

Planned & Actual Water Production By Source (Acre-Feet)
Water Year: 2018

Report Month:

November

	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		EI 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.
2017 Oct	0	0	7,241	530	401	0	44	53	0	5	0	5	0	0	0	313	352	-14	0	0	25	0	862	796	84	82	15	22	961	901
Nov	0	0	7,210	388	127	0	44	45	0	31	0	31	0	260	108	53	391	-25	0	0	25	0	720	677	54	55	15	18	789	750
Dec	0			0			44		0					260		396				0	25		675		37		15		727	
2018 Jan	0			0			44		0					260		301				0	25		581		19		15		615	
Feb	0			0			44		0					260		320				0	25		600		20		15		634	
Mar	0			0			44		0					260		457				0	25		737		19		15		771	
Apr	0			0			44		0					260		522				0	25		802		48		15		864	
May	0			0			44		0					260		624				0	25		904		76		15		994	
Jun	613			0			44		0					260		0				0	25		893		98		15		1,005	
Jul	664			0			44		0					260		0				0	25		944		119		15		1,077	
Aug	713			0			44		0					260		0				0	25		993		113		15		1,120	
Sep	645			0			44		0					260		0				0	25		925		114		15		1,053	
Year to Date	0	0	7,210	918	528	0	88	98	0	36	0	36	0	368	108	365	743	-40	0	0	50	0	1,582	1,473	138	137	30	41	1,750	1,651
Annual Total	2,635			918			533		0					2,860		2,986					300		9,632		800		180		10,612	
Notes			*3									*6								*1	*5	*1	*2			*4				

- *1 Groundwater recharge & Blend Water not part of potable system use.
- *2 Based on 2013 total system production of 14,765 AF with 30% conservation.
- *3 Cachuma Balance: Net of entitlement, carryover, spills, & transfers, per COMB
- *4 Effective 2011 WY, Net Production to Distribution System (Meter Distr. Flow - EEWTP process water).
- *5 Planned blend water based on expected filter production
- *6 Groundwater from Storage Unit #3 is non-potable water serving recycled water demands.

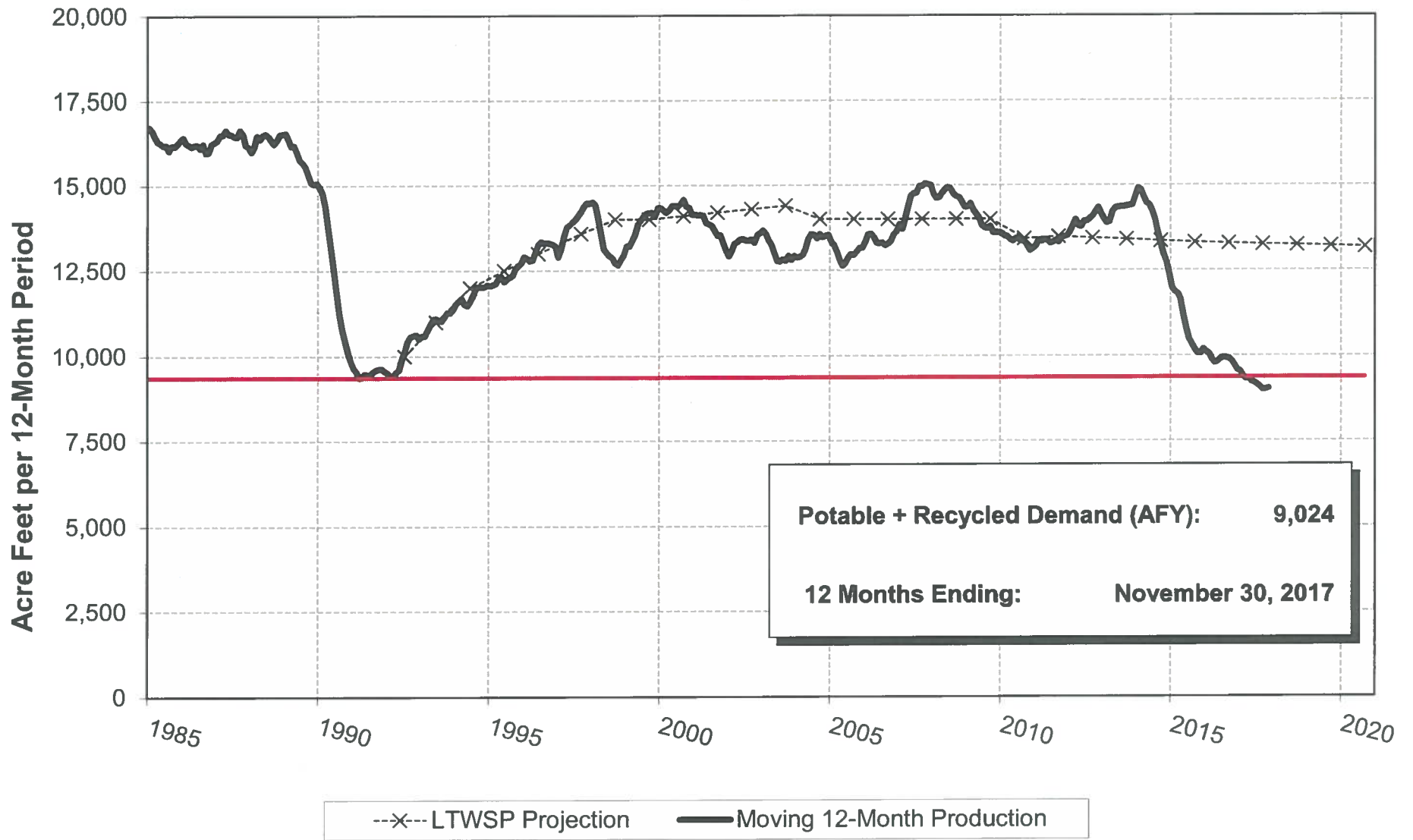
YTD Percent of Target:	93.1%	99.3%		94.3%
	Potable	Recycled		System

