PRELIMINARY

Planned & Actual Water Production By Source (Acre-Feet)

Report Month: October

Water Year: 2017

	Cachuma Project			Gibraltar Reservoir		Devil's Canyon	Mission Tunnel		Groundwater Production					Desalination		State Water		Net Overlap Water	Groundwater Recharge		Blend Water		Potable System Total		Recycled System		El Estero Process Usage		Water System Total	
	Plan	Act.	Balance	Plan	Act.	Actual	Plan	Act.	Plan	SU #1	Foot-hill Basin	Total Actual	SU#3 Actual	Plan	Act.	Plan	Act.	Act.	Injec.	Total Actual	Plan	Act.	Plan	Act.	Plan	Act.	Plan	Act.	Plan	Act.
2016 Oct	631	460	684	0	0	0	44	40	220	259	79	338	7	0	0	0	0	-14	0	0	0	0	881	824	84	73	15	17	980	913
Nov	350			0			44		220					0		159			0	0	0		774		54		15		843	
Dec	0			0			44		220					0		472			0	0	0		737		37		15		789	
2017 Jan	0			0			44		220					0		359			0	0	0		624		19		15		658	
Feb	0			0			44		220					0		205			0	0	0		470		20		15		505	
Mar	0			0			44		220					0		352			0	0	0		617		19		15		651	
Apr	0			0			44		220					260		135			0	0	0		660		48		15		722	
May	0			0			44		220					260		260			0	0	0		785		76		15		875	
Jun	0			0			44		220					260		265			0	0	0		790		98		15		903	
Jul	0			0			44		220					260		351			0	0	0		876		119		15		1,009	
Aug	0			0			44		220					260		336			0	0	0		861		113		15		988	
Sep	0			0			44		220					260		286			0	0	0		811		114		15		939	
Year to Date	631	460	684	0	0	0	44	40	220	259	79	338	7	0	0	0	0	-14	0	0	0	0	881	824	84	73	15	17	980	913
Annual Total	981			0			533		2,640					1,563		3,180					0		8,882		800		180		9,862	
Notes			*4										*7							*2	*6	*2	*3			*5				
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	-U	V	-W	X	Y	Z	AA	AB	AC	AD	AE

YTD Percent of Target:	93.5%		86.4%				93.2%
	Potable		Recycled				System

*1 Included in Gibraltar measurement

*2 Groundwater recharge & Blend Water not part of potable system use.

*3 Based on 2013 total system production of 14,765 AF with 35% conservation through January and 40% through the remainder of the year.

*4 Cachuma Balance: Net of entitlement, carryover, spills, & transfers, per COMB

*5 Effective 2011 WY, Net Production to Distribution System (Meter Distr. Flow - EEWTP process water).

*6 Planned blend water based on expected filter production

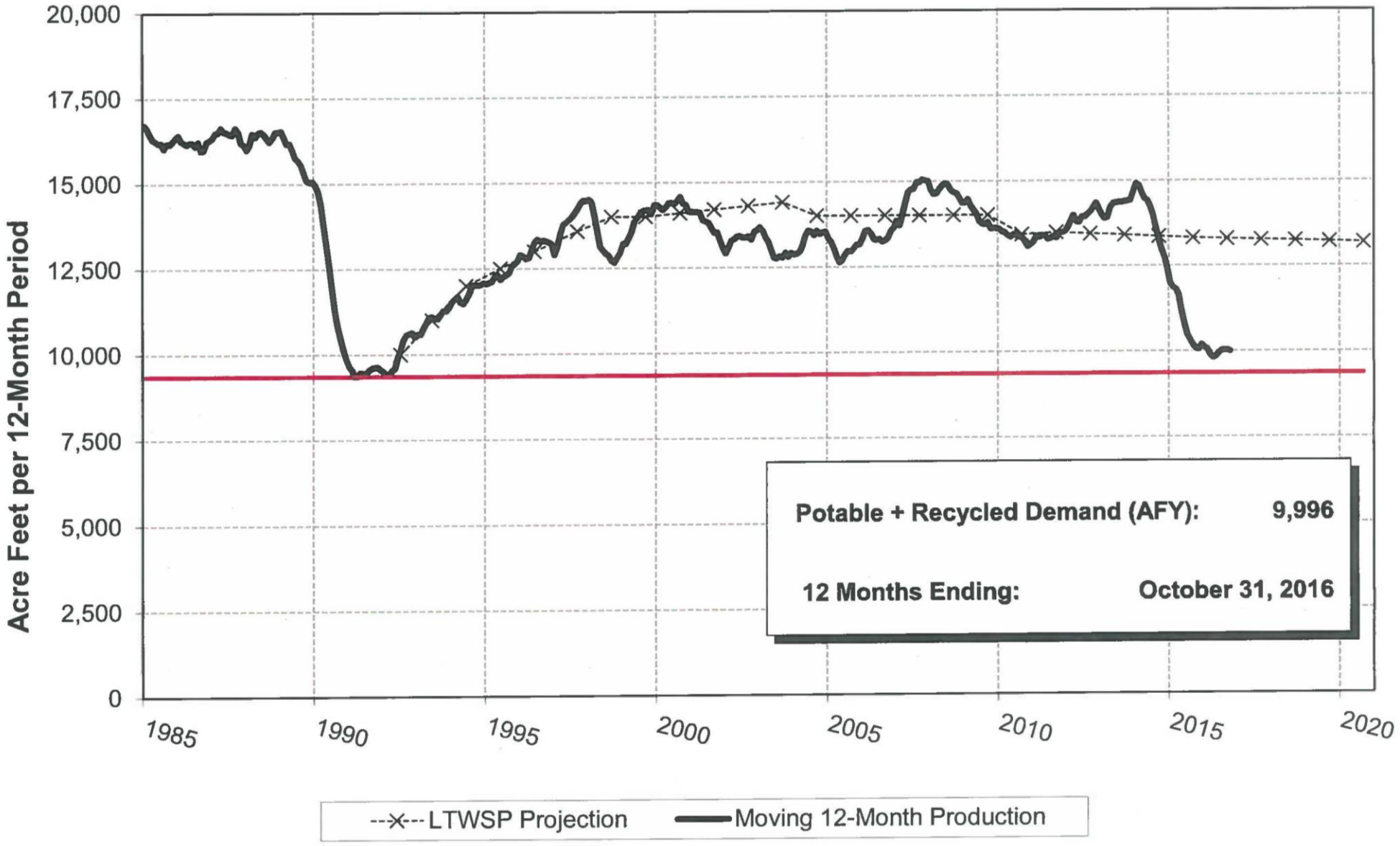
*7 Groundwater from Storage Unit #3 is non-potable water serving recycled water demands.

