

## 2014 Drought: Water Supply Situation and Drought Response Plan

## City of Santa Cruz Water Department June 17, 2014



## Water Service Area

### Areas served:

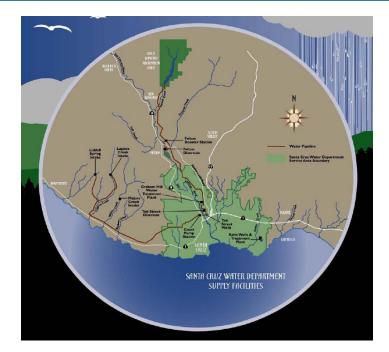
- Santa Cruz
- County
- Capitola
- **Population:**
- 94,000

Governing body:

City Council



## Water Sources

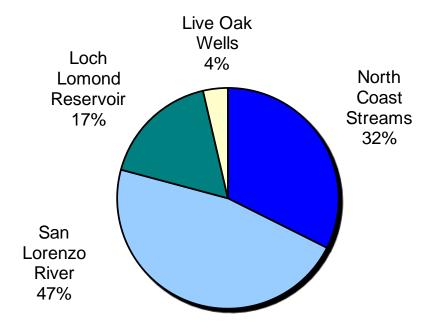


#### **North Coast Streams**



#### San Lorenzo River





#### **Loch Lomond Reservoir**



#### **Live Oak Wells**

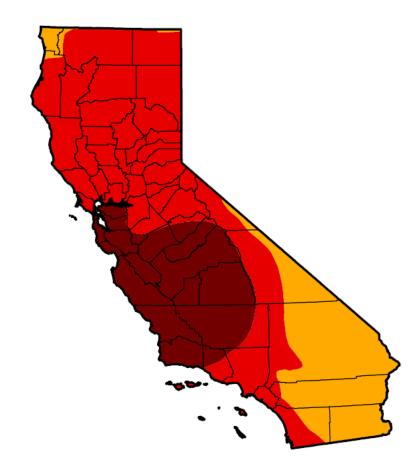


## Water Production

- 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		





D3 Extreme Drought D4 Exceptional Drought

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

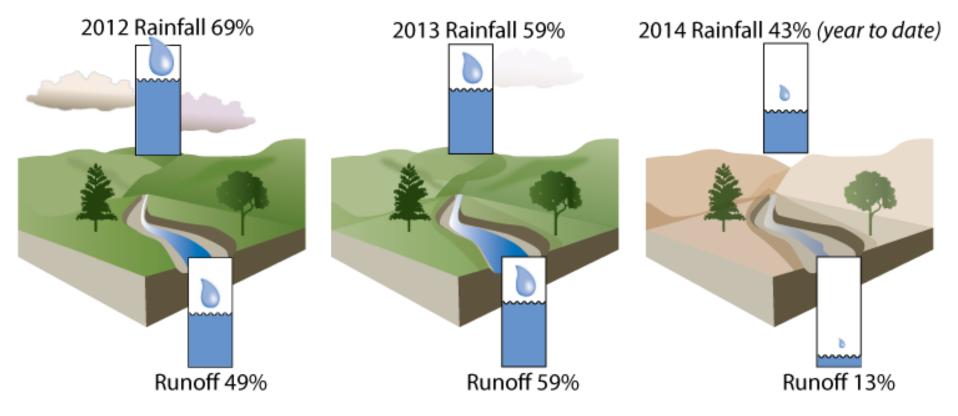
Author: Matthew Rosencrans CPC/NCEP/NWS/NOAA



