

# SamTrans Water Consumption and Conservation

Board of Directors  
September 2, 2015  
PD&S Agenda Item 2

San Mateo

## Overview



- Statewide drought, mandatory conservation measures
- Historical SamTrans water usage
- Voluntary conservation efforts
- Initial results
- Next steps

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## Mandatory Measures



- **25% statewide reduction in urban potable water use**
  - Beginning June 2015, compare to baseline year 2013
- **By water district:**
  - 8% CalWater SSF (NB, Colma P&R)
  - 16% CalWater Mid-Peninsula (Central, SB)
  - 8% Redwood City (Brewster, Sequoia, P&R)
- **Water districts have discretion on how to meet goals**
  - Increased pricing for usage over “drought budget”
  - What can SamTrans do to conserve more?

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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 measurable 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

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## Mandatory Measures




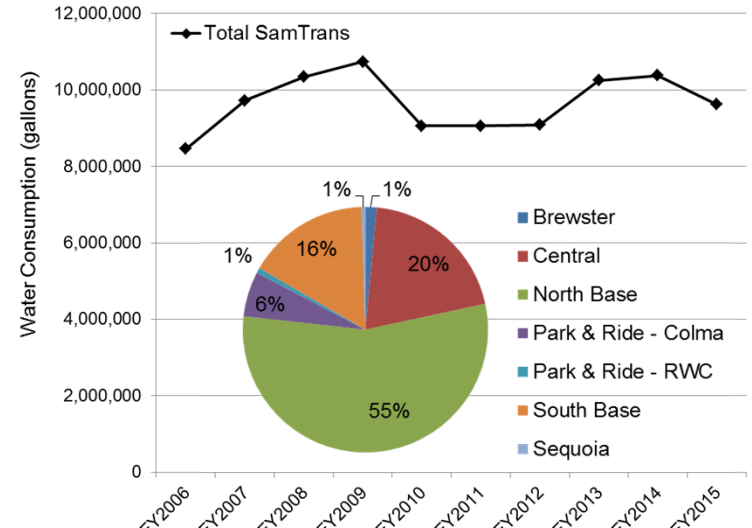
- **Outdoor irrigation schedules**
  - Max 2x per week watering (odd addresses Mon/Thurs; even addresses Tues/Fri)
  - NO watering 8am-6pm
- **Enforcement**
  - Fines (\$50 – \$500 per day)
  - Flow restrictor



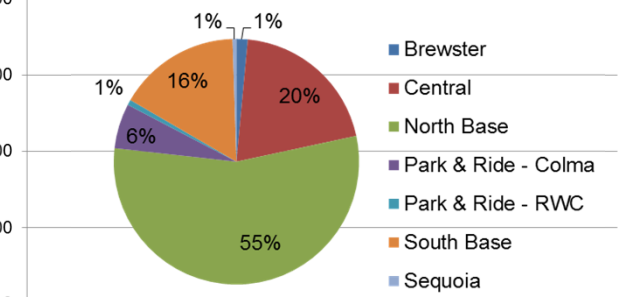
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## Historical Water Usage






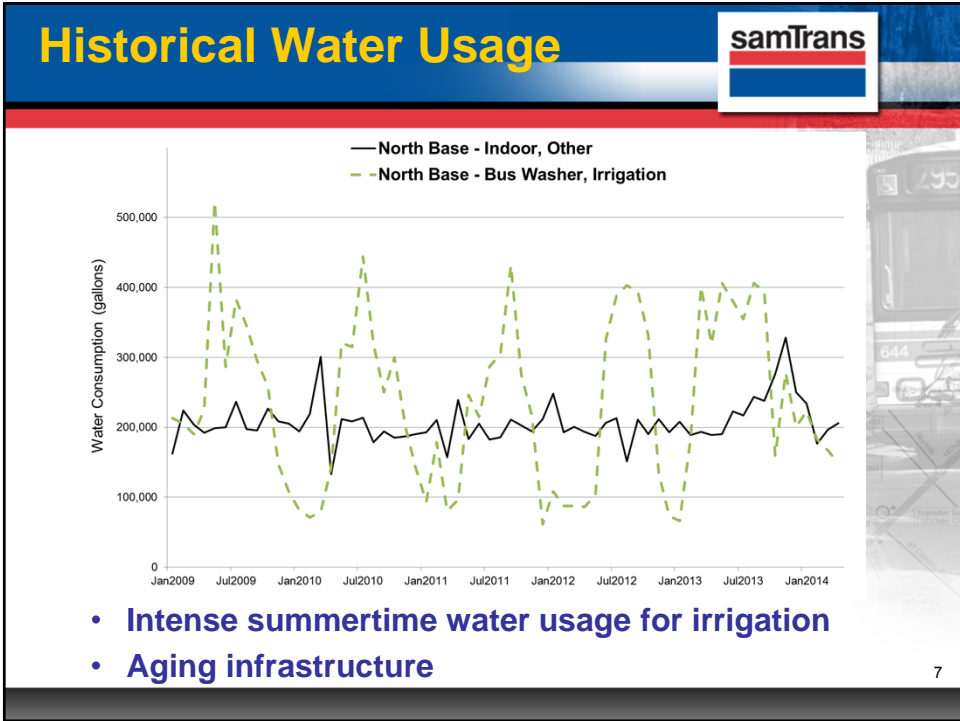
Fiscal Year	Water Consumption (gallons)
FY2006	8,500,000
FY2007	9,800,000
FY2008	10,500,000
FY2009	11,000,000
FY2010	9,000,000
FY2011	9,000,000
FY2012	9,000,000
FY2013	10,500,000
FY2014	10,500,000
FY2015	9,500,000



Location	Percentage
North Base	55%
Central	20%
South Base	16%
Park & Ride - Colma	6%
Brewster	1%
Sequoia	1%



