Exhibit F-4
32 pages

SQUAW VALLEY PUBLIC SERVICE DISTRICT

2015 WATER AND SEWER SYSTEM REPORT

Prepared April 2016
By
Brandon Burks
and
John O'Neal

Squaw Valley Public Service District Annual Report 2015
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Projects

Utilities Report

Hansen

Year End Charts and Graphs

SCADA Telemetry

Fleet

2016 Through 2021 Tentative Projects

I	Water Supply Enhancement	$1,000,000
I	Easement Abatement Project Phase II	$25,000
I	Toilet Retrofit Program (Grant)	$25,000
I	Mutual Water Company Intertie 50% Share	$125,000
I	Replace 1994 JCB Backhoe	$115,000
I	Long Range Property Master Plan	$10,000
I	SCADA Master Plan Spare Parts/ Phase III	$74,000
II	East Booster Re-design	$70,000
II	Replace 2" Steel Water Mains	$400,000
II	Replace Truckee River Siphon	$500,000
II	Televise Sewer System	$160,000
II	Replace Roof Utility Garage	$60,000
II	Replace Roof Old Admin. 1810	$40,000
II	Property Maintenance Painting/ Landscape	$55,000
III	Water Management Action Plan	$62,645
III	East Facility LEED HVAC Re-Commissioning	$40,000
III	Replace 1999 Ford F-250 Utility	$32,000
III	Install Sewer Meters	$150,000
III	I & I Study	$25,000
IV	Upgrade/ Replace Squaw Valley Interceptor	2,000,000
IV	Garbage Facility Design	$30,000

TOTAL = $4,998,645

I	Needed Now	II	Needed Soon
III	Improves Efficiency	IV	Needs Consideration

General Improvements 2015

Water System Improvements

- SCADA Master Plan Phase II $66,650
- Well #5R Pump Replacement $16,795
- Water System Inspection & Repairs $40,000

Sewer System Improvements

- Televise 25% of Sewer System $30,403

Building and Office Improvements

- Roof Repairs 1810 $2,622
- Painting and Trim Repairs 1810 $10,514
- HVAC Software Update 305 $8,274

Vehicles and Equipment

- Purchase 2016 Ford Explorer $30,000
- Field Equipment Purchases (compaction Equip.) $10,000

Grant Funded Projects

- Redundant Water Supply Preferred Alternative Study $225,000
- Bike Trail Snow Removal $103,000

Developer Funded Projects

- Water Supply Assessment SVRE
- Operations Department Spatial Needs Assessment SVRE

TOTAL = $543,258

Utilities Report 2015

I. Flow Report

A. Water Production Total = 95.20 MG
Comparison: 21.20 MG Less Than 2014

B. Sewer Collection Total = 79.70 MG
Comparison: 5.43 MG More Than 2014

C. Aquifer Level 2015 Maximum Level February 9 2015: 6190.2'
Minimum Level September 27 2015: 6180.4'

Total Change in Static Water Level 2014: 10.1'
Total Change in Static Water Level 2015: 9.8'

D. Precipitation Total 14/15 Water Year = 37.47"
52-Year average = 50.44"
14/15 Water Year % of the 52- Year average = 73.56%

E. Flow Report Conclusions: Water production decreased 18% over the previous year. Sewer collection increased 7% 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 is calculated from October 2014 through September 2015.

***** 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: 8
2. Water meters replaced or rebuilt: 7
3. Water meter upgrades: 1
4. Customer service water meters turned on or off: 16
5. Routine leak/high usage detection notification: 139
6. Customer requested leak detection services performed: 25
7. No water responses: 1
8. Fire hydrants flushed: 144
9. Blow-offs flushed: 17
10. Valves exercised: 58
11. Repair/Replace service line: 2
12. Repair leak on water main: 0
13. Backflow devices tested: 499
14. Test District backflows: 8
15. Quarterly vault inspections on Well 1R and Well 3: 8
16. Water tank inspections: 8
17. Water quality complaints serviced: 1
18. Tested commercial meters: 35
19. Replaced Air/Vac breakers: 0
20. Water samples collected:
    - Bacteriological: 30
    - Nitrate: 5
    - Lead and Copper: 10
    - Gross Alpha: 1
    - Asbestos: 2
    - Manganese: 1

B. Sewer

1. Sanitary sewer overflows: 2
2. Main line repairs: 0
3. Service line repairs: 2
4. Sewer cleanout repair: 1
5. Manhole repairs: 2
6. Manhole grouting: 0
7. Cleaning:
    - Spring and fall cleaning of high priority lines
    - Main sewer lines cleaned: 258
8. Inspections:
    - Sewer code related inspections: 9
    - Pre-remodel inspections: 14
    - Finals inspections: 4
    - USA locations: 138
    - FOG Inspections: 7

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.
2 Repaired roof of old Administration Building.
3. Painted old Administration Building.

IV. Vehicles and Equipment

A. Vehicles

1. All vehicles received an annual service, with the exception of the Ford Ranger and Ford Explorer which received biannual services.
2. Worked to transition maintenance and record keeping over to Vue Works.

B. Equipment

1. All small equipment received an annual service.
2. Worked to transition maintenance and record keeping over to Vue Works.

V. Administrative

A. Hanson data input.
B. Vue Works migration from Hanson.

VI. Operation & Maintenance Projects

A. Replaced pump and motor at East Booster Station.
B. Oversaw diver inspections of all three water tanks.
C. Leak detection on district meters and fire hydrants.
D. SCADA upgrade project phase I completed and phase II substantially completed.
E. Replaced pump and shaft on Well 5R.
F. Painted and repaired outside of Well 5R building.
G. Continued Operations and Maintenance of SV Mutual Water Company.
H. Installed manhole to complete Aspen's Sewer Main Replacement Project.
I. Cleaned sewers mains in front of the 3rd phase of the CCTV Project.
J. Tested commercial meters for accuracy.
K. Inspected infrastructure installation for Olympic Estates.
L. Oversaw Water Tanks repainting do to graffiti.

VII. Summary

The Operations Department had a challenging year in 2015. Due to injuries and illnesses, the Department had to catch up from the previous year. The District's crew was able to get to some of the projects that had been postponed due to lack of crew and time. This season the District was able to make many repairs to damaged assets. The District continued a contract to operate and maintain the Squaw Valley Mutual Water Company. With a new full time operator and a temporary operator, training efforts were focused and increased to make sure all new, returning and existing operators were trained thoroughly.

VIII. Safety Training

1/9/2015 Workplace Violence, SDRMA Safety Booklet
Josh, Brandon, Tyler, Devin, John

1/16/2015 PPE Inspect & Respect, SDRMA Safety Booklet
Jesse, Josh, Brandon, John, Jason

2/28/2015 Safe Driving Take Control, SDRMA Safety Booklet
Jason, Josh, Brandon, Jesse, John, Devin, Tyler

3/6/2015 Water Industry Hazmat Spill Prev. and Control, SDRMA Online
Brandon, Jason, Devin

3/6/2015 Fleet Program Adjusting to Changing Conditions for L.V. Operators, SDRMA Online
John

3/13/2015 Asbestos-Do Not Disturb, SDRMA Safety Booklet
Jesse, Josh, Brandon, Devin, John, Jason, Tyler

3/27/2015 Water Industry Advanced HAZWOPER Awareness, SDRMA Online
Devin

5/29/2015 Back Safety, SDRMA Safety Booklet
Jason, Josh, Brandon, Devin, John

6/12/2015 Working in Extreme Temperatures, SDRMA Online
Jason, Devin

7/24/2015 Safety Orientation, SDRMA Safety Booklet
Brandon, Jason, John, Jesse, Josh, Devin, Tyler

7/31/2015 Office Ergonomics, SDRMA Safety Booklet
Jason, Devin, Josh, Brandon, Tyler

8/14/2015 Heat Stress, SDRMA Safety Booklet
Brandon, Josh, Jason, Jesse, Devin, Tyler, John

9/18/2015 Water Industry Ladder & Scaffolding Safety, SDRMA Online
Jason, John, Devin

10/6/2015 Sexual Harassment Awareness for Supervisors, SDRMA Online
Jesse

10/23/2015 Water Industry Driving Safety, SDRMA Online
Schel

10/30/2015 Sexual Harassment Awareness for Supervisors, SDRMA Online
Jason

11/6/2015 Sexual Harassment Awareness for Supervisors, SDRMA Online
Schel

11/20/2015 Water Industry Infectious Disease Control, SDRMA Online
Schel, Devin

11/6/2015 Workplace Violence, SDRMA Safety Booklet
Brandon, Josh, Jason, Devin, Tyler, John, Schel

IX. Occupational Training

1/16/2015 Temporary Traffic Control & Flagging, Safety Center
Tyler, Devin

1/23/2015 Water System Security, Crew Room 305
Brandon, Tyler, Jason, Devin, Josh, Jesse, John

