OLYMPIC VALLEY PUBLIC SERVICE DISTRICT



2020 WATER AND SEWER SYSTEM REPORT

Prepared April 2021
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EQUIPMENT CAPITAL REPLACMENT PROJECTS

Budget Year 2022 - 2026

Equipment Type	Funding Source	F,	1 21/22	F	Y 22/23	F	Y 23/24	F	Y 24/25	F'	Y 25/26	Pro	ject Total
Fleet													
Ford F-250	Water/Sewer FARF			\$	49,900							\$	49,900
Ford F-350	Water/Sewer FARF							\$	46,300			\$	46,300
Equipment												İ	
Sewer Bypass Trailer and Hose	Sewer CIP	\$	20,000									\$	20,000
New Holland	Water/Sewer FARF									\$	87,100	\$	87,100
Zone 3 Portable Generator	Water FARF	\$	50,000									\$	50,000
JD Loader	Water/Sewer FARF									\$	78,700	\$	78,700
Small Tools and Equipment													
Sewer Lateral CCTV Cam	Water/Sewer FARF					\$	20,000					\$	20,000
Radios	Water/Sewer FARF	\$	15,000									\$	15,000
Listening Devices	Water/Sewer FARF									\$	7,500	\$	7,500
TOTAL		\$	85,000	\$	49,900	\$	20,000	\$	46,300	\$ ^	173,300	\$	374,500

WATER CAPITAL PROJECTS

Budget Year 2022 - 2026

Budget rear 2022 - 2026							
CIP Projects	Funding Source	FY 21/22	FY 22/23	FY 23/24	FY 24/25	FY 25/26	Project Total
Pressure Zone 1A Project	Water CIP	\$ 60,000			\$ 838,000		\$ 898,000
OVPSD/SVMWC Intertie	Water CIP	\$ 130,000	\$ 450,000				
PlumpJack Well	Water CIP		\$ 125,000	\$ 975,000			\$ 1,100,000
	TOTAL	\$ 190,000	\$ 575,000	\$ 975,000	\$ 838,000	\$ -	\$ 1,998,000
CRP Projects							
West Tank Recoating Project	Water FARF	\$ 500,000					\$ 500,000
Zone 3 Tank Recoating Project	Water FARF		\$ 210,000				\$ 210,000
Victor/Hidden Lake 2" Waterline Replacement Project	Water FARF			\$ 15,000	\$ 125,000		\$ 140,000
Hidden Lake Waterline Loop Replacement Project	Water FARF			\$ 15,000	\$ 125,000		\$ 140,000
Residential Meter Replacement Project	Water FARF	\$ 300,000	\$ 300,000	\$ 150,000			\$ 750,000
Fire Hydrant Replacement Project	Water FARF	\$ 21,000	\$ 21,000	\$ 21,000	\$ 21,000	\$ 21,000	\$ 105,000
	TOTAL	\$ 821,000	\$ 531,000	\$ 201,000	\$ 271,000	\$ 21,000	\$ 1,845,000
	<u> </u>						
GRAND TOTAL		\$1,011,000	\$1,106,000	\$1,176,000	\$1,109,000	\$ 21,000	\$ 3,843,000

SEWER CAPITAL PROJECTS

Budget Year 2022 - 2026							
Project Title	Funding Source	FY 21/22	FY 22/23	FY 23/24	FY 24/25	FY 25/26	Project Tota
CIP Projects							
	TOTAL		•		•	•	•
	TOTAL	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CRP Projects	5485	A 050 000	A 4 000 000				A 4.050.00
Sewer Line and Manhole Rehabilitation	Sewer FARF		\$1,000,000				\$ 1,250,000
Sewer System CCTV	Sewer FARF	\$ 50,000					\$ 50,000
Backyard Easement Sewer Replacement Projects	Sewer FARF		\$ 290,000		\$ 290,000		\$ 580,000
	TOTAL	\$ 300,000	\$1,290,000	\$ -	\$ 290,000	\$ -	\$ 1,880,000
GRAND TOTAL		\$ 300,000	\$1,290,000	\$ -	\$ 290,000	\$ -	\$ 1,880,000

OVPSD Utilities Report 2020

I. Flow Report

- A. Water Production Total = 107.23 MG Comparison: 7.38 MG Less Than 2019
- B. Sewer Collection Total = 68.26 MG Comparison: 19.07 MG Less Than 2019
- C. Aquifer Level 2020 Maximum Level May 1, 2020: 6190.3'
 Minimum Level November 12, 2020: 6177.8'

Total Change in Static Water Level 2019: 6.6' Total Change in Static Water Level 2020: 12.5'

