SQUAW VALLEY PUBLIC SERVICE DISTRICT

2017 WATER AND SEWER SYSTEM REPORT

Prepared April 2018
By
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John O'Neal

Squaw Valley Public Service District Annual Report 2017
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EQUIPMENT CAPITAL REPLACMENT PROJECTS

Budget Year 2019 - 2023

Equipment Type	Funding Source	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Project Total
Fleet							
Ford F-250	Water/Sewer FARF		$ 49,900				$ 49,900
Ford F-350	Water/Sewer FARF				$ 49,200		$ 49,200
Equipment							
Sewer Bypass Trailer and Hose	Sewer CIP	$ 75,000					$ 75,000
Towable 6" Sewer Bypass Pump	Sewer FARF			$ 35,000			$ 35,000
Small Tools and Equipment							
Air Compressor	Water/Sewer FARF		$ 21,500				$ 21,500
SCBA Cart	Water/Sewer FARF	$ 9,500					$ 9,500
Radios	Water/Sewer FARF	$ 15,000					$ 15,000
Listening Devices	Water/Sewer FARF		$ 6,000				$ 6,000
TOTAL		**$ 99,500**	**$ 77,400**	**$ 35,000**	**$ 49,200**		**$ 261,100**

WATER CAPITAL PROJECTS

Budget Year 2019 - 2023

CIP Projects	Funding Source	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Project Total
East Booster Replacement Project	33% Water CIP 67% Water FARF			$168,300	$ 691,300		$ 859,600
Pressure Zone 1A Project	Water CIP				$ 191,400		$ 191,400
SVPSD/SVMWC Intertie	Water CIP		$185,000				$ 185,000
Fire Service Line Detector Check Installation Project	Water CIP		$ 51,400	$ 52,800	$ 54,200	$ 54,200	$ 212,600
PlumpJack Well			$950,000				$ 950,000
TOTAL		**$ -**	**$236,400**	**$221,100**	**$ 936,900**	**$ 54,200**	**$ 2,398,600**
CRP Projects							
Victor/Hidden Lake 2" Waterline Replacement Project	Water FARF			$ 20,000	$ 102,700		$ 122,700
Zone 3 Booster Pump Station Upgrades Project	Water FARF	$ 27,600					$ 27,600
West Tank Inspection and Recoating Project	Water FARF	$ 5,000	$211,000				$ 211,000
Zone 3 Tank Inspection and Recoating Project	Water FARF	$ 5,000		$ 54,500			$ 59,500
East Tank Inspection		$ 5,000					$ 5,000
Residential Meter Replacement Project (Includes Irrigation Meter Removal on SFR)	Water FARF		$ 65,400	$ 67,000	$ 68,600	$ 70,300	$ 271,300
Fire Hydrant Replacement Project	Water FARF	$ 32,800	$ 33,600	$ 34,500	$ 35,500	$ 35,500	$ 136,400
TOTAL		**$ 75,400**	**$310,000**	**$176,000**	**$ 206,800**	**$105,800**	**$ 833,500**
GRAND TOTAL		**$ 75,400**	**$546,400**	**$397,100**	**$1,143,700**	**$160,000**	**$ 3,232,100**

SEWER CAPITAL PROJECTS

Budget Year 2019 - 2023

Project Title	Funding Source	FY 18/19	FY 19/20	FY 20/21	FY 21/22	FY 22/23	Project Total
CIP Projects							
Truckee River Siphon Project	55% Sewer CIP 45% CRP	$1,666,100					$ 1,666,100
Sewer Flow Meter Project	Sewer CIP	$ 21,100	$128,400				$ 149,500
Sewer Cleanout Installation Project (Point of Service Line Cleanouts)	Sewer CIP		$168,200	$172,800	$ 177,400	$182,200	$ 700,600
Granite Chief "A" Line		$ 90,000					$ 90,000
TOTAL		**$1,687,200**	**$296,600**	**$172,800**	**$ 177,400**	**$182,200**	**$ 2,606,200**
CRP Projects							
Manhole Inspection Project	Sewer FARF	$ 12,000	$ 12,600	$ 13,230			$ 37,830
Manhole Replacement/Rehabilitation Program	Sewer FARF		$218,000	$339,100			$ 557,100
Sewer System CCTV	Sewer FARF	$ 68,200	$ 69,500	$ 88,000	$ 37,700		$ 263,400
Backyard Easement Sewer Replacement Projects	Sewer FARF		$243,800		$ 257,200		$ 501,000
TOTAL		**$ 80,200**	**$543,900**	**$440,330**	**$ 294,900**		**$ 1,359,330**
GRAND TOTAL		**$1,767,400**	**$840,500**	**$613,130**	**$ 472,300**	**$182,200**	**$ 3,965,530**

Utilities Report 2017

I. Flow Report

A. Water Production Total = 114.61 MG
Comparison: 9.68 MG More Than 2016

B. Sewer Collection Total = 96.03 MG
Comparison: 8.88 MG More Than 2016

C. Aquifer Level 2017 Maximum Level February 10, 2017: 6192.3'
Minimum Level September 4, 2017: 6187.3'

Total Change in Static Water Level 2016: 10.3'
Total Change in Static Water Level 2017: 5.0'

D. Precipitation Total 16/17 Water Year = 129.26"
53-Year average = 53.31"
16/17 Water Year % of the 53-Year average = 242.49%

E. Flow Report Conclusions: Water production increased 8% over the previous year. Sewer collection increased 9% over the previous year.

* The maximum level represents a rough average of the highest levels measured in the aquifer during spring melt period.

** The lowest level recorded in the aquifer was 6,174.0 feet above mean sea level on October 12, 2001. This level is not necessarily indicative of the total capacity of the aquifer.

*** Creek bed elevation (per Kenneth Loy, West Yost Associates) near Well 2r is 6,186.9 feet.

**** The season total for Precipitation is calculated from October 2016 through September 2017.

***** The true average could be higher or lower than the reported value due to the uncertainty of the Old Fire Station precipitation measurement during the period 1994 to 2004.

****** The production number is different than scada reports due to time of day reading issues.

II. Leaks, Repairs, and Maintenance

A. Water

1. New meters installed: 5
2. Water meters replaced or rebuilt: 4
3. Water meter upgrades: 0
4. Customer service water meters turned on or off: 16
5. Routine leak/high usage detection notification: 110
6. Customer requested leak detection services performed: 22
7. No water responses: 0
8. Fire hydrants flushed: 139
9. Blow-offs flushed: 15
10. Valves exercised: 42
11. Repair/Replace service line: 0
12. Repair leak on water main: 1
13. Backflow devices tested: 509
14. Test District backflows: 6
15. Quarterly vault inspections on Well 1R and Well 3: 8
16. Water tank inspections: 8
17. Water quality complaints serviced: 0
18. Tested commercial meters: 9
19. Replaced Air/Vac breakers: 0
20. Water samples collected:
    - Bacteriological: 27
    - Nitrate: 4
    - Nitrite: 4
    - Asbestos: 1
    - Inorganic: 3
    - Secondary-GP: 3

B. Sewer

1. Sanitary sewer overflows: 2 (class 3)
2. Main line repairs: 0
3. Service line repairs: 0
4. Sewer cleanout repairs: 0
5. Manhole repairs: 4
6. Manhole grouting: 3
7. Cleaning:
    - Spring and fall cleaning of high priority lines
    - Main sewer lines cleaned: 289
8. Inspections:
    - Sewer code related inspections: 30
    - Pre-remodel inspections: 6
    - Finals inspections: 11
    - USA locations: 106
    - FOG Inspections: 18
    - Toilet Inspections: 9

III. Building and Grounds Maintenance and Repair

A. 305 Squaw Valley Road Fire Department and Administration

1. Continued monthly service and maintenance of facility and equipment.

B. 1810 Squaw Valley Road District Equipment Garage

1. Continued monthly service and maintenance of facility and equipment.

IV. Vehicles and Equipment

A**.** Vehicles

1. All vehicles received an annual service, with the exception of the Ford Interceptor and Ford F-150 which received biannual services.

B**.** Equipment

1. All small equipment received an annual service.

V. Administrative

A. Hanson data input.
B. VUEWorks migration from Hanson.

VI. Operation & Maintenance Projects

A. 1810 Administration Building fence built
B. West Tank road repair/culvert found and repaired
C. Hydrant replacement project started
D. 305 Parking lot light fixtures cement repaired
E. TTSA Manhole easement cleared of trees and bushes
F. Gate valve box repairs
G. Continued Operations and Maintenance of SV Mutual Water Company.
H. Sewer System I/I inspection
I. Tested commercial meters for accuracy
J. Manhole Repairs
K. Spring and Fall Flushing
L. Annual Sewer Cleaning
M. High Priority Cleaning

VII. Summary

This season the District was able to start replacing old Fire Hydrants and make a number of repairs to damaged assets. The District continued a contract to operate and maintain the Squaw Valley Mutual Water Company. Training continued this year keeping the district crew as knowledgeable and up to date as possible so that we may provide the best available service to our customers.

