

# Casitas Municipal Water District Agriculture and Water Demand



Ron Merckling  
Water Conservation Manager  
Casitas MWD



# Board of Directors



**Bill Hicks**



**Russ Baggerly**



**Jim Word**



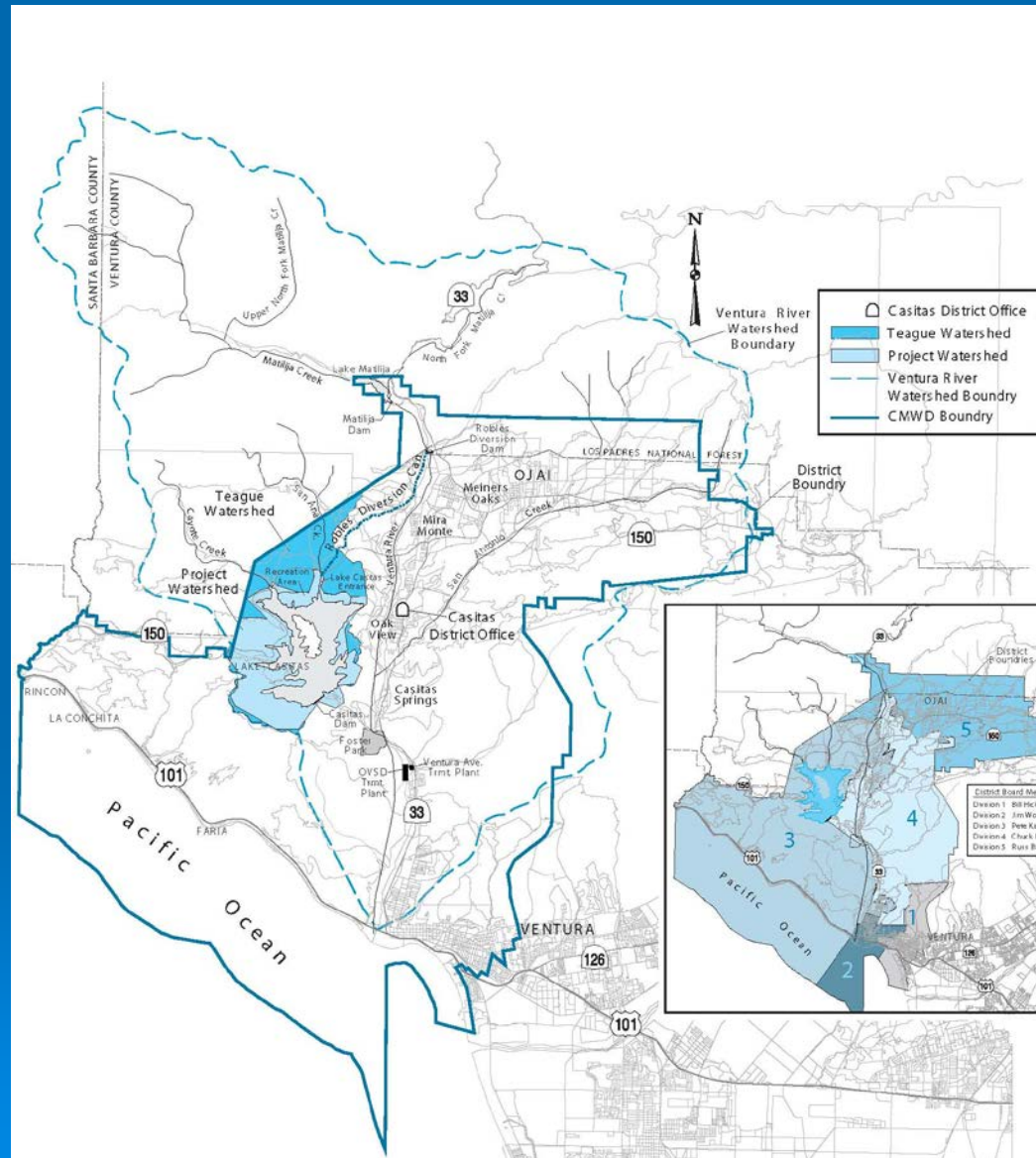