- D. Precipitation Total 19/20 Water Year = 31.18" 53-Year average = 53.37" 19/20 Water Year % of the 53-Year average = 58.42%
- E. Flow Report Conclusions: Water production decreased 6% over the previous year. Sewer collection decreased 22% 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 2019 through September 2020.
- **** 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: 11
- 2. Water meters replaced or rebuilt: 3
- 3. Water meter upgrades: 3
- 4. Customer service water meters turned on or off: 2
- 5. Routine leak/high usage detection notification: 131
- 6. Customer requested leak detection services performed: 18
- 7. No water responses: 0
- 8. Fire hydrants flushed: 157
- 9. Blow-offs flushed: 20
- 10. Valves exercised: 21
- 11. Repair/Replace service line: 0
- 12. Repair leak on water main: 0
- 13. Backflow devices tested: 531
- 14. Test District backflows: 4
- 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: 0
- 19. Replaced Air/Vac breakers: 0
- 20. Water samples collected:

Bacteriological: 24

Nitrate: 4 Nitrite: 4

Radium 228: 4

Secondary/GP: 1

B. Sewer

- 1. Sanitary sewer overflows: 1
- 2. Main line repairs: 0
- 3. Service line repairs: 0
- 4. Sewer cleanout repairs: 0
- 5. Manhole repairs: 6
- 6. Manhole grouting: 0
- 7. Cleaning:

Spring and fall cleaning of high priority lines

Main sewer lines cleaned: 235

8. Inspections:

Underground Service Alerts: 119

Plan Review: 49

Pre-remodel Inspections: 0

Final Inspections: 16

Fixture count Inspections: 0

Water service line Inspections: 29

Sewer service line Inspections: 85

Sewer main line Inspections: 0

Water quality complaint Investigations: 0

Water Backflow Inspections: 4

Fog Inspections: 3

Toilet rebate Inspections: 0 Second Unit Inspections: 0

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. VUE Works migration from Hanson.
- B. VUE Works data input.

VI. Operation & Maintenance Projects

- A. Vegetation removal from access roads to tanks
- B. Gate valve box repairs
- C. Continued Operations and Maintenance of SV Mutual Water Company
- D. Sewer System I/I inspection
- E. 2020 CCTV Sewer Project
- F. Manhole Repairs
- G. Spring and Fall Flushing
- H. Annual Sewer Cleaning
- I. High Priority Cleaning
- J. Hydrant Ballard Repairs
- K. 1810 Admin Building Painted
- L. Tank Inspections
- M. Fire Hydrant Repairs
- N. Sewer C/O Locating
- O. Meter Box replacements
- P. Repaired Leak on Hydrant H020

VII. Summary

2020 was a challenging year with Covid-19; the OVPSD Operations Department has been separated into two locations and has been working safely and diligently to maintain the Public Service District's system operations. The Operations Department was able to make a number of repairs to assets in the District as well as finding lost assets throughout the system. We responded swiftly to a Category 3 SSO without complications. 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

4/10/2020	Slips, Trips and Falls, SDRMA Booklet
	Joshua, Jason, Schel, Sam, Nic, Ty, Brandon
4/24/2020	Emergency Evacuation, SDRMA Booklet
	Joshua, Jason, Sam, Ty, Nic
5/1/2020	Working Outdoors Mosquitoes & Ticks, SDRMA Booklet
	Joshua, Sam, Schel, Jason, Nic
5/15/2020	CPR and AED, SDRMA Booklet
	Joshua, Sam, Jason, Nic
5/22/2020	Powered Hand Tool Safety, SDRMA Booklet
	Joshua, Schel, Sam, Jason, Ty, Nic
7/17/2020	Pro-Active Safety Attitudes, SDRMA Booklet
	Joshua, Sam, Schel, Jason, Ty
7/24/2020	Heat Stress for Public Employees, SDRMA Booklet
	Joshua, Sam, Schel, Nic, Jason, Ty
10/23/2020	Ergonomics, SDRMA Booklet
	Joshua, Ty, Nic, Jason, John, Sam, Schel
11/20/2020	Blood Borne Pathogens, SDRMA Booklet
	Joshua, Brandon, Sam, Nic, Jason, Ty, Schel
12/4/2020	Recognizing Drug and Alcohol Abuse, SDRMA Booklet
	Joshua, Brandon, Nic, Jason, Ty, Sam
12/11/2020	Workplace Violence, SDRMA Booklet
	Joshua, Jason, Nic, Ty, Schel, Sam
12/18/2020	Holiday Safety, SDRMA Booklet
	Joshua, Jason, Ty, Nic, Schel, Sam

IX. Occupational Training

1/3/2020	SSMP SSO Response Plan, 305 Office
	Brandon, Jason, Schel, Sam, Nic, Ty, Joshua
6/9/2020	SDS, Hazardous Waste/Spills, First Aid
	Brandon, Joshua, Sam, Jason, Nic, Schel, Ty
11/16/2020	Trackless Snow Removal & Safety, 1810
	Joshua, Jason, Nic, Sam, Schel
11/16/2020	Backhoe Operation (Winter Time Snow Removal), 1810
	Schel, Joshua, Sam, Jason, Nic, Ty
11/17/2020	Overflow Emergency Response Plan, (305,1810)
	Joshua, Jason, Schel, Sam, Nic, Ty

