

Water Supply Briefing and Dry Year Planning

February 25, 2014

Water Supply Briefing



- Statewide Water Supply Status
- Precipitation & Snow
- Reservoir Storage
- Water Supply Forecast
- Dry Year Planning
- Next Steps



Statewide Water Supply Status

(Storage in Thousand Acre-Feet)



Reservoir	Capacity	WY 2013	WY 2014	Percent of Capacity	Percent of Average	Supply Condition
Trinity	2,448	1,981	1,180	48	69	Poor
Shasta	4,552	3,589	1,731	38	53	Poor
Oroville	3,538	2,826	1,389	39	63	Poor
Folsom	977	559	290	30	61	Poor
New Melones	2,420	1,607	1,058	44	66	Poor
Fed. San Luis	966	754	370	38	47	Critical
Millerton	520	326	171	33	54	Poor

EBMUD System	767	627	477	62	82	Fair
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Statewide Snow Water Content

Updated February 20th

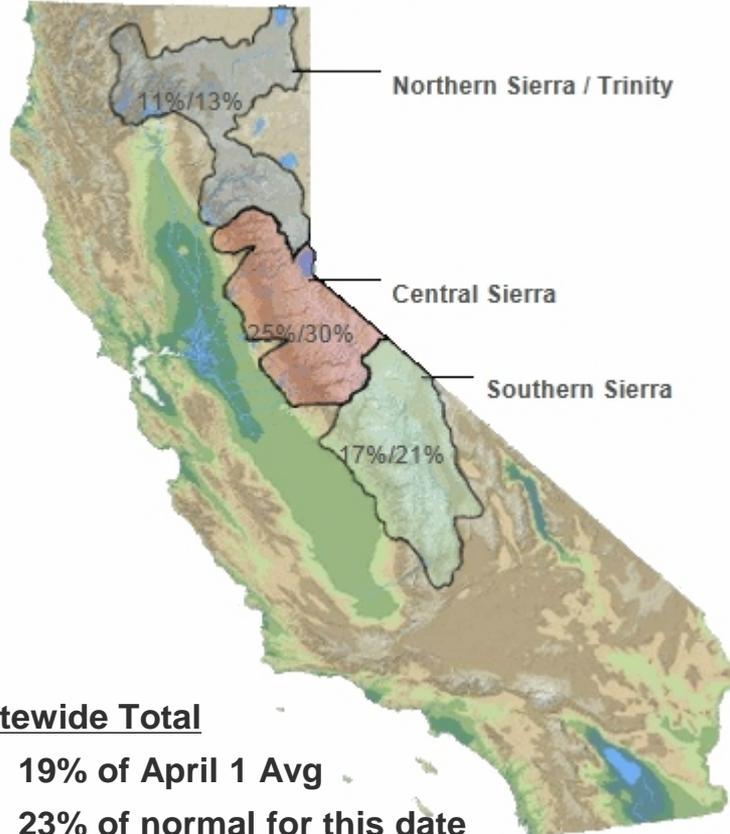


Snow Water Equivalents

Provided by the California Cooperative Snow Surveys

Data For: 24-Feb-2014

% Apr 1 Avg. / % Normal for this Date



Statewide Total

- 19% of April 1 Avg
- 23% of normal for this date

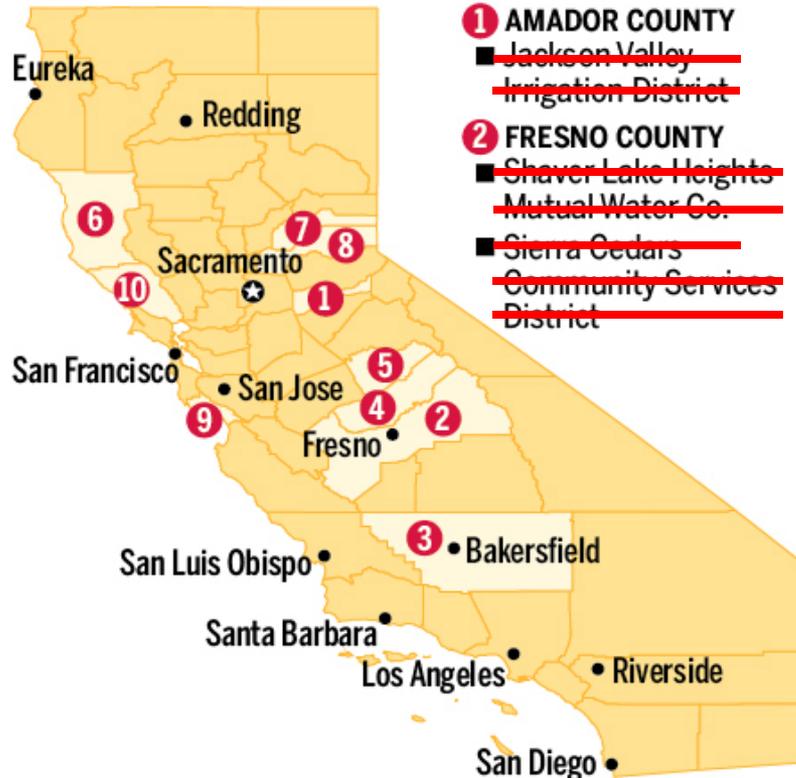


Communities Could Run Out of Water in 60 Days



Severe water shortages

State health officials on Tuesday identified ~~17~~¹⁰ small community water districts in 10 counties that are at risk of running out of water in 60-120 days due to the drought.



Source: California Department of Public Health

- 3 KERN COUNTY**
 - ~~Boulder Canyon Water Association~~
 - Camp Condor
 - ~~Cypress Canyon Water System~~
