



Potomac River at Goose Creek

# Water Markets in California

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DRAFT for internal discussion purposes



# Water Market Topics

- What do California water markets look like?
- How did they get started?
- Who benefits?
- How do you know if a market will work?
- Case Studies
- Literature
-



# Water Market Topics – what do they look like?

## What do California water markets look like?

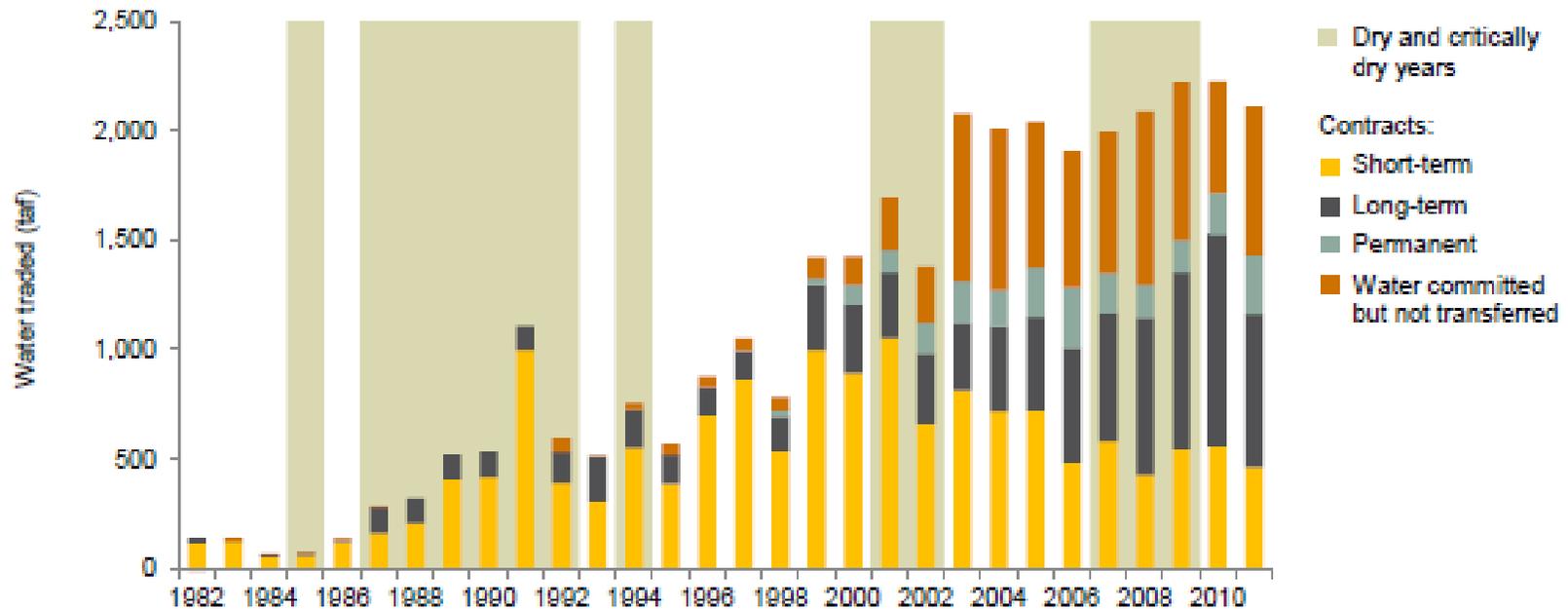
- > What is for sale?
  - Quantity (water rights)
  - Space
  - Quality
- > How is it sold?
  - Is it a ‘market’ or a lot of ‘trades’ or a few ‘deals’?
  - Government involvement/approval
    - Government as ‘market maker’
    - Individually brokered deals, with govt ‘approval’