Water System Inventory – 2020

- 1. Water Well #1R 370 GPM average. *
- 2. Water Well #2R 320 GPM average. *, **
- 3. Water Well #3 108 GPM average. *
- 4. Water Well #4 (Not in Service)
- 5. Water Well #5R 385 GPM average. *
- 6. Horizontal Well (Out of Service). *, ***

2020 Total average flow - 1,183 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. 868 Water Meters connected per Billing
- 12. 138 Fire Hydrants
- 13. 34 Air Release Valves
- 14. 515 Backflow Prevention Devices
- 15. 417 Gate Valves

Notes:

- * 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 is out of service. 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.
- **** 2020 total average flow does not indicate total capacity. This total is the combined GPM flows from all the wells as they were operated in 2020 calendar year.

Water System Inventory – 2020

- 16. 17 Butterfly Valves
- 17. 23 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
- 21. 12,761 Feet 12" Water Distribution Main
- 22. 10,752 Feet 10" Water Distribution Main
- 23. 32,312 Feet 8" Water Distribution Main
- 24. 21,015 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. 3,170 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 = 78,526 Feet = 14.872 Miles Total Water Services = 7,303 Feet = 1.383 Miles Combined Total = 85,829 Feet = 16.250 Miles

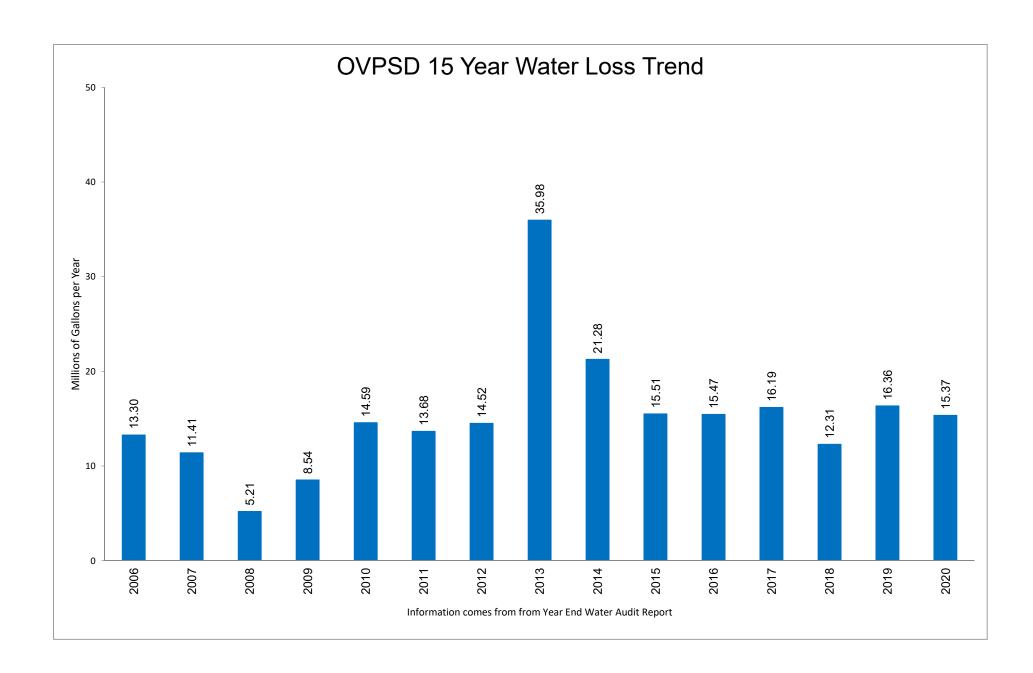
Olympic Valley Public Service District - Year End Water Audit Report