**Mary Bergen**



**Pete Kaiser**



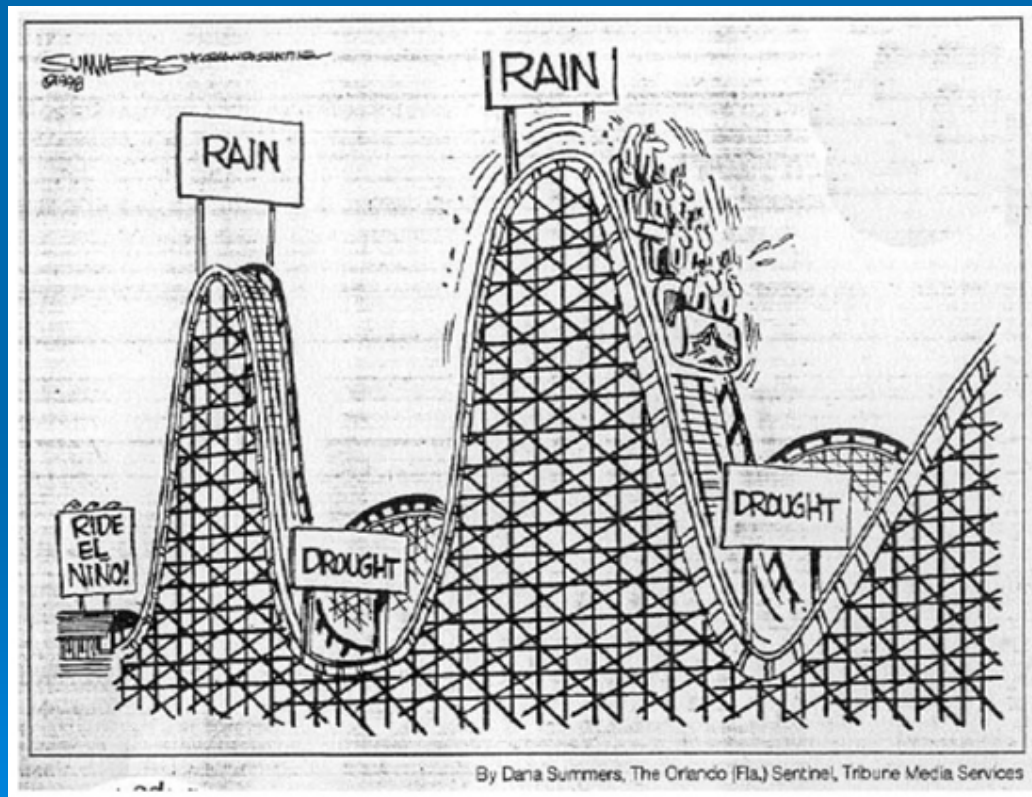
# Casitas MWD Boundaries



# Local Water Supply

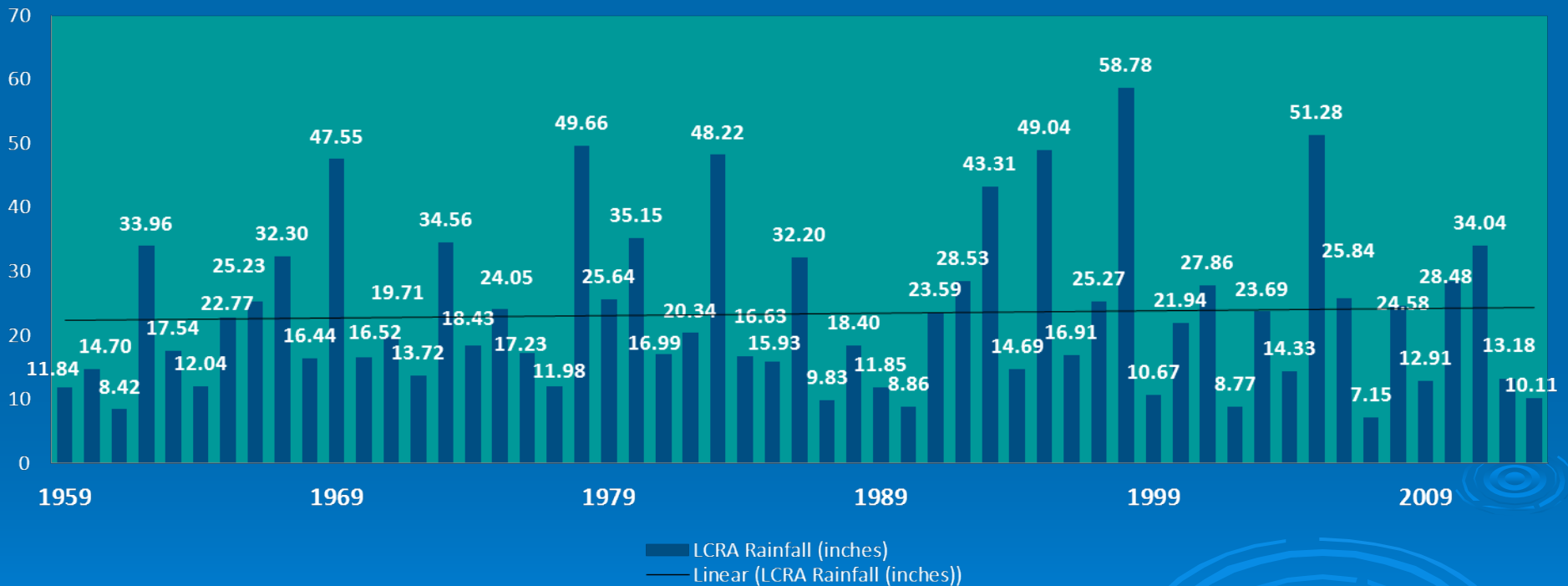
## Rainfall Dependent

Highly Variable in Quantity and Occurrence

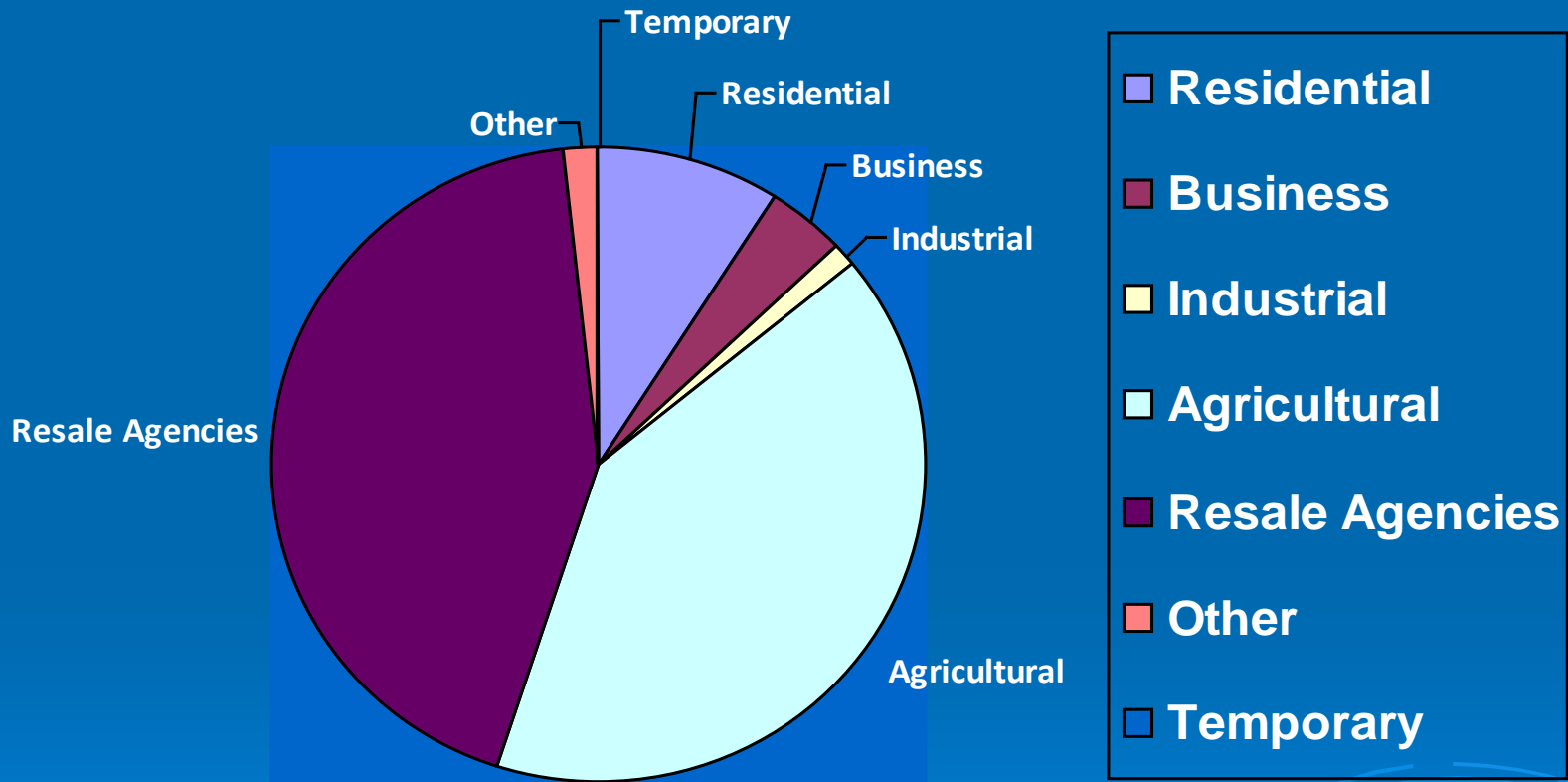




# Rainfall (Last Half Century)



# Casitas MWD Water Demand by Customer Category



# Agriculture Growth – Acres Planted

- **Agriculture**
  - **Citrus and Avocado**
    - 1932 ---- 1,721 acres
    - 2008 ---- 5,147 acres
  - **Water Use**  
(Based on 2 AF/acre/year)
    - 1932 ---- 3,442 AF
    - 2008 ---- 10,294 AF



