

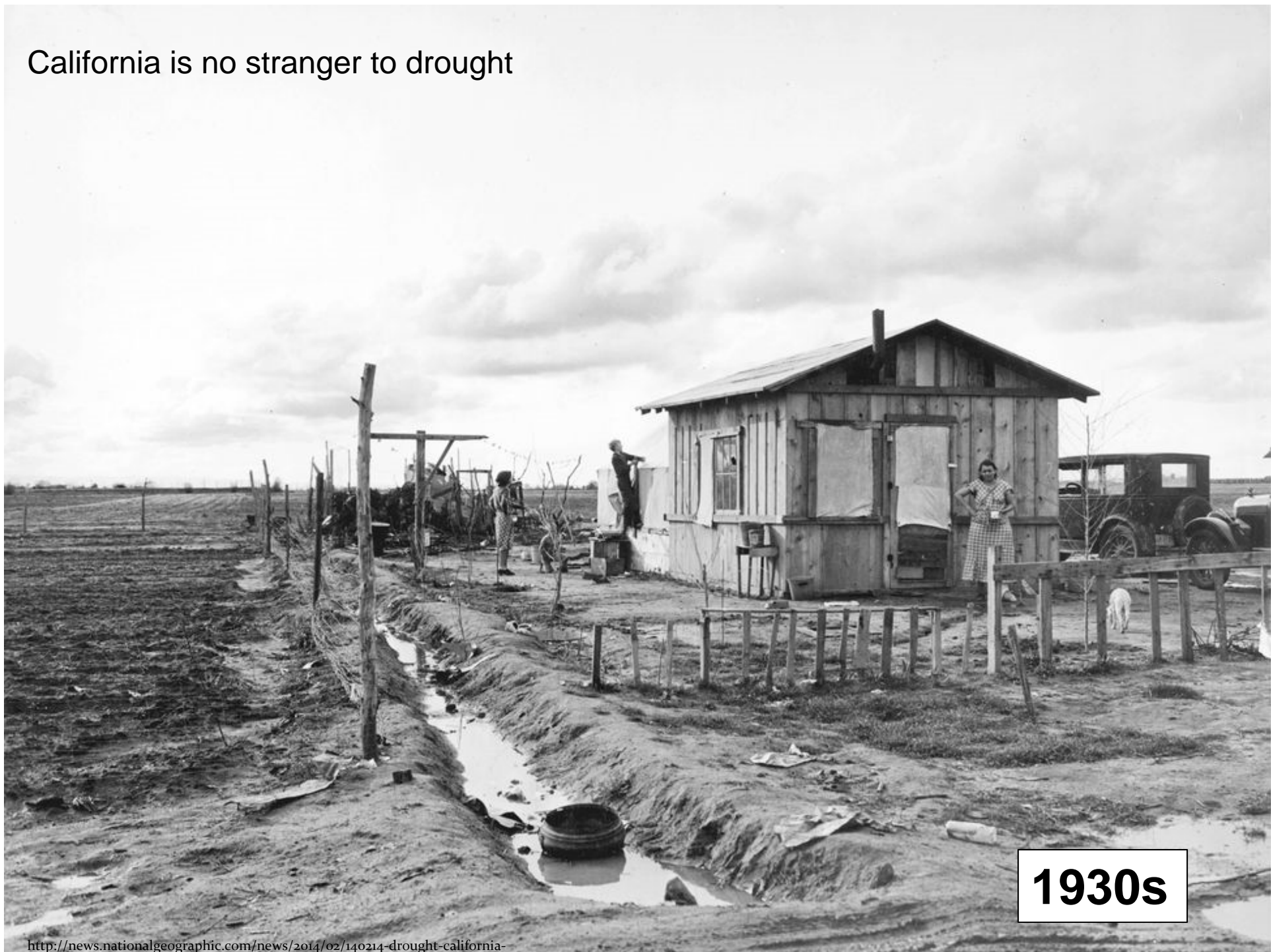
Drought and the Sustainable Groundwater Management Act of 2014

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State Water Resources Control Board

