

# CALIFORNIA'S WATER FUTURE

## i2i Report

(Based on Draft issued for Peer  
Review on 1/23/14)

# PROJECT TEAM

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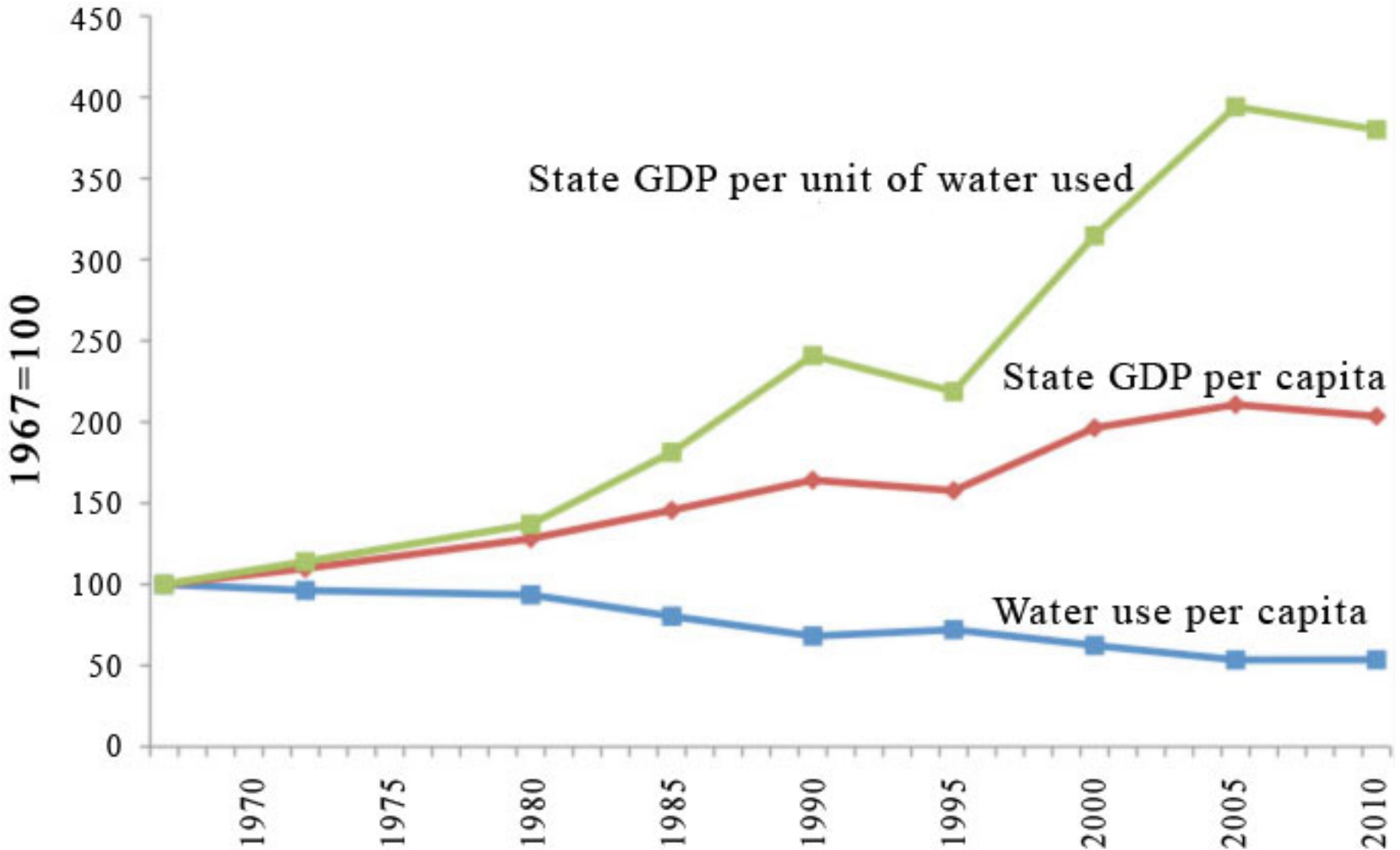
# WHAT IT IS