Potable System V = C+F+G+I+M+P+R+S-U-W

= Preliminary Data or Not Yet Available

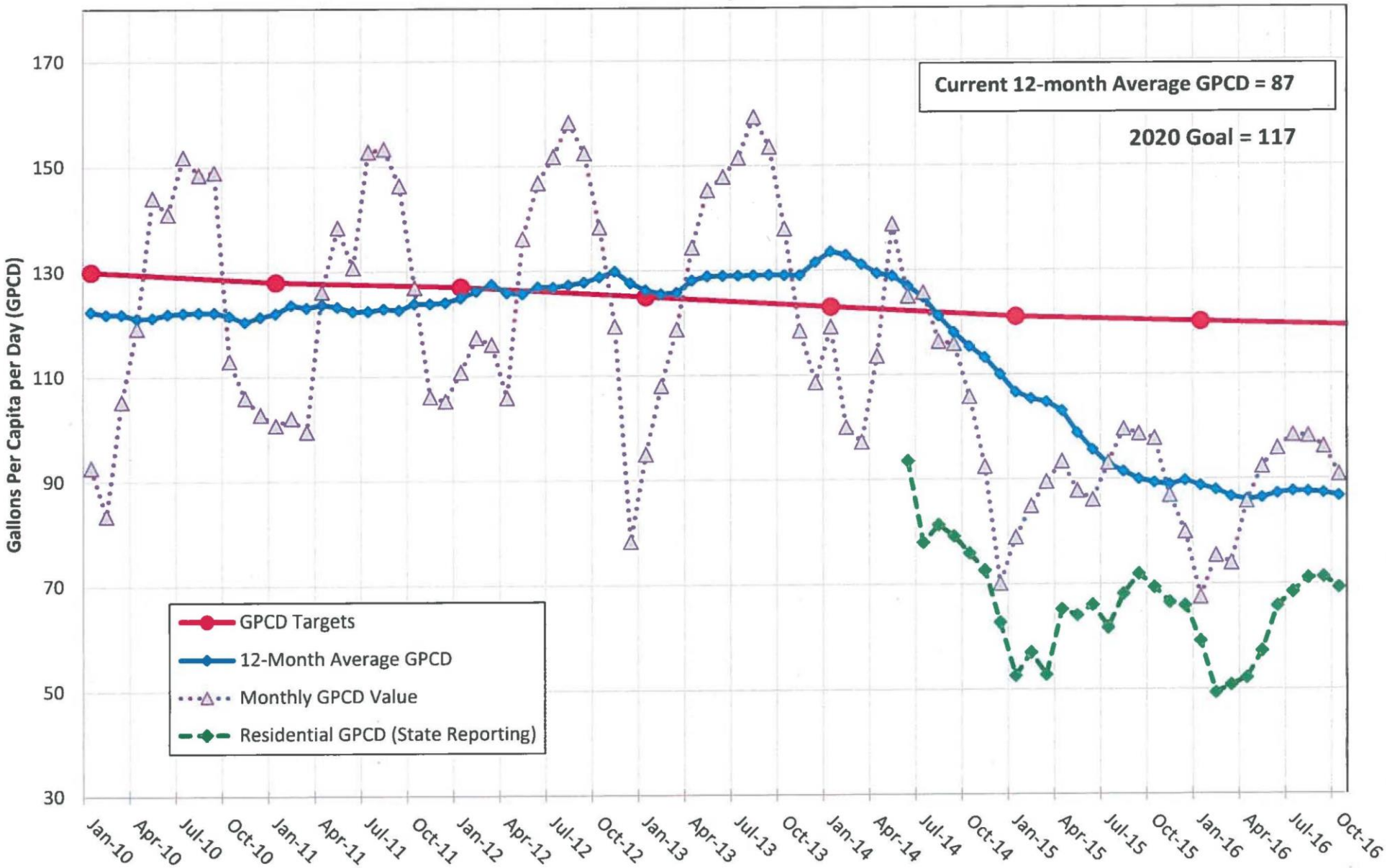
City of Santa Barbara Water Demand

Moving 12-Month Production to Serve Potable + Recycled Systems



City of Santa Barbara - Public Works Department

City of Santa Barbara Water Use in Gallons Per Capita per Day (GPCD)
October 31, 2016