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

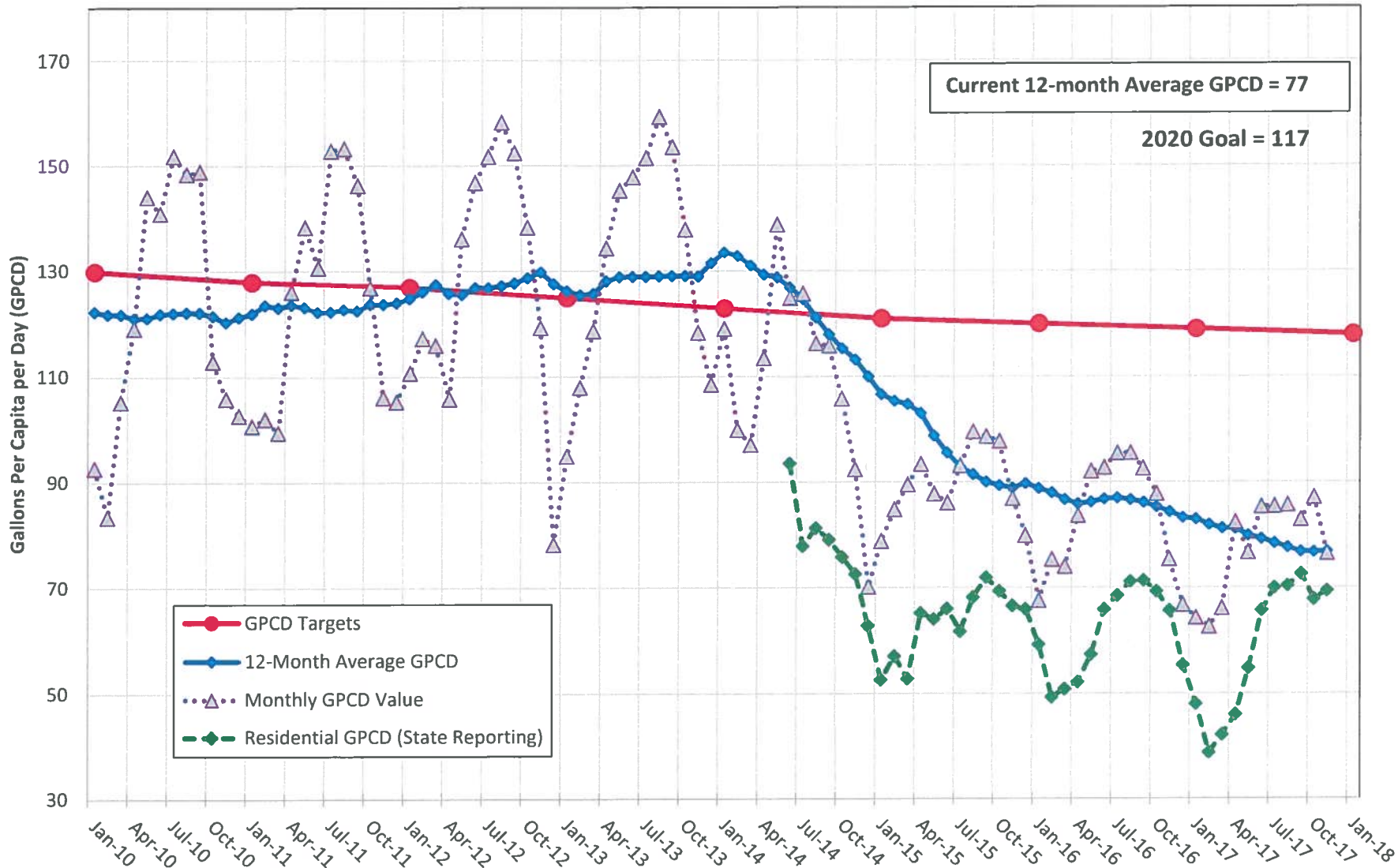
= Preliminary Data or Not Yet Available

City of Santa Barbara Water Demand

Moving 12-Month Production to Serve Potable + Recycled Systems



City of Santa Barbara Water Use in Gallons Per Capita per Day (GPCD) November 30, 2017

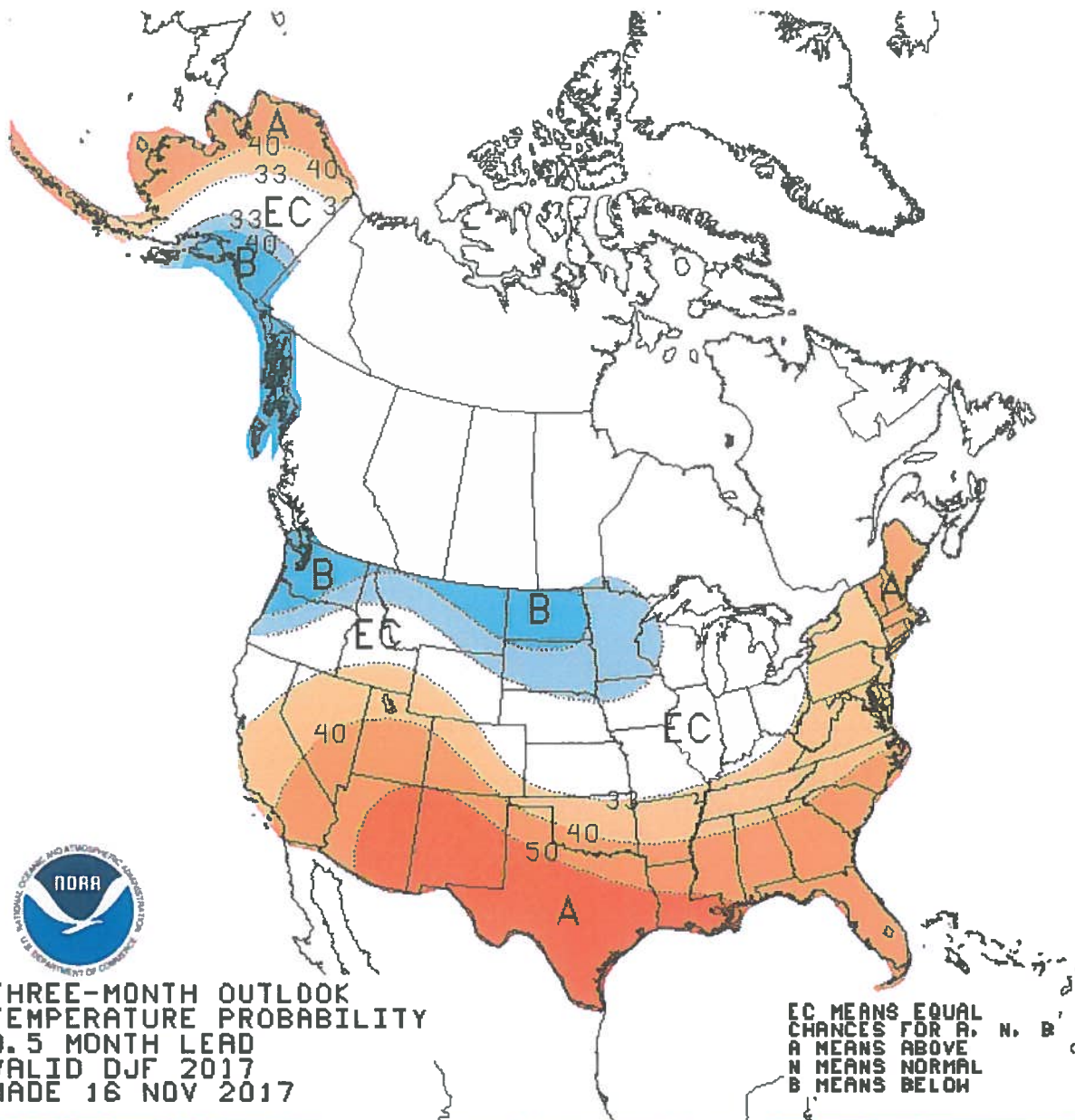


NOTE: The GPCD values above exclude blend water for recycled water production.

