

Fox Canyon Groundwater Management Agency Water Market and AMI Overview

Presentation to the
San Luis Obispo
Water Resources Advisory Committee



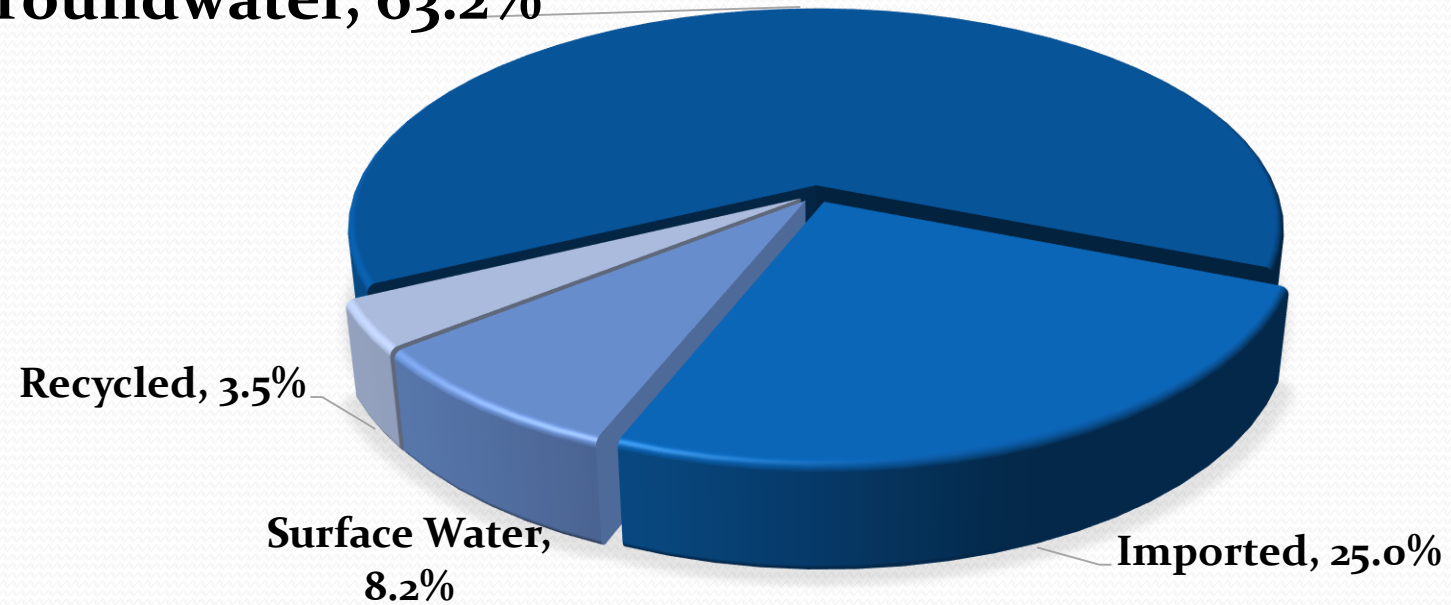
Arne Anselm, Deputy Director
Ventura County Watershed Protection District

Overview

- Background
 - Groundwater Sources and Uses in Ventura County
 - Groundwater management in Ventura County
- Fox Canyon Groundwater Management Agency
 - Groundwater Sustainability Management Actions
 - Water Market
 - Advanced Metering Infrastructure