VIII. Safety Training

1/20/2017 Safe Winter Driving, SDRMA Booklet
Brandon, Josh, Jason, Devin, Schel, John

2/24/2017 Slips, Trips and Falls, SDRMA Booklet
Josh, Brandon, Devin, Jason, Schel, John

3/3/2017 Diversity in the Real World, SDRMA Booklet

Josh, Devin, Brandon, Schel

3/30/2017 Sexual Harassment Prevention for Supervisors, Target Solutions
Josh, Devin, Jason, Schel

4/7/2017 Driven to Distraction II, SDRMA Booklet
Josh, Jason, Devin, John

5/12/2017 Back in Action, SDRMA Booklet
Josh, Jason, Schel, John, Devin, Brandon

6/9/2017 Heat Stress for Public Employees, SDRMA Booklet
Josh, Brandon, John, Devin, Jason, Schel

8/11/2017 Harassment a new Look, SDRMA Booklet
Josh, Sam, John, Schel, Jason

9/1/2017 Ergonomics, SDRMA Booklet
Josh, Jason, Sam, John, Schel

10/13/2017 Fire Safety, SDRMA Booklet
Josh, Jason, John, Sam, Schel

10/20/2017 Emergency Evacuation: Getting Out Alive, SDRMA Booklet
Josh, Sam, John, Jason, Schel

11/17/2017 Hazcom – Are you GHS Ready, SDRMA Booklet
Josh, Brandon, John, Schel, Sam

12/8/2017 Stairways and Ladders A Safe Step, SDRMA Booklet
Josh, Sam, Schel, Jason, Brandon, John

IX. Occupational Training

4/25-27/2017 Cal Rural Water Education Expo South Tahoe
Brandon, Dave

5/10/2017 Time Management, New Horizons Computer Learning Center
John

7/21/2017 Confined Spaces in Construction, United Academy Reno
Sam

8/4/2017 Excavation Safety (CPT), United Academy Reno
Sam, John

8/10/2017 Traffic Control & Flagging Course, Sacramento
Sam, John

9/6-9/7/2017	D1-D2 Review, AWWA Sacramento Sam
9/13/2017	Caustic Injection Quill Replacement, Main Well John, Sam, Josh
9/14/2017	Making Chlorine, Mutual Well House John, Sam, Josh
10/2-3/2017	Water Quality & Regulations Workshop, AWWA Olympic Valley Josh, Brandon
10/25/2017	Automated Valve Control, North Tahoe PUD John, Jason
12/4-5/2017	North American Water Loss, AWWA San Diego Brandon, Dave

Water System Inventory – 2017

1. Water Well #1R – 388 GPM averaged. *
2. Water Well #2R – 332 GPM averaged. *, **
3. Water Well #3 – 115 GPM averaged. *
4. Water Well #4 – (Not in Service)
5. Water Well #5R – 392 GPM averaged. *
6. Horizontal Well – (Out of Service). *, ***

2017 Total average flow – 1,227 GPM ****

7. West Tank - 1,150,000 Gallon Water Tank
8. East Tank - 500,000 Gallon Water Tank
9. Zone 3 Tank - 135,000 Gallon Water Tank

Total Storage – 1,785,000 Gallons

10. 2 Booster Pumping Stations
11. 811 Water Meters connected per Billing
12. 134 Fire Hydrants
13. 34 Air Release Valves
14. 509 Backflow Prevention Devices
15. 422 Gate Valves
16. 17 Butterfly Valves
17. 24 Blow Off Assemblies
18. 5 Control Valves (Granite Chief, East Booster, Zone 3 Booster, Hz Well)
19. 3 Transducer Stations (West Tank, East Tank, and Zone Three Tank)
20. 7 Remote Terminal Units (RTU), SCADA Telemetry System

Water System Inventory – 2017

21. 12,761 Feet 12" Water Distribution Main

22. 10,752 Feet 10" Water Distribution Main

23. 32,376 Feet 8" Water Distribution Main

24. 21,145 Feet 6" Water Distribution Main

25. 696 Feet 4" Water Distribution Main

26. 990 Feet 2" Water Distribution Main

27. 439 Feet 6" Water Service Line

28. 240 Feet 4" Water Service Line

29. 3,370 Feet 2" Water Service Line

30. 254 Feet 1.25" Water Service Line

31. 39 Feet 1.5" Water Service Line

32. 3,033 Feet 1" Water Service Line

33. 128 Feet ¾" Water Service Line

Total Water Main = 78,720 Feet = 14.909 Miles
Total Water Services = 7,503 Feet = 1.421 Miles
Combined Total = 86,223 Feet = 16.330 Miles

* GPM averaged from the time wells were on and running.
** Well 2R GPM is affected by seasonal aquifer level changes. During low aquiver level years the well GPM is reduced to prevent pumping below the well screens.
*** Horizontal Well was out of service for 2017. When it runs GPM is affected by gravity flow and changes from one year to the next. Longer periods of operation will lower the GPM. The average in 2016 was 70 GPM.
**** 2017 total average flow does not indicate total capacity. This total is the combined GPM flows from all the wells as they were operated in 2017 calendar year.

Squaw Valley Public Service District - Year End Water Audit Report

Report Date: March 14, 2018 Performed By: John O'Neal

Year: 2017

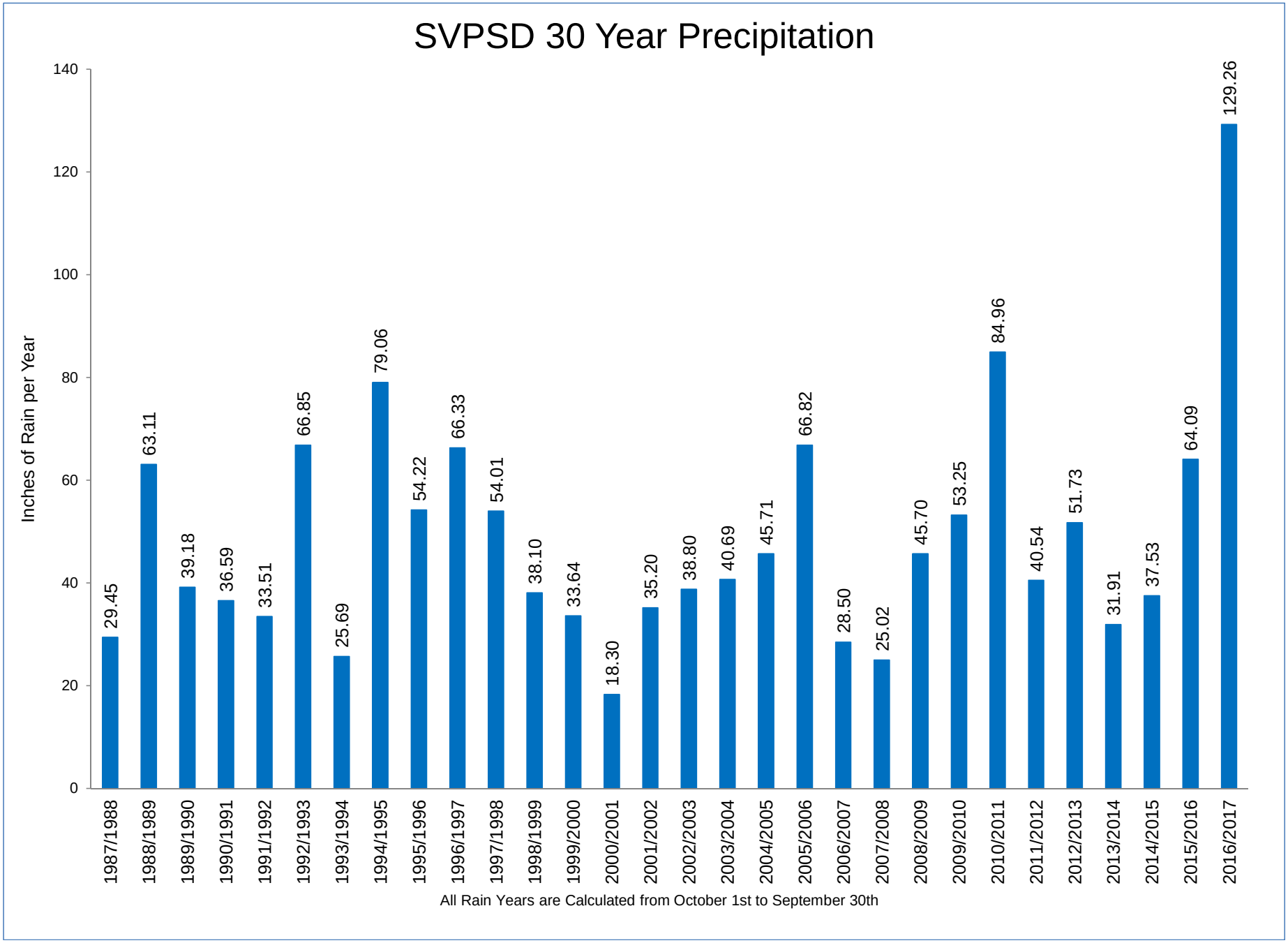
Begin Audit Period: January 4, 2017
End Audit Period: December 27, 2017