2/18/2015	Personal Protective Equipment, Crew Room 305 Brandon, Josh, Devin, Tyler, Jason, John
2/20/2015	Highway Work Zone Safety, Crew Room 305 Josh, Tyler, John, Jason, Devin
4/7/2015	6" Trash Pump Training, 1810 Jason, Tyler, Devin
4/7/2015	JCB Training, 1810 Devin, Jason
4/8/2015	Trackless Snow Blower Training, 1810 Jason, Tyler, Devin
4/22/2015	Certified Utility Locator, UTA John, Brandon, Josh
4/24/2015	Hazard Communication/Standard Safety Data Sheets/Labels, Crew Room 305 Brandon, Josh, Jason, John, Devin, Tyler
4/28/2015	CRWA Expo, South Lake Tahoe Josh, Brandon, Devin
5/6/2015	Learn or Burn, Tahoe City Safety Day Tyler, Jason
5/6/2015	Gas Detection Fundamentals, Tahoe City Safety Day Tyler, Jason
5/6/2015	Field Ergonomics, Tahoe City Safety Day Tyler, Jason
7/17/2015	SSMP/SSO Emergency Response Plan, Crew Room 305 Brandon, Josh, Tyler, Devin, John, Jason, Jesse
8/4/2015	Diagnosing and Solving Well Problems, Sacramento CRWA Brandon
8/5/2015	Steel Water Storage Tanks, Sacramento CRWA Brandon
8/6/2015	Quad Knopf: In's and Out's of Well Design, Sacramento CRWA Brandon
8/19/2015	VacCon Training, Cabin Creek Rd. Josh, Tyler, Devin
8/19/2015	Work Zone Safety/Trenches/Shoring, Cabin Creek Rd. Josh, Devin, Tyler
8/19/2015	TV Lines/Locating, Cabin Creek Rd. TTSA Manhole Josh, Devin, Tyler
8/19/2015	Safety Gear Road Work/Chemical/Sewer Cleaning, Crew Room 305 Josh, Devin, Tyler
8/19/2015	Dump Truck Training, 1810 Josh, Devin, Tyler
9/15/2015	Wacker Training, Squaw Creek Rd. Jason, Devin, Tyler

9/15/2015	Safety and Proper Use of Propane Torch, Main Well Jason, Tyler, Devin
9/15/2015	Portable Compressor Training, Squaw Creek Rd. Jason, Devin
9/15/2015	Ingersoll Ran Jack Hammer Training, Squaw Creek Rd. Jason, Devin, Tyler
9/25/2015	Door Hangers How to Fill Out & Present to Customers, Crew Room 305 Jason, Devin, Tyler
10/13/2015	Confined Space Training, United Rentals Jason, Devin
10/14/2015	Confined Space Entry Permits Training, HWY 89 Manhole T43 Jason, Devin, Tyler
10/14/2015	Confined Space Entry Gear & Equipment Training, HWY 89 Manhole T43 Jason, Devin, Tyler
10/21/2015	CWEA Northern Safety Day, Woodland Jason, Tyler, Jesse, Devin
11/3/2015	Trackless Snow Blower Training, 1810 Josh, Schel
11/30/2015	Flushing Training, Squaw Peak Rd. Jason, Schel, Tyler

Water System Inventory – 2015

Part I

1. Water Well #1R – 400 GPM
2. Water Well #2R – 350 GPM Max (230 GPM Summer)
3. Water Well #3 – 130 GPM
4. Water Well #4 – (Not in Service)
5. Water Well #5R – 405 GPM
6. Horizontal Well – 10 GPM — Current Total Capacity – 1,295 GPM
7. (1) 1,150,000 Gallon Water Tank
8. (1) 500,000 Gallon Water Tank
9. (1) 135,000 Gallon Water Tank — Total Storage – 1,780,000 Gallons
10. 2 Booster Pumping Stations
11. 799 Water Meters connected per Billing
12. 133 Fire Hydrants
13. 28 Air Release Valves
14. 499 Backflow Prevention Devices
15. 404 Gate Valves
16. 17 Butterfly Valves
17. 26 Blow Off Assemblies
18. 7 Altitude Valves
19. 3 Transducer Stations (West Tank, East Tank, and Zone Three Tank)
20. 9 Remote Terminal Units (RTU), SCADA Telemetry System

Due to the Olympic Estates Project the inventory counts have increased from 2014

Water System Inventory – 2015

Part II

21. 12,761 Feet 12" Water Distribution Main

22. 10,752 Feet 10" Water Distribution Main

23. 28,941 Feet 8" Water Distribution Main

24. 21,618 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. 2,559 Feet 2" Water Service Line

30. 254 Feet 1.25" Water Service Line

31. 39 Feet 1.5" Water Service Line

32. 2,987 Feet 1" Water Service Line

33. 128 Feet ¾" Water Service Line

Total Water Main = 75,758 Feet = 14.348 Miles
Total Water Services = 6,646 Feet = 1.258 Miles
Combined Total = 82,404 Feet = 15.606 Miles

Due to the Olympic Estates Project the inventory counts have increased from 2014

Squaw Valley Public Service District - Year End Water Audit Report

Report Date: April 10, 2016 Performed By: Brandon Burks

Year: 2015

Begin Audit Period: 12/31/14 12:00 AM
End Audit Period: 12/31/15 12:00 AM

Total Metered Consumption for audit period specified (including hydrant meters):	78,244,974

Additional Consumption - Unmetered

Fire Department Use:	45,500	
Hydrant Flushing:	982,632	
Blow-Off Flushing:	6,000	
Sewer Cleaning:	77,475	
Street Cleaning:		
Well Flushing:	75,000	
Tank Overflows:		
Unread Meter Estimated Reads:		
Other:		
Total Unmetered Consumption (for audit period specified):		1,186,607

Estimated Unknown Loss - Unmetered

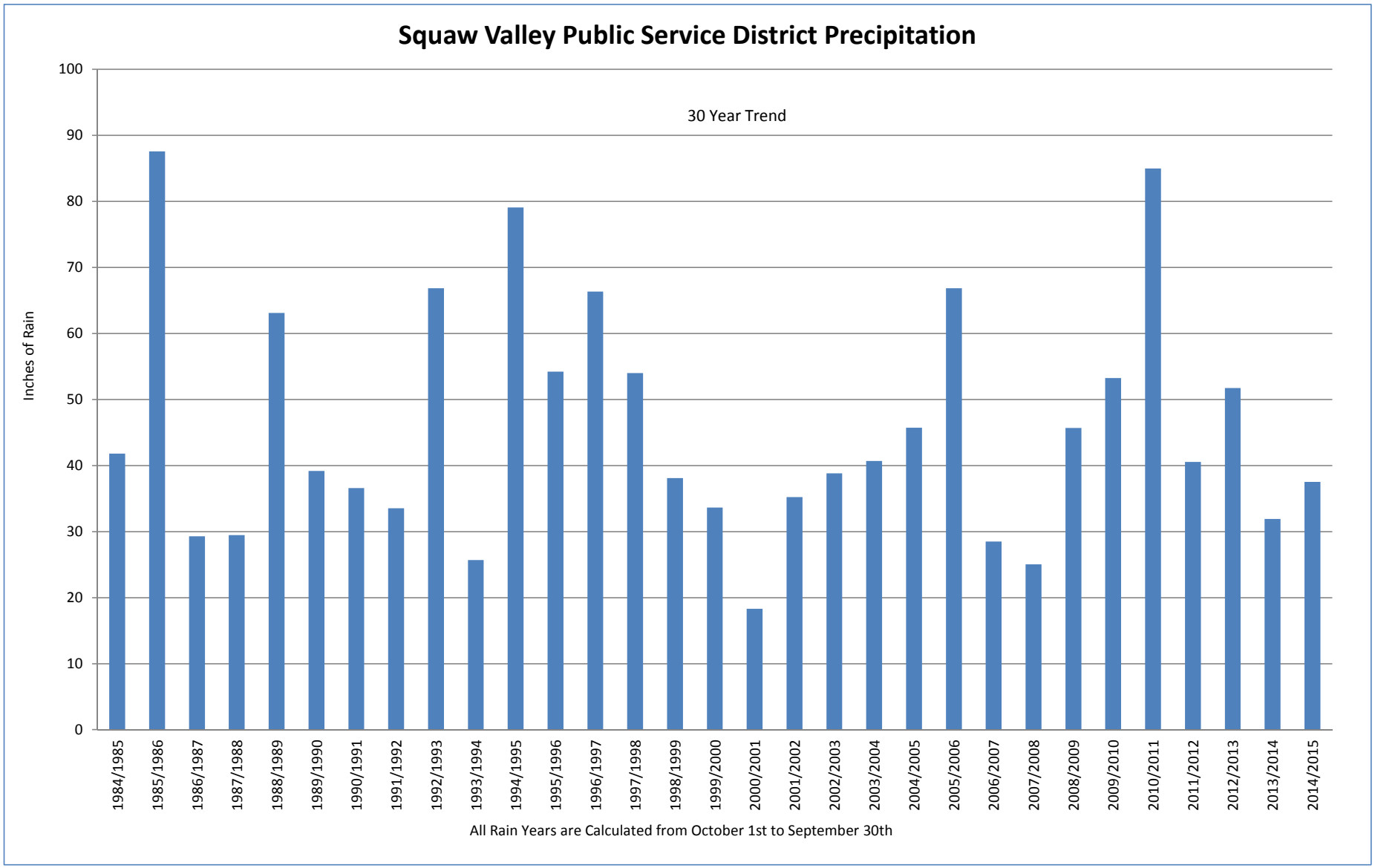
Known Theft:		
Known Illegal Connections:		
Total Estimated leaks that have been repaired:	160,200	
Total Estimated Unmetered (for audit period specified):		160,200

Total Production for audit period specified:	95,104,854	
Total Metered/Unmetered Consumption for audit period specified:	79,591,781	
Total Water Loss (Production - Consumption):	**15,513,073**	
Loss Percentage:	**16.3%**	***

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. The water loss amount was brought down 5.77 million gallons of water from 2014. The loss percentage was brought down 2.1% from 2014.