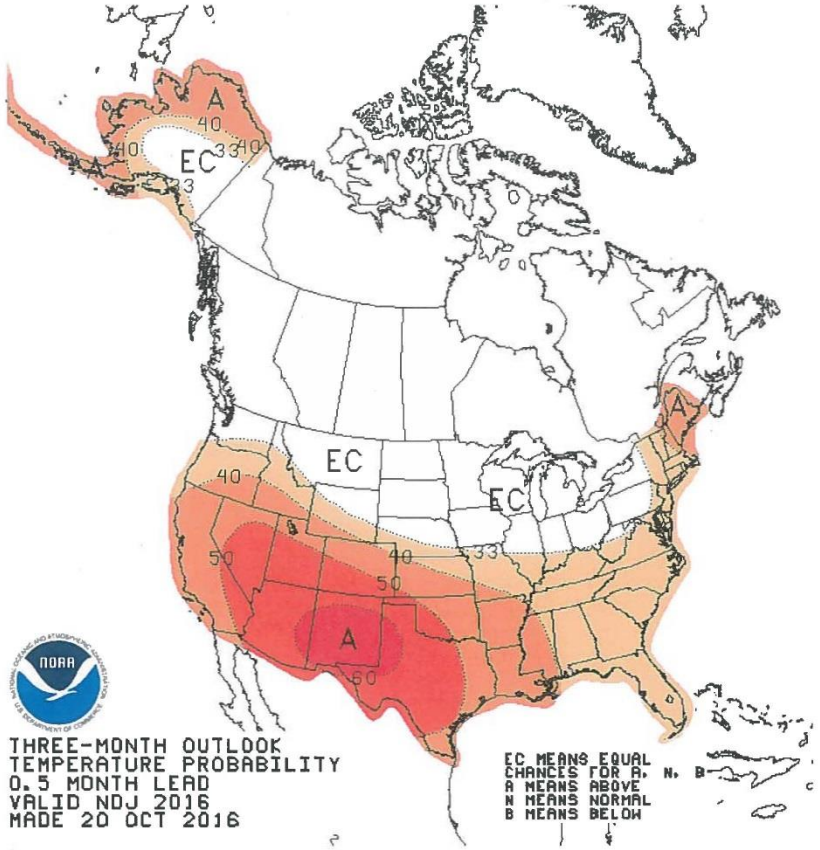
NOTE: The GPCD values above exclude blend water for recycled water production.