October 22, 2014

California is no stranger to drought



1930s



1948

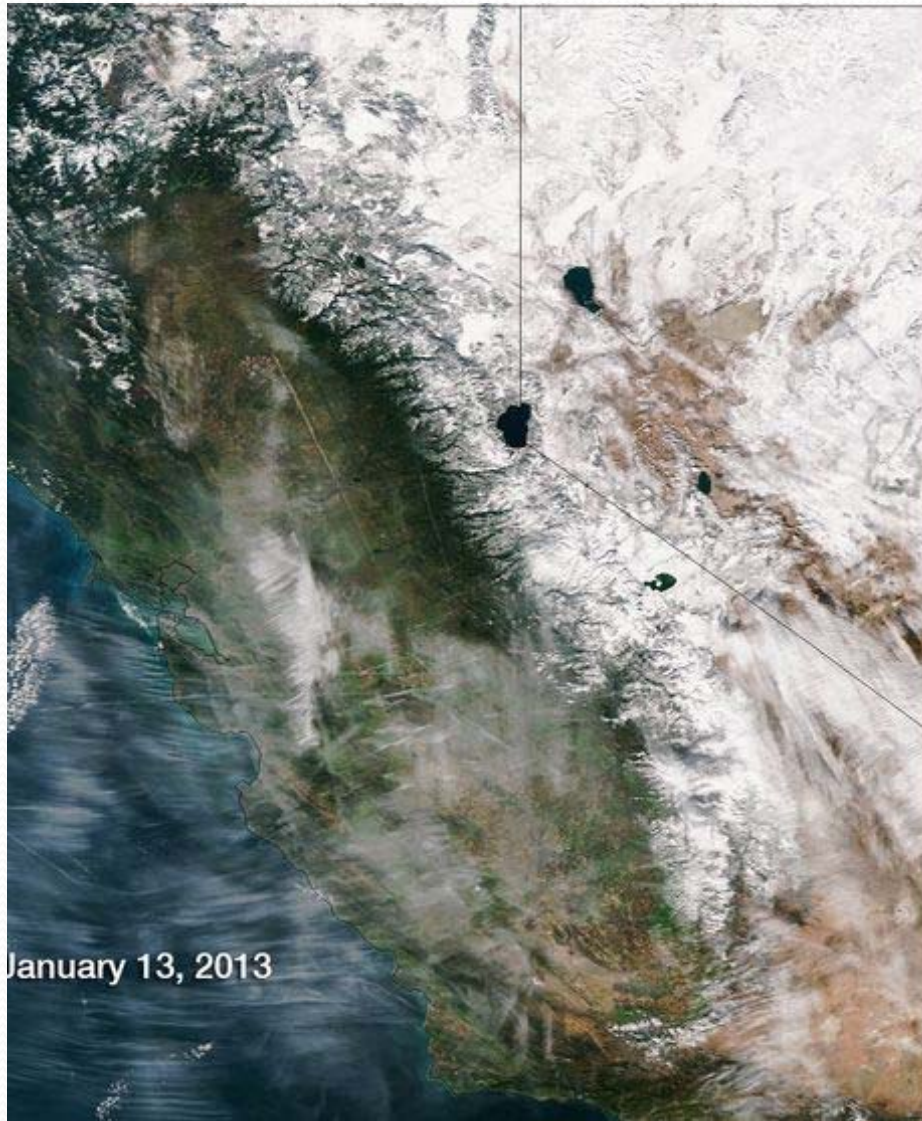


1977

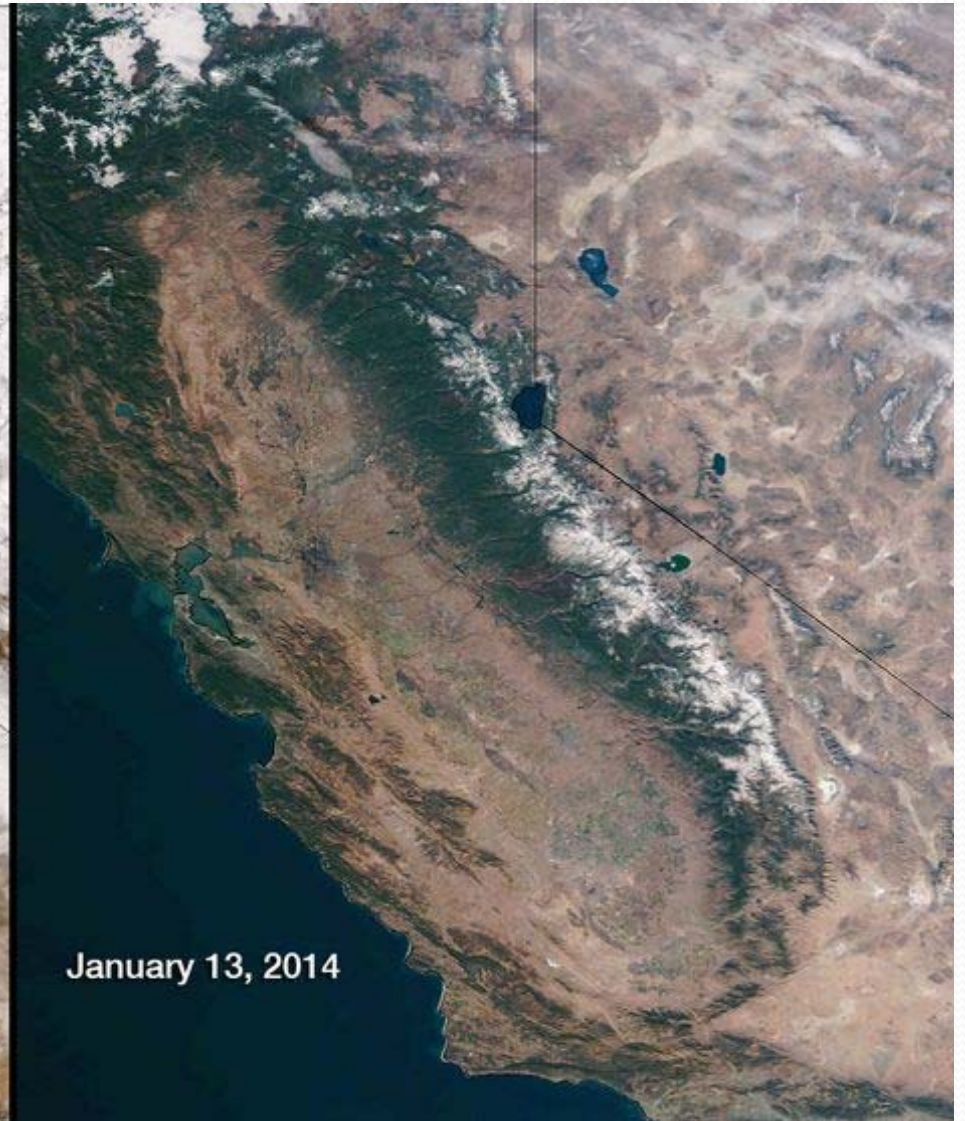


2014

<http://www.nbcnews.com/storyline/california-drought/after-california-reservoir-drops-17-percent-capacity-h38806>

