

The Energy-Water Nexus



City of Benicia
June 16, 2016
SEEC Forum

Quick Facts - Water

28,000 people

- 8,500 residential water meter service connections, and
- 1,000 commercial, industrial and institutional connections

Water Supply

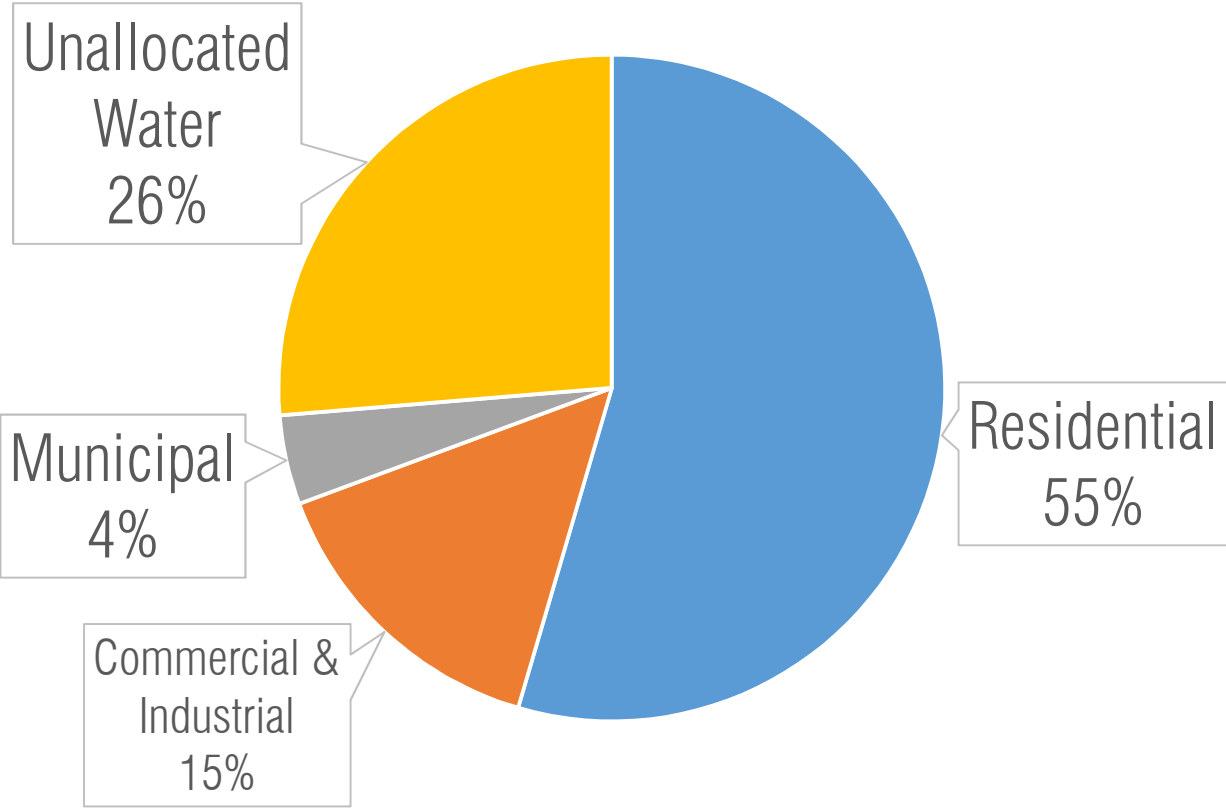
- City purchases approximately 10,000 AF or 3.3 billion gallons of water per year