08-Nov-16

GIBRALTAR RAINFALL DATA

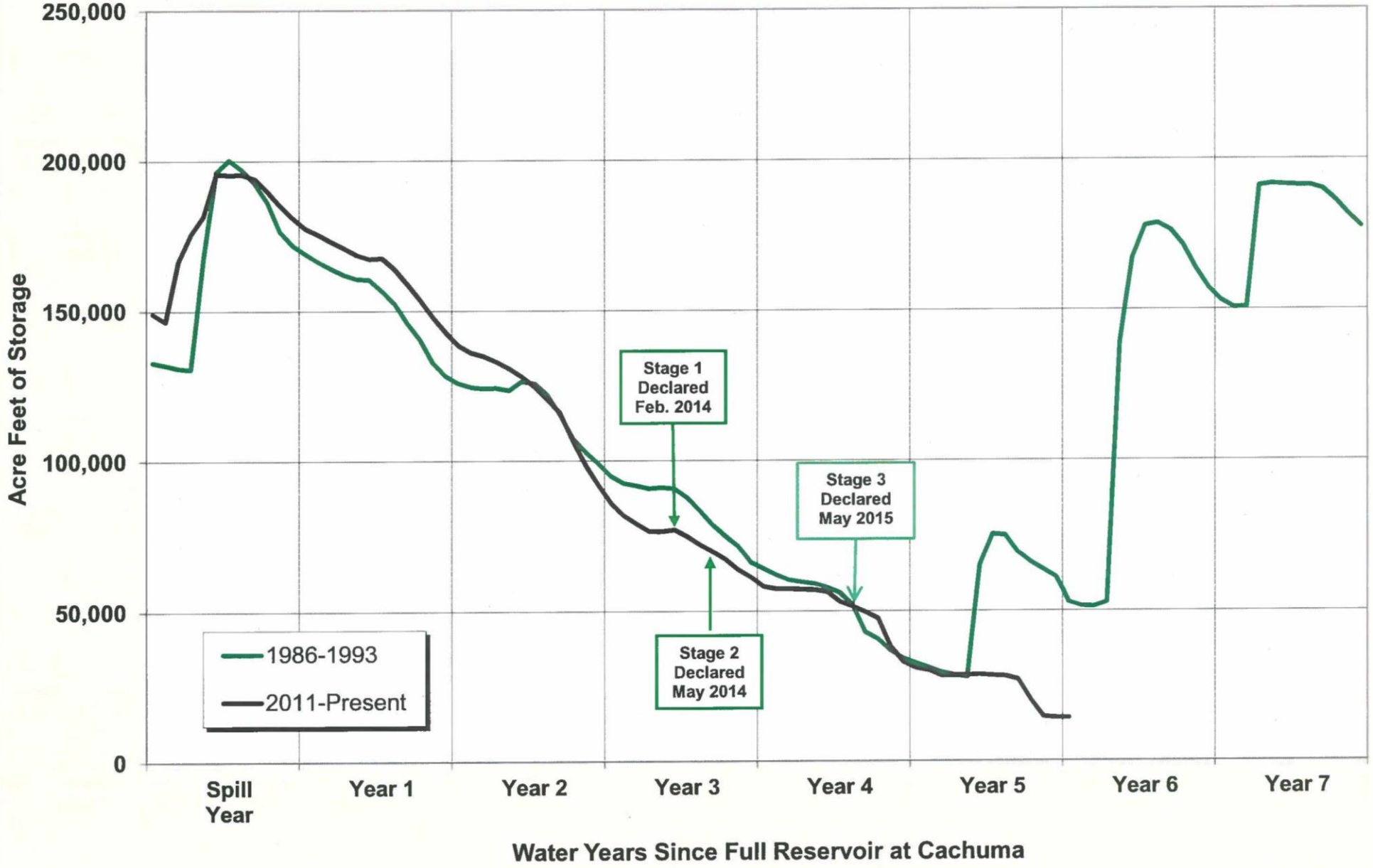
Gauge Location: Gibraltar Dam

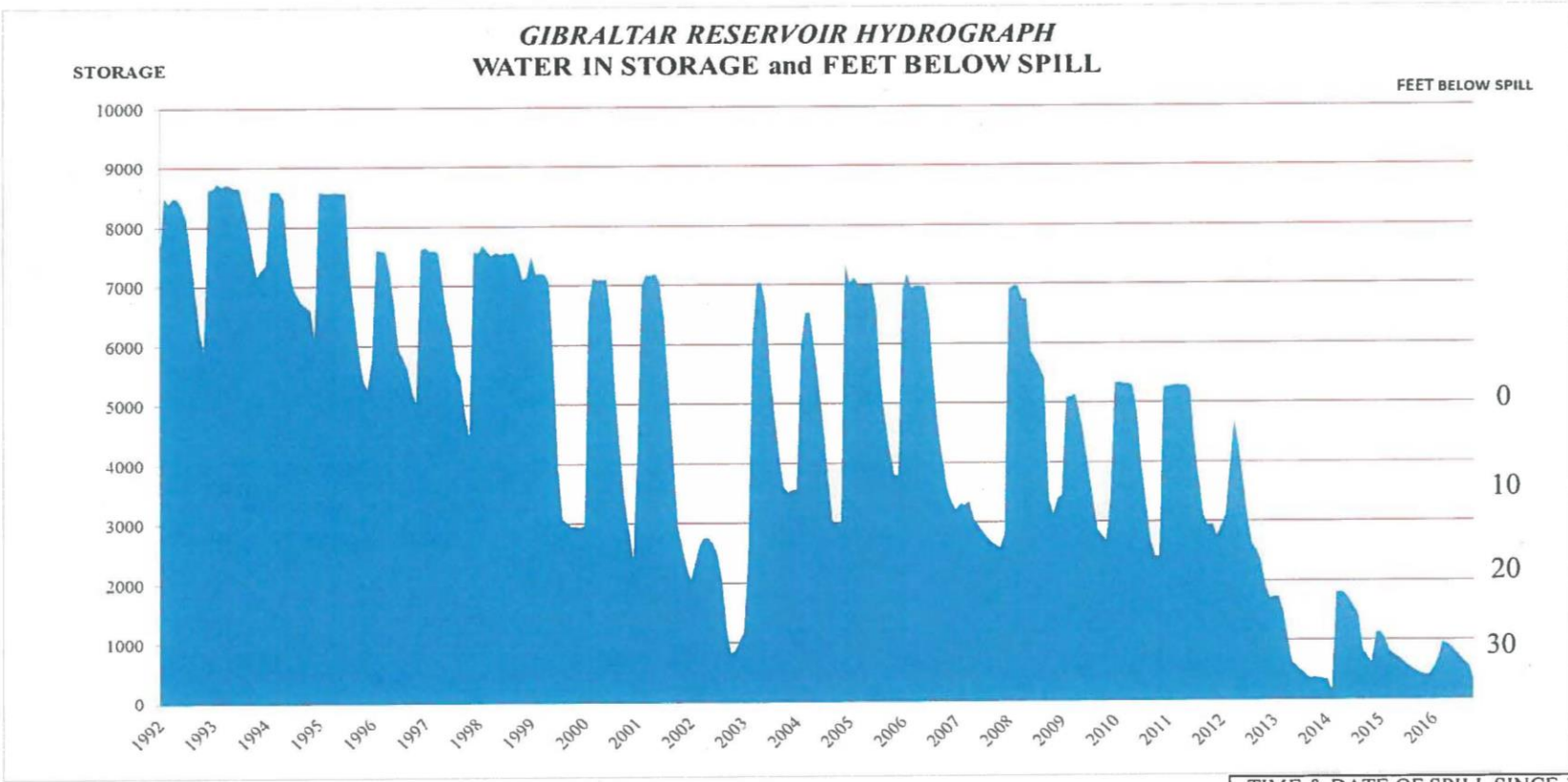
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Total
1965-66	0.00	17.00	9.36	2.24	0.86	0.24	0.00	0.00	0.00	0.00	0.00	0.00	29.70
1966-67	0.04	7.48	9.38	8.22	0.00	6.86	7.15	0.06	0.00	0.00	0.00	0.12	39.31
1967-68	0.00	5.11	1.51	1.84	1.30	3.50	1.67	0.00	0.00	0.00	0.00	0.00	14.93
1968-69	1.19	1.07	2.22	31.18	18.23	1.67	2.81	0.00	0.00	0.00	0.00	0.00	58.37
1969-70	0.00	2.59	0.31	4.34	3.57	6.58	0.00	0.00	0.00	0.00	0.00	0.00	17.39
1970-71	0.08	9.38	8.87	1.10	1.64	0.00	0.94	0.47	0.00	0.00	0.00	0.00	22.48
1971-72	0.47	1.09	13.20	0.19	0.32	0.00	0.24	0.11	0.00	0.00	0.00	0.00	15.62
1972-73	0.55	9.10	1.06	8.38	14.89	4.27	0.00	0.00	0.00	0.00	0.00	0.00	38.25
1973-74	0.70	3.19	2.83	12.26	0.05	5.35	0.85	0.02	0.00	0.00	0.00	0.00	25.25
1974-75	0.89	0.06	9.53	0.35	5.62	8.96	2.13	0.08	0.00	0.00	0.01	0.00	27.63
1975-76	0.40	0.44	0.22	0.00	10.93	2.02	1.08	0.00	0.00	0.00	0.05	4.28	19.42
1976-77	0.25	0.44	0.83	5.42	0.26	2.89	0.00	5.19	0.00	0.00	0.38	0.00	15.66
1977-78	0.00	0.14	9.23	1.91	14.42	18.28	4.27	0.00	0.00	0.00	0.00	1.63	49.88
1978-79	0.00	2.76	2.51	8.49	6.08	7.26	0.00	0.00	0.00	0.00	0.00	1.01	28.11
1979-80	0.58	0.96	2.02	8.13	17.69	4.39	1.10	0.24	0.00	0.00	0.00	0.00	35.11
1980-81	0.00	0.00	1.74	6.17	2.99	9.98	1.05	0.00	0.00	0.00	0.00	0.00	21.93
1981-82	0.38	2.57	0.47	6.14	0.65	7.55	5.30	0.05	0.00	0.00	0.00	1.70	24.81
1982-83	1.30	7.87	5.61	15.07	8.47	15.11	8.86	0.00	0.00	0.00	0.79	0.59	63.67
1983-84	5.57	4.18	6.75	0.25	0.08	0.95	0.24	0.00	0.00	0.00	0.07	0.28	18.37
1984-85	0.49	3.52	7.94	0.96	1.24	1.92	0.13	0.00	0.00	0.00	0.00	0.05	16.25
1985-86	0.42	7.14	1.11	3.24	10.61	6.77	1.51	0.00	0.00	0.00	0.00	0.84	31.64
1986-87	0.00	0.96	0.42	2.71	2.04	4.58	0.00	0.00	0.00	0.00	0.00	0.00	10.71
1987-88	1.60	1.52	4.67	5.19	4.12	2.60	5.14	0.06	0.05	0.00	0.00	0.00	24.95
1988-89	0.00	1.04	5.73	0.29	5.38	1.43	0.13	0.46	0.00	0.00	0.00	0.25	14.71
1989-90	0.79	0.58	0.00	5.61	3.33	0.27	0.24	0.78	0.00	0.00	0.00	0.20	11.80
1990-91	0.00	0.26	0.18	1.71	4.88	23.12	0.03	0.00	0.06	0.38	0.00	0.00	30.62