# Water Market Topics – how did they get started?

## DROUGHT !

**FIGURE 3**  
California's water market has grown substantially since the early 1980s



Source: Hanak, E. and E. Stryjewski, 2012, PPIC



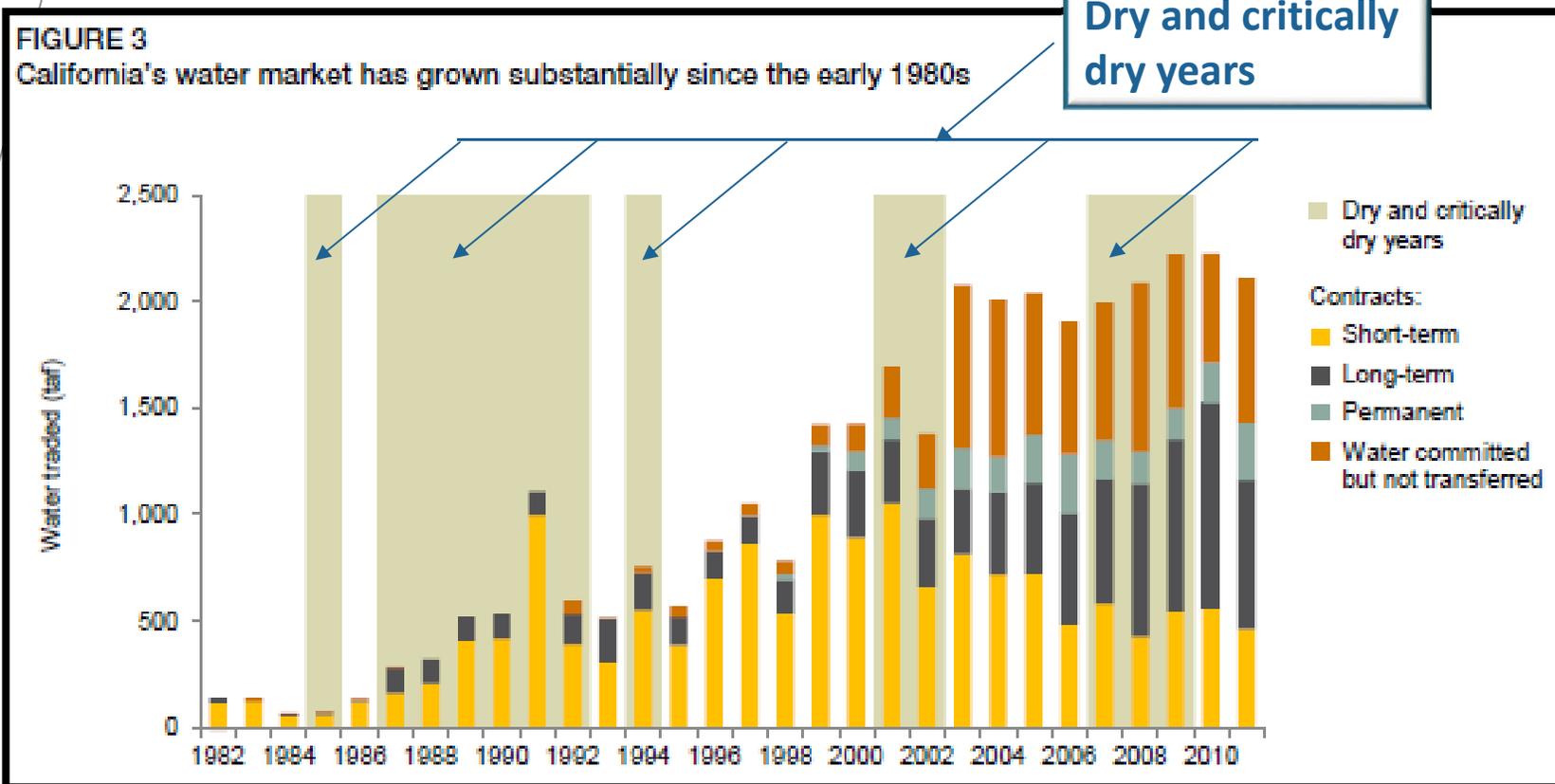
# Water Market Topics – how did they get started?