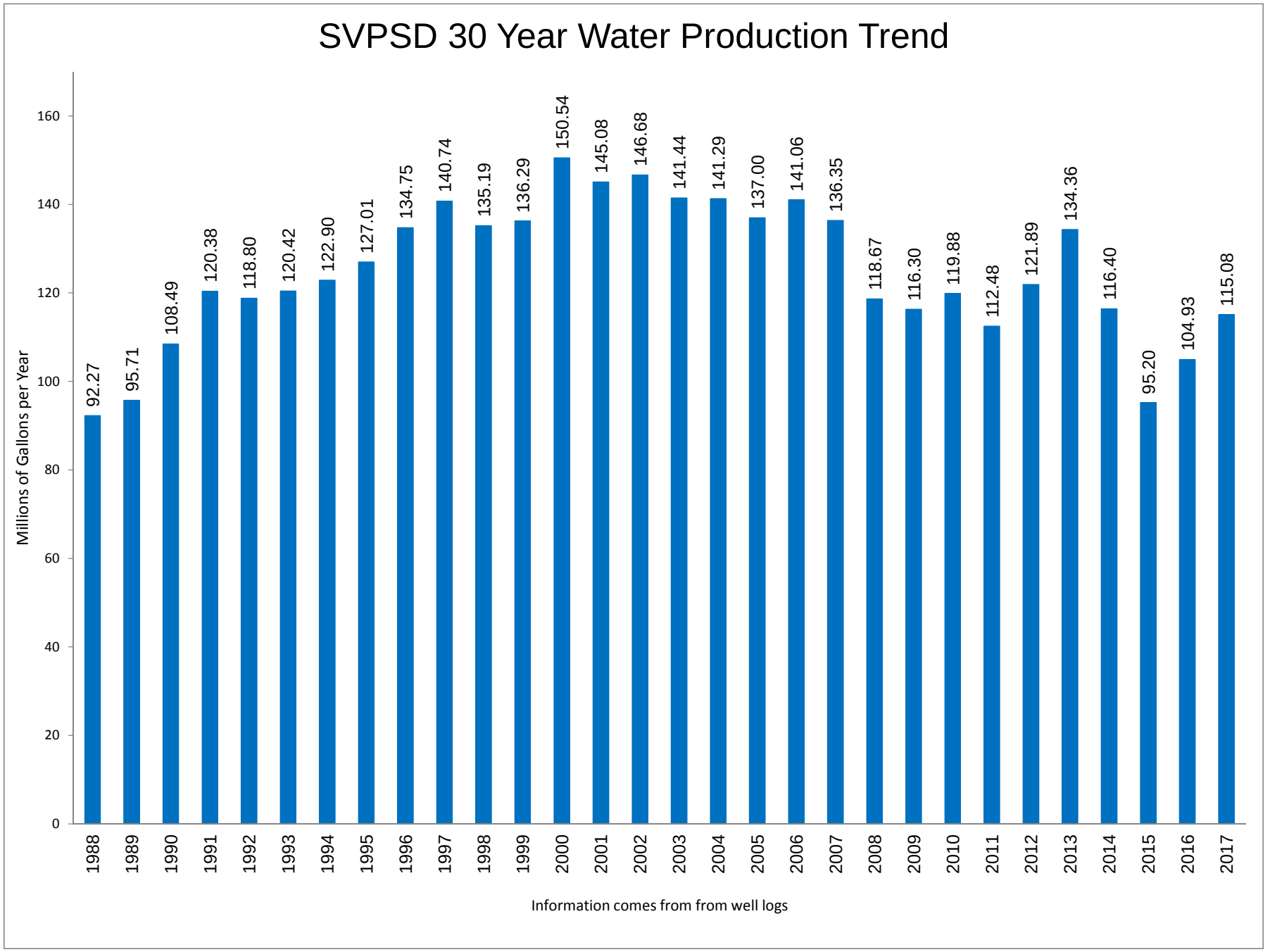
Total Metered Consumption for audit period specified (including hydrant meters):		93,192,921
Additional Consumption - Unmetered		
Fire Department Use:	143,500	
Hydrant Flushing:	1,393,000	
Blow-Off Flushing:	23,000	
Sewer Cleaning:	73,000	
Street Cleaning:		
Well Flushing:		
Tank Overflows:		
Unread Meter Estimated Reads:		
Other:		
Total Unmetered Consumption (for audit period specified):		1,632,500
Estimated Unknown Loss - Unmetered		
Known Theft:		
Known Illegal Connections:		
Total Estimated leaks that have been repaired:	1,375,000	
Total Estimated Unmetered (for audit period specified):		1,375,000
Total Production for audit period specified:		112,387,243
Total Metered/Unmetered Consumption for audit period specified:		96,200,421
Total Water Loss (Production - Consumption):		**16,186,822**
Loss Percentage:		**14.4%** ***

Comments: The production totals are different than the annual report due to a different time frame being used. The water audit uses the meter reading schedule dates.

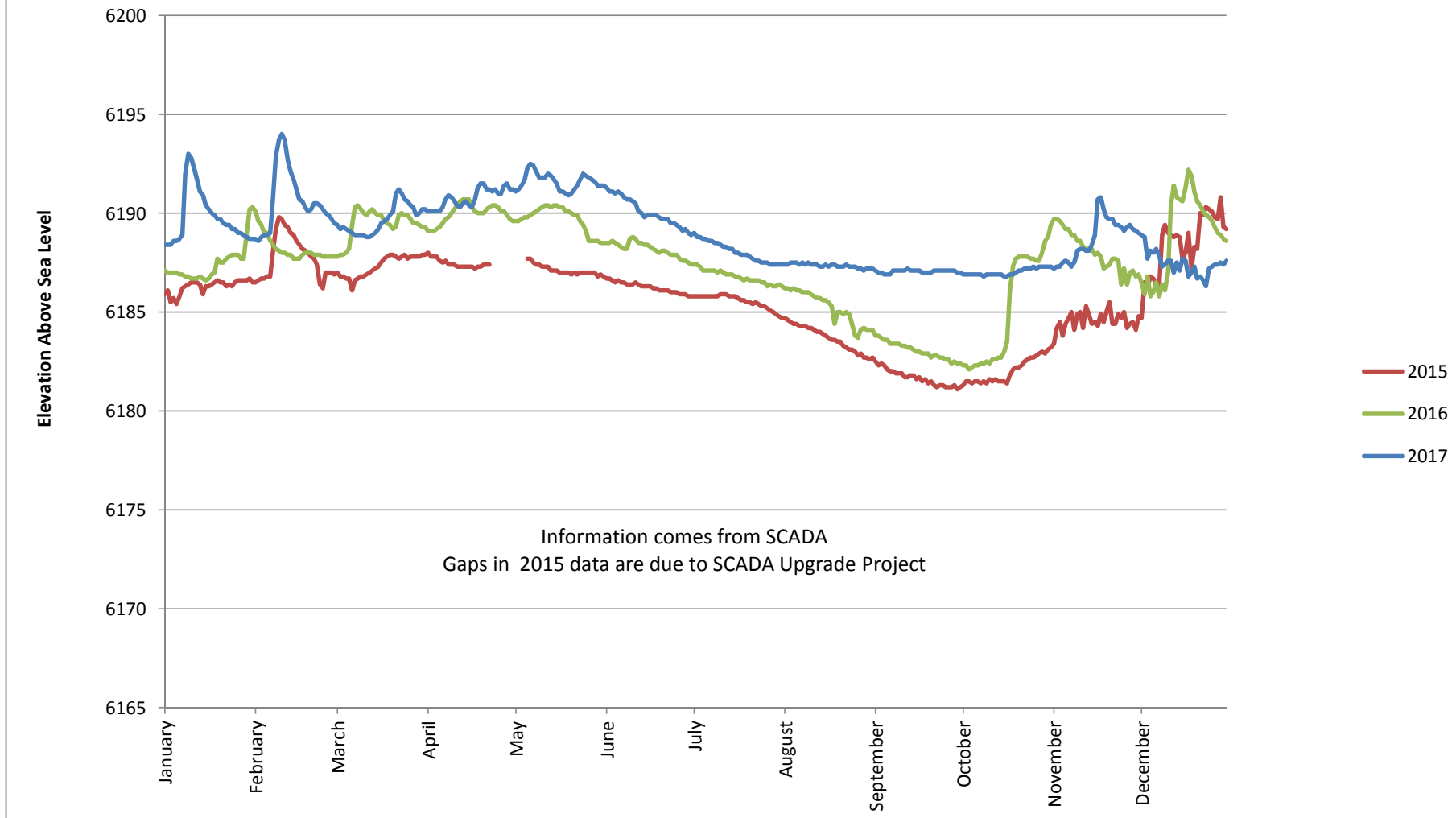
* Note - All Production & Consumption Totals In U.S. Gallons *

