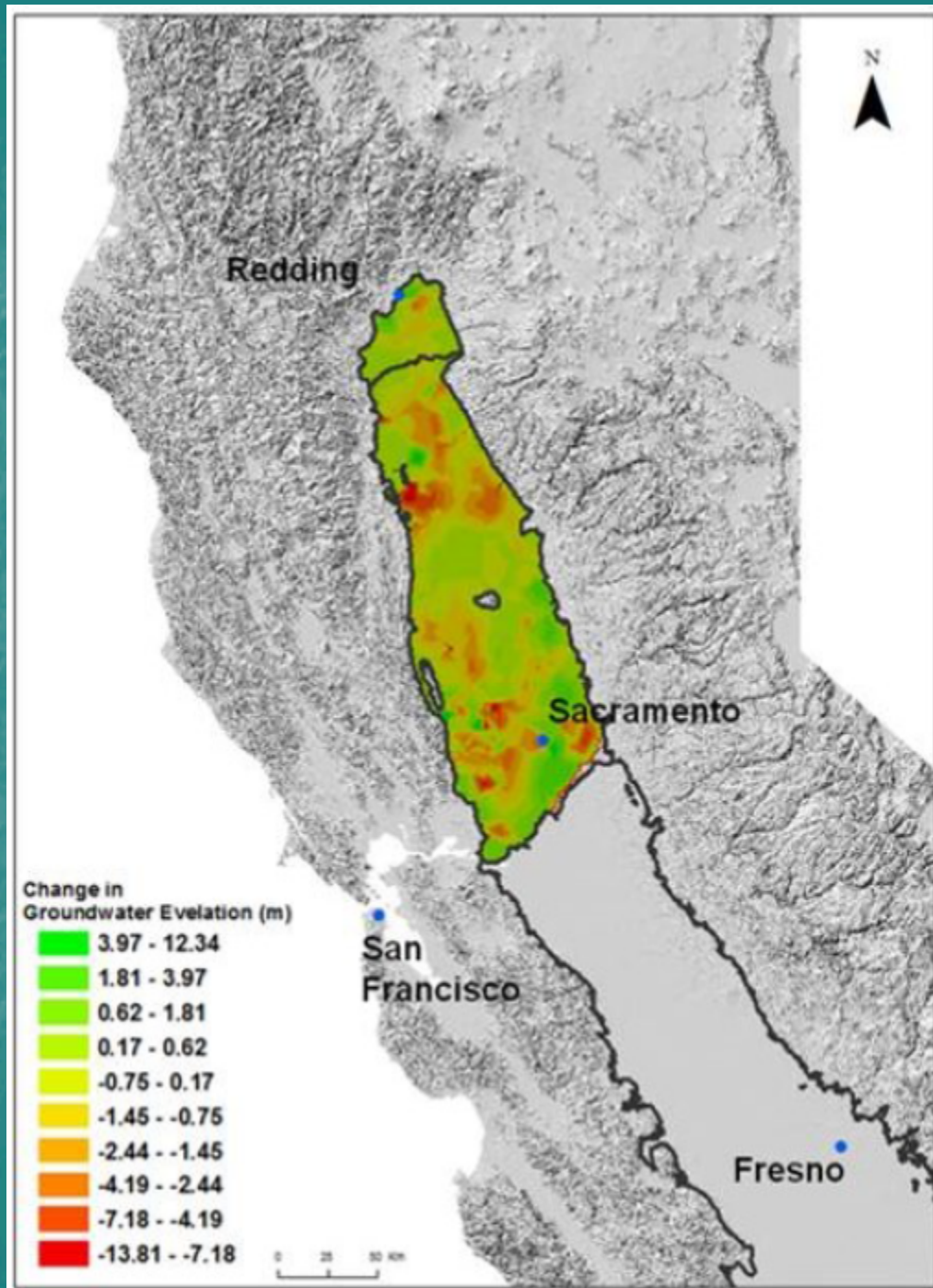




Ground subsidence
is threatening water
distribution
infrastructure

Isolated subsidence in Sacramento Valley





Ground water levels
dropped in
Sacramento Valley

Up to 13 feet
in some areas

California's Rice Century

There have been highs and lows, but the overall trend is up



Source: U.S. Department of Agriculture

2015 Summary

1. Dry spring; early planting
2. Planted acreage dominated by medium grain
 - M205, M206, M105
3. Water allotments: 50 to 75% depending on district
4. Water management directives
 - No spillage from field; boxes sealed
 - Water delivery terminated 7 – 14 days prior to drain
5. Minimal disease pressure
6. Substantial army worm pressure in north valley