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

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


Squaw Valley Public Service District Precipitation
30 Year Trend
Inches of Rain
100
90
80
70
60
50
40
30
20
10
0
1984/1985
1985/1986
1986/1987
1987/1988
1988/1989
1989/1990
1990/1991
1991/1992
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1993/1994
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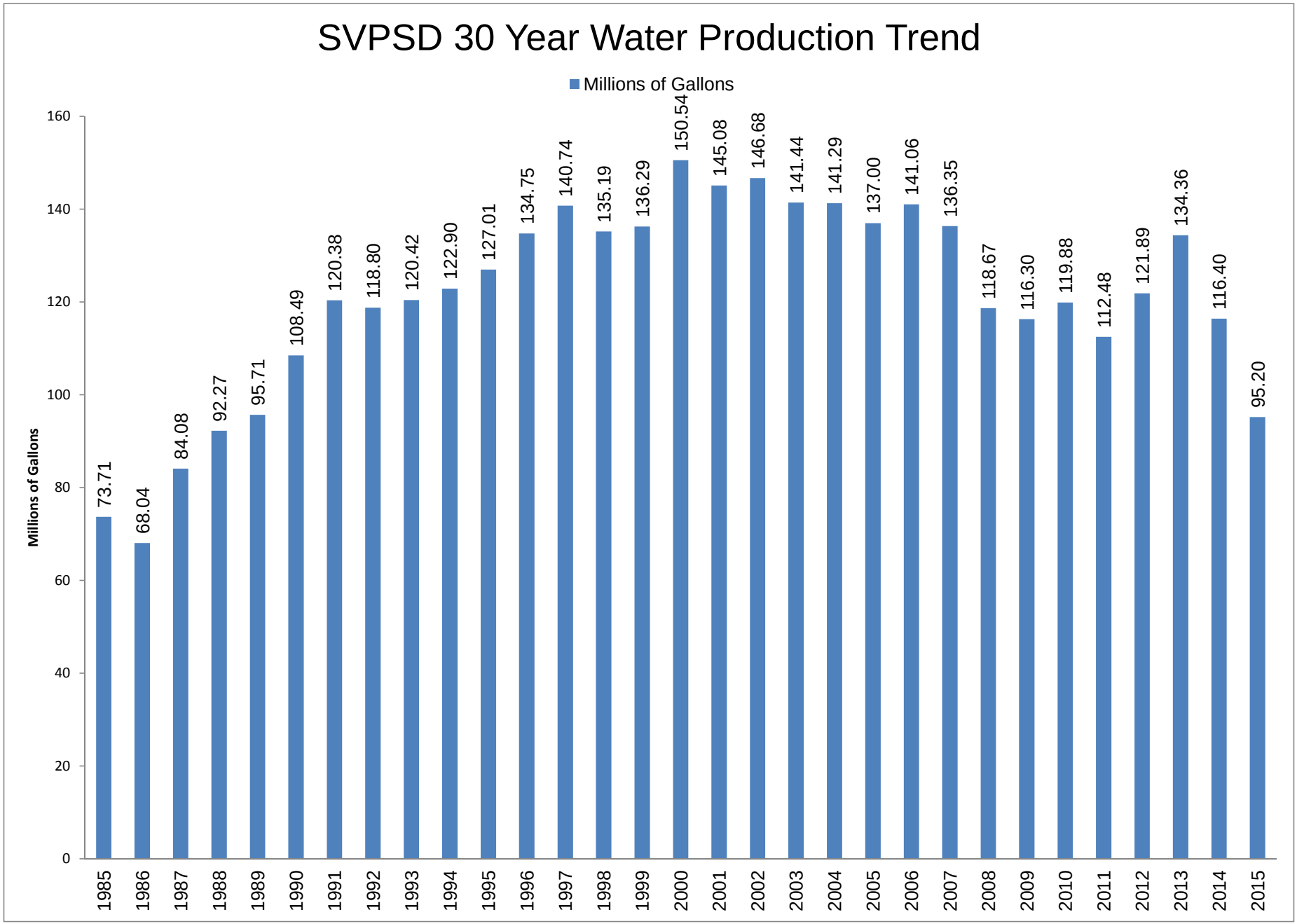
2009/2010
2010/2011
2011/2012
2012/2013
2013/2014
2014/2015
All Rain Years are Calculated from October 1st to September 30th


SVPSD 30 Year Water Production Trend
Millions of Gallons
Millions of Gallons
0
20
40
60
80
100
120
140
160
73.71
68.04
84.08
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
1985
1986
1987
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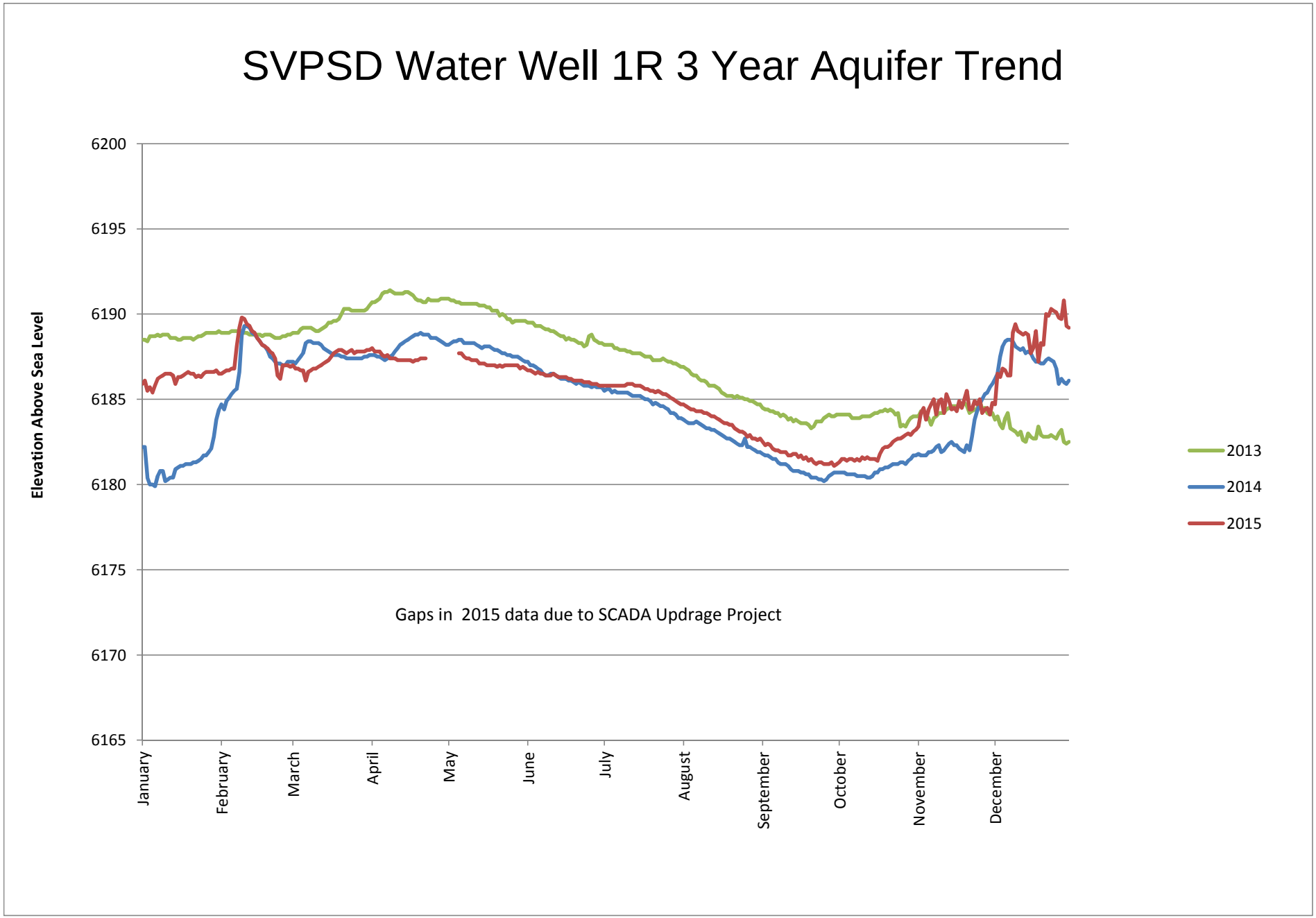
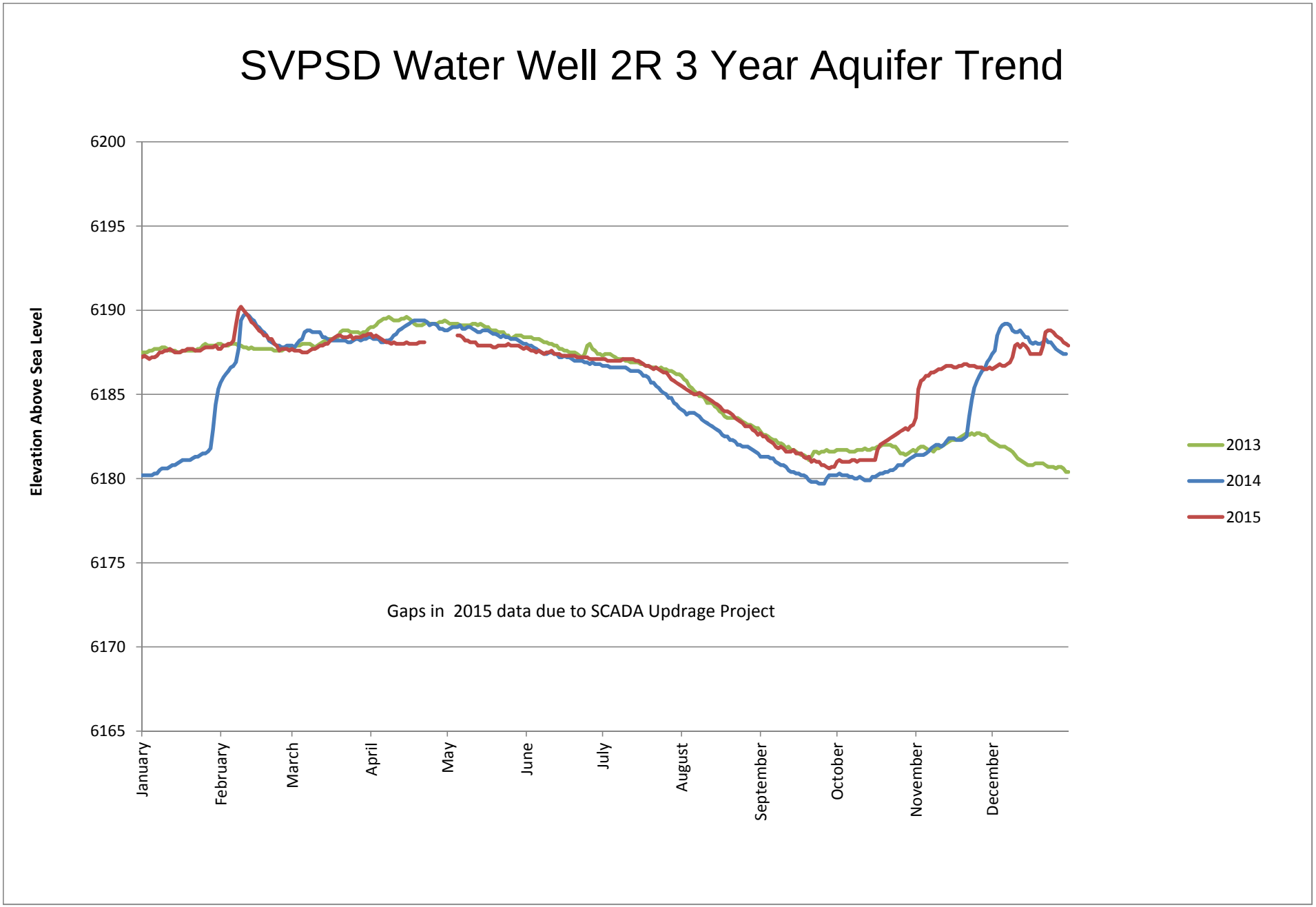
2013
2014
2015


