

MEMO

TO: District Manager

FROM: Director of Operations

SUBJECT: OPERATIONS DEPARTMENT STATUS REPORT
January 2019

DATE: February 21, 2019

RECOMMENDATION:

It is recommended that the District Manager review and file the Operations Department Project Status Report for the month of January 2019.

BACKGROUND:

BLUE TANK REPLACEMENT

The bid was awarded to Don Chapin Company for the concrete slab enhancement plans. Submittals and pre-construction meeting were completed in January 2019. Construction is set to begin once weather permits in February. Following the concrete slab enhancements, Superior Tank Company will move in to erect the new tank on the existing improved concrete slab.

During routine inspection it was discovered that the Districts Blue Tank in Manana Woods has experienced extensive corrosion to the upper ring of staves, roof and internal roof structure system. In addition to corrosion the tank experienced buckling damage from the 1989 Loma Prieta Earthquake.

FELTON WATER SYSTEM WATER METER REPLACEMENT

Staff is continuing with great success the Felton Water System Meter Replacement Project. Domestic water meters are being replaced as existing meters have reached their life expectancy. Meters are being changed to the new Beacon "Eye on Water" system that will allow customers to monitor their water usage over the internet.

PASO WELL #8

The new Paso Well #8 construction continues. Title 22 and bacteriological sample reports were received and forwarded to the State Water Resources Control Board for the water quality of the Well. It has been determined that the Well is over the MCL for arsenic and a blending scheme is being put together for approval from the State Water Resources Control Board. This is not uncommon for this Well field. Well head design is put together and being reviewed by District staff to submit to the State Water Resources Control Board approval.

Paso Well #8 is a replacement to Paso Well #6 that began splitting in its casing in 2015, which was allowing sand to overcome the pump and motor. Many attempts to fix and seal the casing on the Well were unsuccessful leading to full replacement of the Well.

PASO WELL #5A

The District received multiple calls in the Scott's Valley area of brown and dirty water in December 2018. The water quality group found that Paso Well #5A was pumping sand and gravel. The Well was pulled and video of the Well was taken. There was an area found in the screens where there was sand and gravel coming through the gravel pack and screen. It is undetermined what caused the sand and smaller gravel to begin to come through the gravel pack and screens, could have been ground movement or the pump and motor hitting the side of the Well column during a start or stop. Water jetting and swabbing to clean the screens and gravel pack has been in process. The District is looking at the end of February 2019 completion with the Well back in full operation.

SCADA (Supervisory control and data acquisition) UPGRADE

In January 2019 there was a great amount of progress on the SCADA upgrade. The District received the last pieces of hardware for the upgrade. The project is proceeding forward and the District staff is anxious and looking forward to the system upgrade being complete.

The District is about 90% done with conversion of the new SCADA and HMI system. The conversion that is done is operational and live. Our equipment and software are out of date and have been crashing needing restarting and rebooting several times a month, leading to this upgrade. District staff has been working with an outside contractor that was contracted to do the upgrade and replacement.

MAINTENANCE ISSUES

Service Line Replacement Lompico

Service Line Replacement:

10641 Visitar St.

11844 Sunset Ct.

10926 Sequoia Ave.

Main Line Repairs

6 inch main line repairs 8255 Oak Ave.

System Wide

Installed new break away hydrant check valve and fire hydrant at the corner of Hwy 9 and Scenic way, due to a vehicle accident.

2 service upgrades to 1" meters, for fire flow.

Full service line replacement 13515 West Park Ave.

Abandoned and old 2" cla-val and piping in a customers driveway that was

no longer in use.

17+ Mainline/Service Line Leaks Were Repaired.

Water shed road maintenance with certified forester Steve Butler.

Dead Meter Change Out

Boulder Creek

Ben Lomond

Scotts Valley

James Furtado

Director of Operations

SAN LORENZO VALLEY WATER DISTRICT PRODUCTION COMPARRISON

Source	January-19	December-18	January-13	Difference This Year To 2013
North System				
Surface Water Sources				
Foreman Creek	21,642,353	5,241,092	15,866,000	
Peavine Creek + Hydro	775,923	1,053,582	9,002,000	
Clear Creek	5,526,422	8,662,396	4,965,000	
Sweetwater Creek	3,681,302	5,774,930	3,310,000	
Sub-Total (Streams)	31,626,000	20,732,000	33,143,000	-4.58%
Wells (North)				
Olympia No. 2	1,289,000	3,326,000	0	
Olympia No. 3	329,000	2,899,000	0	
Quail Well No. 4-A	690,000	4,378,000	0	
Quail Well No. 5-A	240,200	4,118,000	3,800	
Sub Total North Wells	2,548,200	14,721,000	3,800	66957.89%
South System Wells				
Pasatiempo 5A	-	13,023,100	N/A	
Pasatiempo 6	-	-	4,357,000	
Pasatiempo 7	1,508,000	4,725,000	1,644,000	
Sub Total Pasatiempo Wells	1,508,000	17,748,100	6,001,000	-74.87%
North South All Sources Combined	35,682,200	53,201,100	39,147,800	-8.85%
Felton System - Surface Water				
Fall Creek	4,606,162	5,498,714	3,873,810	
Bennett Spring	2,083,180	1,885,708	3,651,200	
Bull 1 & 2	1,274,592	1,184,832	4,487,200	
Total Felton System Sources	7,963,934	8,569,254	12,012,210	-33.70%
Manana Woods System				
Well 1	-	-	106,775	
Total Manana Woods Sources	-	-	106,775	
Sub - Total Production				
North / Felton / Manana	43,646,134	61,770,354	51,266,785	-14.86%
Surface	39,589,934	29,301,254	45,155,210	-12.32%
Wells	4,056,200	32,469,100	6,111,575	-33.63%
Total Surface Water Percentage	90.71	47.44	88.08	2.98%
Total Wells Percentage	9.29	52.56	11.92	-22.04%

