

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

Report Month:

January

Water Year: 2018

	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.
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	7,184	0	234	0	44	97	0	0	0	0	0	260	115	396	273	-38	0	0	25	0	675	682	37	46	15	18	727	746
2018 Jan	0	0	7,158	0	60	0	44	43	0	0	0	0	0	260	222	301	346	-51	0	0	25	0	581	619	19	32	15	17	615	669
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	7,158	918	823	0	177	238	0	36	0	36	0	1,225	445	1,062	1,361	-128	0	0	100	0	2,837	2,774	195	216	60	76	3,092	3,066
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				

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

- \*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.

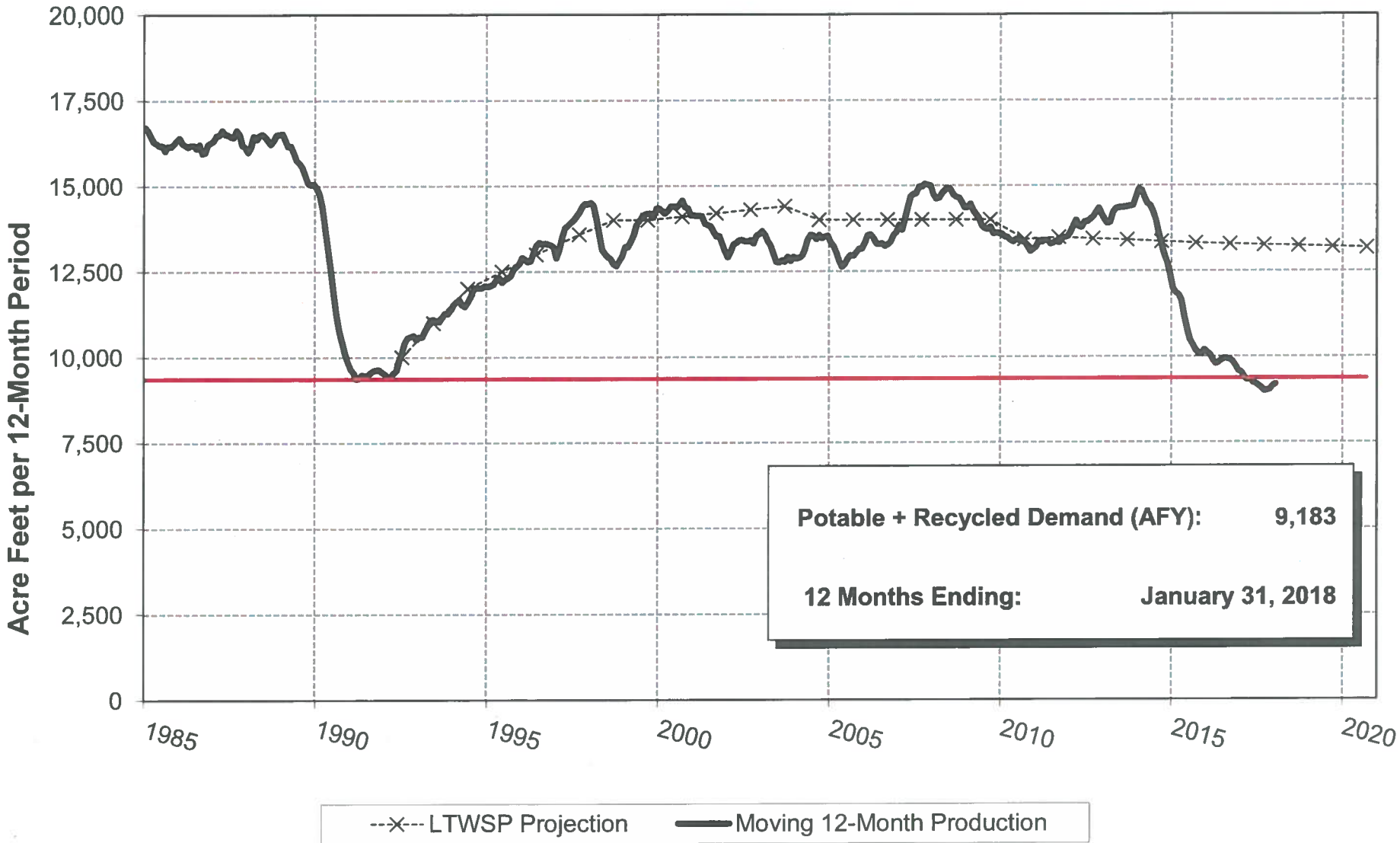
YTD Percent of Target:	97.8%	110.9%			99.2%
	Potable	Recycled			System