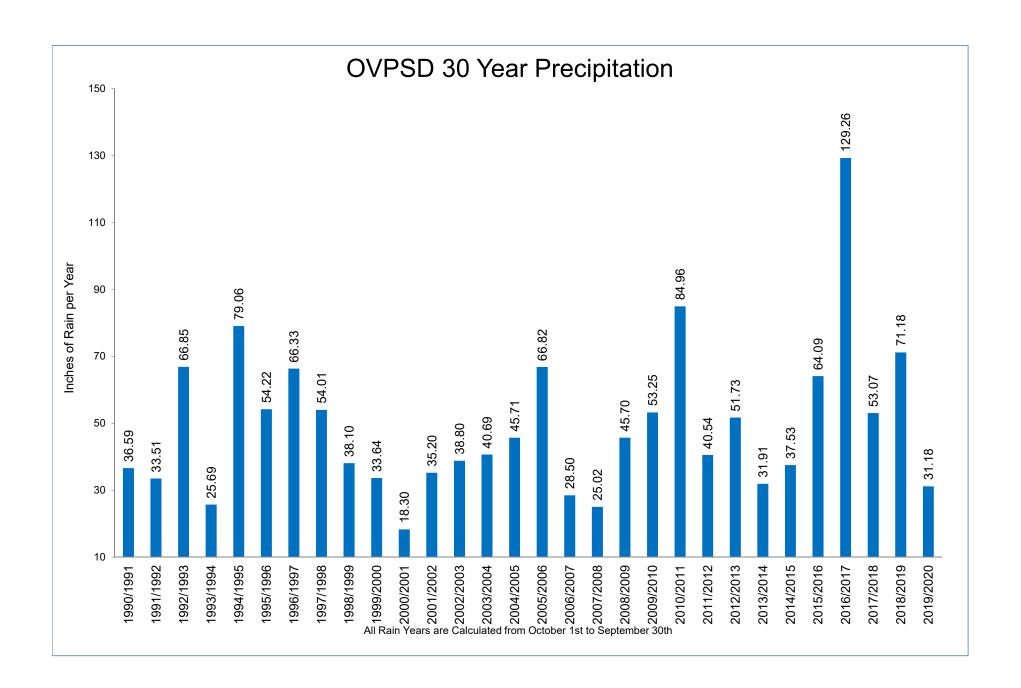
			Report Date: _	January 10, 2021	Performed By:	Brandon Burks
`	Year: _	2020				
		Begin Audit Period:				
		End Audit Period:	12/31/20 12:00 AM			
		otal Metered Consum	nption for audit period	specified (including l	hydrant meters):	93,725,429
		otal Metered Consult	iption for addit period	specified (including i	iyulani meters).	95,725,429
			Additional Consumpt	ion - Unmetered		
		F	ire Department Use:			
			Hydrant Flushing:	2,112,900		
			Blow-Off Flushing:	<u>60,000</u>		
			Sewer Cleaning:	300,000		
			Street Cleaning:			
			Well Flushing:	120,000		
			Tank Overflows:			
		Unread Met	er Estimated Reads:	<u>264,100</u>		
			Other:			
		Total Unmetered	Consumption (for aud	dit period specified):	2,963,500	
			Estimated Unknown L	oss - Unmetered		
				- Chillotorou	•	
		Known	Illegal Connections:		•	
	Total	Estimated leaks that	_	190,400	•	
			ed Unmetered (for aud		190,400	
			(10. 0.0.	p = = -p = = -j.	,	
			Total	Production for audit	period specified:	107,461,400
		Total <u>M</u>	letered/Unmetered Co	onsumption for audit	period specified:	92,093,986
		Total W	/ater Loss (Production	on - Consumption):	15,367,414	
		i Otai Vi	ater Loss (i roduction	Loss Percentage:	14.3%	***
				Loss Fercentage.	14.5 /6	
Commo	ents: 1	The production totals	are different than the	monthly report due to	o a different time	frame
being us	sed.					

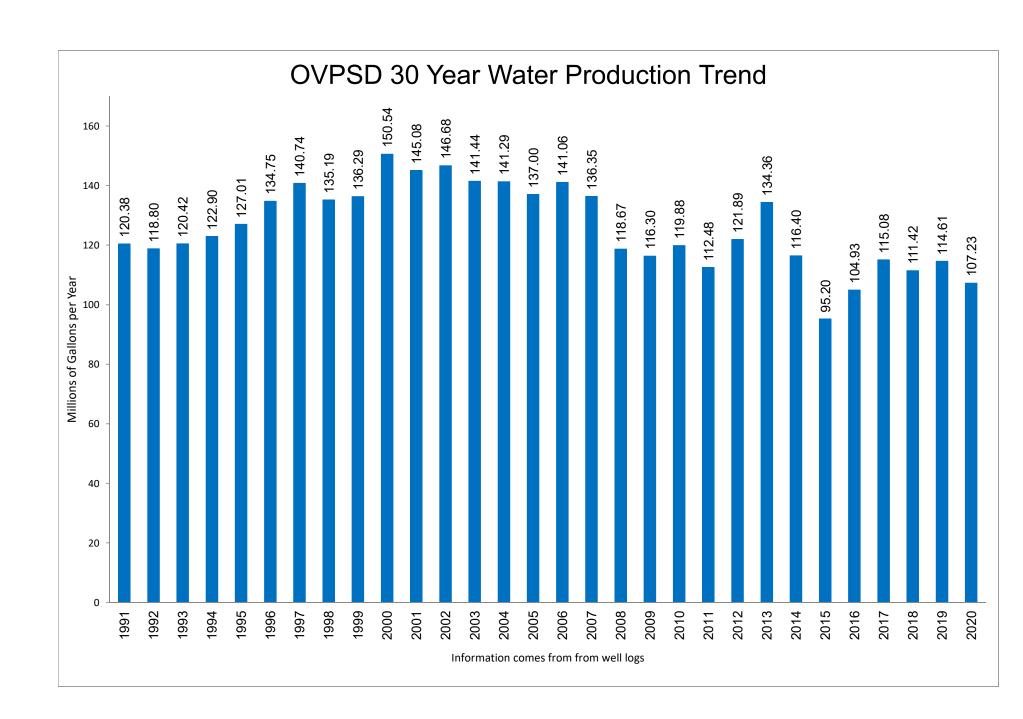
^{*} Instructions - Only fill in the blue cells *