Degree Day Accumulation

2012 – 2015 Growing Seasons

	2015	2014	2013	2012
May	328	436	364	350
June	609	544	541	460
July	637	655	647	570
Aug	567	588	549	604
Sept	481	492	443	490
Total	2622	2715	2544	2474

California Production: 2013 -2105

Year	Acres (X 1000)	Ave yield lb/acre	Total production (million cwt)
2013	560	8400	46.7
2014	428	8500	36.4
2015	423	8890	37.4

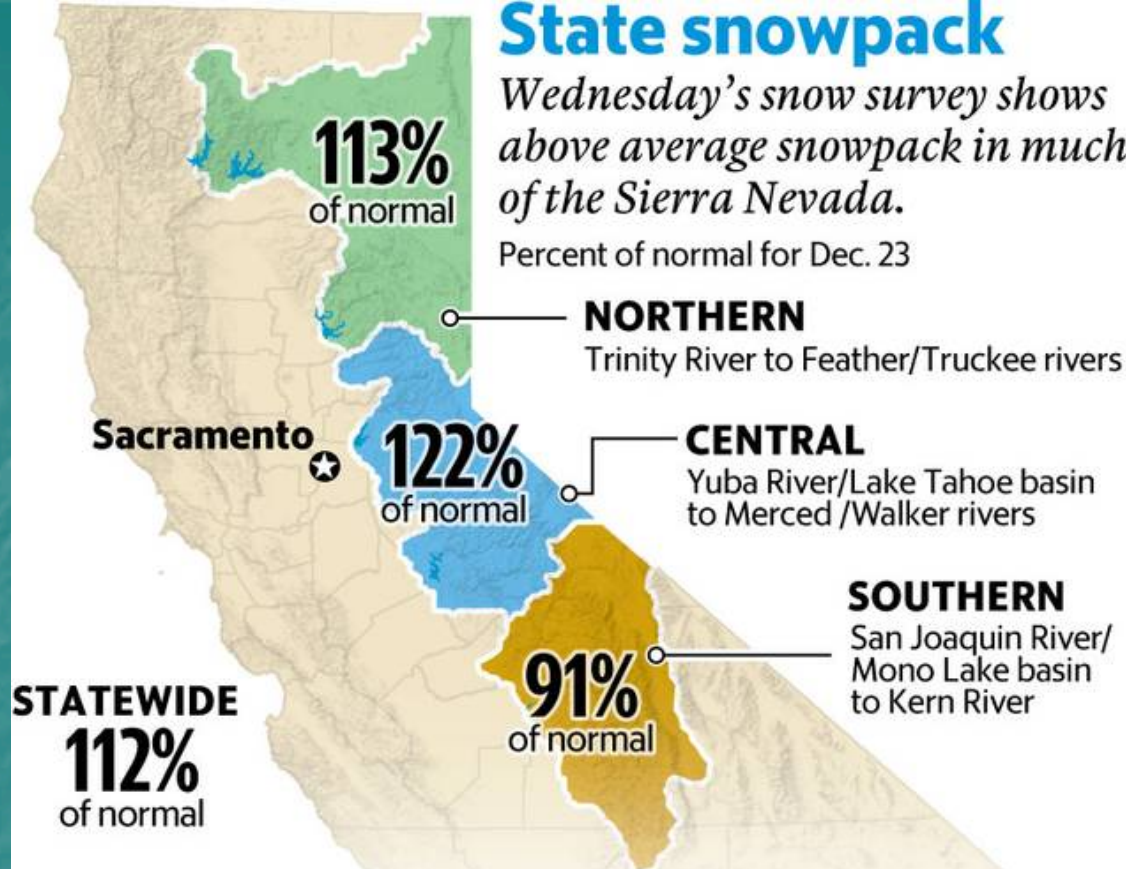
Looking Forward— 2016 crop

- Further reduction in planted acres unlikely
- Water rights and/or settlement contracts agreements strong
- Expansion of planted acres depends on winter rains