*** Note - Total Water Loss Percentage includes theft, Illegal Connections or Leaks that have been repaired

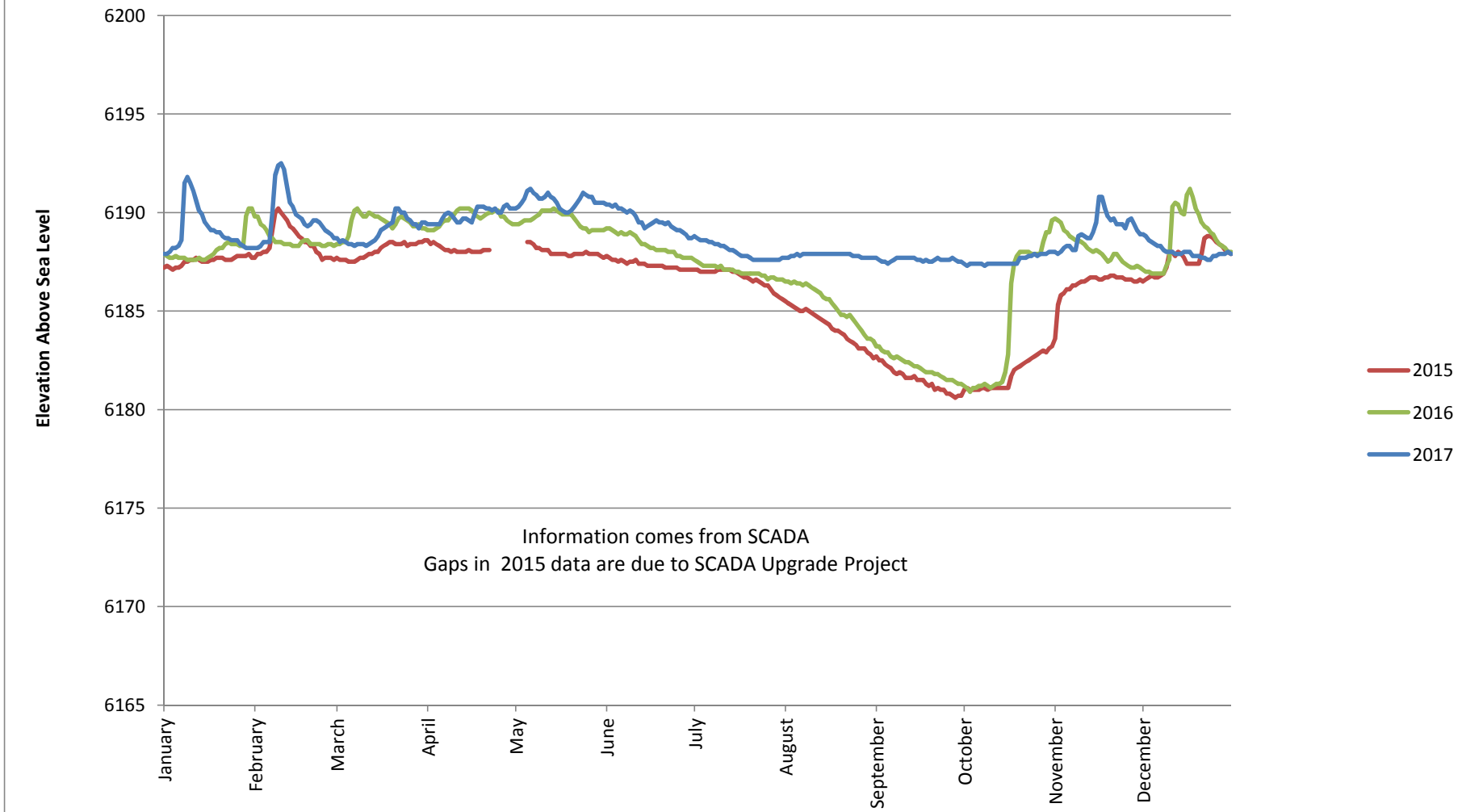

SVPSD 30 Year Precipitation
Inches of Rain per Year
0
20
40
60
80
100
120
140
29.45
63.11
39.18
36.59
33.51
66.85
25.69
79.06
54.22
66.33
54.01
38.10
33.64
18.30
35.20
38.80
40.69
45.71
66.82
28.50
25.02
45.70
53.25
84.96
40.54
51.73
31.91
37.53
64.09
129.26
1987/1988
1988/1989
1989/1990
1990/1991
1991/1992
1992/1993
1993/1994
1994/1995
1995/1996
1996/1997
1997/1998
1998/1999
1999/2000
2000/2001
2001/2002
2002/2003
2003/2004
2004/2005
2005/2006
2006/2007
2007/2008
2008/2009
2009/2010
2010/2011
2011/2012
2012/2013
2013/2014
2014/2015
2015/2016
2016/2017
All Rain Years are Calculated from October 1st to September 30th

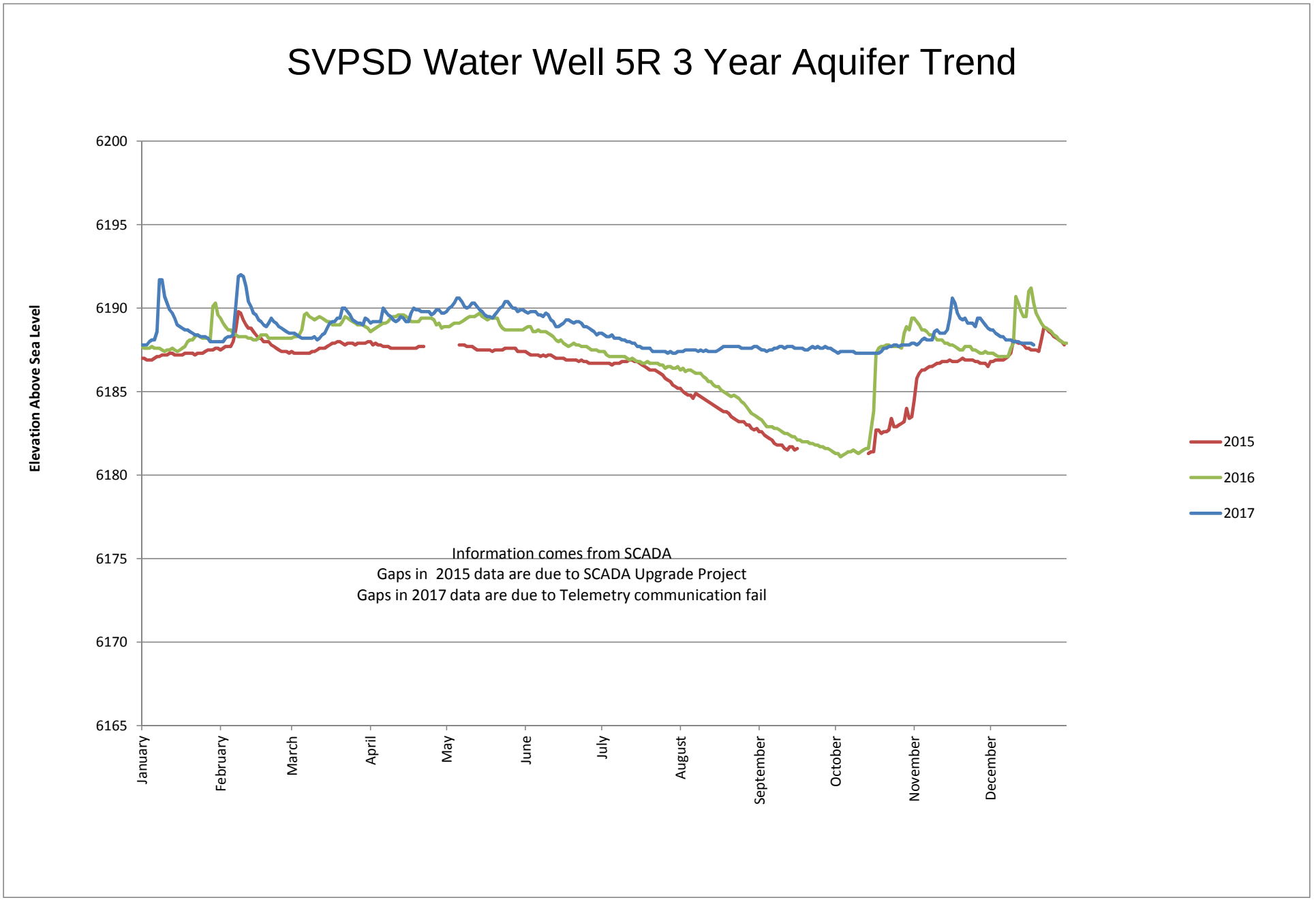

SVPSD 30 Year Water Production Trend
Millions of Gallons per Year
0
20
40
60
80
100
120
140
160
92.27
95.71
108.49
120.38
118.80
120.42
122.90
127.01
134.75
140.74
135.19
136.29
150.54
145.08
146.68
141.44
141.29
137.00
141.06
136.35
118.67
116.30
119.88
112.48
121.89
134.36
116.40
95.20
104.93
115.08
1988
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
Information comes from from well logs