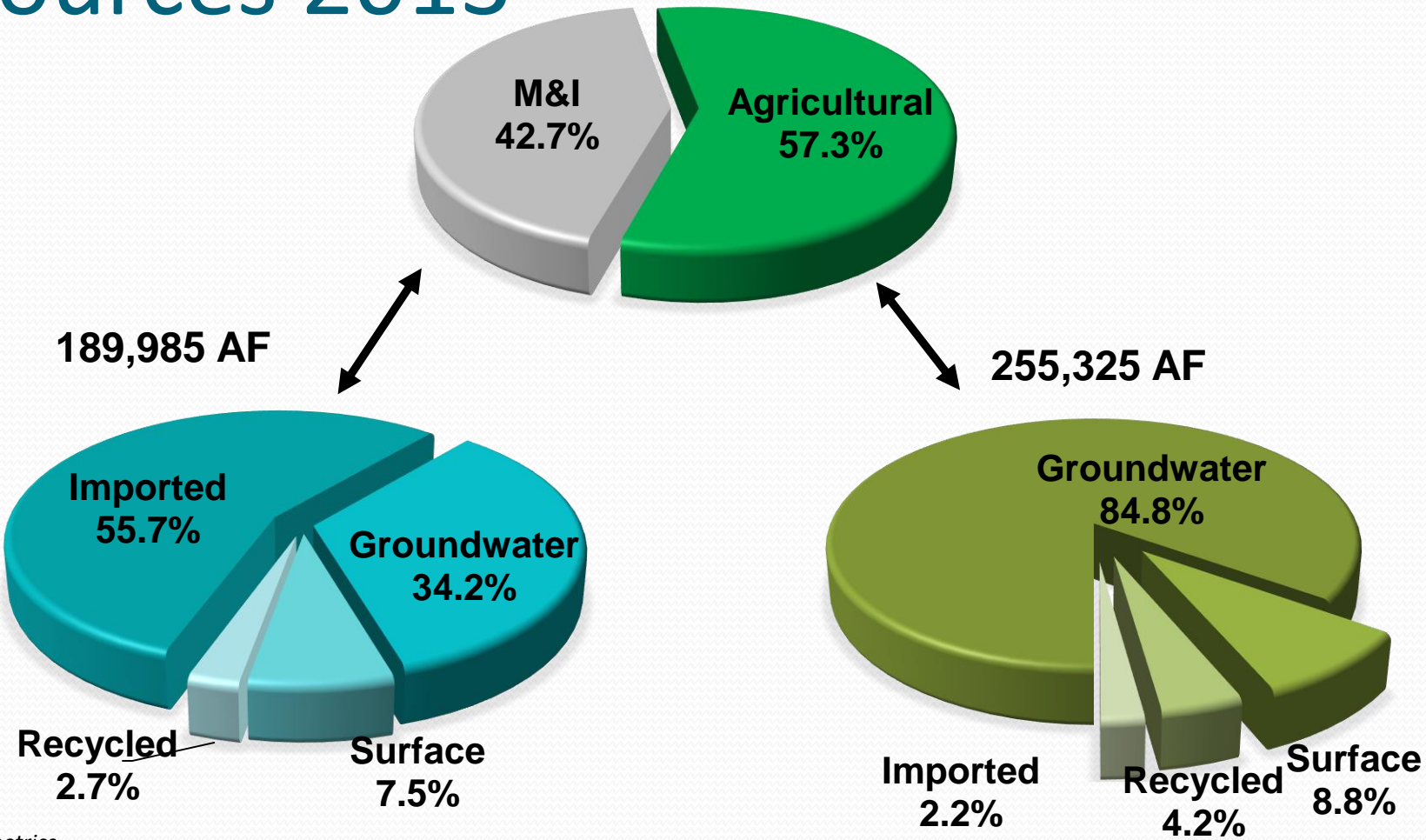
Water Supply in Ventura County

Groundwater, 63.2%



2013 Demand = 445,310 acre-feet

M&I and Agriculture Water Sources 2013



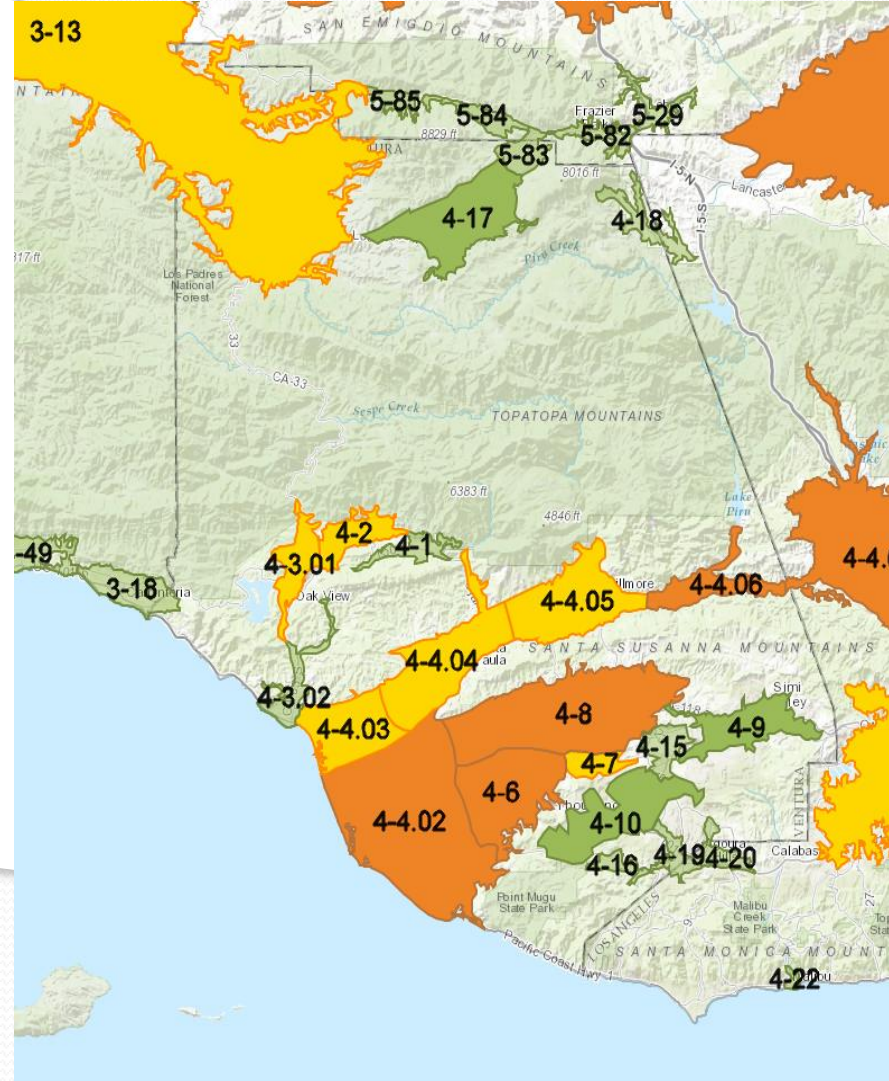
Source: County of Ventura 2013
Water Supply and Demand: Hydrometrics