SVPSD Water Well 1R 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
Gaps in 2015 data due to SCADA Updrage Project
2013
2014
2015


SVPSD Water Well 2R 3 Year Aquifer Trend
Elevation Above Sea Level
6200
6195
6190
6185
6180
6175
6170
6165
January
February
March
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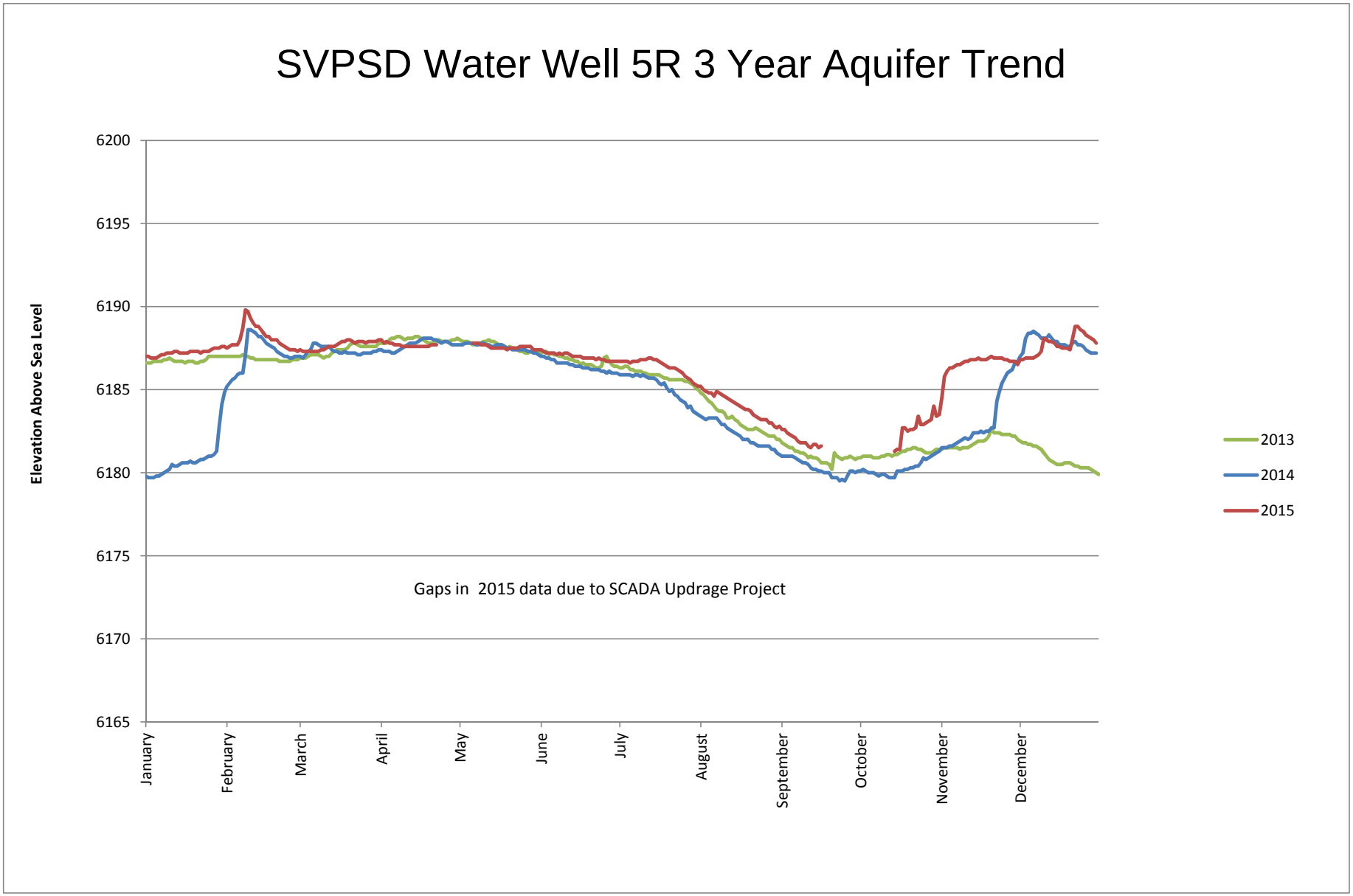
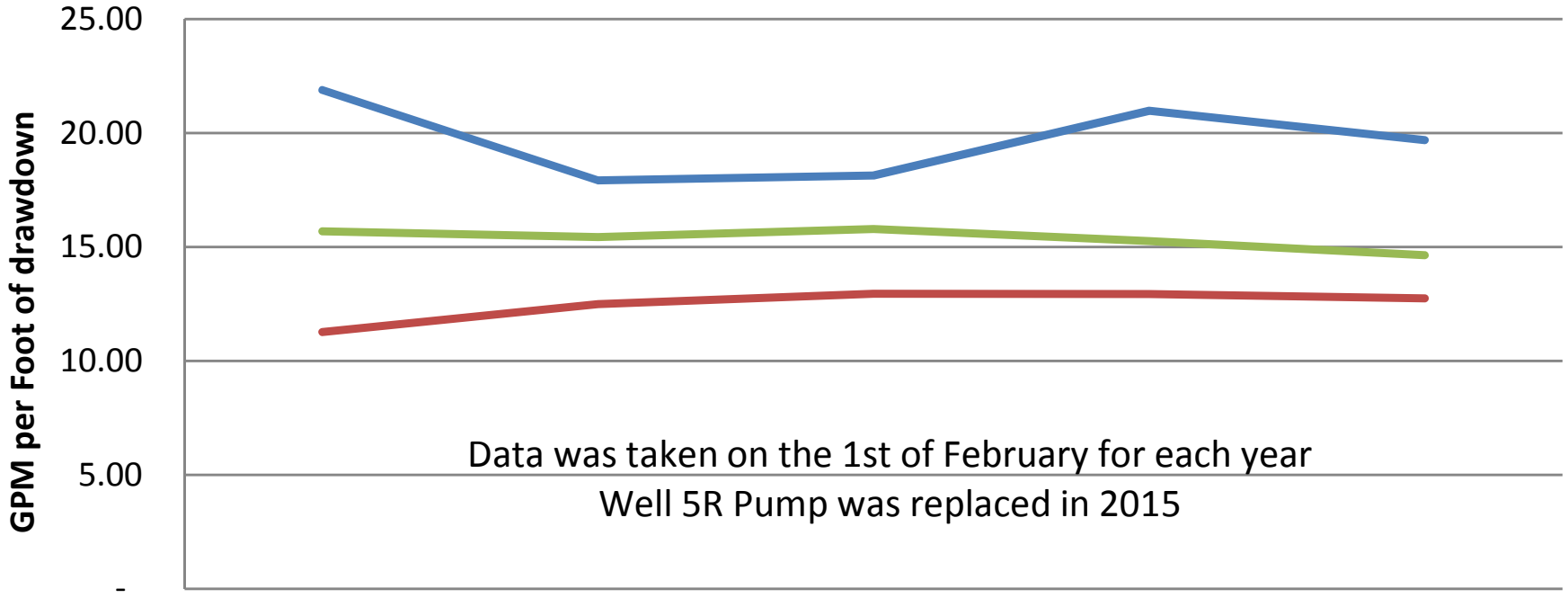
December
Gaps in 2015 data due to SCADA Updrage Project
2013
2014
2015