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

 = Preliminary Data or Not Yet Available

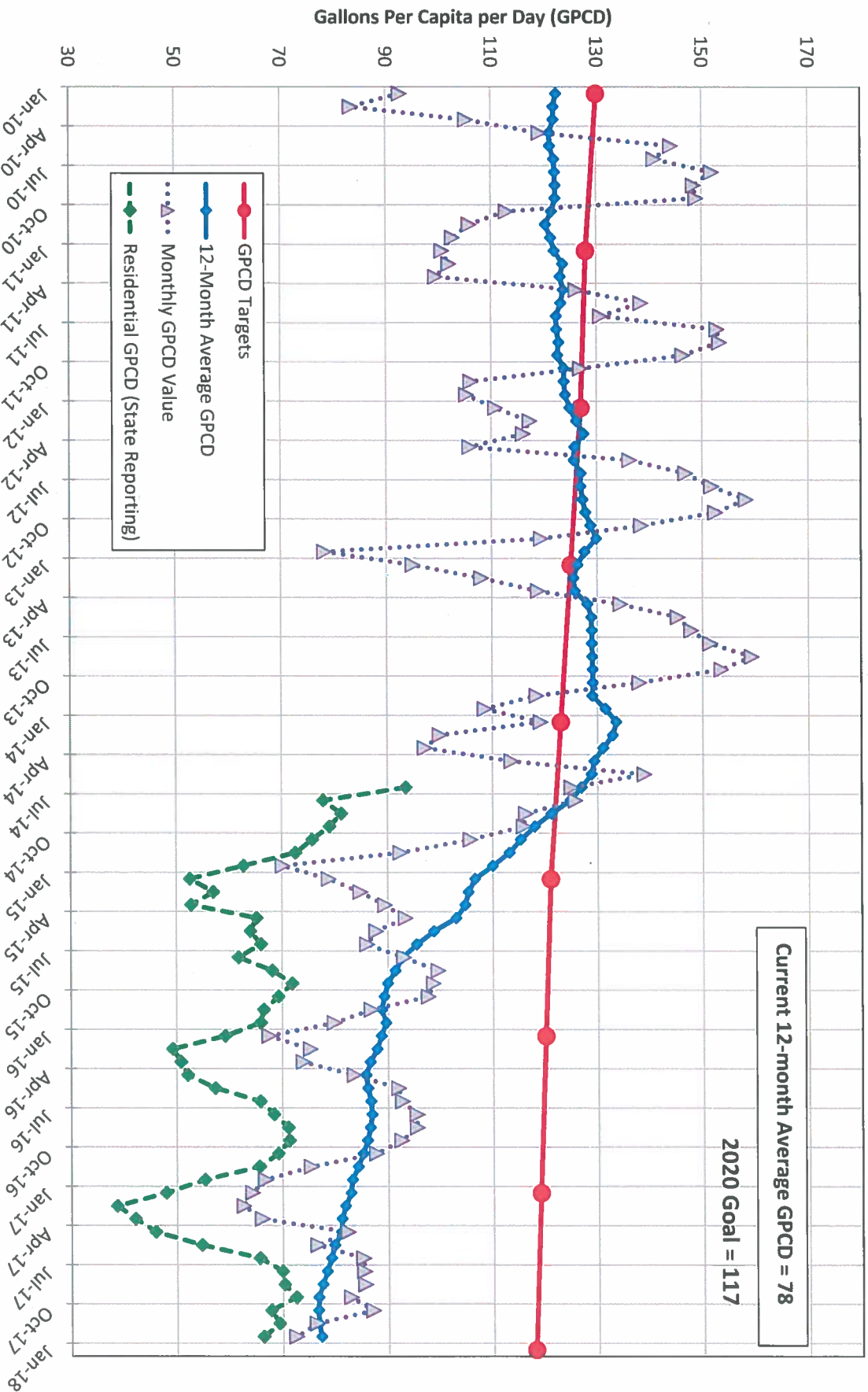
# City of Santa Barbara Water Demand

## Moving 12-Month Production to