

NOV 11-13, 2019

**SUSTAINABLE AG EXPO  
&  
INTERNATIONAL SUSTAINABLE  
WINEGROWING SUMMIT**

SAN LUIS OBISPO, CALIFORNIA

# **SGMA and Other Water Regulations: What Growers Need to Know**

Sustainable Ag Expo  
November 13, 2019

# Not Everybody Has Equivalent SGMA Understanding

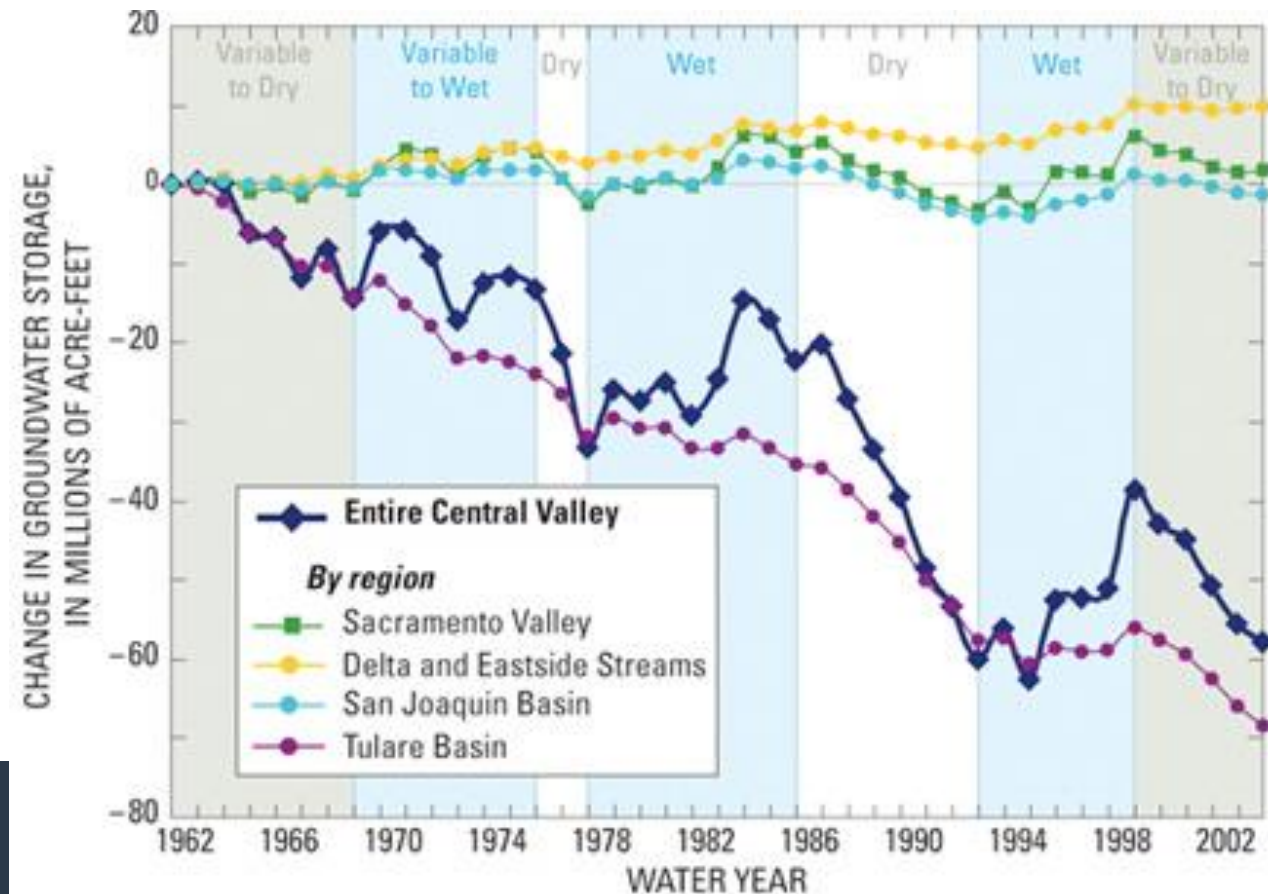
---

- What is SGMA? SGMA Schedule
- What is sustainability?
- Limited options for attaining sustainability
- Agriculture under SGMA – and other water laws
- Future opportunities for agricultural involvement

