



# 2014 Drought: Water Supply Situation and Drought Response Plan

City of Santa Cruz Water Department  
June 17, 2014



# Water Service Area

## Areas served:

- Santa Cruz
- County
- Capitola

## Population:

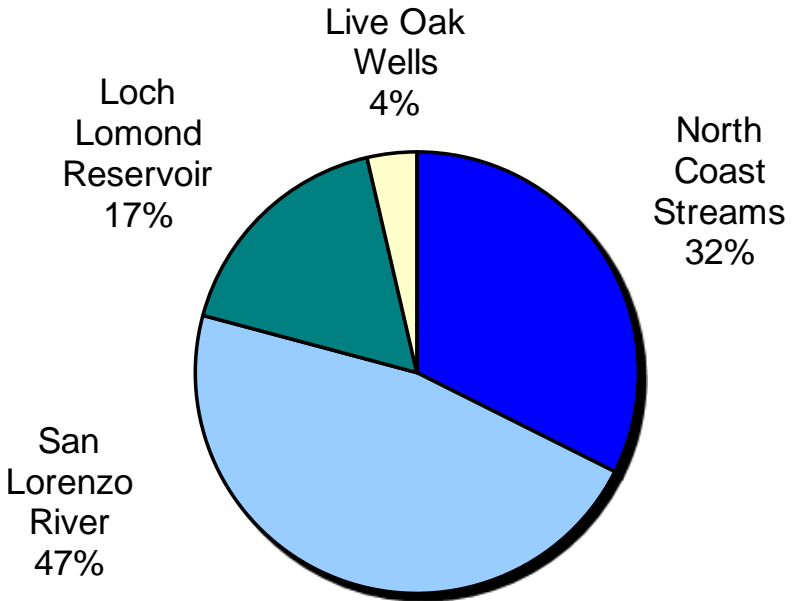
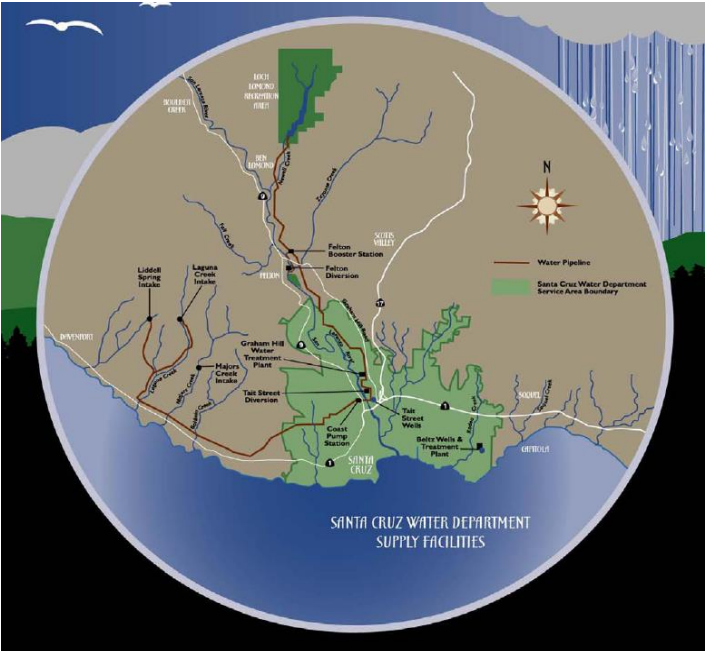
- 94,000