Serve Potable + Recycled Systems



# City of Santa Barbara Water Use in Gallons Per Capita per Day (GPCD)

## January 31, 2018

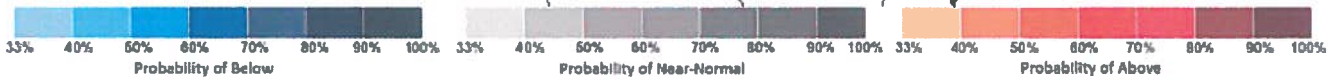
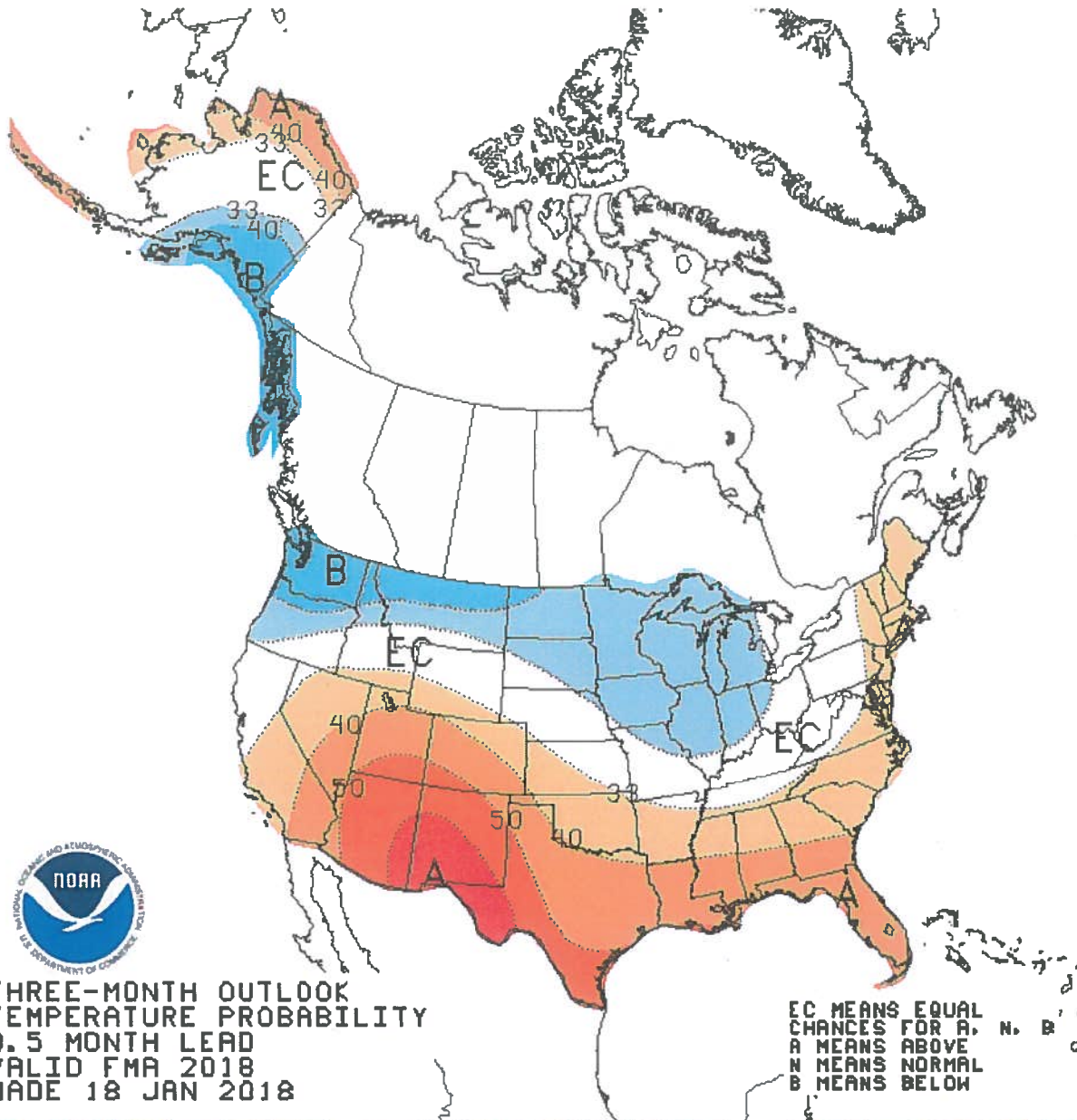