1991-92	0.33	0.13	7.54	4.72	18.82	7.28	0.04	0.16	0.00	0.07	0.00	0.00	39.09
1992-93	1.78	0.00	8.17	14.30	16.43	8.12	0.00	0.34	0.47	0.00	0.00	0.00	49.61
1993-94	0.19	1.51	2.42	1.74	9.76	2.72	0.65	0.51	0.00	0.00	0.00	0.09	19.59
1994-95	2.19	1.29	1.54	33.26	3.39	15.30	0.33	1.64	0.02	0.00	0.00	0.00	58.96
1995-96	0.00	0.18	2.85	2.93	10.30	2.21	1.00	0.39	0.00	0.00	0.00	0.00	19.86
1996-97	7.05	1.89	7.81	7.45	0.13	0.00	0.00	0.00	0.00	0.04	0.00	0.09	24.46
1997-98	0.00	5.48	10.17	6.64	34.63	4.47	4.43	6.62	0.03	0.00	0.00	0.55	73.02
1998-99	0.13	1.30	0.79	4.25	2.24	4.55	2.97	0.00	0.13	0.24	0.00	0.03	16.63
1999-00	0.00	1.65	0.00	2.25	16.70	3.73	5.36	0.03	0.19	0.00	0.00	0.00	29.91
2000-01	4.04	0.00	0.15	11.24	8.85	13.59	2.96	0.01	0.00	0.01	0.00	0.00	40.85
2001-02	0.65	4.48	2.89	1.03	0.33	0.84	0.08	0.09	0.00	0.00	0.00	0.06	10.45
2002-03	0.00	4.61	6.45	0.12	5.26	4.43	4.97	2.82	0.00	0.06	0.00	0.00	28.72
2003-04	0.00	2.29	3.10	0.42	8.50	0.43	0.00	0.00	0.00	0.00	0.00	0.00	14.74
2004-05	8.39	0.46	17.37	21.54	15.65	3.58	1.14	1.46	0.00	0.00	0.00	0.14	69.73
2005-06	0.60	1.43	0.68	9.67	5.41	5.22	8.15	1.29	0.00	0.00	0.10	0.00	32.55
2006-07	0.37	0.23	1.63	2.62	3.40	0.16	0.81	0.00	0.00	0.00	0.02	0.85	10.09
2007-08	0.38	0.10	4.09	23.84	3.11	0.00	0.15	0.27	0.00	0.00	0.10	0.00	32.04
2008-09	0.06	2.22	4.07	1.00	7.95	0.90	0.35	0.01	0.09	0.00	0.00	0.00	16.65
2009-10	5.81	0.00	5.19	11.89	6.90	0.69	4.44	0.08	0.00	0.00	0.00	0.00	35.00
2010-11	2.03	2.04	14.04	2.06	5.12	14.95	0.00	1.18	0.51	0.00	0.00	0.00	41.93
2011-12	0.74	3.00	0.36	1.22	0.47	5.89	3.08	0.00	0.00	0.00	0.00	0.04	14.80
2012-13	0.34	2.60	2.68	1.39	0.24	1.02	0.00	0.61	0.00	0.00	0.00	0.00	**8.88**
2013-14	0.08	1.21	0.29	0.00	5.07	5.16	0.66	0.57	0.00	0.00	0.00	0.00	13.04
2014-15	0.00	1.21	7.88	0.87	0.73	0.60	0.36	0.62	0.98	0.00	0.00	0.16	13.41
2015-16	0.23	0.36	0.71	4.66	2.66	4.22	0.27	0.13	0.00	0.00	0.00	0.00	13.24
2016-17	1.20												
	Oct	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**June**	**July**	**Aug**	**Sept**	**Total**
50 yr avg	1.05	2.26	4.22	6.21	6.62	5.13	1.74	0.53	0.05	0.02	0.03	0.26	28.41
50 yr median	0.38	1.37	2.76	3.75	4.98	4.25	0.74	0.06	0.00	0.00	0.00	0.00	24.88
Average YTD:	1.05												
Actual YTD:	1.20												