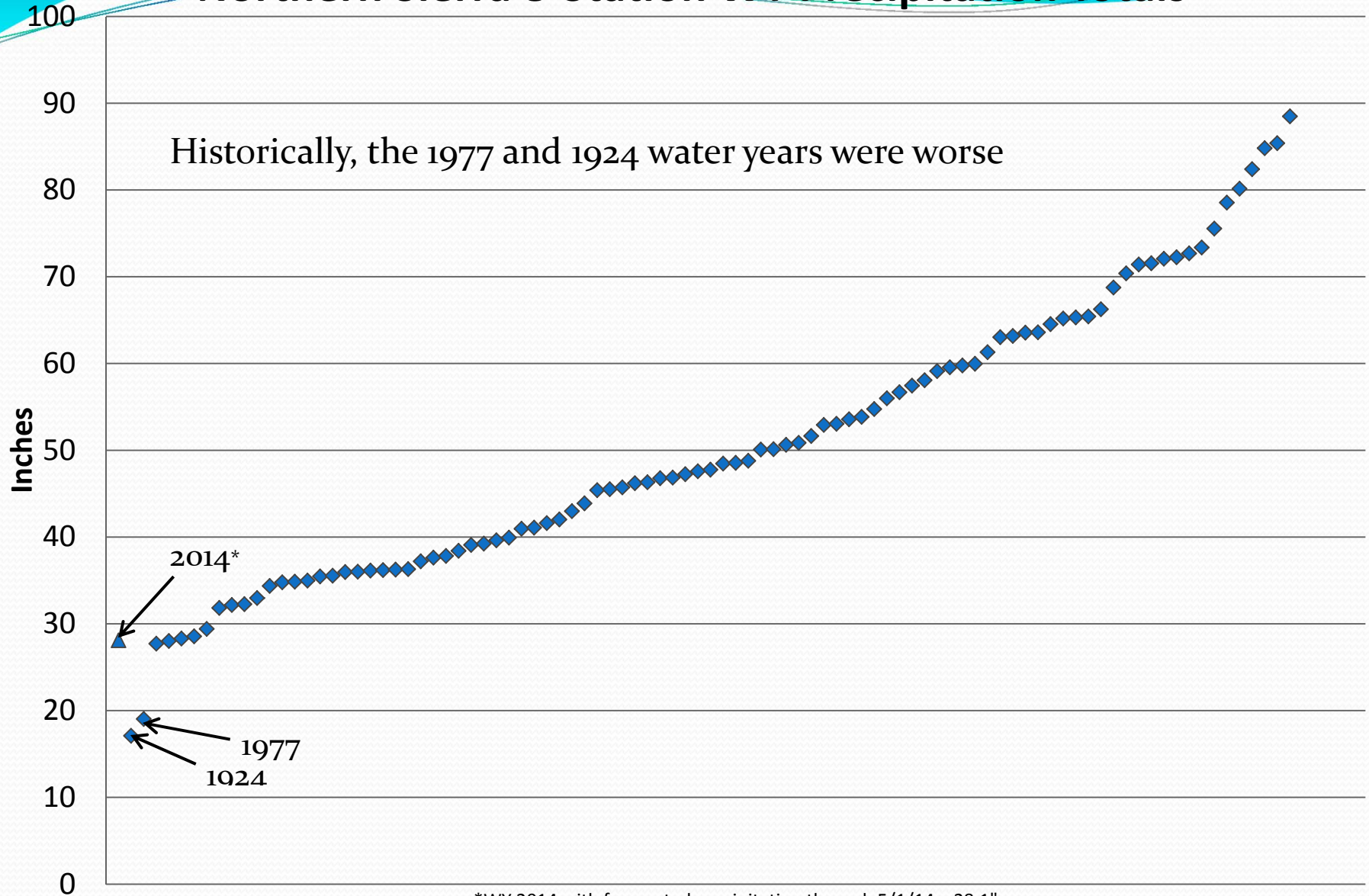


January 13, 2013



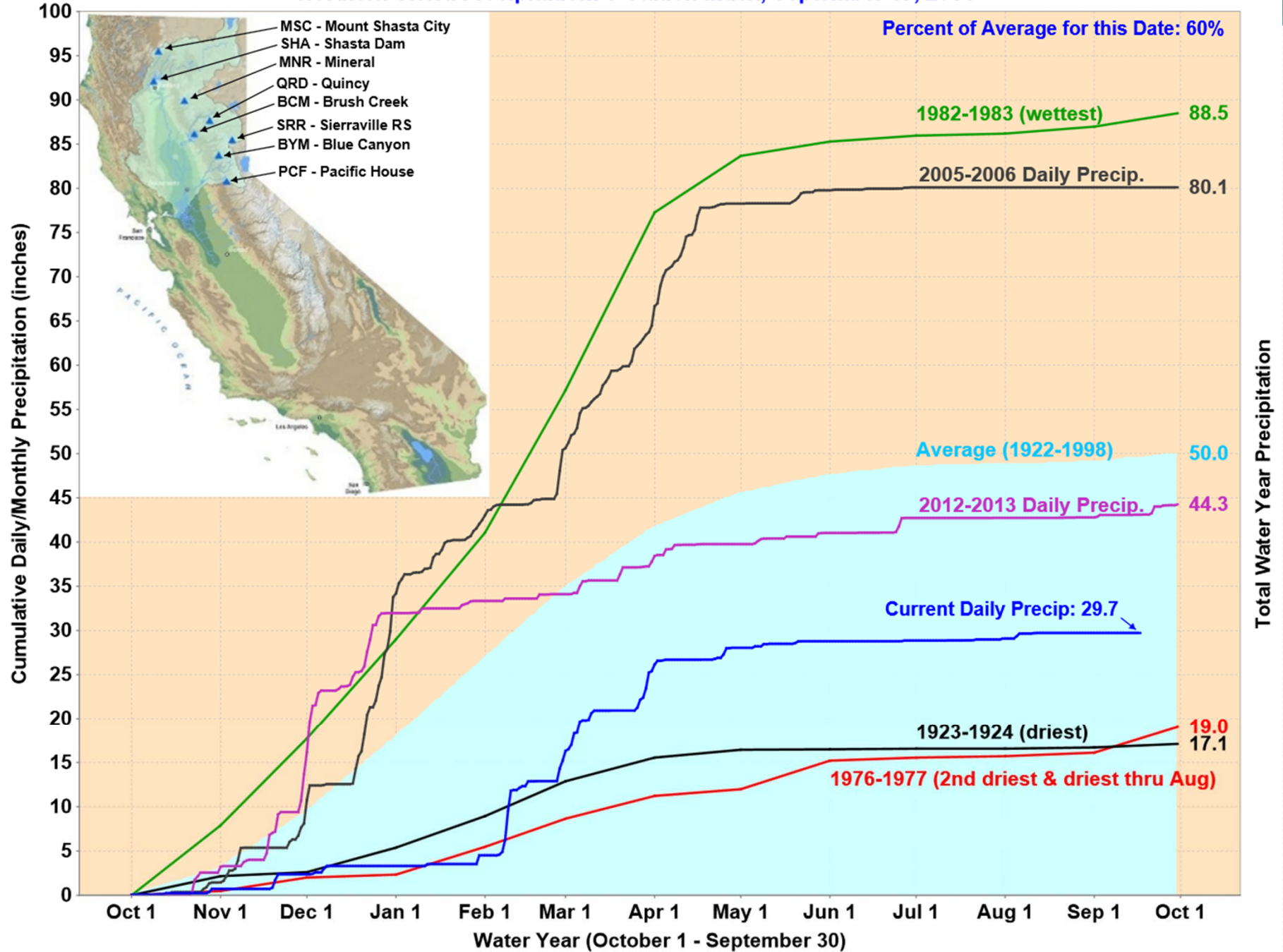
January 13, 2014

Northern Sierra 8-Station WY Precipitation Totals



*WY 2014 with forecasted precipitation through 5/1/14 = 28.1"

Northern Sierra Precipitation: 8-Station Index, September 17, 2014

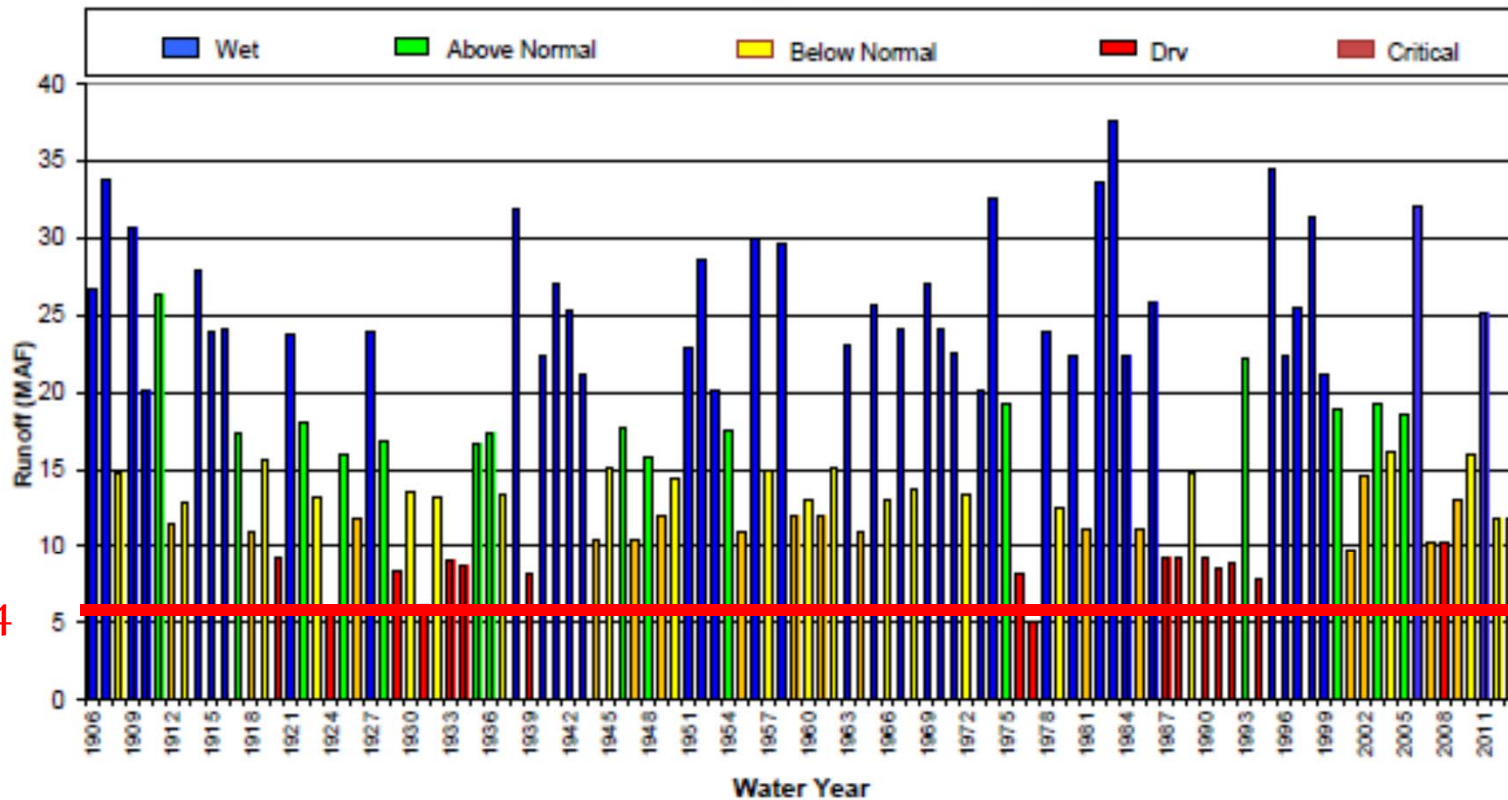




Why does this drought seem so much worse?

