

California State Rice Outlook

Cass Mutters
UC Cooperative Extension
Rice Outlook Conference
New Orleans, LA
December 11, 2015

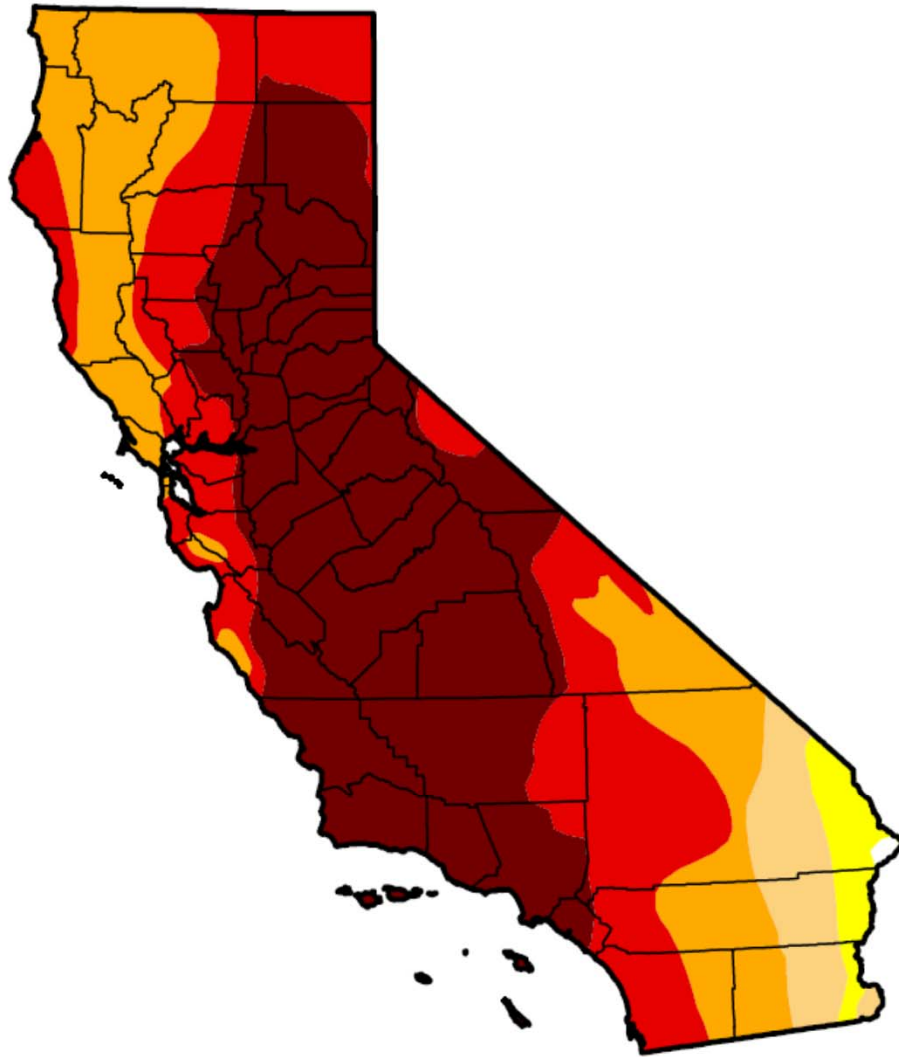


A photograph of a billboard in a dry, cracked landscape. The billboard is white with the text "Food Grows Where Water Flows" in large, bold, black letters. The billboard is mounted on a metal frame and is surrounded by dry, brown bushes. The ground in the foreground is parched and cracked, forming a mosaic of irregular polygons. The sky is a clear, bright blue.

Food Grows Where Water Flows

The drought continues

U.S. Drought Monitor
December 1, 2015



Recent rains have
not moderated
the drought

Intensity:

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

D3 - Extreme Drought
D4 - Exceptional Drought

Driest Years in California

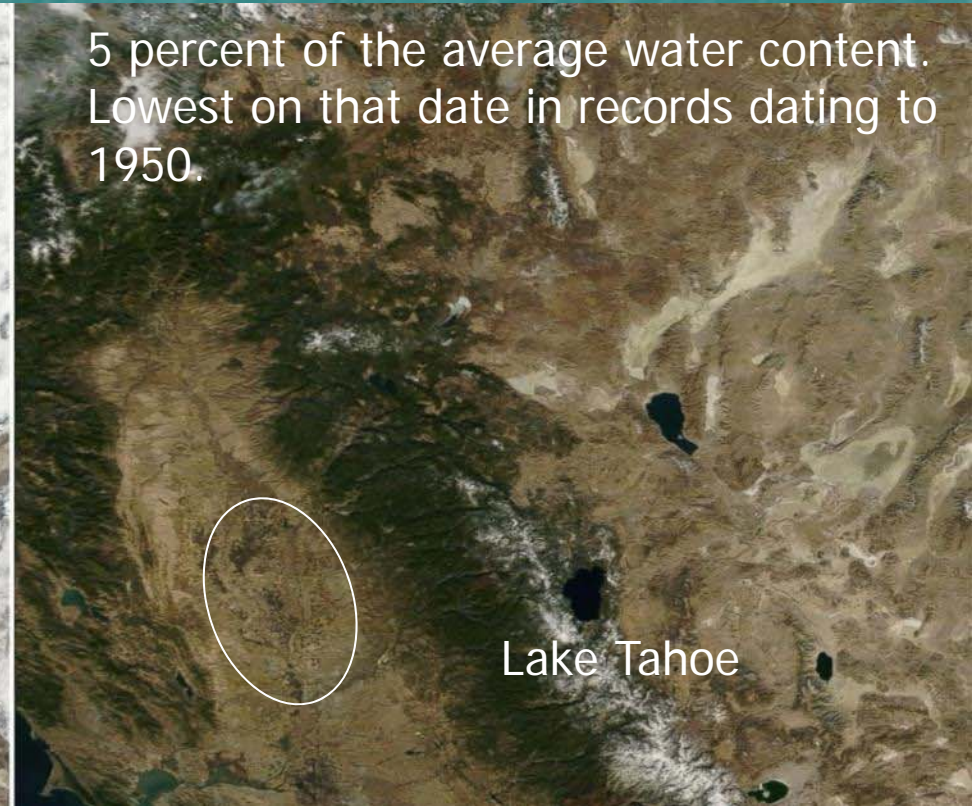
STATEWIDE	
YEAR	PRECIPITATION (IN)
1924	9.23
1977	11.81
2014	12.08
2015	13.21
1898	13.35
1920	13.43