 - Lake of the Woods Mutual Water Co.
- 4 MADERA COUNTY**
 - ~~Bass Lake Water Co.~~
- 5 MARIPOSA COUNTY**
 - Whispering Pines Apartments
- 6 MENDOCINO COUNTY**
 - Brooktrails Township Community Services District
 - Redwood Valley Community Water District
 - Willits
- 7 NEVADA COUNTY**
 - Washington Ridge Conservation Camp
- 8 PLACER COUNTY**
 - Ophir Gardens
- 9 SANTA CRUZ COUNTY**
 - ~~Lompico County Water District~~
- 10 SONOMA COUNTY**
 - ~~Cloverdale~~
 - ~~Healdsburg~~

January 29, 2014
February 18, 2014

- TULARE COUNTY**
 - West Goshen
- YUBA COUNTY**
 - River Highlands Community Service District

BAY AREA NEWS GROUP



Oroville Dam

State Water Project

- Supplies 29 water agencies (25 million Californians and 750,000 acres of farmland)
- Delivers water to two-thirds of California's population

Water Allocation

- Zero projected
- First time allocation this low in 54-year history
- 1991 – zero allocation for agriculture, 30% allocation for urban.

USBR – Central Valley Project (CVP)



Initial Water Allocation (Feb 21)

- North of Delta, Municipal & Industrial (M&I) – Water contractor serviced by Folsom Reservoir on American River
- Max annual drought supply = 66.5 TAF (50% of 133 TAF)

CVP Contractor	North of Delta	South of Delta
Agricultural (Ag)	0%	0%
Urban (M&I)	50%	50%
American River (M&I)	50%	
In Delta – Contra Costa	50%	
Settlement Contractors	40%	40%
Wildlife Refuges (Level 2)	40%	40%
Eastside Division	55%	
Friant (Class 1 / 2)	0% / 0%	