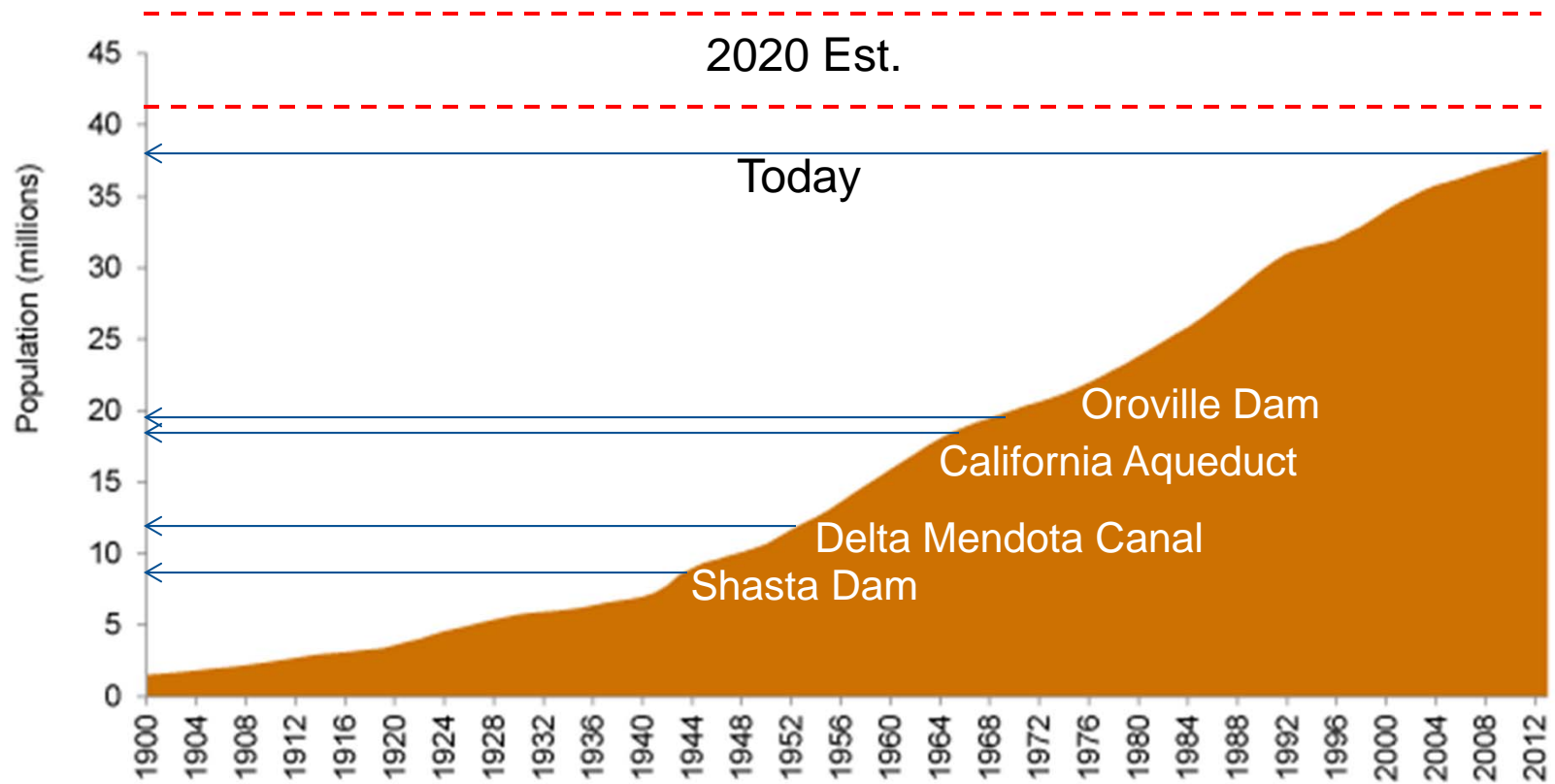
Annual Variation of Runoff

Sacramento Valley Water Year Types



2014 was a very dry year. The first *significant* drought in a long time.

California has experienced rapid population growth

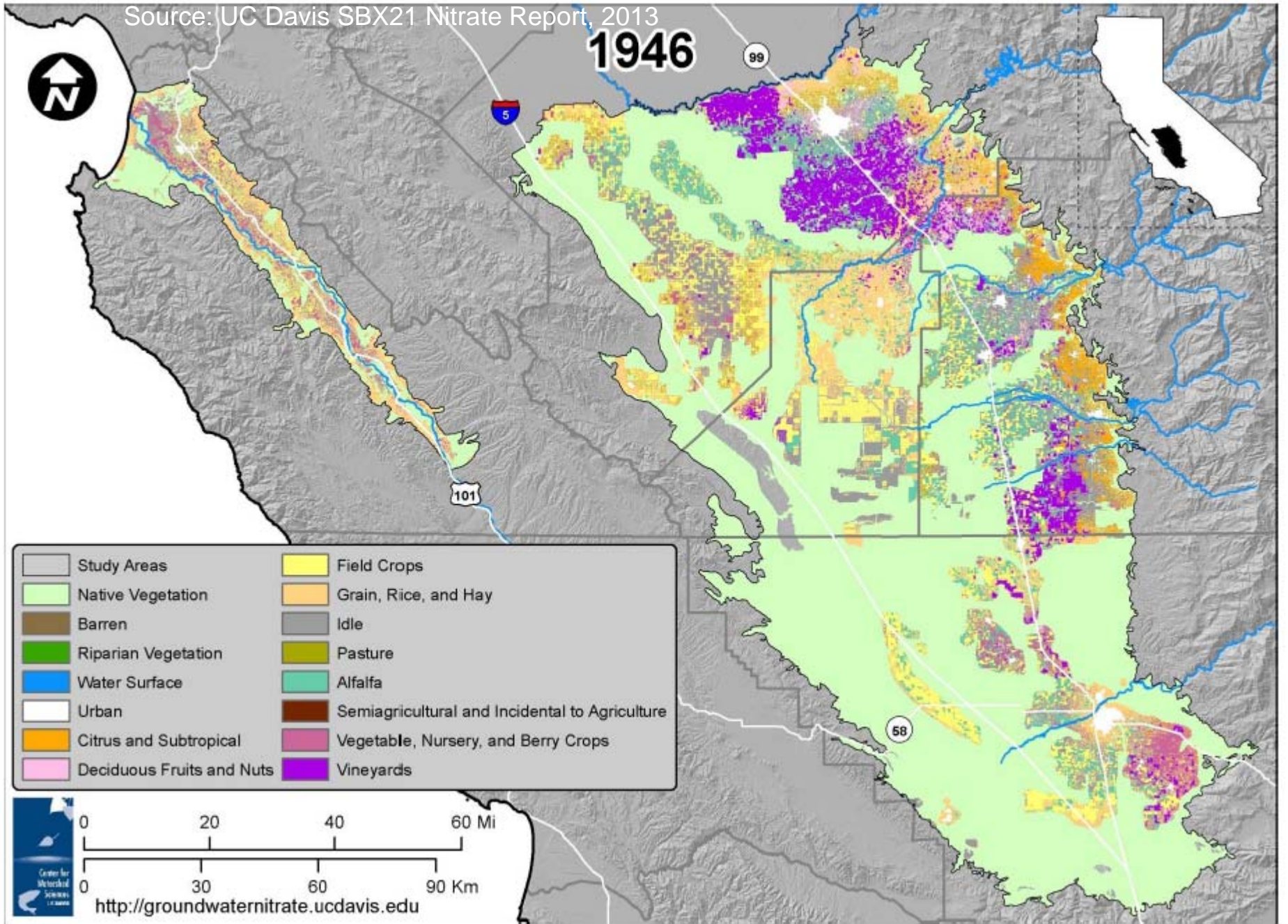


Source: California Department of Finance estimates.

From: Just the Facts: California's Population, PPIC, 2014.