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.

Governor declares
drought state of emergency

25% mandatory water use
reduction

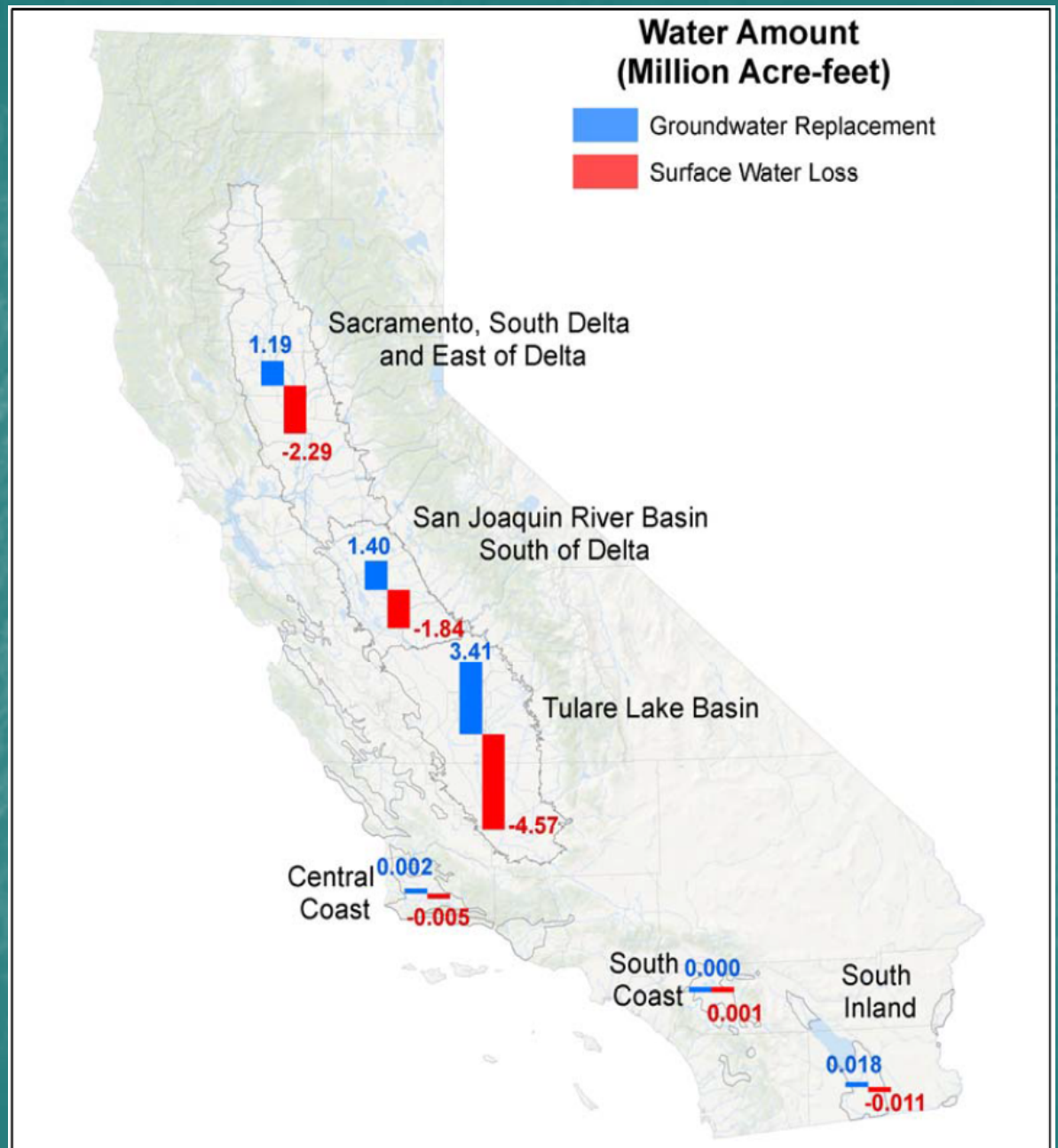
U.S.B.R. Central Valley
Project record low
deliveries: zero project
water to south-of-Delta
agricultural contractors