## Governing body:

- City Council



# Water Sources



**North Coast Streams**



**San Lorenzo River**



**Loch Lomond Reservoir**



**Live Oak Wells**



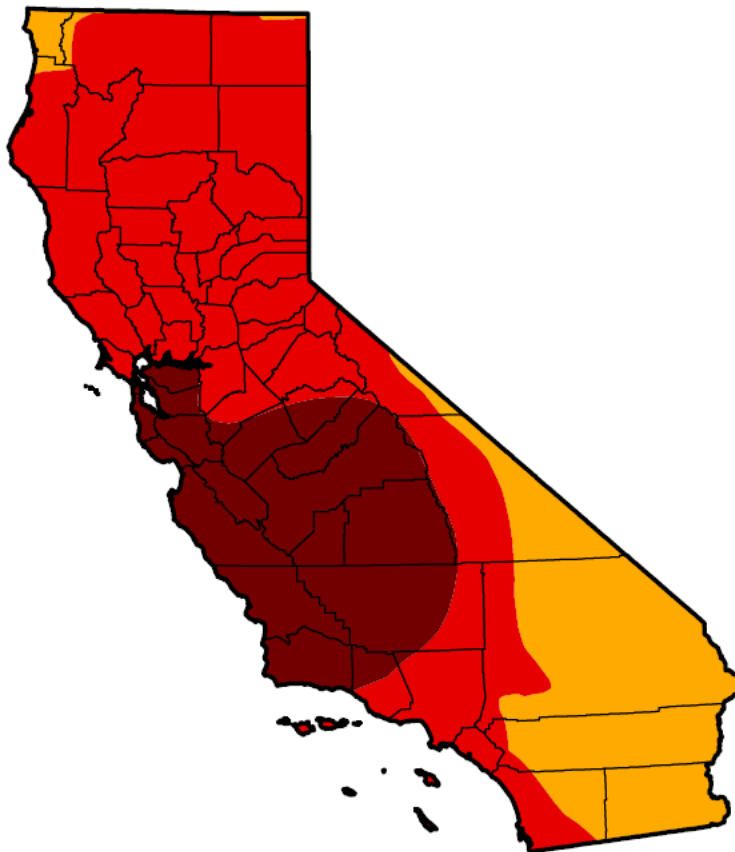
# Water Production

- Average **9-10 million gallons per day (mgd)**
- 6-7 mgd in winter
- 12-13 mgd in summer
- Entirely **local sources** from winter rains
- **No water is imported to the City** from outside the County or from another agency
- **GPCD = 97 gallons/capita/day**

# Statewide Drought Status

## U.S. Drought Monitor California

**June 10, 2014**  
(Released Thursday, Jun. 12, 2014)  
Valid 8 a.m. EDT



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	100.00	100.00	76.68	24.77
Last Week 6/3/2014	0.00	100.00	100.00	100.00	76.68	24.77
3 Months Ago 3/11/2014	0.01	99.99	94.56	90.81	65.89	22.37
Start of Calendar Year 12/31/2013	2.61	97.39	94.25	87.53	27.59	0.00
Start of Water Year 10/1/2013	2.63	97.37	95.95	84.12	11.36	0.00
One Year Ago 6/11/2013	0.00	100.00	98.16	53.54	0.00	0.00

*Intensity:*



*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.*

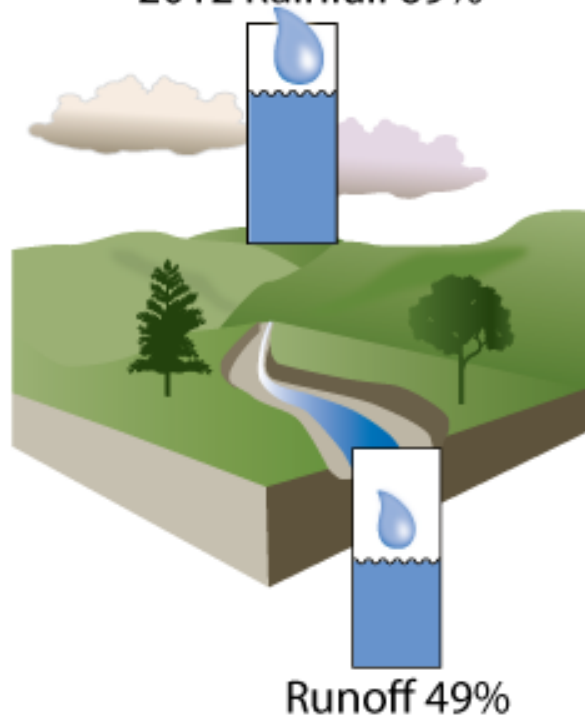
**Author:**  
Matthew Rosencrans  
CPC/NCEP/NWS/NOAA