**SAN LORENZO VALLEY WATER DISTRICT
PRODUCTION BY SYSTEM
+/- INTERTIES
January 2019**

North System All Sources	<u>35,682,200</u>
Interties IN +	<u>6,591,170</u>
Interties OUT -	<u>8,150,198</u>
TOTAL NORHT SYSTEM	<u>34,123,172</u>
Felton Water system All Sources	<u>7,963,934</u>
Interties IN +	<u>68,830</u>
Interties OUT -	<u>4,206,957</u>
TOTAL FELTON SYSTEM	<u>3,825,807</u>
Manana Woods System	
Manana Woods Well 1	<u>0</u>
Interties IN +	<u>402,816</u>
TOTAL MANANA WOODS	<u>402,816</u>

SAN LORENZO VALLEY WATER DISTRICT
INTERTIE USAGE
January 2019

INTERTIE 2

SLVWD to SVWD 0

SVWD to SLVWD 0

INTERTIE 3

SLV SOUTH to SLV NORTH 2,384,213

SLV NORTH to SLV SOUTH 6,123,882

INTERTIE 4

SLVWD to MHWD 0

MHWD to SLVWD 0

INTERTIE 6

SLV NORTH to SLV FELTON 68,830

SLV FELTON to SLV NORTH 4,206,957

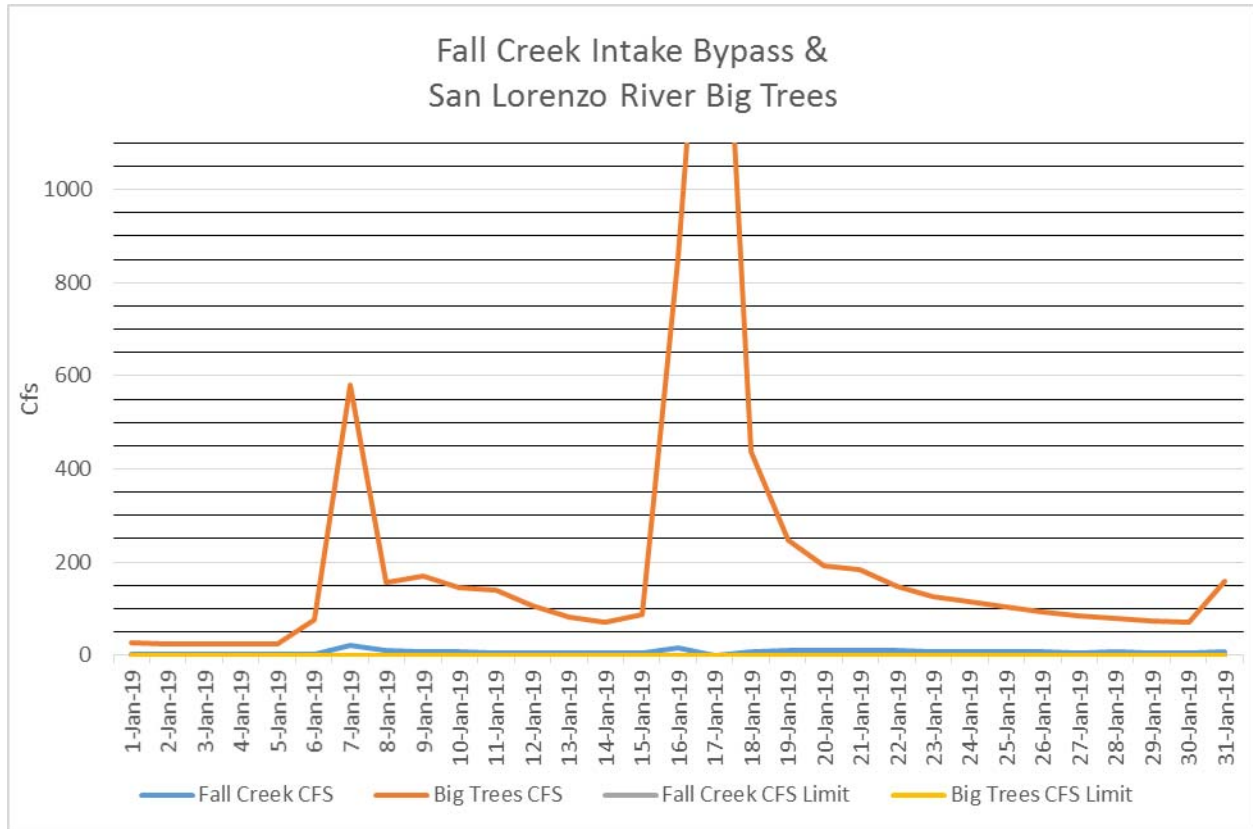
LOMPICO INTERTIE

SLV NORTH to LOMPICO 1,957,486

MANANA WOODS INTERTIE

SLVWD to MANANA WOODS -

Fall Creek Intake January 2019



Normal Rainfall Fall Creek Intake Bypass Requirements

April 1 through October 31 1.0 cubic feet per second

November 1 through March 31 1.5 cubic feet per second

Dry Conditions Fall Creek Intake Bypass Requirements

April 1 through October 31 0.5 cubic feet per second

November 1 through March 31 0.75 cubic feet per second

Number of Days in month 0.5 cfs or below, ZERO days

San Lorenzo River USGS Big Trees Flow Requirements

September 11 cubic feet per second

October 26 cubic feet per second

November 1 through May 31 21 cubic feet per second

June - August No Requirements

Fall Creek Intake January 2019

For the protection of fish and wildlife, during the period: (a) April 1 through October 31 bypass a minimum of 0.5 cfs; (b) November 1 through March 31 bypass a minimum of 1.5 cfs past the Fall Creek point of diversion. The natural streamflow shall be bypassed whenever it is less than 1.5 cfs; provided, however, that during a dry year, the bypass requirement shall be reduced from 1.5 to 0.75 cfs. A dry year is defined on a monthly basis of cumulative runoff beginning October 1 of each season in the San Lorenzo River at the USGS gage at Big Trees. These runoff figures are based on approximately 50 percent of normal runoff as the dividing level between normal and dry year runoff and are as follows:

- November 1 for the month of October 500 af
- December 1 for October-November, inclusive 1,500 af
- January 1 for October-December, inclusive 5,000 af
- February 1 for October-January, inclusive 12,500 af
- March 1 for October-February, inclusive 26,500 af

