



Caltrain Water Consumption and Conservation

Board of Directors
February 4, 2016
Agenda Item 16



Overview

- **Statewide drought, mandatory conservation measures**
- **Caltrain historical water usage**
- **Voluntary conservation efforts**
- **Initial results**
- **Next steps**



Drought Regulations

- **25% statewide reduction in urban potable water use**
 - Compare Jun 2015 – Feb 2016 to 2013
 - 8% - 36% targets depending on water district
 - Caltrain: 54 water meters in 16 districts
 - Regulation extended through Oct 2016
- **Water districts must meet targets or face fines up to \$10,000 per day**
 - Mandatory measures (next slides)
 - Discretionary measures: increased pricing for water use over “drought budget”

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Mandatory Measures

- **Prohibitions**

Except for immediate health or safety need, or to comply with permit condition:

- No irrigating within 48 hours of measureable rain
- No irrigating that causes runoff onto adjacent property, non-irrigated areas, private and public walkways, roadways, parking lots, or structures
- No applying potable water to driveways and sidewalks
- No using hoses without shut-off nozzle to wash motor vehicles
- No using potable water in a fountain or decorative water feature, except where part of a recirculating system


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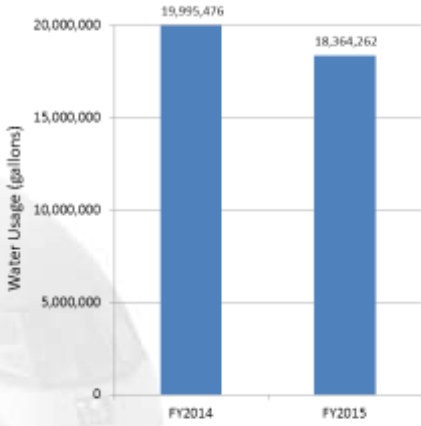
Mandatory Measures

- **Outdoor irrigation schedules**
 - Max 2 days per week watering
 - For most cities:
 - Odd addresses Mon/Thurs
 - Even addresses Tues/Fri
 - No watering 8am – 6pm
- **Enforcement**
 - Customer fines up to \$500 per day
 - Flow restrictor

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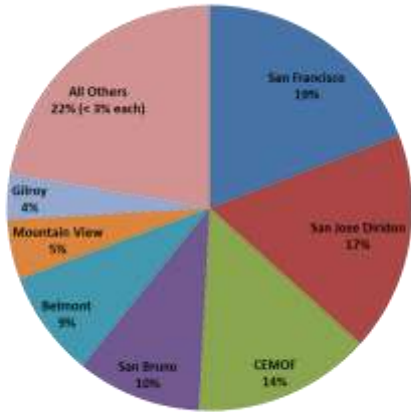


Caltrain Historical Water Use



Caltrain Total Water Usage

Fiscal Year	Water Usage (gallons)
FY2014	19,995,476
FY2015	18,364,262



Water Usage by Facility
(Average FY2014 - FY2015)

Facility	Percentage
San Francisco	18%
San Jose Diridon	17%
CEMOF	14%
San Bruno	10%
Belmont	9%
Mountain View	5%
Gilroy	4%
All Others	22% (< 3% each)

Note: JPB water meters only

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Voluntary Efforts

- **Prioritize initial efforts**
 - Can be implemented immediately
 - Low cost
 - Significant savings
- **Initial efforts in 3 categories**
 - Outdoor landscape irrigation
 - Indoor plumbing fixtures
 - Employee and public outreach

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Voluntary Efforts: Landscape

- **Use “smart” irrigation controllers that adjust based on local rainfall and temperature**
- **Cover plant beds with mulch to reduce evaporation**
- **Choose drought-tolerant species for new plantings**
- **Reduce irrigation to 1 day per week**

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Voluntary Efforts: Plumbing

- **Install high efficiency plumbing fixtures**
 - Faucet aerators (0.5 gpm, 75% reduction)
 - Showerheads (2.0 gpm, 10% – 60% reduction)
 - Obtained fixtures at no cost, in partnership with water districts
- **Locations**
 - Station restrooms, CEMOF, Caltrain offices (completed)
 - SF crew facility upgrade (as designed; also includes high-efficiency toilets)

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Voluntary Efforts: Outreach

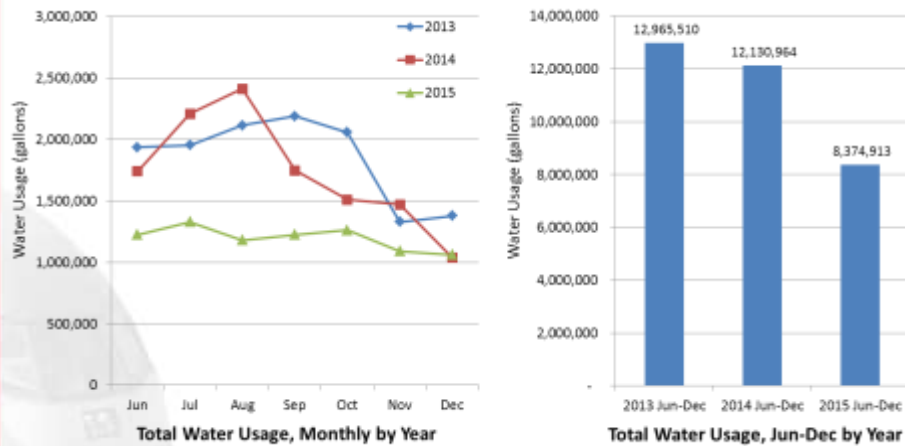
- **Save Our Water signage**
 - Employee restrooms, kitchens, showers
 - Station restrooms
- **Other communications**
 - Employee newsletter, emails
 - *Peninsula Moves!* blog
 - Caltrain Sustainability website
 - Social media



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Initial Results



35% reduction Jun-Dec 2015 vs. Jun-Dec 2013

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Next Steps

- **Monitor water usage**
- **Evaluate success**
 - Calculate savings
 - Modify strategies as needed
- **Consider additional strategies in operations, maintenance, and construction**

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