This presentation premiered at WaterSmart Innovations

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San Diego County Water Authority's Agricultural Water Management Program - WSI Conference - October 5, 2017

Presented by: I

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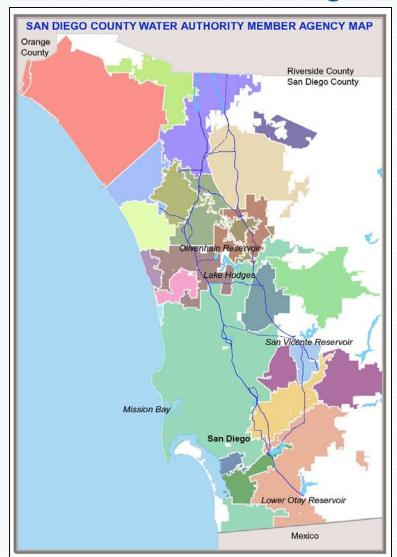
San Diego County Water Authority

Wholesale water agency created by state Legislature in 1944

- Serves 3.3 million people and region's \$222 billion economy 24 member agencies (retailers)

Provides 80-90% of water used in San Diego County

- Builds, owns, operates and maintains large-scale regional water infrastructure
- Largest ag-to-urban water conservation & transfer in U.S.
- Invested more than \$2 billion in facilities (desalination, pipelines, treatment and reservoirs) in the last 15 years



We're at the End of a Very Long "Pipeline"

Sources of San Diego County's Water Supply (2012-2016 five-year average)



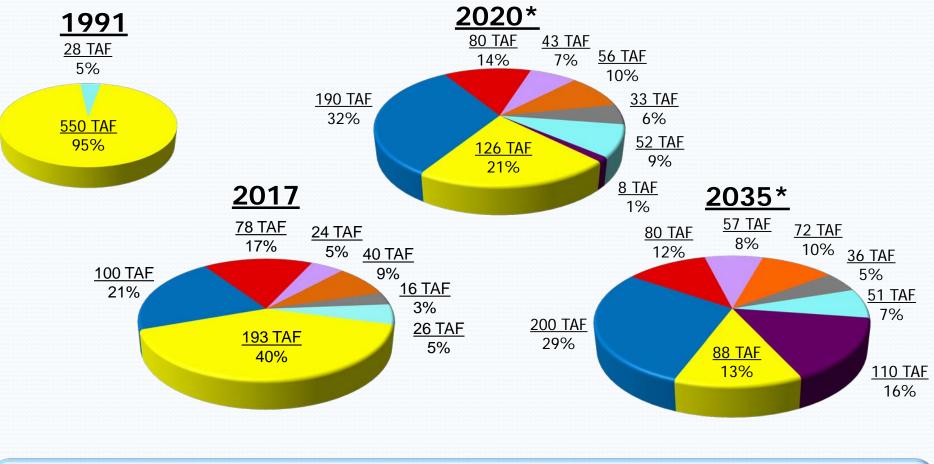








Increasing San Diego County's Water Supply Reliability through Supply Diversification





^{*} Includes verifiable and additional planned local supply projects from 2015 UWMP

Fun Agricultural Facts for San Diego County

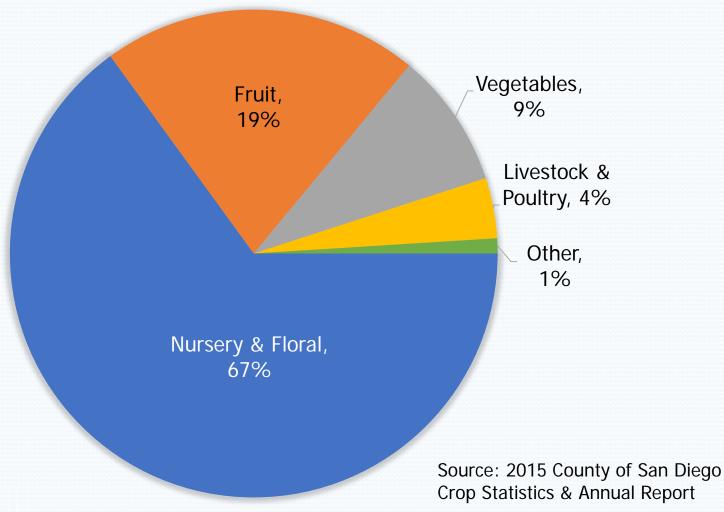
National Rankings:

- #19 farm economy among all counties
- #1 in nursery production
- #2 in avocado production (yay, guacamole!)
- #1 in number of small farms
- #1 in number of organic farms