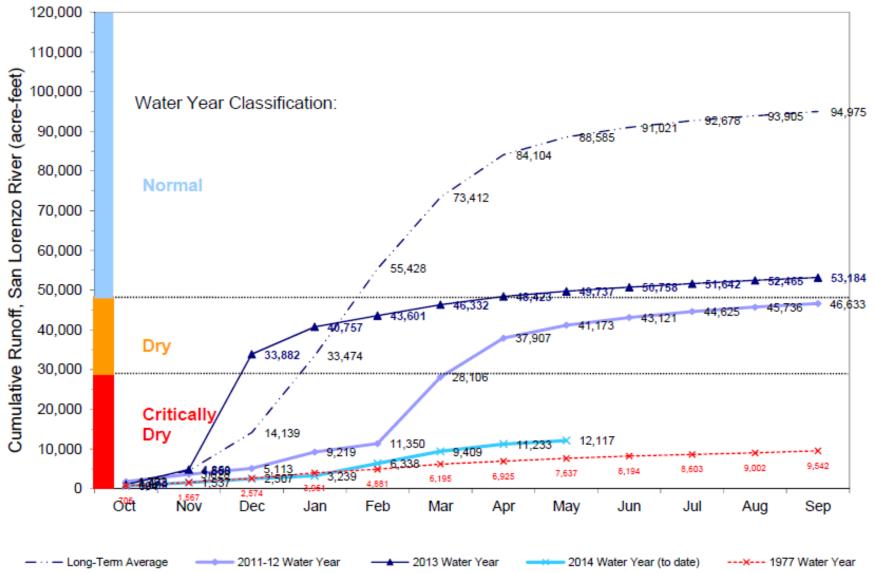
#### http://droughtmonitor.unl.edu/

## **Local Water Conditions**





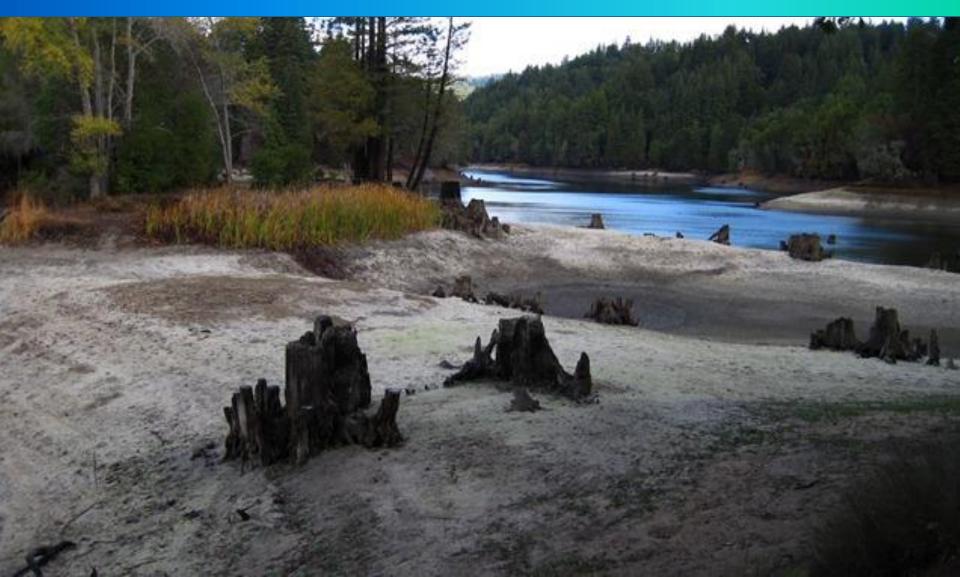
### Cumulative Runoff and Water Year Classification, 6/01/14 (acre-feet)



# Loch Lomond Reservoir

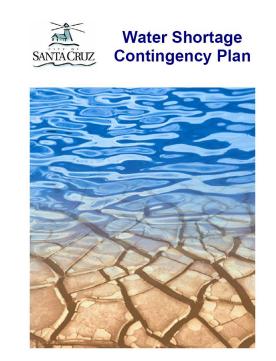


# Loch Lomond Reservoir



# 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



Prepared by: City of Santa Cruz Water Department December 2008

# 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	Health and safety: 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**



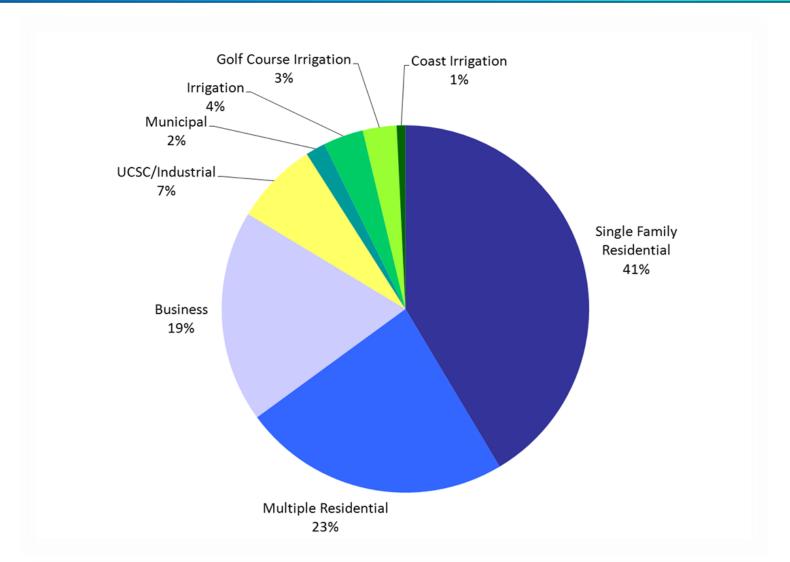
## Timeline:

- 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 <u>all</u> 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:

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$25 - 50 per HCF
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# Multi-Family Residential Allotments

<b>Dwelling Units</b>	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**



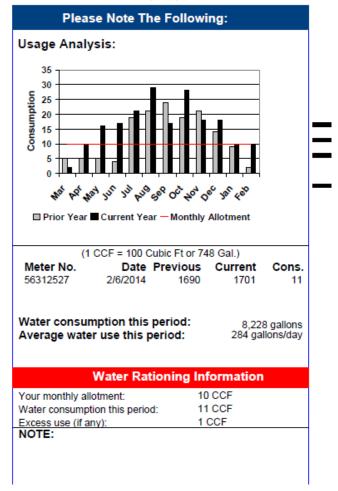
#### SANTA CRUZ MUNICIPAL UTILITIES

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

ACCOUNT NUMBER:	007-01190-003	
SERVICE ADDRESS:		
SERVICE PERIOD:	1/8/2014 - 2/5/2014	
SERVICE DAYS:	29	
ACCOUNT TYPE:	SINGLE FAMILY DWELLING (02)	
# OF UNITS:		
REFUSE PICKUP DAY:	FRIDAY	
BILLING ADDRESS:		
Pact Duo:		272 70
Past Due: Payment - thank you		373.78
Past Due: Payment - thank you PAST DUE BALANCE	- DUE NOW:	373.78 -373.78 0.00
Payment - thank you PAST DUE BALANCE	- DUE NOW: urrent Charges -	-373.78
Payment - thank you PAST DUE BALANCE - C Water - Ready to Serv	urrent Charges - ve 5/8"	-373.78
Payment - thank you PAST DUE BALANCE - C Water - Ready to Serv Water Consumption C	urrent Charges - ve 5/8"	-373.78 0.00 17.41
Payment - thank you PAST DUE BALANCE - C Water - Ready to Serv Water Consumption C 4 CCF @ 1.57	urrent Charges - ve 5/8"	-373.78 0.00 17.41 6.28
Payment - thank you PAST DUE BALANCE - C Water - Ready to Serv Water Consumption C 4 CCF @ 1.57 5 CCF @ 4.00	urrent Charges - ve 5/8"	-373.78 0.00 17.41 6.28 20.00
Payment - thank you PAST DUE BALANCE - C Water - Ready to Serv Water Consumption C 4 CCF @ 1.57 5 CCF @ 4.00 2 CCF @ 5.14	urrent Charges - ve 5/8" harges (11 CCF):	-373.78 0.00 17.41 6.28
Payment - thank you PAST DUE BALANCE - C Water - Ready to Serv Water Consumption C 4 CCF @ 1.57 5 CCF @ 4.00 2 CCF @ 5.14 Excessive Use Penalt	urrent Charges - ve 5/8" harges (11 CCF):	-373.78 0.00 17.41 6.28 20.00 10.28
Payment - thank you PAST DUE BALANCE - C Water - Ready to Serv Water Consumption C 4 CCF @ 1.57 5 CCF @ 4.00 2 CCF @ 5.14 Excessive Use Penalt 1 CCF @ \$25.00	urrent Charges - ve 5/8" charges (11 CCF): ies	-373.78 0.00 17.41 6.28 20.00 10.28 25.00
Payment - thank you PAST DUE BALANCE - C Water - Ready to Serv Water Consumption C 4 CCF @ 1.57 5 CCF @ 4.00 2 CCF @ 5.14 Excessive Use Penalt 1 CCF @ \$25.00 Refuse - 68 Gallon Ca	urrent Charges - ve 5/8" charges (11 CCF): ies art (1)	-373.78 0.00 17.41 6.28 20.00 10.28
Payment - thank you PAST DUE BALANCE - C Water - Ready to Serv Water Consumption C 4 CCF @ 1.57 5 CCF @ 4.00 2 CCF @ 5.14 Excessive Use Penalt 1 CCF @ \$25.00	urrent Charges - ve 5/8" charges (11 CCF): ies art (1)	-373.78 0.00 17.41 6.28 20.00 10.28 25.00 55.84
Payment - thank you PAST DUE BALANCE - C Water - Ready to Serv Water Consumption C 4 CCF @ 1.57 5 CCF @ 4.00 2 CCF @ 5.14 Excessive Use Penalt 1 CCF @ \$25.00 Refuse - 68 Gallon Ca Sewer - Single Family Utility Tax @8.5%:	urrent Charges - ve 5/8" charges (11 CCF): ies art (1)	-373.78 0.00 17.41 6.28 20.00 10.28 25.00 55.84 40.50