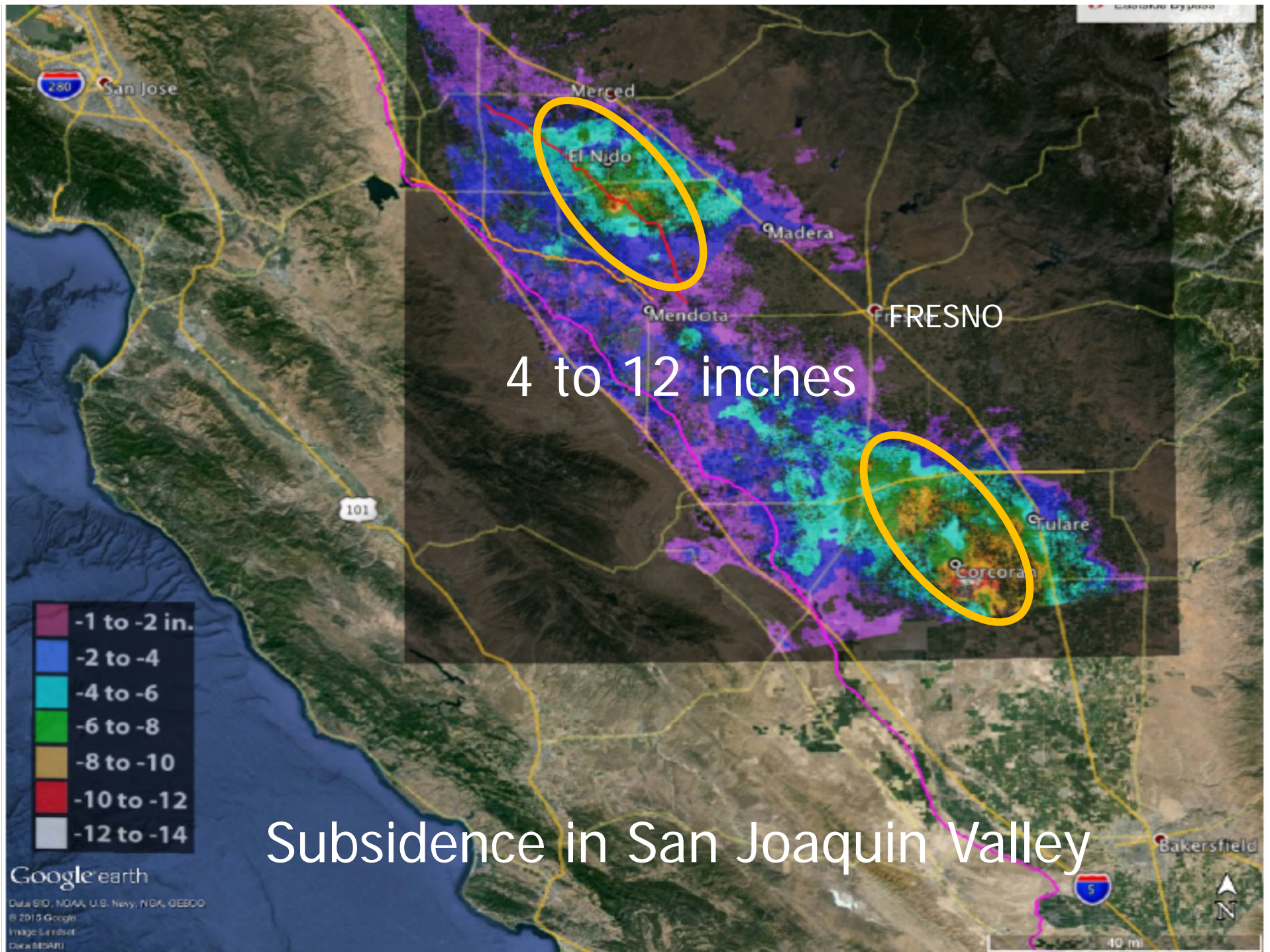
SWP provided only 20
percent of its urban and
agricultural contractors'
requested amounts.