- USED THE WATER USE CYCLE AS A FRAMEWORK FOR OUR ANALYSIS AND RECOMMENDATIONS
- IDENTIFIED INNOVATIONS IN SCIENCE AND TECH FOR EACH STEP IN CYCLE – IT WORKS!
- MADE MANY RECOMMENDATIONS ON WHAT TO SHOULD BE DONE BOTH SHORT AND INTERMEDIATE TERM

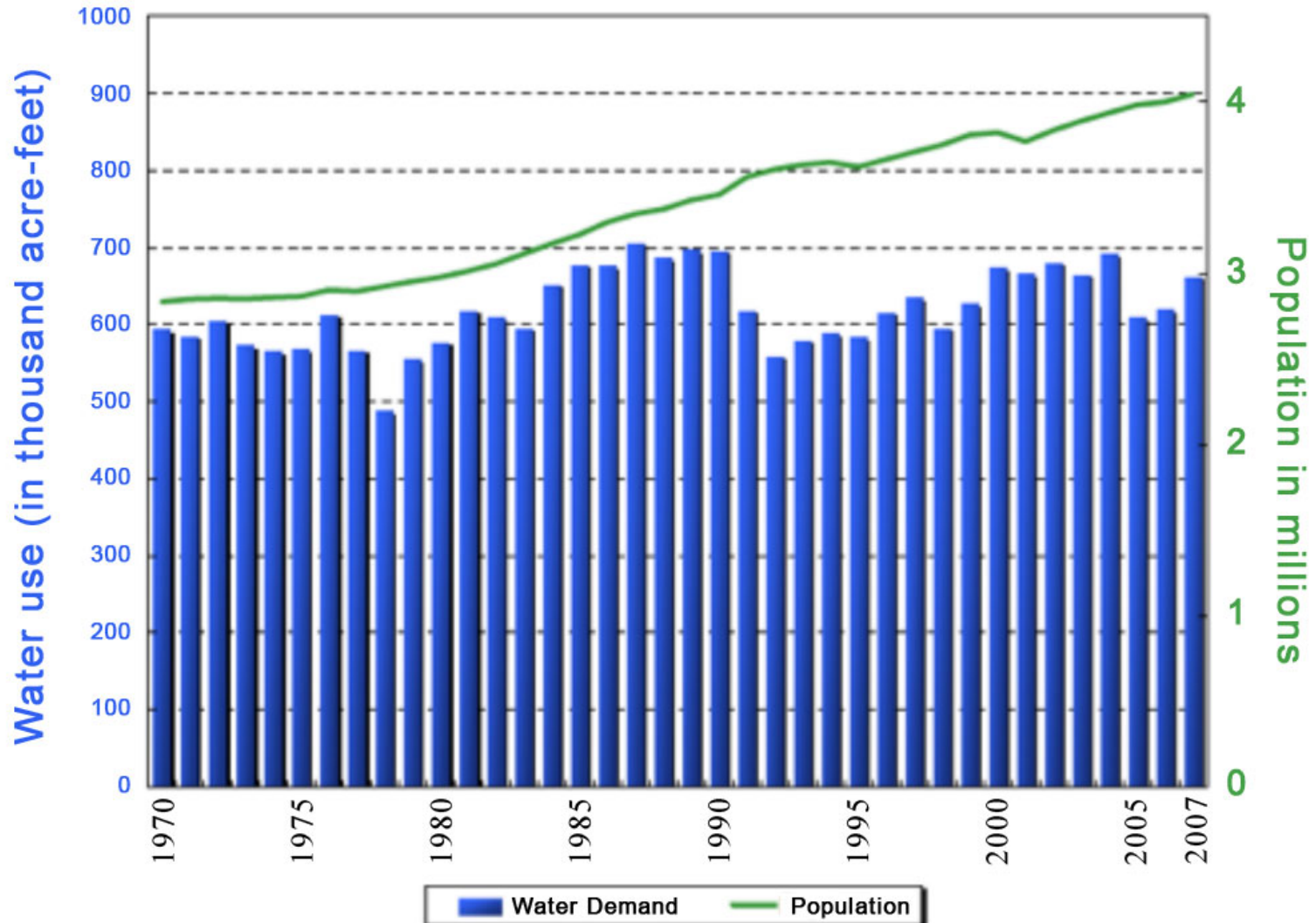
# WHAT IT IS'NT

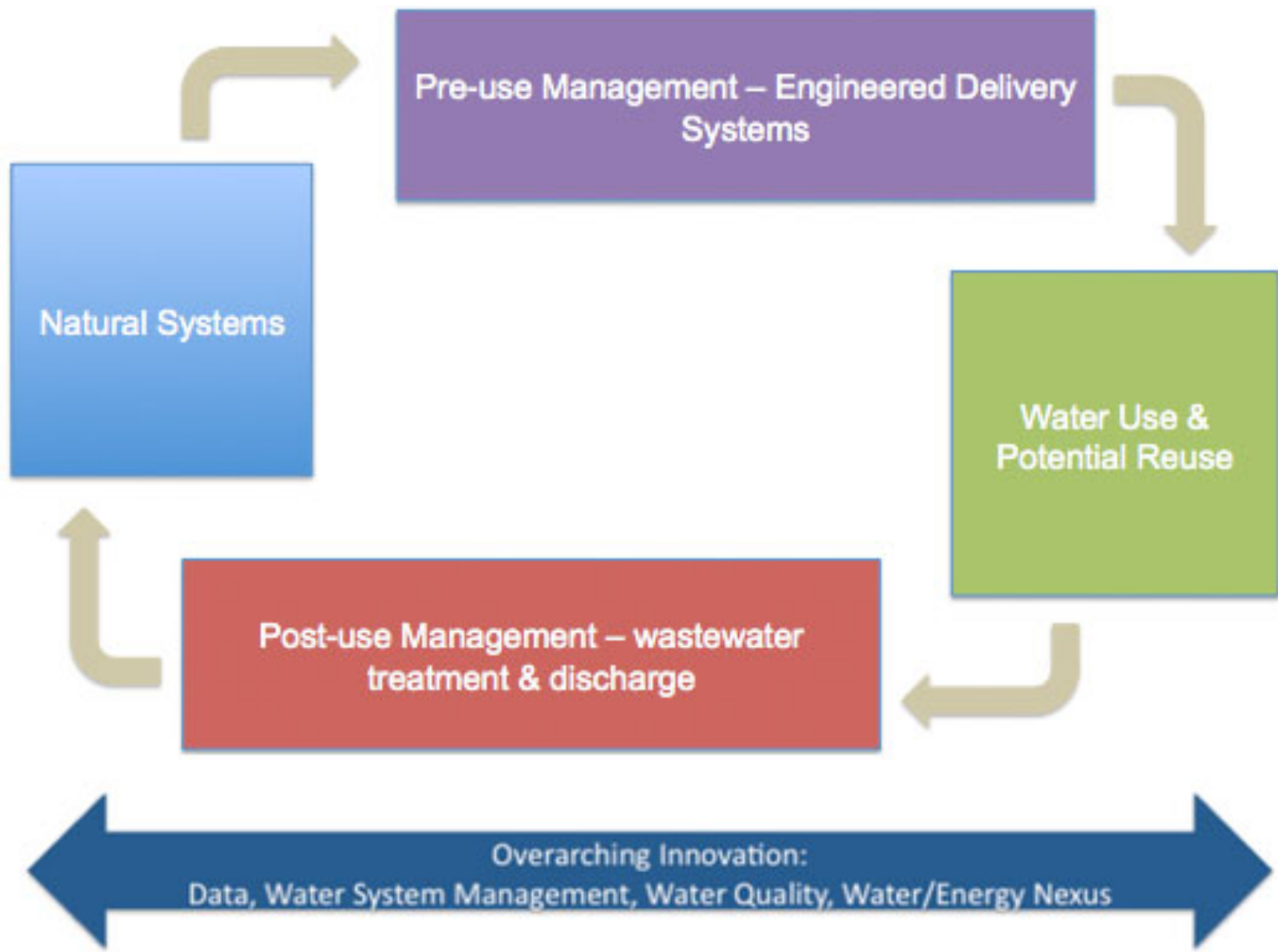
- NO SPECIFIC POLICY RECOMMENDATIONS  
ALTHOUGH A LOT OF POLICY THOUGHTS
- NO EVALUATION OF THE ECONOMICS AND  
POTENTIAL OF EACH TECHNOLOGY
- NO POSITION ON THE DELTA ISSUES