# Groundwater Management History

- State Water Resources Control Board
  - Managed surface water use since 1914
  - Very limited authority to manage groundwater rights
  - Results in two separate water management systems

No formal groundwater management



# Management Act (SGMA) Passed in September 2014

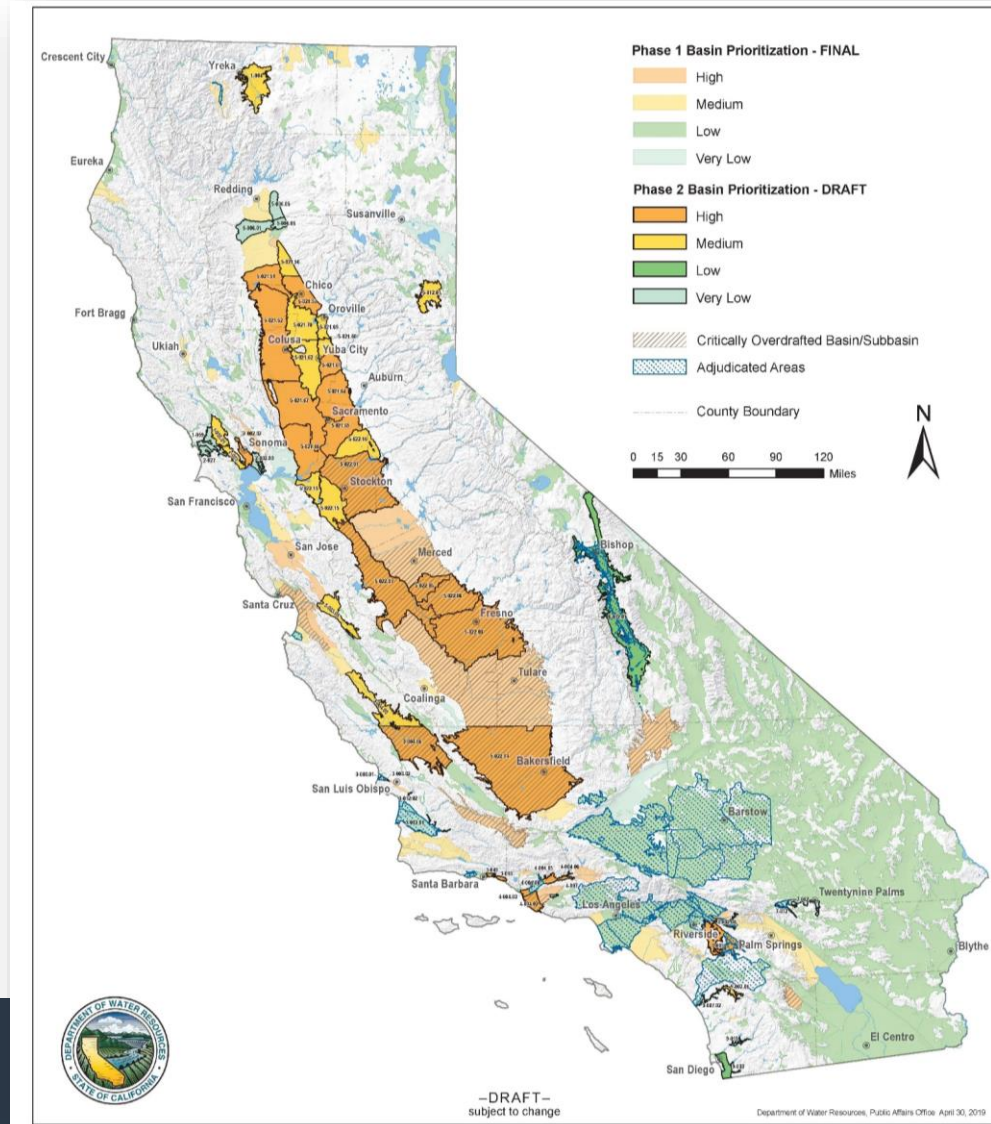
---

A compromise between one faction wanting State regulation of groundwater rights, and one faction insisting on local management.