Fall Creek Weir Measurement												
	Month:	January		Year:	2019	Big Trees > 26,500 Acre-ft Oct-Feb Normal Yr <input type="checkbox"/>				Big Trees <26,500 Acre-ft Oct-Feb Dry Yr <input checked="" type="checkbox"/>		
Date	Time	Initials	Pump #	Fall Cr. GPM into Kirby plant	Weir Board Height	Weir Height Measurement	Fall Creek (Cubic Feet per Second)	Big Trees (Cubic Feet per Second)	Rainfall (Felton gauge)	Met Fall Cr, Bypass Requirement: Normal Year April 1 - Oct 31 1.0 cfs Dry Year April 1- Oct 31 0.5 cfs Nov. 1 - March 31 0.75 cfs (yes/no)	Met Big Trees Requirement Nov-May 21cfs Sept 11 cfs Oct 26 cfs (yes/no)	Notes
1	9:45	JG	2	116	25.0		2.014	25.5	0	Yes	Yes	
2	10:35	KS	2	102	25.0		1.994	25.0	0	Yes	Yes	
3	9:50	JG	2	137	25.0		1.877	24.5	0	Yes	Yes	
4	8:50	JG	2	106	25.0		1.945	24.5	0	Yes	Yes	
5	7:00	HO	2	110	25.0		1.935	24.5	1.18	Yes	Yes	
6	7:55	HO	2	108	25.0		2.639	77.3	4.70	Yes	Yes	
7	9:20	JG	2	106	25.0		22.40	580	0.10	Yes	Yes	
8	8:20	TH	1	163	25.0		9.462	157	0.38	Yes	Yes	
9	11:45	TH	1	93	25.0		7.625	169	0.04	Yes	Yes	
10	8:15	SS	1	41	25.0		6.793	144	0	Yes	Yes	
11	8:30	JG	1	106	25.0		5.855	140	0.75	Yes	Yes	
12	10:05	JG	1	92	25.0		6.158	107	0	Yes	No	
13	10:05	JG	1	114	25.0		5.620	81.6	0.09	Yes	No	
14	8:45	TH	1	125	25.0		5.288	71.6	0.68	Yes	No	
15	8:30	TH	1	147	25.0		6.139	87.7	2.52	Yes	No	
16	10:15	TH	1	91	25.0		15.66	854	1.73	Yes	No	
17	14:55	NG	1	0	25.0		0.12*	1890	0.50	Yes	Yes	* Weir pulled- storm
18	11:00	SS	1	94	25.0		8.250	437	0	Yes	Yes	Weir replaced
19	9:10	JT	1	80	25.0		10.00	248	0	Yes	Yes	
20	10:00	JT	1	90	25.0		9.990	193	0.43	Yes	Yes	
21	8:55	JT	1	90	25.0		9.902	184	0	Yes	Yes	
22	8:00	SS	1	97	25.0		9.022	148	0	Yes	Yes	
23	9:15	SS	1	121	25.0		8.269	126	0	Yes	Yes	
24	8:10	SS	1	102	25.0		7.800	115	0	Yes	Yes	
25	9:10	SS	1	113	25.0		7.282	103	0	Yes	Yes	
26	6:40	KS	1	123	25.0		6.900	94.2	0	Yes	Yes	
27	7:30	KS	1	112	25.0		6.050	85.9	0.03	Yes	Yes	
28	8:15	JT	1	89	25.0		6.315	79.9	0	Yes	Yes	
29	7:45	SS	1	83	25.0		6.001	74.9	0	Yes	Yes	
30	9:40	KS	1	85	25.0		5.797	70.9	0.82	Yes	Yes	
31	8:05	SS	1	137	25.0		6.813	160	0.05	Yes	Yes	

San Lorenzo Valley Water District
Loch Lomond Water Supply
January 2019

Loch Lomond Water Level



Week ending 2 / 06 / 2019

(in feet above mean sea level; lake spills at 577.15 feet)

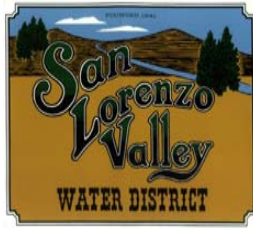
Currently:	577.50 ft
Percent of Capacity:	100.00%

In 1958 SLVWD sold 2,500 acres of property in the vicinity of the Newell Creek Watershed to the City of Santa Cruz, with the agreement that SLVWD would be entitled to purchase 12 ½ percent of the annual safe yield from a future Newell Creek reservoir, up to a maximum of 500 AF/yr. Based on the 1958 agreement, SLVWD began receiving deliveries of Loch Lomond water from the City in 1963. In 1965 the District constructed the Glen Arbor Water treatment plant for treating Loch Lomond water. Toward the end of the 1976-77 drought, the City stipulated that the District was not entitled to an allocation of 500 AF/yr, merely 12.5% of the safe yield. This decision based on a reduction to the estimated annual safe yield from the Newell Creek Reservoir, reduced the Districts contractual allocation. On June 7, 1977, the District filed a Complaint for Declaratory Relief, which requested the court to make a judicial determination of the respective parties' duties and rights. In June 1980 a court order fixed the estimated safe yield from Newell Creek Reservoir at reduced quantity, which resulted in a reduction to the Districts contractual allocation to 313 AF/yr.