State snowpack

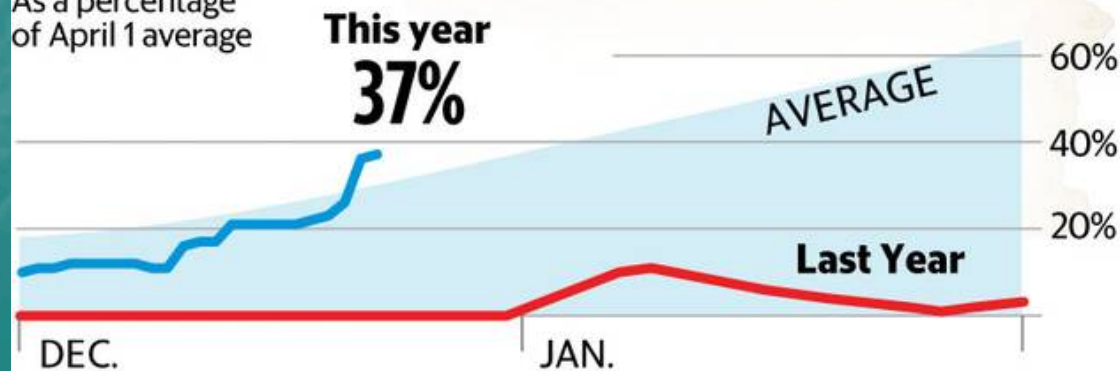
Wednesday's snow survey shows above average snowpack in much of the Sierra Nevada.