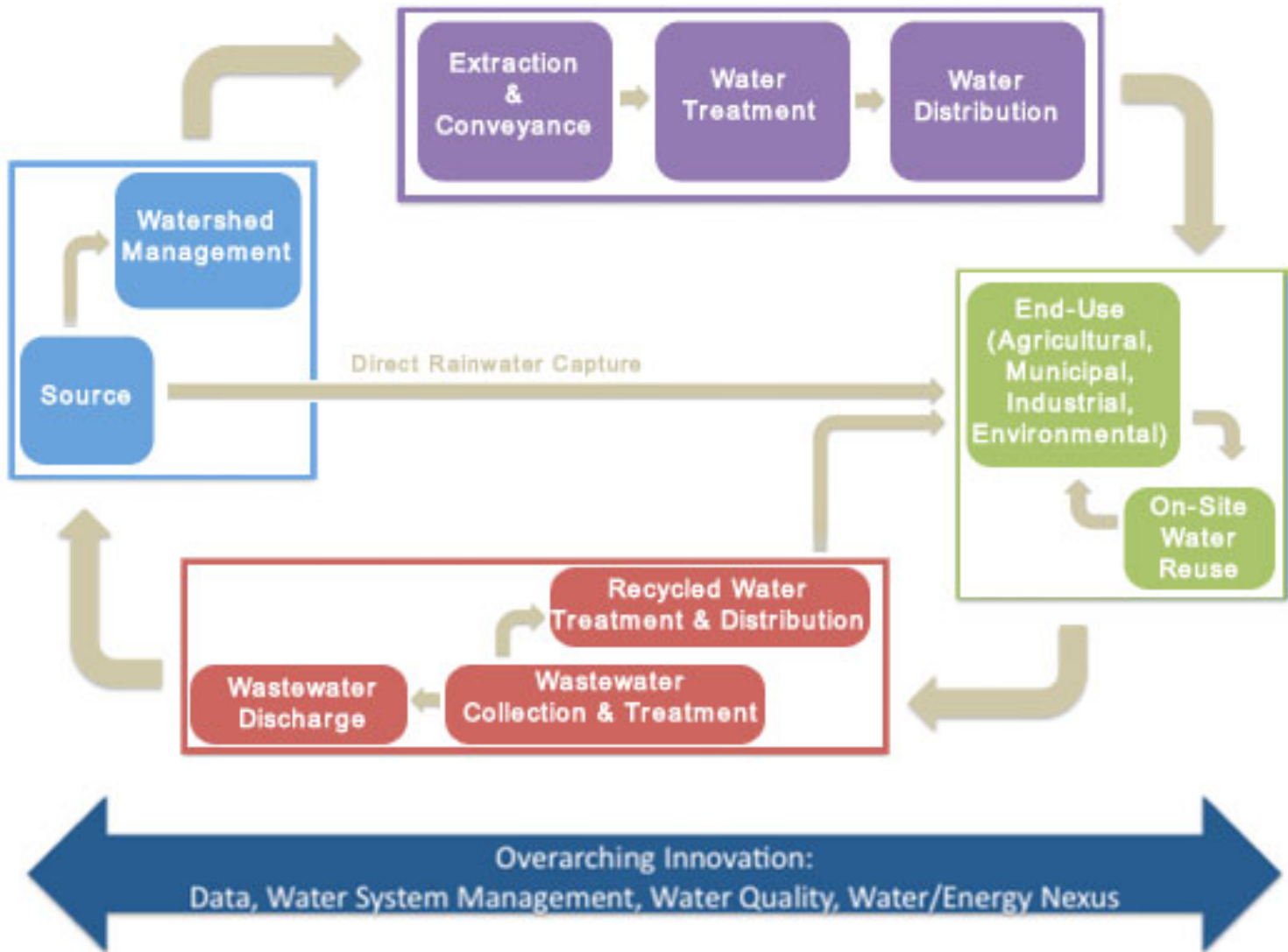
# CA STATE GDP PER UNIT OF WATER USED



# L.A. WATER DEMAND AND POPULATION, 1970-2007









# INNOVATIONS ASSESSED IN TWO CATEGORIES

- OVERARCHING

- DATA ACQUISITION & MGMT
- WATER SYSTEM MGMT
- WATER/ENERGY NEXUS
- WATER QUALITY

- INDIV PROCESS STEPS

- WATERSHED MGMT
- EXTRACTION, CONVEYANCE, DISTRIBUTION & STORAGE
- WATER/WASTEWATER TREATMENT
- WATER USE
  - AGRICULTURE
  - URBAN

# FOR EACH CATEGORY

- DEFINITION
- OVERVIEW
- INNOVATION OPPORTUNITIES
- CASE STUDIES
- RECOMMENDATIONS

# MAIN RECOMMENDATIONS

2. Expand the use of monitoring technology and management practices
3. Improve water use efficiency in all sectors and at all stages of the water cycle
  - A. Agricultural sector –
  - B. Urban sector –
  - C. Utilize “system thinking” across all sectors

# MAIN RECOMMENDATIONS (Cont'd)

floodplains - focus on ground water recharge

5. Develop new and expand the application of proven chemical, physical and biological water treatment technologies w/ a special focus on salinity mgmt, nitrate control & recycling water

6. Integrate water, energy and land use planning and management

# MAIN RECOMMENDATIONS (Cont'd)

various public sector institutions

8. including public/private partnerships
9. Identify, evaluate adapt and implement best practices from around the U.S. and the world

# CHANGE AND NEXT STEPS

- FUNDING, ACCURATE INFORMATION, ALIGNED GAME PLAN, SYSTEMIC COORDINATION, PUBLIC SUPPORT
- AGENTS OF CHANGE
  - POLITICAL LEADERS, WATER AGENCY LEADERS, WATER TECHNICAL EXPERTS, OTHER STAKEHOLDERS
- NEXT STEPS / ROLL OUT PLAN

