SQUAW VALLEY PUBLIC SERVICE DISTRICT

2012 WATER AND SEWER SYSTEM REPORT

Prepared March 2013
By
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and
John O'Neal

Squaw Valley Public Service District Annual Report 2012
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Projects

Utilities Report

Hansen

Year End Charts and Graphs

SCADA Telemetry

Fleet

2013 Through 2016 Tentative Projects

I	Aquifer/Creek Interaction Study	$250,000
I	Water Supply Enhancement	$1,000,000
I	Easement Abatement Project	$60,000
I	Mutual Water Company Intertie	$30,000
I	Replace 1997 Ford Explorer	$28,000
I	Replace 2003 Ford F-250 Utility	$32,000
II	Long Range Property Master Plan	$10,000
II	Televise Sewer System	$75,000
II	SSMP Audit/ Update	$7,500
II	Replace West Facility Roof	$60,000
II	SCADA Upgrade/ Master Plan	$60,000
II	Replace 1994 JCB Backhoe	$80,000
II	East Facility LED Lighting Retrofit	$20,000
III	Hidden Lake Loop Water Line Replacement	$145,000
III	Replace 1998 Ford Ranger	$25,000
III	Install Sewer Meters	$150,000
III	Replace 2” Steel Water Mains	$250,000
III	Sierra Crest/ Winding Creek Sewer Rehabilitation	$193,000
III	Develop a Water System Operations Plan	$25,000
IV	Garbage Facility Design	$30,000
IV	Re-grade East Facility Parking Lot	$45,000

TOTAL = $2,575,500

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

General Improvements 2012

Water System Improvements

- Map Water System (GPS Assets) $20,000

Sewer System Improvements

- Construct Squaw Peak Sewer Rehabilitation $130,000
- Construct Lanny Lane Sewer Rehabilitation $94,497
- Replace 12” Valves on Interceptor $14,648
- Easement Abatement $10,000
- Hwy 89 Sewer Meter Vault Repair $8,399

Building and Office Improvements

- VueWorks Implementation $30,000
- East Facility Parking Lot LED Lighting $7,880

Vehicles and Equipment

- Replace Honda Track $4,868
- Replace Shoring $5,749
- Water Audit & Meter Test Equipment $5,932

TOTAL = $331,973

Utilities Report 2012

I. Flow Report

A. Water Production Total = 121.9 MG
Comparison: 9.4 MG More Than 2011

B. Sewer Collection Total = 85.0 MG
Comparison = 3.9 MG Less Than 2011

C. Aquifer Level Maximum Level December 15 2012: 6191.2'
Minimum Level September 17 2012: 6177.8'

Total Change in Static Water Level 2011: No Data
Total Change in Static Water Level 2012: 13.4'

D. Precipitation Total 11/12 Water Year = 40.54"
48-Year average = 52.65"
11/12 Water Year % of the 48- Year average = 77.51%

E. Flow Report Conclusions: Water production increased 8% over the previous year. Sewer collection decreased 4% 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 5, 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 2011 through September 2012.

***** 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.

II. Leaks, Repairs, and Maintenance

A. Water

1. New meters installed: 6
2. Water meters replaced: 11
3. Water meter upgrades: 1
4. Customer service water meters turned on or off: 29
5. Routine leak detection notification: 157
6. Customer requested leak detection services performed: 39
7. No water responses: 14
8. Fire hydrants flushed: 135
9. Blow-offs flushed: 24
10. Valves exercised: 61
11. Repair/Replace service line: 2
12. Repair leak on water main: 1
13. Backflow devices tested: 486
14. Test District backflows: 8
15. Quarterly vault inspections on Well 1R and Well 3: 8
16. Water tank inspections: 6
17. Water quality complaints serviced: 0
18. Tested commercial meters: 13
19. Replaced Air/Vac breakers: 2
20. Water samples collected:
    - Bacteriological: 24
    - Nitrate: 5
    - Manganese: 1
    - Perchlorate: 5
    - Asbestos: 1
    - Lead and Copper: 10

B. Sewer

1. Sanitary sewer overflows: 0
2. Main line repairs: 0
3. Service line repairs: 1
4. Sewer cleanout repair: 2
5. Manhole repairs: 6
6. Manhole grouting: 0
7. Cleaning:
    - Spring and fall cleaning of high priority lines
    - Main sewer lines cleaned: 200
8. Inspections:
    - Sewer code related inspections: 7
    - Pre-remodel inspections: 16
    - Fixture counts: 12
    - Finals inspections: 7
    - USA locations: 209

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 Ranger and Ford Explorer which received biannual services.

B. Equipment

1. All small equipment received an annual service.

V. Administrative

A. Hanson data input

VI. Operation & Maintenance Projects

A. Assisted and oversaw installation of replacement sewer line on Squaw Peak.

B. Assisted and oversaw installation of replacement sewer line on Lanny Lane.

C. Assisted with Mutual Water District main line water replacements.

VII. Summary

The Operations Department had a challenging year in 2012. Due to injuries and illnesses, the department had to catch up from the previous year. Despite the issues, the department was still able to oversee the following: installation of two replacement sewer line projects; assisted and located sewer lines for Mutual Water District main line water replacements.

VIII. Safety Training

1/13/2012 Housekeeping, SDRMA Safety Booklet
Jesse, Blaine, Brandon, Schel, Jason

1/13/2012 Hazard Recognition, SDRMA Safety Brief
Jesse, Blaine, Brandon, Schel, Jason

2/17/2012 First Aid and Emergencies at Work SDRMA
Brandon, Josh, Schel, Jason

3/9/2012 Cave in Trench and Shoring Safety Video
Brandon, Jason, Schel, Jason, Jesse, John

3/30/2012 Safety Attitudes and Incident Reporting SDRMA
Brandon, Josh, Schel, Jason, John

4/13/2012 Working Outdoors and Sprains and Strains SDRMA
Brandon, John, Jason, Josh

5/25/2012 Water Industry Trenching and Shoring SDRMA Online
Jason, Schel, Josh, Brandon

6/5/2012 Back In Action and Portable Ladder Safety SDRMA
Brandon, Josh, Jason, Schel, John

6/29/2012 Heat Stress and Resolving Conflicts SDRMA
Brandon, Josh, Jason, John

7/6/2012 Sexual Harassment for Supervisors (CA AB 1825) Online SDRMA
Brandon, Josh

7/13/2012 Slips, Trips and Falls and Safety Communications SDRMA
Brandon, Josh, Jason, Jesse, Schel, John

8/10/2012 Office Safety and Defensive Driving SDRMA
Brandon, Josh, Schel, Jesse, John

8/21/2012 Highway 89 Sewer Bypass Training On Site
Jason, Schel, Josh, Brandon

9/7/2012 Hazard Communication and Distractions SDRMA
Brandon, Josh, Jason, Jesse, Schel, John

10/4/2012 Confined Space Entry Training On Site
Jason, Josh, Schel, Brandon

10/5/2012 Ergonomics Video
Jason, Josh, John, Schel, Brandon

10/19/2012 Fire Extinguishers and Workplace Violence SDRMA
Brandon, Josh, Jason, Schel, Jesse

11/21/2012 On Call Emergency Response Tailgate Session
Brandon, Jason, Josh, Schel

11/21/2012 SSO Response Plan
Brandon, Schel, Josh, Schel

11/21/2012 Water Industry Asbestos Awareness SDRMA Online
Schel, Josh, Jason, Brandon

IX. Occupational Training

1/9/2012 Collections Systems Operations and Maintenance, OCT Water Quality Academy
Schel, Jason

1/10-11/12 Mathematics for Collections Operators, OCT Water Quality Academy
Schel Roland, Jason

1/12/2012 Pump Motor Controls for Water Operators, OCT Water Quality Academy
Jesse, Blaine, Brandon

4/11/2012 Confined Space CWEA Sierra Section
Josh

5/2/2012 Working Around Pipelines CWEA
Jason, Josh

5/2/2012 Focus Four Falls Elect Struck by and Caught CWEA Sierra Section
Jason, Josh

5/2/2012 Public Safety Requirement for Hwy Work CWEA Sierra Sec
Jason, Josh

6/21/2012 Leak Detection Principles and Equip. CRWA
John, Brandon

7/26/2012 Temporary Traffic Control and Flagging Safety Center
Josh

8/1/2012 Competent Person Excavation
Josh, Jason

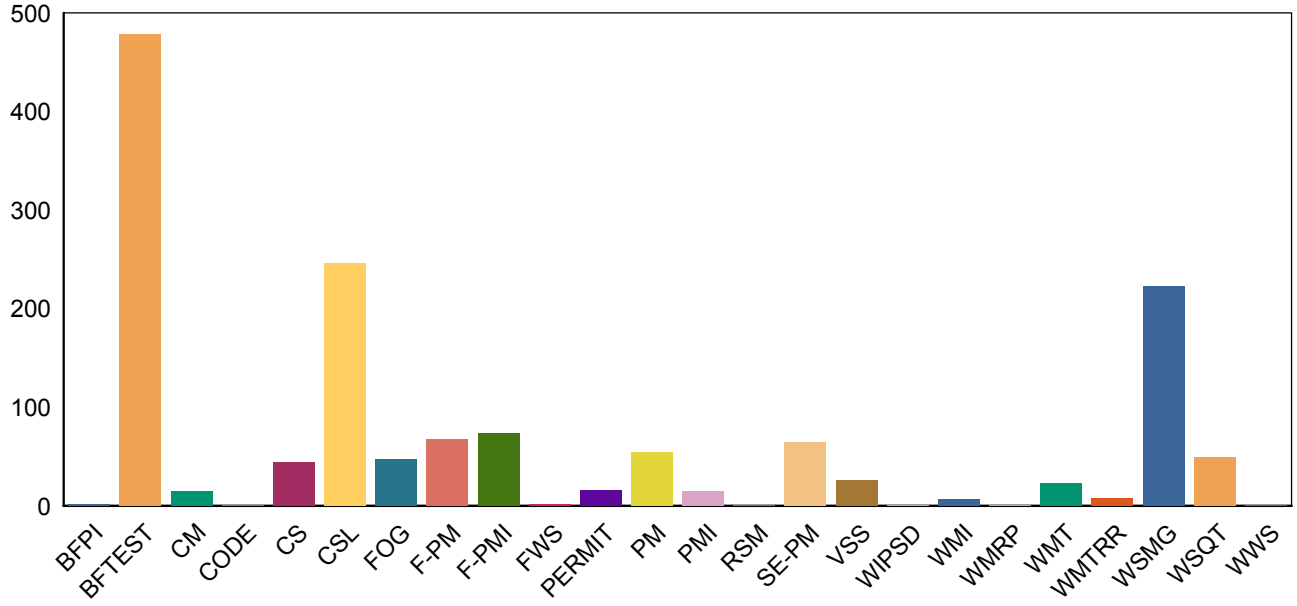
9/12/2012 Competent Person Fall Protection
Josh, Jason, Schel

10/24/2012 CWEA Northern Safety Day
Jason, Josh, Schel, Brandon, Jesse

11/13-15/2012 Water Treatment Review
Josh

2012 YEAR END REPORT

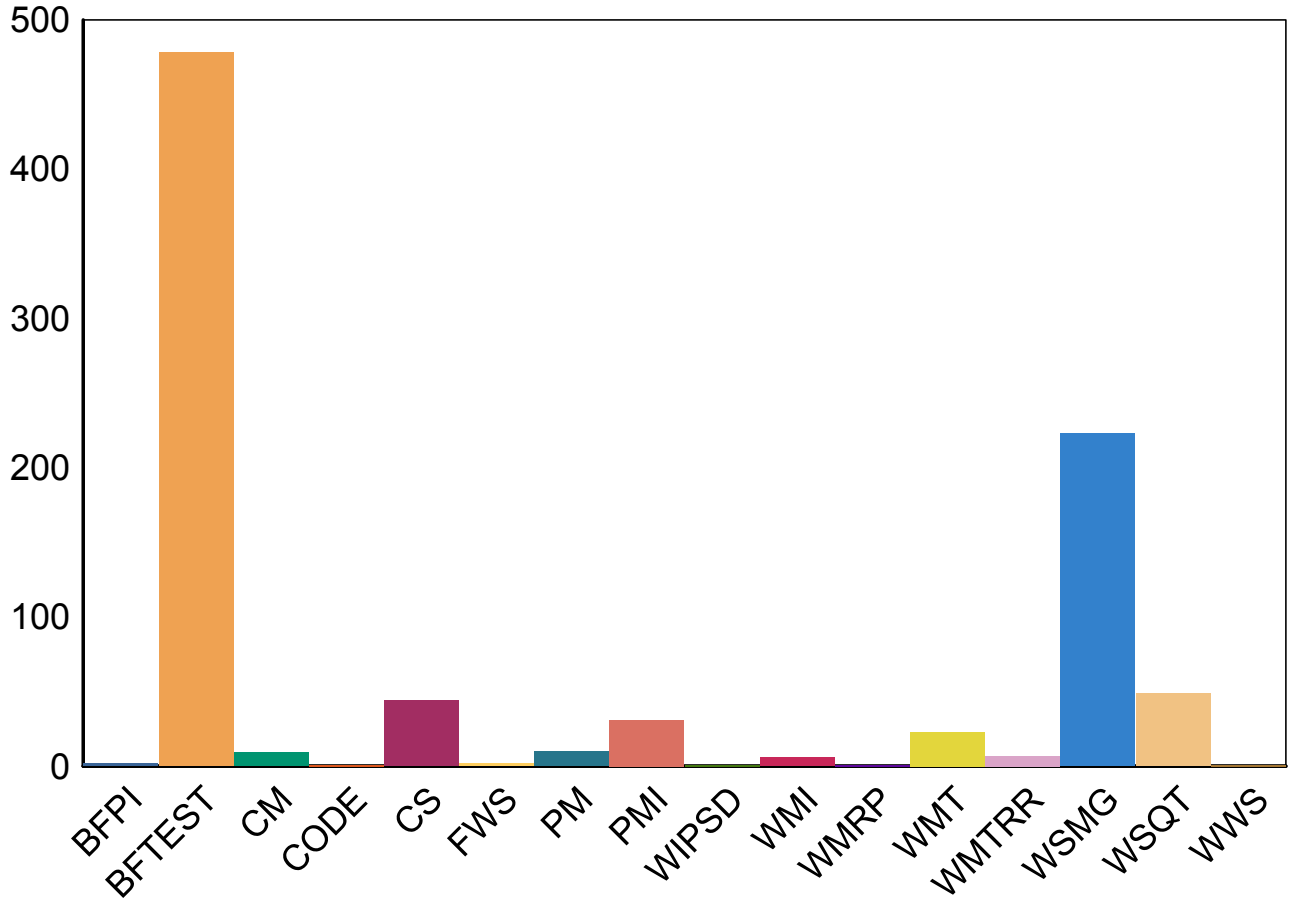
Total Complete Work Orders



BFPI	BACKFLOW PREVENTOR INSTALL	**2**
BFTEST	BACKFLOW PREVENTION TEST	**478**
CM	CORRECTIVE MAINTENANCE	**15**
CODE	CODE RELATED INSPECTIONS	**1**
CS	CUSTOMER SERVICE	**44**
CSL	CLEAN SEWER LINES	**246**
FOG	FATS OILS & GREASE INSPECTION	**47**
F-PM	FACILITIES PM	**67**
F-PMI	FACILITIES PM INSPECTION	**74**
FWS	FROZEN WATER SERVICE	**2**
PERMIT	PERMIT RELATED INSPECTIONS	**16**
PM	PREVENTIVE MAINTENANCE	**54**
PMI	PREVENTIVE MAINT. INSPECTION	**15**
RSM	SEWER MANHOLE REPAIR	**1**
SE-PM	SMALL EQUIPMENT PM	**64**
VSS	VEHICLE SERVICE	**26**
WIPSD	WATER SERVICE REPLACEMENT	**1**
WMI	WATER METER INSTALL	**6**
WMRP	WATER METER REPAIR	**1**
WMT	WATER METER TEST	**23**
WMTRR	WATER METER REPLACEMENT	**7**
WSMG	WATER SYSTEM MAINTENANCE	**223**
WSQT	WATER SYSTEM - QUALITY TESTING	**49**
WWS	WATER WELL MAINTENANCE	**1**
Grand Total:		**1,463**