### UTILITY BILL

Total is due upon presentation



# 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

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

Over Over Weather

Actual

Ration

February 2014

SiteID: SC-01t



CITY OF SANTA CRUZ City Hall 101-40-68-4110-52201 809 CENTER ST RM 101 SANTA CRUZ CA 95060-3826

#### Water Use History

Budget Range +/- 15% ---- Actual Water Use ----- Ration



2014 Constanting Frances Weber			Read Date	Water Ccf	Water Cof	Ration Ccf	Ration %	ETo-Rain Inches	
2014 Cumulative Excess Water Use Penalties		2/10/2014	39	19	20	51%	1.93		
	Ccf	\$	1/10/2014	20	21	0	0%	2.19	
Up to 10% Over Ration Amount	2	\$48	12/10/2013	25	17	8	33%	1.53	
Over 10% of Ration Amount	17	\$855	11/8/2013	56	23	33	58%	2.64	
			10/9/2013	80	33	47	59%	4.19	
Total Penalty	19	\$903	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 or call 831-420-5230.

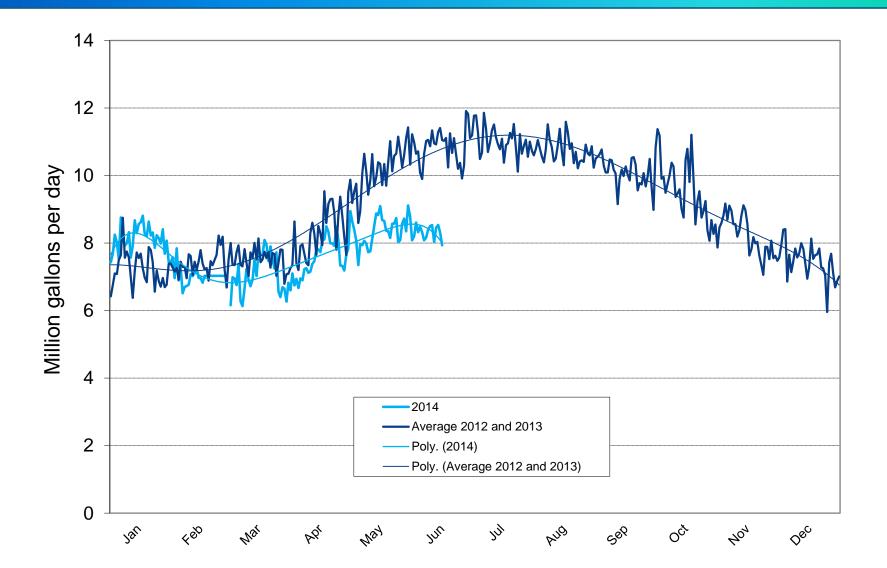
Outdoor Water Use Restrictions

- 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**

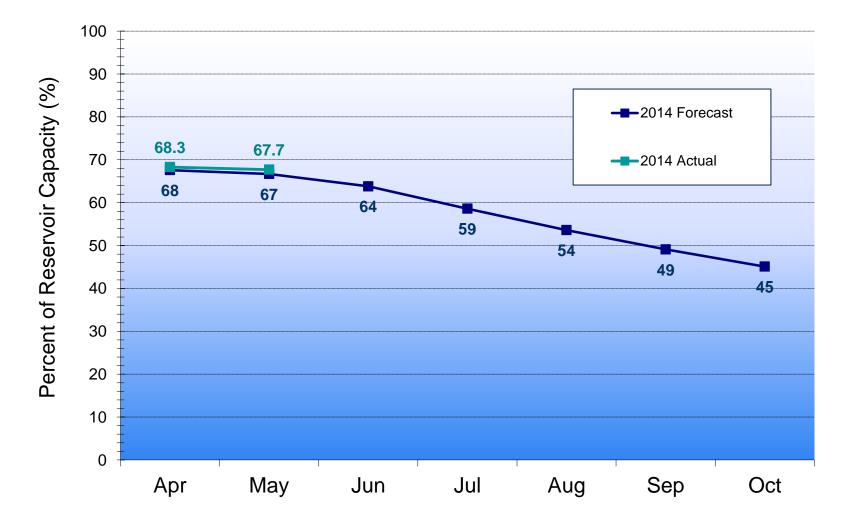
# Overall Water Management Objectives

- 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