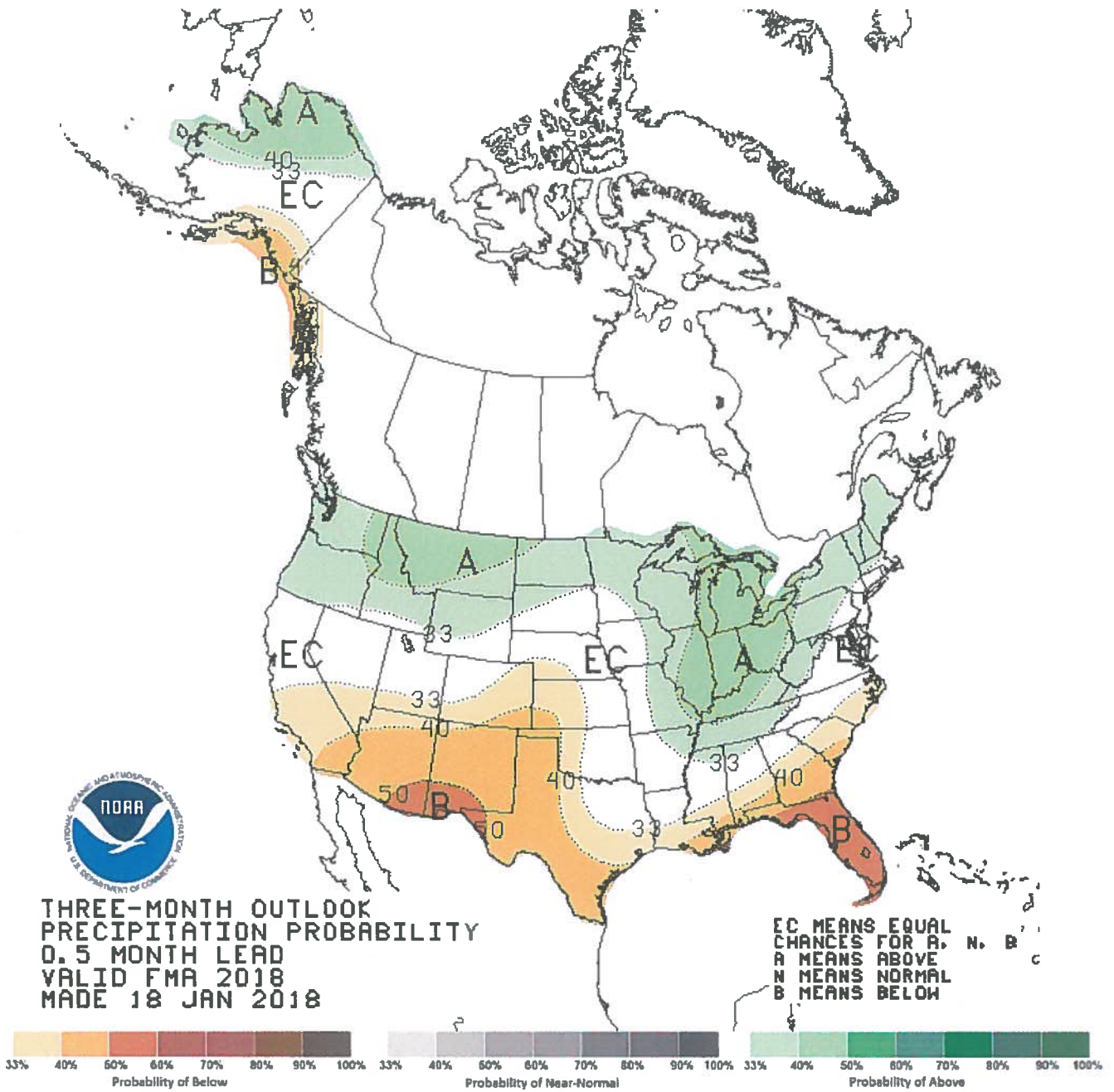
NOTE: The GPCD values above exclude blend water for recycled water production.