A
40
40
EC
33
40
3
EC
40
50
40
33
50
A
60
EC
A
THREE-MONTH OUTLOOK
TEMPERATURE PROBABILITY
0.5 MONTH LEAD
VALID NDJ 2016
MADE 20 OCT 2016
EC MEANS EQUAL
CHANCES FOR A, N, B
A MEANS ABOVE
N MEANS NORMAL
B MEANS BELOW

Cachuma Storage: Current Drought & 1986-93 Period

Data Shown October 31, 2016





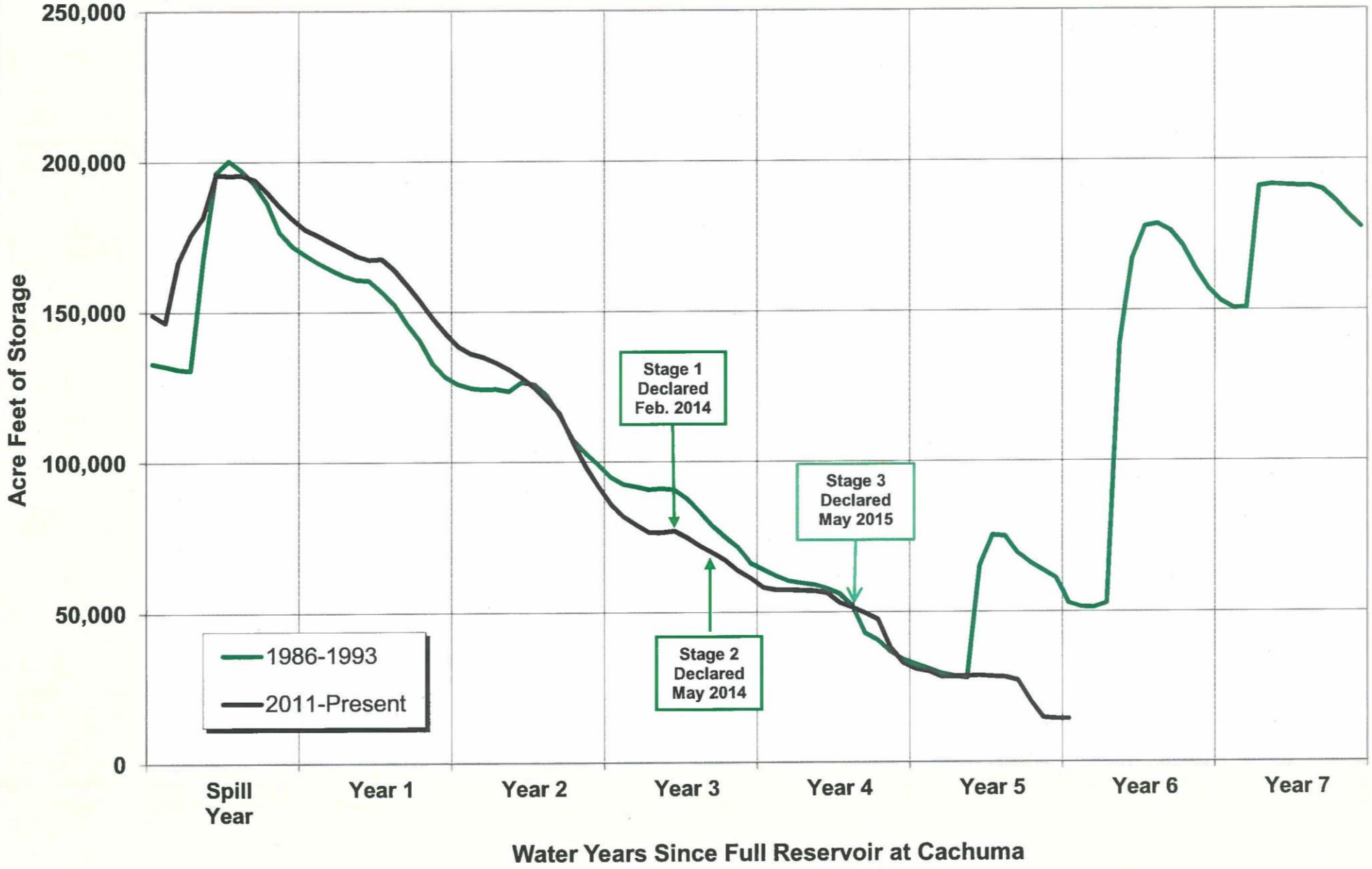
ELEV.	STATUS	CAPACITY (AF)
1,400.00	Reservoir is Full	5,246
1,376.48	First 16" Intake Valve	1,156
1,361.82	Second 16" Intake Valve	0
1,300.00	Reservoir is Empty	0