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
Gaps in 2015 data due to SCADA Updrage Project
2013
2014
2015

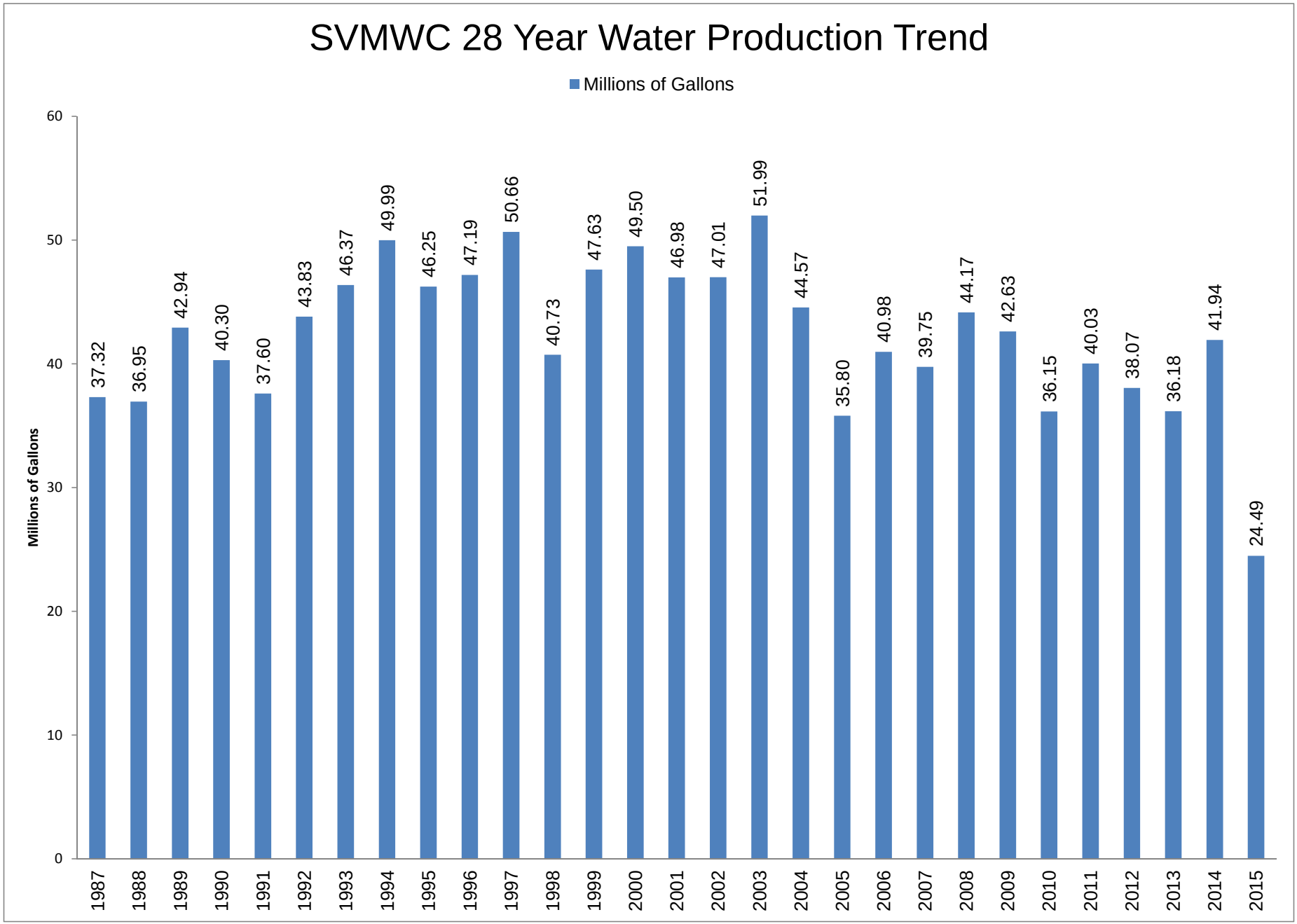
Pump Run Hours								
	Well #1R	**Well #2R**	**Well #3**	**Well #5R Motor**	**Well #5R Pump**	**E Boost**	**Zone-3 #1**	**Zone-3 #2**
Year Installed	2005	2011	2014	1999	2015	2015	1990	1990
1990							30	30
1991							98	66
1992							112	84
1993							120	99
1994							136	146
1995							223	160
1996							363	145
1997							538	338
1998							438	352
1999				106			612	264
2000				2,097			527	640
2001				2,019			631	573
2002				2,198			493	514
2003				2,007			509	503
2004				1,866			541	550
2005	209			2,174			486	473
2006	1,868			1,681			455	468
2007	1,796			1,696			438	467
2008	1,552			1,574			477	460
2009	1,552			1,568			533	388
2010	1,637			1,432			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
Total Hours	**16,285**	**7,563**	**2,000**	**28,942**	**150**	**348**	**10,127**	**9,037**

Notes:
Well 1R - pump and motor was replaced in 2005.
Well 2R - pump and motor was replaced in 2011.
Well 3 - pump and motor was replaced in 2014.
Well 5R - motor was rebuilt in 2010 and the pump was replaced in 2015.
East Booster - pump and moter was replaced in 2015.

SVPSD Production Wells Specific Capacity



	2012	2013	2014	2015	2016
Well 1R	21.90	17.92	18.14	20.98	19.69
Well 2R	11.27	12.50	12.95	12.93	12.75
Well 5R	15.70	15.44	15.79	15.27	14.64