2012 YEAR END WATER REPORT

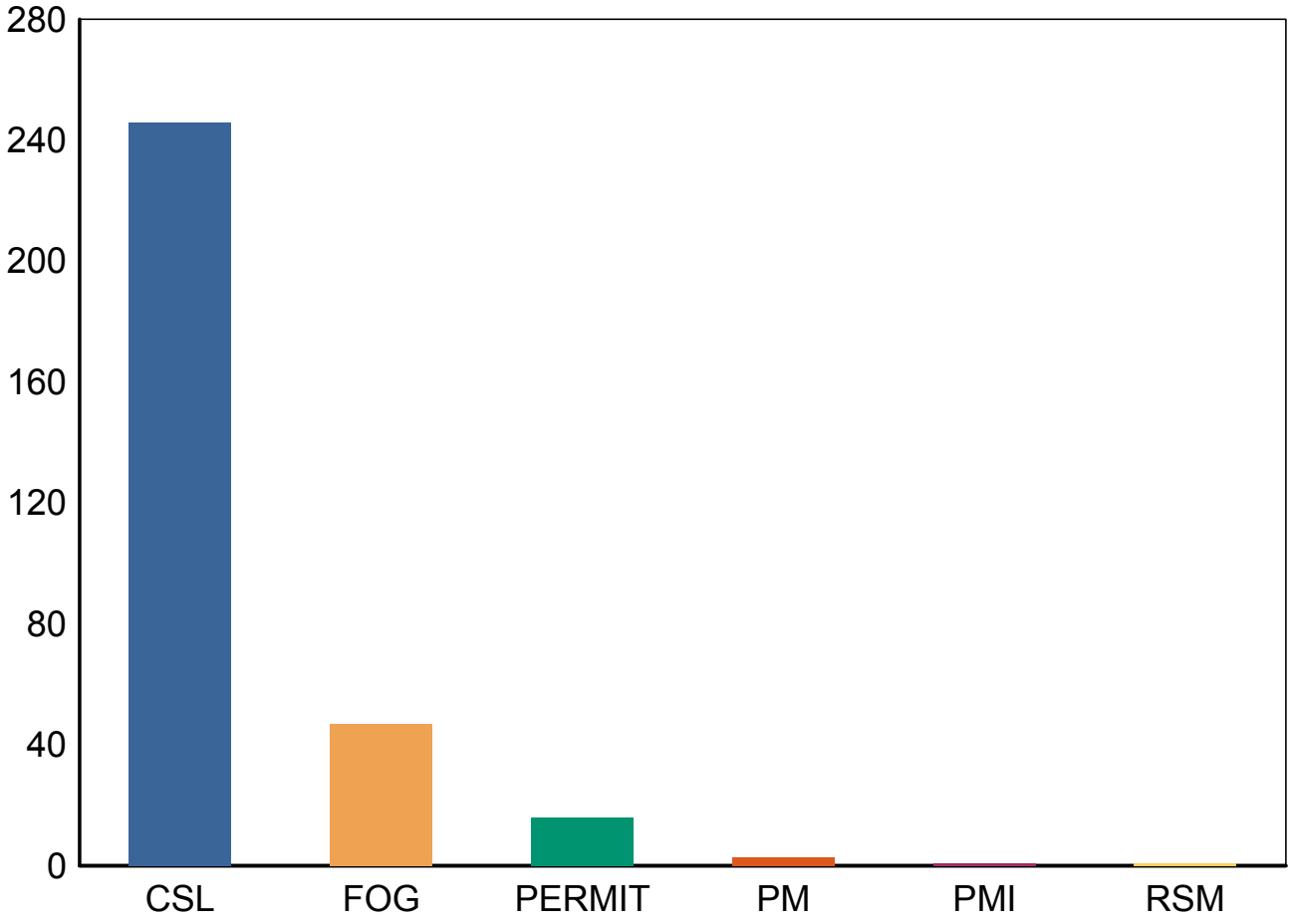
Maintenance, Repairs & Replacements



BFPI	BACKFLOW PREVENTOR INSTALL	**2**
BFTEST	BACKFLOW PREVENTION TEST	**478**
CM	CORRECTIVE MAINTENANCE	**9**
CODE	CODE RELATED INSPECTIONS	**1**
CS	CUSTOMER SERVICE	**44**
FWS	FROZEN WATER SERVICE	**2**
PM	PREVENTIVE MAINTENANCE	**10**
PMI	PREVENTIVE MAINT. INSPECTION	**31**
WIPSD	WATER SERVICE REPLACEMENT	**1**
WMI	WATER METER INSTALL	**6**
WMRP	WATER METER REPAIR	**1**
WMT	WATER METER TEST	**23**
WMTRR	WATER METER REPLACEMENT	**7**
WSMG	WATER SYSTEM MAINTENANCE	**223**
WSQT	WATER SYSTEM - QUALITY TESTING	**49**
WWS	WATER WELL MAINTENANCE	**1**
Grand Total:		**888**

2012 YEAR END SEWER REPORT

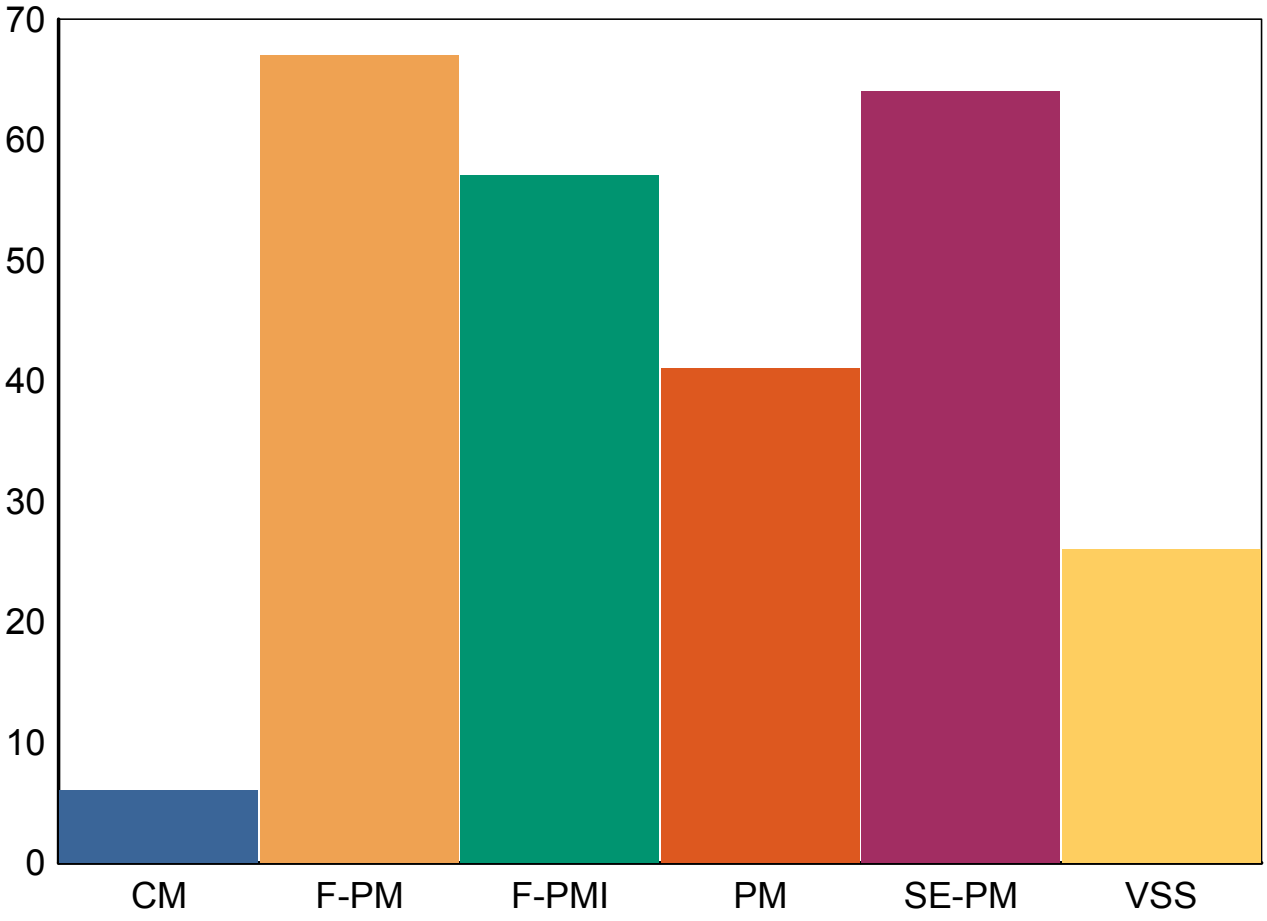
Maintenance, Repairs & New Installations



CSL	CLEAN SEWER LINES	**246**
FOG	FATS OILS & GREASE INSPECTION	**47**
PERMIT	PERMIT RELATED INSPECTIONS	**16**
PM	PREVENTIVE MAINTENANCE	**3**
PMI	PREVENTIVE MAINT. INSPECTION	**1**
RSM	SEWER MANHOLE REPAIR	**1**
Grand Total:		**314**

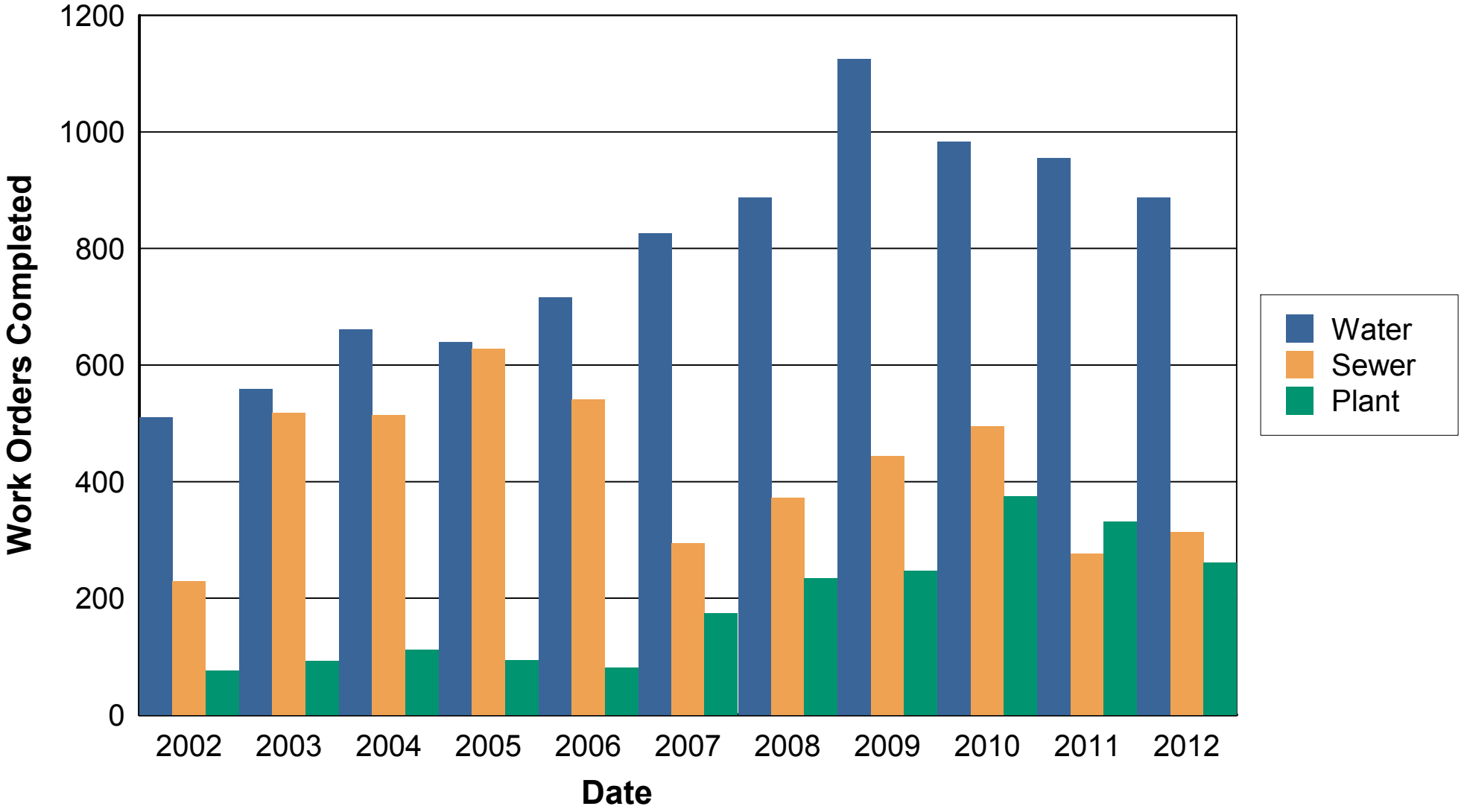
2012 YEAR END PLANT REPORT

Maintenance, Repairs & Replacements



CM	CORRECTIVE MAINTENANCE	**6**
F-PM	FACILITIES PM	**67**
F-PMI	FACILITIES PM INSPECTION	**57**
PM	PREVENTIVE MAINTENANCE	**41**
SE-PM	SMALL EQUIPMENT PM	**64**
VSS	VEHICLE SERVICE	**26**
Grand Total:		**261**

Total Complete Work Orders 10 Year Comparison



	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Total
Water	*510*	*559*	*661*	*640*	*716*	*826*	*888*	*1,126*	*984*	*955*	*888*	***8,753***
Sewer	*229*	*518*	*514*	*628*	*541*	*295*	*372*	*444*	*496*	*276*	*314*	***4,627***
Plant	*76*	*93*	*112*	*94*	*81*	*174*	*234*	*247*	*375*	*332*	*261*	***2,079***
Total	***815***	***1,170***	***1,287***	***1,362***	***1,338***	***1,295***	***1,494***	***1,817***	***1,855***	***1,563***	***1,463***	***15,459***

Water System Inventory – 2012

Part I

1. Water Well #1R – 400 GPM
2. Water Well #2R – 350 GPM Max (230 GPM Summer)
3. Water Well #3 – 90 GPM
4. Water Well #4 – (Not in Service)
5. Water Well #5R – 405 GPM
6. Horizontal Well – 10 GPM — Current Total Capacity – 1,255 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. 783 Water Meters connected per Billing
12. 127 Fire Hydrants
13. 28 Air Release Valves
14. 485 Backflow Prevention Devices
15. 386 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