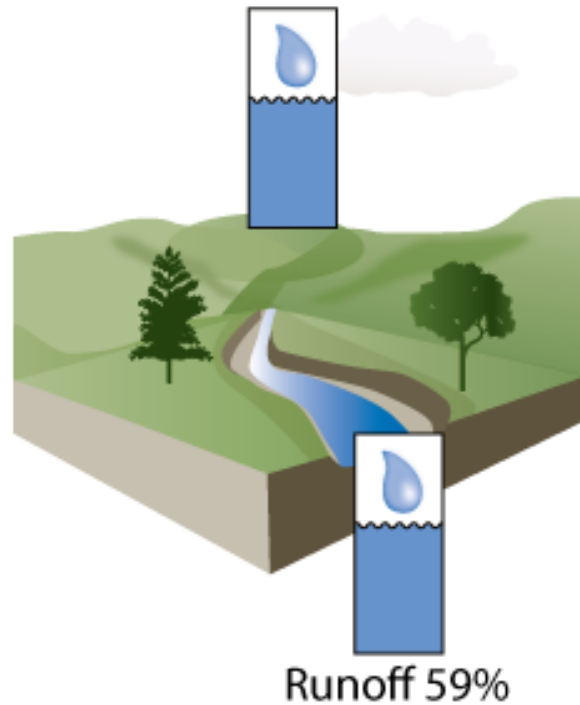
# Local Water Conditions

## 3 Dry Years

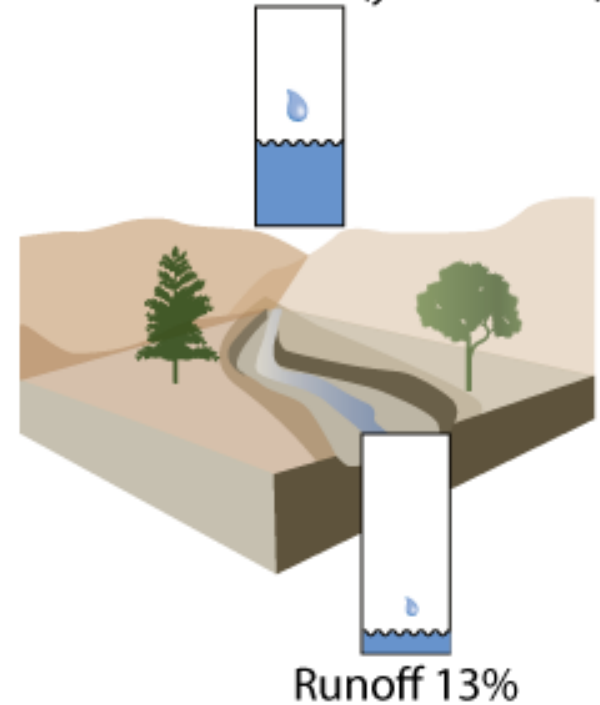
2012 Rainfall 69%



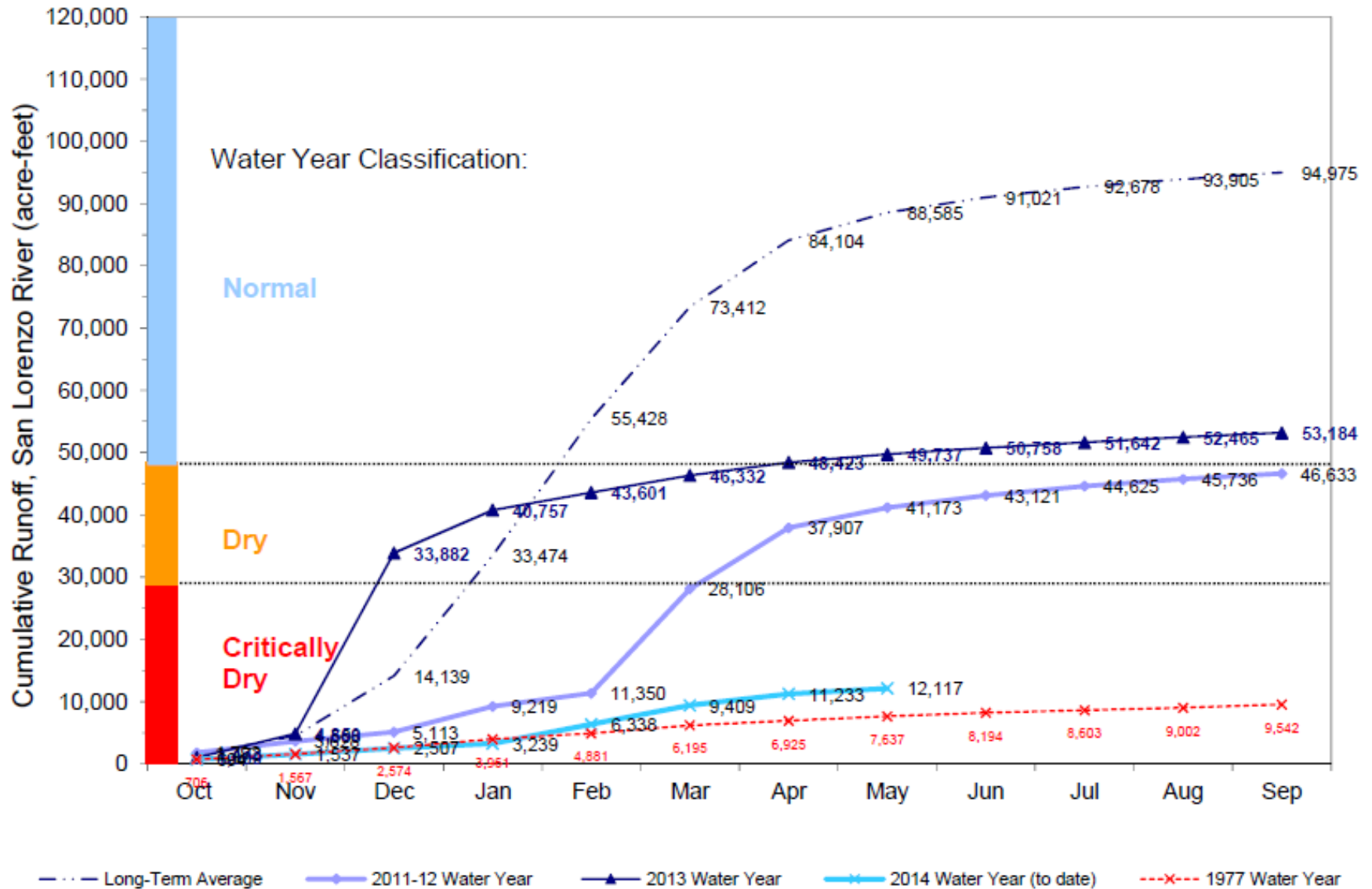
2013 Rainfall 59%



2014 Rainfall 43% (year to date)



## Cumulative Runoff and Water Year Classification, 6/01/14 (acre-feet)



# Loch Lomond Reservoir



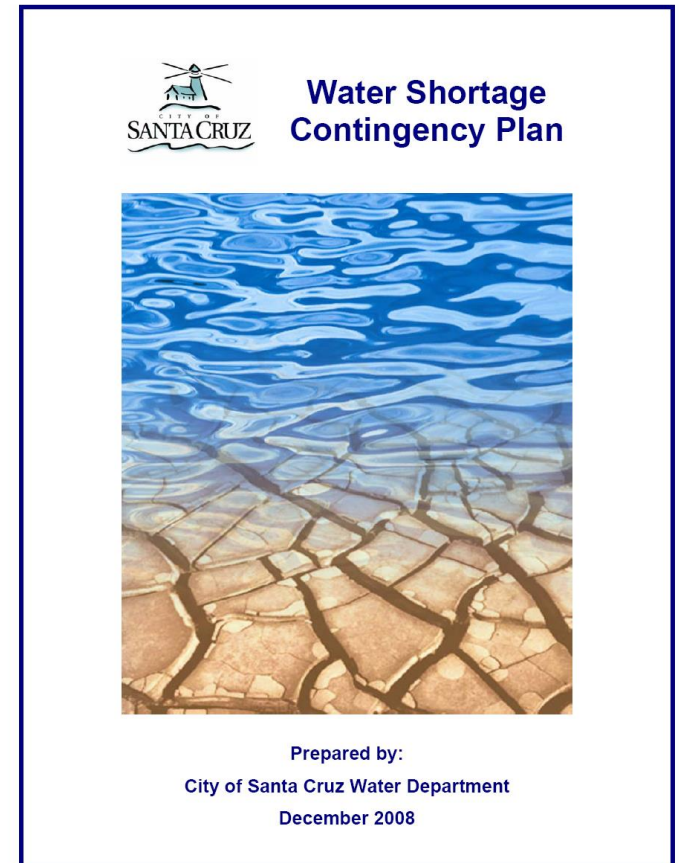


# Loch Lomond Reservoir



# Water Shortage Contingency Plan

- Required of urban water suppliers by State of California
- Must address water shortages of up to 50 percent
- Water Department: comprehensive update in 2009

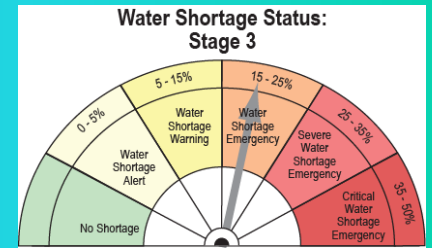


# Water Shortage Contingency Plan

Stage	Magnitude of Water Shortage	Stage Title
1	0-5%	Water Shortage Alert
2	5-15%	Water Shortage Warning
3	15-25%	Water Shortage Emergency
4	25-35%	Severe Water Shortage Emergency
5	35-50%	Critical Water Shortage Emergency

Priority	Type of Water Use
Highest	<b>Health and safety:</b> Indoor domestic use for personal care
Next highest	Business (protect jobs/economy)
Lowest	Landscape, yard, or garden irrigation and other outdoor uses