- Locally driven
  - Groundwater is best managed locally, but this comes with responsibilities
  - Local definition of what constitutes sustainability
  - Locally agreed to plans for achieving sustainability
- State backstop
  - State can temporarily take over groundwater management if a basin fails to meet certain requirement or milestones in SGMA. Cutting pumping is their only tool

# Who Does SGMA Apply To?

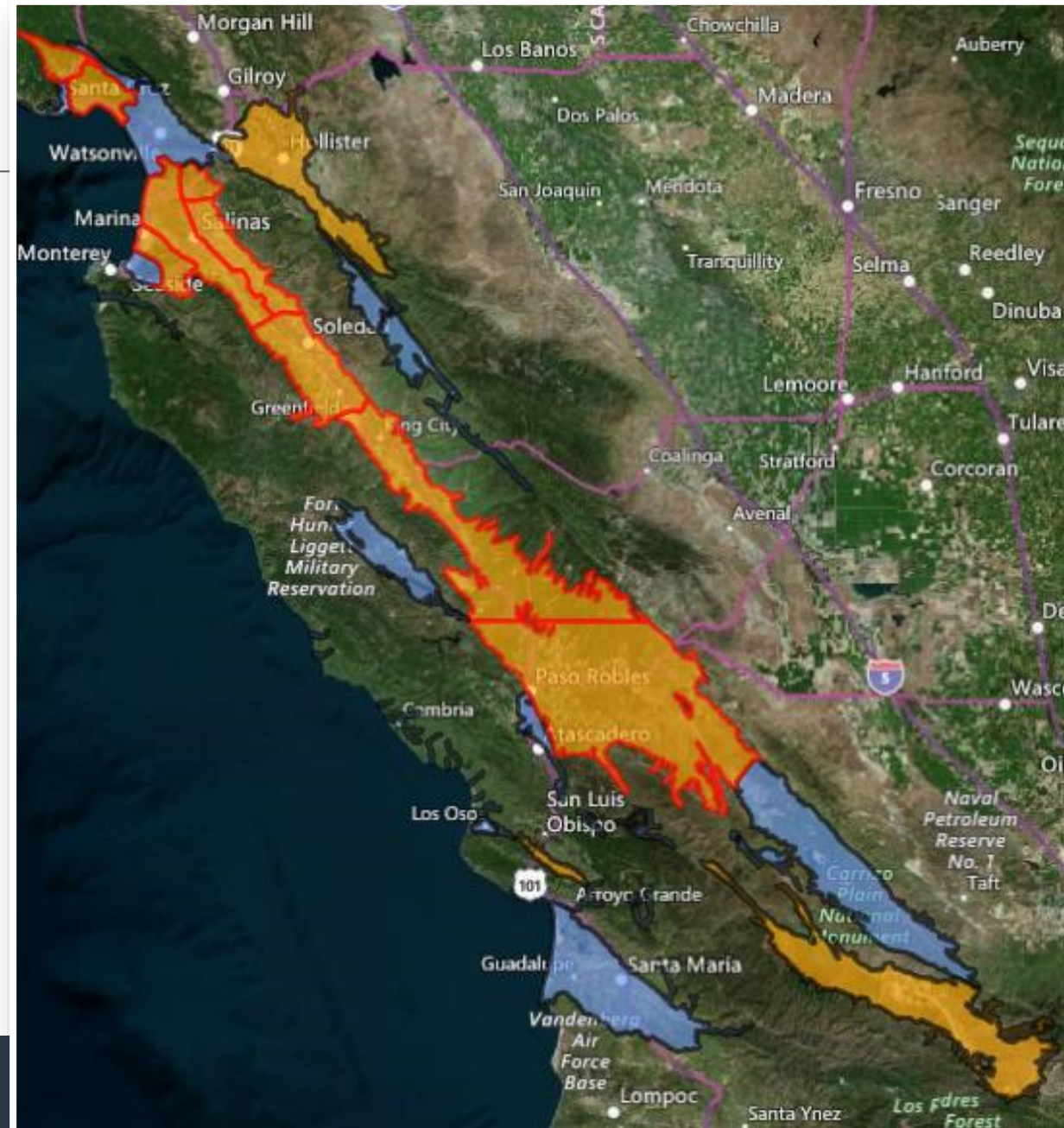
- There are 515 groundwater basins in the State
- SGMA applies to the 94 “high and medium priority” basins
- 21 basins are critically-overdrafted – on an accelerated schedule to get to sustainability