Water System Inventory – 2012

Part II

21. 12,761 Feet 12" Water Distribution Main

22. 10,752 Feet 10" Water Distribution Main

23. 27,819 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. 404 Feet 6" Water Service Line

28. 240 Feet 4" Water Service Line

29. 2,053 Feet 2" Water Service Line

30. 254 Feet 1.25" Water Service Line

31. 39 Feet 1.5" Water Service Line

32. 2,920 Feet 1" Water Service Line

33. 128 Feet ¾" Water Service Line

Total Water Main = 74,636 Feet = 14.14 Miles
Total Water Services = 6,038 Feet = 1.14 Miles
Combined Total = 80,674Feet = 15.28 Miles

Squaw Valley Public Service District - Year End Water Audit Report

Report Date: Febuary 5, 2013 Performed By: Brandon Burks

Year: 2012

Begin Audit Period: 12/31/11 12:00 AM
End Audit Period: 12/31/12 12:00 PM

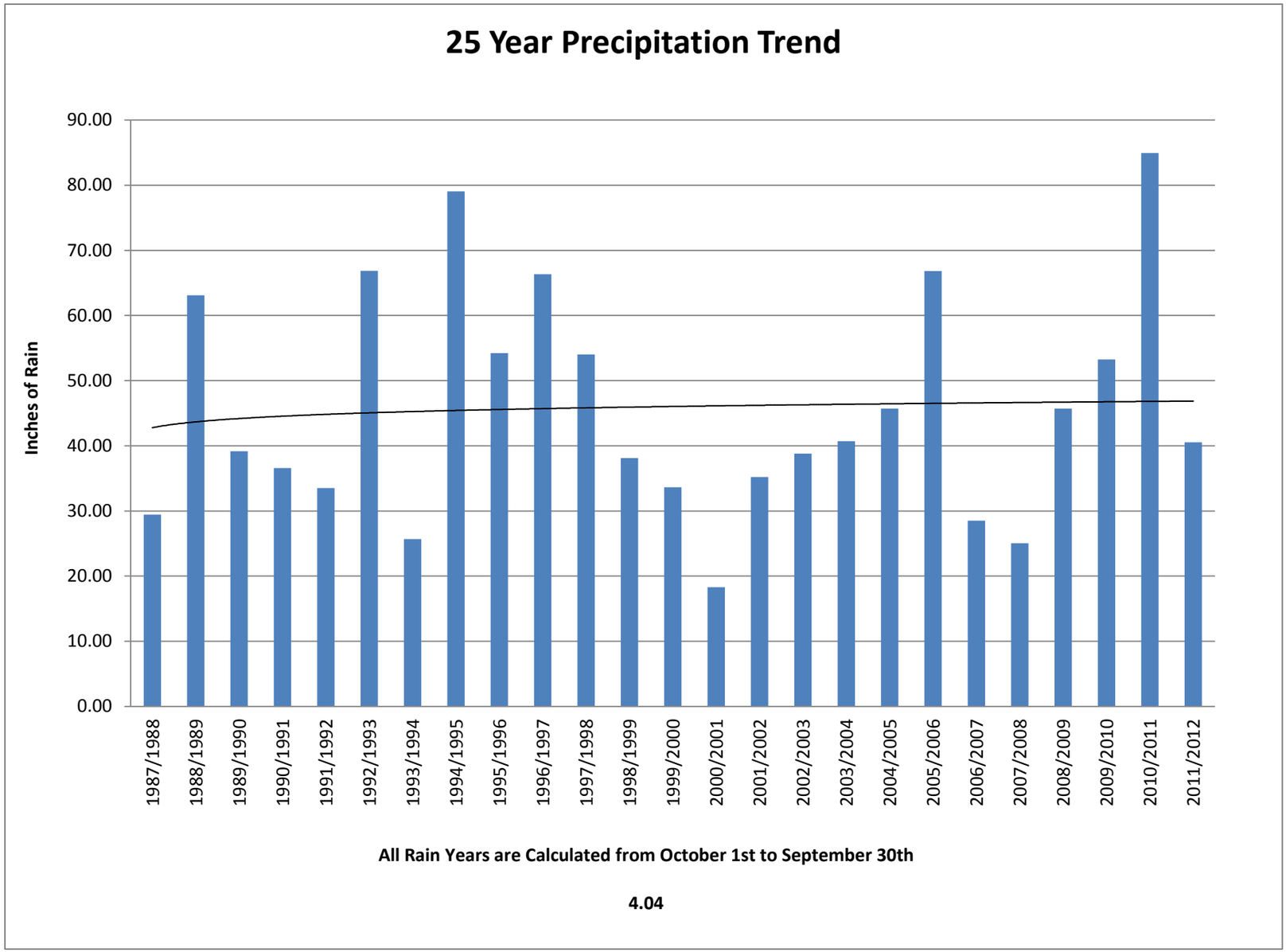
Total Metered Consumption for audit period specified (including hydrant meters):		105,724,487
Additional Consumption - Unmetered		
Fire Department Use:	90,895	
Hydrant Flushing:	1,107,509	
Blow-Off Flushing:	25,500	
Sewer Cleaning:	45,200	
Street Cleaning:	30,900	
Well Flushing:		
Tank Overflows:	210,400	
Unread Meter Estimated Reads:	143,433	
Other:	221,000	
Total Unmetered Consumption (for audit period specified):		1,874,837
Estimated Unknown Loss - Unmetered		
Known Theft:		
Known Illegal Connections:		
Total Estimated leaks that have been repaired:	185,000	
.		185,000
Total Production for audit period specified:		122,123,859
Total Metered/Unmetered Consumption for audit period specified:		107,599,324
Total Water Loss (Production - Consumption):		**14,524,535**
Loss Percentage:		**11.9%** ***

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. Metered water usage was up 10.5 million gallons. Water loss percentage was down .4 percent.

* Instructions - Only fill in the blue cells *

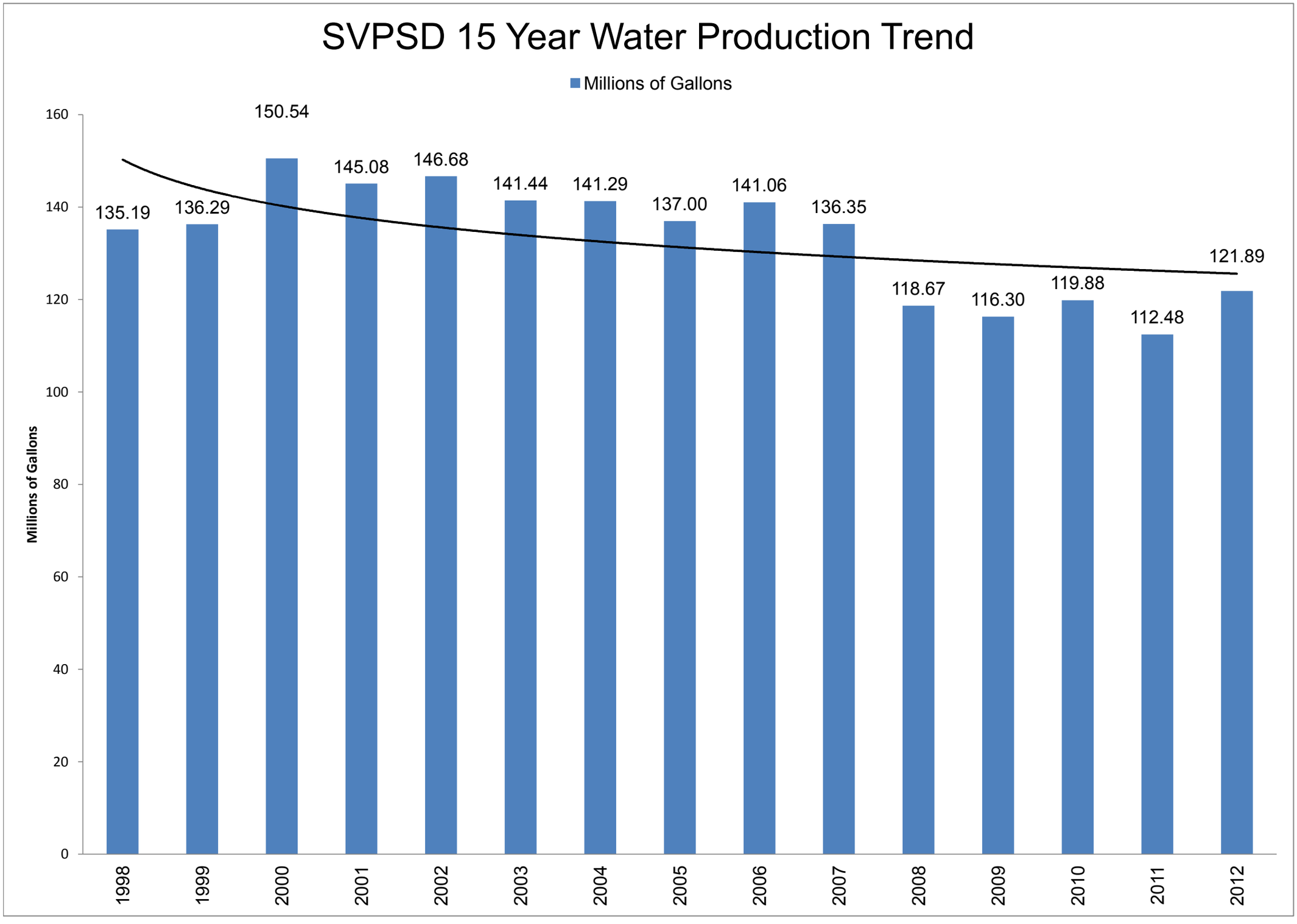
* Note - All Production & Consumption Totals In U.S. Gallons *

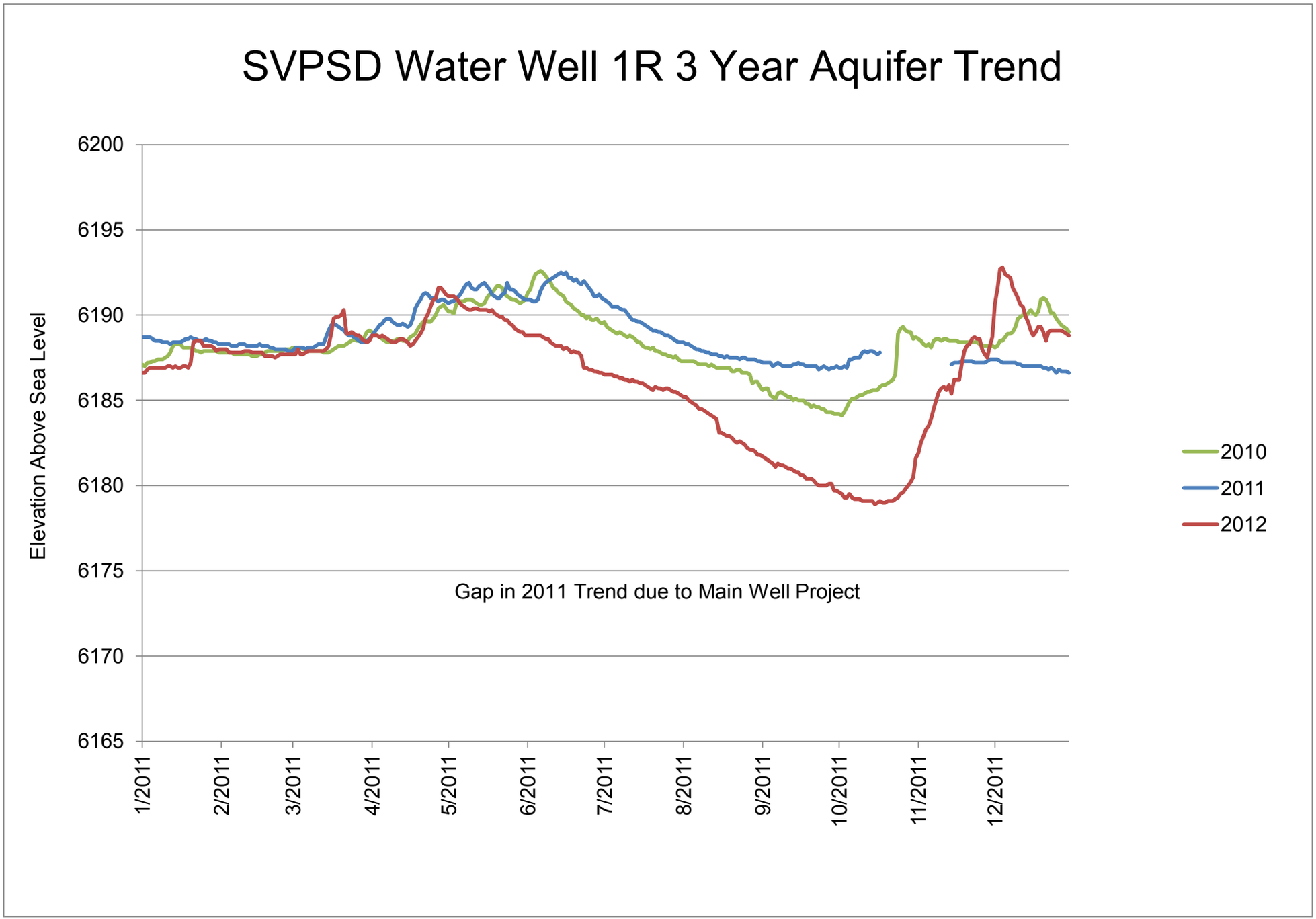
*** Note - Total Water Loss Percentage inclued theft, Illegal Connections or Leaks that have been repaired