## GIBRALTAR RAINFALL DATA

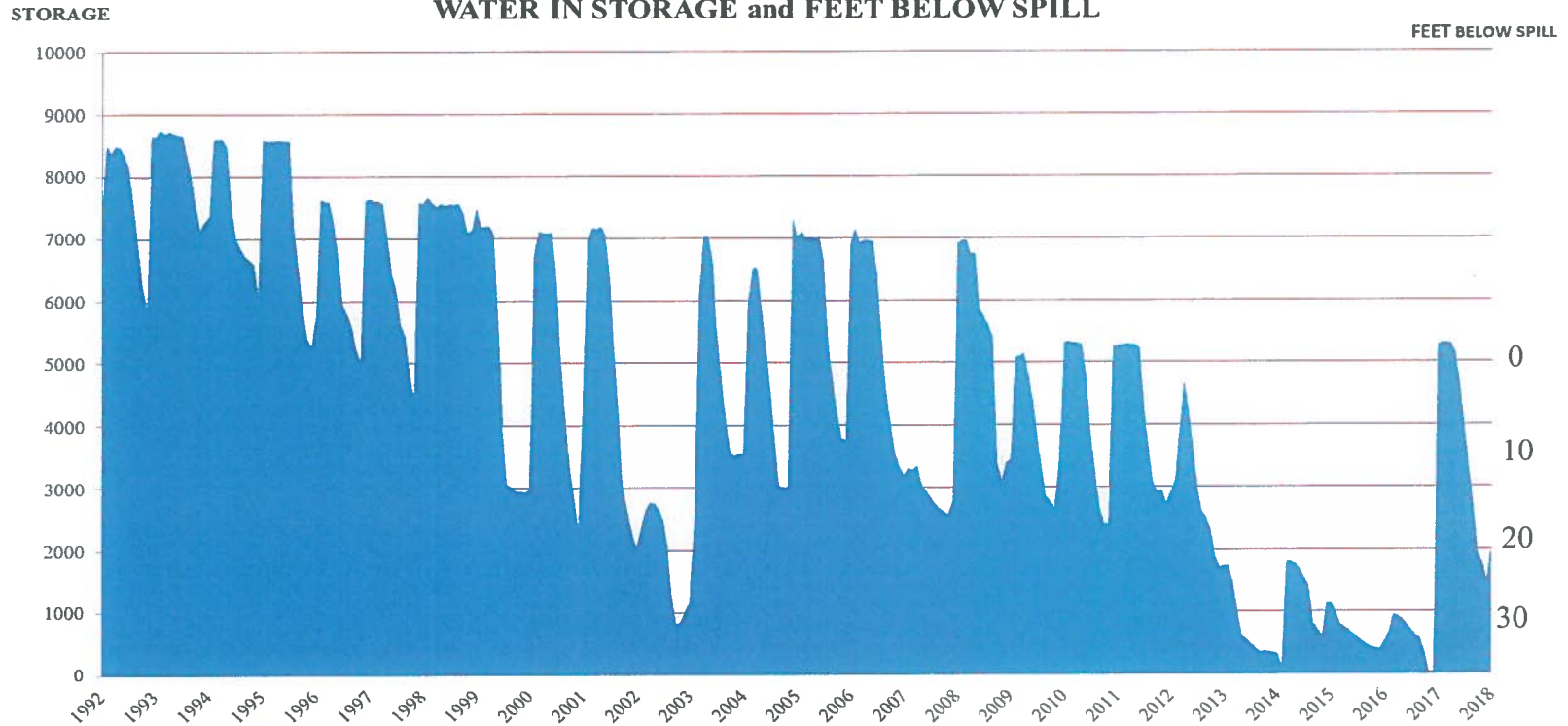
Gauge Location: Gibraltar Dam

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	0.07	0.00	3.92									3.99
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Total
50 yr avg	1.05	2.04	4.07	6.31	6.90	5.02	1.60	0.53	0.05	0.02	0.03	0.26	27.75
50 yr median	0.38	1.28	2.76	4.09	5.10	3.98	0.66	0.07	0.00	0.00	0.00	0.00	24.64
Average YTD:	1.05	3.08	7.15	13.46									
Actual YTD:	0.00	0.07	0.07	3.99									