Folsom South Canal

Current Precipitation & Snow

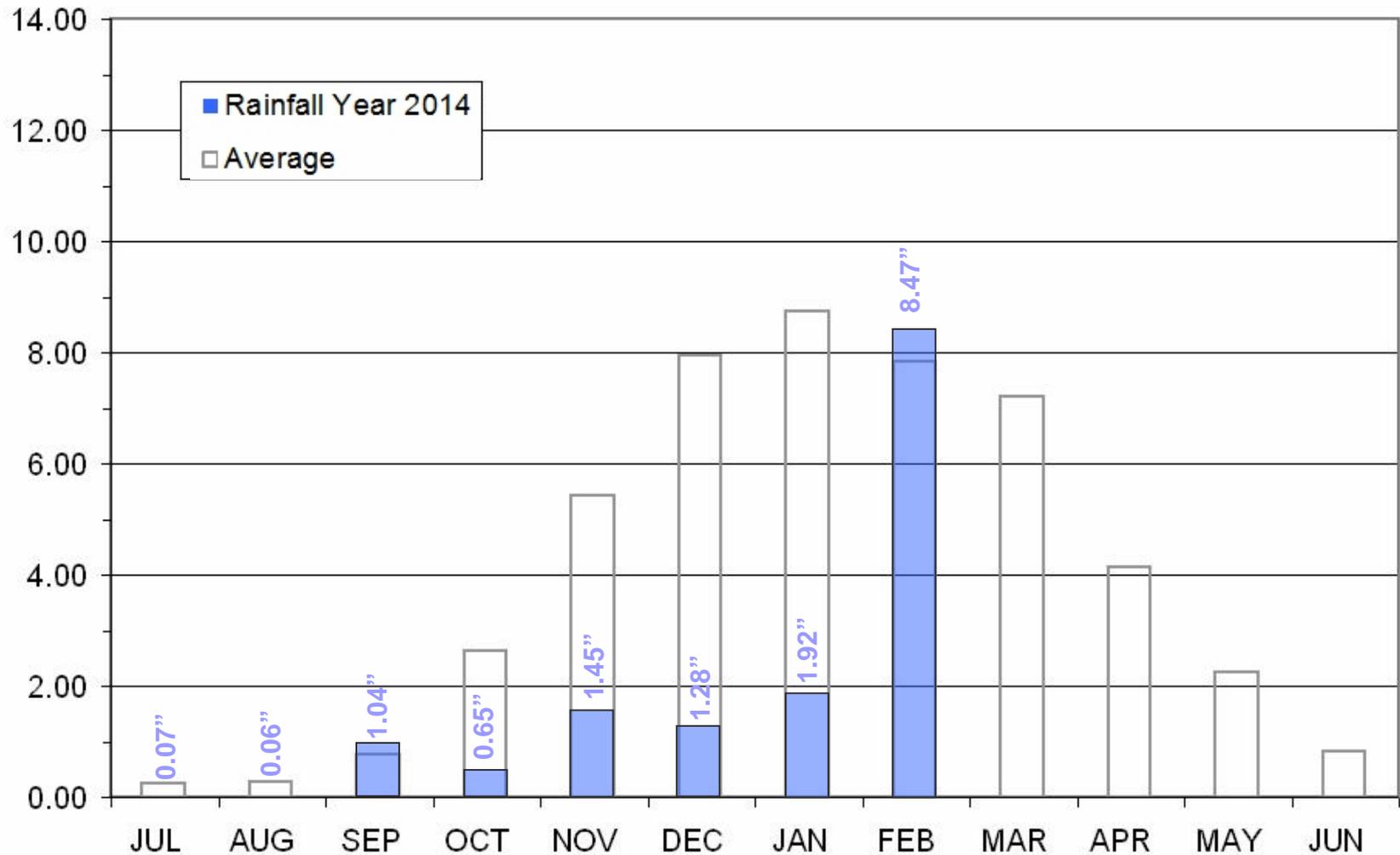


As of 02/24/14	Cumulative Precipitation	% of Average
East Bay		
East Bay Watershed	7.23"	38%
Mokelumne Basin		
4-Station Average	14.94"	46%
Caples Lake Snow Depth	28"	38%
Caples Lake Snow Water Content	9"	33%