SVPSD Water Well 1R 3 Year Aquifer Trend



SVPSD Water Well 2R 3 Year Aquifer Trend

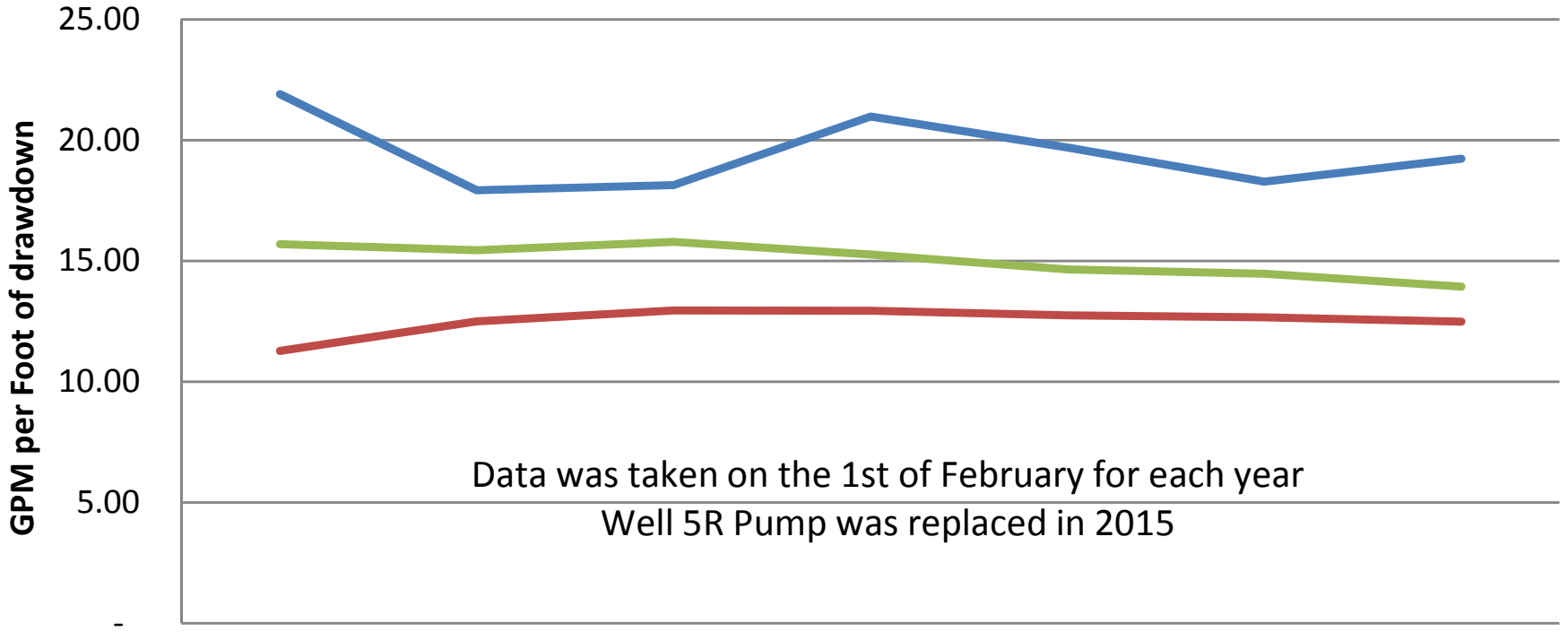



SVPSD Water Well 5R 3 Year Aquifer Trend
Elevation Above Sea Level
6200
6195
6190
6185
6180
6175
6170
6165
January
February
March
April
May
June
July
August
September
October
November
December
Information comes from SCADA
Gaps in 2015 data are due to SCADA Upgrade Project
Gaps in 2017 data are due to Telemetry communication fail
2015
2016
2017

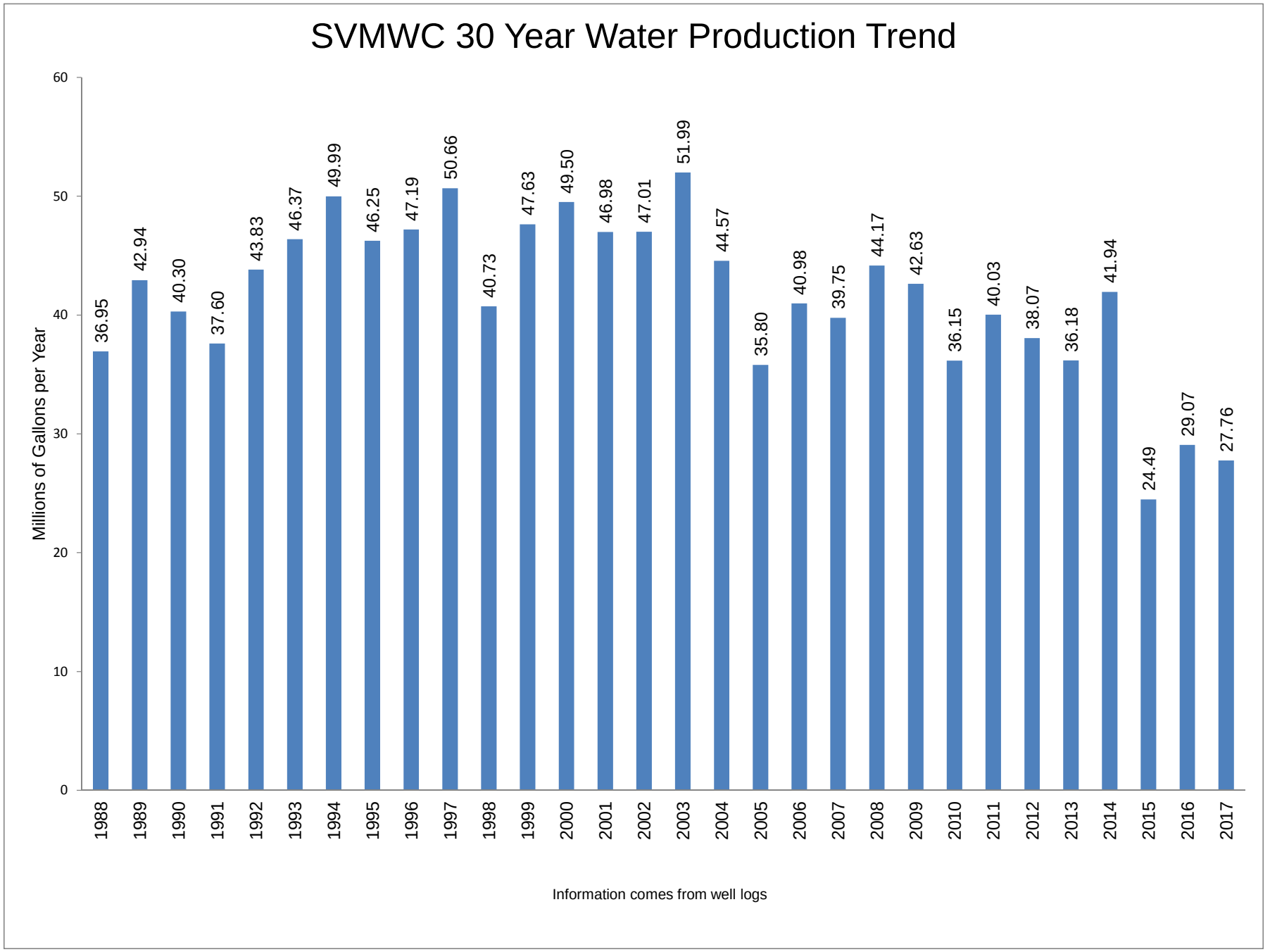
Pump Run Hours								
	Well #1R	**Well #2R**	**Well #3**	**Well #5R Motor**	**Well #5R Pump**	**East Boost**	**Zone-3 #1**	**Zone-3 #2**
Year Installed	2005	2011	2014	1999	2015	2015	1990	1990
1990							30	30
1991							98	66
1992							112	84
1993							120	99
1994							136	146
1995							223	160
1996							363	145
1997							538	338
1998							438	352
1999							612	264
2000							527	640
2001							631	573
2002							493	514
2003							509	503
2004							541	550
2005	209						486	473
2006	1,868						455	468
2007	1,796						438	467
2008	1,552						477	460
2009	1,552						533	388
2010	1,637			172			381	365
2011	1,866	687		1,983			353	344
2012	1,570	1,569		1,681			513	482
2013	1,927	1,923		1,884			417	408
2014	933	1,985	642	1,991			391	393
2015	1,375	1,399	1,358	985	150	348	312	325
2016	1,341	1,326	1,317	1286	1,286	1,347	415	409
2017	1,622	1,615	1,614	1447	1,447	1,698	317	313
Total Hours	**19,248**	**10,504**	**4,931**	**11,429**	**2,883**	**3,393**	**10,859**	**9,759**

Notes:
Annual and total hours in this spreadsheet are restarted from the time of replacement or rebuild of equipment.
Well 1R - the pump and motor was replaced in 2005 after 24,756 hours in service.
Well 2R - the pump and motor was replaced in 2011 after 42,644 hours in service.
Well 3 - the motor was replaced in 2008 after 12,116 hours in service.
Well 3 - the motor was replaced in 2014 after 5,787 hours in service.
Well 3 - the pump was replaced in 2014 after 17,903 hours in service.
Well 5R - the motor was rebuilt in 2010 after 20,246 hours in service.
Well 5R - the pump was replaced in 2015 after 28,792 hours in service.
East Booster - the pump and motor was replaced in 2015 after 18,822 hours in service.