# ROLL OUT PLAN

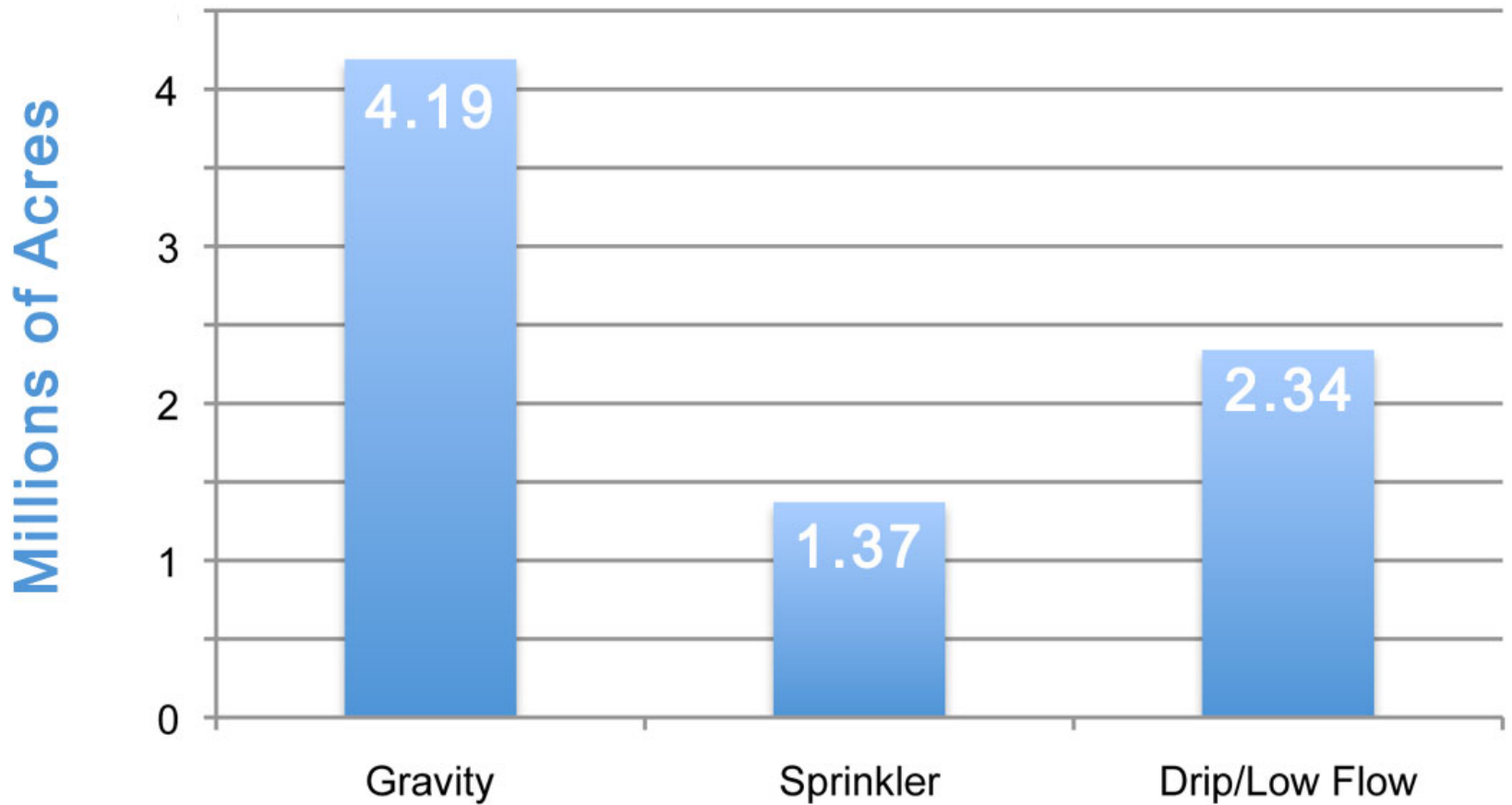
- SCHEDULE
- RESPONSE TO GOVERNORS DECLARATION OF
  - AGRICULTURE
  - URBAN
-

# Background

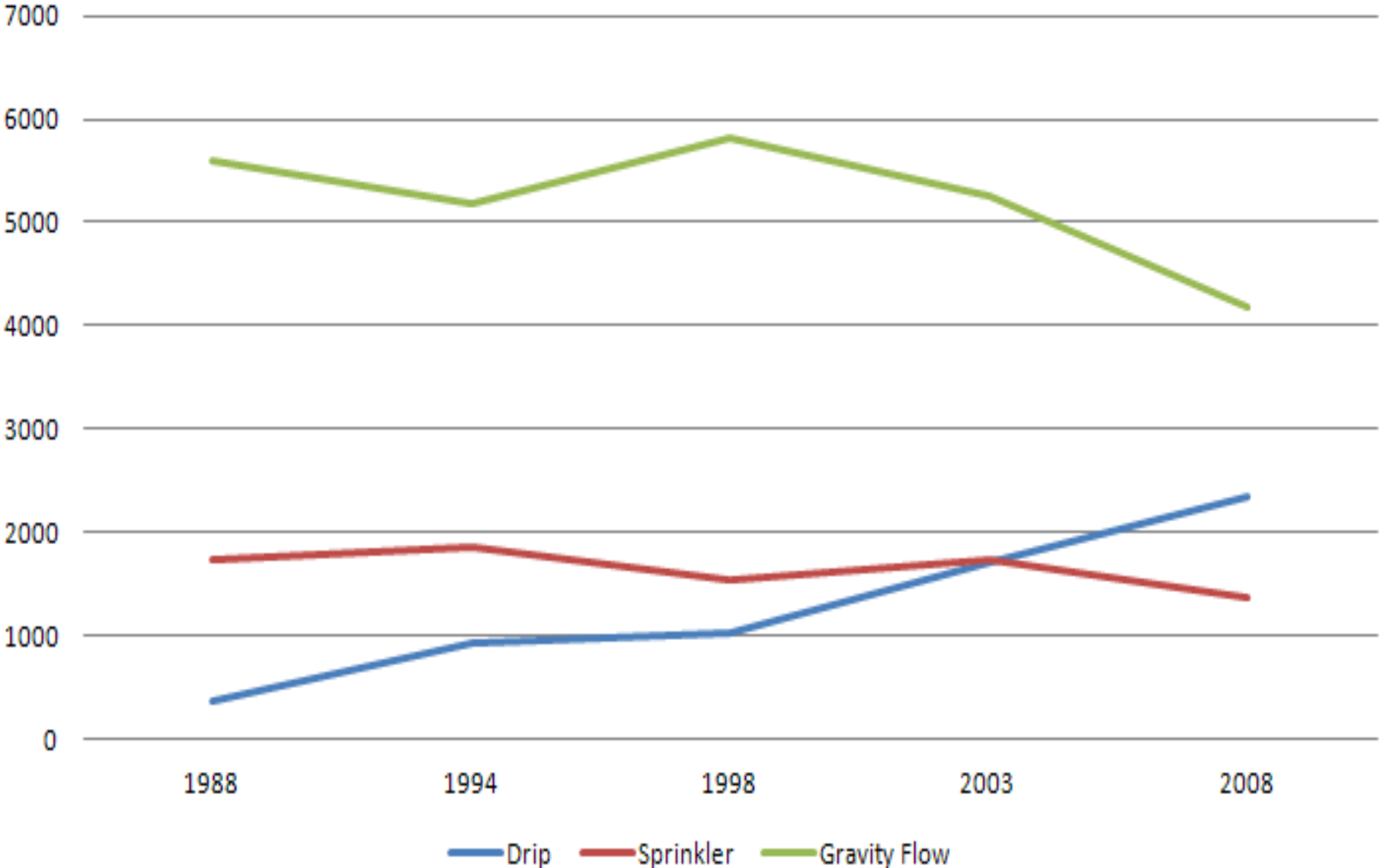
(million acre-feet)



# California by Acreage (2008)



# CA Acres (000) by Systems of Irrigation



# CA Crop Statistics

## Irrigated Acreage by Crop and Method: California

	Acres (1,000s)	Sprinkler	Gravity	Drip
<b>Lettuce</b>	200	52	47	101
<b>Tomatoes</b>	234	26	102	107
<b>Vegetables</b>	912	357	214	341
<b>Fruits/Nuts</b>	2,547	365	424	1,758

# What can be done now?

- Water management is critical (timing and amount)
  - ✓ Provide incentives for flow meters and soil moisture sensors
  - ✓ Provide training on their installation and use

# Timing is critical

- Legislative language can be developed immediately
- ~~Legislative language can be developed immediately~~
- With strong support, program could be

# STORY LINE / TAKE AWAYS

- We can do more with less, but requires a road-
  - We can do more with less, but requires a road-map that all agree to follow
  - We require good quality information about the need more re-use, efficiency and the capture of 0103333 000000 (330000 000000, 0000 0000, 0000)
- water etc)
  - A systems approach is essential using science and