## DROUGHT !

FIGURE 3

California's water market has grown substantially since the early 1980s

Dry and critically dry years

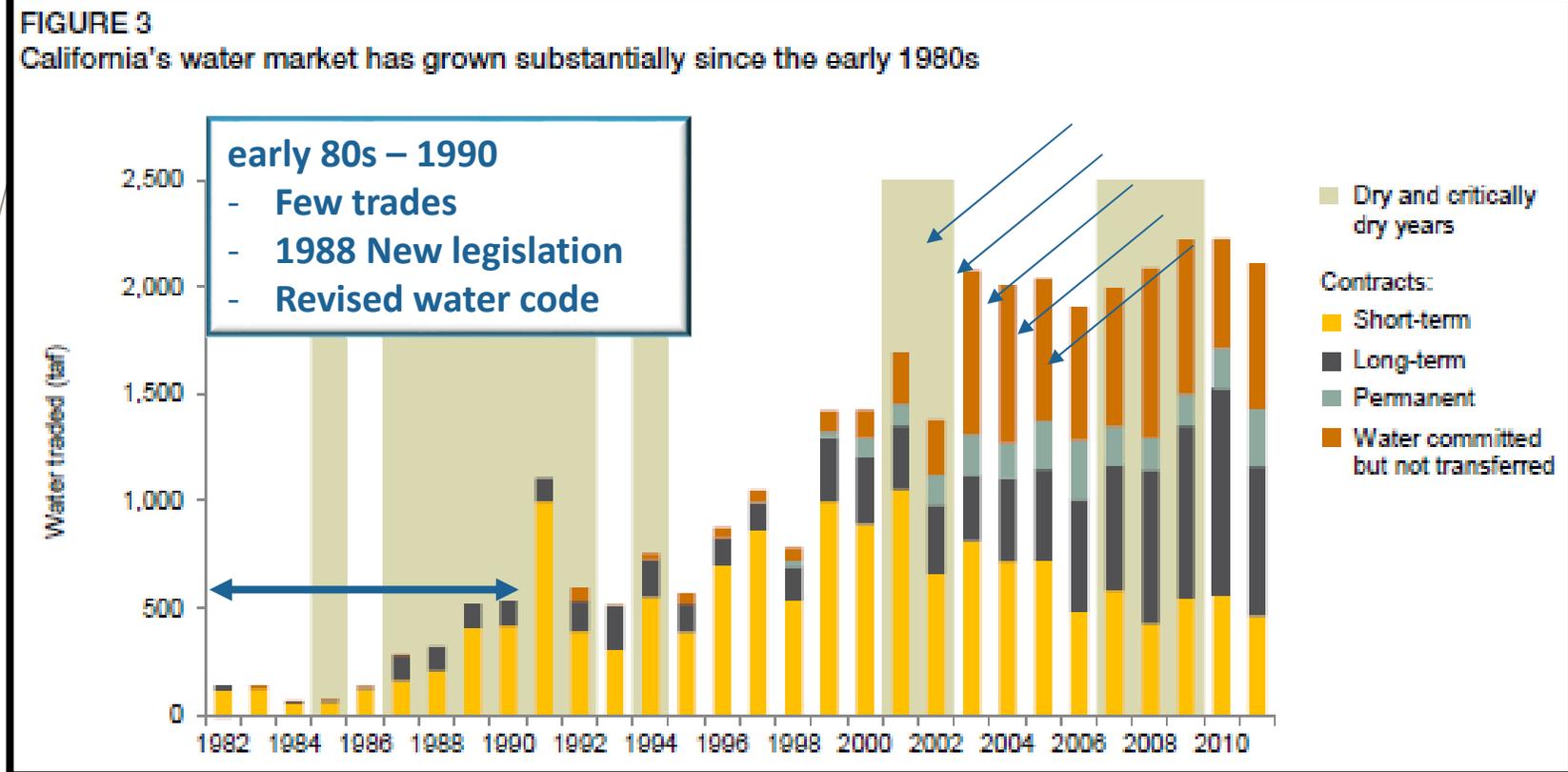


Source: Hanak, E. and E. Stryjewski, 2012, PPIC



# Water Market Topics – how did they get started?

## Stage 1 - 'Forming'



Source: Hanak, E. and E. Stryjewski, 2012, PPIC

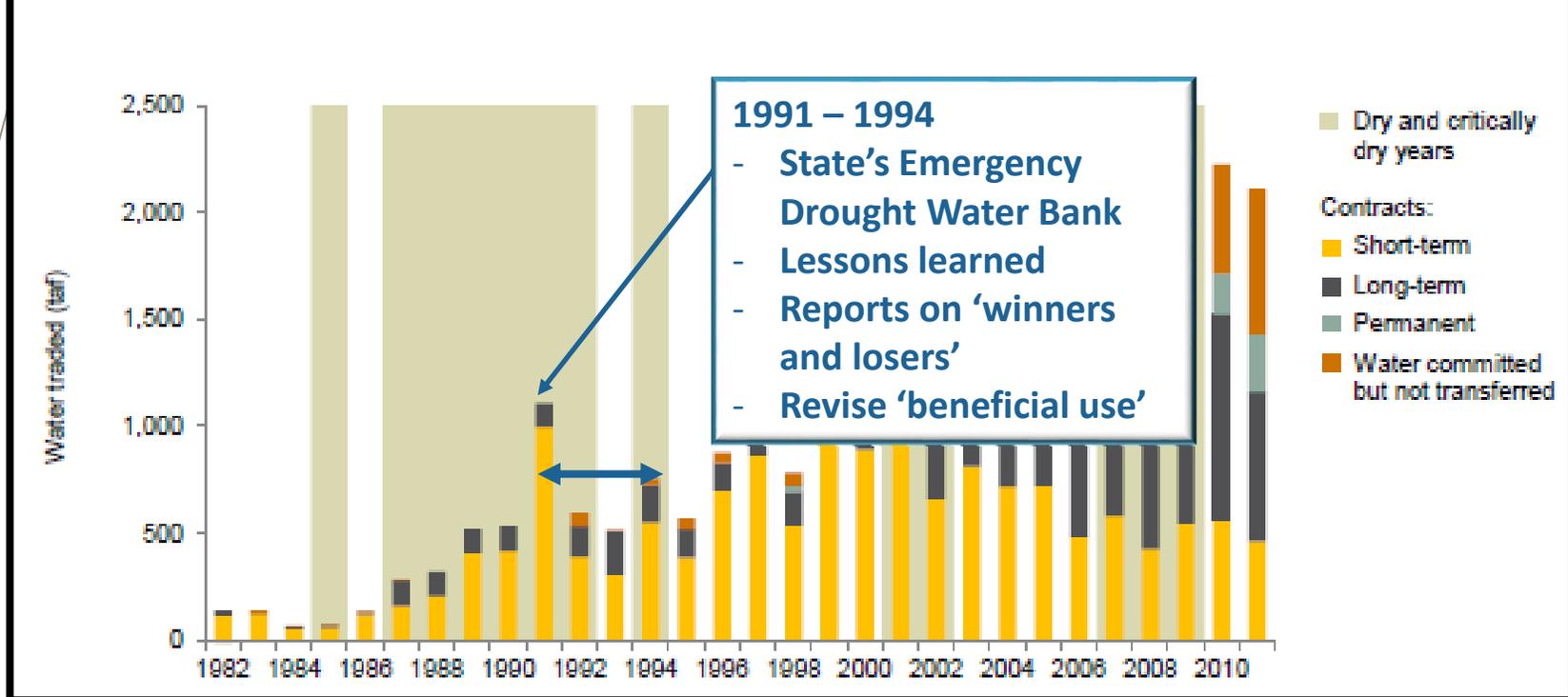


# Water Market Topics – how did they get started?

## Stage 2 – ‘Storming’

FIGURE 3