Percent of normal for Dec. 23

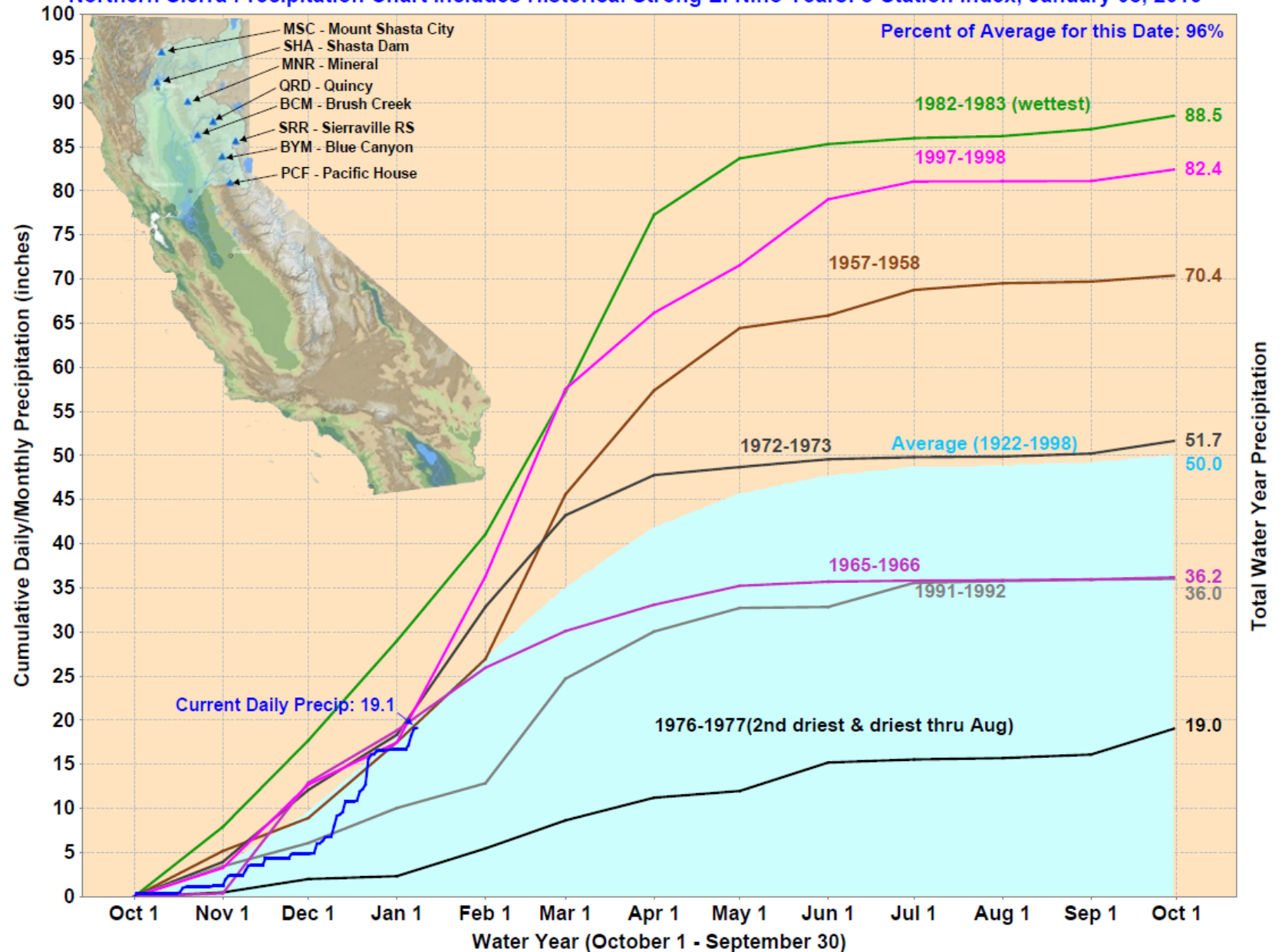


CENTRAL REGION SNOWPACK

As a percentage of April 1 average



Northern Sierra Precipitation Chart Includes Historical Strong El Nino Years: 8-Station Index, January 08, 2016



Using only the latest technology...