Current Mokelumne Precipitation



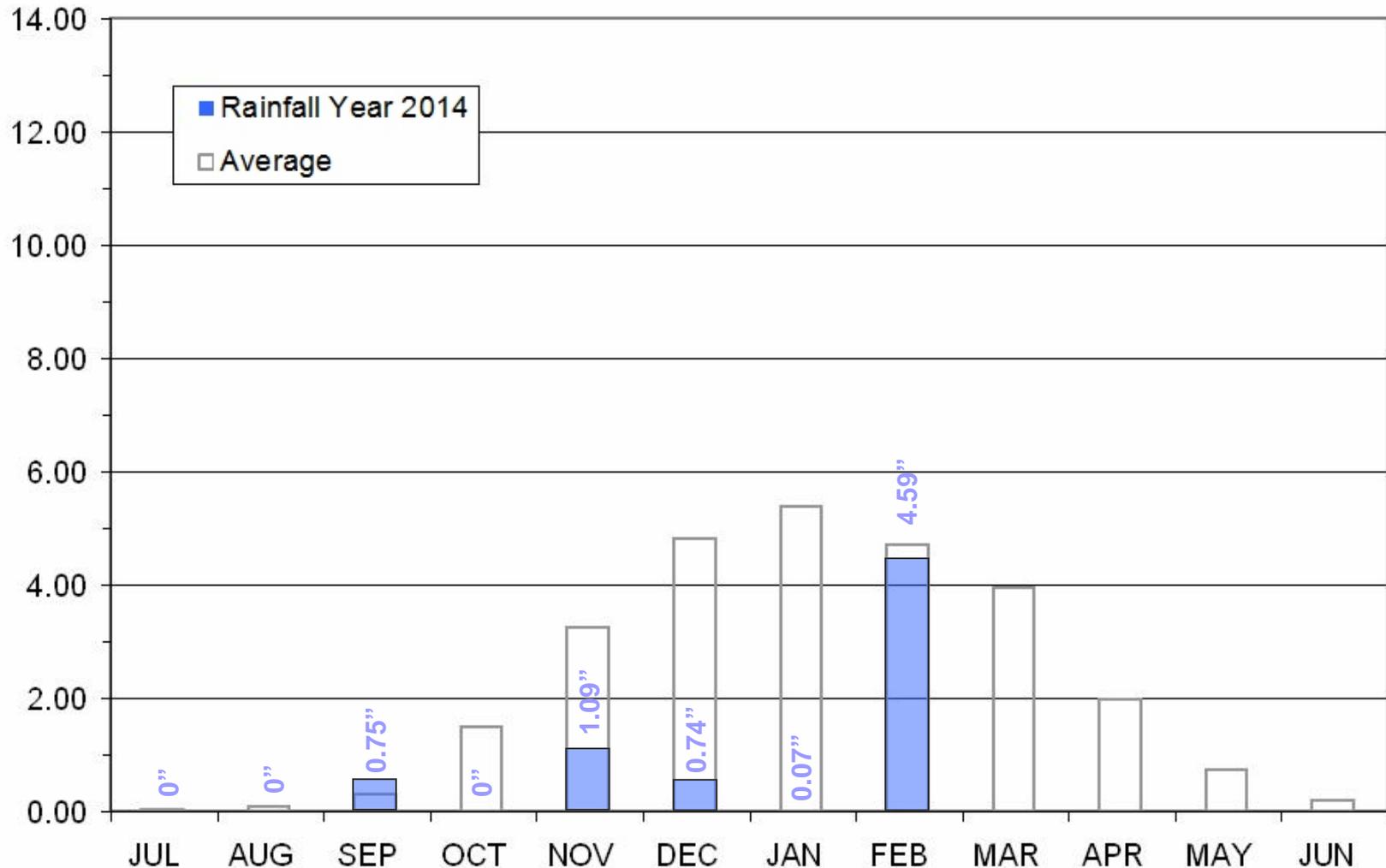
Mokelumne 4-Station Average Precipitation (in)