Groundwater Management in Ventura Co.

- Fox Canyon GMA – 1983
- Ojai Basin GMA – 1991
- Santa Paula Basin Adjudication – 1996

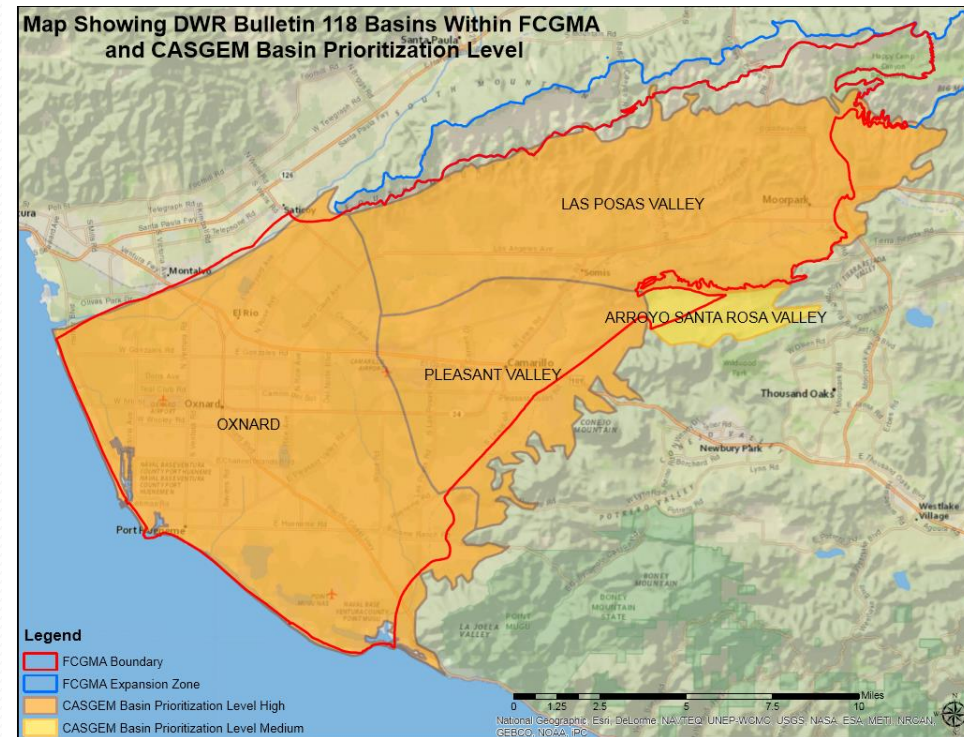
Health of Groundwater Basins

- 7 medium-priority basins
- 4 high-priority basins
- 3 Critically Overdrafted Basins