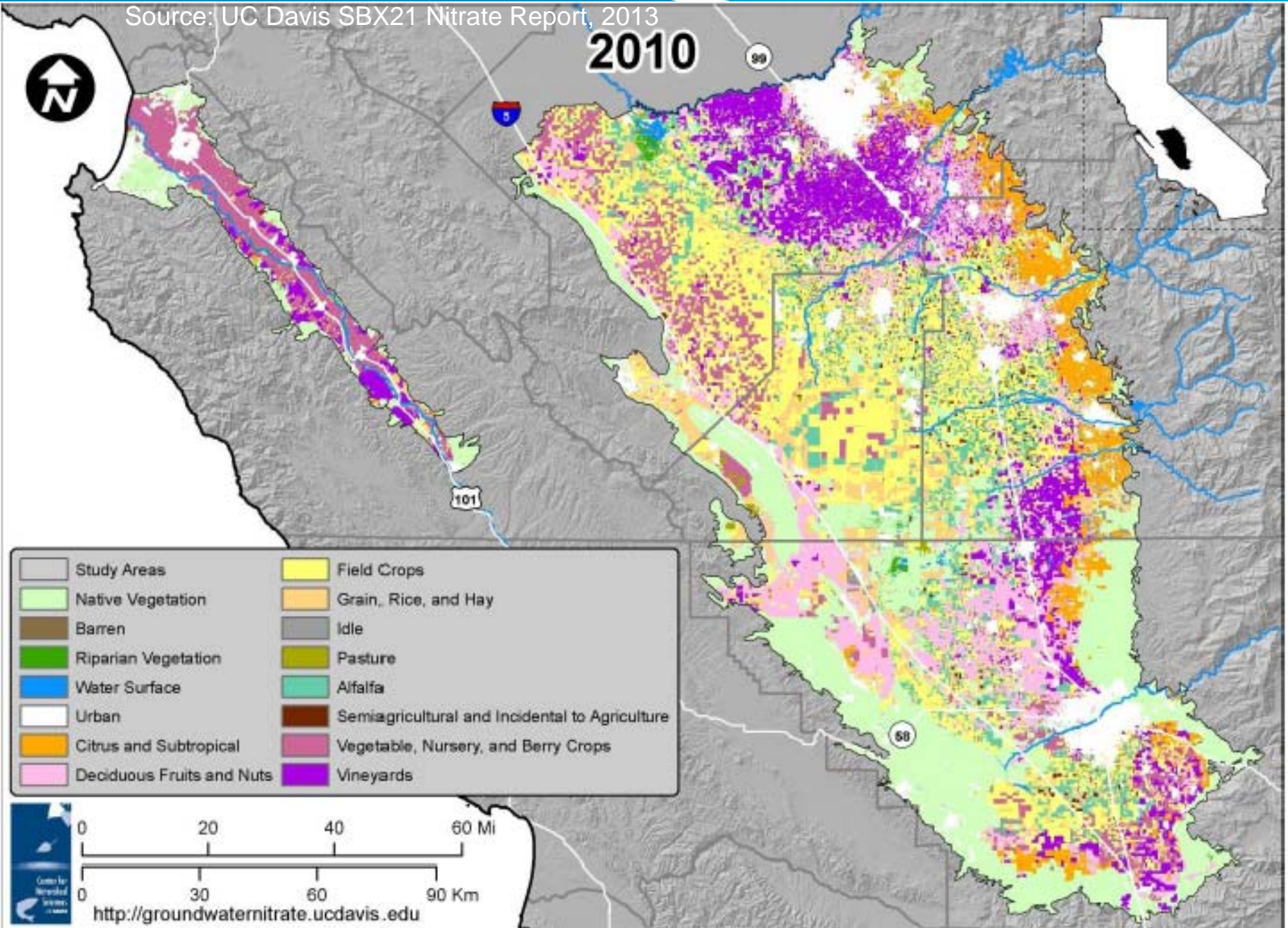
Source: UC Davis SBX21 Nitrate Report, 2013