Current East Bay Precipitation

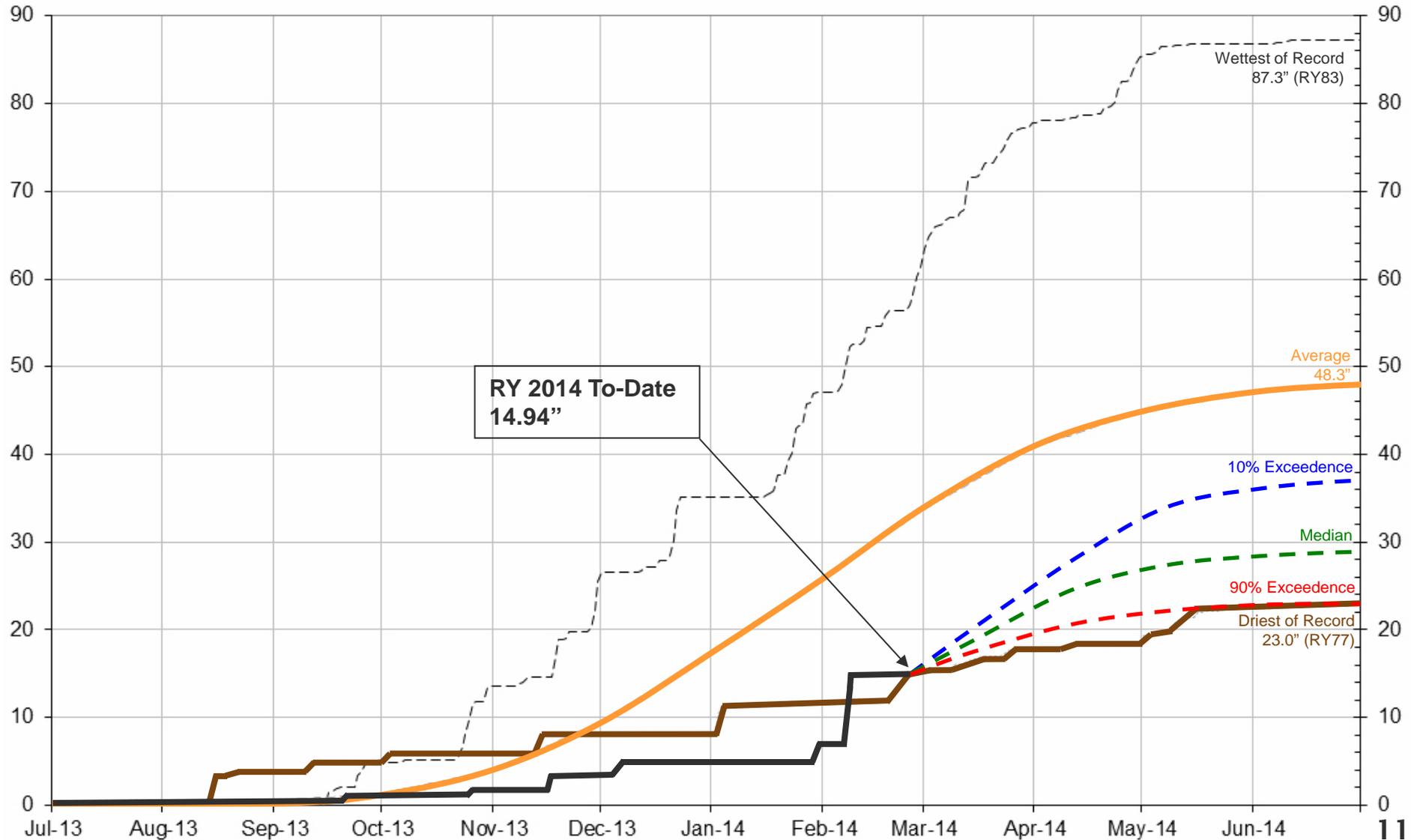


East Bay Precipitation (in)



Rainfall Year 2014 Projection

Mokelumne Precipitation



Current Reservoir Storage



As of 02/24/14	Current Storage	Percent of Capacity	Percent of Average	Supply Condition
Pardee	158,960 AF	80%	90%	Good
Camanche	203,440 AF	49%	75%	Fair
East Bay	114,480 AF	75%	85%	Fair
Total System	476,880 AF	62%	82%	Fair

Water Supply Runoff Forecast (Projections as of February 25, 2014)



Forecast	Annual Runoff	Total System Storage (on Sept 30, 2014)
90% Exceedence (9 of 10 years are wetter)	130 TAF	310 TAF
50% Exceedence (5 of 10 years are wetter)	260 TAF	430 TAF
10% Exceedence (1 of 10 years is wetter)	480 TAF	570 TAF
Average Year	745 TAF	630 TAF

Water Year 2014

- Rainfall Year 2014 is the 4th driest year in the Mokelumne watershed
- 32% of the precipitation accumulation season remains
- Received only 36,000 acre-feet of runoff to date
- Projected end of September storage with median precipitation is 430,000 acre-feet



Central Valley Project Supply



FRWA INTAKE

- Scheduled to conduct Freeport biological testing in April
- Requested 1,900 acre-feet of water for testing
- Submitted preliminary request for 66,000 acre-feet of water to U.S. Bureau of Reclamation assuming continuing dry conditions

Customer Outreach



- Bill and telephone message
- Leak hotline
- Distribution of Materials:
 - restaurant table tents
 - athletic club shower stickers
 - hotel room cards
 - customer door hangers



Guests can help preserve limited water supplies and reduce energy use by using sheets more than once. When we make your bed, we will change your sheets upon request. Leaving this card on your pillow means "please change the sheets when you make my bed." Thank you for helping to protect our natural resources.



