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
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.

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

Dry and critically dry years
Water Market Topics – how did they get started?

Stage 1 - ‘Forming’

![Graph: California's water market has grown substantially since the early 1980s](image)

**early 80s – 1990**
- Few trades
- 1988 New legislation
- Revised water code

Source: Hanak, E. and E. Stryjewski, 2012, PPIC
Stage 2 – ‘Storming’

Water Market Topics – how did they get started?

1991 – 1994
- State’s Emergency Drought Water Bank
- Lessons learned
- Reports on ‘winners and losers’
- Revise ‘beneficial use’

Source: Hanak, E. and E. Stryjewski, 2012, PPIC
Water Market Topics – how did they get started?

Phase 3 - Norming

1995 – 2002
- Early adopters
- Still controversial
- Volume growing

Source: Hanak, E. and E. Stryjewski, 2012, PPIC
Water Market Topics – how did they get started?

Phase 4 - Performing

2002 – present
- Sustained volume of 2,000 taf
- Options
- Long-term increasing in volume

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
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)
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

Average annual purchases by end user (taiY committed)

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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