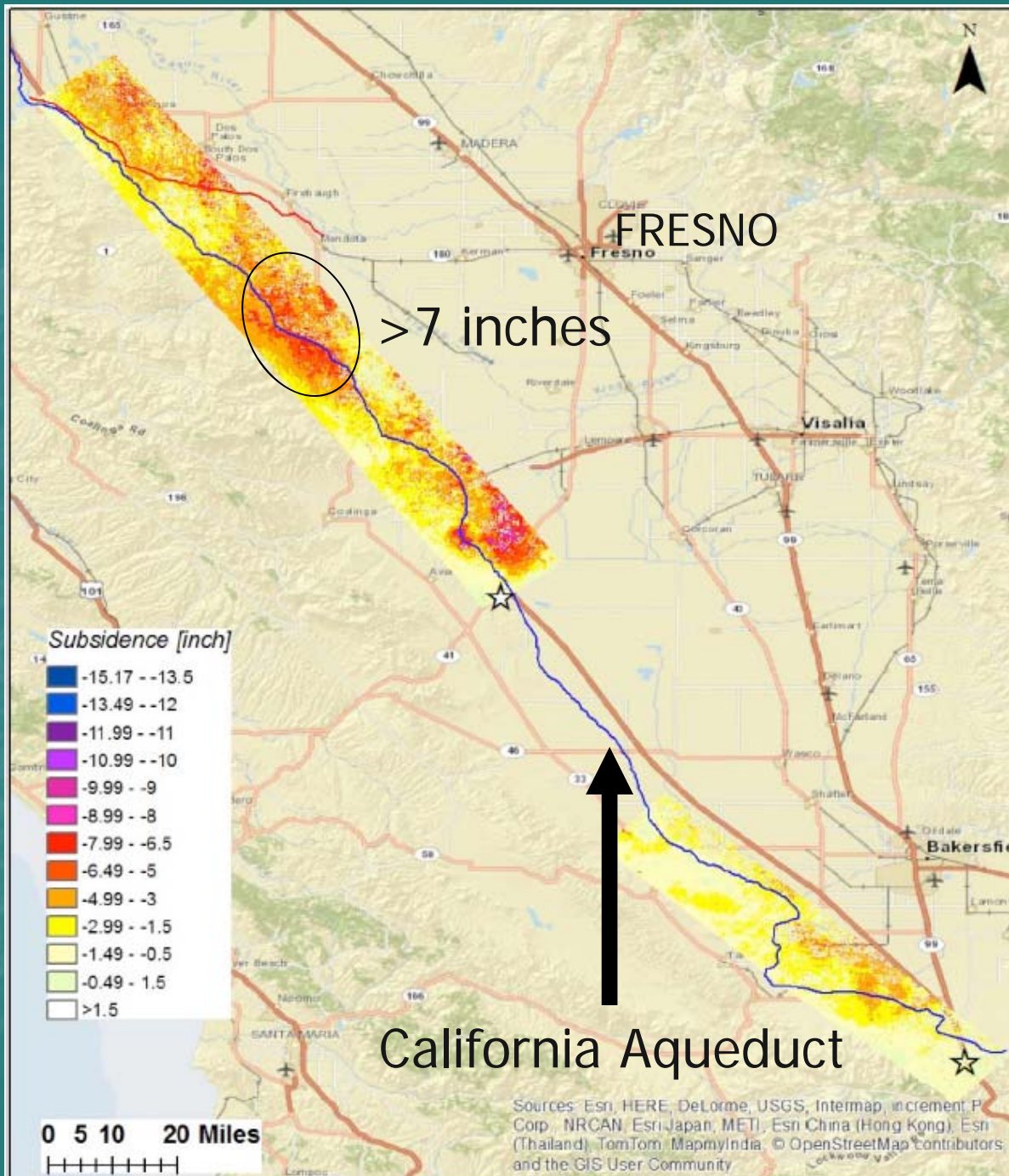


Greater ground water pumping

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







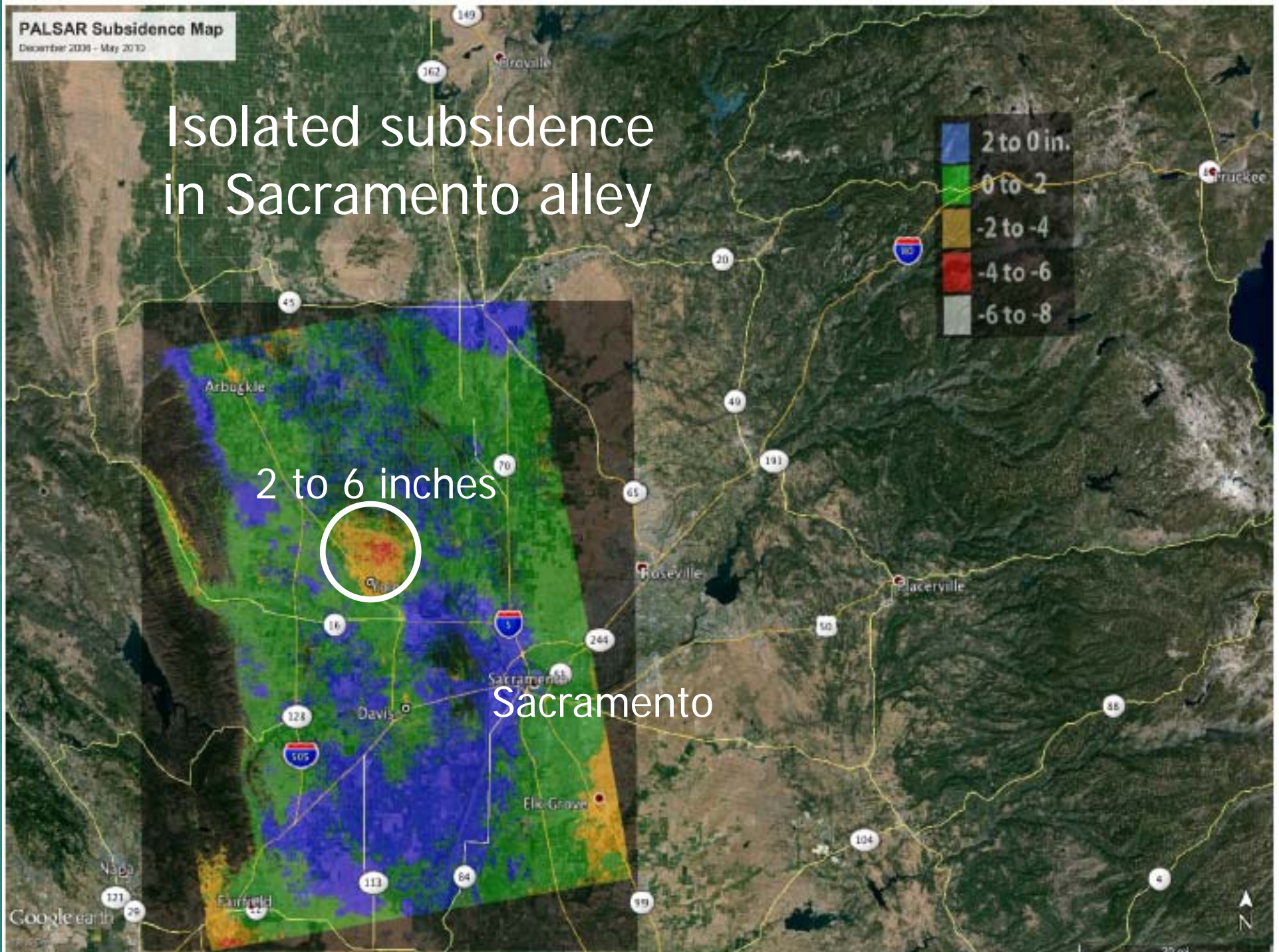
Ground subsidence is threatening water distribution infrastructure