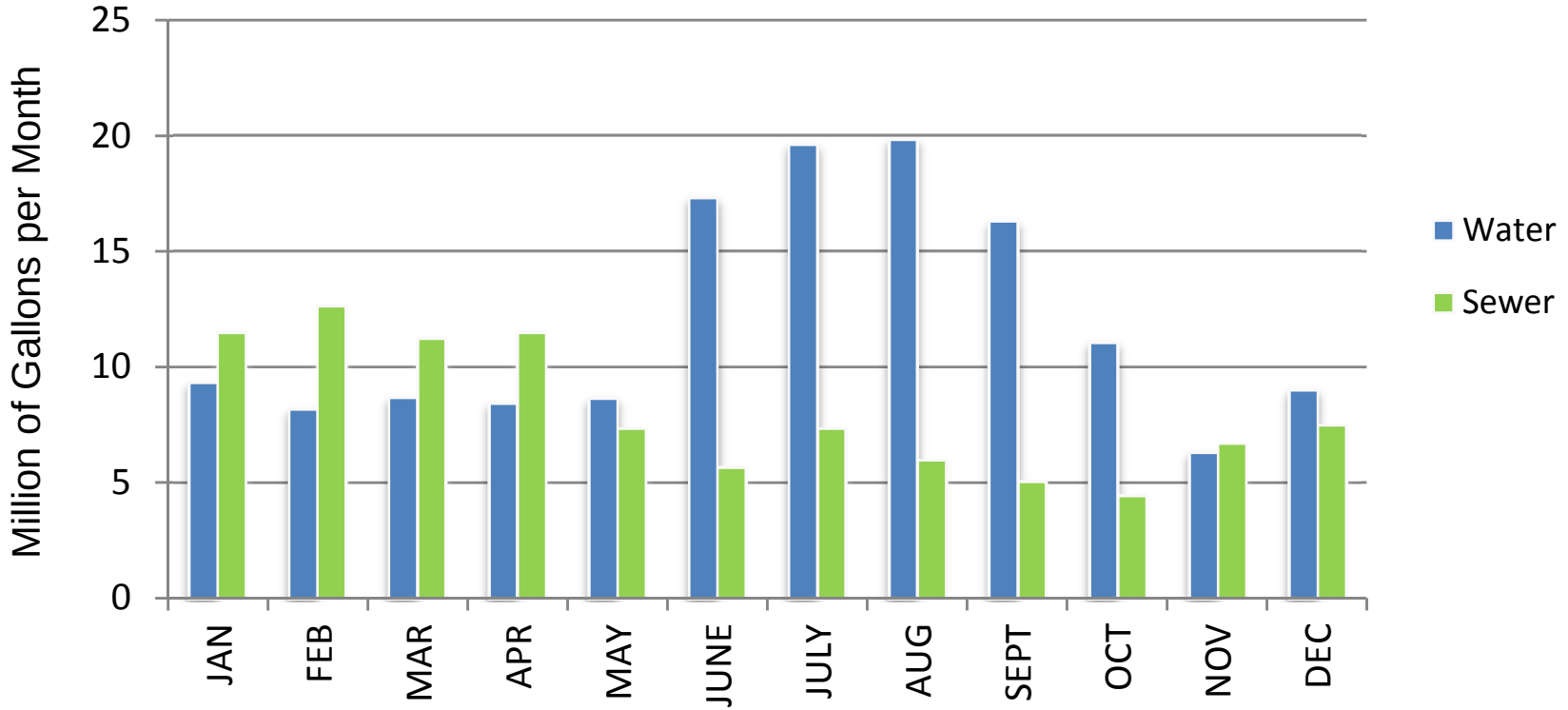
SVPSD Production Wells Specific Capacity



	2012	2013	2014	2015	2016	2017	2018
Well 1R	21.90	17.92	18.14	20.98	19.69	18.28	19.23
Well 2R	11.27	12.50	12.95	12.93	12.75	12.66	12.48
Well 5R	15.70	15.44	15.79	15.27	14.64	14.47	13.93


SVMWC 30 Year Water Production Trend
Millions of Gallons per Year
60
50
40
30
20
10
0
36.95
42.94
40.30
37.60
43.83
46.37
49.99
46.25
47.19
50.66
40.73
47.63
49.50
46.98
47.01
51.99
44.57
35.80
40.98
39.75
44.17
42.63
36.15
40.03
38.07
36.18
41.94
24.49
29.07
27.76
1988
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
Information comes from well logs

2017 Water and Sewer Comparison

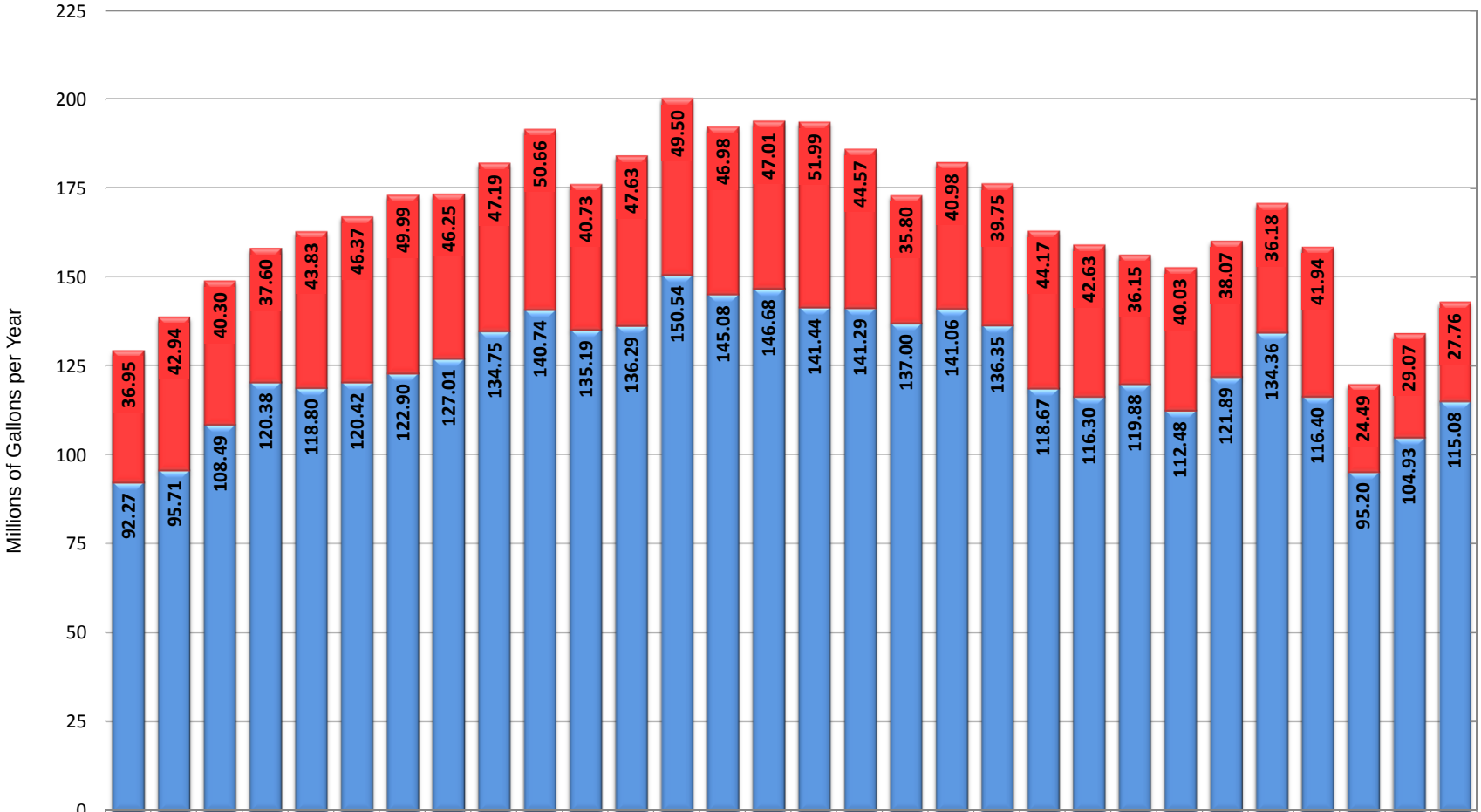


Compares Total Monthly Water Production to Total Sewer Collection
Water information comes from well logs
Water total includes SVPSD and SVMWC
Sewer information comes from SCADA

Water and Sewer Production 2017

	WATER	WATER	**WATER**	**SEWER**	
	SVPSD	SVMWC	**TOTAL**	**TOTAL**	
JAN	7.78	1.57	9.35	11.50	
FEB	6.91	1.29	8.20	12.67	
MAR	7.29	1.41	8.70	11.25	
APR	6.87	1.57	8.44	11.50	
MAY	6.98	1.69	8.67	7.36	
JUNE	13.65	3.65	17.30	5.68	
JULY	15.50	4.13	19.63	7.36	
AUG	15.87	3.97	19.84	6.00	
SEPT	12.94	3.37	16.31	5.08	
OCT	8.98	2.09	11.07	4.45	
NOV	4.98	1.33	6.31	6.72	
DEC	7.33	1.69	9.02	7.50	
	115.08	27.76	142.84	97.07	Million Gallons
Water information comes from well logs					
Sewer information comes from SCADA					