January 1993 - February 1996... Reflects use of M,N&S 1992 Gib. Area/Capacity Survey @ 8,618 AF
February 1996 - October 1998…Reflects use of M,N&S 1996 Gib. Area/Capacity Survey @ 7,631 AF
October 1998 – December 2001..Reflects use of M,N&S 1998 Gib. Area/Capacity Survey @ 7,261 AF
January 2002 – December 2004..Reflects use of M,N&S 2001 Gib. Area/Capacity Survey @ 7,096 AF
January 2005 – November 2007..Reflects use of M,N&S 2004 Gib. Area/Capacity Survey @ 7,085 AF
December 2007–July 2008..Reflects use of M,N&S 2007 Gib. Area/Capacity Survey @ 6,784 AF
August 2008 – May 2010...Reflects use of MN&S 2008 Gib. Area/Capacity Survey @ 5,303 AF
June 2010 – September 2013…Reflects use of MN&S 2010 Gib. Area/Capacity Survey @5,251 AF
October 2013 – Present…Reflects use of MN&S 2013 Gib. Area/Capacity Survey @5,246 AF

TIME & DATE OF SPILL SINCE 1989	
4:30 Am	March 19, 1991
9:09 Am	February 7, 1992
10:30 Am	January 7, 1993
6:45 Am	February 18, 1994
1:37 Pm	January 9, 1995
2:10 Pm	February 20, 1996
6:00 Am	December 22, 1996
3:00 Am	January 2, 1997
1:30 Pm	January 15, 1997
9:40 Am	December 6, 1997
4:30 Pm	February 6, 1999
8:00 Am	February 24, 2000
1:00 Am	February 15, 2001
1:30 Pm	April 14, 2003
5:00 Pm	December 29, 2004
8:30 Pm	January 2, 2006
1:00 Am	January 5, 2008
7:00 Pm	February 16, 2009
12:00 Noon	January 20, 2010
07:00 Am	December 20, 2010

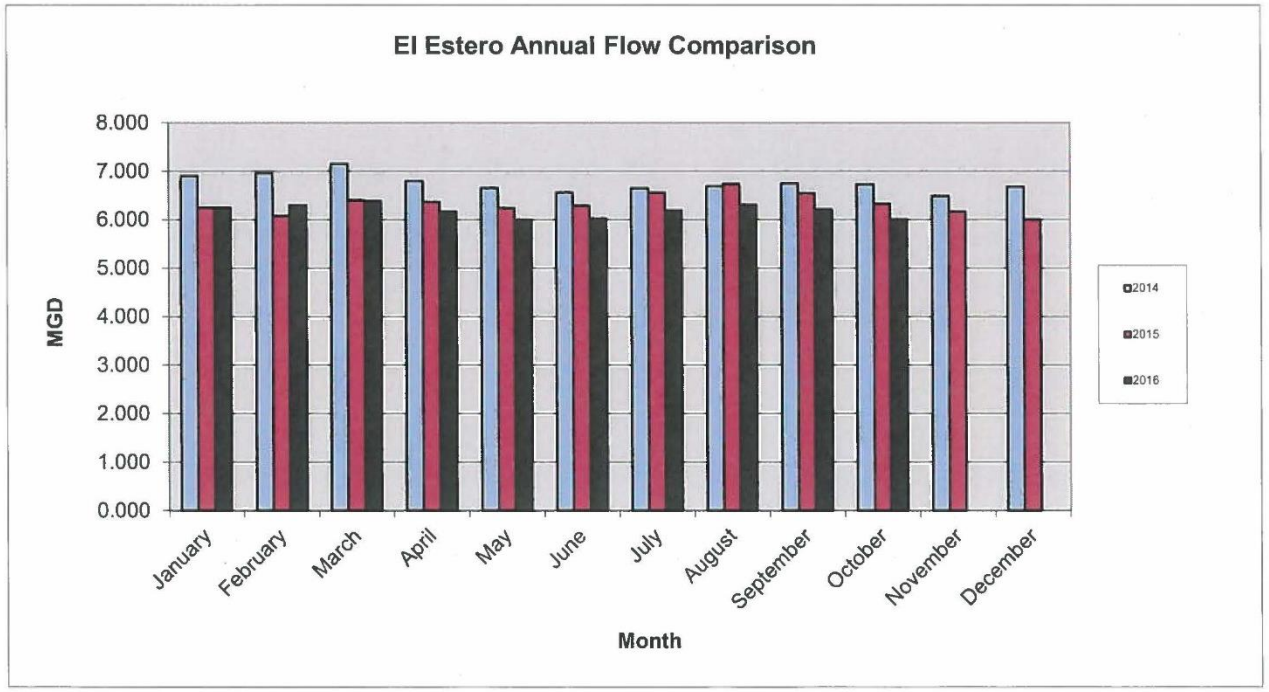
Cachuma Storage: Current Drought & 1986-93 Period