Production Loch Lomond to SLVWD

Date	Total Used	Total Available
1976 July to June 1977	353 AF	
1977 July to June 2015	0	313 AF
2015 July to 02/2016	0	313 AF
2/20/16 to Current	0	313 AF

Last time District used Loch Lomond water was June 1977

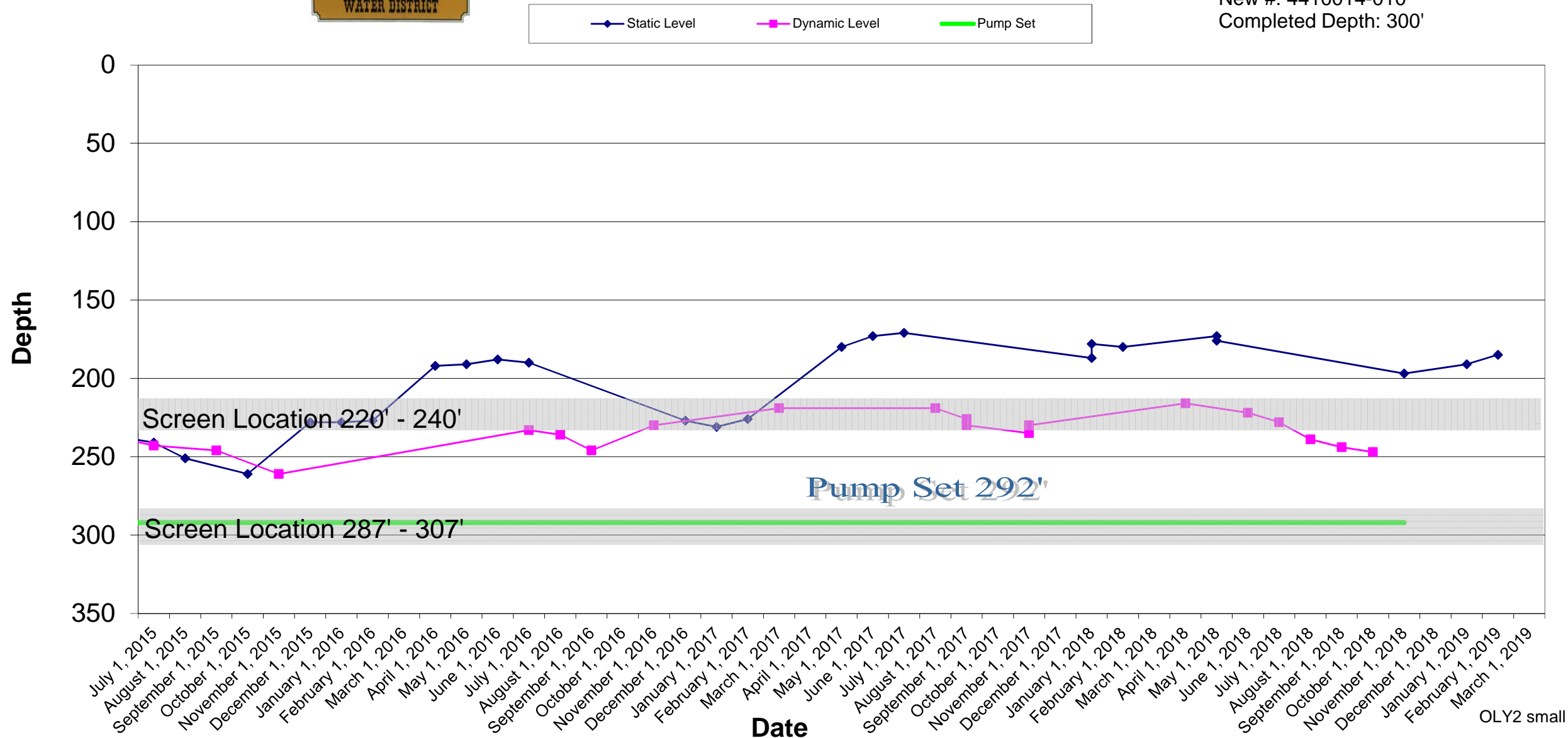


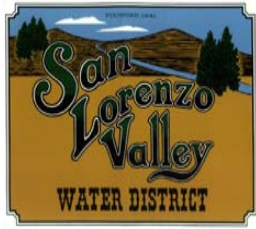
SAN LORENZO VALLEY WATER DISTRICT

Well Drawdown Report

Olympia 2

Location: 7701 E. Zayante Rd.
Elevation: 525'
Installed: April 28, 1980
State Well #:10S/O2W-11P01
New #: 4410014-010
Completed Depth: 300'