Our community is in a drought.
Thank you for not wasting water.



Our community is in a drought.
Please keep showers short and shut the water off while brushing teeth or shaving.



Community Events



- Completed meetings and presentations:
 - Golf Courses (Moraga, Sequoyah, Metropolitan)
 - Home Owner's Associations (Alameda, Danville, San Lorenzo)
 - City parks & recreation departments (El Cerrito, Oakland)
 - Merritt College seminars
- Upcoming activities:
 - CUWCC Retreat – Feb. 25-27 (Pardee)
 - Nursery Workshop (EBMUD, CCWD) – March 6
 - Water Conservation Showcase (PG&E, EBMUD, USGBC) – March 25

water SMART

**Nursery Roundtable
for owners / managers**

In an especially dry year among dry years, how do we work together to help customers make appropriate plant choices and implement other water efficient practices in their landscapes?

Join staff from East Bay Municipal Utility District and Contra Costa Water District in a dialogue about strategies and best practices.

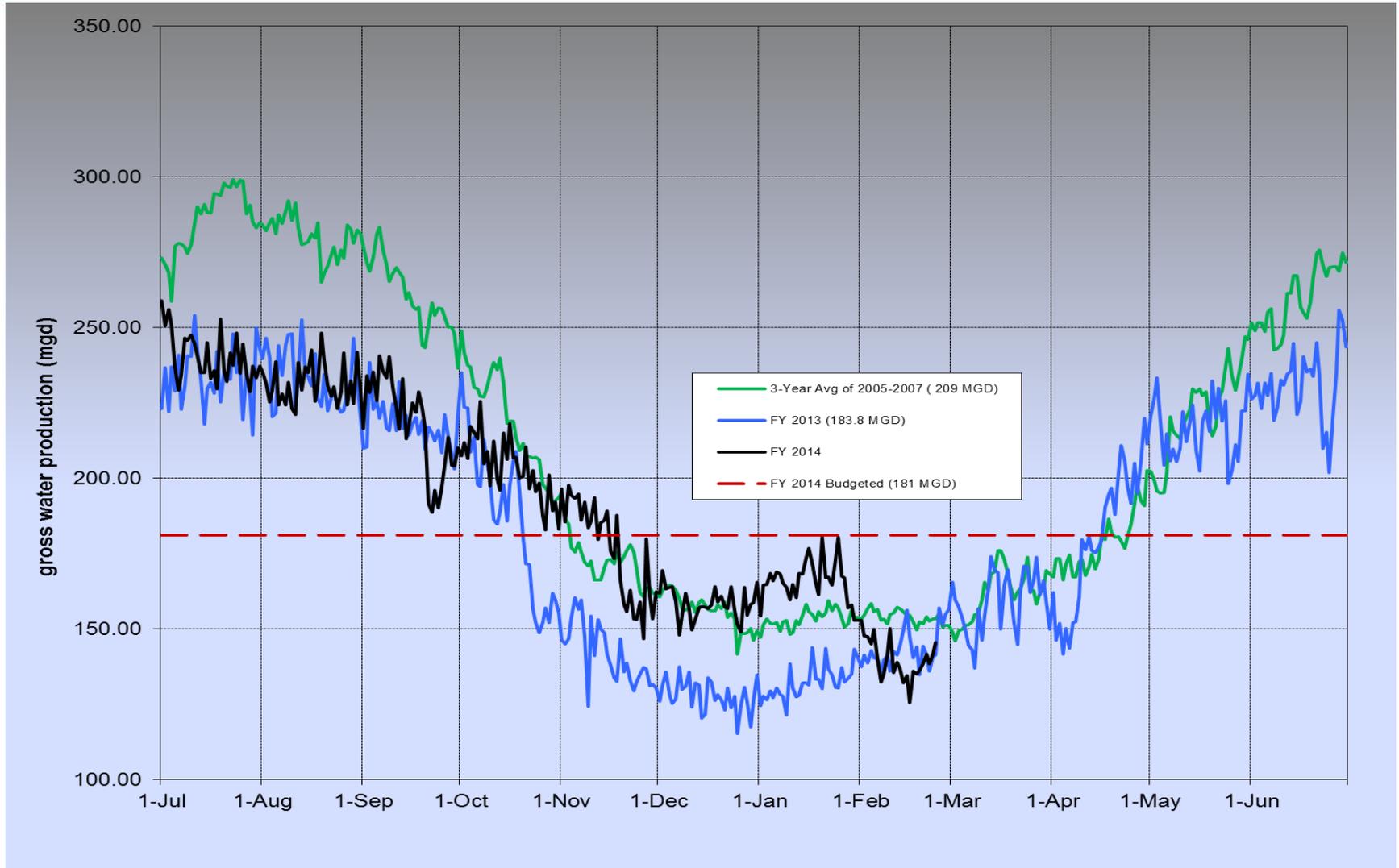
Includes a presentation on "Low Water-Use Plant Choices" by guest speaker Karris Bland, Environmental Horticulture Advisor at the UC Cooperative Extension, San Joaquin County.