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

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







				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	1,286	1,286	1,347	415	409
2017	1,622	1,615	1,614	1,447	1,447	1,698	317	313
2018	1,643	1,542	1,547	1,476	1,476	1,769	342	338
2019	1,697	1,640	1,474	1,456	1,456	1,808	333	330
2020	1,628	1,608	955	1,608	1,608	1,628	336	355
Total Hours	24,216	15,294	8,907	15,969	7,423	8,598	11,534	10,427

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.

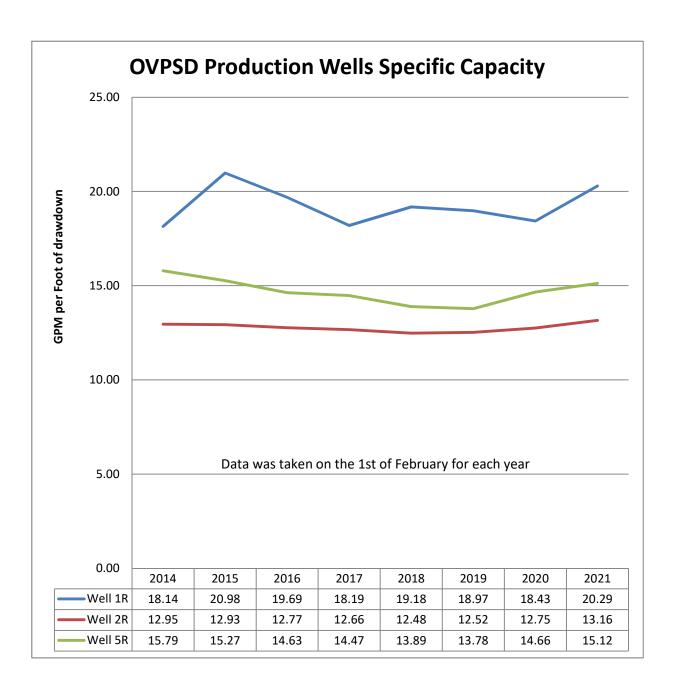
Well 3 - the motor was replaced in 2014 after 5,787 hours in service.

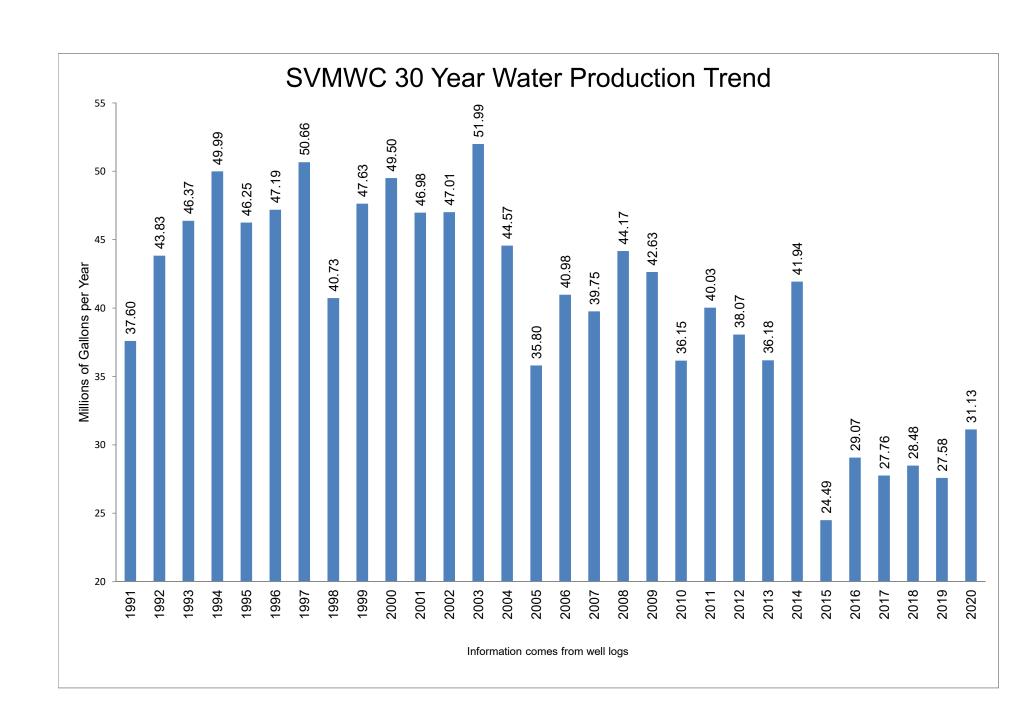
Well 3 - the pump was replaced in 2014 after 17,903 hours in service.