GIBRALTAR RAINFALL DATA

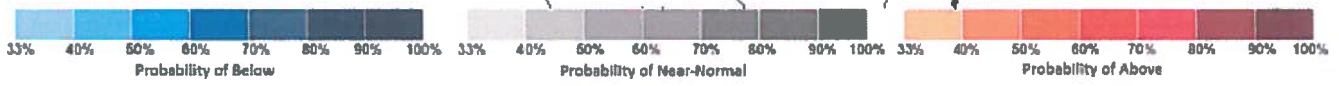
Gauge Location: Gibraltar Dam

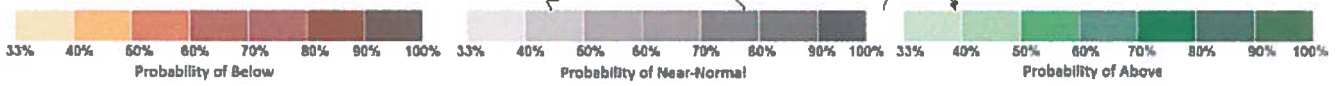
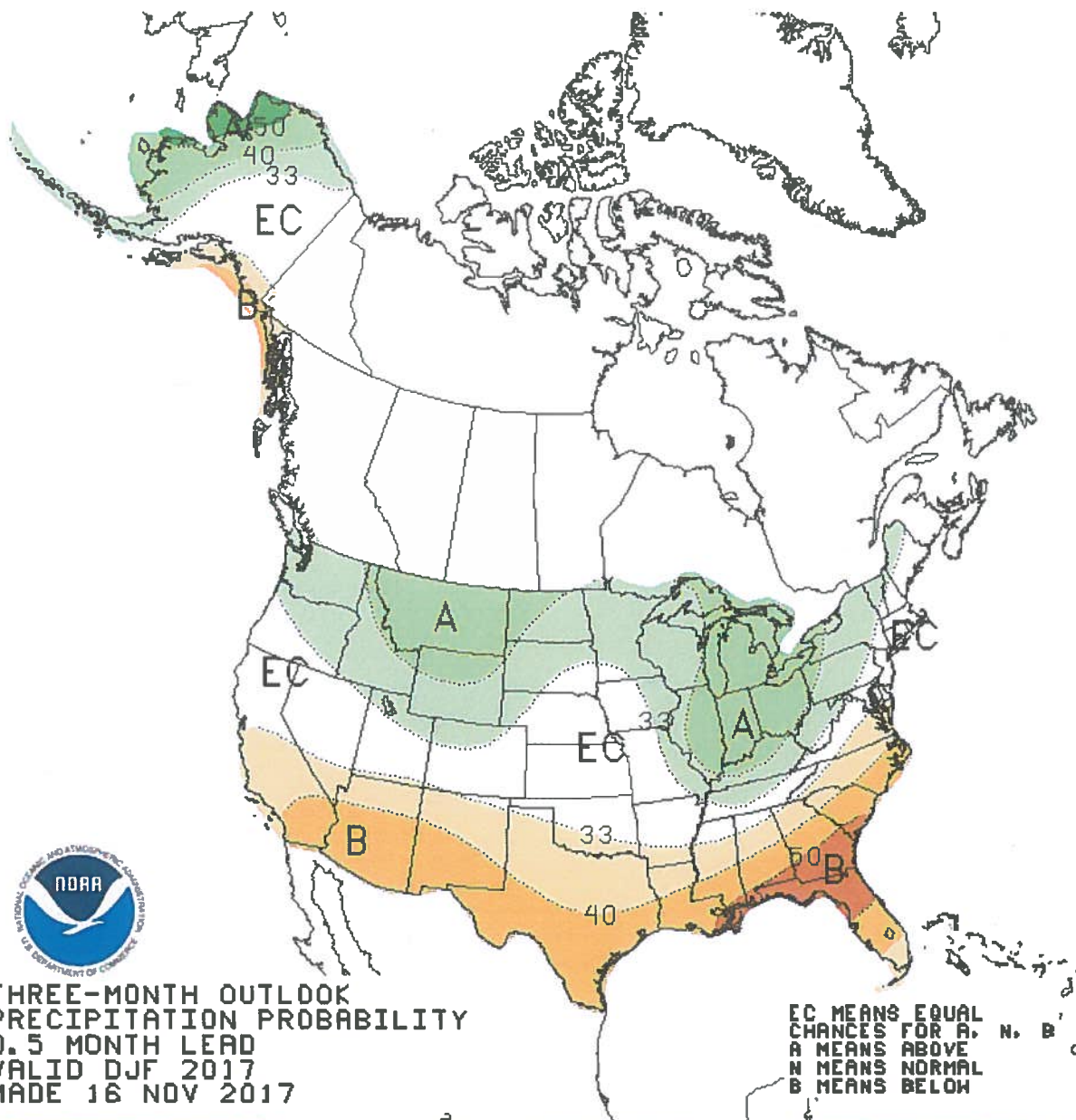
Year	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Total
1967-68	0.00	5.11	1.51	1.84	1.30	3.50	1.67	0.00	0.00	0.00	0.00	0.00	14.93
1968-69	1.19	1.07	2.22	31.18	18.23	1.67	2.81	0.00	0.00	0.00	0.00	0.00	58.37
1969-70	0.00	2.59	0.31	4.34	3.57	6.58	0.00	0.00	0.00	0.00	0.00	0.00	17.39
1970-71	0.08	9.38	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	1.26	3.10	11.51	14.23	1.24	0.21	0.45	0.00	0.00	0.02	0.23	33.45
2017-18	0.00	0.70											0.70
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Total
50 yr avg	1.05	2.05	4.10	6.27	6.90	5.02	1.60	0.53	0.05	0.02	0.03	0.26	27.68
50 yr median	0.38	1.28	2.76	3.75	5.10	3.98	0.66	0.07	0.00	0.00	0.00	0.00	24.64
Average YTD:	1.05	3.09											
Actual YTD:	0.00	0.70											