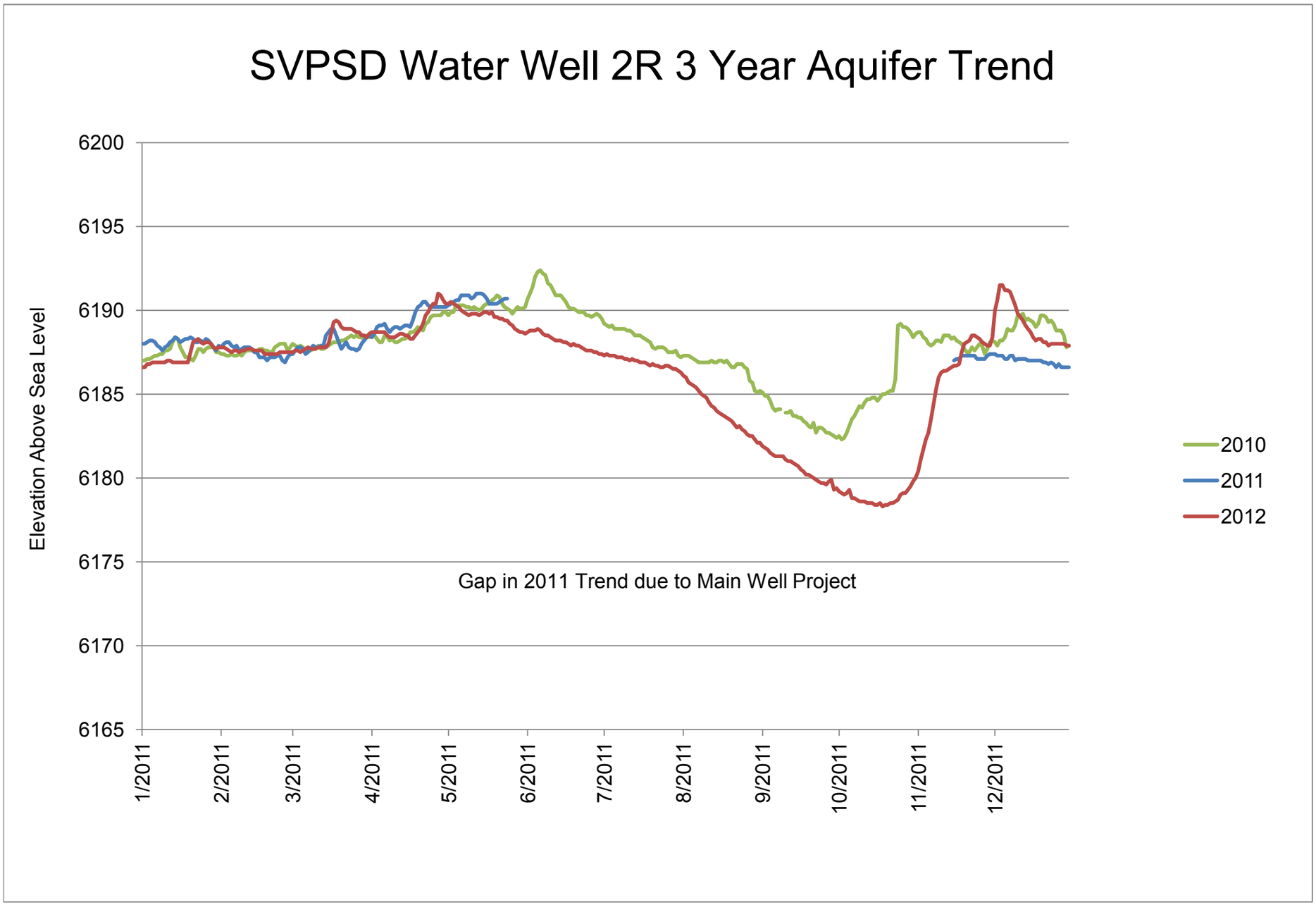

25 Year Precipitation Trend
Inches of Rain
90.00
80.00
70.00
60.00
50.00
40.00
30.00
20.00
10.00
0.00
1987/1988
1988/1989
1989/1990
1990/1991
1991/1992
1992/1993
1993/1994
1994/1995
1995/1996
1996/1997
1997/1998
1998/1999
1999/2000
2000/2001
2001/2002
2002/2003
2003/2004
2004/2005
2005/2006
2006/2007
2007/2008
2008/2009
2009/2010
2010/2011
2011/2012
All Rain Years are Calculated from October 1st to September 30th

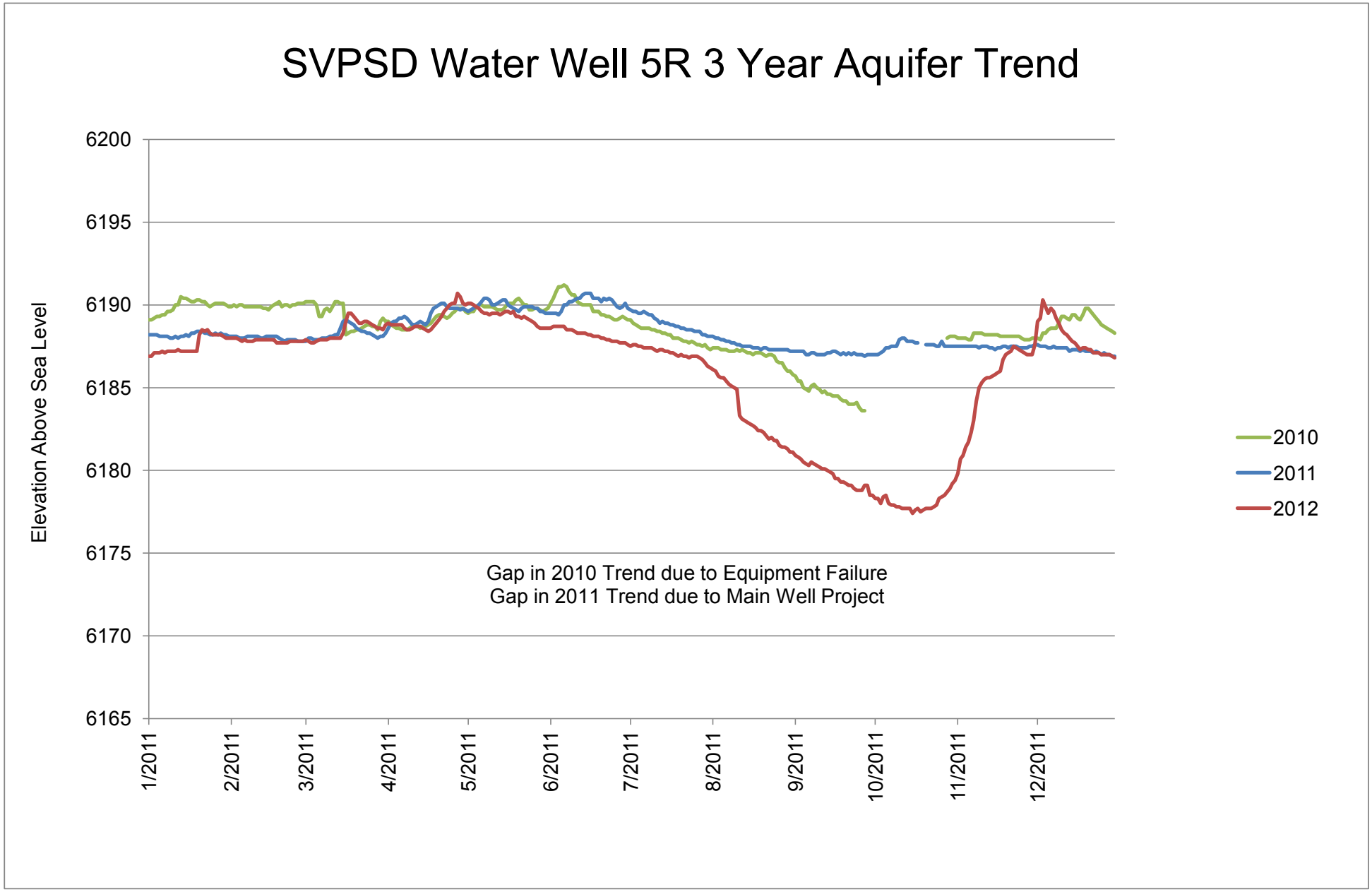
4.04

SVPSD 15 Year Water Production Trend

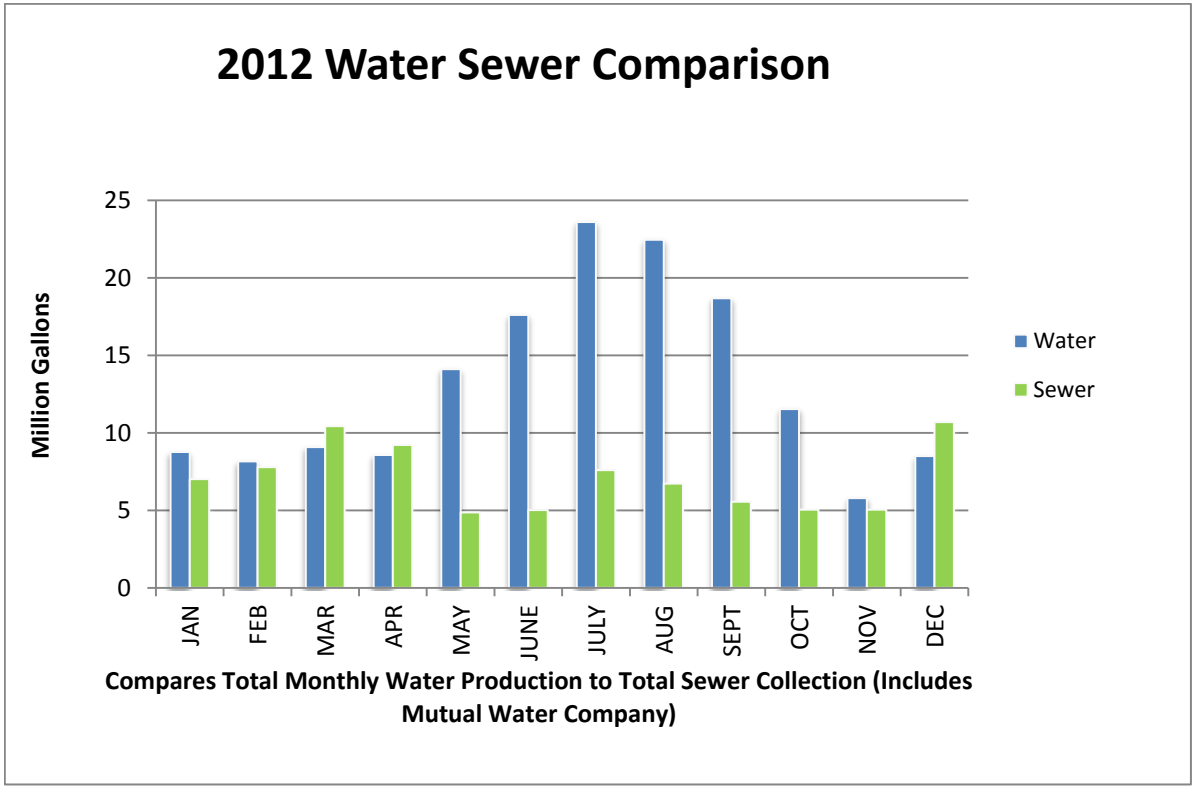



SVPSD Water Well 1R 3 Year Aquifer Trend
Elevation Above Sea Level
6200
6195
6190
6185
6180
6175
6170
6165
1/2011
2/2011
3/2011
4/2011
5/2011
6/2011
7/2011
8/2011
9/2011
10/2011
11/2011
12/2011
Gap in 2011 Trend due to Main Well Project
2010
2011
2012


SVPSD Water Well 2R 3 Year Aquifer Trend
Elevation Above Sea Level
6200
6195
6190
6185
6180
6175
6170
6165
1/2011
2/2011
3/2011
4/2011
5/2011
6/2011
7/2011
8/2011
9/2011
10/2011
11/2011
12/2011
Gap in 2011 Trend due to Main Well Project
2010
2011
2012


SVPSD Water Well 5R 3 Year Aquifer Trend
Elevation Above Sea Level
6200
6195
6190
6185
6180
6175
6170
6165
1/2011
2/2011
3/2011
4/2011
5/2011
6/2011
7/2011
8/2011
9/2011
10/2011
11/2011
12/2011
Gap in 2010 Trend due to Equipment Failure
Gap in 2011 Trend due to Main Well Project
2010
2011
2012

Pump Run Hours							
	Well #1R	**Well #2**	**Well #3**	**Well #5R**	**E Boost**	**Zone-3 #1**	**Zone-3 #2**
Year Installed	2005	1991	2008	1999	1992	1990	1990
1990						30	30
1991		1680				98	66
1992		2863				112	84
1993		3528			121	120	99
1994		3249			489	136	146
1995		2221			1273	223	160
1996		1919			208	363	145
1997		1950	100		405	538	338
1998		2107	1418		376	438	352
1999		2936	0	106	1649	612	264
2000		2276	7	2097	1504	527	640
2001		1969	0	2019	698	631	573
2002		2007	325	2198	1545	493	514
2003		1613	1719	2007	1440	509	503
2004		1796	1820	1866	1646	541	550
2005	209	2100	2101	2174	1169	486	473
2006	1868	1877	1877	1681	1853	455	468
2007	1796	1803	1797	1696	467	1677	438
2008	1552	1545	529	1574	1255	477	460
2009	1546	1539	1548	1568	1249	477	460
2010	1633	1666	1638	1432	1363	381	362
2011	1866	687	620	1983	1169	353	344
2012	1563	1561	1452	1681	1492	510	482
Total Hours	**12033**	**44892**	**16951**	**24082**	**21371**	**10187**	**7951**


2012 Water Sewer Comparison
Million Gallons
25
20
15
10
5
0
JAN
FEB
MAR
APR
MAY
JUNE
JULY
AUG
SEPT
OCT
NOV
DEC
Water
Sewer
Compares Total Monthly Water Production to Total Sewer Collection (Includes Mutual Water Company)

Water and Sewer Production 2012					
	WATER	WATER	**WATER**	**SEWER**	
	SVPSD	MUTUAL	**TOTAL**	**TOTAL**	
JAN	6.85	1.91	8.76	7.02	
FEB	6.87	1.29	8.16	7.79	
MAR	7.53	1.55	9.08	10.43	
APR	6.92	1.65	8.57	9.22	
MAY	10.14	3.97	14.11	4.86	
JUNE	13.55	4.06	17.61	5.02	
JULY	17.15	6.46	23.61	7.60	
AUG	16.28	6.18	22.46	6.73	
SEPT	13.72	4.96	18.68	5.56	
OCT	8.59	2.95	11.54	5.04	
NOV	5.79	0.00	5.79	5.04	
DEC	8.50	0.00	8.50	10.69	
	121.89	34.98	156.87	85.00	Million Gallons

SEWER SYSTEM INVENTORY – 2012

1. 428 Sanitary Manhole per Hansen

2. 2 Manhole with Meter Flume (Not in Service)

3. 2 Flow Recording Stations (Not in Service)

4. 2 Siphons (6"-10")

5. 3 Sewer Flow Meter
    - T-45A - District owned
    - Mountain Run - Ski Corp owned
    - HWY 89 - T-TSA owned