Treated Water Use

- 2013: 4,764 AF
- 2014: 3,803 AF



Potable Water Use*



*does not include Valero's raw water use

Response to Drought

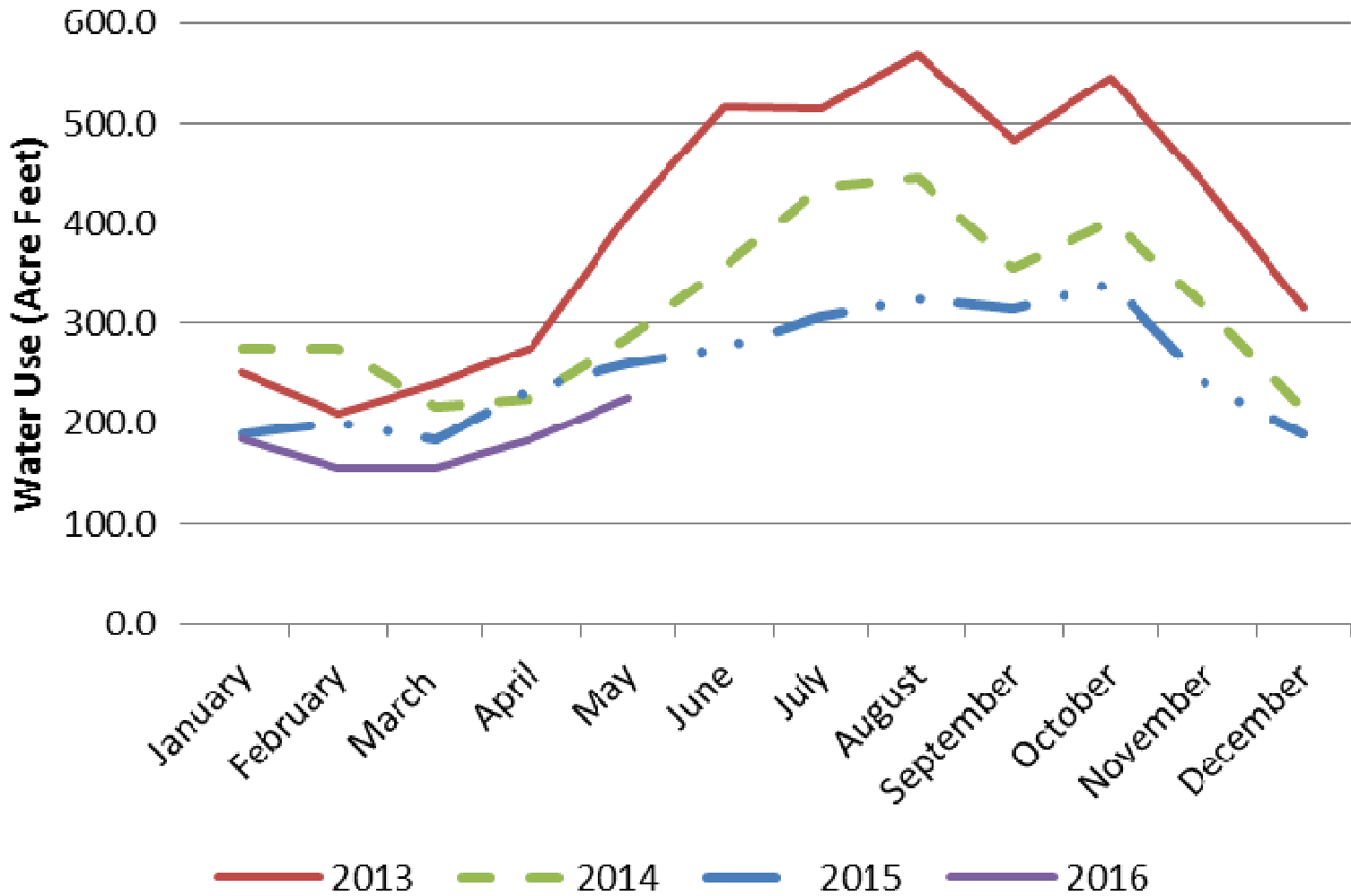
Met 20% reduction goal in 2014

- 22.6% reduction April 2014 - April 2015
- 52% reduction May 2016

Lead by Example

- City facilities reduced water use
 - January 2015, 44%
 - February 2015, 30%

Monthly Customer Metered Data



City Solar Sites

- The City has 10 solar sites, 3 at pump stations
- The City joined Marin Clean Energy in November 2014
- Reduced water use means less pumping and excess solar generation
- City received the following credits:
 - Pump Station #1 \$13,998.95
 - Pump Station #2 \$18,139.73
 - Pump Station #3 \$53,865.25

Community Water + Energy Reductions

Partnering with County Water Agency

- Turf Replacement Program
- Rebates
- Outdoor water assessments

Promote existing programs

- Water Smart
- Benicia Home Efficiency Program (BHEP)
- Business Resource Incentive Program (BRIP)