30 Year SVPSD and SVMWC Combined Water Production Trend



	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
MUTUAL	36.95	42.94	40.30	37.60	43.83	46.37	49.99	46.25	47.19	50.66	40.73	47.63	49.50	46.98	47.01	51.99	44.57	35.80	40.98	39.75	44.17	42.63	36.15	40.03	38.07	36.18	41.94	24.49	29.07	27.76
SVPSD	92.27	95.71	108.4	120.3	118.8	120.4	122.9	127.0	134.7	140.7	135.1	136.2	150.5	145.0	146.6	141.4	141.2	137.0	141.0	136.3	118.6	116.3	119.8	112.4	121.8	134.3	116.4	95.20	104.9	115.0
TOTAL	129.2	138.6	148.7	157.9	162.6	166.8	172.8	173.2	181.9	191.4	175.9	183.9	200.0	192.0	193.6	193.4	185.8	172.8	182.0	176.1	162.8	158.9	156.0	152.5	159.9	170.5	158.3	119.6	134.0	142.8

Information comes from from well logs

SEWER SYSTEM INVENTORY – 2017

1. 453 Sanitary Manholes

2. 2 Siphons (6"-10")

3. 4 Sewer Flow Meters
   - Mag Meter, Painted Rock Siphon T-45A - District owned
   - Mag Meter, Mountain Run - Ski Corp owned
   - Mag Meter, HWY 89 - T-TSA owned
   - Flume Meter, HWY 89 - T-TSA owned (Not in Service)

4. 172 Feet 16" Sewer Main

5. 11,791 Feet 15" Sewer Main

6. 2,689 Feet 12" Sewer Main

7. 9,245 Feet 10" Sewer Main

8. 18,242 Feet 8" Sewer Main

9. 54,145 Feet 6" Sewer Main

10. 6,687 Feet 4" Sewer Main

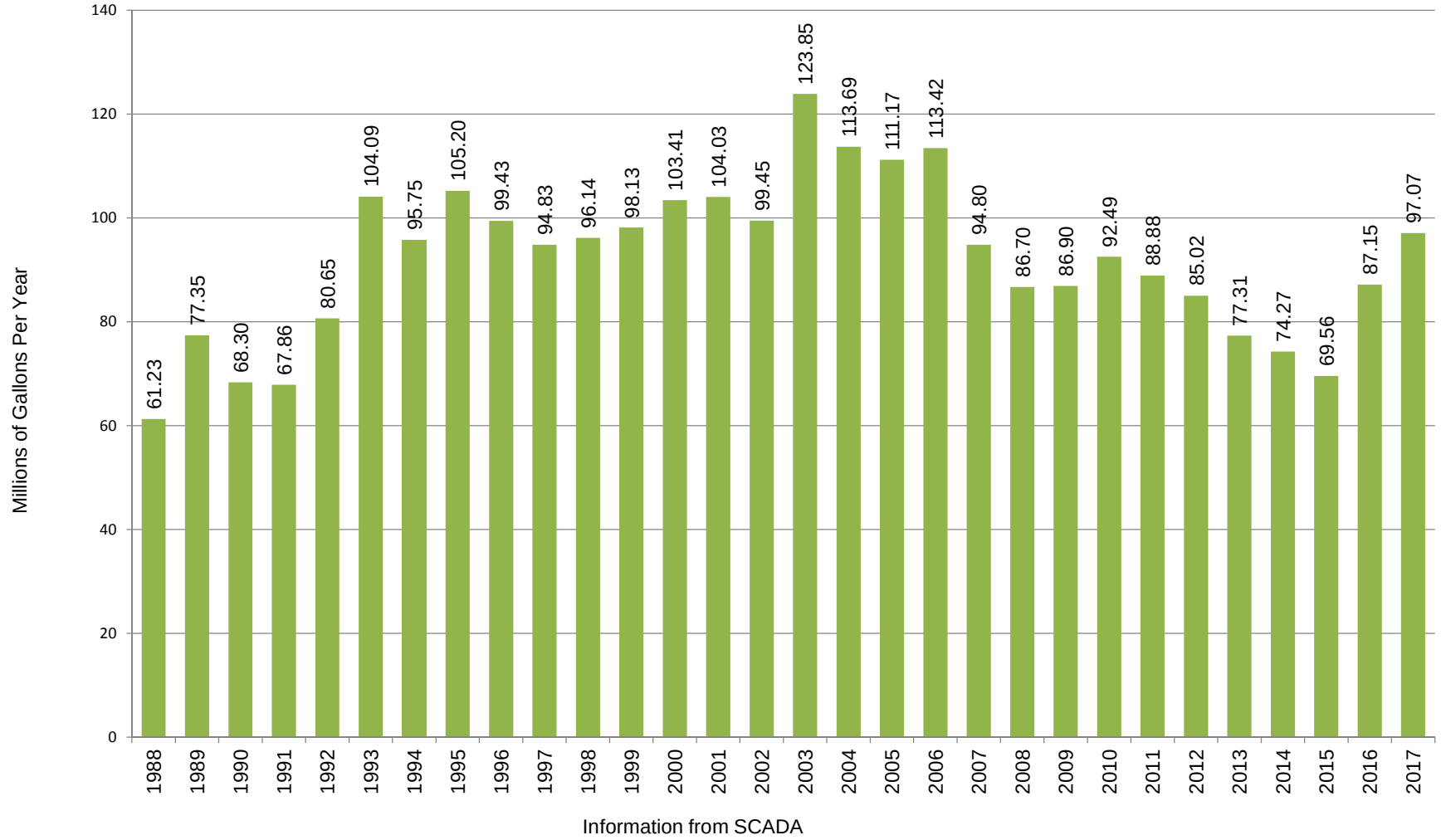
11. 45,052 Feet 4" Sewer Lateral

12. 965 Sewer Connections per Billing

13. 2 Remote Terminal Units (RTU)

Total Sewer Main = 102,971 Feet = 19.502 Miles
Total Sewer Laterals = 44,152 Feet = 8.532 Miles
Combined Totals = 147,123 Feet = 27.864 Miles

SVPSD 30 YEAR SEWER FLOW TREND



2017 Annual Report on District Fleet

It is management's goal at the Squaw Valley Public Service District to have a robust emergency ready fleet capable of supporting a high level of maintenance and repair of the water and sewer infrastructure in Squaw Valley. Annual review of the fleet is integral to supporting this goal.

The overall age of the District fleet has decreased slightly and is now 12.8 years. The attached spreadsheet summarizes District vehicle and equipment by year, model, mileage, age, replacement schedule, and remaining service life. Additionally there are maintenance and cost projections for the coming budget year.

2017/2018 maintenance costs went over the budgeted amount due to a couple of unforeseen issues. The water pump on the Vac Con needed to be rebuilt and the PI needed to have two rims replaced on it. Maintenance on all of our equipment and vehicles went very smoothly, other than those two issues.

We have a new John Deere Back Hoe now and it was put to work right away with the late winter we had. It is working well and the crew is happy with the operations of this equipment it is worlds better than the old JCB Back Hoe.

An area that we have started to improve on is our hand tools. We have had some of our tools here for twenty plus years and a lot of them are in need of replacement. Some of the tool sets are missing pieces. We have started to slowly replace these tools.