SVMWC 28 Year Water Production Trend
Millions of Gallons
Millions of Gallons
60
50
40
30
20
10
0
37.32
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
1987
1988
1989
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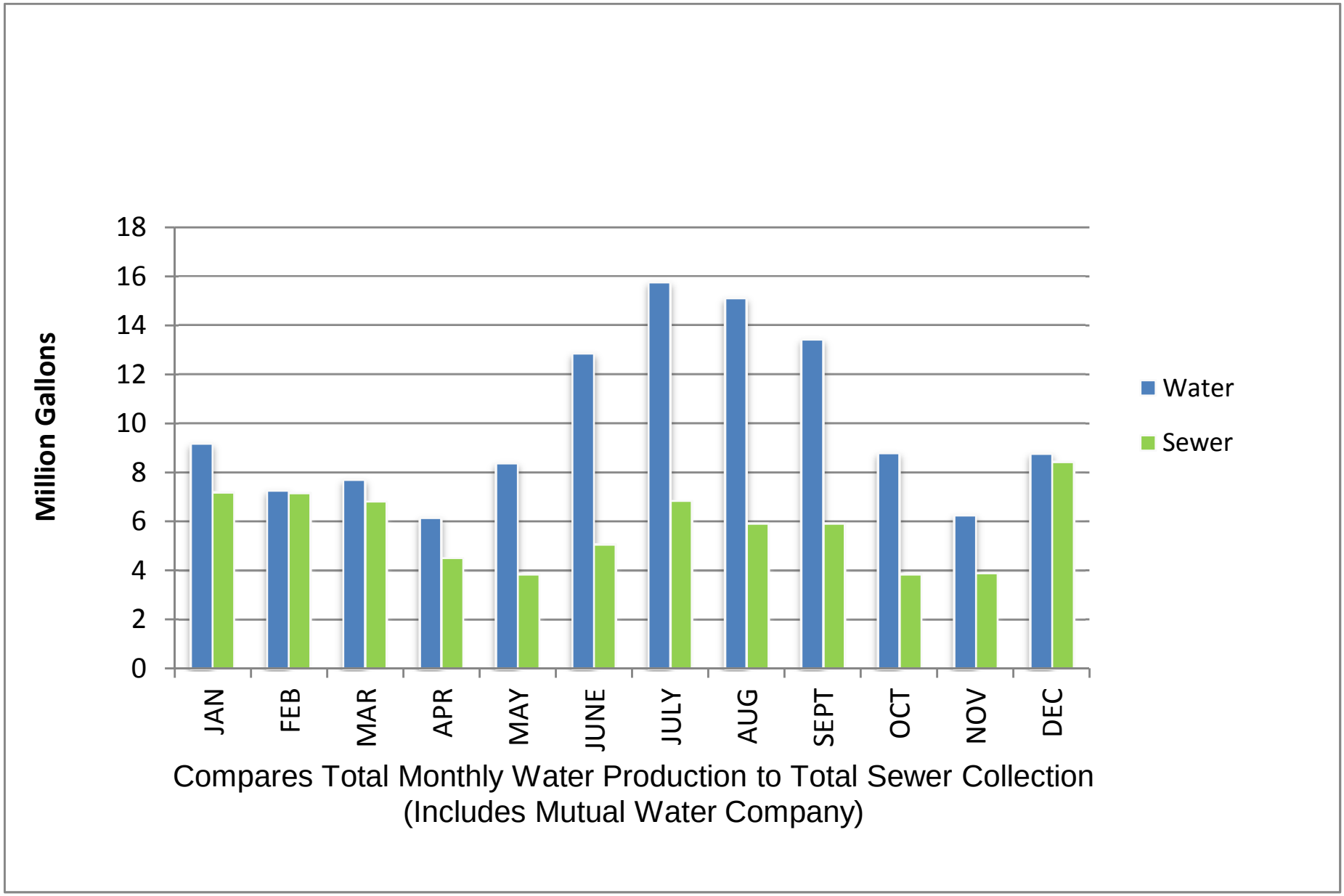
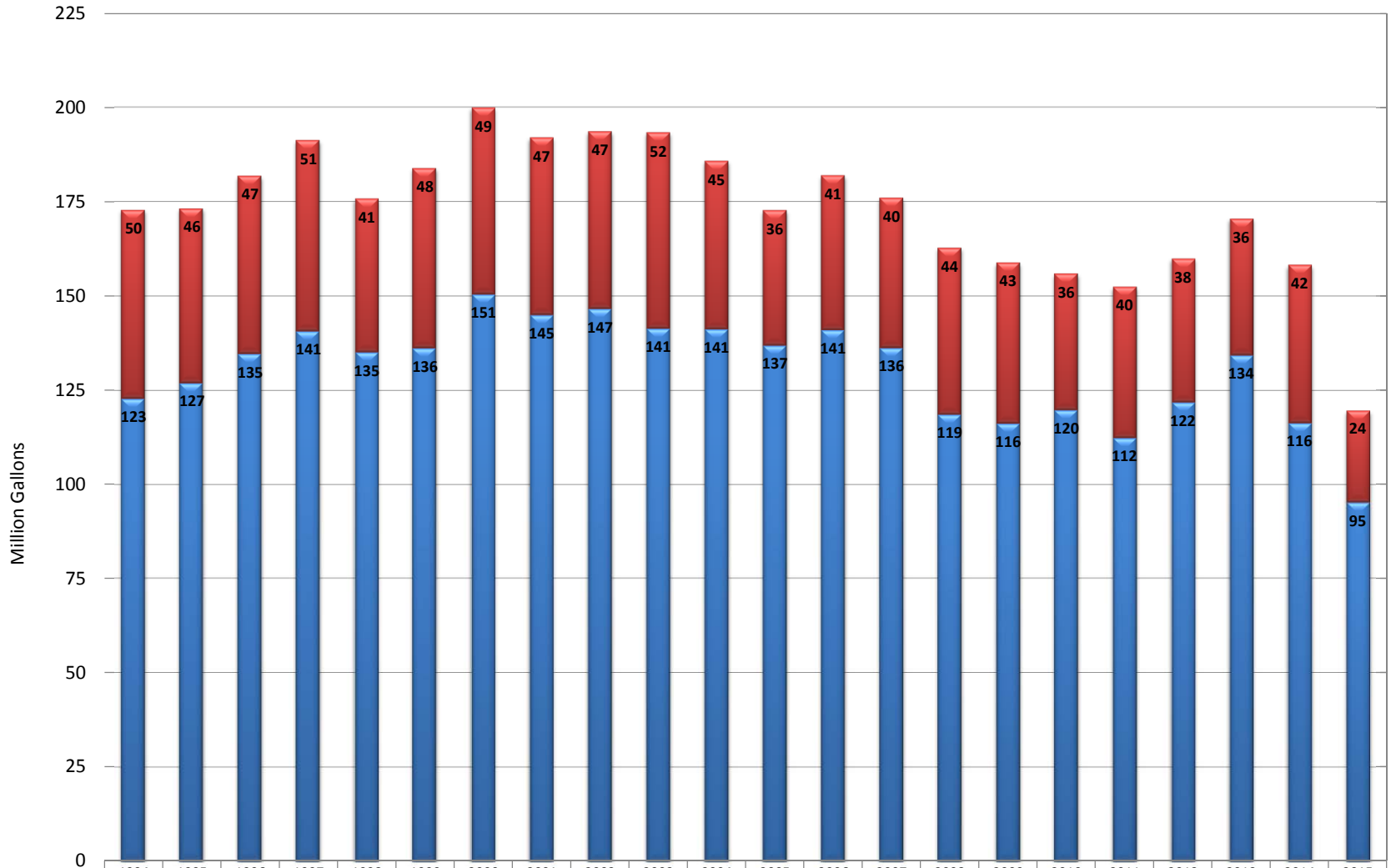
2014
2015

2015 Water Sewer Comparison



Water and Sewer Production 2015					
	WATER	WATER	**WATER**	**SEWER**	
	SVPSD	MUTUAL	**TOTAL**	**TOTAL**	
JAN	7.49	1.69	9.18	7.19	
FEB	6.15	1.11	7.26	7.18	
MAR	6.35	1.36	7.71	6.82	
APR	5.04	1.12	6.16	4.52	
MAY	6.49	1.89	8.38	3.87	
JUNE	10.04	2.82	12.86	5.08	
JULY	12.60	3.15	15.75	6.85	
AUG	11.71	3.41	15.12	5.93	
SEPT	10.29	3.14	13.43	5.93	
OCT	6.70	2.09	8.79	3.86	
NOV	4.88	1.39	6.27	3.89	
DEC	7.46	1.32	8.78	8.44	
	95.20	24.49	119.69	69.56	Million Gallons

20 Year Combined Water Production Trend



	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
MUTUAL	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
SVPSD	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
TOTAL	172.89	173.26	181.94	191.40	175.92	183.92	200.04	192.06	193.69	193.43	185.86	172.80	182.04	176.10	162.84	158.93	156.03	152.51	159.96	170.54	158.34	119.69

SEWER SYSTEM INVENTORY – 2015

1. 433 Sanitary Manhole Per VUEWorks

2. 2 Siphons (6"-10")

3. 5 Sewer Flow Meter
    - 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)
    - Flume Meter, Victor - District 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. 17,957 Feet 8" Sewer Main