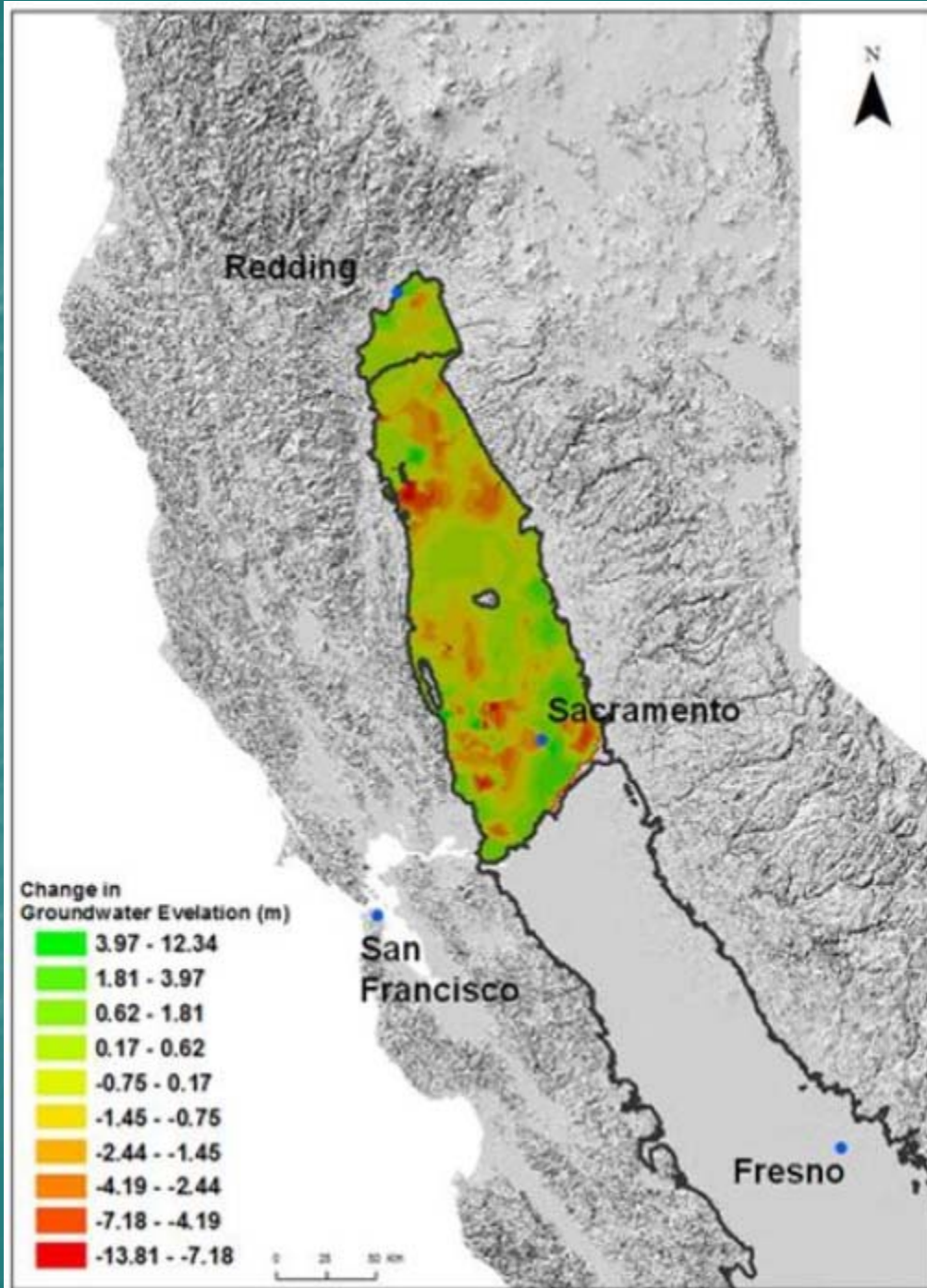
PALSAR Subsidence Map

December 2006 - May 2010

Isolated subsidence
in Sacramento alley

2 to 6 inches



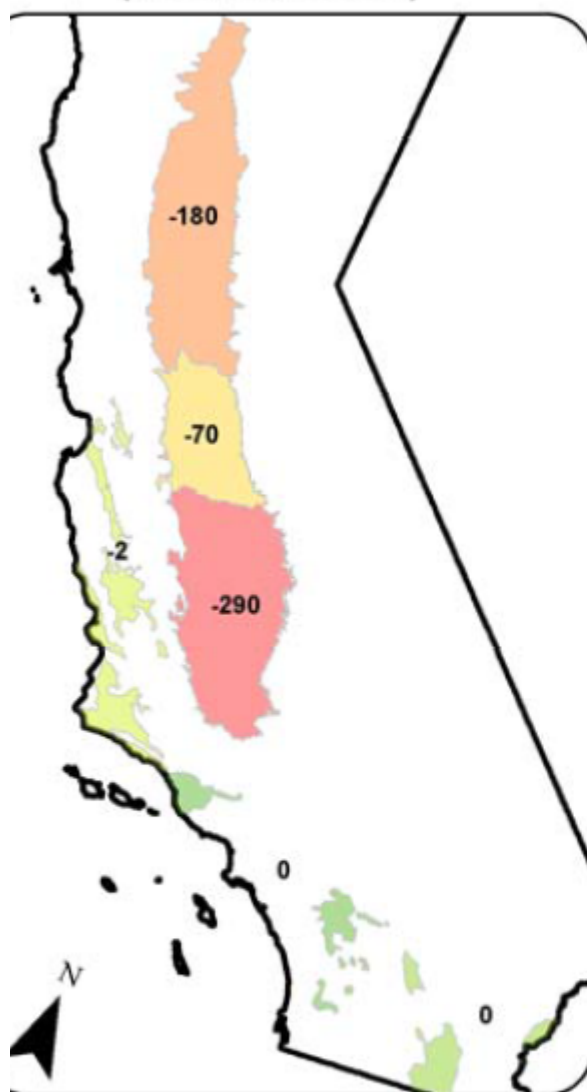