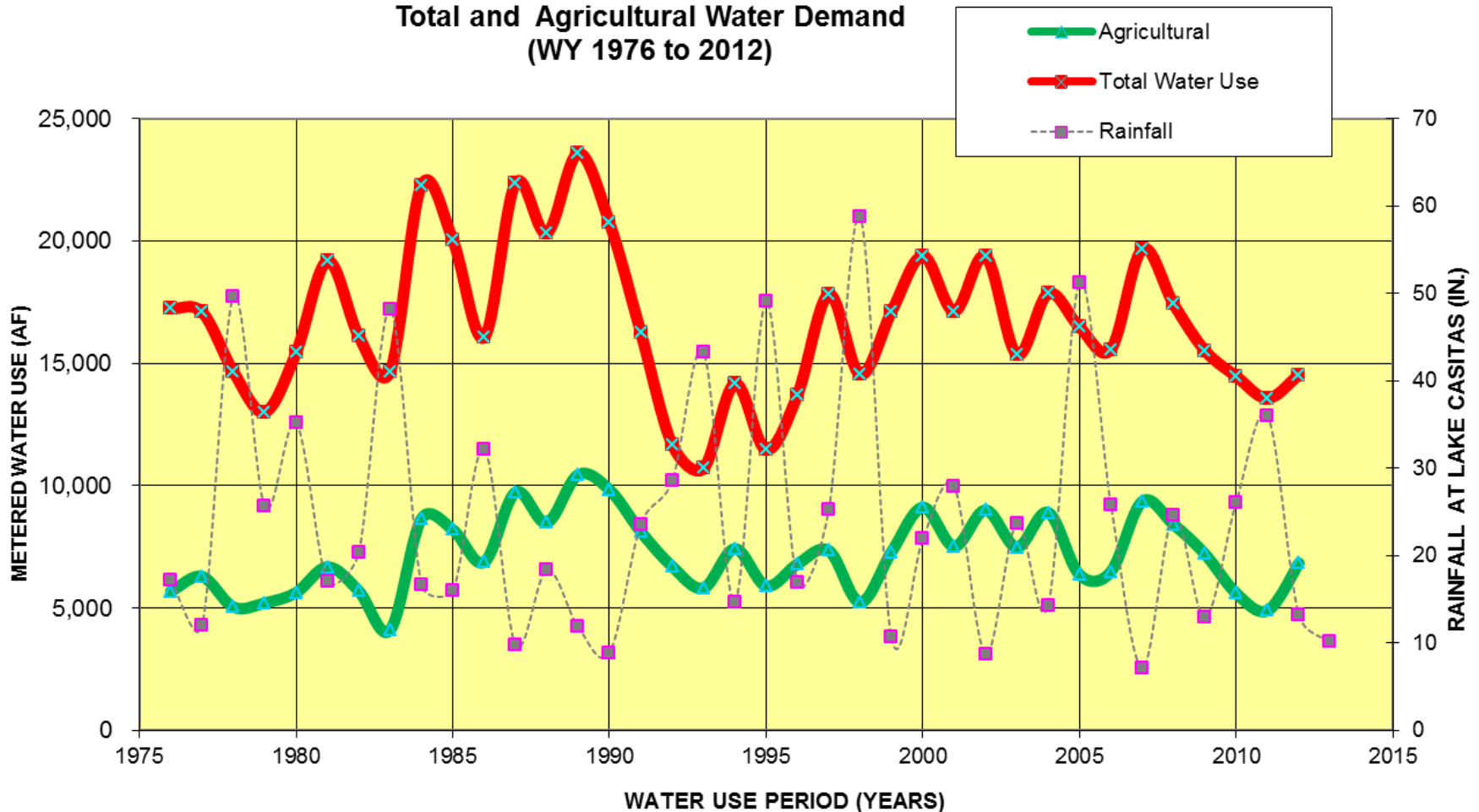






# Agriculture Water Demand vs. Total Water Demand

Total and Agricultural Water Demand  
(WY 1976 to 2012)