6. 172 Feet 16" Sewer Main

7. 11,791 Feet 15" Sewer Main

8. 2,689 Feet 12" Sewer Main

9. 9,245 Feet 10" Sewer Main

10. 17,957 Feet 8" Sewer Main

11. 51,364 Feet 6" Sewer Main

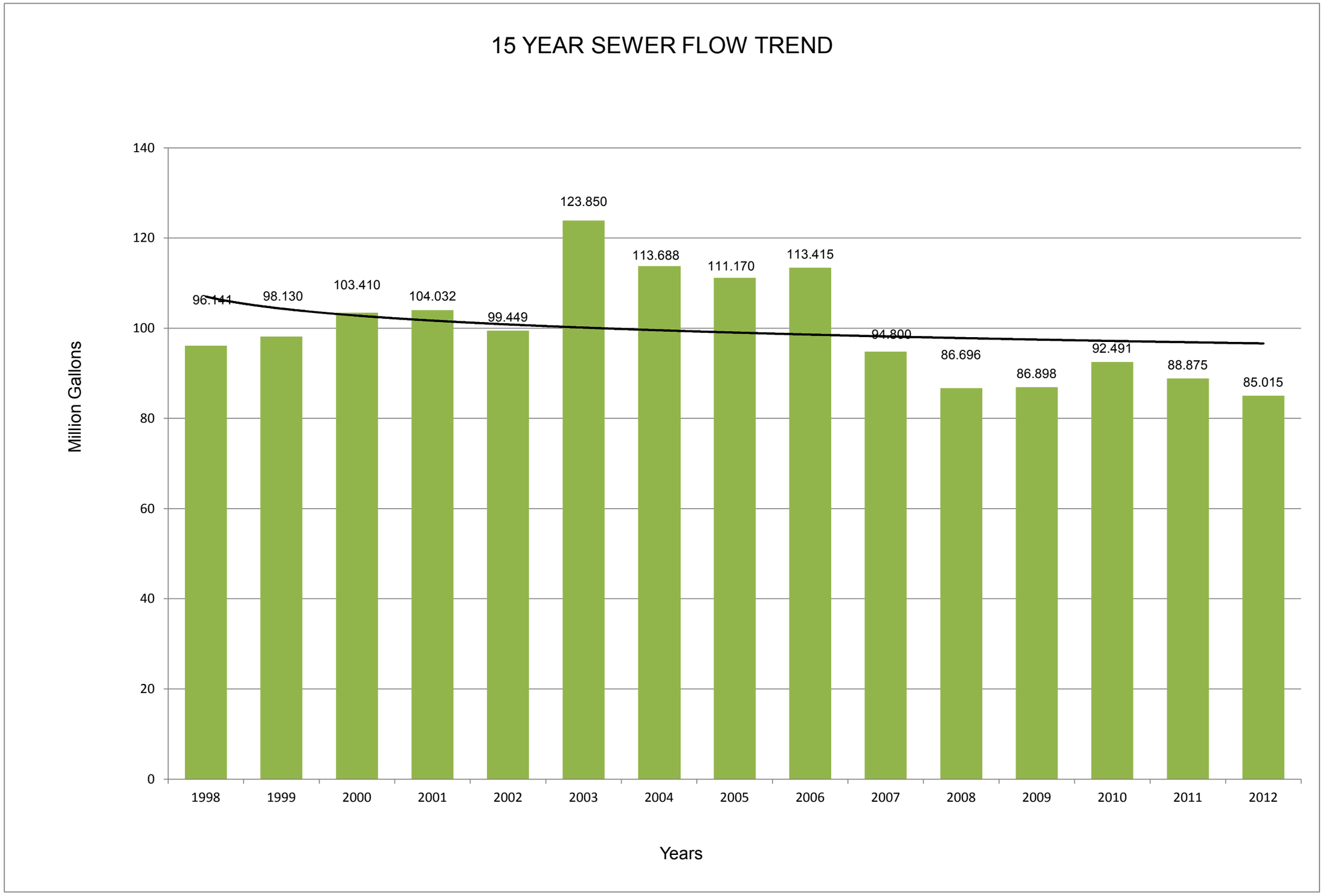
12. 6,687 Feet 4" Sewer Main

13. 43,200 Feet 4" Sewer Lateral (Estimated)

14. 1038 Sewer Connections, per Billing

15. 2 Remote Terminal Units (RTU)

Total Sewer Main = 99,907 Feet = 18.92 Miles per Hansen
Total Sewer Laterals = 43,200 Feet = 8.18 Miles (Estimated)
Combined Totals = 143,107 Feet = 27.10 Miles
Footage revised according to Hansen database except where estimated.


15 YEAR SEWER FLOW TREND
Million Gallons
140
120
100
80
60
40
20
0
96.141
98.130
103.410
104.032
99.449
123.850
113.688
111.170
113.415
94.800
86.696
86.898
92.491
88.875
85.015
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Years

SVPSD - ANNUAL WATER SYSTEM REPORT

REPORTING PERIOD
1/1/2012 12:00 AM
1/1/2013 12:00 AM

WELLS - MONTHLY PRODUCTION TOTALS (Mgal)

Monthly Report Periods		Well 1R	Well 2R	Well 3	Well 5R	Horizontal Well	Monthly Subtotal
1/1/2012 12:00 AM	2/1/2012 12:00 AM	**2.107**	**1.945**	**0.502**	**2.387**	**0.152**	**7.094**
2/1/2012 12:00 AM	3/1/2012 12:00 AM	**2.075**	**1.940**	**0.490**	**2.451**	**0.037**	**6.993**
3/1/2012 12:00 AM	4/1/2012 12:00 AM	**2.240**	**2.014**	**0.521**	**2.662**	**0.042**	**7.479**
4/1/2012 12:00 AM	5/1/2012 12:00 AM	**2.197**	**1.882**	**0.483**	**2.135**	**0.157**	**6.853**
5/1/2012 12:00 AM	6/1/2012 12:00 AM	**3.094**	**2.635**	**0.680**	**2.776**	**0.878**	**10.064**
6/1/2012 12:00 AM	7/1/2012 12:00 AM	**4.211**	**3.618**	**0.932**	**3.807**	**0.935**	**13.502**
7/1/2012 12:00 AM	8/1/2012 12:00 AM	**5.136**	**4.433**	**1.143**	**5.311**	**1.063**	**17.086**
8/1/2012 12:00 AM	9/1/2012 12:00 AM	**5.461**	**4.420**	**1.211**	**5.013**	**0.361**	**16.465**
9/1/2012 12:00 AM	10/1/2012 12:00 AM	**4.844**	**3.075**	**1.067**	**4.302**	**0.277**	**13.564**
10/1/2012 12:00 AM	11/1/2012 12:00 AM	**3.235**	**1.884**	**0.726**	**2.933**	**0.051**	**8.828**
11/1/2012 12:00 AM	12/1/2012 12:00 AM	**1.702**	**1.325**	**0.391**	**2.209**	**0.041**	**5.667**
12/1/2012 12:00 AM	1/1/2013 12:00 AM	**2.787**	**2.578**	**0.009**	**2.663**	**0.587**	**8.624**
Annual Site Totals (Mgal):		**39.087**	**31.750**	**8.157**	**38.648**	**4.578**	

Annual Total (Mgal): **122.219**

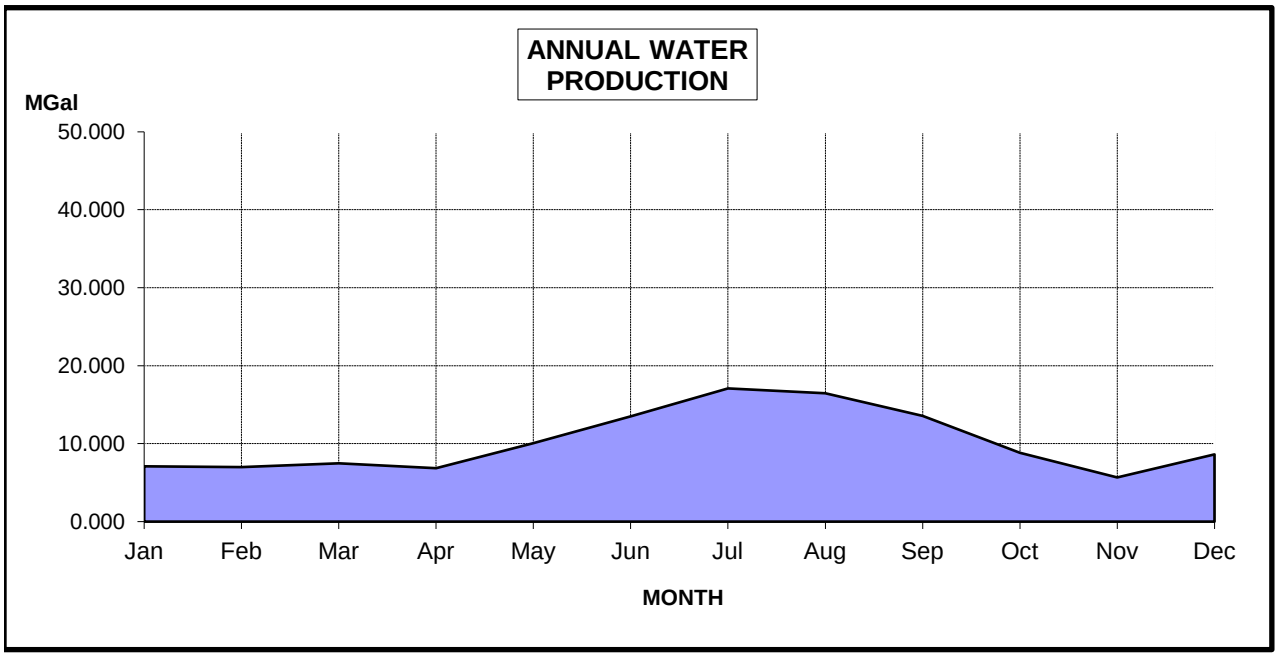
BOOSTERS - MONTHLY FLOW TOTALS (Mgal)

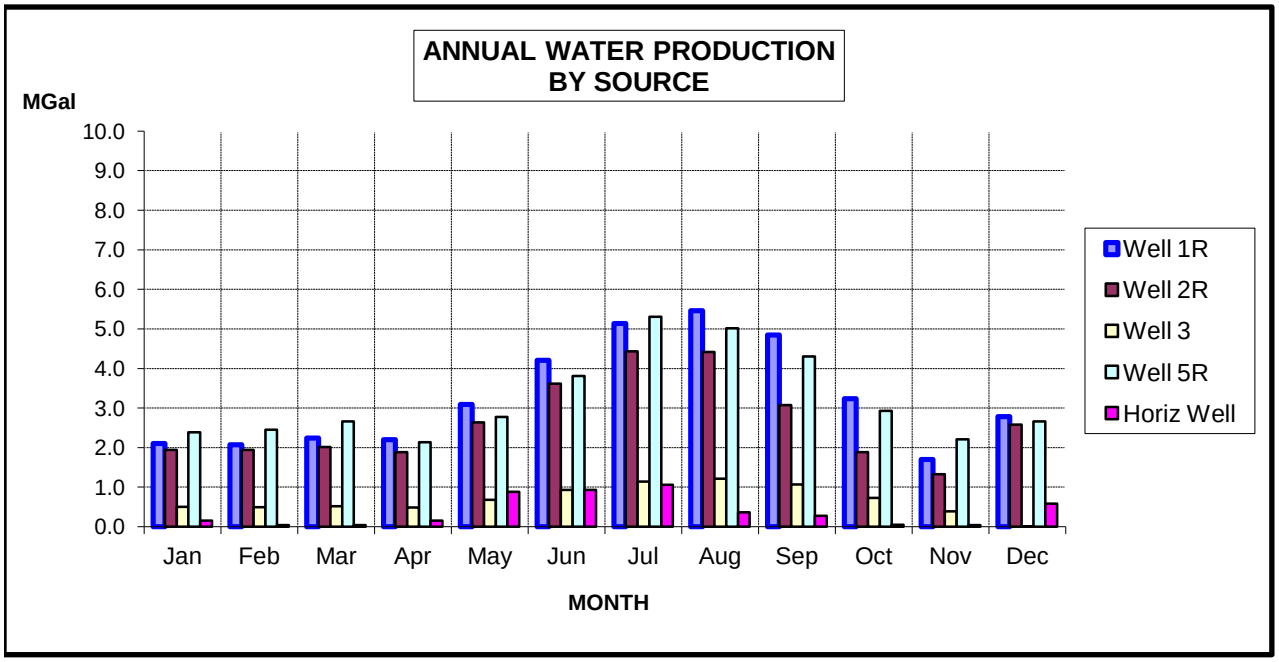
Monthly Report Periods		East Booster	Zone 3 Booster	Monthly Subtotal
1/1/2012 12:00 AM	2/1/2012 12:00 AM	**1.048**	**0.124**	**1.172**
2/1/2012 12:00 AM	3/1/2012 12:00 AM	**1.143**	**0.114**	**1.257**
3/1/2012 12:00 AM	4/1/2012 12:00 AM	**1.228**	**0.141**	**1.368**
4/1/2012 12:00 AM	5/1/2012 12:00 AM	**1.205**	**0.406**	**1.610**
5/1/2012 12:00 AM	6/1/2012 12:00 AM	**1.437**	**0.883**	**2.320**
6/1/2012 12:00 AM	7/1/2012 12:00 AM	**1.669**	**1.208**	**2.876**
7/1/2012 12:00 AM	8/1/2012 12:00 AM	**2.226**	**1.391**	**3.617**
8/1/2012 12:00 AM	9/1/2012 12:00 AM	**2.277**	**1.450**	**3.727**
9/1/2012 12:00 AM	10/1/2012 12:00 AM	**1.748**	**1.054**	**2.803**
10/1/2012 12:00 AM	11/1/2012 12:00 AM	**1.844**	**0.690**	**2.534**
11/1/2012 12:00 AM	12/1/2012 12:00 AM	**0.899**	**0.101**	**1.001**
12/1/2012 12:00 AM	1/1/2013 12:00 AM	**1.150**	**0.187**	**1.337**
Annual Site Totals (Mgal):		**17.874**	**7.750**	

Annual Total (Mgal): **25.623**

SVPSD - ANNUAL WATER SYSTEM REPORT

REPORTING PERIOD
1/1/2012 12:00 AM
1/1/2013 12:00 AM





SVPSD - ANNUAL WATER SYSTEM REPORT

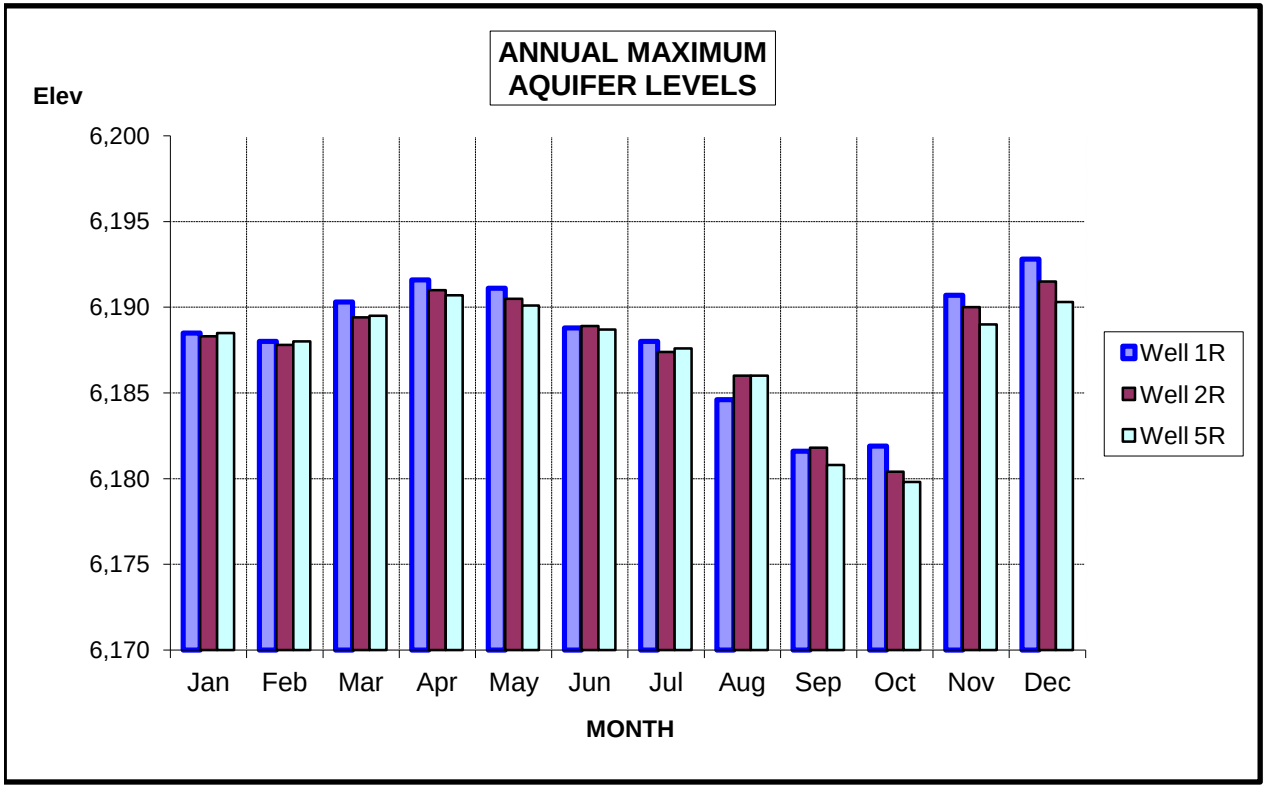
REPORTING PERIOD
1/1/2012 12:00 AM
1/1/2013 12:00 AM