FORECASTING STONE

CONDITION

FORECAST

STONE IS WET

RAINING

STONE IS DRY

NOT RAINING

SHADOW ON GROUND

SUNNY

WHITE ON TOP

SNOWING

CANT SEE STONE

FOGGY

SWINGING STONE

WINDY

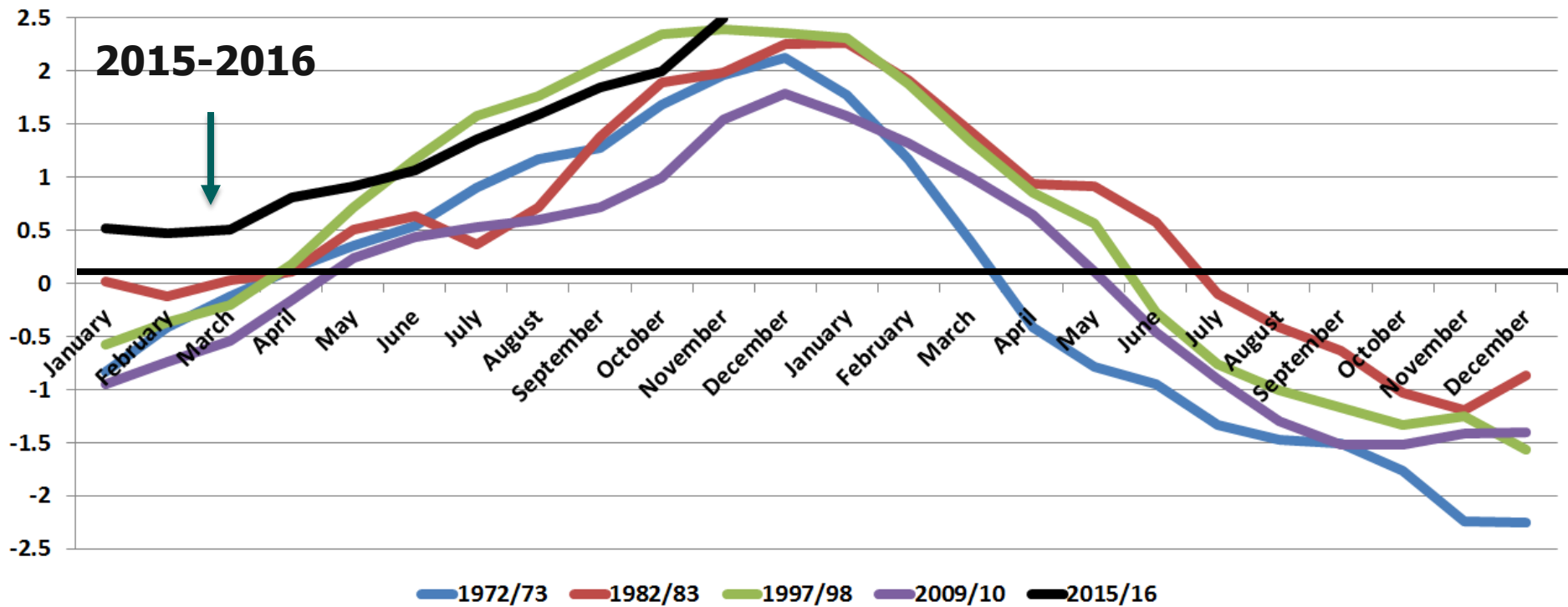
STONE GONE

TORNADO

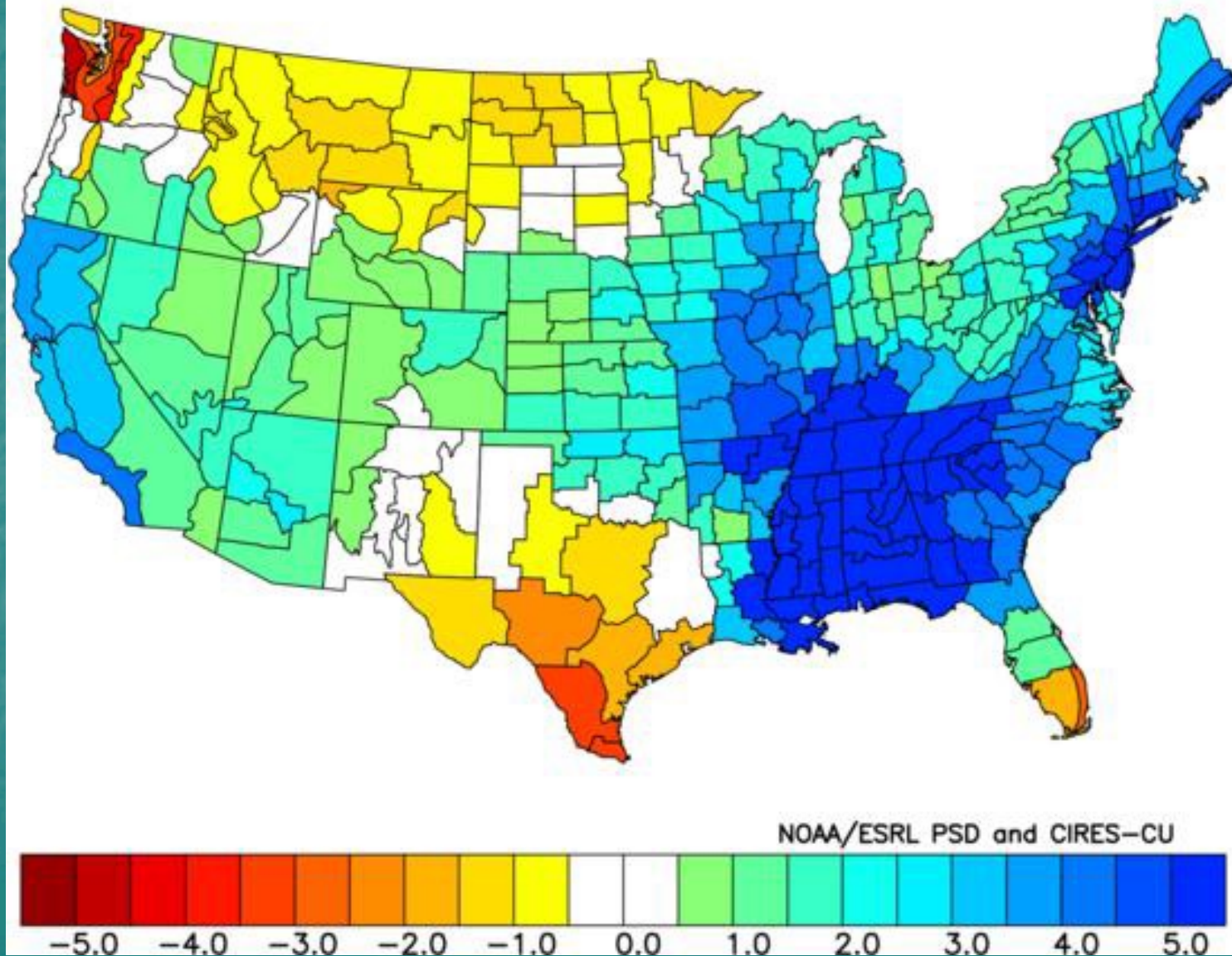


El Niño's often lead to La Niña's

Niño 3.4 Readings (Strongest El Niño Cases Since 1950)