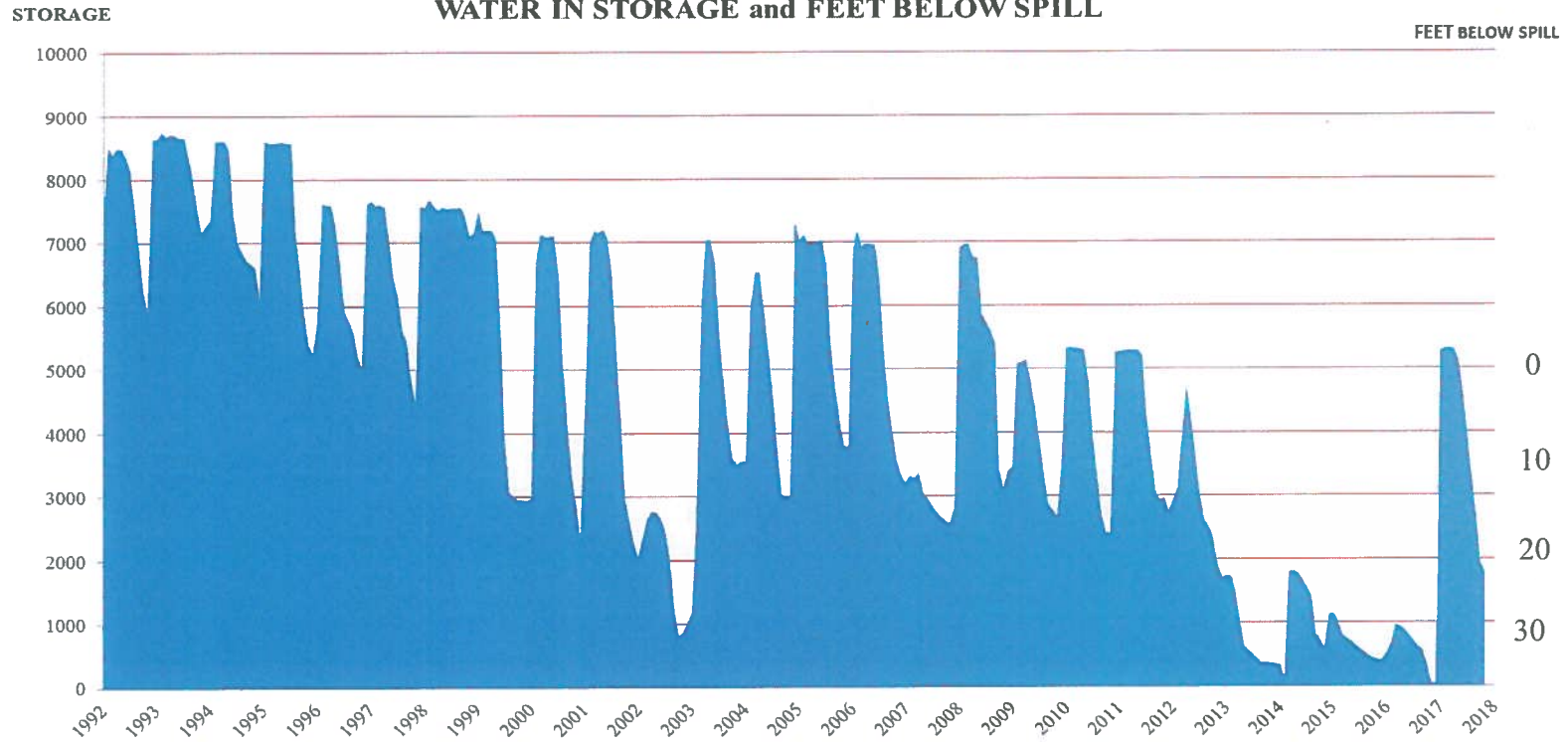
**THREE-MONTH OUTLOOK
TEMPERATURE PROBABILITY
0.5 MONTH LEAD
VALID DJF 2017
MADE 16 NOV 2017**

**EC MEANS EQUAL
CHANCES FOR A, N, B
A MEANS ABOVE
N MEANS NORMAL
B MEANS BELOW**





GIBRALTAR RESERVOIR HYDROGRAPH WATER IN STORAGE and FEET BELOW SPILL



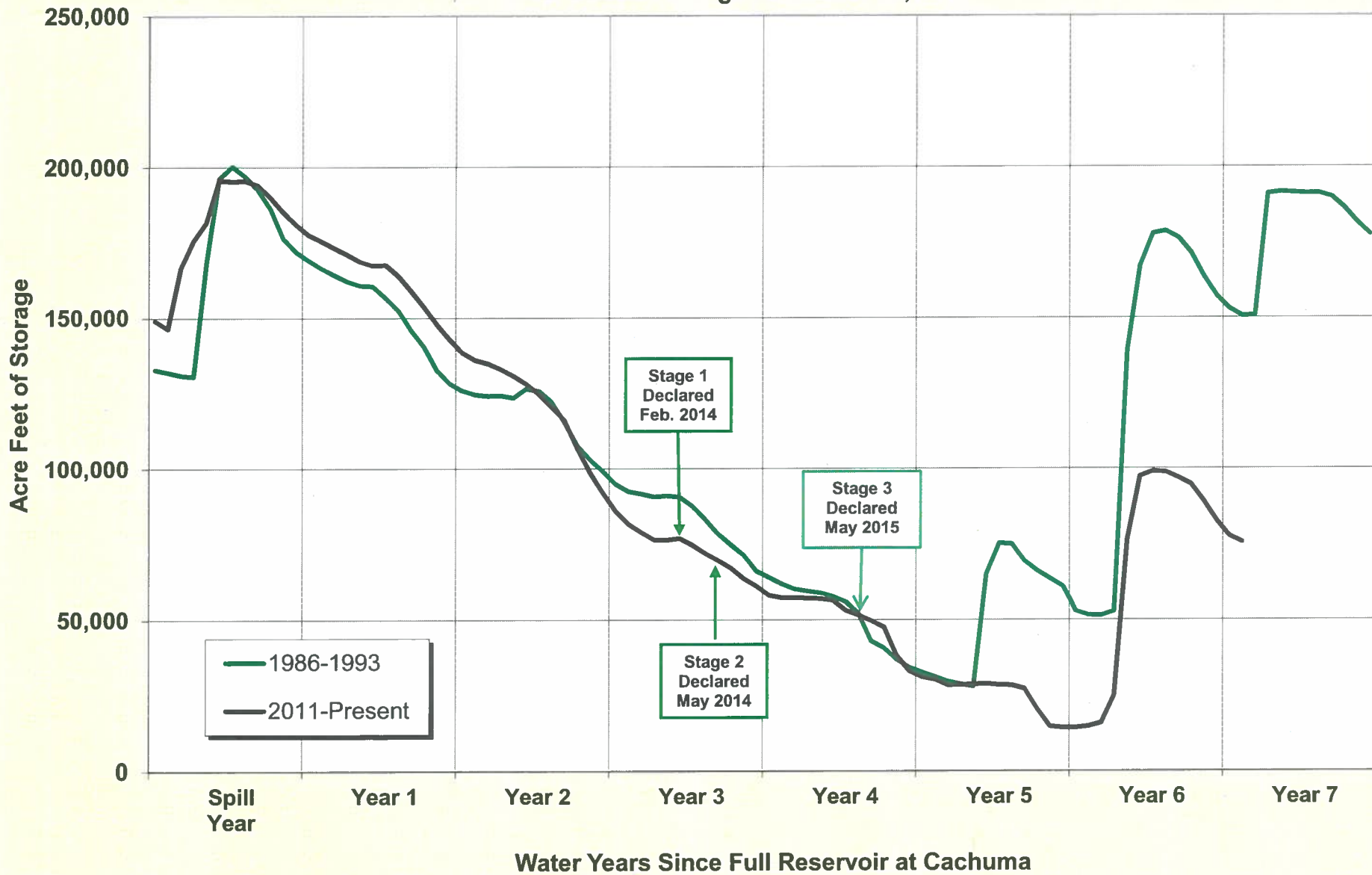
<u>ELEV.</u>	<u>STATUS</u>	<u>CAPACITY (AF)</u>
1,400.00	Reservoir is Full	5,246
1,376.48	First 16" Intake Valve	1,156
1,361.82	Second 16" Intake Valve	0
1,300.00	Reservoir is Empty	0