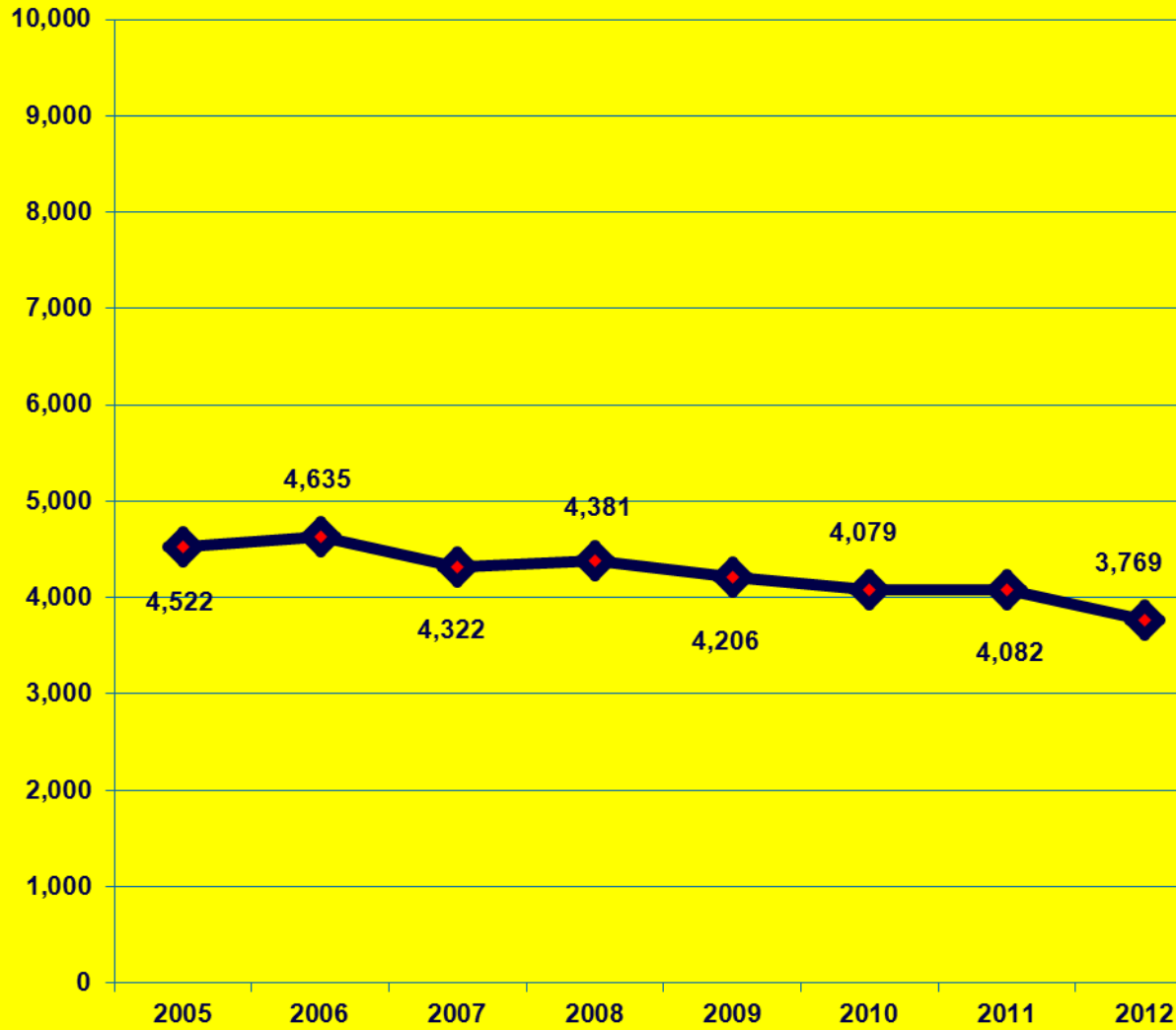


# Casitas' Agriculture Water Demand Acre-Feet 