When: Thursday, March 6
9:00 am - 12:00 pm
Where: EBMUD Administration Building
375 11th St.
Large Training Room, 2nd Floor

RSVP by February 28
Lauren de Soer (510) 247-7075
ldeboer@ebmud.com

The EBMUD logo is located at the bottom left of the poster.The UC Cooperative Extension logo is located at the bottom right of the poster.

Current Gross Water Production



Drought Management Report

February 2014 – January 2015



	Feb 12-24	Feb 25-28	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Total
Average Monthly Demand - 2013 (MGD)	143	331	159	181	217	231	240	231	218	204	176	158	132	187
Average Monthly Demand - 2014 (MGD)	137													
Monthly Savings Goal (to achieve 10% reduction, in MGD)	14	33	16	18	22	23	24	23	22	20	18	16	13	19
Actual Savings (MGD)	6													
Actual Savings Rate (%)	4.3%													
Actual Savings (AF)	248													248

Monthly Savings Goal to Achieve 10% Reduction - District savings goal for the 12 months beginning Feb 11, 2014 was 10% of the expected production - a total of 20,940 acre-feet (AF).

Actual Savings (MGD) - the difference between the average production last year (2013) and the actual production for each period. For the current month, the value is the amount to-date in the month. Positive values indicate savings have been achieved.

Actual Savings Rate (%) - is the percent of savings achieved for the period indicated.

Next Steps

- Continue to monitor and report on the District's water supply
- Continue to update the Bureau of Reclamation
- Continue public outreach



Schedule



Date	Activity
March 1	<ul style="list-style-type: none">• Water supply forecast• USBR start of CVP contract year
March 11	<ul style="list-style-type: none">• Water Supply forecast• Continue public outreach
March 25	<ul style="list-style-type: none">• Water Supply forecast• Continue public outreach
April 8	<ul style="list-style-type: none">• Water Supply forecast• Consider Water Supply Availability and Deficiency Report• Consider adoption of Water Shortage Response Plan• Consider declaring a water shortage• Consider approval of the use of Freeport

We Need Several Olympic-Size Storms!