1946



Source: UC Davis SBX21 Nitrate Report, 2013

2010



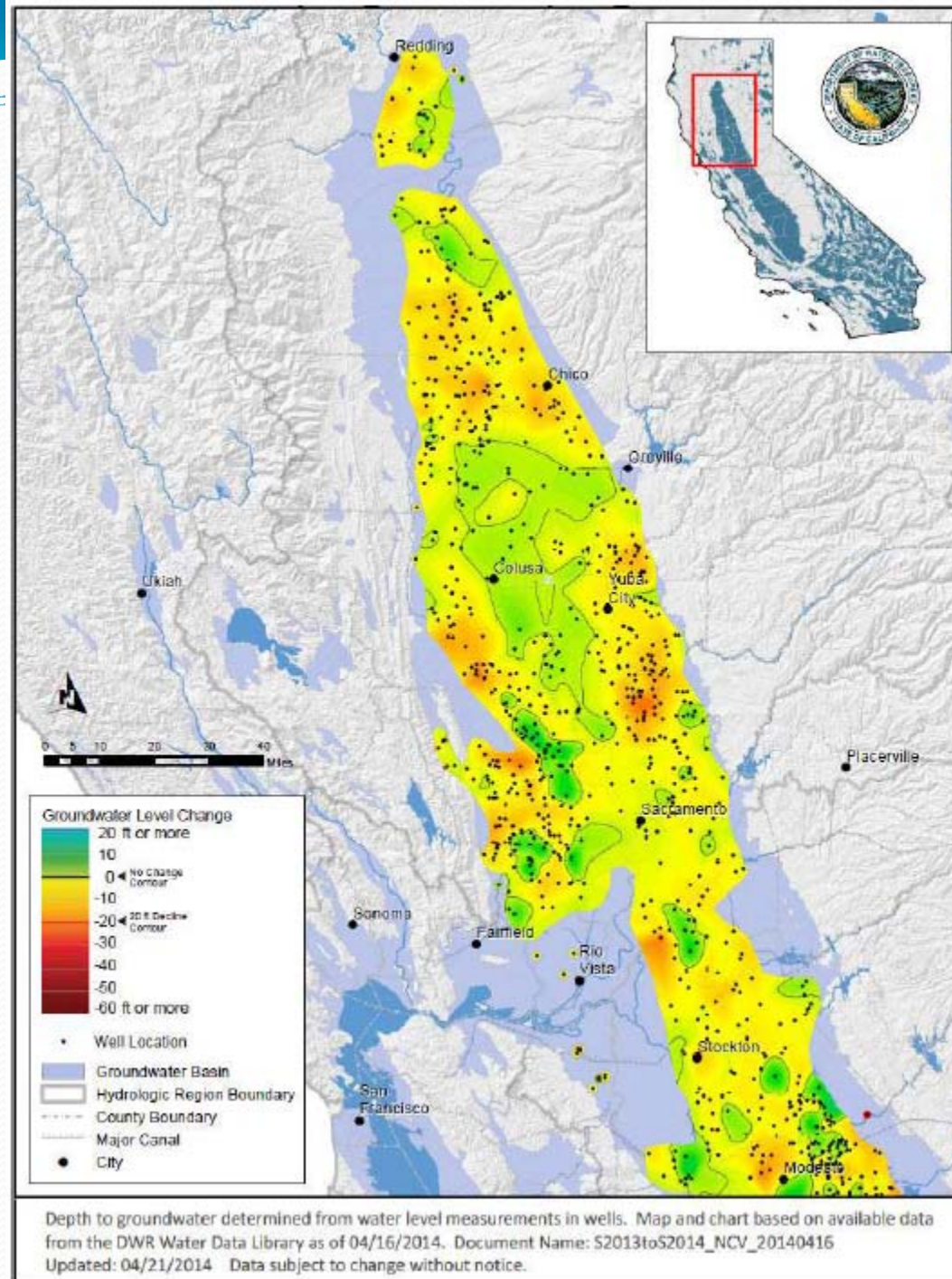


***Groundwater is California's water saving's
account...***

***But the account hasn't been balanced in
decades!***

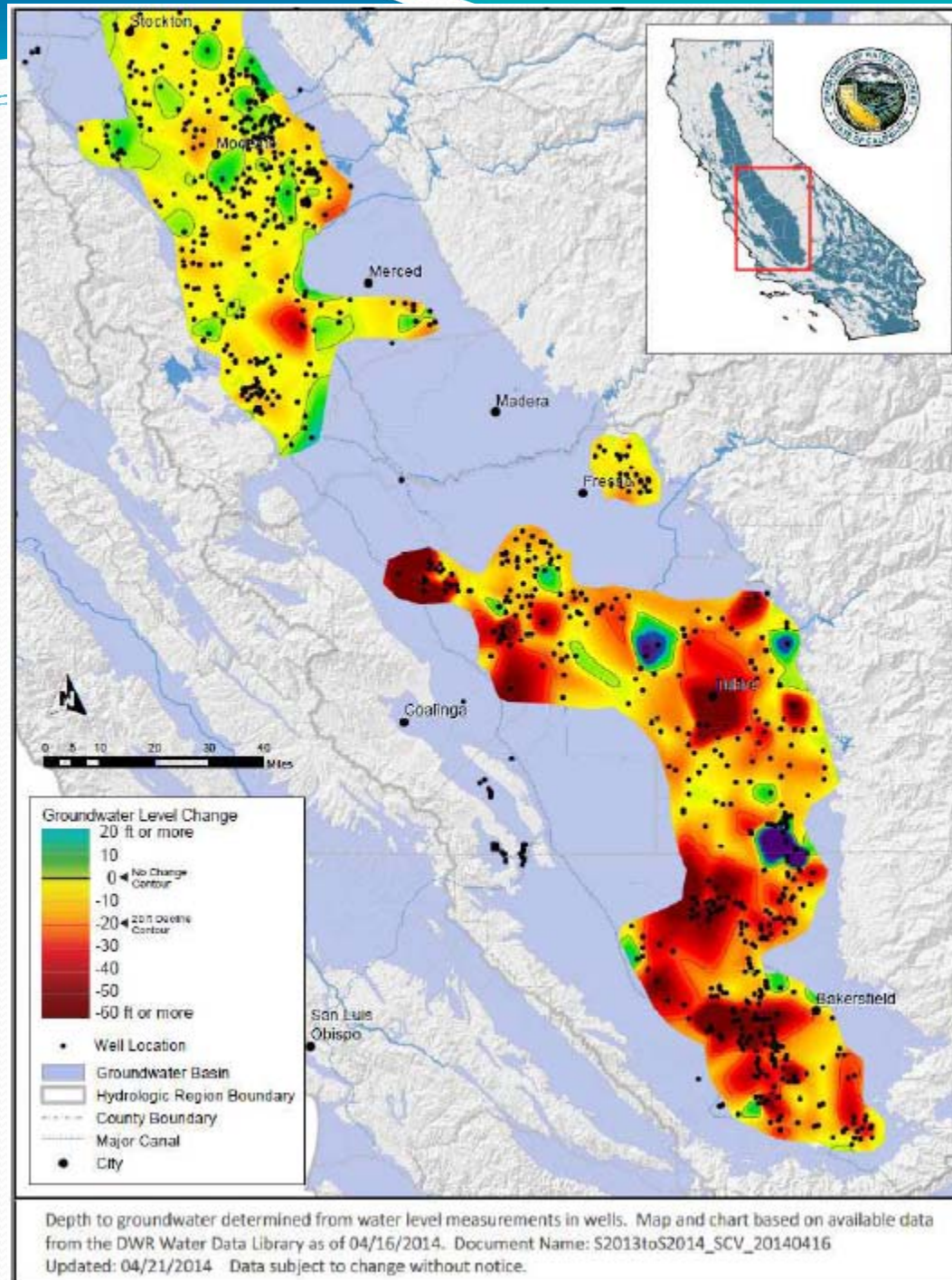
Groundwater Elevation Change

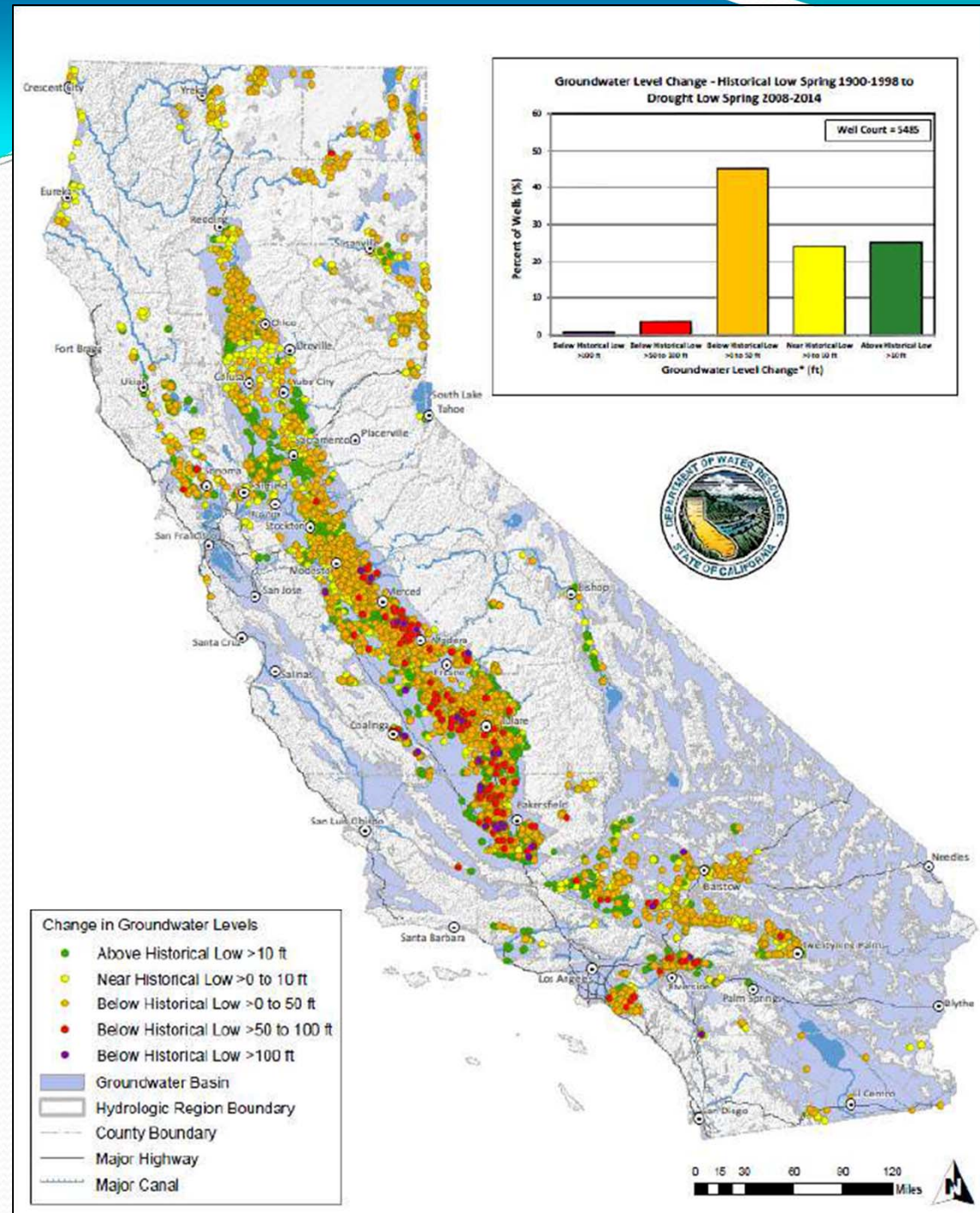
Spring 2013 to
Spring 2014



Groundwater Elevation Change

Spring 2013 to
Spring 2014





Consequence:

Significant depletions in GW levels throughout the state

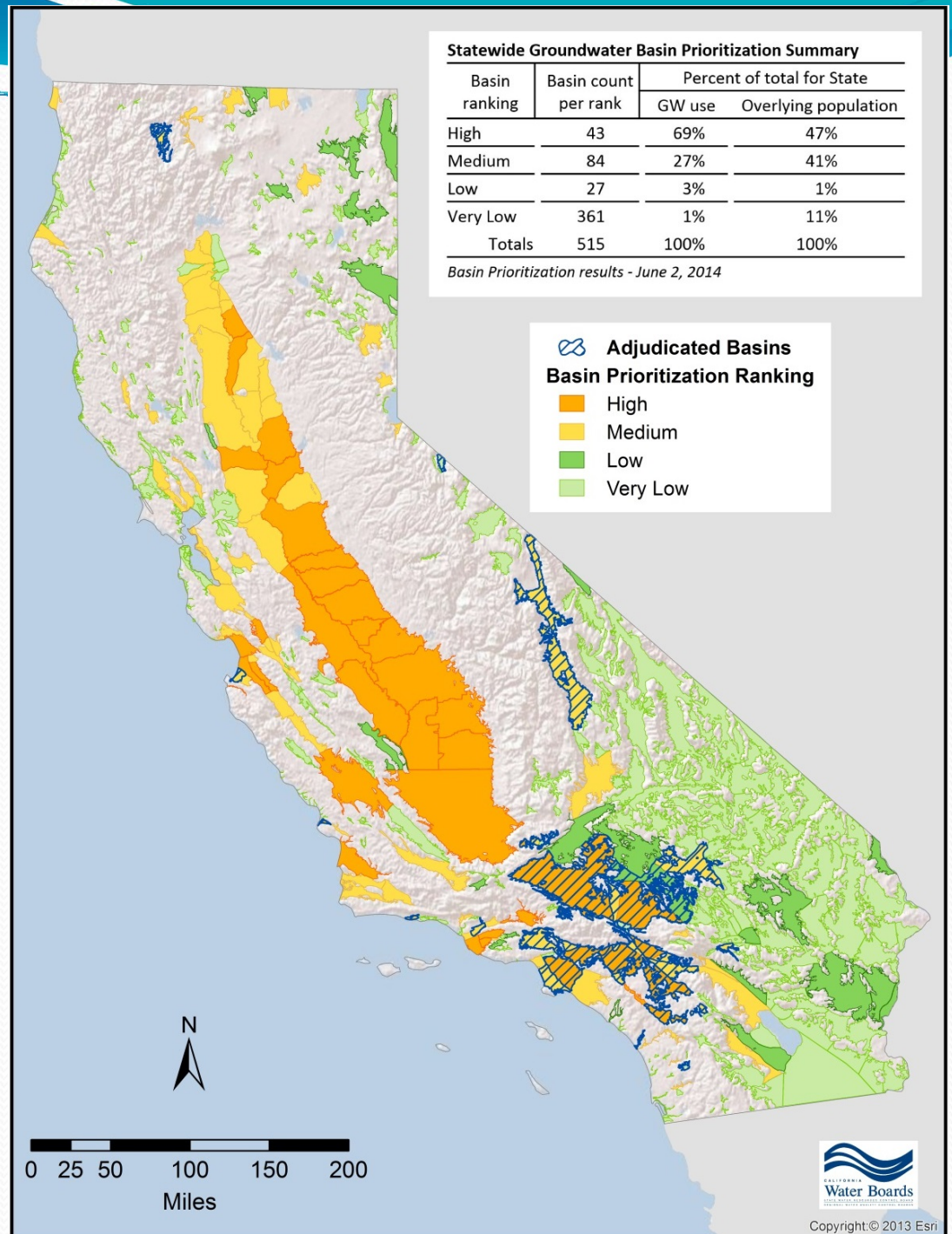
Sustainable Groundwater Management Legislation



- AB 1739 (Dickinson)
- SB 1168 (Pavley)
- SB 1319 (Pavley)

Local Agency Planning

- Groundwater Sustainability Agencies (GSAs)
 - One or more agencies
 - If more than one agency per basin, GSAs must coordinate
- GSAs Prepare Groundwater Sustainability Plans (GSPs)
 - Measurable objectives
 - Implementation milestones
 - Annual reports (water use, extraction, change in storage)
- Achieve Sustainability 20 years after plan adoption





Sustainable groundwater management means:

Management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing undesirable results.

Undesirable results means:

- Chronic lowering of groundwater levels
- Significant and unreasonable:
 - reductions in groundwater storage
 - seawater intrusion
 - water quality
 - land subsidence
 - Surface water depletions adversely impacting on beneficial uses



Local Tools and Authorities

- Metering and monitoring
- Permit and pumping fees
- Pumping limits/groundwater allocation
- Enforcement (including fines)
- Well spacing



State Assistance, Oversight and Intervention

- DWR is responsible for numerous roles
- Assist locals
- Publish estimates of water available for replenishment
- Publish sustainability BMPs
- Develop regulations that define components of sustainability plans (2016)
- DWR will evaluate GSPs



State Assistance, Oversight and Intervention

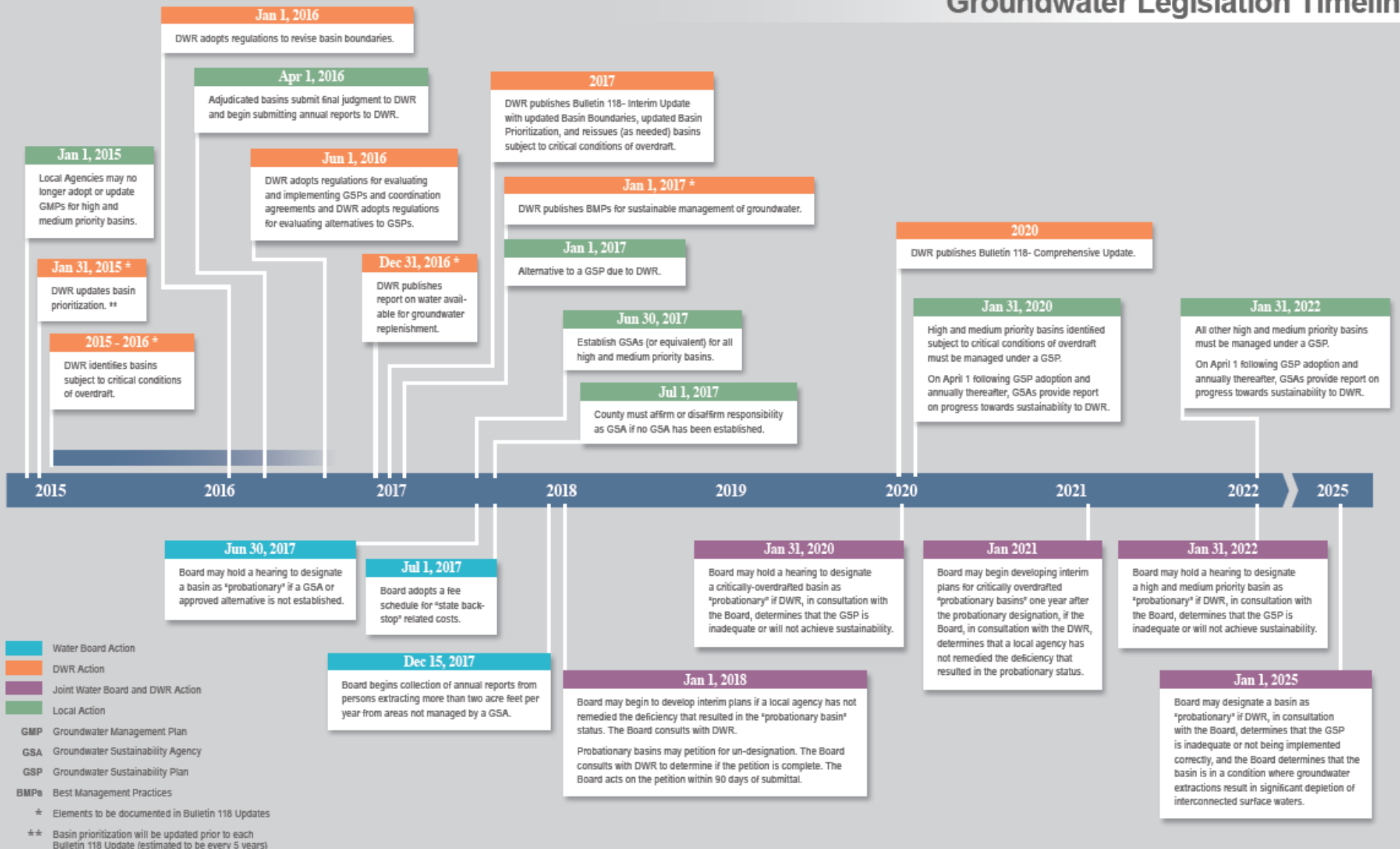
- The State Water Board may develop an interim plan when:
 - there is no GSA (2017)
 - a GSP is not completed(2020)
 - the GSP is inadequate or not implemented to achieve sustainability and there is a condition of long term overdraft or significant depletion of interconnected surface waters (2020, 2022, or 2025).



