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*

Unallocated Water 26%
Municipal 4%
Commercial & Industrial 15%
Residential 55%

*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%
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
Your Water Score
Feb 11 to Apr 14, 2018
You used more water than similar households.
Gallons Per Day (GPD)
19 CCF = 225 GPD

Efficient Households: 126
Average Households: 180
You: 225

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 8:00 am - 7:00 pm
For more information on watering restrictions and Benicia's response to the drought, visit benicia.savewater.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
- Save cold shower water
  - 12 gallons per day
  - $17 per year
- Fill bath 1/3 of the way
  - $7 per year
- Turn off water when scrubbing
  - $7 per year

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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