Ground water levels dropping
in Sacramento Valley

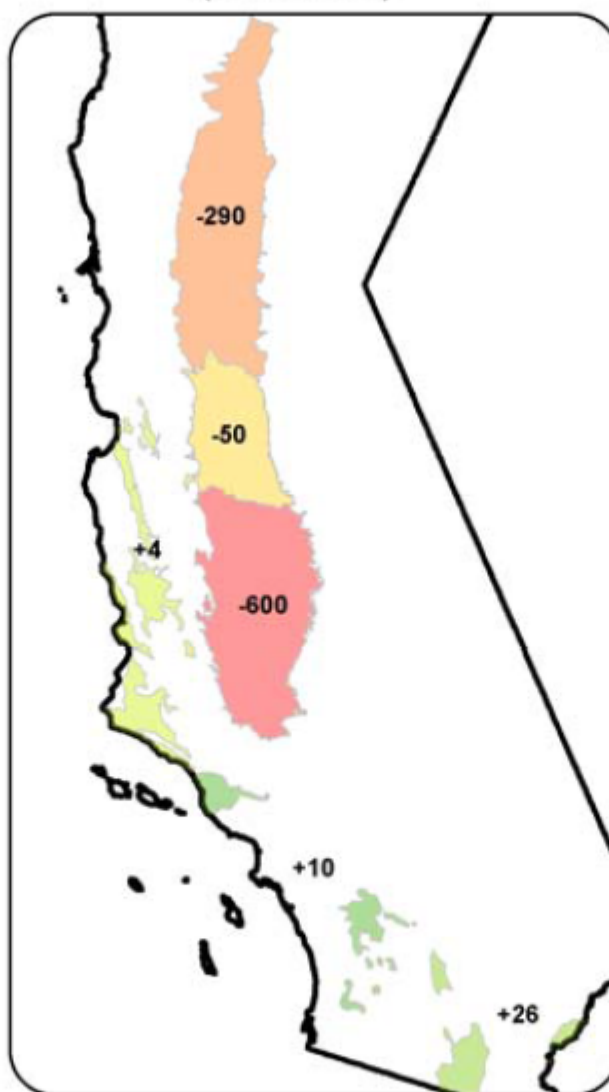
Up to 13 feet in some areas

Source: USGS

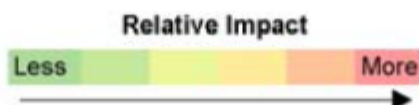