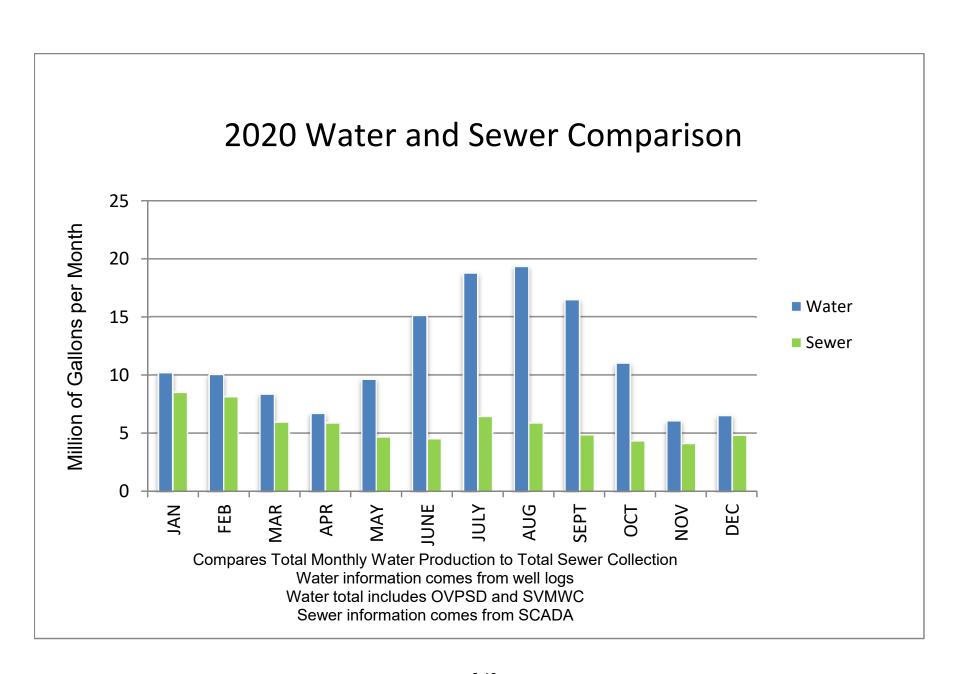
Well 5R - the motor was rebuilt in 2010 after 20,246 hours in service.

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.

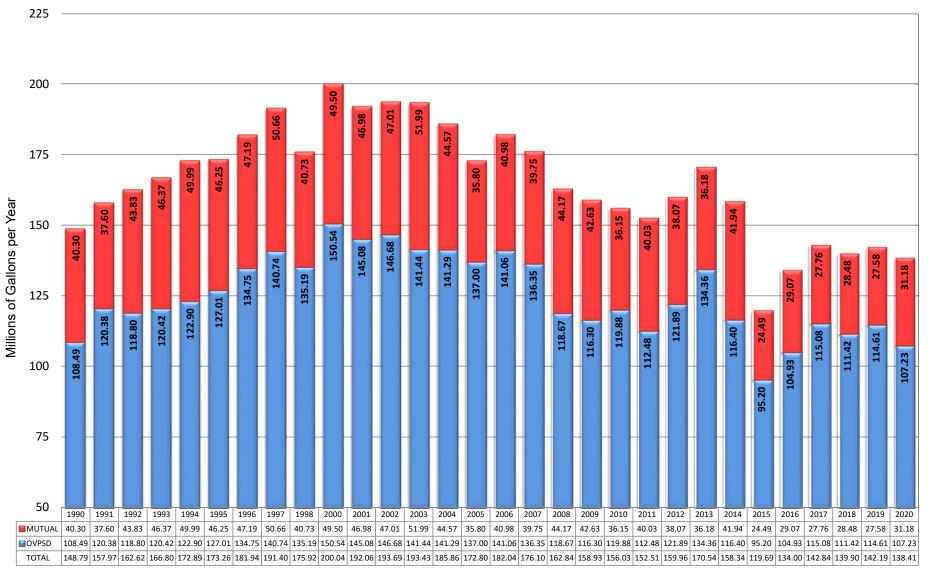






	Water and Sewer Production 2020										
	WATER	WATER	WATER	SEWER							
	OVPSD	SVMWC	TOTAL	TOTAL							
JAN	8.65	1.58	10.23	8.53							
FEB	8.45	1.60	10.05	8.14							
MAR	6.86	1.51	8.37	5.97							
APR	5.15	1.58	6.73	5.90							
MAY	7.16	2.50	9.66	4.67							
JUNE	11.08	4.05	15.13	4.54							
JULY	15.02	3.77	18.79	6.44							
AUG	14.47	4.87	19.34	5.90							
SEPT	12.22	4.26	16.48	4.87							
OCT	8.25	2.77	11.02	4.34							
NOV	4.76	1.31	6.07	4.11							
DEC	5.16	1.38	6.54	4.85							
	107.23	31.18	138.41	68.26	Million Gallons						
		/ater informat									
	Sewer information comes from SCADA										