## GIBRALTAR RESERVOIR HYDROGRAPH WATER IN STORAGE and FEET BELOW SPILL



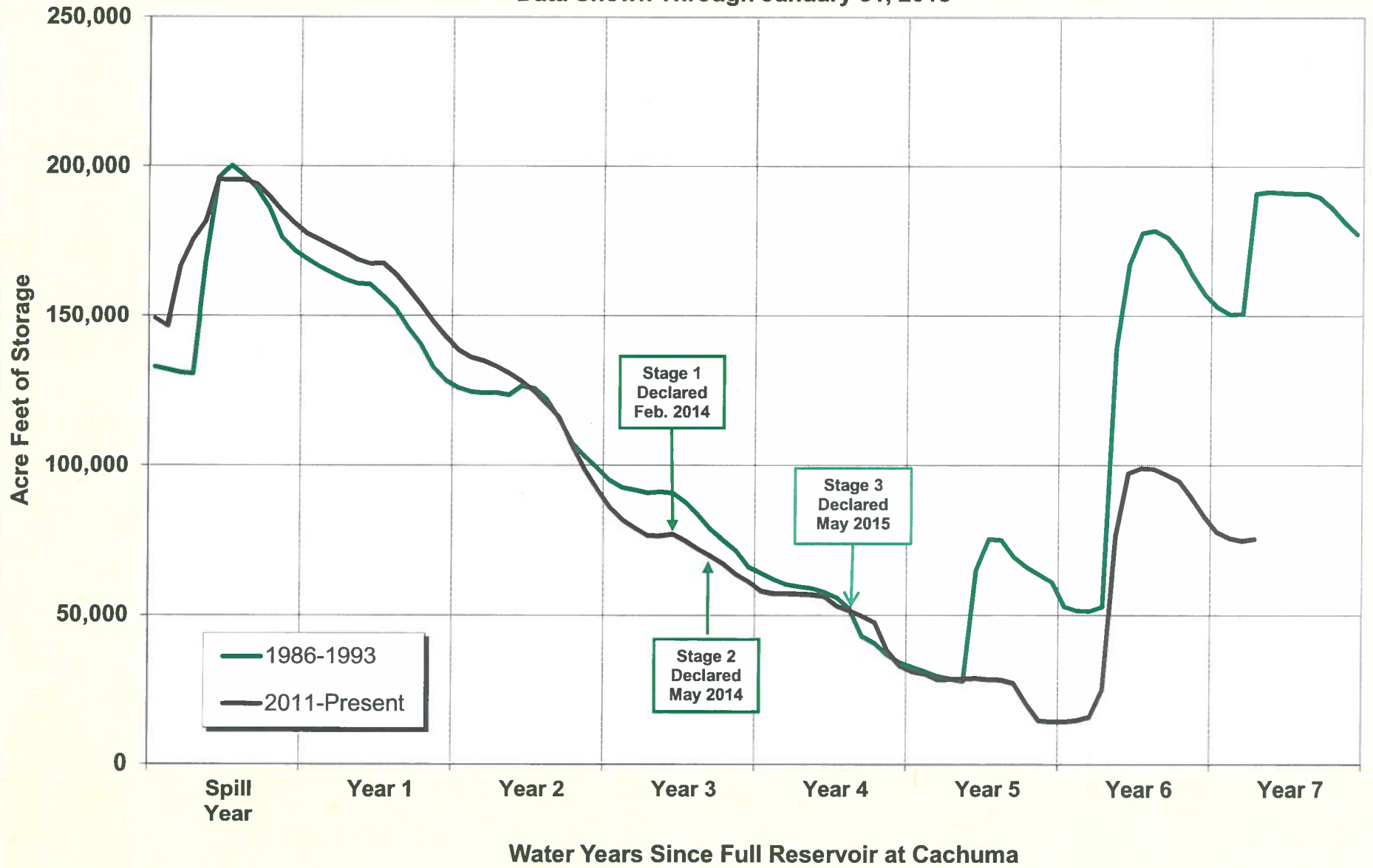
<u>ELEV.</u>	<u>STATUS</u>	<u>CAPACITY (AF)</u>
1,400.00	Reservoir is Full	5,246
1,376.48	First 16" Intake Valve	1,156
1,361.82	Second 16" Intake Valve	0
1,300.00	Reservoir is Empty	0

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 &amp; 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

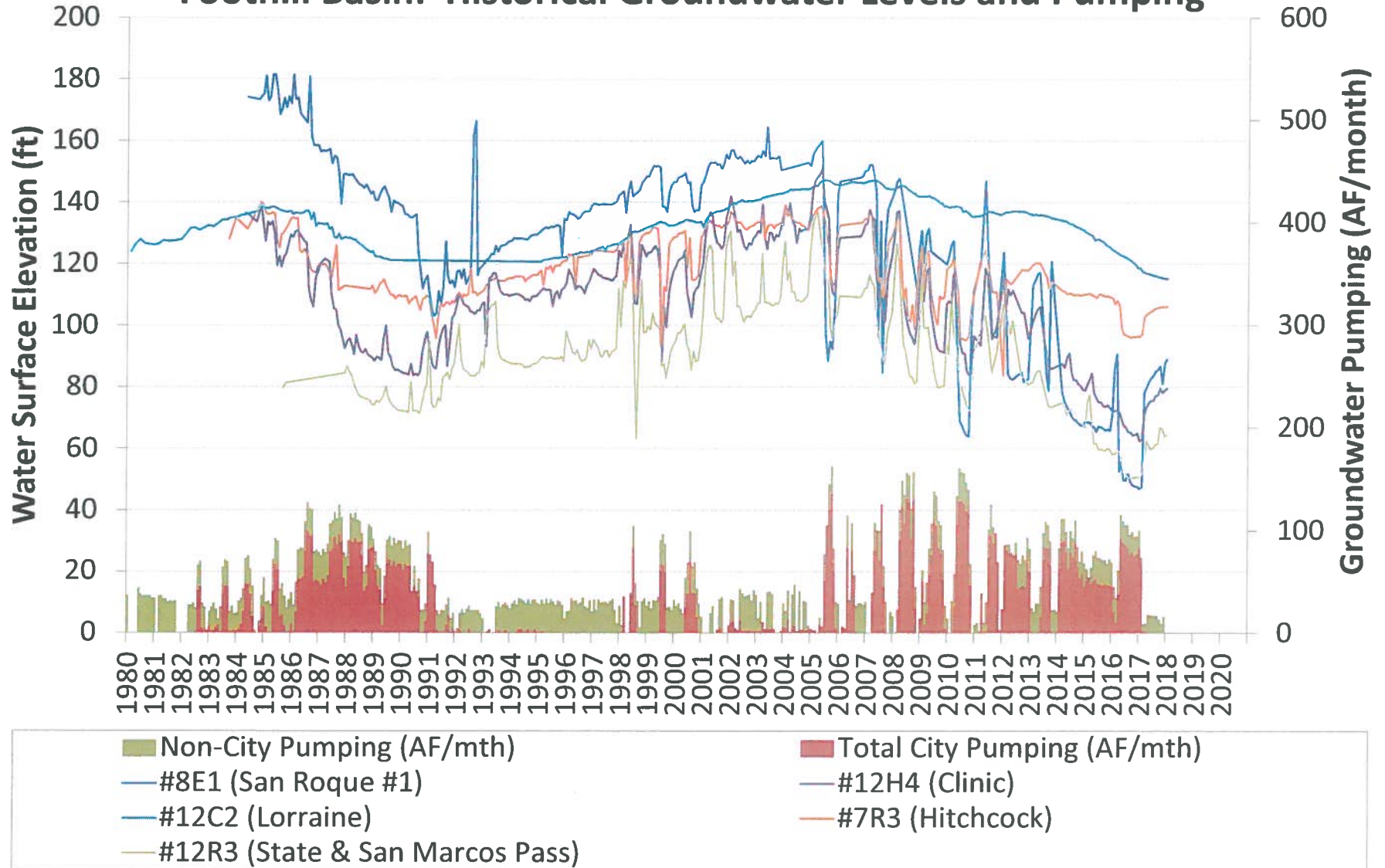
# Cachuma Storage: Current Drought & 1986-93 Period