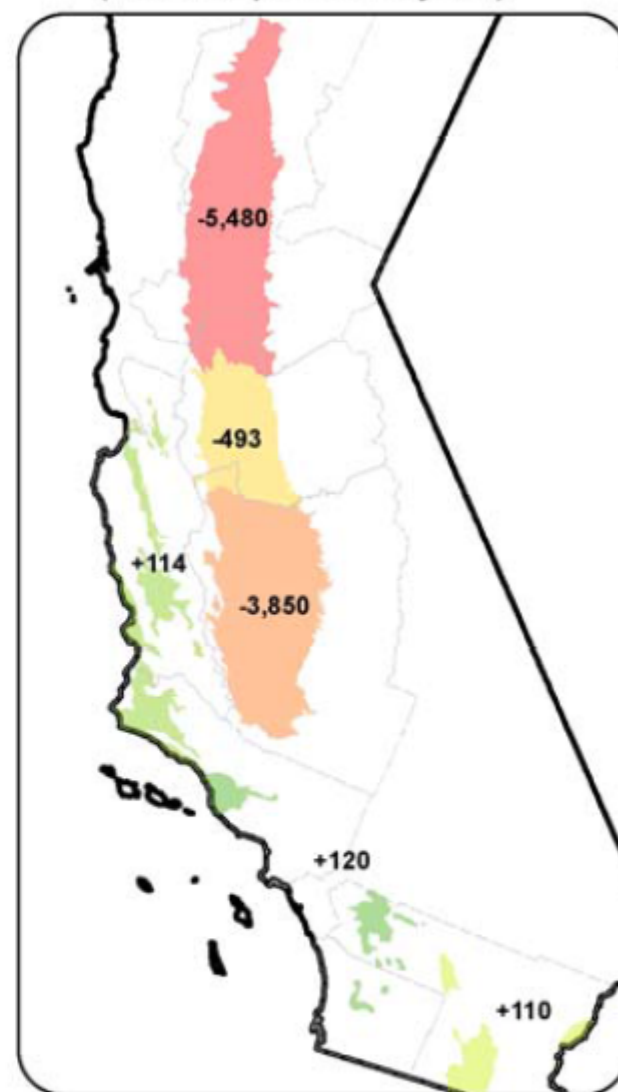
Crop Fallowing
(thousand acres)



Crop Revenue Change
(\$ millions)

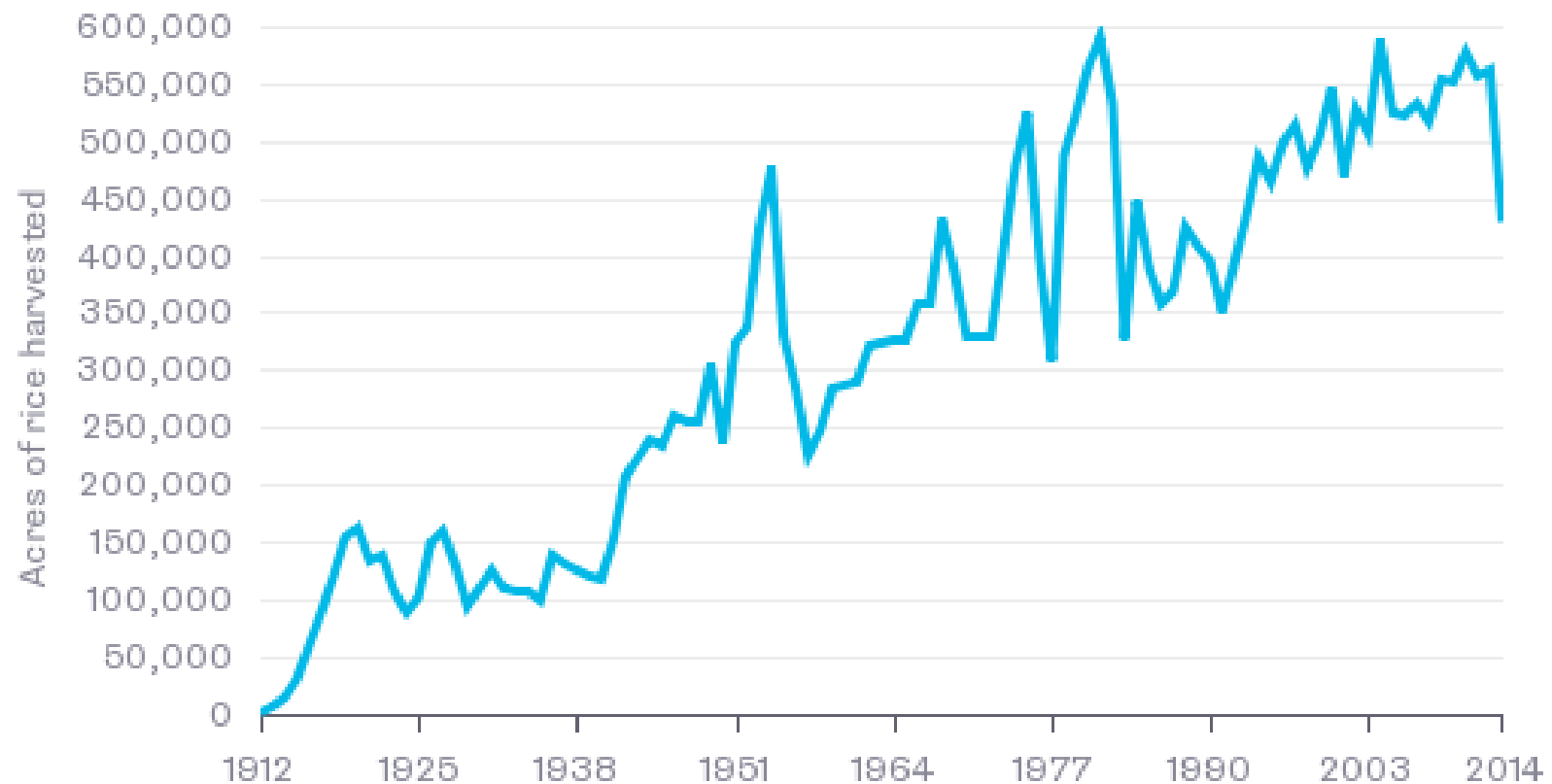


Employment Loss
(full and part time jobs)