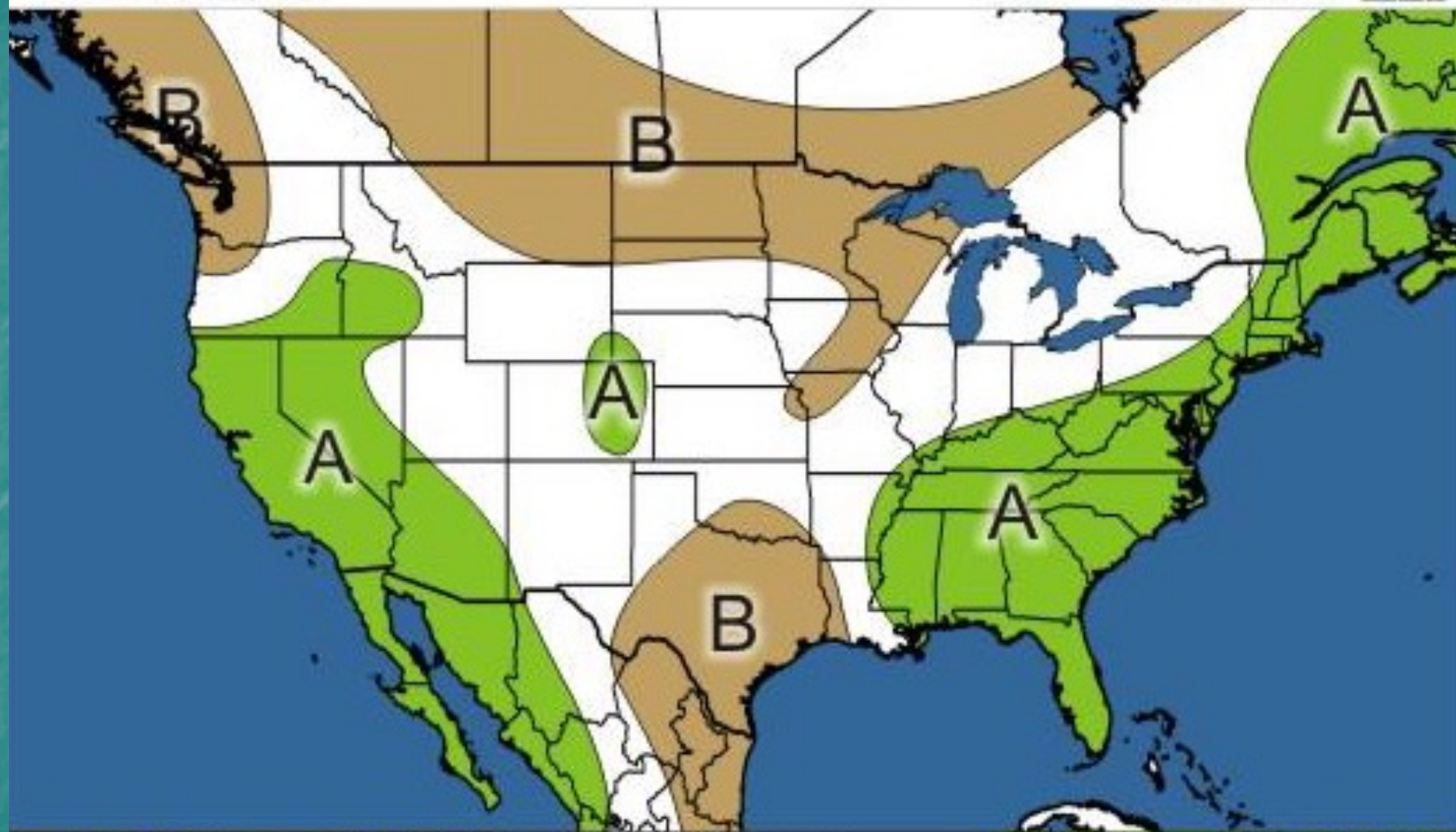


NOAA/NCDC Climate Division Composite Precipitation Anomalies (in)
Mar to May 1973, 1983, 1998
Versus 1981–2010 Longterm Average



Precipitation

Mar - May 2016



Below = <75%

Normal

Above = > 125%

M-209, new variety (limited seed avail. in 2016)

Grain type: Early maturing, semi-dwarf, medium grain

Yield: Superior to M206, M205, M202

Harvest moisture: >18%; loss in milling quality <18%.

Marketing: superior visual, cook, and taste quality
compared to current medium grains

Variety	2010 – 2015 (38 field tests)	% improvement
M209	9680	---
M206	9480	2.3
M205	9250	5.5
M202	8820	10.2

New CIMIS weather station

Added to the CIMIS network in 2015

Station 244 located in rice growing area west of Gridley

Check it out at: <http://www.cimis.water.ca.gov/>



Questions & Comments?



Photo: M Wurlitzer