California's water market has grown substantially since the early 1980s

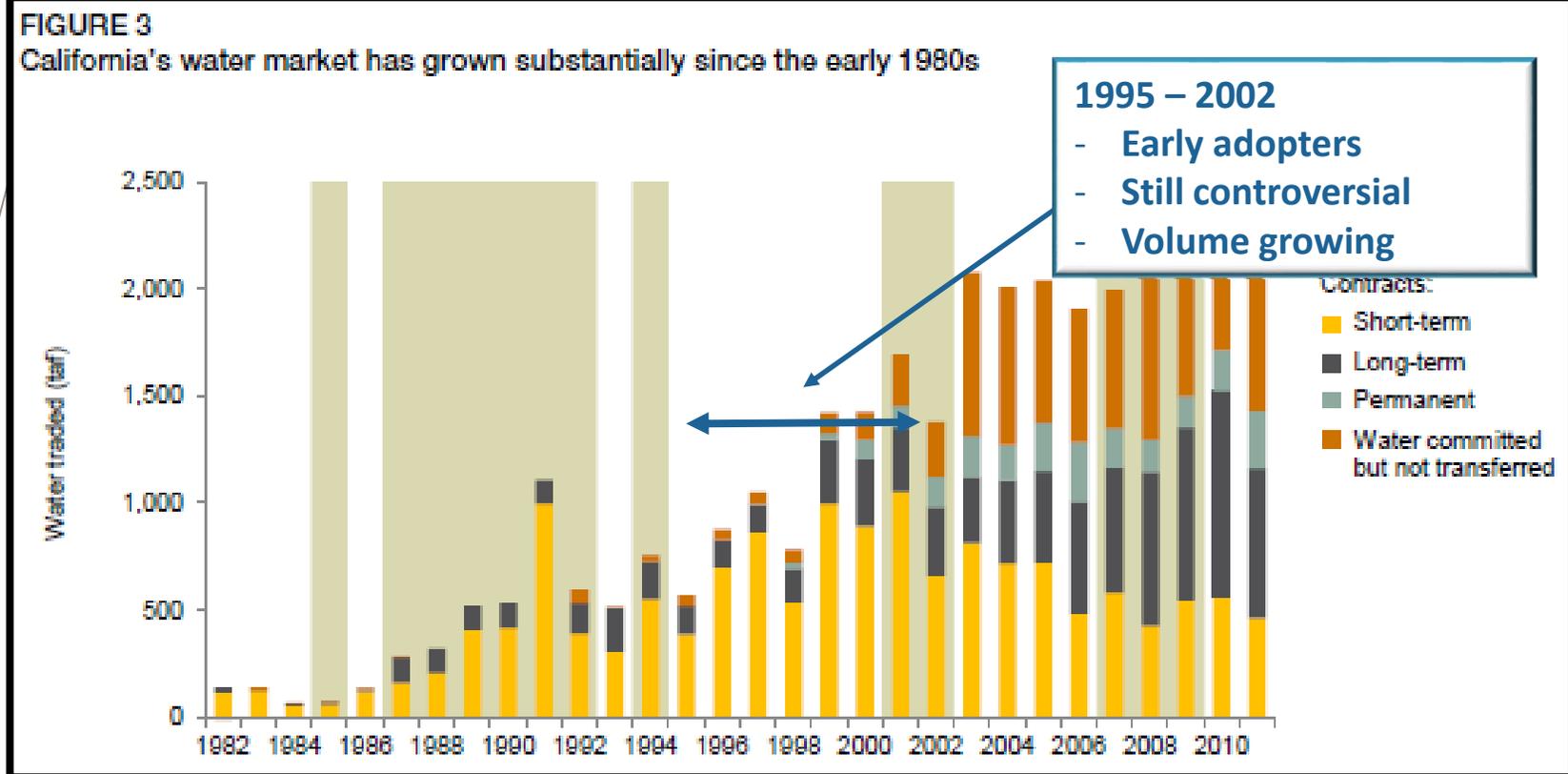


Source: Hanak, E. and E. Stryjewski, 2012, PPIC



# Water Market Topics – how did they get started?

## Phase 3 - Norming

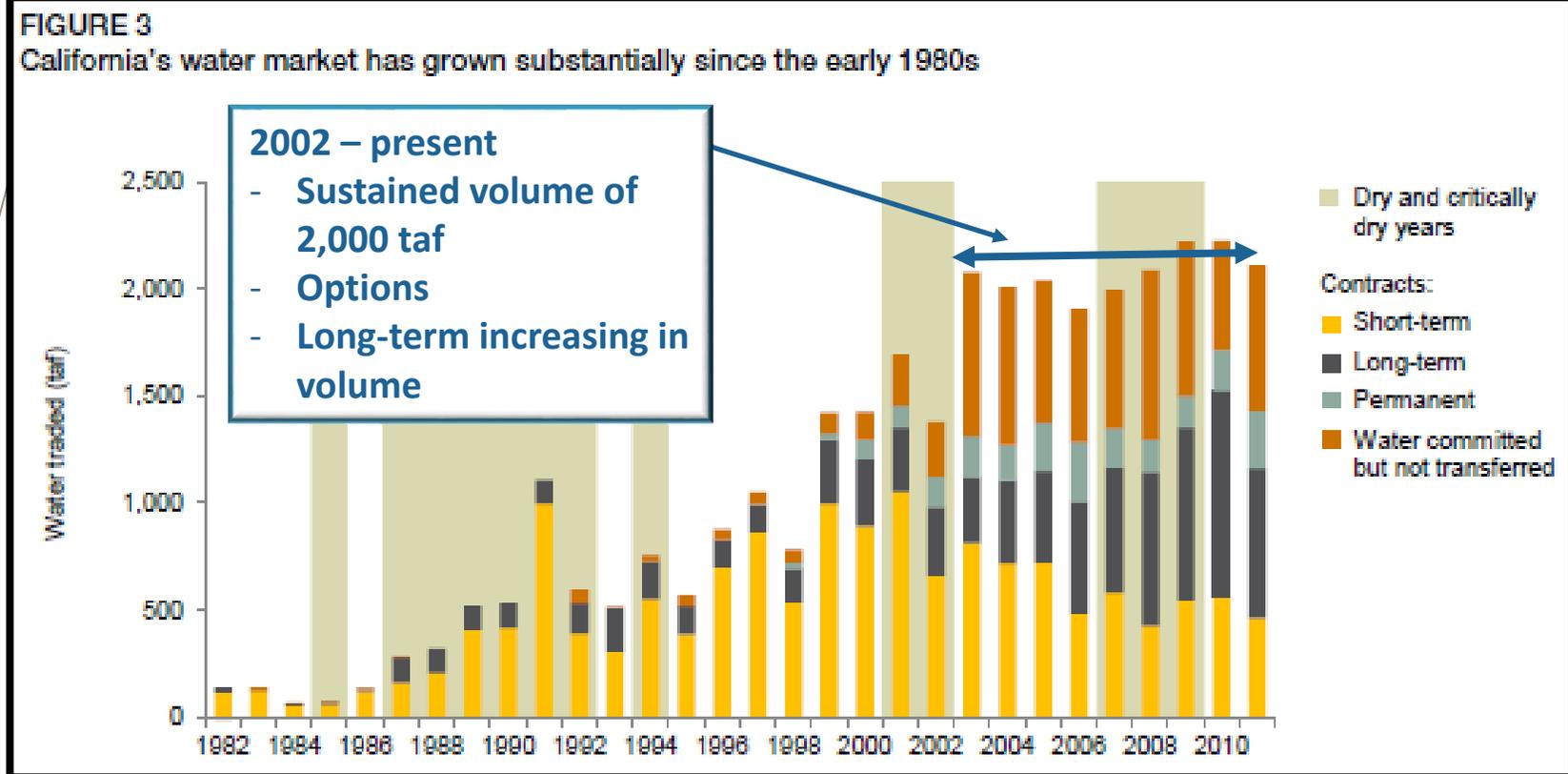


Source: Hanak, E. and E. Stryjewski, 2012, PPIC



# Water Market Topics – how did they get started?

## Phase 4 - Performing



Source: Hanak, E. and E. Stryjewski, 2012, PPIC



# Water Market Topics – Who benefits? Urban Users

Urban water agencies, for example Metropolitan Water District of So CA (website):

<http://www.mwdh2o.com/AboutYourWater/Sources%20Of%20Supply/Local-Supplies/Exchanges-And-Water-Banking/Pages/Default.aspx>

## Exchanges & Water Banking

Water transfers, water exchanges and groundwater banks (which store water in underground aquifers) are important water management tools that allow agencies to augment local supplies and utilize external distribution and storage systems. Metropolitan's water portfolio includes a number of water transfer and groundwater banking agreements with state, federal, public and private water districts and individuals.

Transfers and exchange programs were developed to improve the reliability of State Water Project and Colorado River Aqueduct supplies during dry years.