WATER SUPPLY ENGINEERING DAILY REPORT

Monday, February 24, 2014

RESERVOIR STORAGE AND ELEVATION

	<u>WATER SURFACE</u>		<u>STORAGE</u>		<u>MAXIMUM CAPACITY</u>		Release	Spill
	Elevation	+Gain	+Gain	Elevation	Storage	Release		
	Feet	-Loss	Ac-Ft	-Loss	Feet	Ac-Ft	Cfs	Cfs
<u>MOKELUMNE</u>								
Pardee	548.88	-0.07	158,960	-140	567.65	197,950	11	0
Camanche	202.01	-0.06	203,440	-310	235.50	417,120	255	0
<u>EAST BAY</u>								
Briones	560.58	0.19	49,810	120	576.14	60,510	0	0
Chabot	218.22	0	7,530	0	227.25	10,350	0	0
Lafayette	444.46	-0.01	3,670	-10	449.16	4,250	0	0
San Pablo	293.24	0.03	23,670	20	313.68	38,600	0	0
Upper San Leandro	448.19	0	<u>29,800</u>	<u>0</u>	459.98	<u>37,960</u>	0	0
Total East Bay Res.			<u>114,480</u>	<u>130</u>		<u>151,670</u>		
TOTAL SYSTEM STORAGE			476,880	-320		766,740		

DISTRIBUTION SYSTEM		
<u>DISTRIBUTION RESERVOIRS</u>		
	Storage	Operating
	<u>MG</u>	<u>Capacity</u>
Today	395	720
Total Previous Day	<u>396</u>	
Total Change	-1	
<u>WATER PRODUCTION AND DEMAND</u>		
	Million Gallons	Capacity MGD
Lafayette WTP	8.4	25
Orinda WTP	107	190
San Pablo WTP	0	30
Sobrante WTP	0	50
Upper San Leandro WTP	0	45
Walnut Creek WTP	29.1	90
TOTAL SURFACE PRODUCTION	144.5	430
Miscellaneous(Estimated)	<u>0.4</u>	
TOTAL WATER PRODUCTION	144.9	
Change in Distribution System	-1	
Wash Water from Distribution Sys.	<u>0.3</u>	
SYSTEM DEMAND	145.5	
East-of-Hills Demand	29.1	
West-of-Hills Demand	116.4	

MOKELUMNE SYSTEM			
<u>AQUEDUCT DELIVERIES</u>			
	<u>MG</u>	<u>Flow Conditions</u>	
Line 1	36.6	GRAVITY	
Line 2	47.5	GRAVITY	
Line 3	<u>98.1</u>	GRAVITY	
TOTAL	182.2	282 Cfs	
FSCC TO MOK AQUEDUCTS		-0.0 MGD	
<u>RIVER FLOWS AND RELEASES</u>			
		<u>Cfs</u>	
Mokelumne River Natural Flow		418	
Pardee Reservoir Inflow		233	
Pardee Release to Camanche Res.		11	
Pardee Release to JVID		0	
Camanche Release to Mokel. River		255	
<u>PG&E CO. STORAGE (Acre-feet)</u>			
	<u>Storage</u>	<u>Change</u>	<u>Maximum Capacity</u>
Old Reservoirs	9,446	75	26,560
Salt Springs Res.	19,208	203	141,857
Lower Bear Res.	<u>12,602</u>	<u>88</u>	<u>52,025</u>
Total	41,256	366	220,442

RAW WATER TRANSMISSION		
	<u>INPUT</u>	<u>DRAFT</u>
Briones Res.	117	0
San Pablo Res.	0	0
U. San Leandro Res.	<u>0</u>	<u>0</u>
TOTAL	117	0
<u>REMARKS</u>		
WID Canal Diversion = 0 cfs		
Mokelumne River below WID = 113 cfs		

PRECIPITATION (Inches)					
<u>STATION</u>	<u>THIS YEAR</u>			<u>AVERAGE YEAR</u>	
	<u>Today</u>	<u>Month</u>	<u>Season to-Date</u>	<u>Season to-Date</u>	<u>Total</u>
USL WTP	0	3.52	6.49	18.17	25.33
Orinda WTP	0	7.65	10.61	22.82	32.06
Lafayette Reservoir	0	5.66	7.96	20.35	28.18
Walnut Creek WTP	0	3.4	6.34	16.81	23.02
Camp Pardee	0	4.75	7.91	14.47	21.56
Salt Springs P.H.	0	7.73	14.95	30.64	45.51

PG&E data as of 4:00 pm previous date.
 All other data as of midnight.
 WTP capacities are sustainable rates.

<u>CAPLES LAKE (7,830 FT) DATA</u>		
	<u>Today</u>	<u>Average</u>
Snow Depth	28 Inches	74 Inches
Water Content	8.7 Inches	26.1 Inches