Data Shown Through January 31, 2018

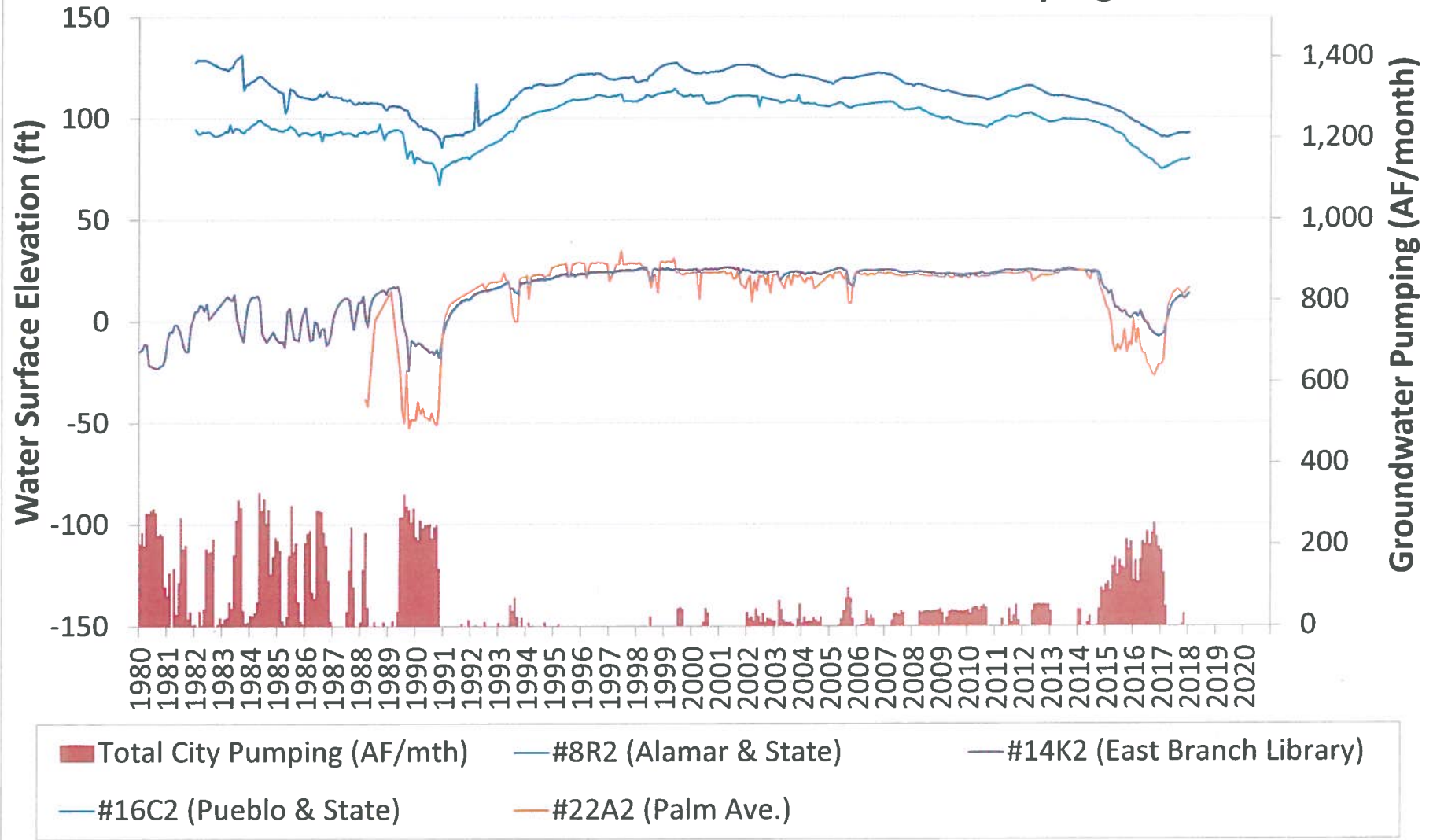




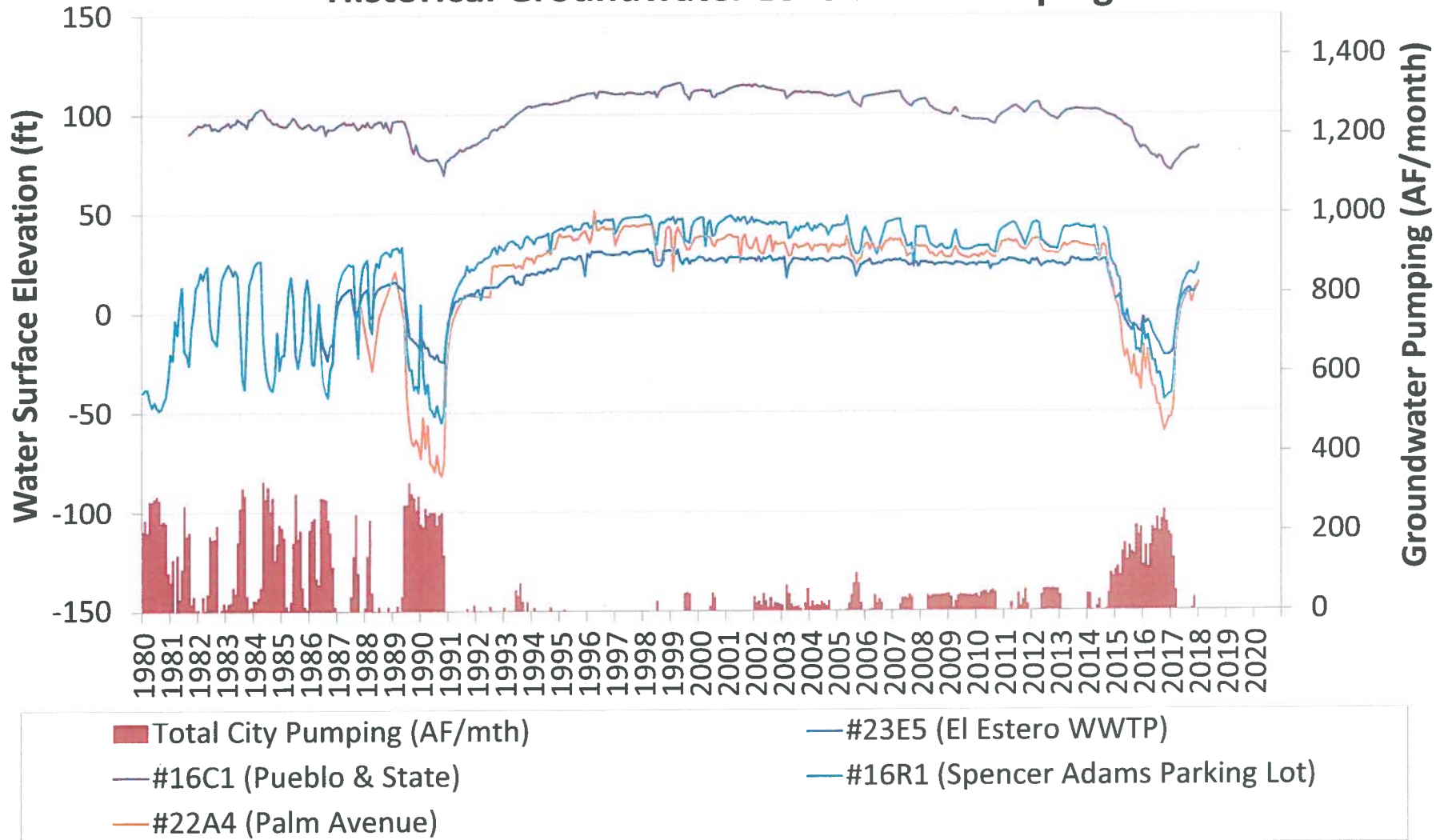
## Foothill Basin: Historical Groundwater Levels and Pumping