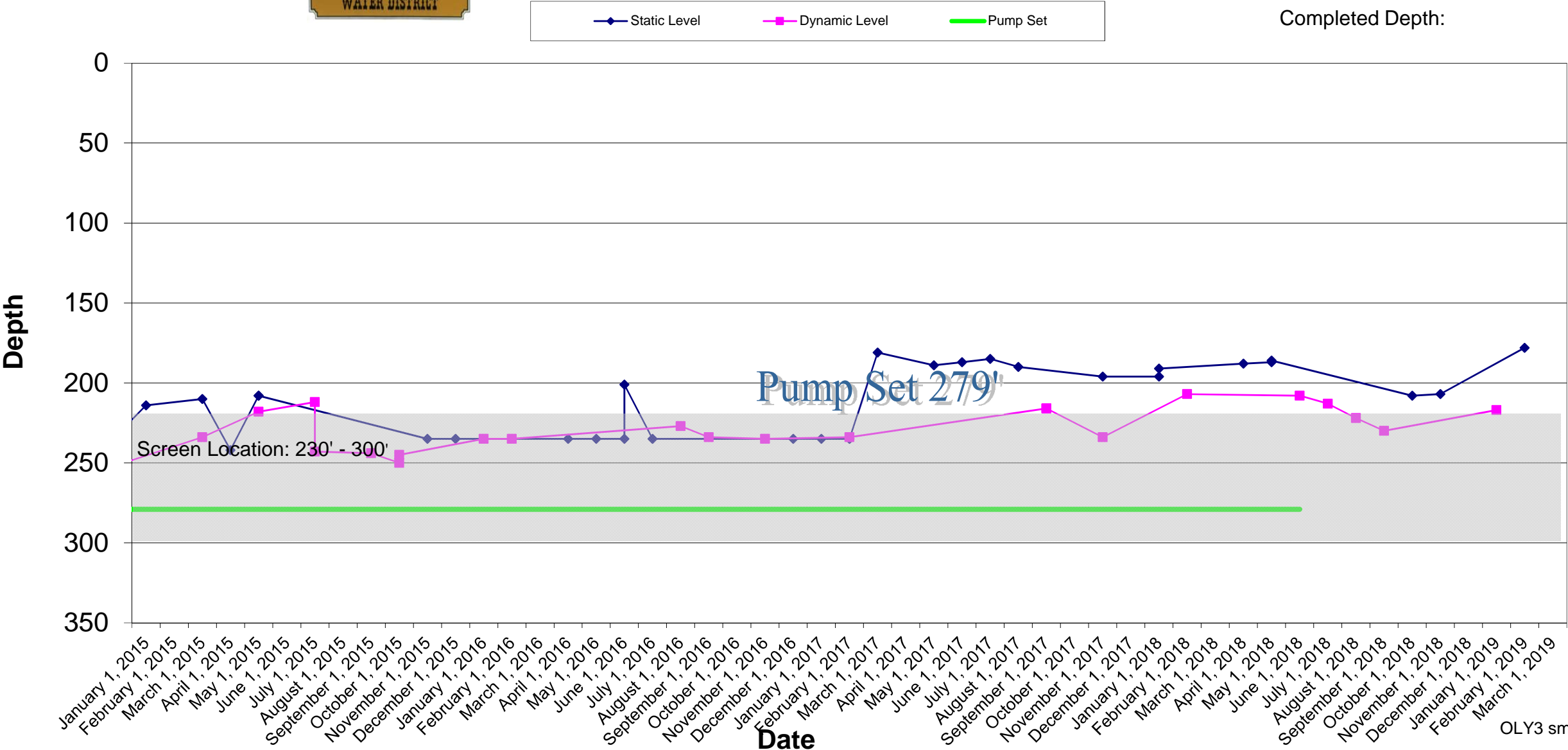


SAN LORENZO VALLEY WATER DISTRICT

Well Drawdown Report

Olympia 3

Location: 7701 E. Zayante Rd
Elevation: 538' Mean Sea Level
Installed: 8-15-90
State Well #: 4410014-022
Completed Depth:



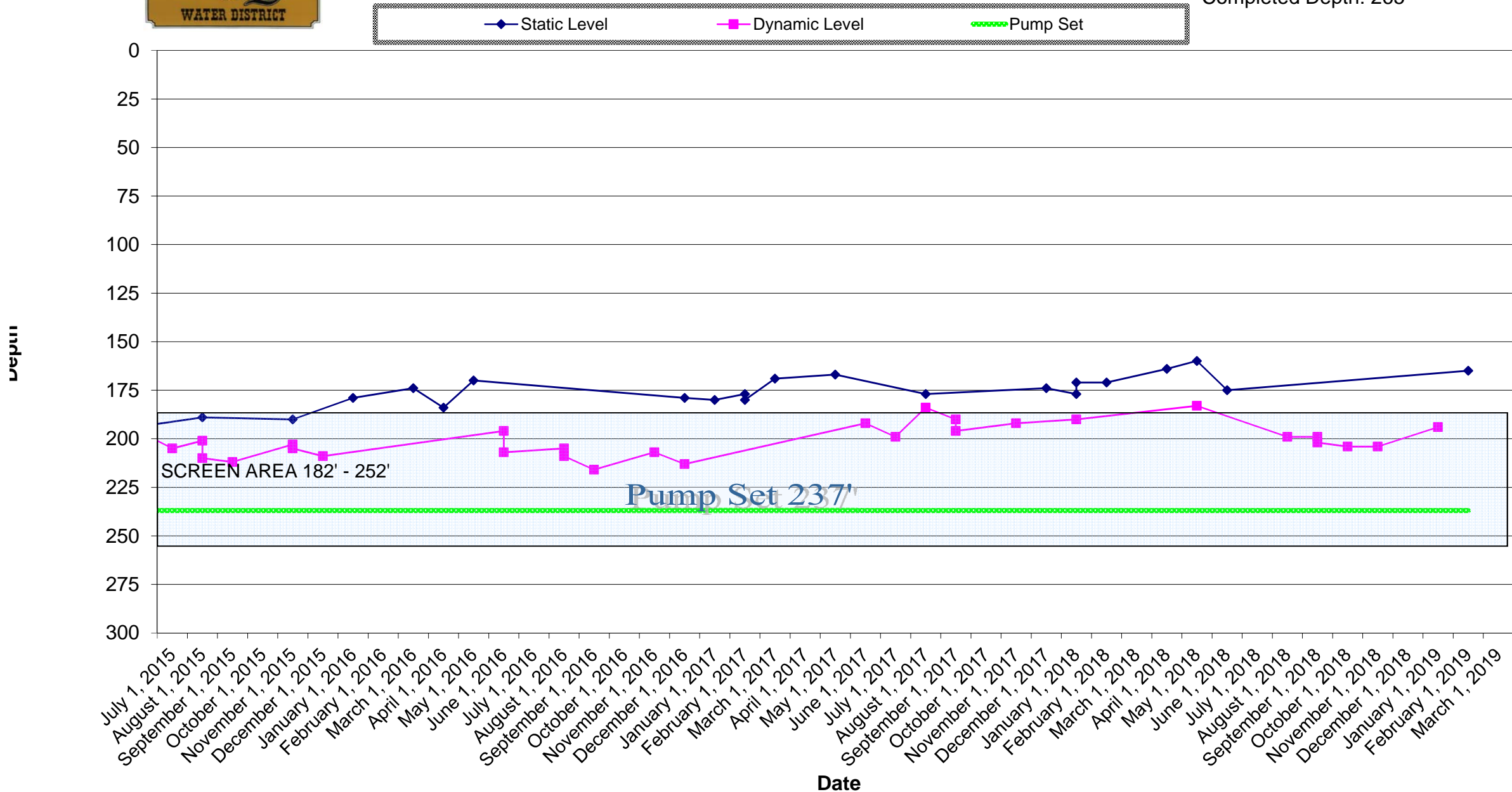


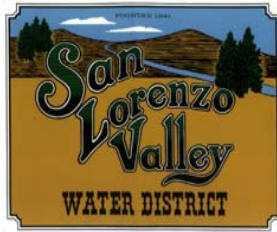
SAN LORENZO VALLEY WATER DISTRICT

Well Drawdown Report

Quail Well 4-A

Location: Cumora Ln. Ben Lomond
Elevation: 596.54 ft @ Pad
Installed: 6-07-2001
State Well #: 4410014-026
Completed Depth: 265