WELLS - MAXIMUM STATIC MONTHYLY WATER ELEVATIONS (FT)

Monthly Report Periods		Well 1R	Well 2	Well 3	Well 5
1/1/2012 12:00 AM	2/1/2012 12:00 AM	**6,188.5**	**6,188.3**	**6,136.8**	**6,188.5**
2/1/2012 12:00 AM	3/1/2012 12:00 AM	**6,188.0**	**6,187.8**	**6,136.8**	**6,188.0**
3/1/2012 12:00 AM	4/1/2012 12:00 AM	**6,190.3**	**6,189.4**	**6,136.8**	**6,189.5**
4/1/2012 12:00 AM	5/1/2012 12:00 AM	**6,191.6**	**6,191.0**	**6,136.8**	**6,190.7**
5/1/2012 12:00 AM	6/1/2012 12:00 AM	**6,191.1**	**6,190.5**	**6,136.8**	**6,190.1**
6/1/2012 12:00 AM	7/1/2012 12:00 AM	**6,188.8**	**6,188.9**	**6,136.8**	**6,188.7**
7/1/2012 12:00 AM	8/1/2012 12:00 AM	**6,188.0**	**6,187.4**	**6,136.8**	**6,187.6**
8/1/2012 12:00 AM	9/1/2012 12:00 AM	**6,184.6**	**6,186.0**	**6,136.8**	**6,186.0**
9/1/2012 12:00 AM	10/1/2012 12:00 AM	**6,181.6**	**6,181.8**	**6,136.8**	**6,180.8**
10/1/2012 12:00 AM	11/1/2012 12:00 AM	**6,181.9**	**6,180.4**	**6,136.8**	**6,179.8**
11/1/2012 12:00 AM	12/1/2012 12:00 AM	**6,190.7**	**6,190.0**	**6,136.8**	**6,189.0**
12/1/2012 12:00 AM	1/1/2013 12:00 AM	**6,192.8**	**6,191.5**	**6,136.8**	**6,190.3**
	Annual Maximum:	**6,192.8**	**6,191.5**	**6,136.8**	**6,190.7**

SVPSD - ANNUAL WATER SYSTEM REPORT

REPORTING PERIOD
1/1/2012 12:00 AM
1/1/2013 12:00 AM



SVPSD - ANNUAL WATER SYSTEM REPORT

REPORTING PERIOD
1/1/2012 12:00 AM
1/1/2013 12:00 AM

TANKS - AVERAGE TANK LEVEL (FT)

Monthly Report Periods		West Tank	East Tank	Zone 3 Tank
1/1/2012 12:00 AM	2/1/2012 12:00 AM	**36.2**	**27.1**	**12.8**
2/1/2012 12:00 AM	3/1/2012 12:00 AM	**36.2**	**27.1**	**12.8**
3/1/2012 12:00 AM	4/1/2012 12:00 AM	**36.0**	**27.0**	**12.7**
4/1/2012 12:00 AM	5/1/2012 12:00 AM	**36.2**	**27.0**	**12.5**
5/1/2012 12:00 AM	6/1/2012 12:00 AM	**36.1**	**27.0**	**11.7**
6/1/2012 12:00 AM	7/1/2012 12:00 AM	**36.0**	**27.0**	**12.7**
7/1/2012 12:00 AM	8/1/2012 12:00 AM	**36.0**	**27.1**	**13.2**
8/1/2012 12:00 AM	9/1/2012 12:00 AM	**36.0**	**27.1**	**12.8**
9/1/2012 12:00 AM	10/1/2012 12:00 AM	**35.9**	**26.8**	**12.7**
10/1/2012 12:00 AM	11/1/2012 12:00 AM	**36.1**	**26.3**	**12.9**
11/1/2012 12:00 AM	12/1/2012 12:00 AM	**36.2**	**27.1**	**12.7**
12/1/2012 12:00 AM	1/1/2013 12:00 AM	**36.2**	**27.1**	**12.7**

TANKS - AVERAGE STORAGE (KGAL)

Monthly Report Periods		West Tank	East Tank	Zone 3 Tank
1/1/2012 12:00 AM	2/1/2012 12:00 AM	**1,041**	**464**	**109**
2/1/2012 12:00 AM	3/1/2012 12:00 AM	**1,041**	**464**	**108**
3/1/2012 12:00 AM	4/1/2012 12:00 AM	**1,038**	**463**	**108**
4/1/2012 12:00 AM	5/1/2012 12:00 AM	**1,041**	**463**	**106**
5/1/2012 12:00 AM	6/1/2012 12:00 AM	**1,039**	**463**	**99**
6/1/2012 12:00 AM	7/1/2012 12:00 AM	**1,037**	**463**	**108**
7/1/2012 12:00 AM	8/1/2012 12:00 AM	**1,036**	**465**	**112**
8/1/2012 12:00 AM	9/1/2012 12:00 AM	**1,036**	**464**	**109**
9/1/2012 12:00 AM	10/1/2012 12:00 AM	**1,033**	**459**	**108**
10/1/2012 12:00 AM	11/1/2012 12:00 AM	**1,040**	**450**	**109**
11/1/2012 12:00 AM	12/1/2012 12:00 AM	**1,043**	**464**	**107**
12/1/2012 12:00 AM	1/1/2013 12:00 AM	**1,041**	**464**	**108**

SVPSD - ANNUAL WATER SYSTEM REPORT

REPORTING PERIOD
1/1/2012 12:00 AM
1/1/2013 12:00 AM

PUMPS - MONTHLY STARTS

Monthly Report Periods		Well 1R	Well 2	Well 3	Well 5	East Booster	Zone 3 Booster 1	Zone 3 Booster 2	Horizontal Well
1/1/2012 12:00 AM	2/1/2012 12:00 AM	56	51	51	50	37	3	3	47
2/1/2012 12:00 AM	3/1/2012 12:00 AM	62	59	56	51	38	2	3	36
3/1/2012 12:00 AM	4/1/2012 12:00 AM	68	62	64	64	40	4	3	40
4/1/2012 12:00 AM	5/1/2012 12:00 AM	50	48	47	57	40	2	2	40
5/1/2012 12:00 AM	6/1/2012 12:00 AM	65	73	72	73	53	23	22	52
6/1/2012 12:00 AM	7/1/2012 12:00 AM	77	79	79	78	62	20	21	60
7/1/2012 12:00 AM	8/1/2012 12:00 AM	100	98	95	87	64	15	16	64
8/1/2012 12:00 AM	9/1/2012 12:00 AM	102	104	100	93	60	18	20	61
9/1/2012 12:00 AM	10/1/2012 12:00 AM	84	84	83	79	47	18	18	47
10/1/2012 12:00 AM	11/1/2012 12:00 AM	60	59	59	56	43	17	22	43
11/1/2012 12:00 AM	12/1/2012 12:00 AM	41	41	41	41	33	3	2	32
12/1/2012 12:00 AM	1/1/2013 12:00 AM	57	57	1	55	43	4	4	43
	ANNUAL TOTALS:	822	815	748	784	560	129	136	565

PUMPS - MONTHLY RUNTIMES (HRS)

Monthly Report Periods		Well 1R	Well 2	Well 3	Well 5	East Booster	Zone 3 Booster 1	Zone 3 Booster 2	Horizontal Well
1/1/2012 12:00 AM	2/1/2012 12:00 AM	86	85	86	104	88	10	9	98
2/1/2012 12:00 AM	3/1/2012 12:00 AM	90	89	87	106	96	6	10	92
3/1/2012 12:00 AM	4/1/2012 12:00 AM	92	92	92	115	103	10	10	103
4/1/2012 12:00 AM	5/1/2012 12:00 AM	87	87	86	93	101	9	44	101
5/1/2012 12:00 AM	6/1/2012 12:00 AM	121	120	121	121	120	62	50	117
6/1/2012 12:00 AM	7/1/2012 12:00 AM	165	165	165	165	140	98	58	140
7/1/2012 12:00 AM	8/1/2012 12:00 AM	203	203	202	230	187	100	76	186
8/1/2012 12:00 AM	9/1/2012 12:00 AM	217	216	217	219	190	85	97	191
9/1/2012 12:00 AM	10/1/2012 12:00 AM	192	193	192	191	147	69	65	176
10/1/2012 12:00 AM	11/1/2012 12:00 AM	130	132	132	131	155	45	45	254
11/1/2012 12:00 AM	12/1/2012 12:00 AM	71	70	70	96	75	8	5	75
12/1/2012 12:00 AM	1/1/2013 12:00 AM	116	117	2	117	96	11	13	97
	ANNUAL TOTALS:	1,570	1,569	1,452	1,688	1,498	513	482	1,630

SVPSD - ANNUAL WASTEWATER SYSTEM REPORT

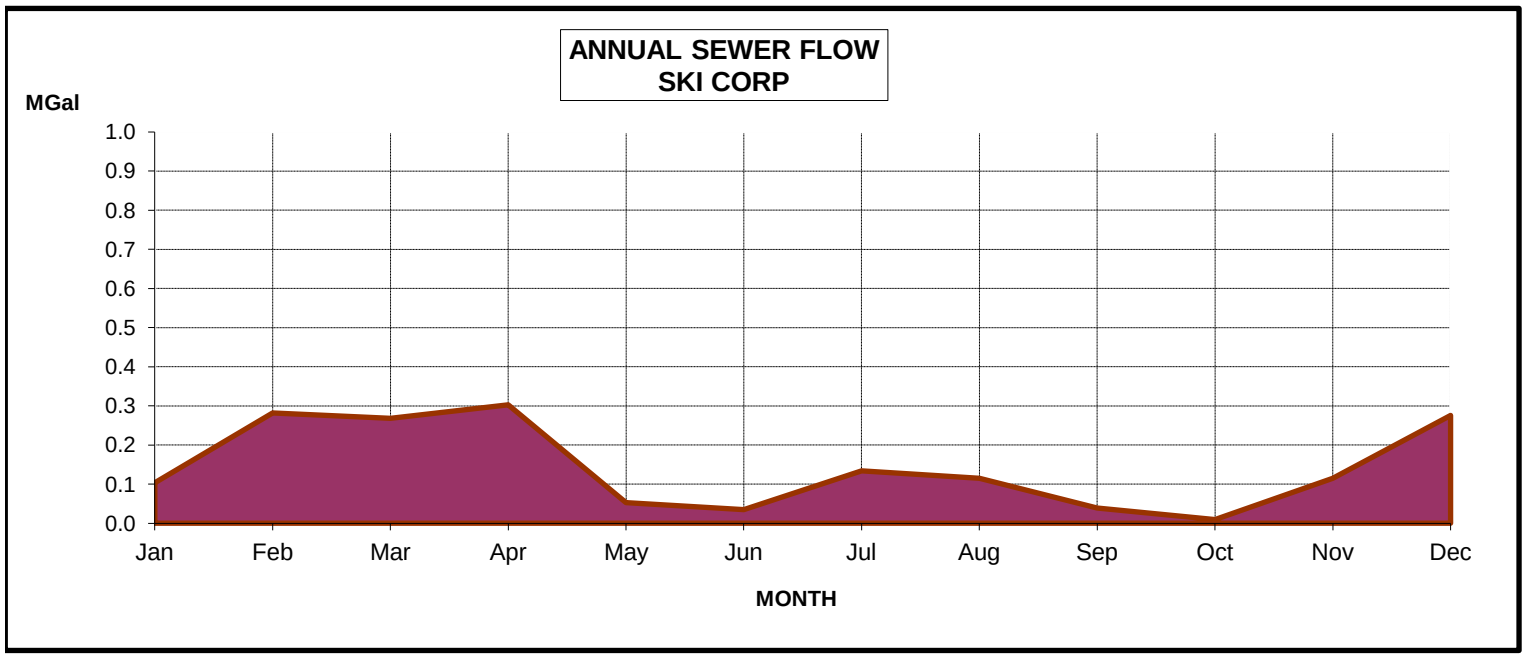
REPORTING PERIOD
1/1/2012 12:00 AM
1/1/2013 12:00 AM

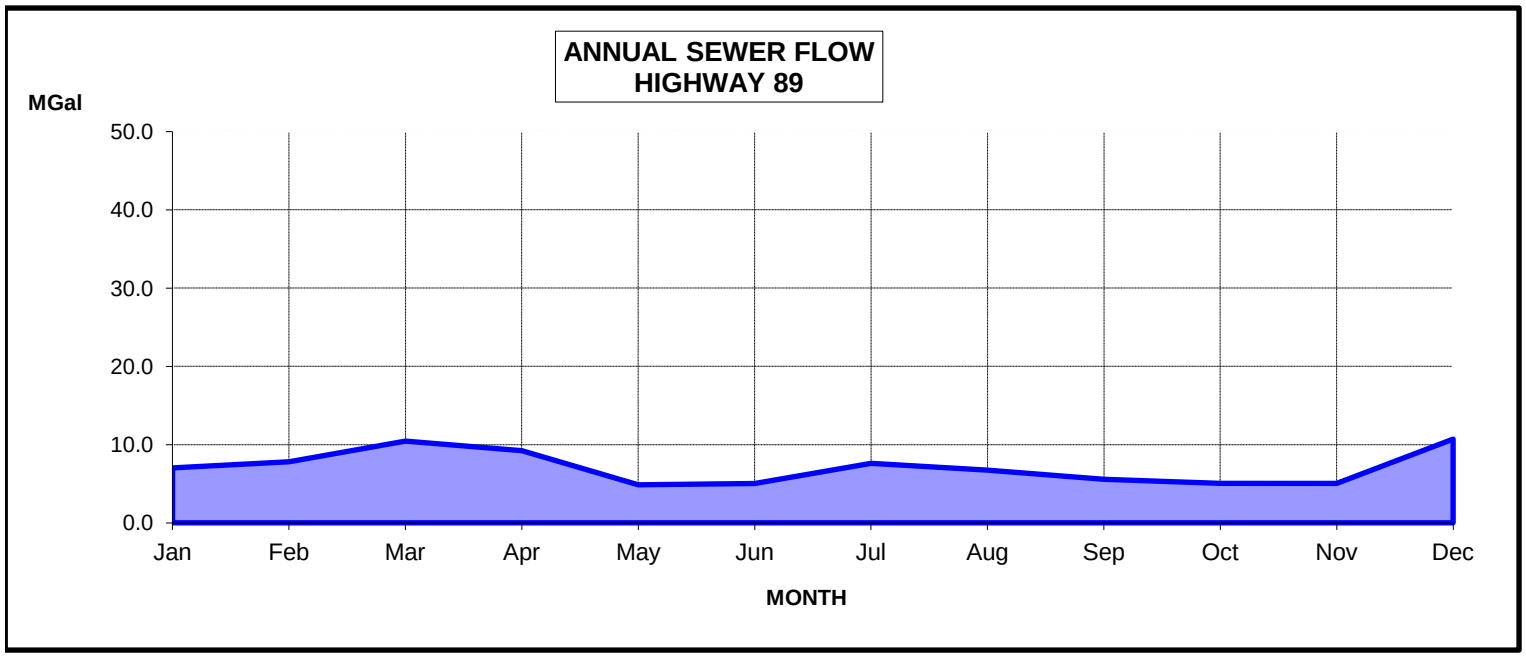
FLOWMETERS - MONTHLY TOTALS (Mgal)