1994-2012

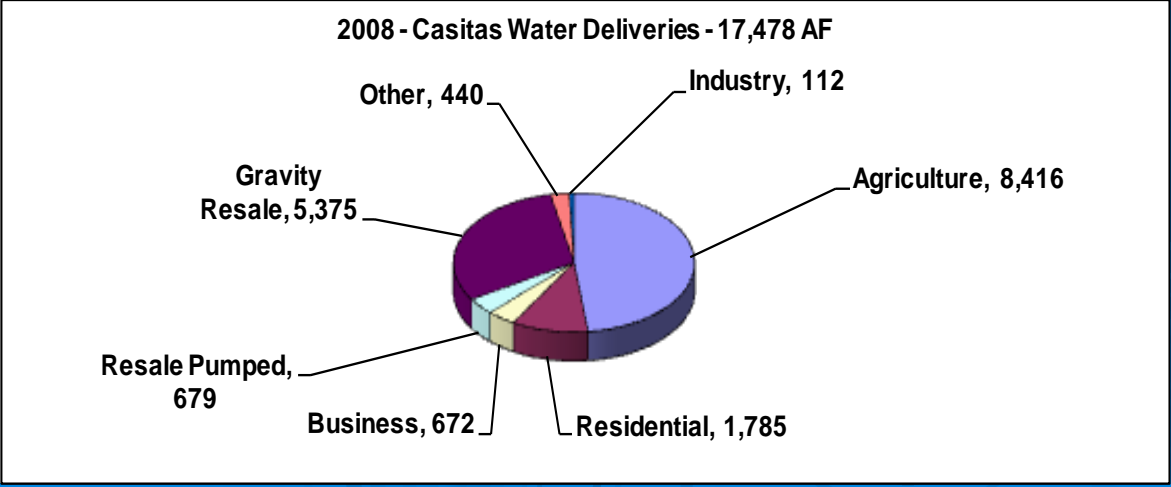
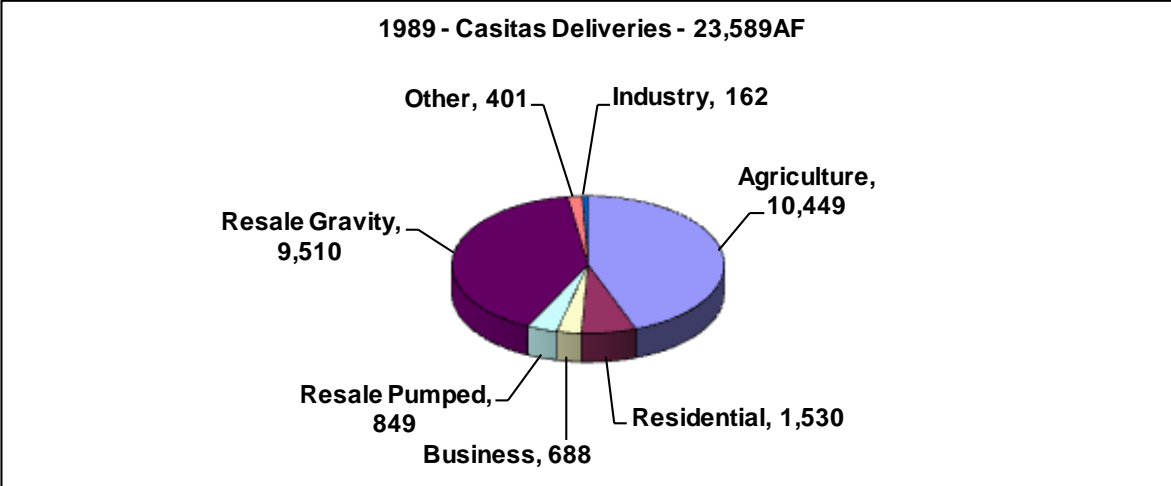