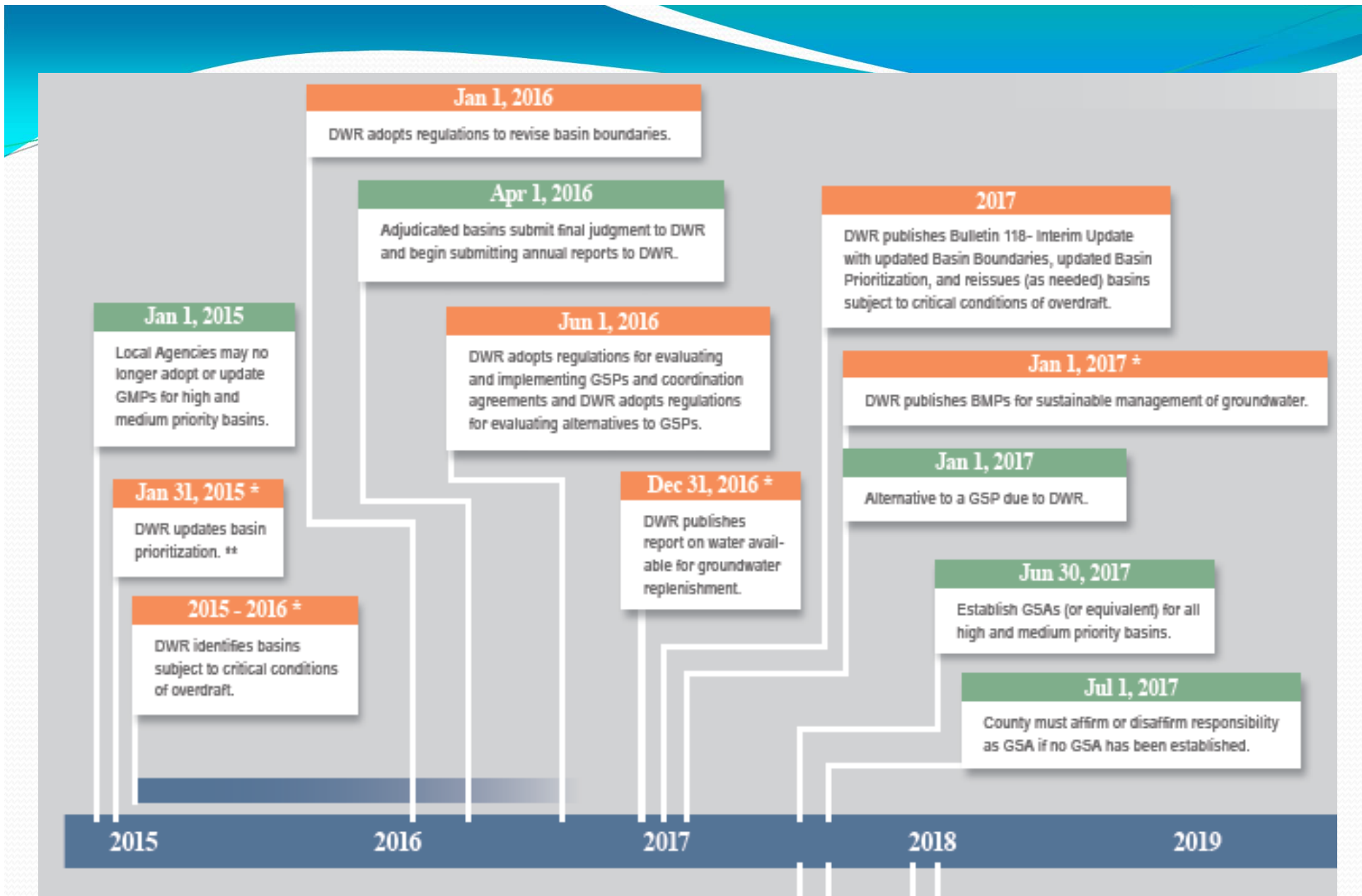
Other Provisions

- Water Board fee authority
- Requires reporting to State Water Board when no GSA
- Increased coordination of groundwater management and land use planning
- Off ramp for well managed and adjudicated basins
- Related---Water Bond allocates \$900M to the State Water Board for groundwater cleanup and management

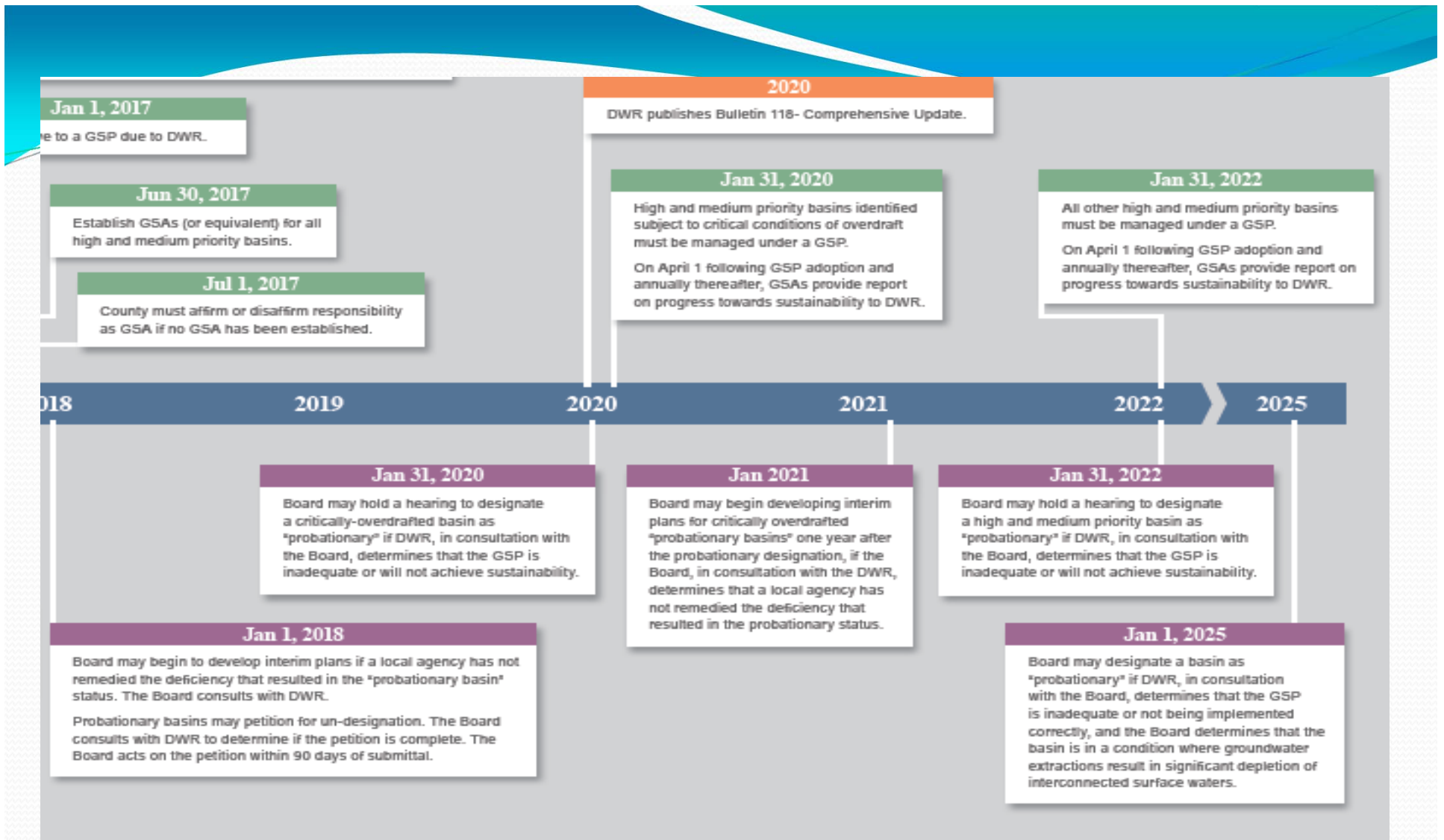
Groundwater Legislation Timeline



Sustainable Groundwater Management Act Timeline



Much of the initial work is responsibility of DWR and Local Agencies



State backstop kicks in: 2018 for areas not covered by GSA, 2021 for basins in critical overdraft, 2022 for high/medium basins, and 2025 for groundwater-driven depletion of surface waters.



Summary

- The legislation is key, but implementation will be critical.
- The solution is to help the locals do it better.
- The State's role should complement the goal of local sustainable groundwater management.
- A sustainable water system will strengthen local communities, ag and urban economies, and the environment for future generations.
- Groundwater management is one component of the overall Water Action Plan



Thank you

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For more information:

- groundwater.ca.gov – information on legislation to be posted soon
- <http://www.acwa.com/content/groundwater/groundwater-sustainability> – ACWA Sustainable Groundwater Act summary