# Local Groundwater Basins



# Local Groundwater Basins



# SGMA Timeline

We are here



SGMA Start  
Jan 1, 2015

Basin Modification  
2016

GSA Formation  
2017

GSP Development  
2018 – Jan, 31 2020 (or 2022)

2020 – 2040 Achieve Sustainability within 20 years

2040 – 2070 Maintain Sustainability for next 30 years



# Groundwater Sustainability Plans (GSP) are SGMA's Fundamental Documents

---







- Two fundamental parts to a GSP
  - Define what your groundwater basin will look like in the future – many options
  - Establish how you will get there – projects and actions

# Groundwater Sustainability Plans are SGMA's Fundamental Documents

---

- These are Planning Documents
  - Not scientific treatise
  - Not an assessment of legal rights
  - Based on policies that local interests want
    - Important that agriculture stay involved
  - Should be flexible and changeable

# Sustainability is Managing Six Indicators Simultaneously (in 20 years)

- 1  Chronic lowering of groundwater elevations
- 1  Reduction of groundwater storage (pump within limits)
- 2  Seawater intrusion
- 3  Degraded water quality (do no harm)
- 3  Land subsidence (zero is the correct answer, but ...)
- 2?  Depletion of interconnected surface waters

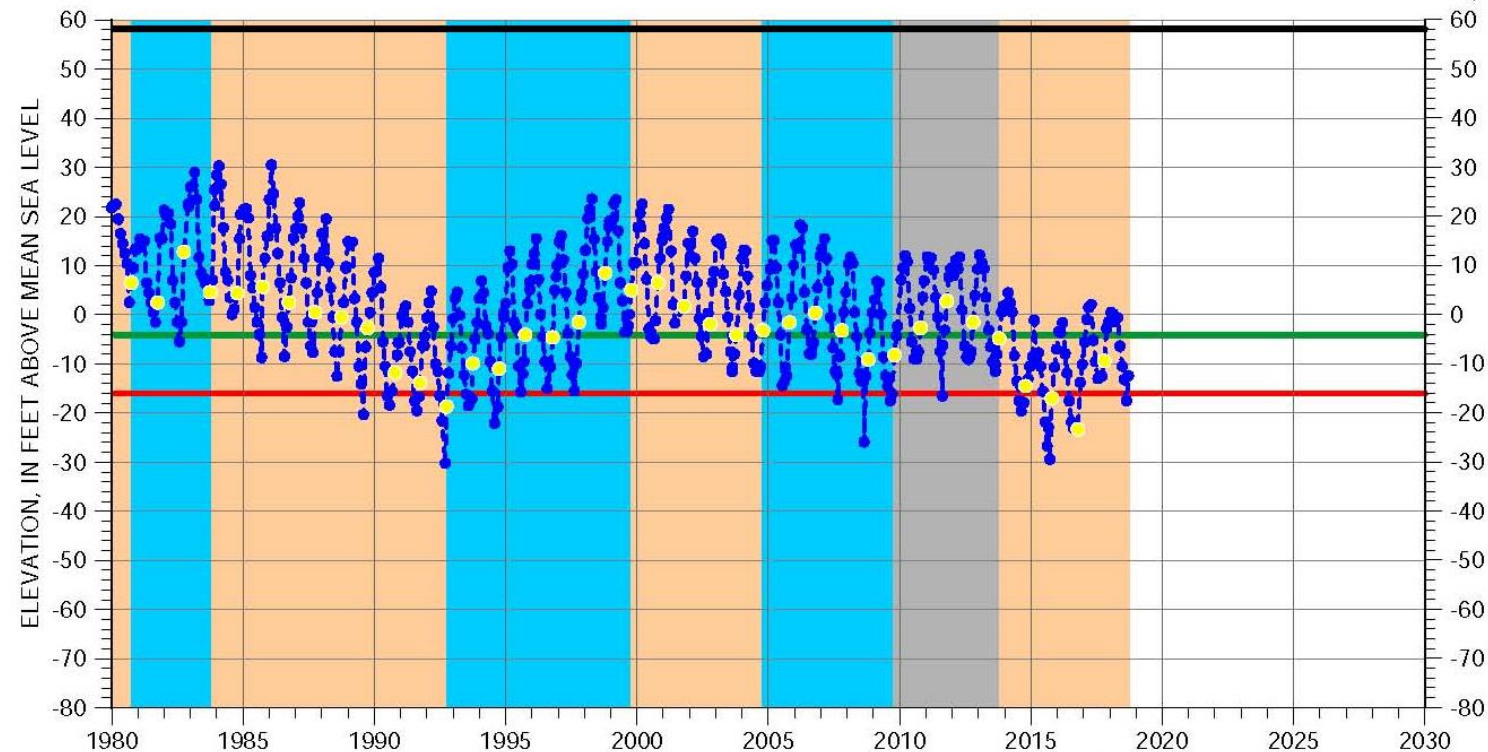
**Likely Ranking of Importance for MOST Basins**