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 - September 2016... Reflects use of MN&S 2013 Gib. Area/Capacity Survey @ 5,246 AF
 October 2016 to September 2017... Reflects use of MNS 2016 Gib. Area/Capacity Survey @ 5,272 AF
 October 2017 to present... Reflects use of MNS 2017 Gib. Area/Capacity Survey @ 4,968 AF

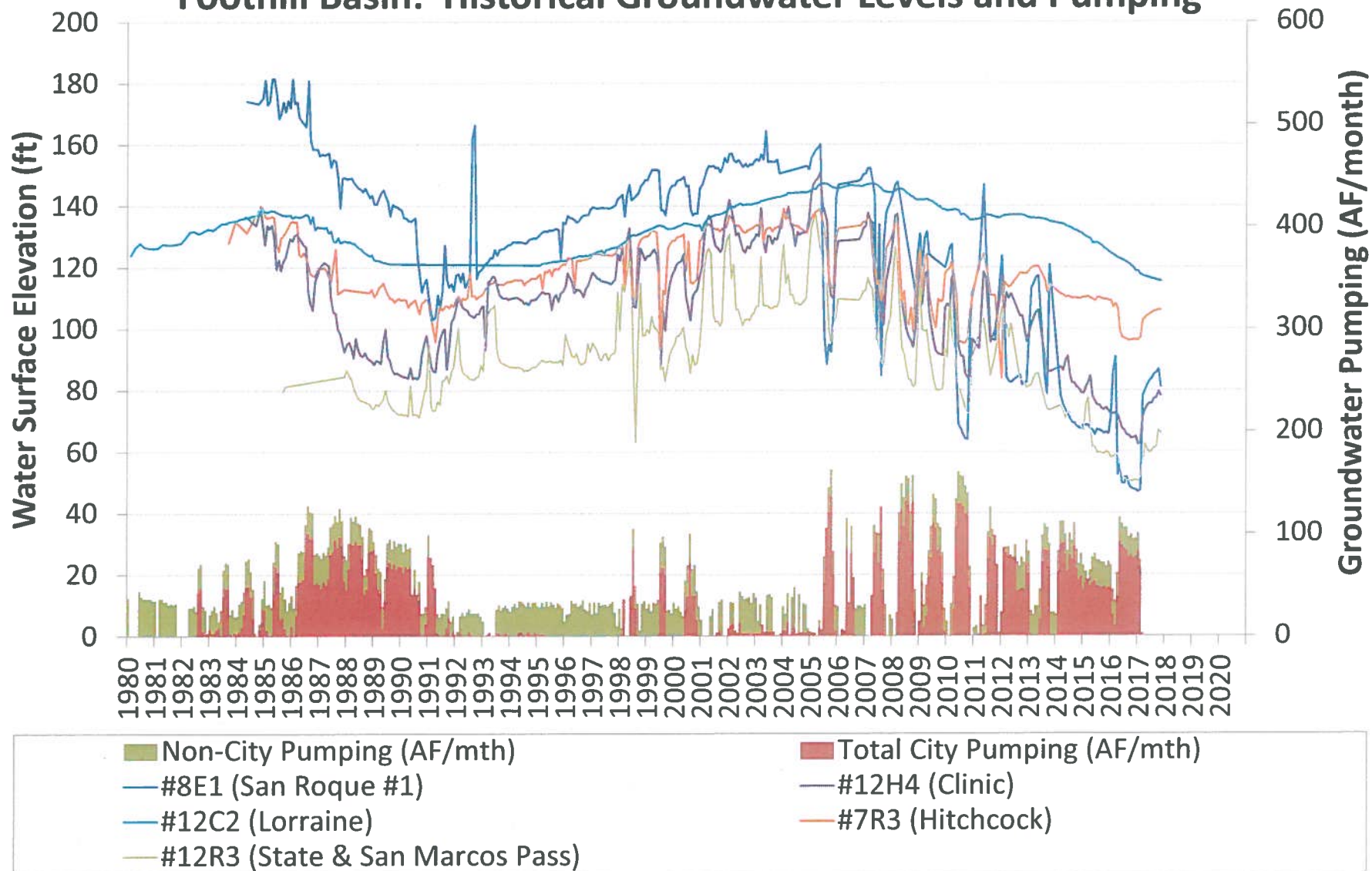
<u>TIME & DATE OF SPILL SINCE 1989</u>	
4:30 Am	March 19, 1991
9:09 Am	February 7, 1992
10:30 Am	January 7, 1993
6:45 Am	February 18, 1994
1:37 Pm	January 9, 1995
2:10 Pm	February 20, 1996
6:00 Am	December 22, 1996
3:00 Am	January 2, 1997
1:30 Pm	January 15, 1997
9:40 Am	December 6, 1997
4:30 Pm	February 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
01:00 Am	January 24, 2017