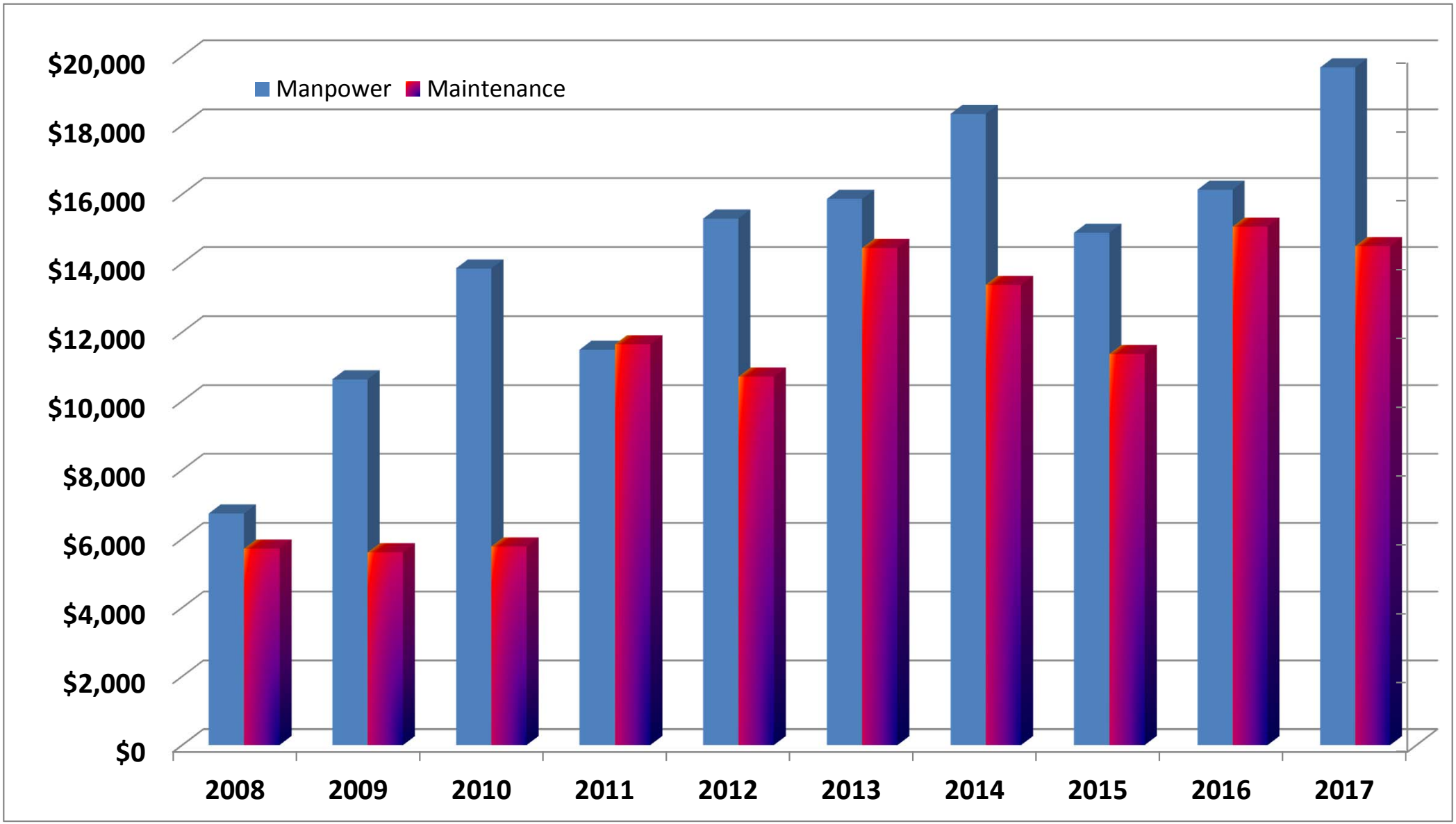
Over all our fleet is doing well. We still run into mechanical problems every now and then but with the new purchases of equipment and vehicles we are spending less time fixing them. Our man power hours have increased over the years but this is mainly due to improving our maintenance on the districts fleet. We are spending a little more time making sure that we cover all aspects of maintenance on each vehicle and equipment to provide the best service and to maintain readiness for the district.

Annual Report on District Fleet

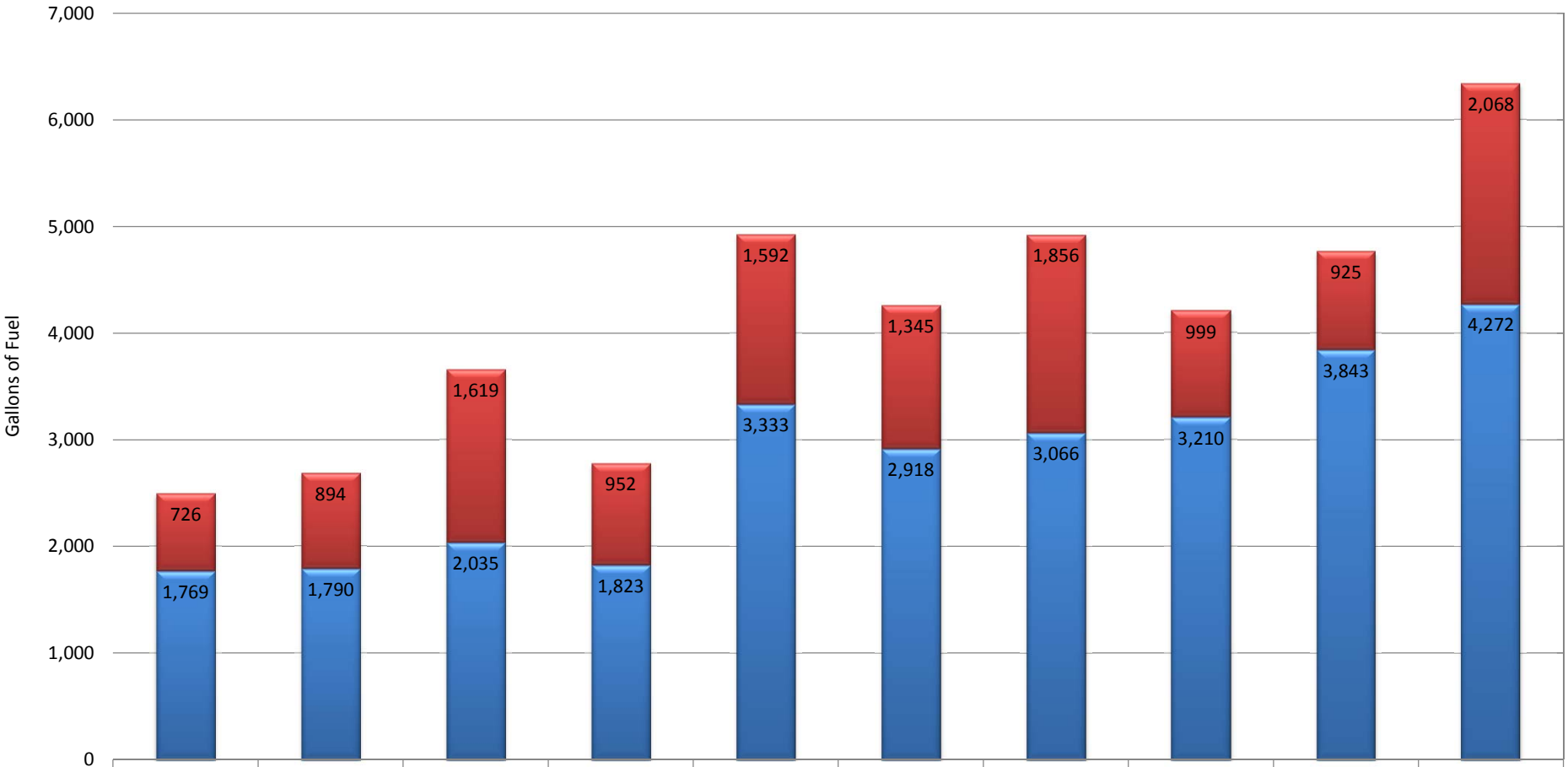
2018

Vehicle/Equipment	Mileage Hours	Age	Replacement Schedule	Service Life	Annual Use	Maintenance Performed	2017 2018	Maintenance Due	2018 2019
2008 Ford 1 Ton 4x4 Flat	35,510	10	15	5	2,354	Annual Service	$367	Annual Service	$350
1999 Ford Utility 4x4	62,387	19	15	-4	4,041	Annual Service	$367	Annual Service	$350
								Front tires	$600
2014 Dodge Ram 4x4	35,468	4	15	11	3,953	Annual Service	$367	Annual Service	$300
						Repair Fuse/Lines on Inverter	$268	New tires	$1,500
1997 Ford Explorer	124,061	21	15	-6	1,715	Annual Service	$367	Annual Service	$300
2014 F-150 4x4	67,137	4	15	11	20,305	2x Annual Service	$367	2x Annual Service	$300
2008 F-750 Dump Truck	8,457	10	30	20	649	Annual Service	$367	Annual Service	$300
1998 JD 444H Loader	3,577	20	30	10	45	Annual Service	$367	Annual Service	$350
JD Backhoe	30	0	30	30	30	Annual Service	$367	Annual Service	$300
1998 JD Air Compressor	375	20	20	0	11	Annual Service	$367	Annual Service	$300
2007 New Holland	467	11	30	19	13	Annual Service	$367	Annual Service	$300
Westa Sno Blower		11	20	9					
2009 Vac-Con Hydro-Vac	8,055	9	30	21	582	Annual Service	$367	Annual Service	$400
Power Take Off (PTO)	245	9	30	21	6	Repair Bean Pump	$6,200		
2009 Duetz Rear Engine	685	9	30	21	94	Annual Service	$367	Annual Service	$400
2016 Ford Interceptor	11,645	2	15	13	7,203	2x Annual Service	$367	2x Annual Service	$300
						Replace rims (Front)	$685	New tires	$1,500
6" Trash Pump (2000)	45	18	30	12	2	Annual Service	$367	Annual Service	$300
2010 Prowler Easement	67	8	20	12	25	Annual Service	$367	Annual Service	$300
Well House Generator (1993)	240.9	25	40	15	17	Annual Service	$367	Annual Service	$300
1810 Generator (1991)	796.6	27	40	13	16	Annual Service	$367	Annual Service	$300
305 Generator (2004)	168.9	14	40	26	18	Annual Service	$367	Annual Service	$300
Equipment/Old Vehicles							$367	Equipment	$450
Miscellaneous Shop Supplies						Rags,Cleaning supp. Ect.	$367	Rags, Cleaning Supp. Ect.	$500
Total	Fleet Ave.	12.8					**$14,493**		**$ 10,300**

Vehicle Manpower and Maintenance Costs



SVPSD Operation Department 10 Year Fuel Useage Trend



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Diesel	725.70	893.80	1,619.45	952.40	1,591.90	1,344.70	1,856.40	998.80	925.24	2,068.40
Unleaded	1,768.90	1,790.10	2,034.90	1,823.25	3,332.80	2,917.70	3,065.80	3,209.60	3,842.95	4,272.35