# Local Interests Define Sustainability

## Must pass the straight face test

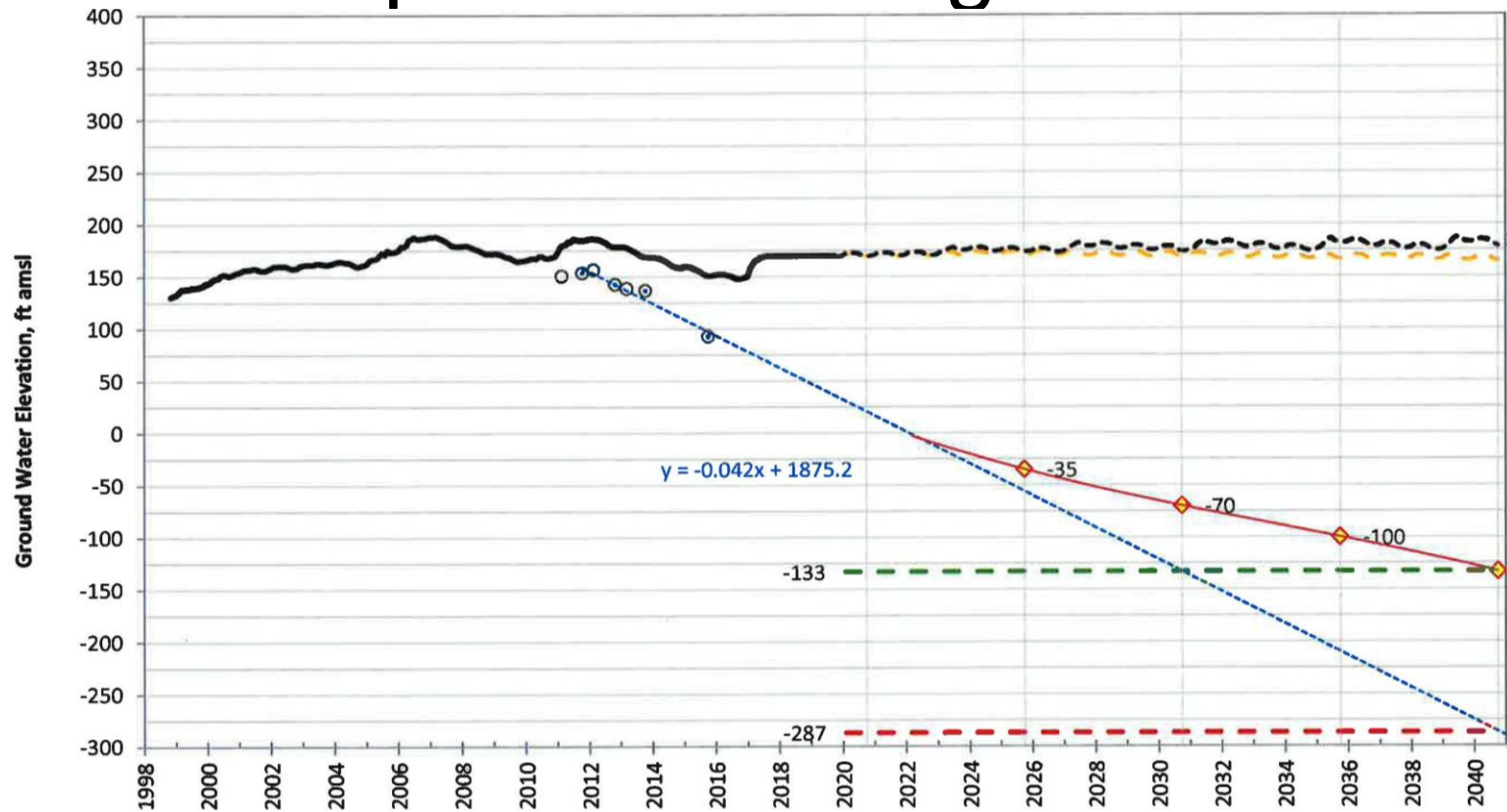
HYDROGRAPH OF MEASURED GROUNDWATER ELEVATION FOR 15S/03E-16M01

180/400-Foot Aq  
(18)