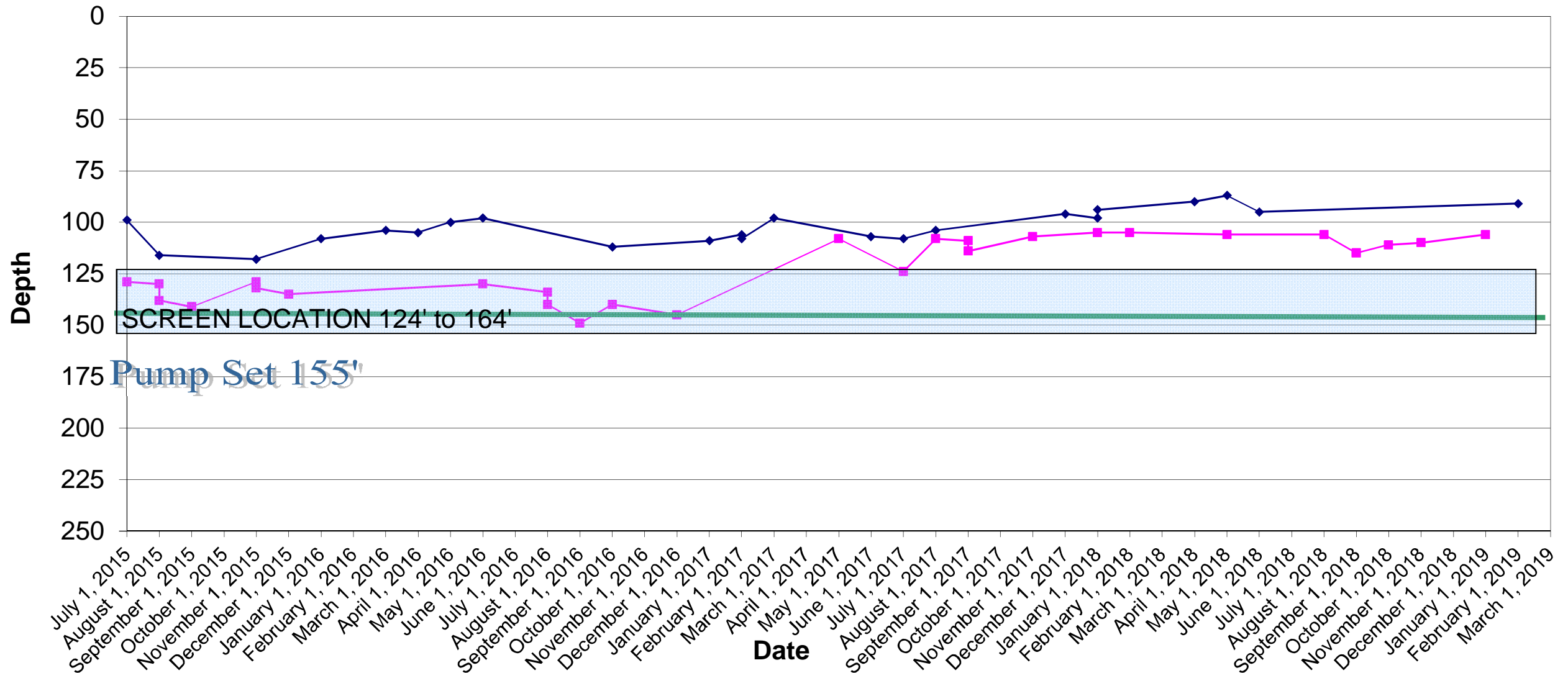
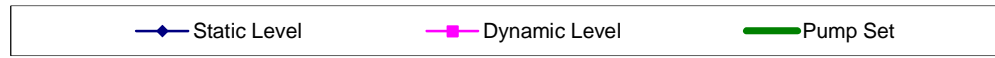


SAN LORENZO VALLEY WATER DISTRICT

Well Drawdown Report

Quail Well 5-A

Location: 1161 Quail Hollow Rd.
Ben Lomond
Elevation: 517.65 ft. @ Pad
Installed: March 2000
State Well #: 4410014-025
Completed Depth: 174'