Fox Canyon GMA

- Board comprised of:
 - Farmers representative
 - Five cities representative
 - United Water Conserv. District
 - County of Ventura
 - Small water districts rep.
- GSPs completion 2019
 - Allocation decision this Friday
 - Water markets



Management Actions / Allocation

- Pumping allocation is a management action
 - Does not impact water rights
 - Surcharges apply to excess above allocation
- Year-to-year flexibility in pumping required
 - Groundwater demand is weather dependent
 - Carry over
 - Borrowing

The cost of water

Current fees per Acre Foot:

\$6.00 Historic Pump Fees

\$6.50 Sustainability Fee

Surcharge Rates

Tier I: First 25.000 AF = \$1,461.00 per AF

Tier II: 25.001 AF to 99.999 AF = \$1,711.00 per AF

Tier III: over 100 AF = \$1,961.00 per AF

Future Replenishment Fees?

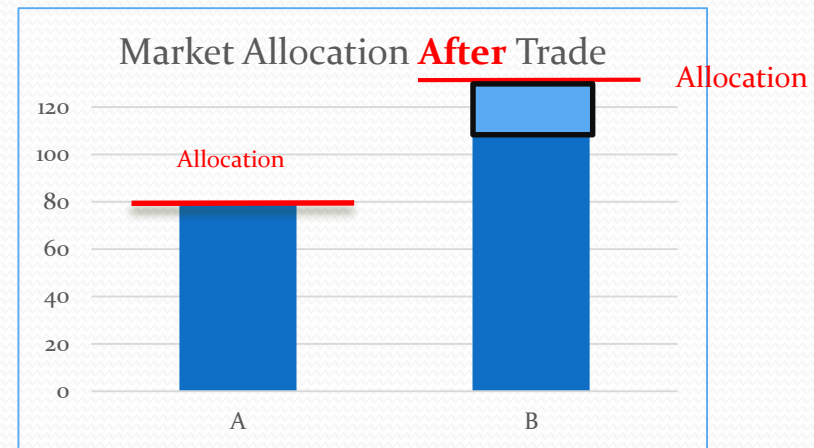
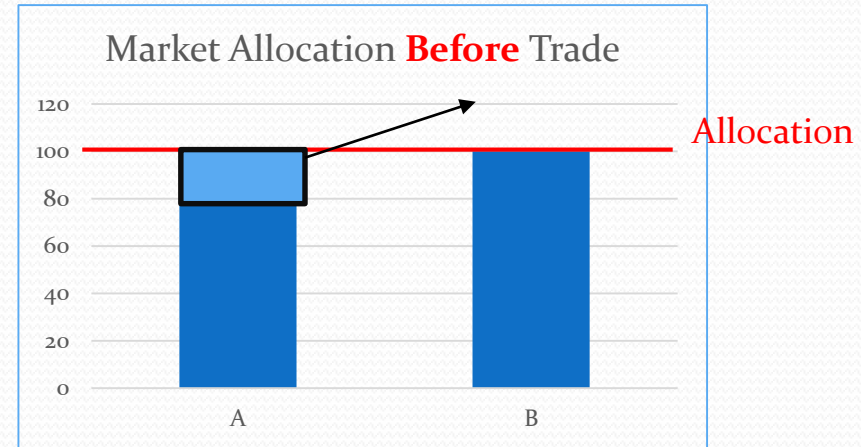
\$100 - \$400 A/F

Water Market Goals

- Provide **flexibility** for constraints on groundwater pumping
- Incentivize **conservation**
(investment in efficiency technologies)
- Incentivize development of **new water sources**
- Improve **measurements** of groundwater extractions

Example Trade

- Participants A and B each have Market Allocation of 100 AF
- Participant A trades 20 AF to Participant B
- Participant A is now subject to surcharges for extractions greater than 80 AF
- Participant B is now subject to surcharges for extractions greater than 120 AF