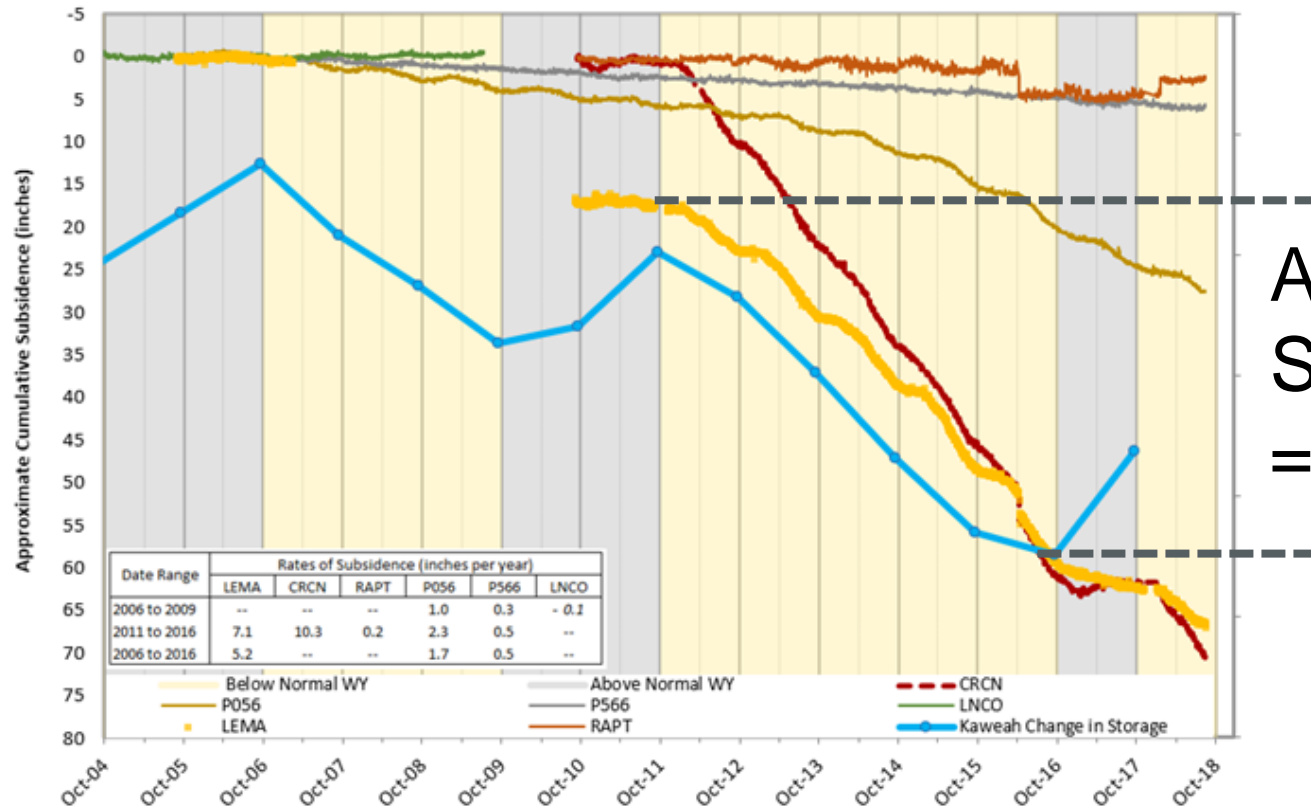
# Local Interests Define Sustainability

Must pass the straight face test



# Local Interests Define Sustainability

Must pass the straight face test



Average  
Subsidence  
= 7 Inches/Year

# Getting to Sustainability

- Two options:
  - Use less water
  - Import or store more water
- Both options have cost
- Everybody wants to solve the problem by obtaining more, cheap water. It doesn't exist.

# Getting to Sustainability

- Can we make a profit importing additional water supplies?
- Otherwise reduce water use
  - Increase efficiency
  - Change crops
  - Reduce acreage



# Management of Pumping Limits

- Every basin will likely have a maximum pumping limit (sustainable yield)
  - May currently be pumping below the limit
  - Most plans will have a structure to distribute this yield among pumpers



# Estimated Pumping Cutbacks

- Paso Robles – 18%
- Cuyama – up to 67%
- Kern County – 25% (?)
- Borrego Springs – 75%
- Redding Basin – Likely zero



# Efficiency Will be Important to Address Cutbacks

- Water rights will likely be based on crop type more than historical use
  - Pumping lots historically does not necessarily establish a better water right
  - Water allocations may include acreage, historical cropping patterns, etc.

# Initial Pumping Limits are Estimates

---

- The pumping limits are close to where you will end up, but ...
  - Pumping limits will change as we get better data
  - Pumping limits will change if we recharge more water (within legal rights)
- Focus on the structure of distributing pumping

# Management Actions for Funding

---

- Funding sustainability will likely be largely borne by agriculture
  - GSA annual operations
  - Cost of any projects
- Often funding is tied to pumping
  - Should all growers pay for loss of income due to pumping cutbacks?

# SGMA Does Not Exist in a Vacuum

*I am not an attorney*

- Groundwater rights are usufructuary rights
  - It is a right attached to land ownership
  - You don't own the water.
  - You can't waste the water
  - You own a right to use the water beneficially

# What This Means for SGMA

- The quantity of water you are allowed to use can be reduced, based on groundwater availability