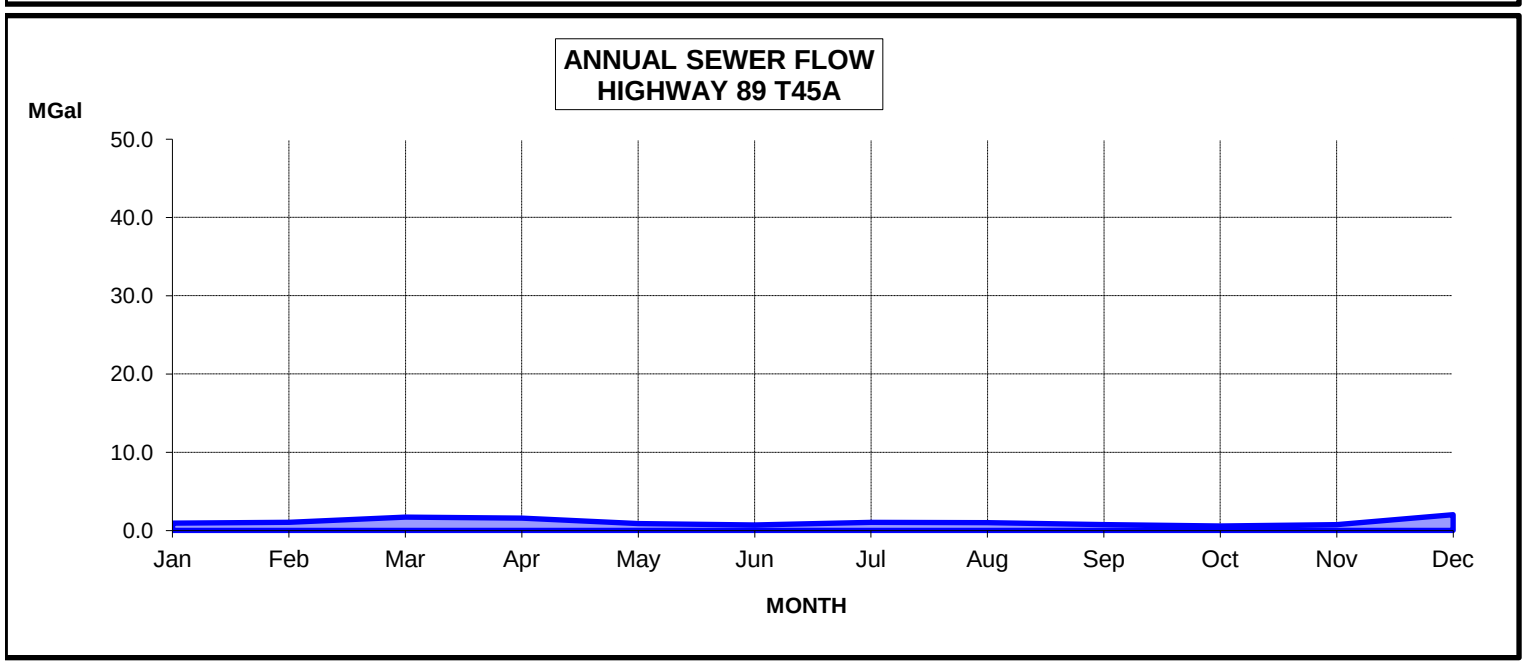
Monthly Report Periods		Ski Corp	Highway 89	Highway 89 T45A
1/1/2012 12:00 AM	2/1/2012 12:00 AM	**0.103**	**7.018**	**0.931**
2/1/2012 12:00 AM	3/1/2012 12:00 AM	**0.282**	**7.798**	**1.037**
3/1/2012 12:00 AM	4/1/2012 12:00 AM	**0.268**	**10.438**	**1.700**
4/1/2012 12:00 AM	5/1/2012 12:00 AM	**0.303**	**9.218**	**1.571**
5/1/2012 12:00 AM	6/1/2012 12:00 AM	**0.053**	**4.857**	**0.876**
6/1/2012 12:00 AM	7/1/2012 12:00 AM	**0.035**	**5.024**	**0.697**
7/1/2012 12:00 AM	8/1/2012 12:00 AM	**0.134**	**7.600**	**1.030**
8/1/2012 12:00 AM	9/1/2012 12:00 AM	**0.115**	**6.731**	**0.992**
9/1/2012 12:00 AM	10/1/2012 12:00 AM	**0.039**	**5.560**	**0.745**
10/1/2012 12:00 AM	11/1/2012 12:00 AM	**0.009**	**5.042**	**0.567**
11/1/2012 12:00 AM	12/1/2012 12:00 AM	**0.115**	**5.036**	**0.739**
12/1/2012 12:00 AM	1/1/2013 12:00 AM	**0.275**	**10.693**	**2.010**
	Annual Site Totals (Mgal):	**1.730**	**85.015**	**12.894**

SVPSD - ANNUAL WASTEWATER SYSTEM REPORT

REPORTING PERIOD
1/1/2012 12:00 AM
1/1/2013 12:00 AM







SVPSD - ANNUAL POWER SYSTEM REPORT

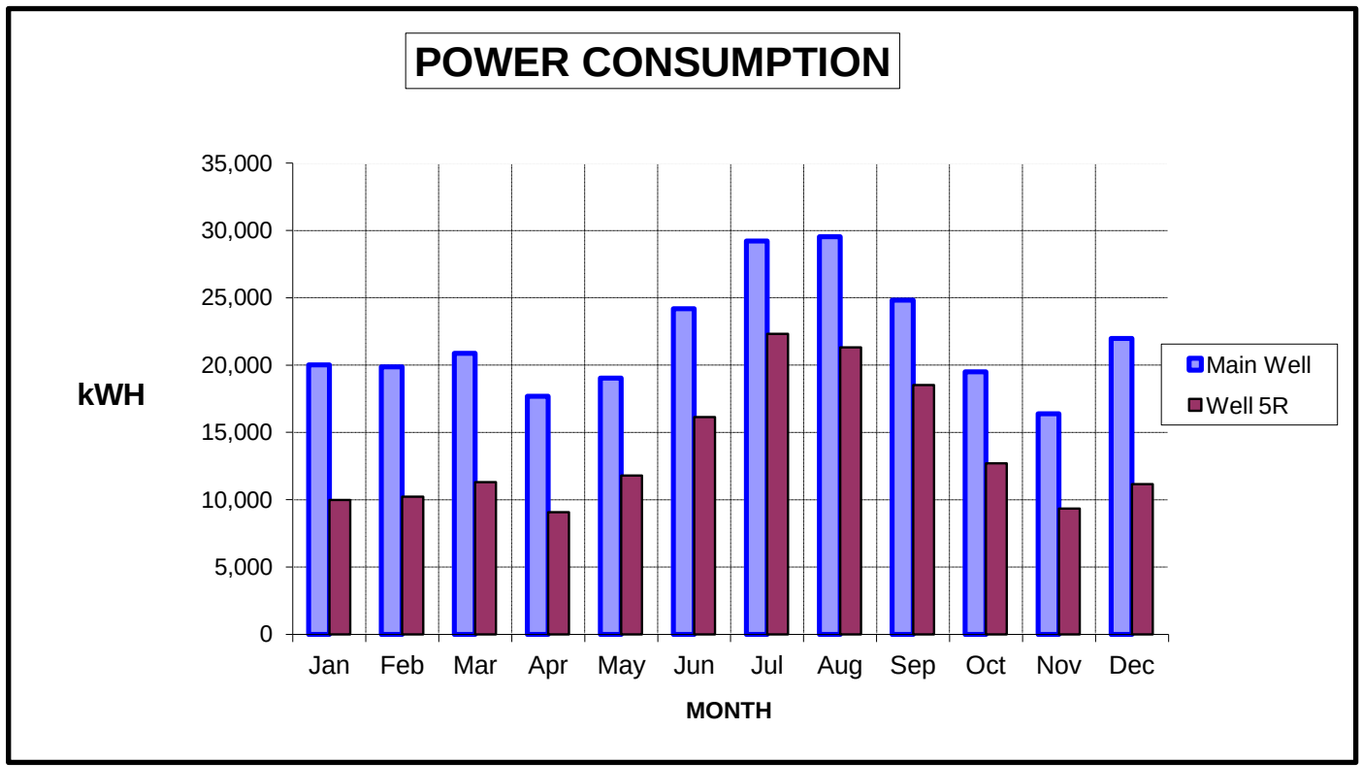
REPORTING PERIOD
1/1/2012 12:00 AM
1/1/2013 12:00 AM

POWER CONSUMPTION (kWH)

Monthly Report Periods		Main Well	Well 5R
1/1/2012 12:00 AM	2/1/2012 12:00 AM	**20,017**	**9,977**
2/1/2012 12:00 AM	3/1/2012 12:00 AM	**19,859**	**10,218**
3/1/2012 12:00 AM	4/1/2012 12:00 AM	**20,875**	**11,300**
4/1/2012 12:00 AM	5/1/2012 12:00 AM	**17,687**	**9,069**
5/1/2012 12:00 AM	6/1/2012 12:00 AM	**19,032**	**11,789**
6/1/2012 12:00 AM	7/1/2012 12:00 AM	**24,176**	**16,125**
7/1/2012 12:00 AM	8/1/2012 12:00 AM	**29,219**	**22,328**
8/1/2012 12:00 AM	9/1/2012 12:00 AM	**29,530**	**21,324**
9/1/2012 12:00 AM	10/1/2012 12:00 AM	**24,830**	**18,507**
10/1/2012 12:00 AM	11/1/2012 12:00 AM	**19,491**	**12,702**
11/1/2012 12:00 AM	12/1/2012 12:00 AM	**16,377**	**9,341**
12/1/2012 12:00 AM	1/1/2013 12:00 AM	**21,986**	**11,156**
	ANNUAL TOTALS:	**263,079**	**163,835**

SVPSD - ANNUAL POWER SYSTEM REPORT

REPORTING PERIOD
1/1/2012 12:00 AM
1/1/2013 12:00 AM



2013 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.

Due to recessionary budget cuts the past four to five years, the overall age of the District fleet is increasing and is now 10.5 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.

A review of manpower and vehicle maintenance expenses over the past nine years shows a definite upward trend as shown in the attached graphic. There are several factors to consider in analyzing this trend including:

- **District Expansion:** Increased demand both in regulatory requirements and services has resulted in added employees and additional vehicles to maintain.
- **Maintenance Management:** Increased awareness in maintenance requirements as a result of a more robust use of the Hansen Maintenance Management software has resulted in increased work orders being processed.
- **Inflation:** There is an unavoidable increase in cost due to inflation.
- **Extended Capital Outlay:** There is a correlation in the capital dollars saved in delaying replacement of infrastructure being traded for increased maintenance cost.

Although difficult to quantify there are also costs associated with increased down time in managing an increase in maintenance, breakdown and repairs and there is an increase in risk with employees utilizing older vehicles and equipment. The recessionary decision to delay vehicle replacement from 10 years to 15 years was borne from necessity; however as the economy recovers and funding becomes less of an issue perhaps some adjustments are in order. Generally fleet managers replace infrastructure at a point where resale is optimum and maintenance costs are on the verge of increasing. Review of fleet replacement strategies shows that in governmental fleet's plans a ten year/ 100,000 mile plan the District was previously utilizing is quite common. The key to an effective plan is to ensure vehicles are optimally utilized and that problematic vehicles are singled out and surveyed or reassigned to other uses before costs escalate.

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 16 years old and exceeds 105,000 miles. The District has not had any major problem with the vehicle, however it is going in for a brake job this month and it is getting fairly worn out. The Utility Department used to have this vehicle available for out of town training travel a situation that now relies on heavier service vehicles that are not well suited for the job. This vehicle was recommended for replacement in the past and should be seriously considered for replacement in the upcoming budget cycle.

2003 Ford F250 (TV Truck): This vehicle is 10 years old with only 25,000 miles; however this vehicle was damaged in a collision in 2008 and may have suffered additional front end damage since then. The front end was repaired in 2008 with the replacement of tie rods and steering arm. The front end was repaired again in 2012 with replacement of the ball joints. The vehicle steering is still problematic and it is about to have its third set of tires installed. The vehicle could be restricted to Squaw Valley, however I am recommending replacement of the vehicle possibly with a king cab style truck that can be used for training travel.

1994 JCB Backhoe: The backhoe is 19 years old with 2,710 hours. Although the equipment was envisioned to last more than 20 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 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 410 or CAT 416. I am recommending replacement of this vehicle for the 2014 budget cycle.

1998 Ford Ranger: This vehicle is 15 years old with 83,000 miles. As a service vehicle that is used in the field it may have an equivalent of an additional 20,000 plus miles in engine run time staying warmed during winter use. The drive train is making noise and the engine is losing power. The vehicle is due for replacement this year and it should not be further extended without restricting the vehicle to work in the valley. This vehicle is used for on call duty.

1999 Ford F250 Utility Truck: This vehicle is 14 years old with 40,000 miles. This vehicle is in good condition with no known problems. I am recommending the service be extended and replacement scheduled in 2015.

Replacement Timeline: Attached is a 10 year timeline for vehicle and equipment replacement with estimated costs.