Data Shown October 31, 2016

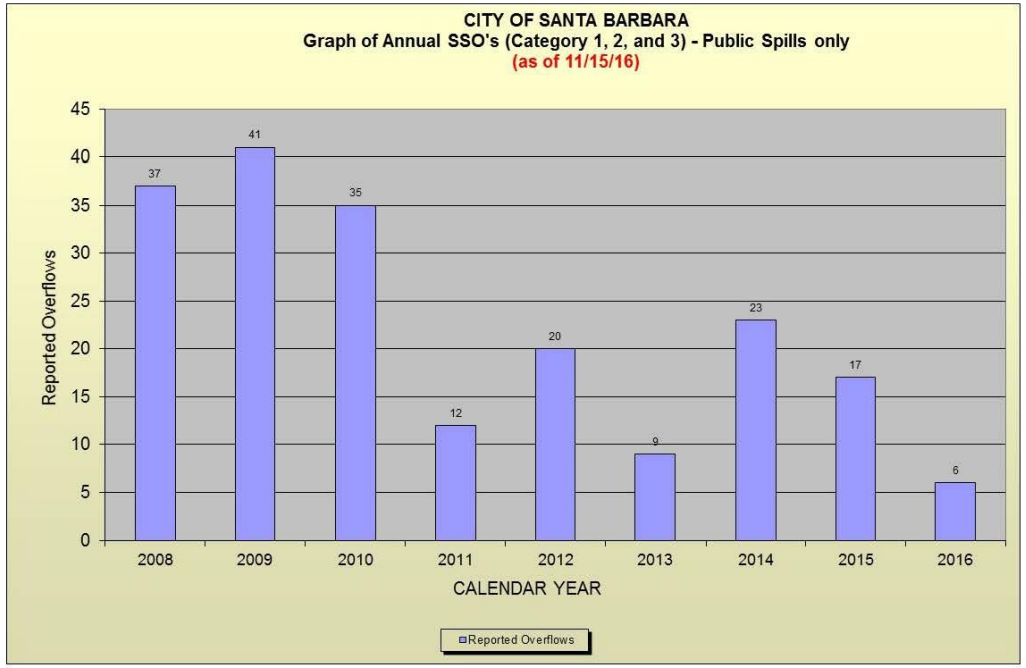


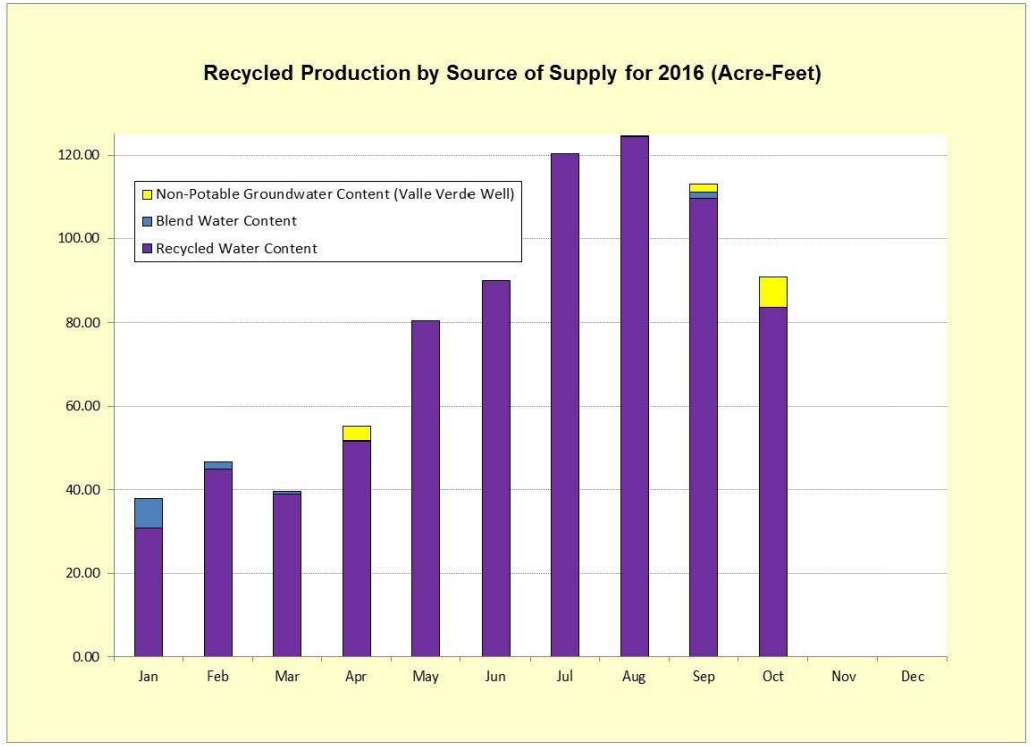
EL ESTERO INFLUENT FLOW COMPARISON

	2014	2015	2016
January	6.898	6.244	6.245
February	6.956	6.081	6.298
March	7.145	6.401	6.380
April	6.795	6.367	6.164
May	6.650	6.237	5.999
June	6.558	6.282	6.020
July	6.644	6.556	6.189
August	6.683	6.731	6.301
September	6.739	6.541	6.205
October	6.727	6.322	6.005
November	6.483	6.162	
December	6.681	5.999	



Annual Flow is Calculated Adjusted Influent Flow


CITY OF SANTA BARBARA
Graph of Annual SSO's (Category 1, 2, and 3) - Public Spills only
(as of 11/15/16)
Reported Overflows
45
40
35
30
25
20
15
10
5
0
37
41
35
12
20
9
23
17
6
2008
2009
2010
2011
2012
2013
2014
2015
2016
CALENDAR YEAR
Reported Overflows


Recycled Production by Source of Supply for 2016 (Acre-Feet)
Non-Potable Groundwater Content (Valle Verde Well)
Blend Water Content
Recycled Water Content
120.00
100.00
80.00
60.00
40.00
20.00
0.00
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec

City of Santa Barbara
Public Works Department

Interoffice Memorandum

DATE: November 15, 2016

TO: Joshua Haggmark, Water Resources Manager

FROM: Bill Ferguson, Project Manager

SUBJECT: Warren Act Contract for USRYOA Pass Through Operations - Status

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Following is the status of implementation of Pass Through Operations under the 1989 Upper Santa Ynez River Operations Agreement ("Pass Through Agreement"):

Reclamation's Environmental Assessment and Finding of No Significant Impact

Reclamation is aiming to release the Final EA/FONSI by the end of November.

Warren Act Contract

Staff is assisting Reclamation with drafting portions of the contract that reflect the provisions of the Pass through Agreement.

cc: Kelley Dyer, Water Resources Supervisor
Dakota Corey, Water Resources Specialist

BF/