# SGMA Does Not Exist in a Vacuum (2)

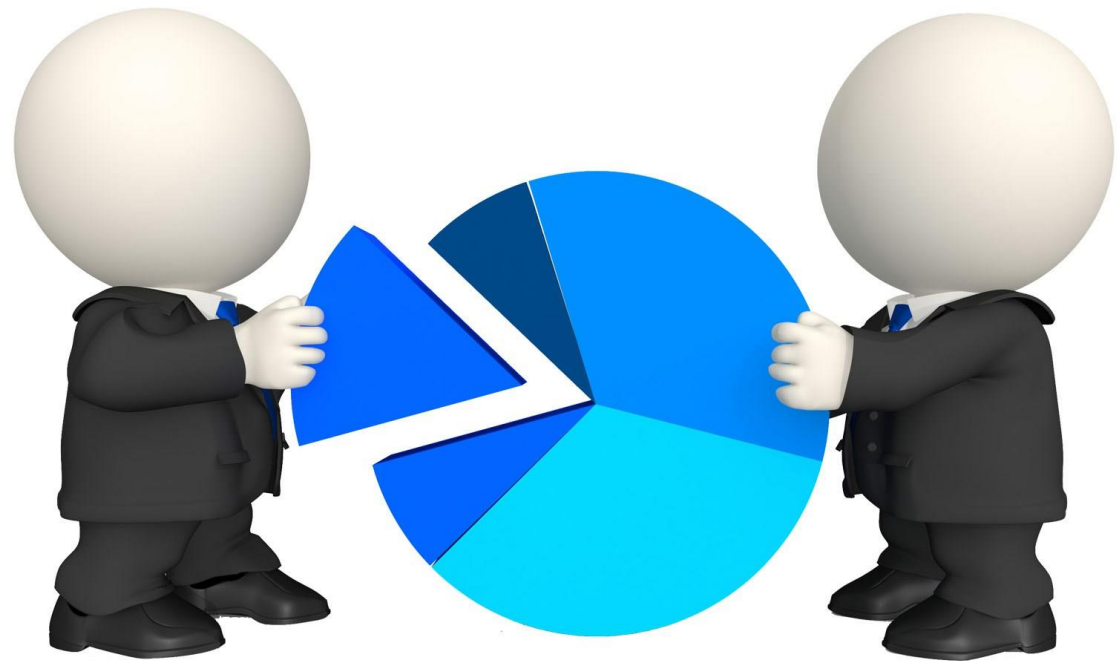
*I am not an attorney*

- Groundwater rights are correlative
  - All overlying users have an equal right to pump groundwater
  - During shortages, overlying users can pump a proportionate fair share of the total amount available based upon reasonable needs



# What This Means for SGMA

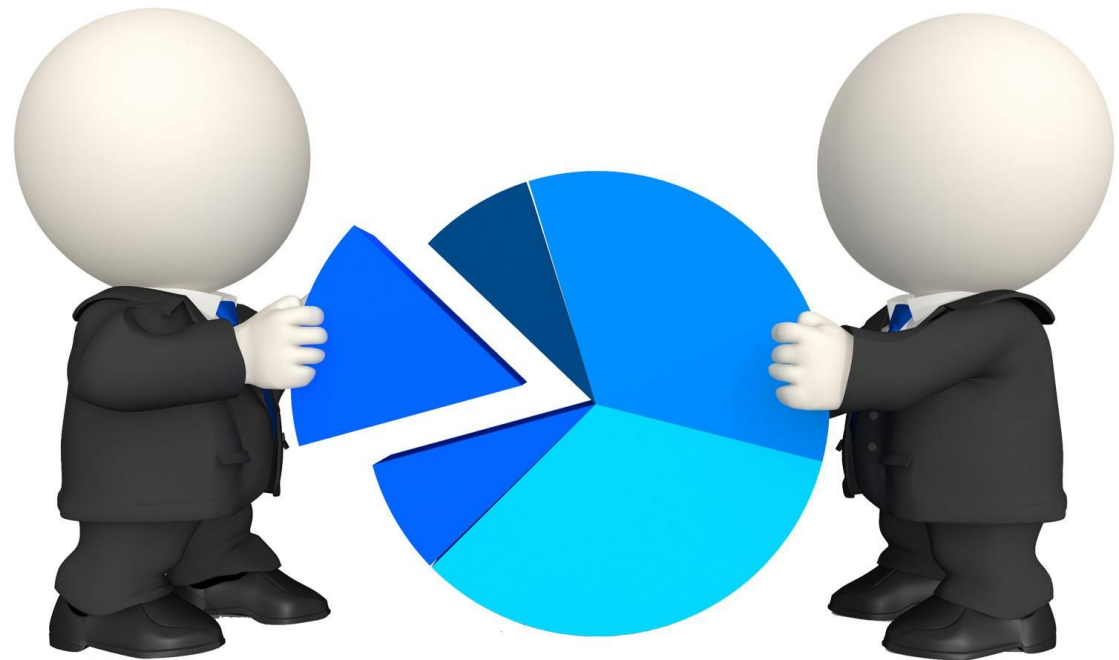
- No definition of “proportionate fair share”
- Cutbacks cannot be arbitrary or capricious



# What This Means for SGMA

- Do not allow arbitrary implementation of SGMA authorities

SGMA provides GSAs the authority to “[*limit*] ... or *suspend* extractions from individual groundwater wells”



# Advice for Growers – and Everybody

- Get involved
- Stay involved – this is a 20 year process
- Equity is important
- Integration with other laws

# Advice for developing a GSP

- Focus on structure more than numbers
- Develop a flexible management system
  - Don't let a threatened adjudication sidetrack you

# Final Thoughts

---

- SGMA implementation is an ongoing process
- DWR is still testing its ideas
- Developing the GSP is an iterative process that takes negotiations and time.
- Be prepared to improve your operations however you can. It may be cheaper than buying new water

# Questions