# Total Planted Acres of Agriculture 2005-2012



# Agricultural Water Changes





# Agricultural Threats

## Invasive species:

- Asian Citrus Psyllid threat to citrus groves (carrier of deadly bacteria: Huanglongbing) -
- Ambrosia beetle threat to avocado groves by spreading fungus.



## Market changes

- Urban and agriculture interface
- Crop competition from other areas

Climate Change (extreme weather occurrences)

Regulations (Increased production costs)

Immigration (lack of labor)

# Casitas' Role

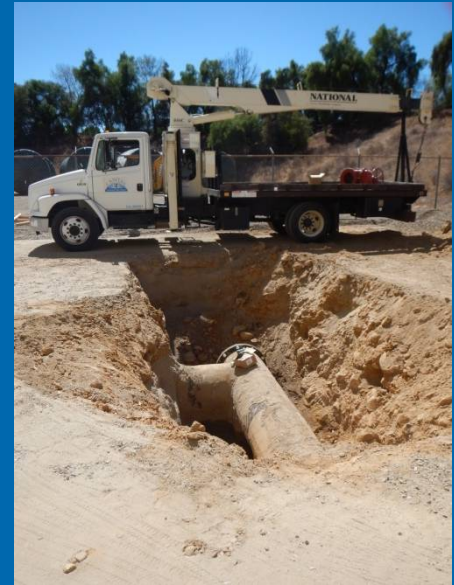
**Continue to provide reliable and affordable water supply to agriculture customers**

**Provide programs to help agricultural customers to use their water as efficiently as possible**





# Cost to Maintain Reliable Water Supply



# Southern California Agricultural Water Rate Comparisons

- Casitas MWD \$394/AF
- GSWC Orcutt \$427/AF
- Goleta WD \$514/AF
- MWDSC Tier 1 raw water \$560/AF
- SDCWD raw water \$593/AF
- Carpinteria VWD \$740/AF
- Santa Maria Well Water \$745/AF
- VCWD #19 Somis \$863/AF
- Vallecitos WD \$1,207/AF
- Montecito WD \$1,699/AF



# Conclusions

- Water supply
- Planted acre changes
- Threats
- Cost of Water



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