Cachuma Storage: Current Drought & 1986-93 Period

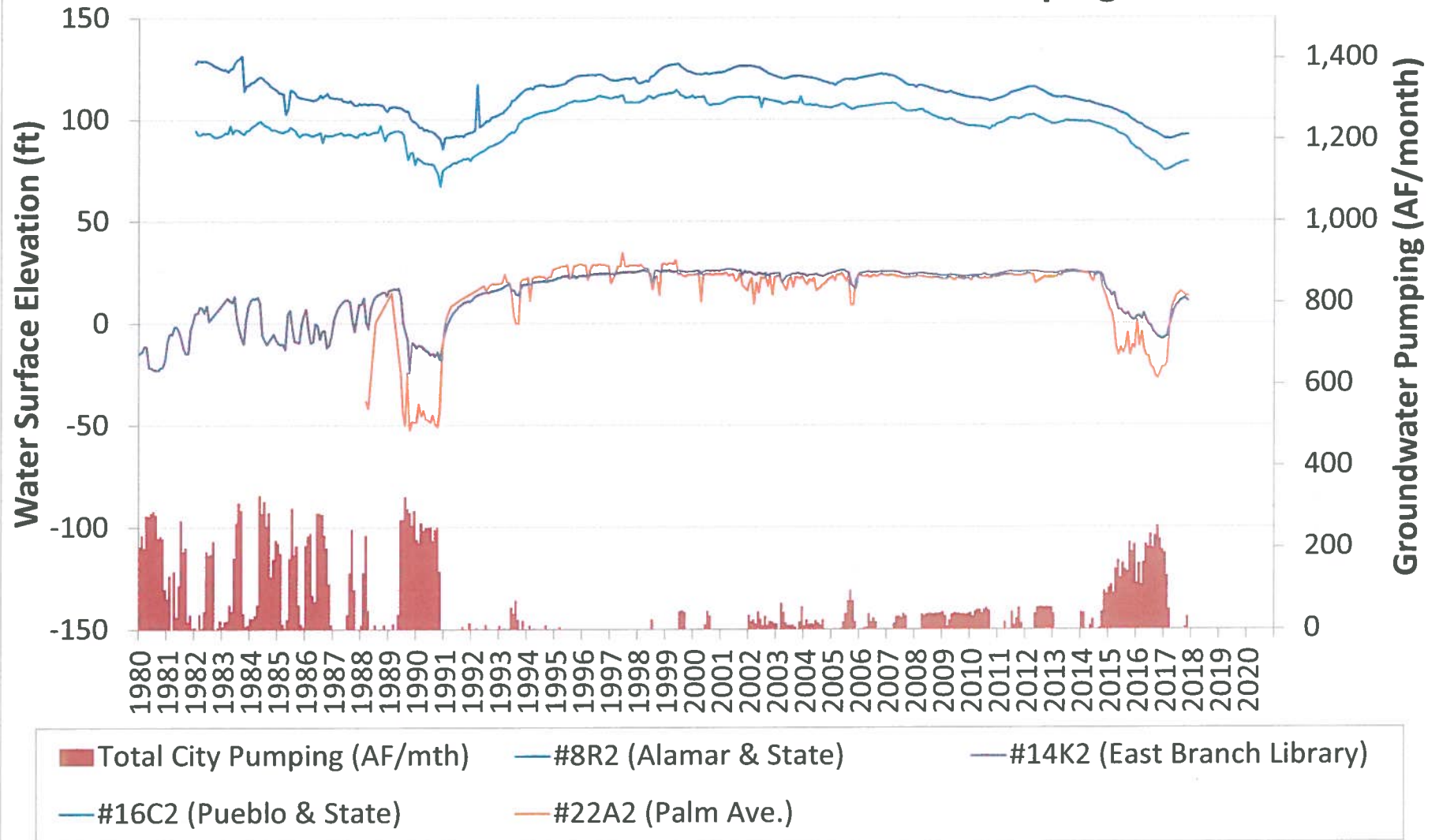
Data Shown Through November 30, 2017



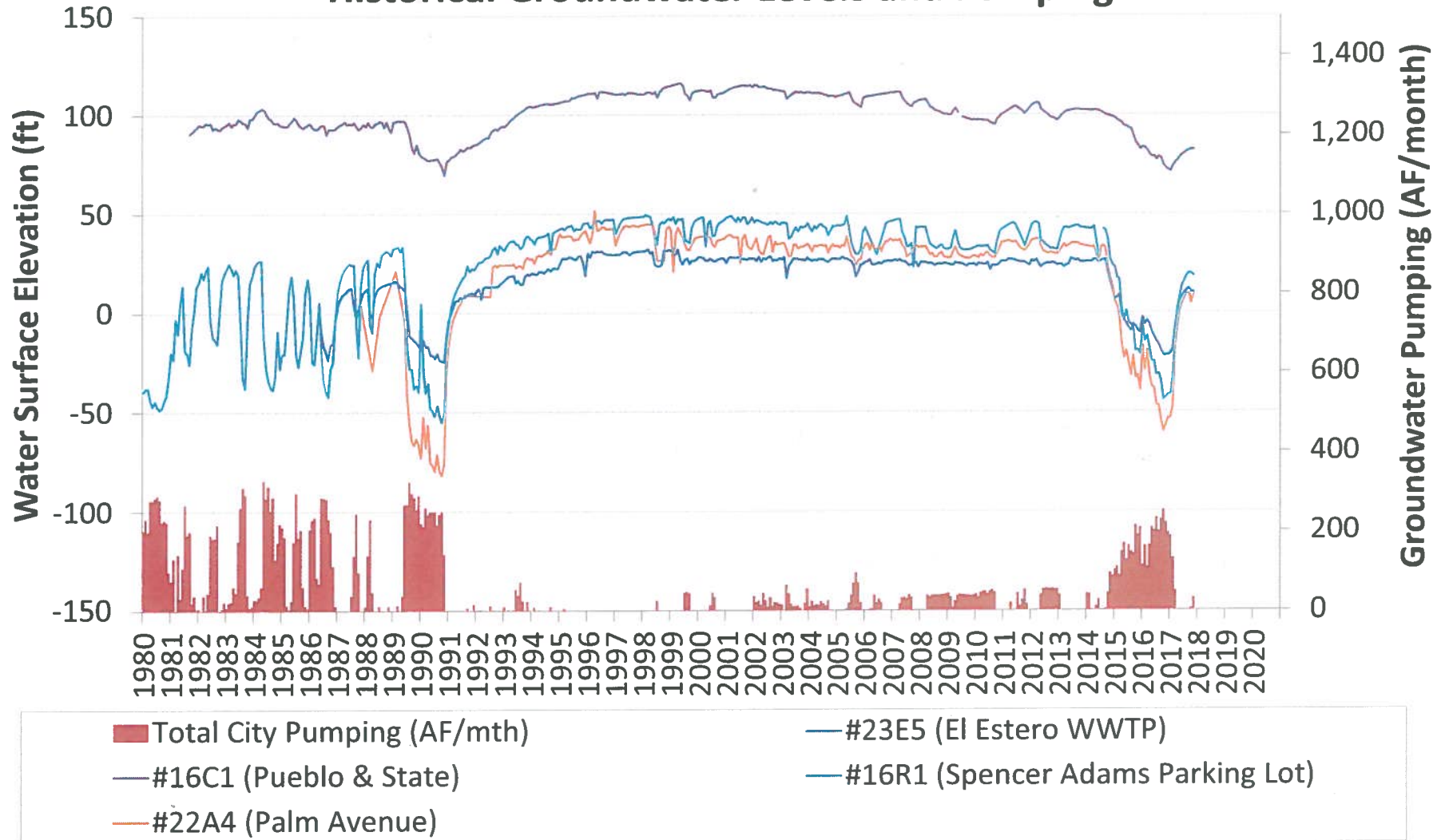
Foothill Basin: Historical Groundwater Levels and Pumping