# City Council Action



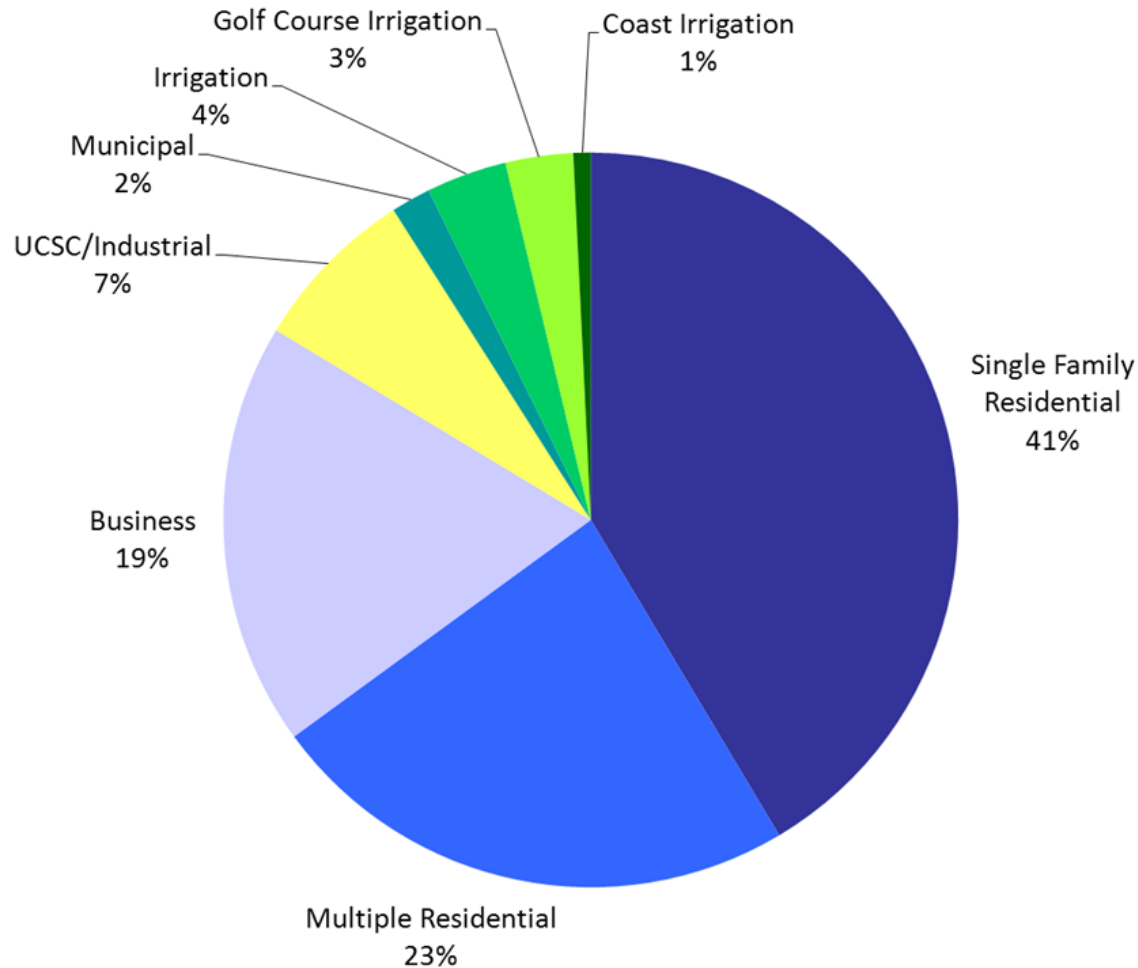
## Timeline:

- 2012 and 2013: Stage 1 Water Shortage Alert declared
- October 2013: Stage 1 Alert extended indefinitely
- February 2014: **Water Shortage Emergency** declared – Stage 3
- **May 2014:** Regulations became effective

# Key Water Use Regulations in Stage 3

1. Residential accounts: **Water rationing** for single family and multi-family accounts
2. Commercial customers: Mandatory facility audits, conservation plans, signage, irrigation restrictions
3. Large irrigation accounts: **Water rationing** based on landscape water budgets
4. Outdoor water **restrictions** for all customers

# Water Use by Customer Category



# Single Family Residential Allotments

- Basic monthly allotment of **10 CCF**
- Accommodates ordinary indoor needs for a family of up to four
- 249 gallons/day or **62 gallons/person/day**
- Each additional permanent resident: **+2 CCF**
- Penalty for excessive use:  
**\$25 - 50 per CCF**

# Multi-Family Residential Allotments

- 2,700+ accounts, 17,000+ households
- 110+ Homeowner associations
- Allotment varies depending on **number of dwelling units** at the account
- Alternative allotment methods
- Penalty for excessive use:  
**\$25 - 50 per HCF**



# Multi-Family Residential Allotments

Dwelling Units	Allotment * (CCF/dwelling unit/month)
2-4	7
5-20	6
Over 20	5

\* Subtract 1 CCF for properties with separate irrigation accounts

# Utility Bill Changes



**SANTA CRUZ MUNICIPAL UTILITIES**  
 212 Locust Street, Suite D, Santa Cruz, CA 95060  
 Customer Service: (831) 420-5220 | www.cityofsantacruz.com