Current banking/transfer programs that provide supplies for delivery via the California Aqueduct include:

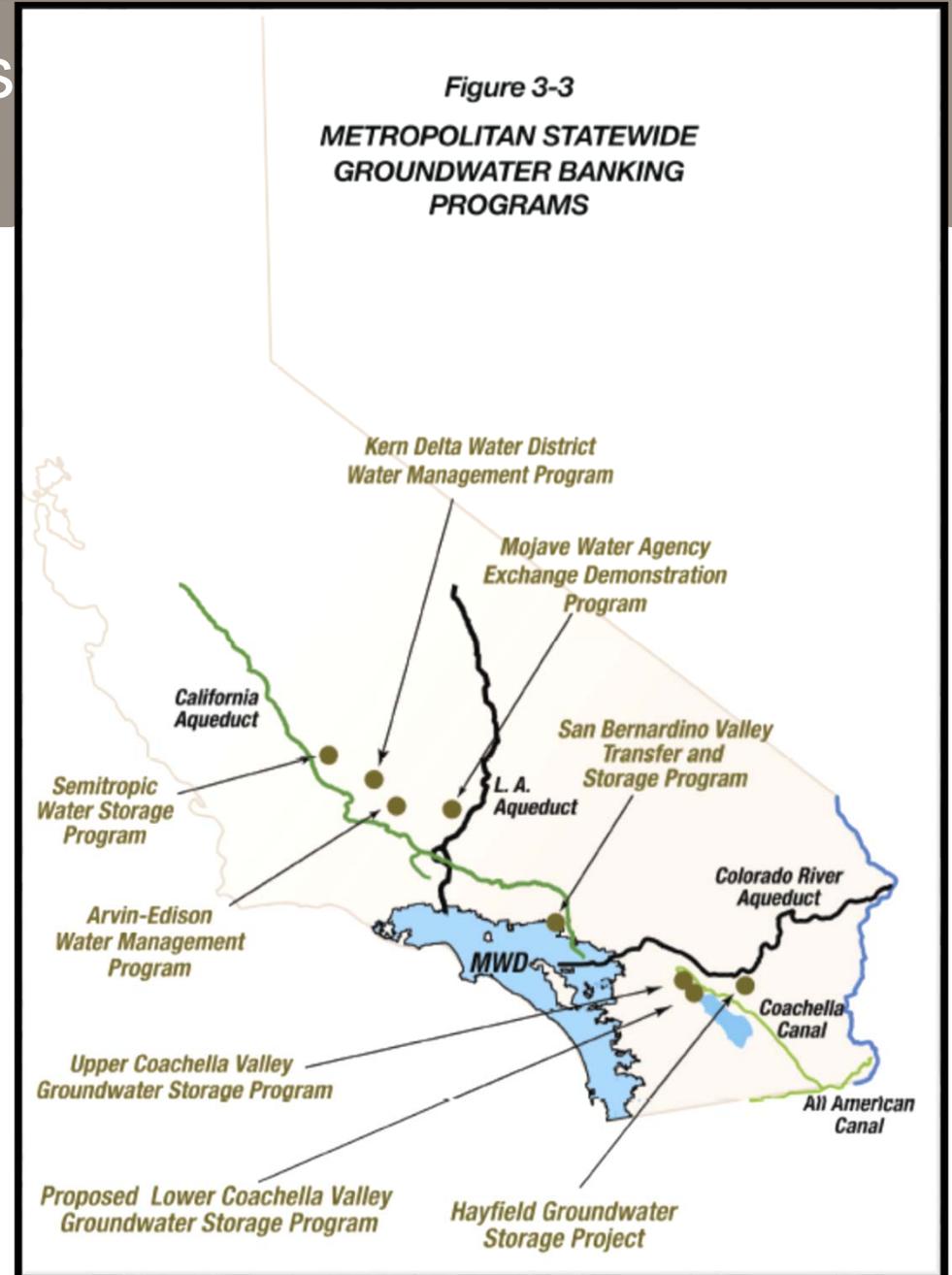
- Semitropic Water Banking and Exchange Program, Wasco
- Arvin-Edison Water Management Program, Arvin
- San Bernardino Valley Municipal Water District Program, San Bernardino
- Kern Delta Water District Water Management Program, Taft
- Desert Water Agency/Coachella Valley Water District Advance Delivery Program, Coachella
- Market Transfer Options, DWR Dry-Year Purchase Program and Sacramento Valley Transfer Agreements



# Water Market Topics

## Urban Users

Urban water agencies, for example Metropolitan Water District of So CA Integrated Water Resources Plan ([http://www.mwdh2o.com/PDF\\_About\\_Your\\_Water/2.4.2\\_Regional\\_Urban\\_Water\\_Management\\_Plan.pdf#search=banking/transfer%20programs](http://www.mwdh2o.com/PDF_About_Your_Water/2.4.2_Regional_Urban_Water_Management_Plan.pdf#search=banking/transfer%20programs))