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- ## Voluntary Efforts
- **Prioritize initial efforts**
    - Can be implemented immediately
    - Low cost
    - Significant savings
  - **Initial efforts in 3 categories**
    - Facilities
    - Fleet
    - Employee behavior and messaging

## Voluntary Efforts: Facilities

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- Eliminate irrigation at **Park & Rides** (completed)
- Reduce irrigation at **Bases, Brewster** (completed)
- Replace Central's flowerbeds with **California-native, drought-tolerant species** (in progress)
- Install faucet aerators to **reduce water use by 25% – 40%** (completed at Central)



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## Voluntary Efforts: Fleet

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- Wash bus exteriors **every other day (50% reduction)**
- Implemented **June 2015**
- Winter schedule may be different, as needed
- Note: bus washers **recycle 70% – 85% of water**



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## Voluntary Efforts: Employees

- Signage in kitchens, restrooms, showers
- *SamTimes*
- Emails, website, social media
- Implementation in progress



**SAVE our water**

**AVERAGE DAILY USE**  
The average Bay Area resident uses about 100 gallons of water per day. Here are some easy ways to reduce water use. Find the right combination to reduce your usage by 25% or 25 gallons a day.

**TURN OFF WATER WHEN BRUSHING TEETH**  
*saves* **10 GALLONS** per person/day

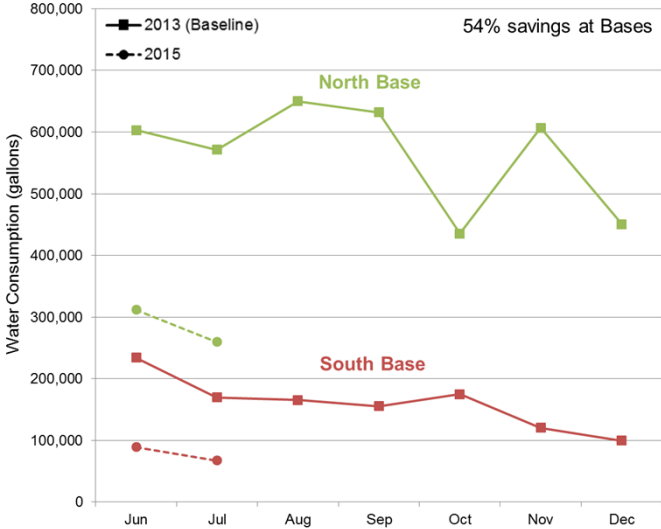
**WHEN WASHING YOUR HANDS, TURN WATER OFF WHILE YOU LATHER.**  
*saves* **1.5-2.5 GALLONS** per minute

San Mateo County TRANSIT DISTRICT Sustainability

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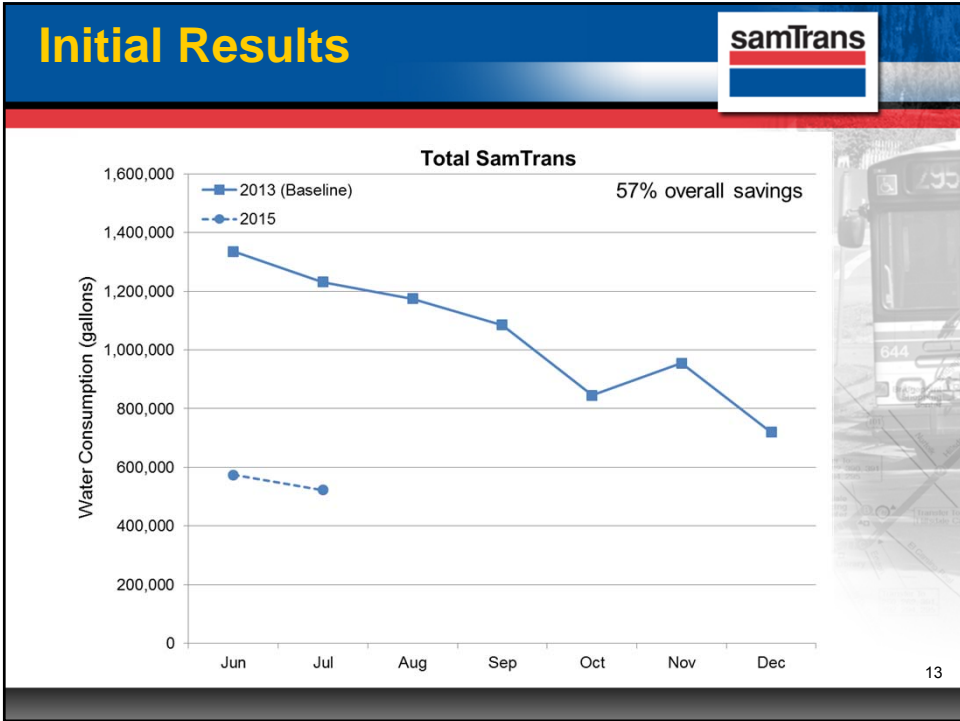
## Initial Results

54% savings at Bases



Month	2013 (Baseline) - North Base	2015 - North Base	2013 (Baseline) - South Base	2015 - South Base
Jun	600,000	310,000	240,000	90,000
Jul	570,000	260,000	170,000	70,000
Aug	650,000	-	160,000	-
Sep	630,000	-	150,000	-
Oct	440,000	-	170,000	-
Nov	610,000	-	120,000	-
Dec	450,000	-	100,000	-

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- ## Next Steps
- **Monitor water usage**
  - **Evaluate success**
    - Calculate savings
    - Modify as needed
  - **Consider additional strategies**
    - Retrofit indoor plumbing fixtures
    - Delivery of recycled water
    - Drip irrigation systems
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