<b>ACCOUNT NUMBER:</b>	007-01190-003
<b>SERVICE ADDRESS:</b>	[REDACTED]
<b>SERVICE PERIOD:</b>	1/8/2014 - 2/5/2014
<b>SERVICE DAYS:</b>	29
<b>ACCOUNT TYPE:</b>	SINGLE FAMILY DWELLING (02)
<b># OF UNITS:</b>	
<b>REFUSE PICKUP DAY:</b>	FRIDAY
<b>BILLING ADDRESS:</b>	[REDACTED]

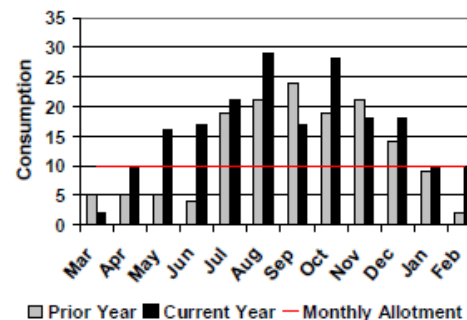
Past Due:	373.78
Payment - thank you	-373.78
<b>PAST DUE BALANCE - DUE NOW:</b>	<b>0.00</b>
- Current Charges -	
Water - Ready to Serve 5/8"	17.41
Water Consumption Charges (11 CCF):	
4 CCF @ 1.57	6.28
5 CCF @ 4.00	20.00
2 CCF @ 5.14	10.28
Excessive Use Penalties	
1 CCF @ \$25.00	25.00
Refuse - 68 Gallon Cart (1)	55.84
Sewer - Single Family	40.50
Utility Tax @8.5%:	14.90
Franchise Tax - Water 3%,Sewer 3%,Refuse 12%	10.29

## UTILITY BILL

Total is due upon presentation

### Please Note The Following:

#### Usage Analysis:



(1 CCF = 100 Cubic Ft or 748 Gal.)

Meter No.	Date Previous	Current	Cons.
56312527	2/6/2014	1690	1701

**Water consumption this period:** 8,228 gallons  
**Average water use this period:** 284 gallons/day

#### Water Rationing Information

Your monthly allotment:	10 CCF
Water consumption this period:	11 CCF
Excess use (if any):	1 CCF

#### NOTE:

# Exceptions

Increased allocation may be granted where there is a documented need due to the following circumstances:

- Health
- Safety
- Sanitation
- Fire protection

# Large Landscape Accounts

- Monthly allocation varies based on landscape water budget
- 1/3 of normal use
- Penalty for excessive use: \$25-50 per CCF

## Landscape Water Use Report

February 2014  
SiteID: SC-01t

### Prepared For:

Site Name: CityHall  
Main Contact: Meta Rhodeos  
Landscape Firm:  
Other Contacts: Mia Duquet, Tom Kemp, Mauro Garcia

### Acct# and Service Address:

028-00334-011; 809 CENTER ST  
028-00365-012; 0 CENTER & LOCUST  
028-00375-011; 0 CHURCH ST

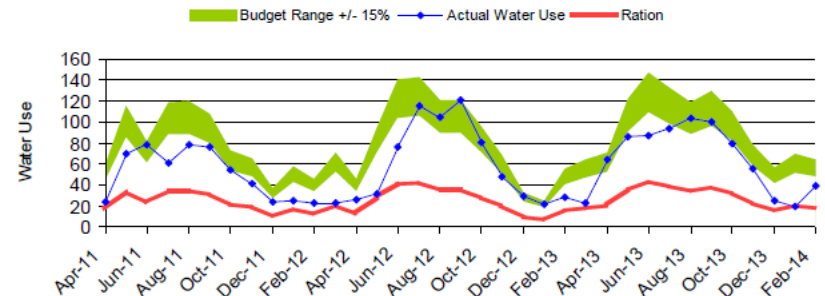
### Site Description:

Measurement Method: [View Site Map](#)  
Measurement Date: 8/5/2013  
Irrigated Turf Area (FT2): 10,254  
Irrigated Other Area (FT2): 14,079  
Pool/Pond Area (FT2): 0  
Indoor Water Ccf/Bill: 22



CITY OF SANTA CRUZ  
City Hall 101-40-86-4110-52201  
809 CENTER ST RM 101  
SANTA CRUZ CA 95060-3828

### Water Use History



	Read Date	Actual Water Ccf	Ration Water Ccf	Over Ration Ccf	Over Ration %	Weather ETo-Rain Inches
<b>2014 Cumulative Excess Water Use Penalties</b>						
		Ccf	\$			
Up to 10% Over Ration Amount		2	\$48			
Over 10% of Ration Amount		17	\$855			
<b>Total Penalty</b>		<b>19</b>	<b>\$903</b>			
	2/10/2014	39	19	20	51%	1.93
	1/10/2014	20	21	0	0%	2.19
	12/10/2013	25	17	8	33%	1.53
	11/8/2013	56	23	33	58%	2.64
	10/9/2013	80	33	47	59%	4.19
	9/9/2013	100	38	62	62%	5.17
	8/9/2013	103	35	68	66%	4.64
	7/9/2013	94	39	55	58%	5.31
	6/10/2013	87	43	44	50%	6.02
	5/8/2013	86	36	50	58%	4.77
	4/10/2013	64	21	43	67%	2.31

### Messages

Due to the abnormally dry water conditions, the Water Department requests all irrigation controllers be shut off for the winter season. For more information visit [www.cityofsantacruz.com/waterrestrictions](http://www.cityofsantacruz.com/waterrestrictions) or call 831-420-5230.