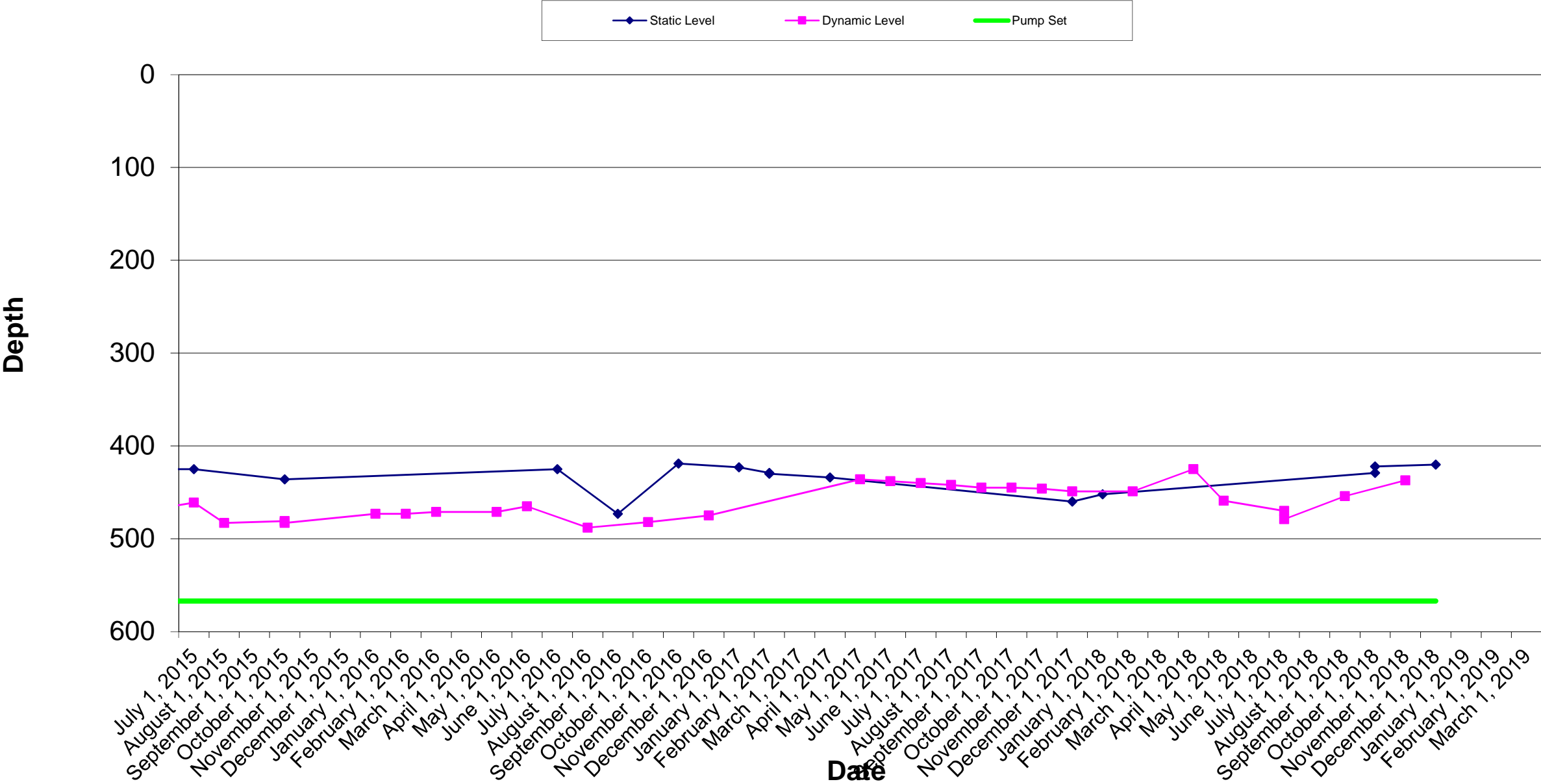


SAN LORENZO VALLEY WATER DISTRICT

Well Drawdown Report

Pasatiempo 5-A

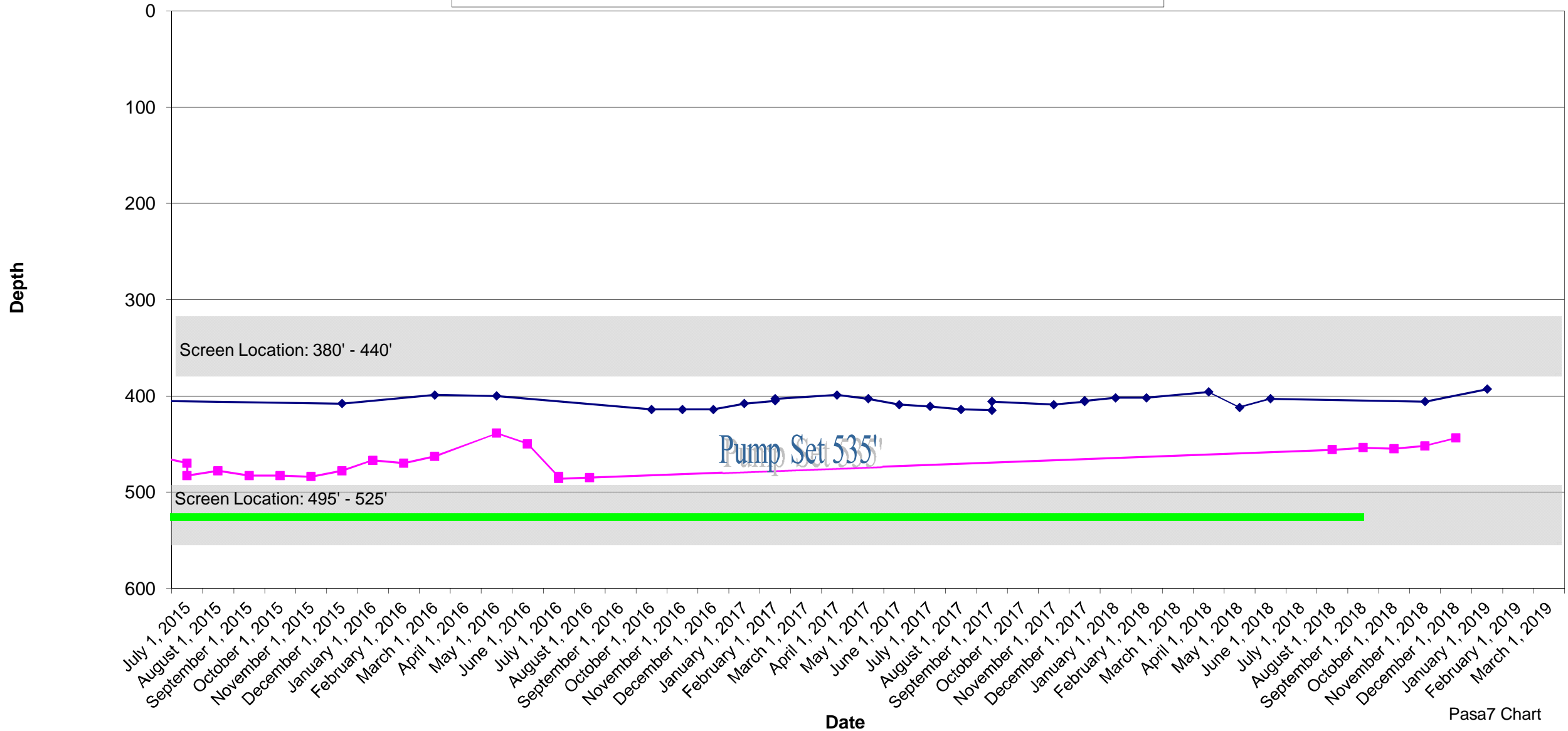
Location: So. Of 3650 Graham Hill Rd
Elevation: 752'
Installed 1-1-14
State Well #:4410014-014
Completed Depth: 710'