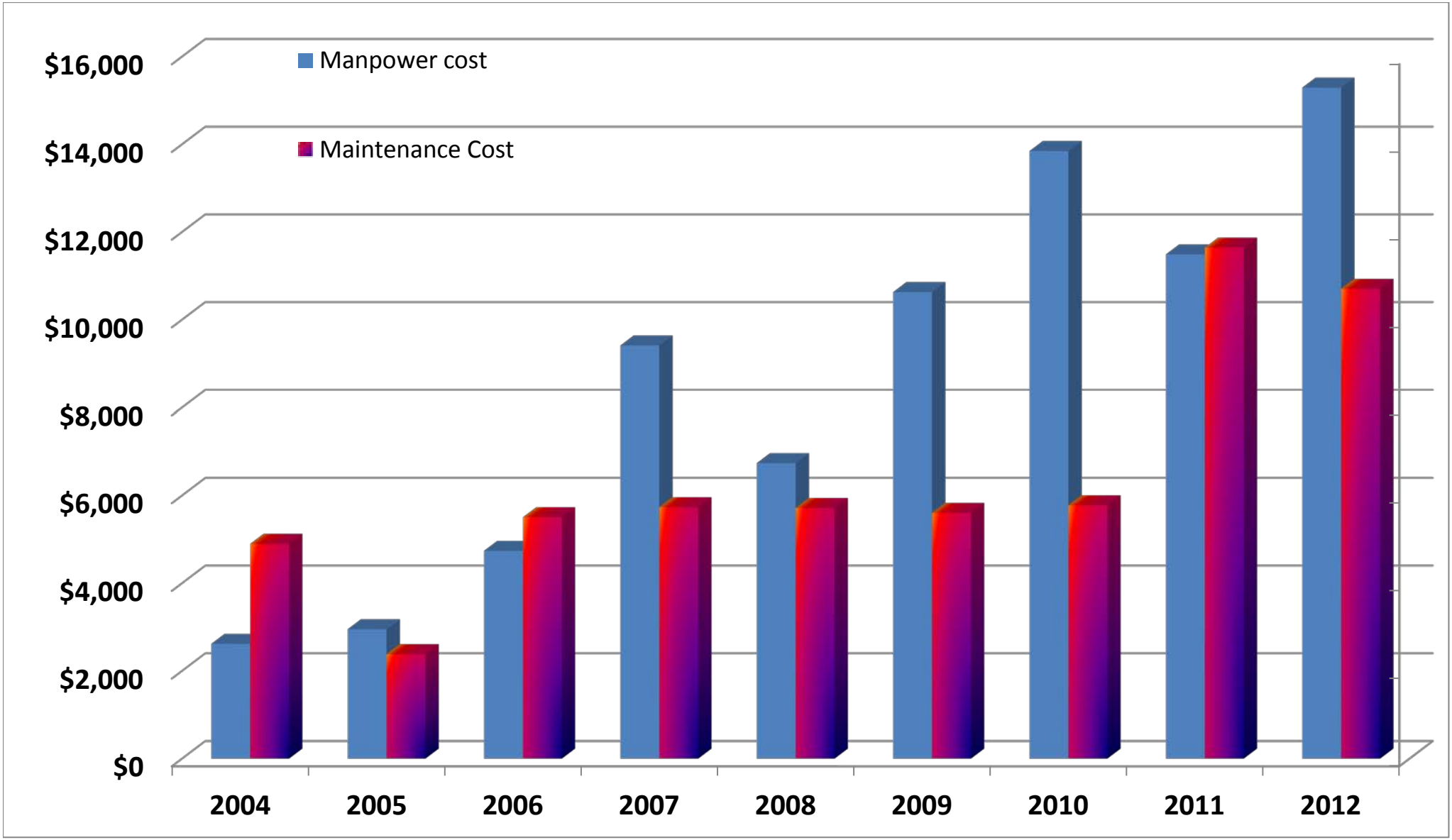
Air Board Regulations: The attached memorandum summarizes Air Board Regulations through the year 2022.

Fuel Consumption: Attached is a graph of the Utility Department fuel consumption over the past 10 years. Fuel consumption varies with work load and winter conditions. The spike in fuel consumption this past year was analyzed and it was found that the combined mileage of the Explorer and the Ranger had increase over 15,000 miles. Fuel consumption averaging 15 miles/gallon equates to 1,000 gallons of gas. The ranger gets about 19 MPG but the explorer only 16 MPG. Therefore, replacing the Explorer with a newer vehicle that gets 22 MPG would result in a $600/ year savings.

Annual Report on District Fleet

2013									
Vehicle/Equipment	**Mileage**	**Age**	**Replacement**	**Service**	**Annual**	**Maintenance**	**2012**	**Maintenance**	**2013**
	Hours		**Schedule**	**Life**	**Use**	**Performed**	**2013**	**Due**	**2014**
2008 Ford 1 Ton 4x4 Flat	18,247	5	15	10	3,647	Annual Service	$200	Annual Service	$200
						New Windshield Wipers	$30		
1999 Ford Utility 4x4	39,867	14	15	1	4,029	Annual Service	$200	Annual Service	$200
						Changed coolant to sierra	$50		
2003 Ford F250 TV Truck	24,321	10	15	5	4,306	Annual Service	$200	Annual Service	$200
						W/W, ball bearings replaced	$1,006	New Tires	$800
1997 Ford Explorer	103,168	16	15	-1	10,232	Annual Service	$200	Annual Service,30K	$400
						Tires replaced	$635	rotar and brake replacement	$600
1998 Ford Ranger 4x4	82,995	15	15	0	15,701	2x Annual Service	$300	2x Annual Service	$300
						New Windshield Wipers	$50		
2008 F-750 Dump Truck	4,505	5	30	25	845	Annual Service	$200	Annual Service	$200
1998 JD 444H Loader	2,886	15	30	15	68	Annual Service	$200	Annual Service	$200
						replaced air filters and blck heater	$100		
1994 JCB Backhoe	2,710	19	30	11	60	AF, Annual Service	$200	Annual Service	$200
						HF stop leak, mechanic for inspec.	$1,400		
1998 JD Air Compressor	321	15	20	5	21	Annual Service	$100	Annual Service	$100
2007 New Holland	310	6	30	24	52	Annual Service	$200	Annual Service	$200
Westa Sno Blower			20	14		replaced windshield wiper motor	$100		
2009 Vac-Con Hydro-Vac	5,003	4	30	24	549	Annual Service	$200	Annual Service	$200
Power Take Off (PTO)	118	4	30	24	49	grease, o-rings for hydrolic	$120	snow chains	$500
2009 Duetz Rear Engine	242	4	30	24	87	Annual Service	$100	Annual Service	$100
						Replaced Fuel filters	$50		
6" Trash Pump (2000)	25.5	13	30	17	2	Annual Service	$100	Annual Service	$100
2010 Prowler Easement	22.8	3	20	13	13	DND	$0	Annual Service	$100
Well House Generator	190.4	20	40	20	7	Annual Service	$100	Annual Service	$100
(1993)									
1810 Generator (1991)	759.6	22	40	18	8	Annual Service	$100	Annual Service	$100
305 Generator (2004)	131.2	9	40	31	9	Annual Service	$100	Annual Service	$100
Miscellaneous Shop Supplies						Rags,Cleaning supp. Ect.	$500	shop cart,grease hlder,rags ect	$500
								2 spot lights	$300
Total	Fleet Ave.	10.5					**$6,741**		**$ 5,700**

Vehical Manpower and Maintenance Costs



Vehicle and Equipment Replacement Timeline
Ten Year CIP

Vehicle	Year	Cost
1997 Ford Explorer	2013	$28,000
2003 F-250 Service Truck	2013	$30,000
1994 JCB Backhoe	2014	$75,000
1998 Ford Ranger	2015	$25,000
1999 F-250 Utility	2016	$30,000
Add Utility Truck	2017	$32,000
Vac-Con Rear Engine Retrofit	2018	$10,000
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
		Total $488,000

Air Board Regulations
Summary of Requirements
November 2012

Stationary Engines:

Stationary engines include our generators which are all permitted as emergency use only and are exempt from the particulate requirements so long as the status remains unchanged and the inspections are passed. The following is an inventory of the Districts Stationary engines:

Year/Engine	Model No.	Serial No.	Engine Family	G/BHP
2004 John Deere, 347 HP	6081AF001	RG6081A165339	KXRG1685F	Exempt
1992 Detroit Diesel, 6-71T	10637305	06A0468761		Exempt
1991 Ford 460CID, Propane	LSG-8751-6005-A	06192A-24-RG		Exempt

Placer County requires annual reporting of the operating hours for all generators for maintenance and emergency operation. This is usually accomplished in January.

Mobile Engines:

A review of mobile engine regulations puts the District fleet in compliance through 2017. The District must meet a fleet average for diesel emissions of 0.30 G/BHP starting in 2013. In 2017 a lower standard of 0.18 G/BHP goes into effect and in 2020 the level is 0.04 G/BHP. There is an Excel spreadsheet in the vehicle maintenance file that summarizes the following:

Year/Engine	Model No.	Serial No.	Engine Family	G/BHP
2009 Vac-Con, 131 HP Duetz	TCD2012L042V	10704750	8DZXL04.1080	0.0671
1998 Compressor, 80 HP JD	4045DF	TO4045D756933	WJDXL06.8016	Exempt
2000 6” Pump, 80 HP JD	4045DF1508	PE4045D114314	XJDXL06.8016	Exempt

The air compressor is registered as low hour exempt and the 6” pump is registered as emergency use only exempt. The Vac-Con rear engine will need to be outfitted with an emission reduction device in 2019 in order to meet the 0.04 G/BHP by January 1, 2020.

On Road Heavy Duty Utility Fleet:

The District has complied with the public utility fleet rule by replacing all vehicles in the fleet prior to the required compliance dates. The District’s On Road Heavy Duty Fleet now consists of the following vehicles:

Year/Engine	Model No.	Serial No.	Engine Family	G/BHP
2008 Ford, 6.7 L Caterpillar	C-7	0C7S00927	7CPXH0442HLK	200 HP
2009 INTL. Vac-Con	GDT 300	466HM2U3063686	MAXXFORCE DT	300 HP

Vehicles purchased after 2007 are currently exempt from further compliance requirements.

IN-Use Off-Road Diesel Vehicles:

The District has registered all off road equipment and is in compliance through 2020; however in 2021 the District must meet a Fleet Target of 5.8 G/BHP, the current fleet average is 8.2 G/BHP. The Air Board has created a fleet reporting tool called DOORS for off road equipment. DOORS is accessible with a user name and password that is located in the front of the Air Board Regulations binder in the Operations Managers office. Below is a summary of vehicles registered:

Year/Engine	Model No.	Serial No.	Engine Family	G/BHP
1994 JCB, 85 HP Perkins	V652361Y	A350440	4081NA001	1.200
1998 JD, 110 HP	T04045TDW50	T04045T45834	VJD6.8R6DBRC	0.600
2007 NH TV-145, 105 HP	TV-145	RVSO55384	4081NA003	0.22

The 1994 JCB backhoe is registered as low use and the New Holland snow blower is registered as dedicated snow removal making them both exempt. The DOORS program has a page to enter low use, **reporting for a small fleet begins in 2018**. The low use hour exemption was recently extended to 200 hours instead of the previous 100 hour limit. It is possible the Loader can also be exempt for low hour usage when reporting begins; however it will be 20 years old at that time. There are early credits for replacing vehicles prior to January 1, 2018 and alternative options for a small fleet under 500 HP. If the JCB is replaced before 2018 the credit will extend compliance to the remaining vehicles through 2022.

Boiler Permits:

The District holds permits from Placer County for the boilers at the Fire Station and Administrative Center as follows:

Boiler #1 = Serial No. AC-07-124A = Permit No. SVPF 07-01
Boiler #2 = Serial No. AC-07-124B = Permit No. SVPF-07-02

Annual operating records are required along with annual boiler flame inspection/adjustment.

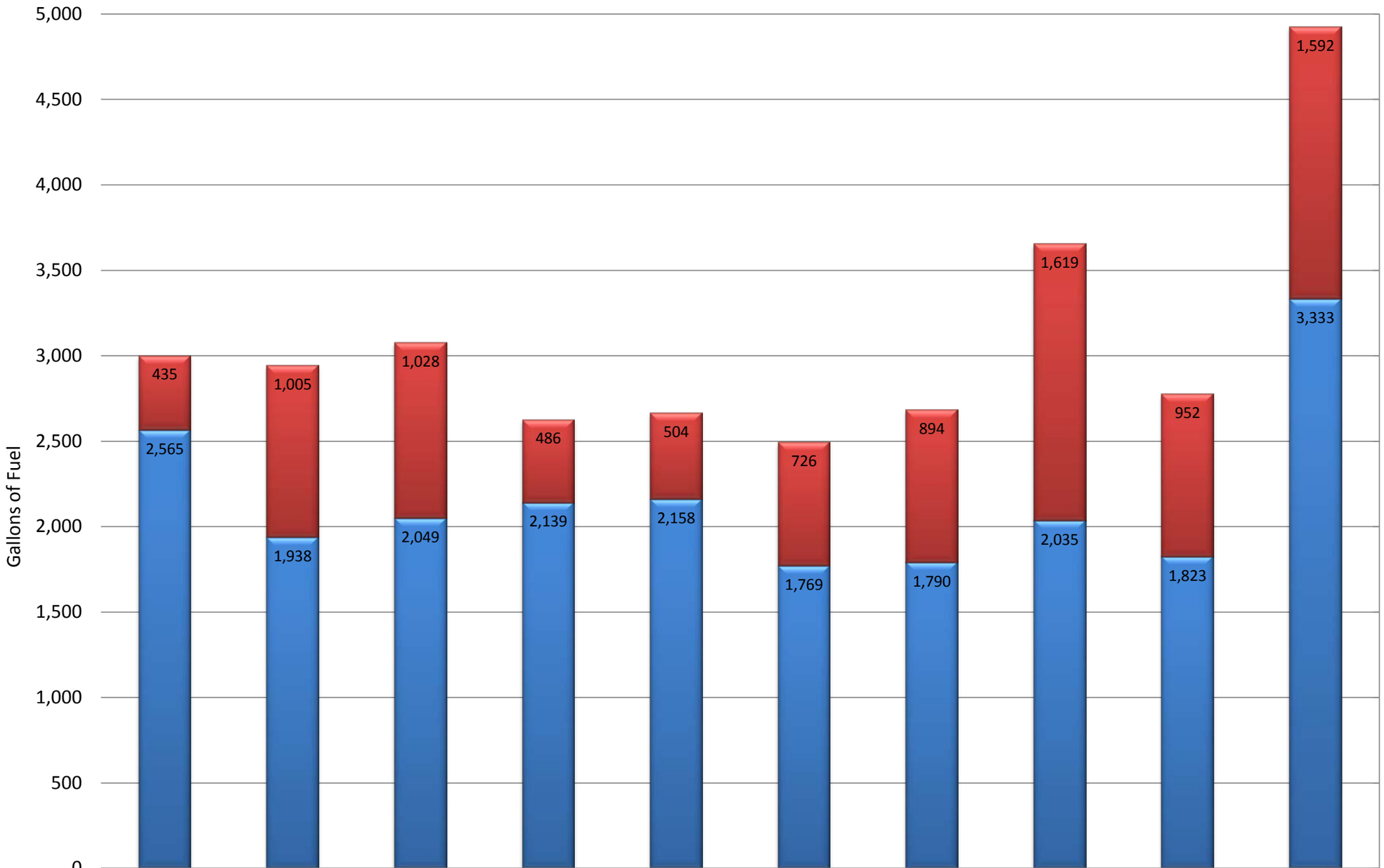
SUMMARY:

The backhoe and loader are reaching service life considerations. Reporting of run hours is required in 2018. A requirement must be met in 2021 to meet CARB limits which can be met through early disposition of older machines should either be replaced. In 2019, the Vac-Con must be retro-fit with an emission reduction strategy to meet 2020 CARB limits.

Recommendation:

I recommend replacement of the JCB backhoe in 2014 if not sooner. The JCB has been leaking in the hydraulic body for several years and the repair cost is estimated at over $5,000. We are facing a costly repair of the drive train now. The Reno facility for JCB has closed leaving Sacramento for parts and service. Maintenance efforts and operator ergonomics would benefit from a newer stronger John Deere 310 or 410; both far superior to the JCB.

Diesel and Unleaded Fuel Usage for Utility Dept



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Diesel	434.70	1005.20	1027.90	485.95	504.10	725.70	893.80	1619.45	952.40	1591.90
Unleaded	2565.30	1938.00	2049.00	2139.40	2158.40	1768.90	1790.10	2034.90	1823.25	3332.80