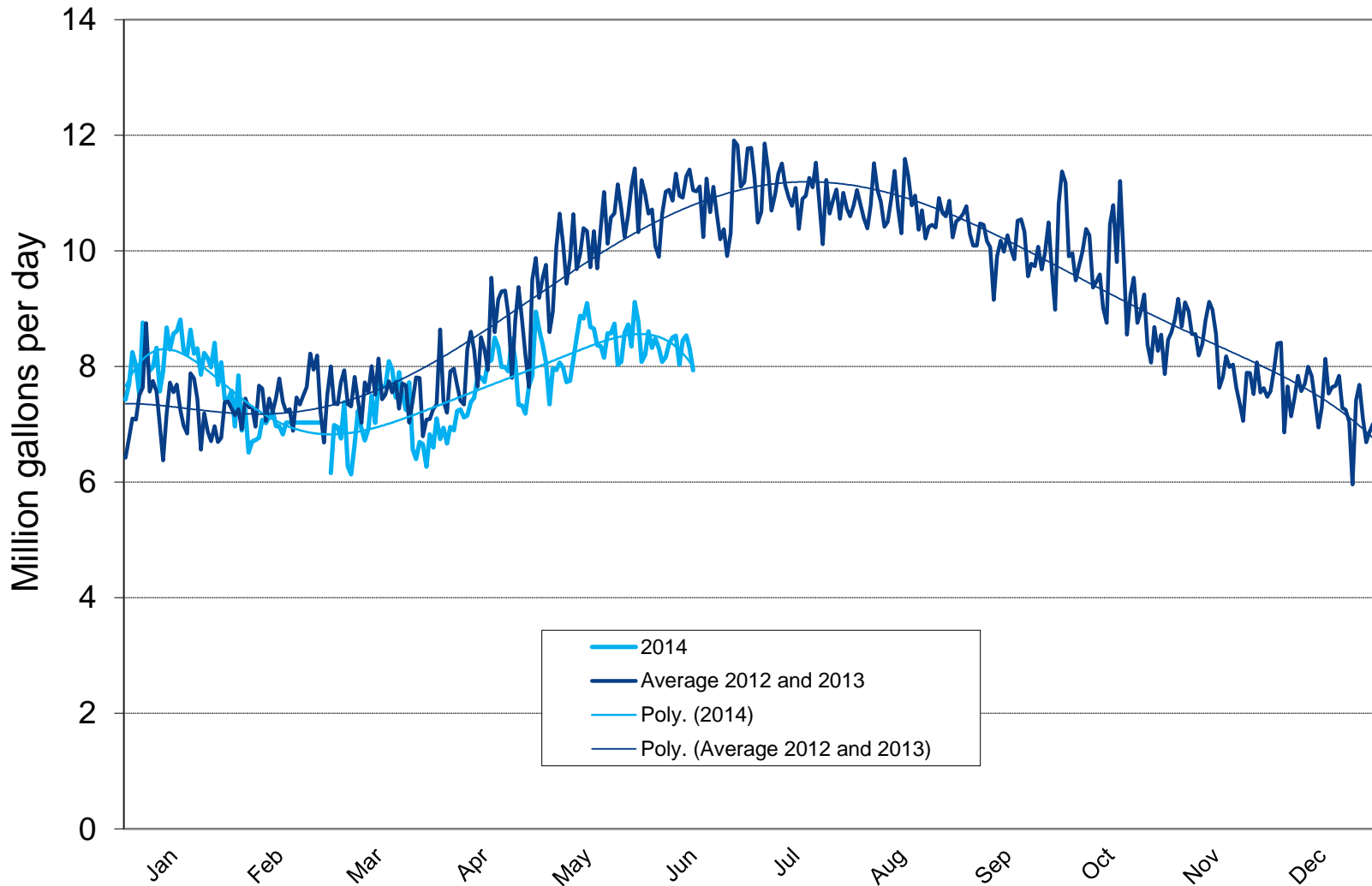
# Outdoor Water Use Restrictions

- No landscape watering **10 am - 5 pm**
- **Waste of water strictly prohibited**
- Hose nozzles required
- No washing down hard/paved surfaces
- Washing buildings/structures prohibited
- No initial filling or draining/filling swimming pools & outdoor spas
- Plumbing leaks must be repaired in 24 hours
- Penalties: after warning; **\$100 up to \$500**