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

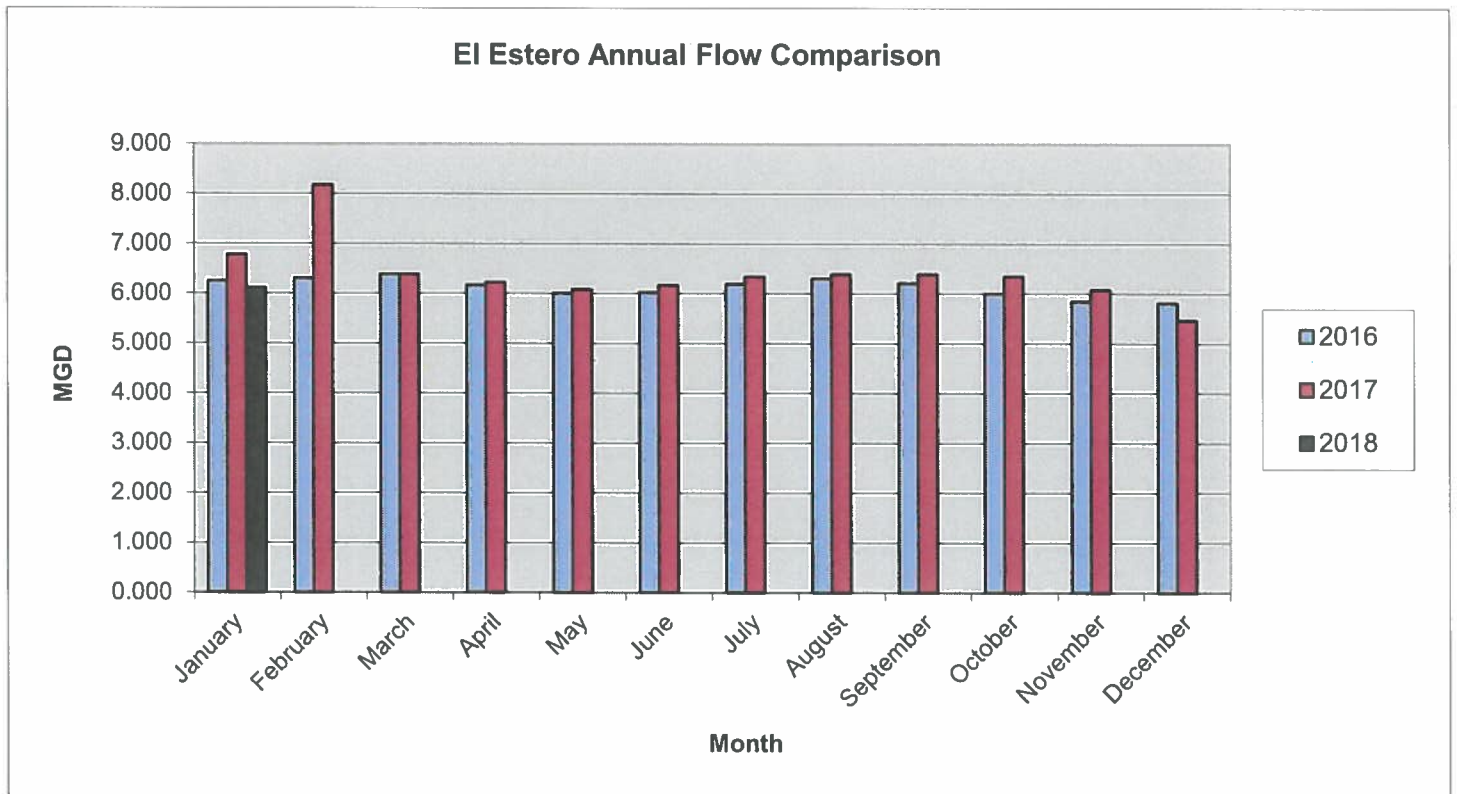


## Storage Unit #1, Lower Producing Zone: Historical Groundwater Levels and Pumping



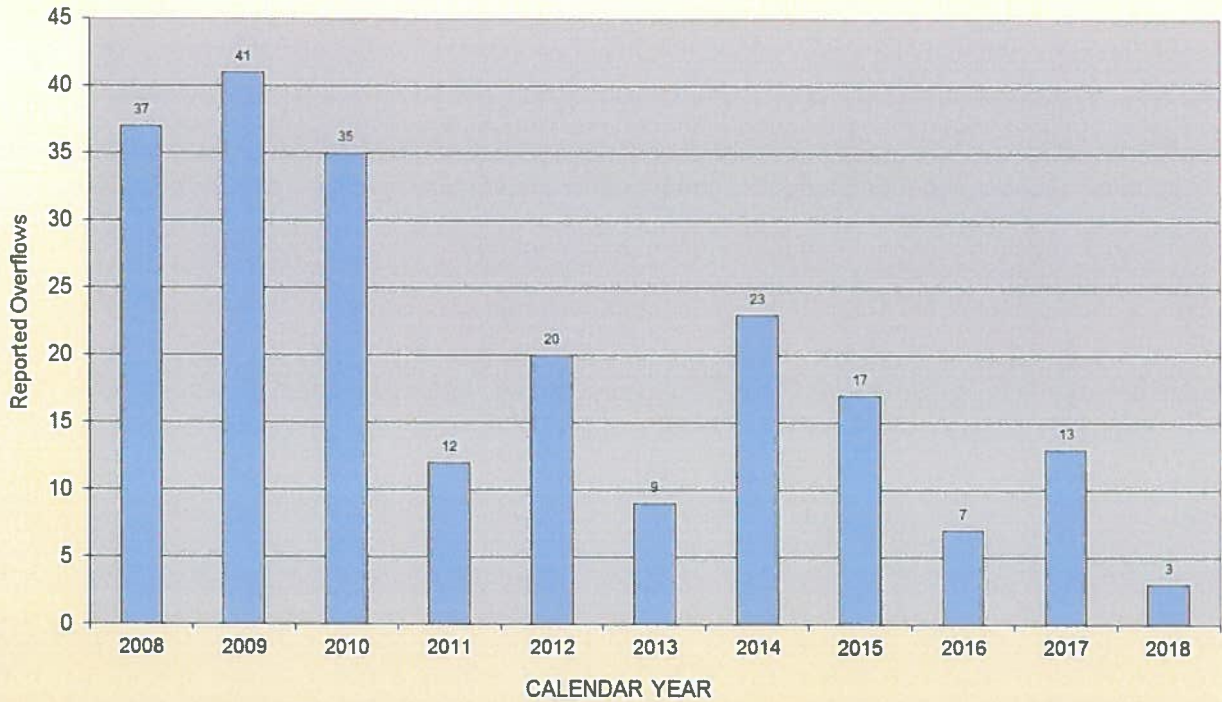
# EL ESTERO INFLUENT FLOW COMPARISON

	2016	2017	2018
January	6.245	6.777	6.106
February	6.298	8.177	
March	6.380	6.382	
April	6.164	6.224	
May	5.999	6.080	
June	6.020	6.162	
July	6.189	6.338	
August	6.301	6.389	
September	6.205	6.390	
October	6.005	6.341	
November	5.843	6.071	
December	5.806	5.464	



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 12/31/17)*



Reported Overflows

\*2016 force 3 have been updated to include 3 after the fact toilet discharges which are being included in Category 1 and 2 annual SSOs as of CY2016.

**Recycled Production by Source of Supply for 2018 (Acre-Feet)**





City of Santa Barbara  
Public Works Department

## Interoffice Memorandum

**DATE:** February 13, 2018  
**TO:** Joshua Haggmark, Water Resources Manager  
**FROM:** Dakota Corey, 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***

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/