California's Rice Century

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



Source: U.S. Department of Agriculture

2013

Water availability ranged from 0 to 75%

Chico

RES



Sacramento

2015

Chico

RES

Sacramento

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

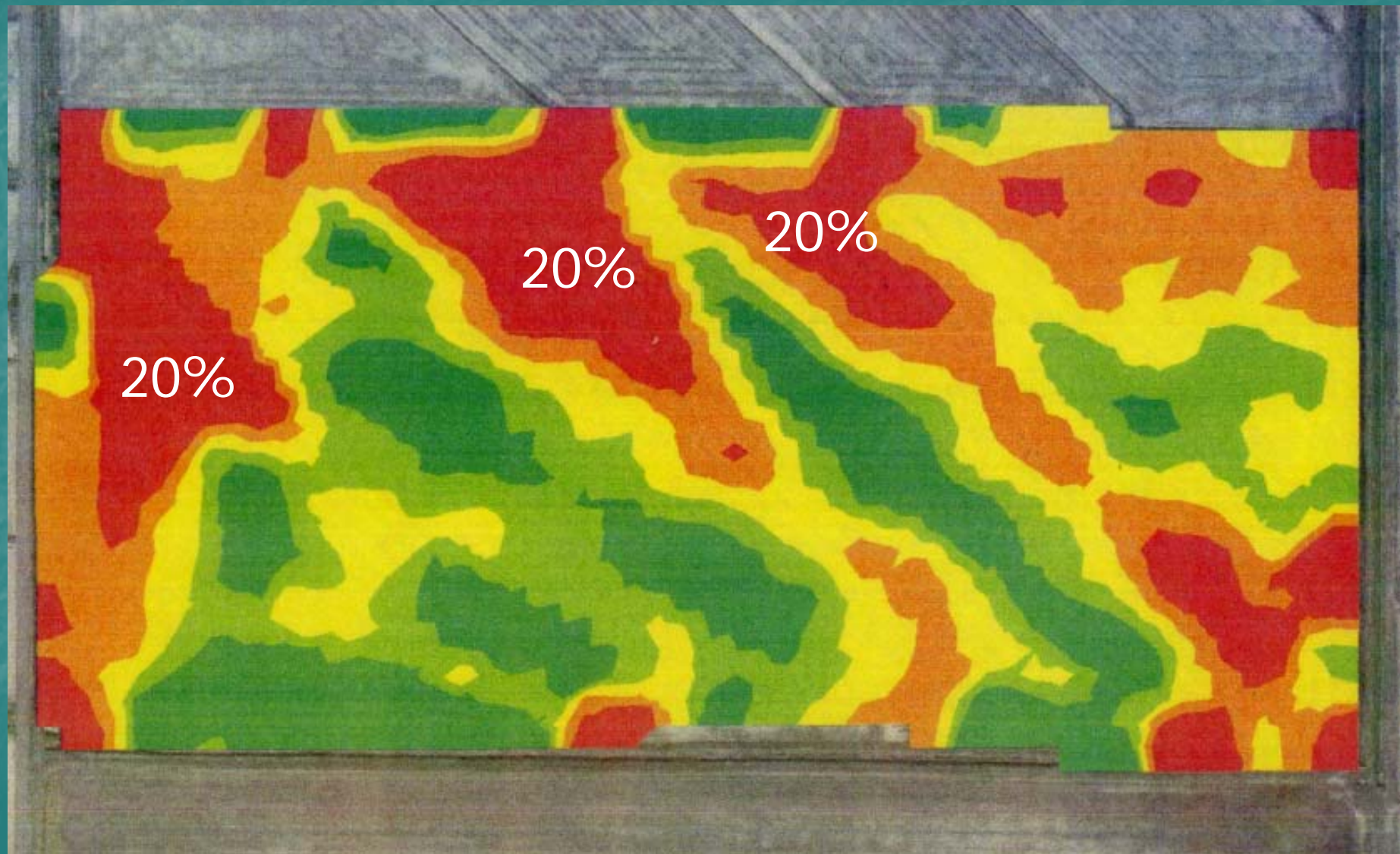
Army worm damage was severe in some areas

- 60,000 acres treated
- Pyrethroid ineffective



Photo: L Espino

20% yield reduction



California Production: 2013 -2105

Year	Acres (X 1000)	Ave yield lb/acre (bushels)	Total production (million cwt)
2013	560	8400 (187)	46.7
2014	428	8500 (189)	36.4
2015	410	8600 (191)*	35.3

2014 + 2015 ~ \$434,000,000 lost revenue

* 132 cwt/acre (293 bu)

California Outlook – 2015 crop

- Reduction in supply greater on west side of the Sacramento Valley
- The reduction in supply moderated by carry over from 2014
- Adequate supply to meet market commitments

California Outlook – 2016 crop

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

Questions & Comments?



Photo: M Wurlitzer