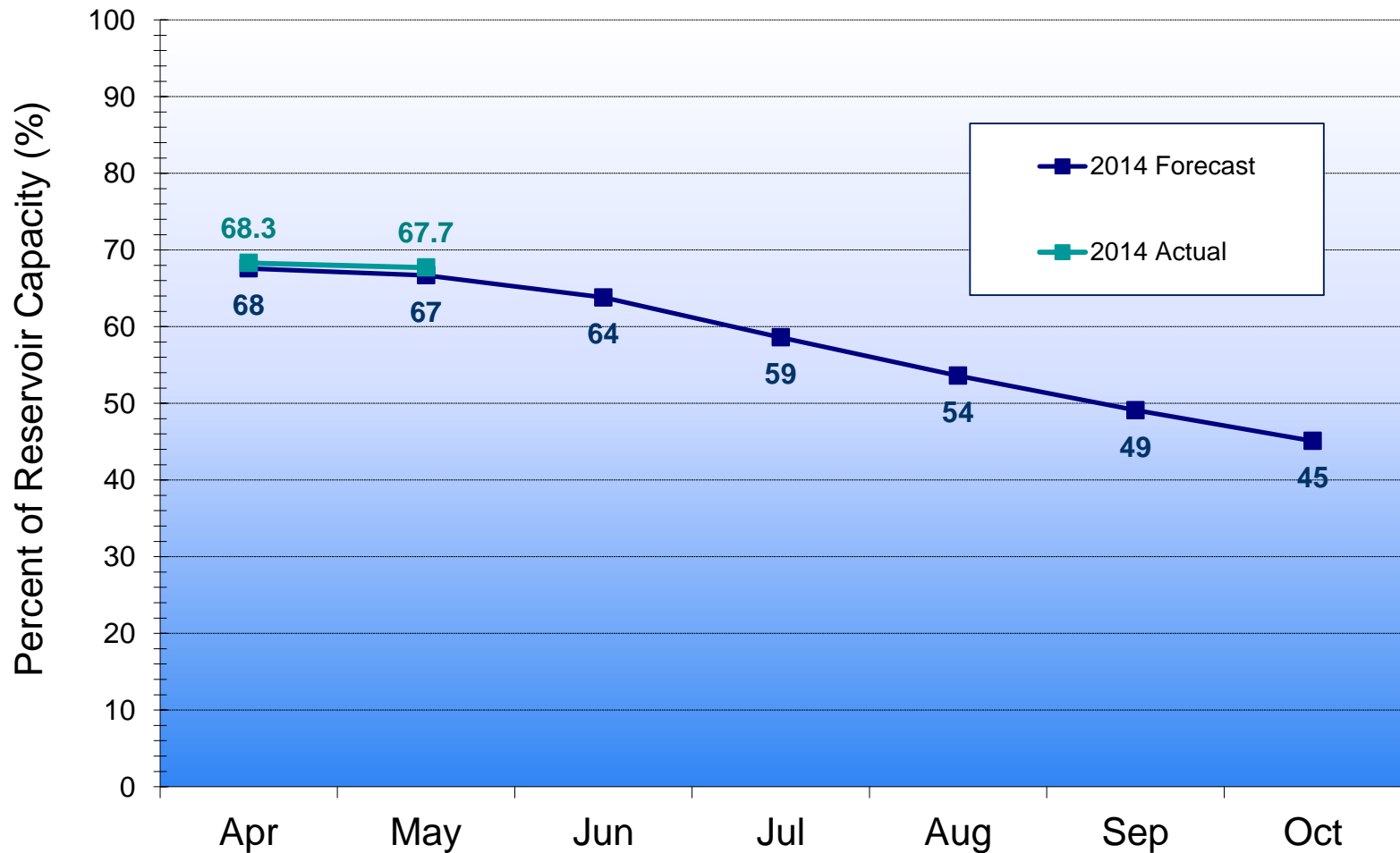
# Overall Water Management Objectives

- Monthly water production and consumption goals – **20% less than 2012/13**
- Monthly & end of season reservoir storage goals – **At or above 45% on October 31**
- Monthly & end of season groundwater elevation goals
- **Fundamental Goal:** Managing 2014 to ensure adequate carryover storage is available in 2015 in case drought continues

# Tracking Water Production



# Loch Lomond Reservoir





# Temporary Urgency Change Petition

- **Approved by SWRCB February 2014**
- **Reduced bypass flows**
- **Estimated to save ~ 100 million gallons in storage**
- **City to report back in July**