Source: San Diego County Farm Bureau



Crop Profile in San Diego County

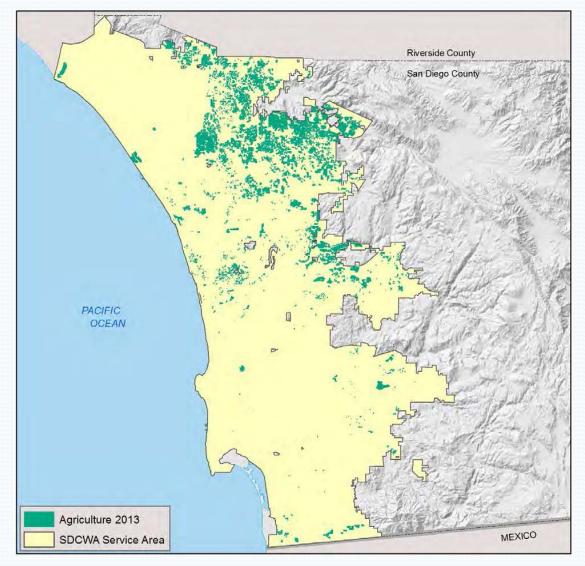


Ag Water Management Program

- Began in 1990
- Supports \$5.1B economy
- San Diego County has more than 250,000 acres of agricultural land
- Conducted research:
 - Blueberry irrigation trial (2009)
 - Recycled water for avocado groves (2016)

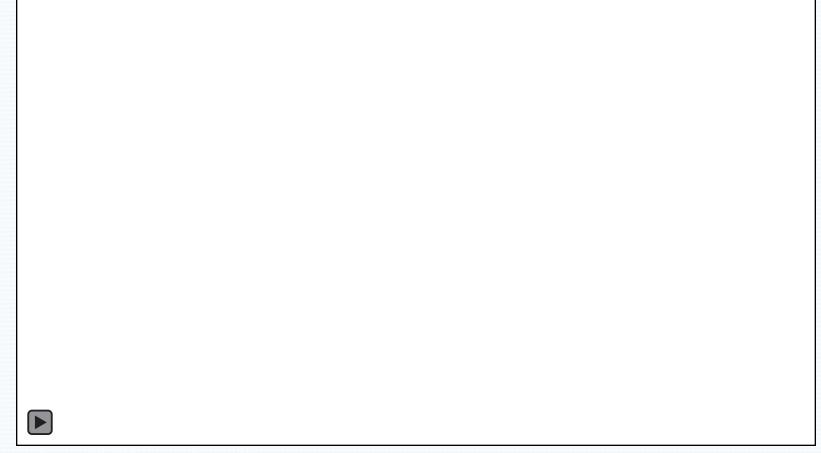


Ag Acreage Assessment



Current Programs

Agricultural Audits (irrigation system evaluation)





Partnership

SD County Regional Conservation Partnership

- Regional Conservation Partnership Program Funding
- RCPP funding award: \$800,000
- Water Authority's "match" amount: \$367,000
- Addresses agricultural water use efficiency
- Partners:
 - Mission Resource Conservation District
 - San Diego County Farm Bureau
 - Natural Resources Conservation Service (USDA)
 - 10 member agencies (Carlsbad MWD, City of Escondido, Fallbrook PUD, City of Oceanside, Rainbow MWD, Rincon del Diablo MWD, San Dieguito WD, Vallecitos WD, Valley Center MWD, Yuima MWD



Current Programs

EC Mapping and Soil Moisture Sensor

- Funded by DWR* Prop. 84, Round 4 grant
- Grant amount: \$315,000
- Use electrical conductivity soils mapping and soil moisture sensors for irrigation management



*California Dept. of Water Resources



Current Programs

Recycled Water Retrofit

- Funded by DWR* Prop. 84, Round 2 grant
- Grant amount: \$53,800
- Incentives to retrofit potable water irrigation systems to recycled water



*California Dept. of Water Resources



Growers Wanted Reliable Water Deliveries



Step 1



Step 2

- Can we grow Avocado with recycled water
 - 1991 1996 Trial with recycled water/ Dr. Gary Bender University of California Cooperative Extension, Mission Resource Conservation District, and City of Escondido.
 - 2013-2015 Trial with recycled water/ Dr. David Crowley University of California, Riverside (UCR), Jenessa Stemke UCR Grad Student, Mission Resource Conservation District, San Diego County Water Authority, San Diego County Farm Bureau, City of Escondido.



Yes We Can!



Yes, We Can Grow a Tree





Recycled 14 GPH Recycled 12 GPH Recycled 9 GPH

17

Can We Produce Fruit?

- Salinity is a concern
 - Further treatment
- Nitrogen level in the water
 - Must account for when using fertilizers



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Thank you!