Storage Unit #1, Upper Producing Zone: Historical Groundwater Levels and Pumping

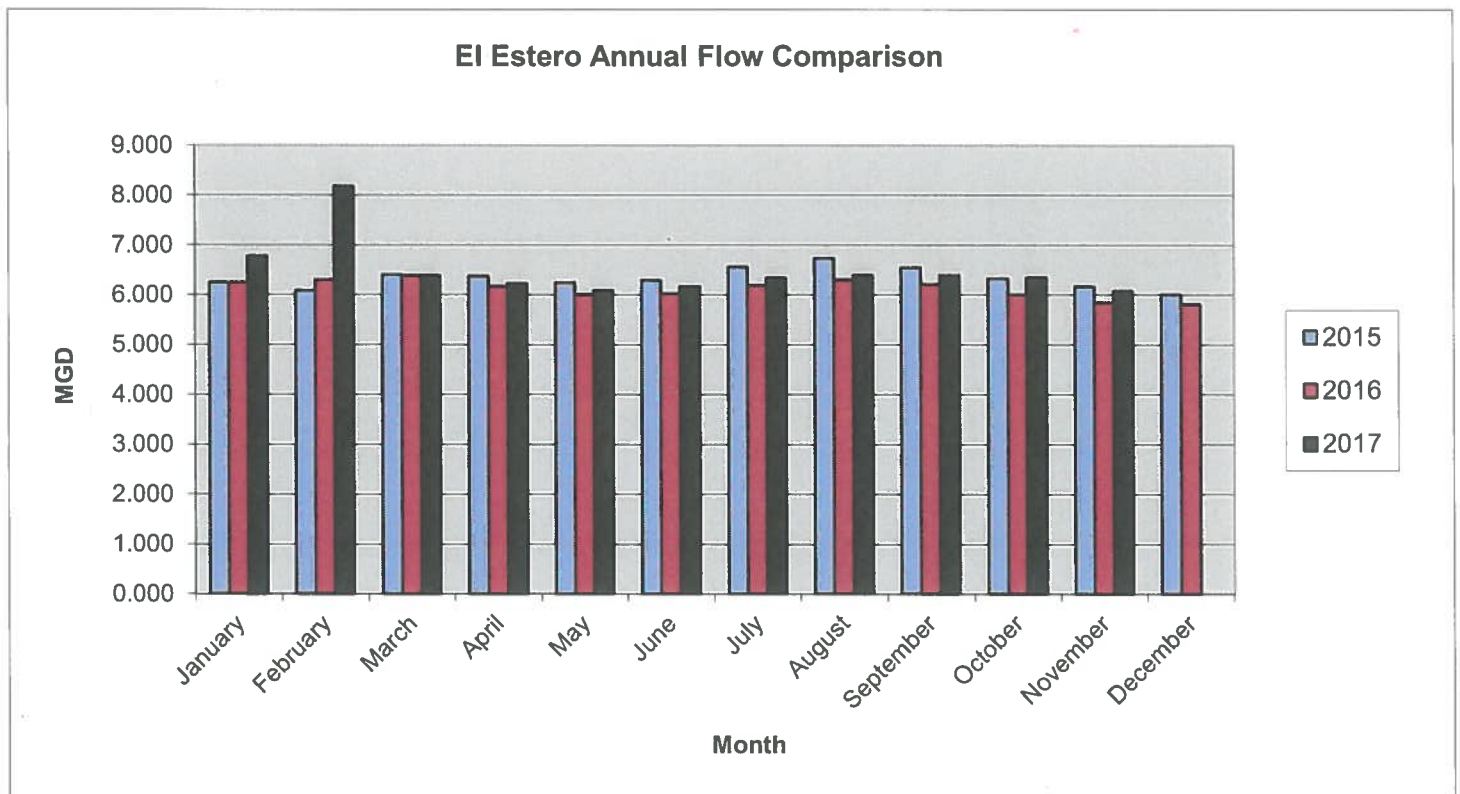


Storage Unit #1, Lower Producing Zone: Historical Groundwater Levels and Pumping



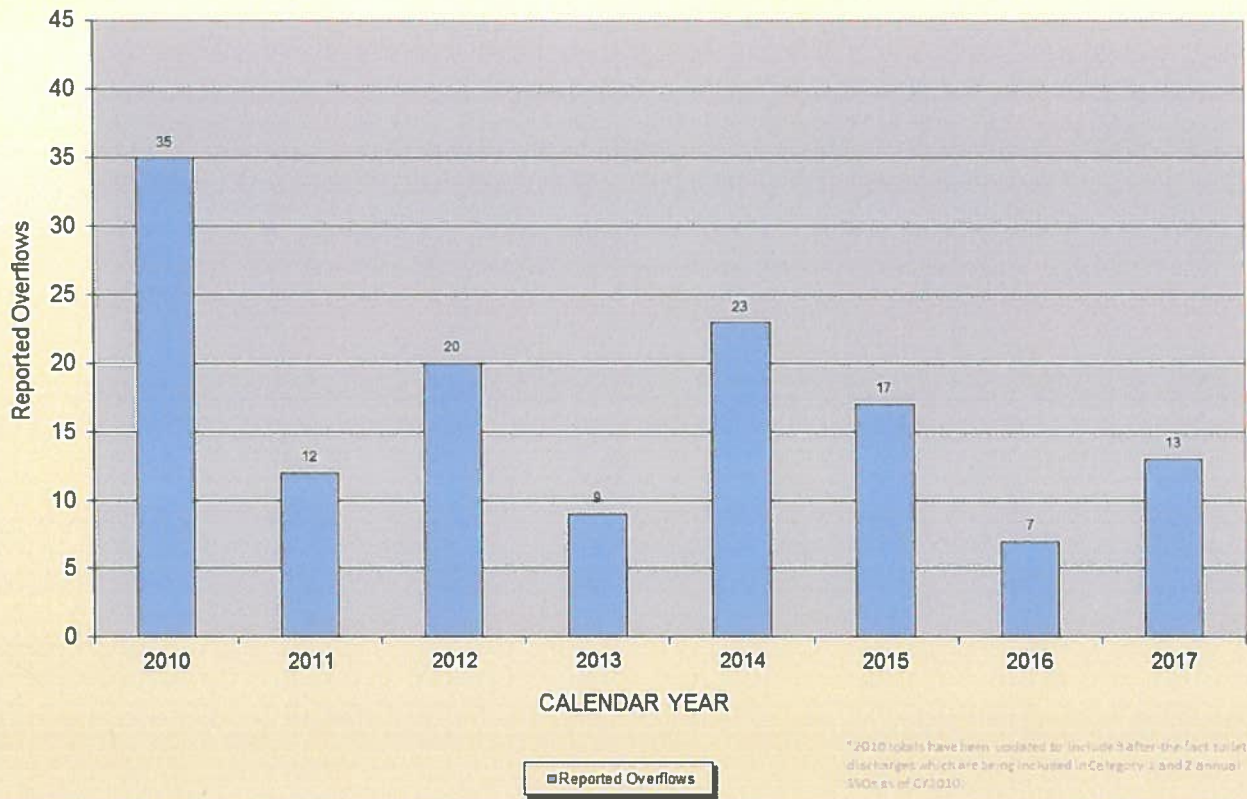
EL ESTERO INFLUENT FLOW COMPARISON

	2015	2016	2017
January	6.244	6.245	6.777
February	6.081	6.298	8.177
March	6.401	6.380	6.382
April	6.367	6.164	6.224
May	6.237	5.999	6.080
June	6.282	6.020	6.162
July	6.556	6.189	6.338
August	6.731	6.301	6.389
September	6.541	6.205	6.390
October	6.322	6.005	6.341
November	6.162	5.843	6.071
December	5.999	5.806	

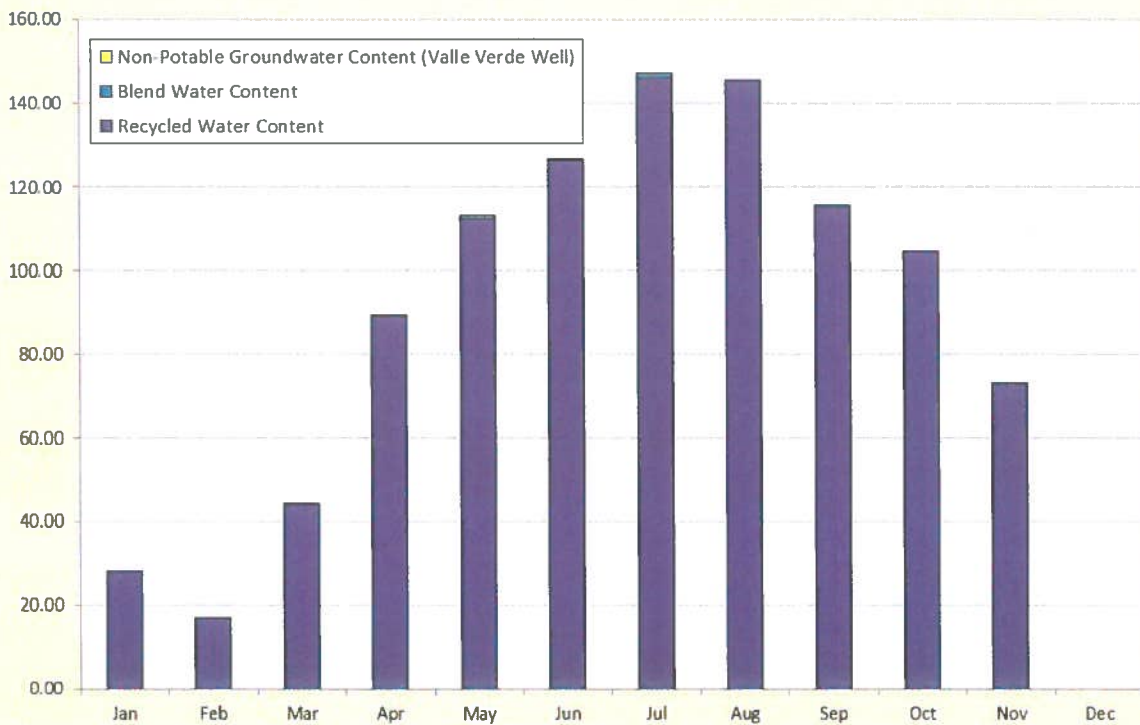


Annual Flow is Calculated Adjusted Influent Flow

CITY OF SANTA BARBARA
Graph of Annual SSO's (Category 1, 2, and 3) - Public Spills only
(as of 12/1/17)



Recycled Production by Source of Supply for 2017 (Acre-Feet)





City of Santa Barbara
Public Works Department

Interoffice Memorandum

DATE: December 14, 2017
TO: Joshua Haggmark, Water Resources Manager
FROM: Dakota Corey, Project Manager
SUBJECT: Warren Act Contract for USRYOA Pass Through Operations - Status

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

City staff presented Reclamation with technical responses to their questions. City staff continues to wait for a response from the Area Manager regarding any remaining issues on Reclamation's EA and the proposed Warren Act Contract.

Warren Act Contract

In parallel with the above, negotiations continue on suitable language for the Warren Act contract. Staff is working to ensure that Reclamation's standard template is modified as necessary to reflect the unique provisions of the Pass Through Agreement. The effort has expanded to include consideration of Warren Act requirements associated with the conveyance of Gibraltar water through Cachuma Project facilities, specifically Lauro Reservoir.

cc: Kelley Dyer, Water Supply Manager

DC/