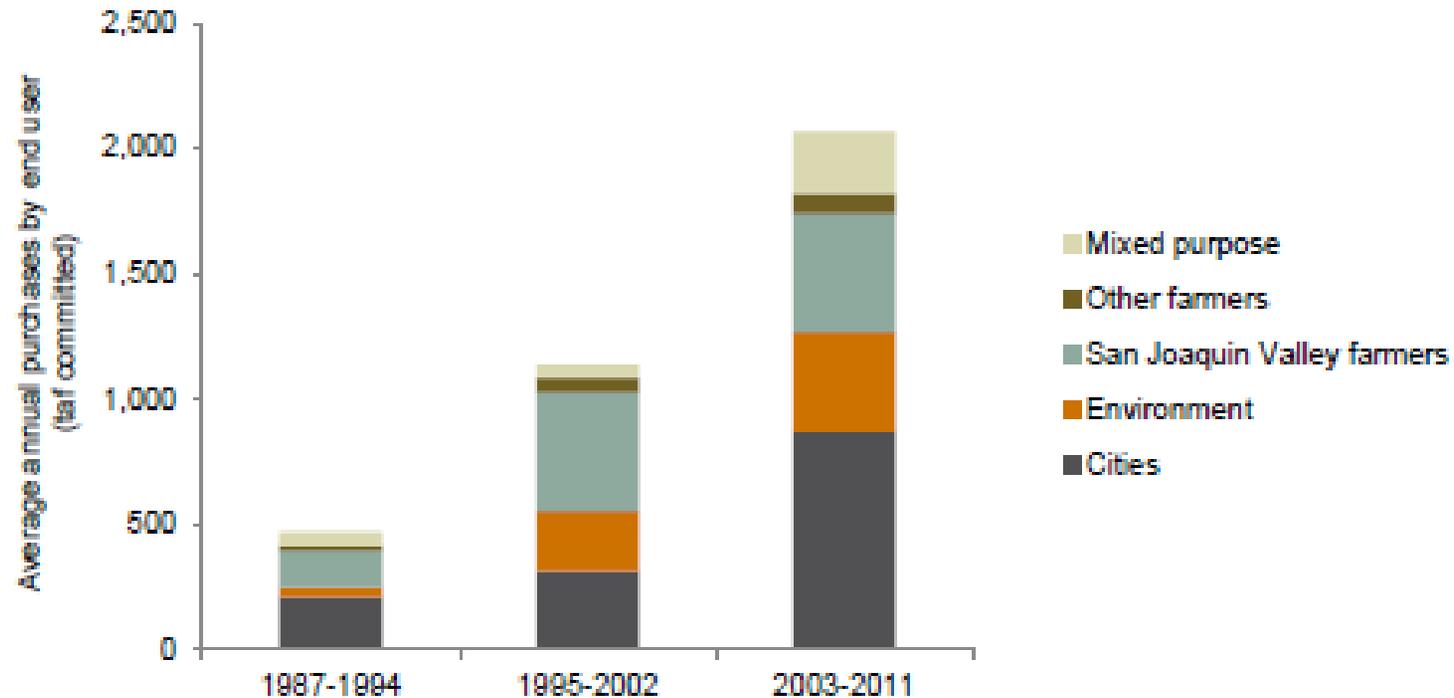
# Water Market Topics – Who benefits? Agriculture

- Buyers - High valued perennial crops, grapes, trees, etc. are able to stay in production
- Sellers - Reinvestment in needed capital



# Water Market Topics – Who benefits? Environment

Environmental concerns shifted the composition of purchases in the 1990s



Source: Hanak, E. and E. Stryjewski, 2012, PPIC



## Water Market Topics – How do you know if a market will work?

### Three things:

1. Assess demand
2. Assess supply
3. Determine market 'mechanism'

Is a feasibility study helpful?



## Water Market Topics – January Topics

- **Case Studies:**
  - Lower Yuba River Accord
  - Kern Water Bank
  - Other?



QUESTIONS?

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