9. 51,985 Feet 6" Sewer Main

10. 6,687 Feet 4" Sewer Main

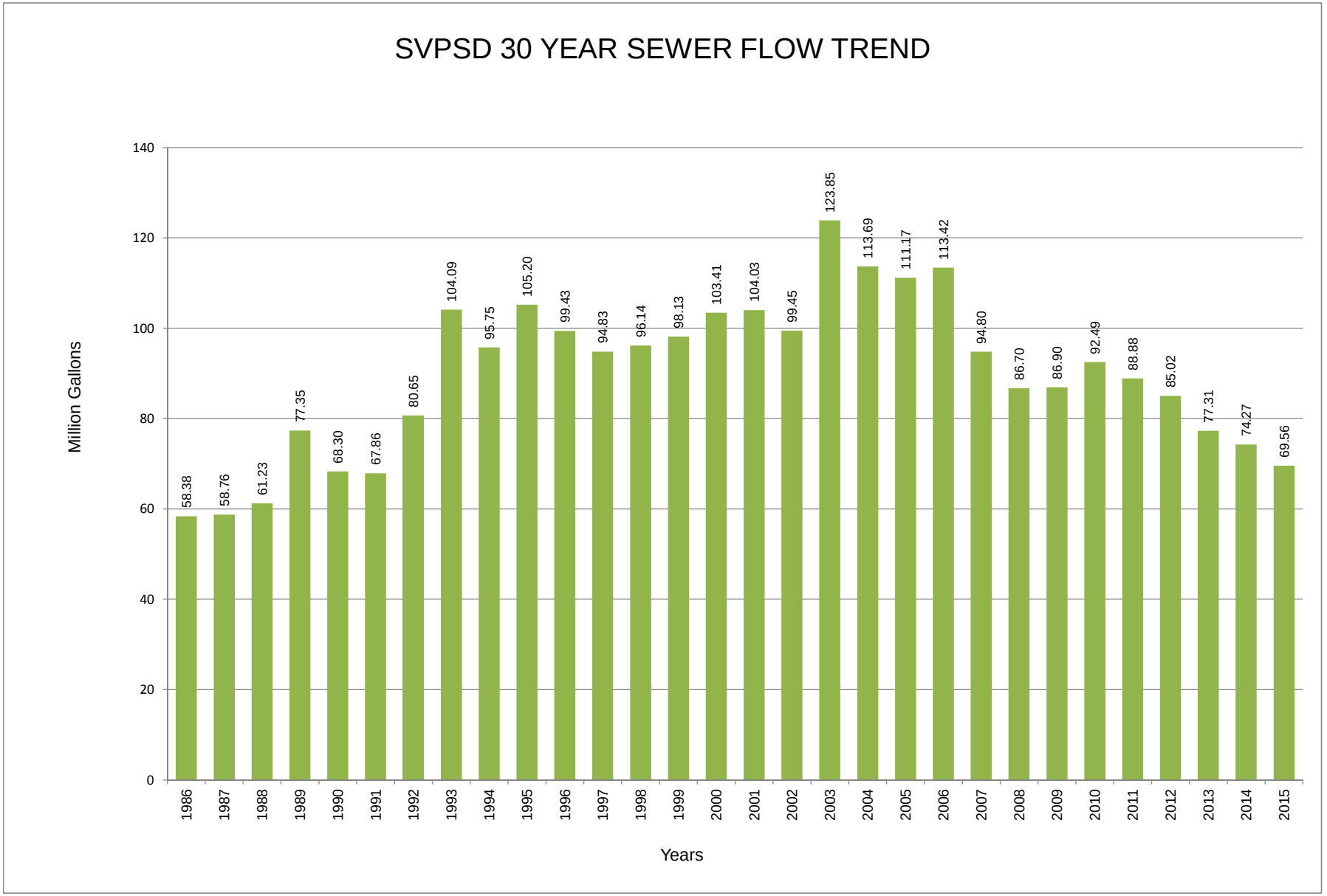
11. 44,152 Feet 4" Sewer Lateral

12. 1,041 Sewer Connections

13. 2 Remote Terminal Units (RTU)

Total Sewer Main = 100,526 Feet = 19.039 Miles
Total Sewer Laterals = 45,193 Feet = 8.559 Miles
Combined Totals = 145,719 Feet = 27.598 Miles

Due to the Olympic Estates Project the inventory counts have increased from 2014


SVPSD 30 YEAR SEWER FLOW TREND
Million Gallons
Years
0
20
40
60
80
100
120
140
1986 58.38
1987 58.76
1988 61.23
1989 77.35
1990 68.30
1991 67.86
1992 80.65
1993 104.09
1994 95.75
1995 105.20
1996 99.43
1997 94.83
1998 96.14
1999 98.13
2000 103.41
2001 104.03
2002 99.45
2003 123.85
2004 113.69
2005 111.17
2006 113.42
2007 94.80
2008 86.70
2009 86.90
2010 92.49
2011 88.88
2012 85.02
2013 77.31
2014 74.27
2015 69.56

2016 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 and provides a tool for making budgetary decisions for both the annual budget and the 10 year CIP.

The overall age of the District fleet has dropped slightly due to vehicle replacements and is now 12.6 years. As shown in the attached graphic maintenance costs have improved slightly. There are two vehicles exceeding their intended service life to be considered for replacement in 2016. The 1999 Ford Utility 4 X 4 is 17 years old and has 54,400 miles. The vehicle is in good condition and has a good service record and is not a priority for replacement. The 1994 JCB Backhoe is passing the 22 year mark and will need new front tires and valve body repairs estimated at $6,500. The unit is underpowered for manhole work and undersized for pipeline replacement work. It is recommended this unit be considered for replacement.

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. Maintenance costs to date are on track with 2015 budget projections.

As management looks forward to the next few years of fleet management there are vehicles and equipment that should be analyzed and considered for replacement as follows:

1997 Ford Explorer: This vehicle is 19 years old and exceeds 119,600 miles. It was underutilized in 2015 having accumulated only 1,500 miles. It was replaced this past month with a 2016 Ford Explorer. It could continue in restricted service but is recommended for surplus sale.

1994 JCB Backhoe: The backhoe is 22 years old with 3,138 hours. Although the equipment was envisioned to last up to 25 years, I am projecting some potentially serious problems if replacement is delayed. There is a leak in the valve body that was cost estimated by both JCB and John Deere to be about $6,000 to repair. There have been failures of the front spindles which are likely to reoccur and there is a problem developing with the rear drive axel; which is loose and making noise. The JCB will need a new set of front tires this year. Research shows its present value around $15,000 to $18,000 retail. However, it is a tier zero engine that cannot be re-sold in California.

The JCB dealer in Reno closed their doors several years ago and their mobile mechanic now comes from Sacramento making even minor repairs problematic; obsolescence due to age means parts must come from overseas or Canada. The JCB is a lightweight and low power alternative that cost far less than comparable equipment when purchased. The Utility Department would benefit from a heavier and slightly more powerful replacement such as a John Deere 310 HL or CAT 416. I am recommending replacement of this vehicle for the 2016 budget cycle. The high cost of replacement estimated at $115,000 to $125,000 could be spread over 5 years under a lease purchase plan.

1999 Ford F250 Utility Truck: This vehicle is 17 years old with 54,400 miles. This vehicle is in good condition with no known problems. I am recommending the service be extended and replacement scheduled in 2017 or 2018.

Vac-Con Rear Engine Retrofit: Retrofit of the Vac-Con rear engine with a catalytic converter is required under California emission regulations by December 2018. The District will be required to begin reporting fleet emissions in 2018 and will not make the required fleet average unless this is accomplished.

Replacement Timeline: Attached is a 10 year timeline for vehicle and equipment replacement with estimated costs. The timeline shows that a minimum of $50,000 is needed annually to keep the fleet on track for what may be considered the most conservative and extended life cycle plan possible. In the first half of the past decade the average age of the fleet was 8.8 years, the maintenance budget averaged $7,200 annually and expenditures averaged $4,988. In the past 5 years the fleet average has climbed to 11.28 years, the budget has been held to $7,400 but has consistently been exceeded averaging $11,187 annually; more than double the previous period. Over the same decade maintenance manpower has doubled from $6,905 annual average to $14,962 annual average. These numbers verify the industry standard for fleet replacement in a government setting of 10 years or 10,000 miles to be sound economic policy.

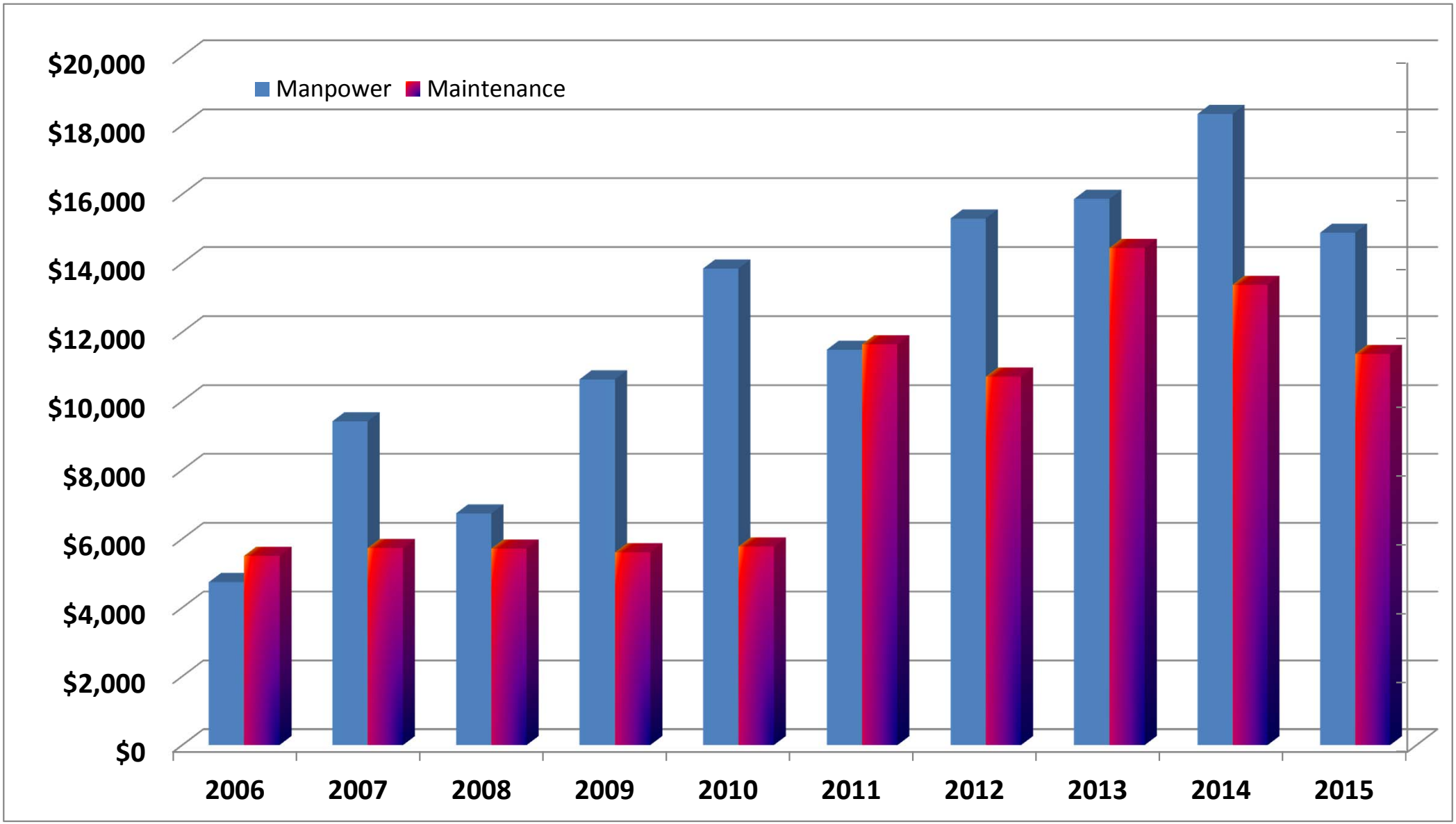
Recommendation:
It is recommended the District consider purchase of an additional ½ ton pickup near term. Current staffing finds the vehicle inventory short on a regular basis and there is considerable system expansion at our doorstep.