Water Market Bids and Offers

Highest desire to sell
is matched with
Greatest need to buy

Lowest offer to sell	-	\$ 600 /AF
Highest Bid to buy	-	\$ 1000 /AF
Matched selling price	=	\$ 800 / AF

Third Party Exchange Administrator

- Access to pumping data
- Confirms water is available for trade
- \$700 to join plus trade commission
- California Lutheran University Center for Economic Research and Forecasting

Trust But Verify

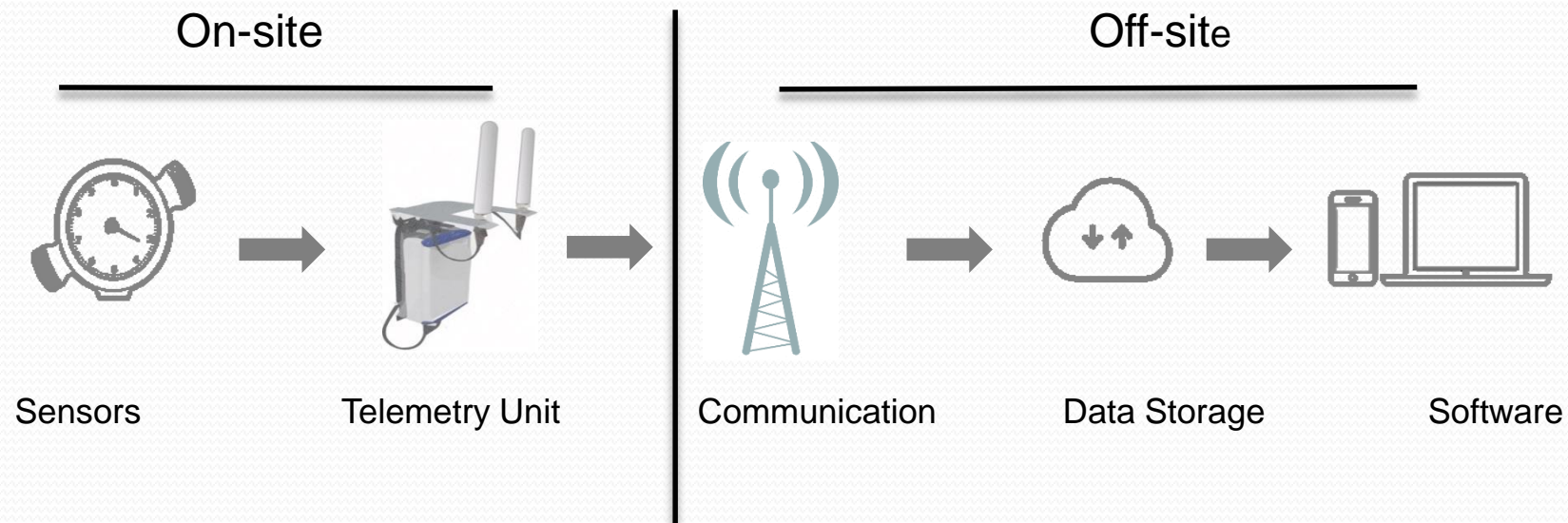
Advance Metering Infrastructure

- Up-to-date water use measurements required
- Water usage reported to third party through cell network
- No trades beyond market allocation

- FCGMA awarded \$799,000 to provide AMI on active wells
 - Natural Resources Conservation Service
 - through The Nature Conservancy

Automated Metering Infrastructure

AMI - Reads and reports information from the well meter to a central database



Water Market

- Phase 1 Pilot – Completed July 2017
- Phase 2 Pilot
 - Expanded pilot program (e.g geographic area, participants)
 - Oct. 2017 through Sept. 2018
- Phase 2 Pilot Extension
 - Begin in Jan. 2019
 - Single Allocation System

Lessons Learned – Water Market

- Education and outreach
 - Wells owned by trusts
 - Operators move around
- Allocations level playing field
 - Flexibility undermines market
 - Reductions to meet sustainability will limit water available for trade
- Pressure for agricultural production

Lessons Learned - AMI

- Education and outreach
- Compliance and enforcement
- Production pipeline
- Installations unique and require cooperation
- Incentive not significant

Questions

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