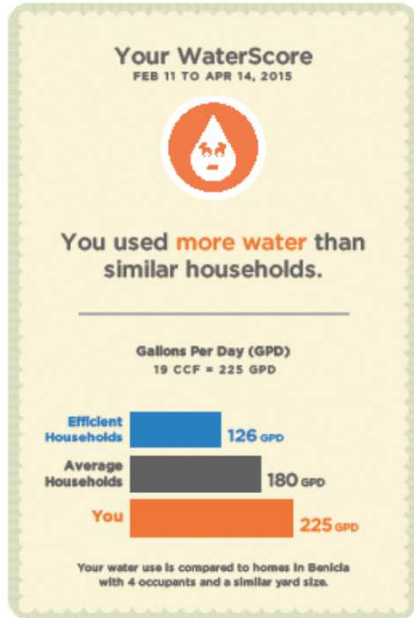
Water Smart

- 1 year pilot with Water Smart (Nov. 2014-15) and program extended
- Bi-monthly home water report cards and access to web portal
- Residential water use decreased 3-7% annually

Benicia Home Efficiency Program

- No cost home energy and water assessments
- In 2015:
 - 182 completed consultations
 - 23,781 residents engaged
 - 12 student interns trained

BENICIA Home Efficiency Program	electricity usage (kWh)	water usage (gallons)	water-related energy use (kWh)	electric savings (\$)	water savings (\$)	\$	CO2 (pounds)	CO2 metric tons
Average savings, per house per month	59	865	2	11	3	14	32	0
Total savings due to audits since 2010	813,636	12,221,893	30,460	151,937	42,483	194,420	442,307	201



YOUR HOME WATER REPORT

THIS IS AN INFORMATIONAL REPORT AND NOT A BILL.

SERVICE ADDRESS: 20 California, Suite 200
ACCOUNT NUMBER: 123-4567-89

SIGN UP TO GET THIS REPORT VIA EMAIL:
benicia.waterinsight.com

<RecipientID>benicia99426</RecipientID>

? When can you water?

By ordinance of Benicia, from April 1–October 15:

- **Even house numbers:** Tue., Thu., and Sat.
- **Odd house numbers:** Mon., Wed., and Fri.
- No outdoor water between 8:00am–7:00pm

For more information on watering restrictions and Benicia's response to the drought, visit beniciasaveswater.org.

★ A great big thank you



We want you to know how much we appreciate your efforts. **Thank you** for reading your home water report and using water efficiently.

Help us track our community's success. **Log on** to record which actions you've completed.

Water-saving actions just for you

Selected based on your household characteristics, yard size, and historical water use.

[Log on to update your profile](#)

Potential annual savings if you:



Log On

Take the guesswork out of saving water. See:

- Where you're using the most
- All actions relevant to you
- Step-by-step tips and rebates

benicia.waterinsight.com

A free service offered by your water utility and powered by WaterSmart Software®



The Benicia Home Efficiency Program provides free, personalized water mailers & home consultations to Benicia residents. These services are provided by the City of Benicia to promote water conservation. To unsubscribe, please email benicia@watzon.com. Your data is confidential.

Mr & Mrs. Benicia Resident
XX East I Street
Benicia, CA 94510

How Much Water Do You Use?

Your home uses about

210

gallons of water per day...

...which is the same as

132

toilet flushes!



Learn how to save water and money on your next bill

The City of Benicia offers FREE home consultations to help you save water and energy. Schedule a no-cost consultation at www.BeniciaHomeEfficiency.org and receive up to \$50 in water and energy efficient products for your home!

California Drought Update

On May 5th, California's state water board approved emergency drought regulations that aim to reduce water use by 25%. For more information, visit ca.gov/drought/.



Ways to save water include reducing irrigation, replacing lawns with drought-tolerant plants, fixing water leaks and replacing old fixtures with water-efficient models.

The Benicia Home Efficiency Program visits your home to help you identify ways to save, find rebates and give you up to \$50 in water efficient products.

Schedule your FREE consultation today

Visit www.BeniciaHomeEfficiency.org or call 800-314-5997

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Identify win-win opportunities

The Benicia Water Reuse Project

- 1.9 MGD or 2,200 AF per year reduction (20-25% of the City's typical demand)
- Feasibility study, 18 months to complete (Dec. 2016)
- Consider energy demand and City's Climate Action Plan (CAP)



Thank you!

- Like us on Facebook – *Sustainable Benicia*
- www.beniciasaveswater.org
- www.beniciahomeefficiency.org

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