The JCB Backhoe presents an economic issue due to the high replacement cost; I am recommending the District investigate the concept of a lease to own option similar to the recent snow blower purchase. This would allow the Utility Department to have the equipment on site in case of a failure like the S-Turn repair with minimal impact on the Asset Replacement Fund while the fund is recovering, meanwhile avoiding high equipment repair costs.

Annual Report on District Fleet

2016									
Vehicle/Equipment	**Mileage Hours**	**Age**	**Replacement Schedule**	**Service Life**	**Annual Use**	**Maintenance Performed**	**2015 2016**	**Maintenance Due**	**2016 2017**
2008 Ford 1 Ton 4x4 Flat	29,962	8	15	7	3,648	Annual Service	$56	Annual Service	$125
						Side mirror/white paint	$248		
1999 Ford Utility 4x4	54,400	17	15	-2	4,535	Annual Service	$56	Annual Service	$125
						Lights/Tow/Tires	$1,206		
2014 Dodge Ram 4x4	24,480	2	15	13	8,261	Annual Service	$56	Annual Service	$125
						Seasonal Tires Changed	$60	Seasonal Tires Changed	$60
1997 Ford Explorer	119,614	19	15	-4	2,593	2x Annual Service	$56	Annual Service	$125
						Wheel Bearing	$108		
2014 F-150 4x4	26,043	2	15	13	23,367	2x Annual Service	$56	2x Annual Service	$200
						New Winter Tires	$720		
2008 F-750 Dump Truck	7,147	8	30	22	500	Annual Service	$56	Annual Service	$125
						Tranny Filter	$16		
1998 JD 444H Loader	3,326	18	30	12	139	Annual Service	$56	Annual Service	$125
1994 JCB Backhoe	3,138	22	30	8	142	Annual Service	$56	Annual Service	$125
								Front Tire Replacement	$2,000
1998 JD Air Compressor	358	18	20	2	5	Annual Service	$56	Annual Service	$125
2007 New Holland	383	9	30	21	34	Annual Service	$56	Annual Service	$125
Westa Sno Blower			20	11		Fix Joystick/Rubber Guard/Bolts	$2,126		
2009 Vac-Con Hydro-Vac	6,915	7	30	23	374	Annual Service	$56	Annual Service	$150
Power Take Off (PTO)	230	7	30	23	14	Hydrolic Filters/Batteries	$931		
2009 Duetz Rear Engine	508	7	30	23	81	Annual Service	$56	Annual Service	$150
2016 Ford Interceptor	154	0	15	15	154	Annual Service	$0	Annual Service	$125
								Winter Tires	$800
6" Trash Pump (2000)	42	16	30	14	5	Annual Service	$56	Annual Service	$125
2010 Prowler Easement	36	6	20	14	8	Annual Service	$56	Annual Service	$125
Well House Generator	217.9	23	40	17	8	Annual Service	$56	Annual Service	$125
(1993)									
1810 Generator (1991)	778	25	40	15	13	Annual Service	$56	Annual Service	$125
305 Generator (2004)	145	12	40	28	7	Annual Service	$56	Annual Service	$125
Equipment/Old Vehicles						Hand tools/TV/Candycom	$56	Equipment	$200
Miscellaneous Shop Supplies						Rags,Cleaning supp. Ect.	$85	Rags, Cleaning Supp. Ect.	$600
Total	Fleet Ave.	12.6					**$6,508**		**$ 6,035**

Vehicle Manpower and Maintenance Costs

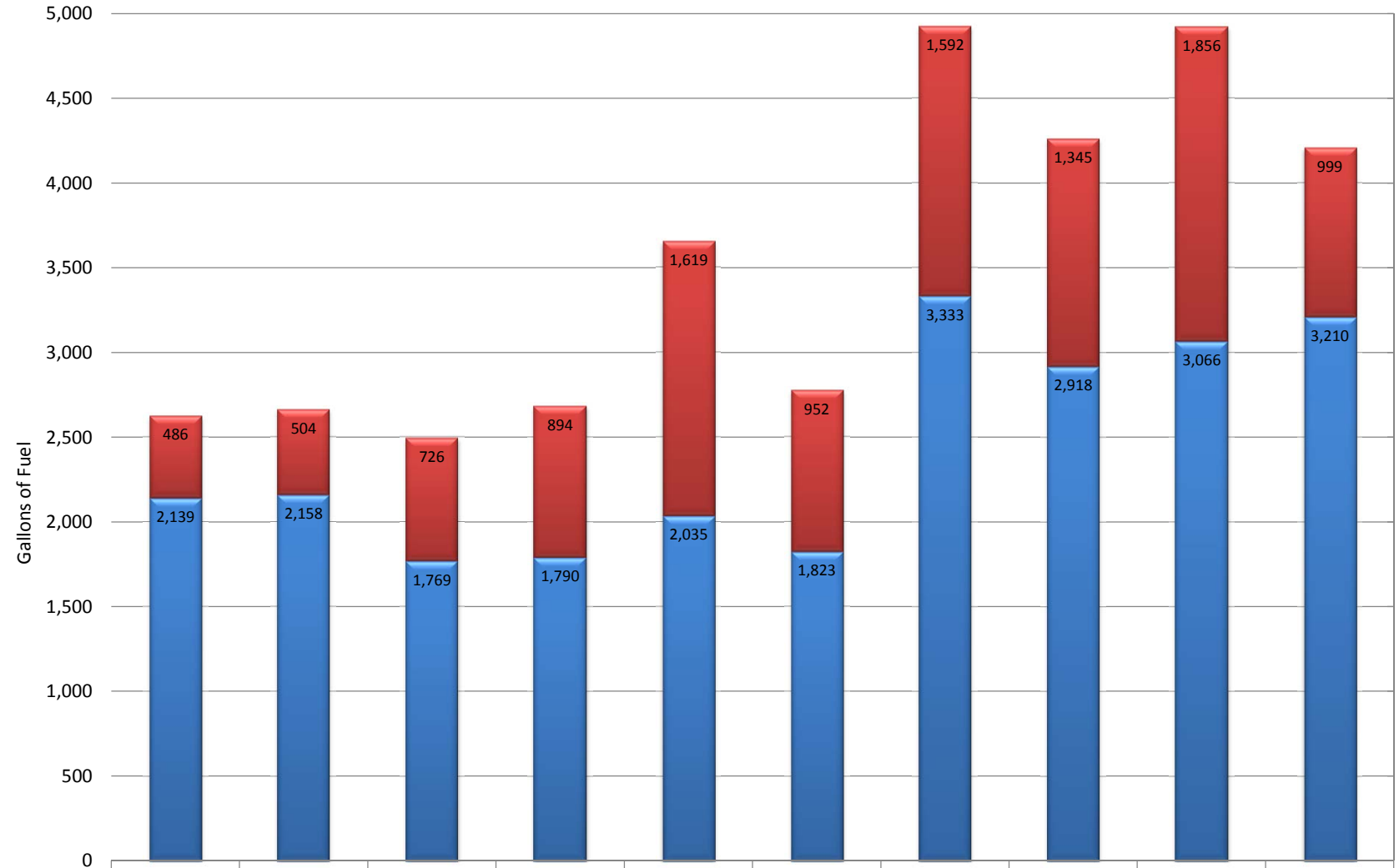


Vehicle and Equipment Replacement Timeline
Ten Year CIP

Vehicle	Year	Cost
1997 Ford Explorer	2015	$30,000 (complete)
1994 JCB Backhoe	2016	$115,000
Add Utility Truck	2017	$26,000
1999 F-250 Utility	2018	$32,000
Vac-Con Rear Engine Retrofit	2018	$12,000
1998 JD 444H Loader	2019	$100,000
1998 JD Air Compressor	2020	$18,000
1810 Generator (1991)	2021	$60,000
Well House Generator (1993)	2023	$80,000
Ford 1 Ton Flatbed (2008)	2024	$35,000

Total $508,000

SVPSD Operation Department 10 Year Fuel Useage Trend



	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Diesel	485.95	504.10	725.70	893.80	1,619.45	952.40	1,591.90	1,344.70	1,856.40	998.80
Unleaded	2,139.40	2,158.40	1,768.90	1,790.10	2,034.90	1,823.25	3,332.80	2,917.70	3,065.80	3,209.60