30 Year OVPSD and SVMWC Combined Water Production Trend

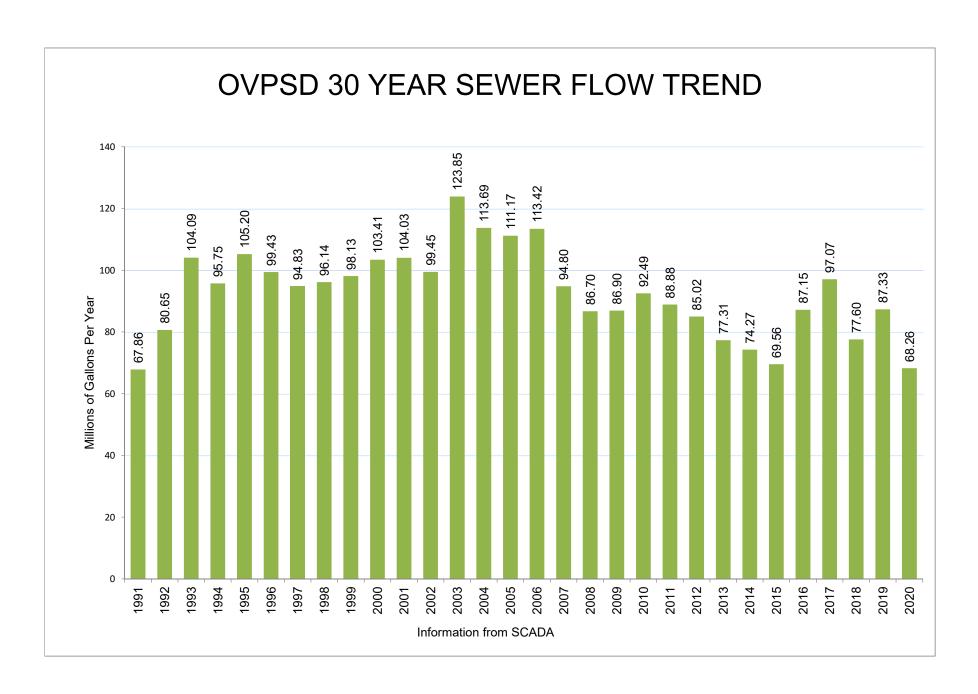


Information comes from from well logs

SEWER SYSTEM INVENTORY – 2020

- 1. 456 Sanitary Manholes
- 2. 3 Siphons (6",12",16")
- 3. 3 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
- 4. 587 Feet 16" Sewer Main
- 5. 11,791 Feet 15" Sewer Main
- 6. 3,104 Feet 12" Sewer Main
- 7. 8,945 Feet 10" Sewer Main
- 8. 18,242 Feet 8" Sewer Main
- 9. 54,115 Feet 6" Sewer Main
- 10. 6,687 Feet 4" Sewer Main
- 11. 45,052 Feet 4" Sewer Lateral
- 12. 995 Sewer Connections per Billing
- 13. 2 Remote Terminal Units (RTU)

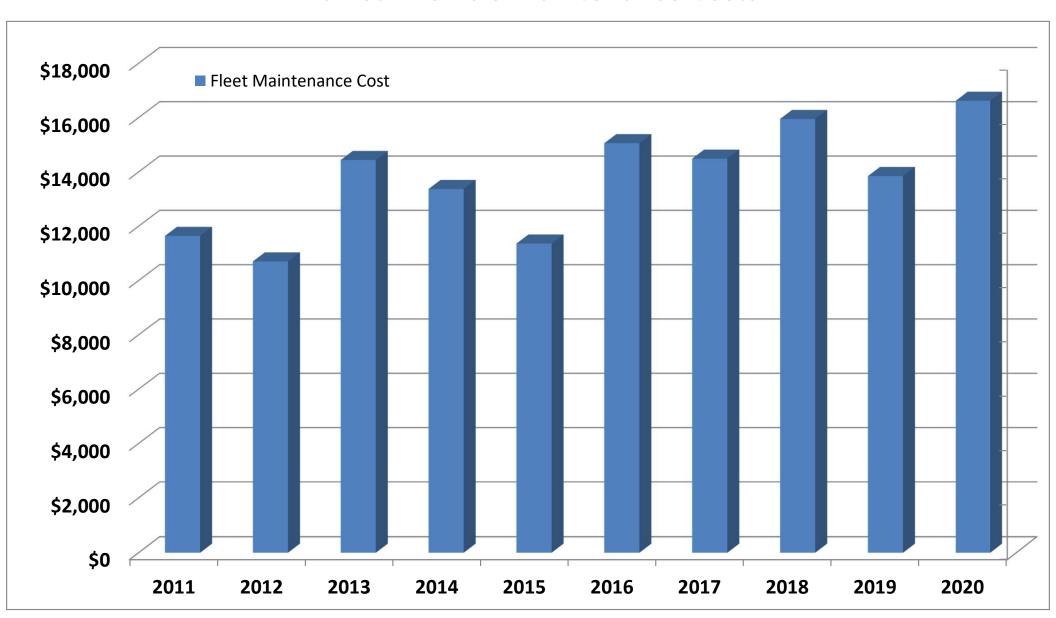
Total Sewer Main = 103,471 Feet = 19.597 Miles Total Sewer Laterals = 44,152 Feet = 8.532 Miles Combined Totals = 147,623 Feet = 27.959 Miles



Annual Report on District Fleet

2020									
Vehicle/Equipment	Mileage	Age	Replacement	Service	Annual	Maintenance	2020	Maintenance	2021
	Hours		Schedule	Life	Use	Performed	2021	Due	2022
2008 Ford 1 Ton 4x4 Flat	44,034	13	15	2	2,877	Annual Service	\$175	Annual Service	\$300
						Gate Controller	\$250		
1999 Ford Utility 4x4	72,282	22	15	-7	2,988	Annual Service	\$175	Annual Service	\$300
						Break Controller/New Tires	\$1,400		
2014 Dodge Ram 4x4	49,336	7	15	8	5,867	Annual Service	\$250	Annual Service	\$300
_									
1997 Ford Explorer	128,182	24	15	-9	1,544	Annual Service	\$175	Annual Service	\$300
·									
2014 F-150 4x4	130,132	7	15	8	18,262	2x Annual Service	\$175	2x Annual Service	\$300
						New Tires/Brakes & Rotors	\$1,050	New Tires	\$550
2008 F-750 Dump Truck	10,504	13	30	17	229	Annual Service	\$175	Annual Service	\$300
						Cut off switch/Batteries	\$750		
1998 JD 444H Loader	3,854	23	30	7	43	Annual Service	\$175	Annual Service	\$300
						New Tires /Chains/St. Tilt	\$4,300	Cutting Blade	\$1,500
JD Backhoe	464	3	30	27	109	Annual Service	\$215	Annual Service	\$300
							1		·
2020 Isuzu Compressor	0	0	20	20	0	Annual Service	\$0	Annual Service	\$300
I/R Compressor					-		\$175		,
2007 New Holland	571	14	30	16	20	Annual Service	\$250	Annual Service	\$300
Westa Sno Blower		14	20	6		New Batteries	\$450	Cutting blade/Wear shoes	\$1,000
							,		, , , , , , , , ,
2009 Vac-Con Hydro-Vac	9,395	12	30	18	601	Annual Service	\$300	Annual Service	\$300
Power Take Off (PTO)	278	12	30	18	10	Hydraulic/Engine Repairs	\$3,500	Hydraulic Filters	\$1,000
2009 Duetz Rear Engine	966	12	30	18	123	Annual Service	\$300	Annual Service	\$300
							1 7000		7555
2016 Ford Interceptor	26,487	5	15	10	7,890	2x Annual Service	\$175	2x Annual Service	\$300
,	-, -				,				,
6" Trash Pump (2020)	2	0	30	30	2	Annual Service	\$0	Annual Service	\$300
Old Trash Pump							\$175		,
2010 Prowler Easement	233	11	20	9	12	Annual Service	\$175	Annual Service	\$300
						New Battery	\$80		,
Well House Generator	259	28	40	12	5	Annual Service	\$175	Annual Service	\$300
(1993)									,
\ /							1		
1810 Generator (1991)	812	30	40	10	5	Annual Service	\$300	Annual Service	\$300
				. •	-		1 7 7 7	23	+ 300
305 Generator (2004)	185	17	40	23	5	Annual Service/Batteries	\$300	Annual Service	\$300
Equipment/Old Vehicles		<u> </u>					\$600	Equipment	\$600
Miscellaneous Shop Supp	lies					Rags, Cleaning supp. Etc.	\$400	Rags, Cleaning Supp. Etc.	\$600
Total	Fleet Ave.	13.5				. tage, c.ea.mig capp. Etc.	\$16,620	. tage, c.ea.mig capp. Etc.	\$10,650

10 Year Vehicle Maintenance Costs



OVPSD Operation Department 10 Year Fuel Usage Trend