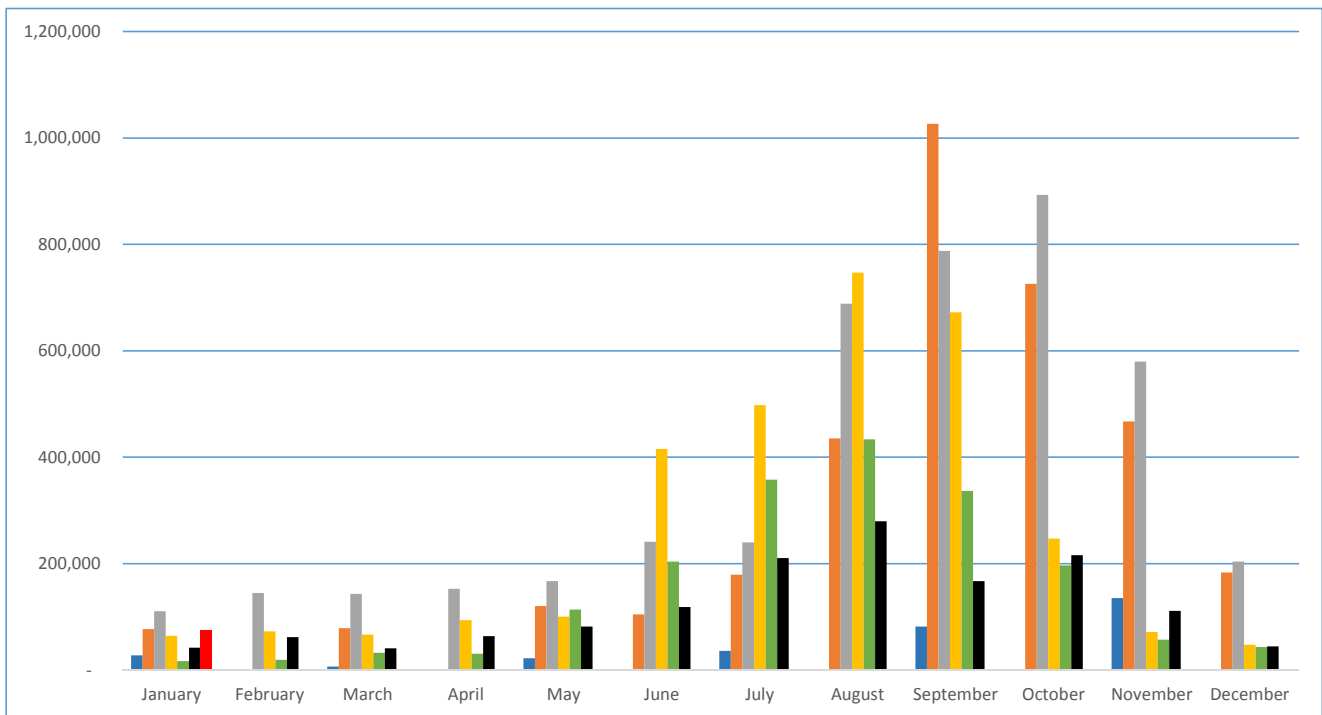


SAN LORENZO VALLEY WATER DISTRICT
Well Drawdown Report
Pasatiempo 7

Location: South of Probation
Center
Elevation: 734' MSL
Installed: July 21, 1990
State Well #: 4410014-024
Completed Depth: 540'



SAN LORENZO VALLEY WATER DISTRICT
BULK WATER SALES
GALLONS
January 2019



Month	2013	2014	2015	2016	2017	2018	2019
January	26,928	76,296	109,965	63,850	16,456	41,888	74,800
February			144,364	72,556	18,700	61,366	
March	5,984	78,540	142,868	66,572	32,164	40,392	
April			152,592	93,500	29,920	63,580	
May	21,692	119,680	166,804	100,232	112,948	81,532	
June		103,972	240,983	415,140	203,179	118,184	
July	35,904	178,772	239,360	497,420	357,544	210,188	
August		435,336	688,160	746,504	433,092	279,004	
September	81,352	1,026,256	787,644	672,183	336,570	166,804	
October		725,560	893,112	246,840	195,976	215,424	
November	134,640	466,752	579,700	71,060	56,848	110,704	
December		183,260	203,456	47,124	42,636	44,132	
Totals	306,500	3,394,424	4,349,008	3,092,981	1,836,033	1,433,198	74,800

SAN LORENZO VALLEY WATER DISTRICT
MONTHLY LEAK REPORT
January 2019

Leak Type	Location - NORTH SYSTEM	Town	Gallons Lost
400 MAIN LEAKING	8255 OAK AVE.	BEN LOMOND	7,200
400 MAIN LEAKING	8945 Redwood Dr	BEN LOMOND	18,375
400 MAIN LEAKING	9695 LIVE OAK AVE	BEN LOMOND	5,760
400 MAIN LEAKING	9545 CENTRAL AVE	BEN LOMOND	2,880
400 MAIN LEAKING	Production meter leaking Quail 4A well	BEN LOMOND	3,600
400 MAIN LEAKING	334 MORE DR	BOULDER CREEK	201,600
400 MAIN LEAKING	13515 WEST PARK AVE.	BOULDER CREEK	2,160
400 MAIN LEAKING	225 BAND ROAD	BOULDER CREEK	960
400 MAIN LEAKING	995 CREEK DR	BOULDER CREEK	720
TOTAL			243,255
FELTON SYSTEM			
400 MAIN LEAKING	5765 HILLSIDE DR	FELTON	2,800.00
400 MAIN LEAKING	1160 LAKESIDE DR	FELTON	5,760.00
Total Felton System			8,560
LOMPICO			
400 MAIN LEAKING	10641 VISITAR ST.	LOMPICO	17,280
400 MAIN LEAKING	11844 SUNSET CT.	LOMPICO	28,800
400 MAIN LEAKING	10926 SEQUOIA AVE	LOMPICO	17,280
Total Lompico			63,360
SCOTTS VALLEY			
Total Scotts Valley			-
Total All Systems			315,175

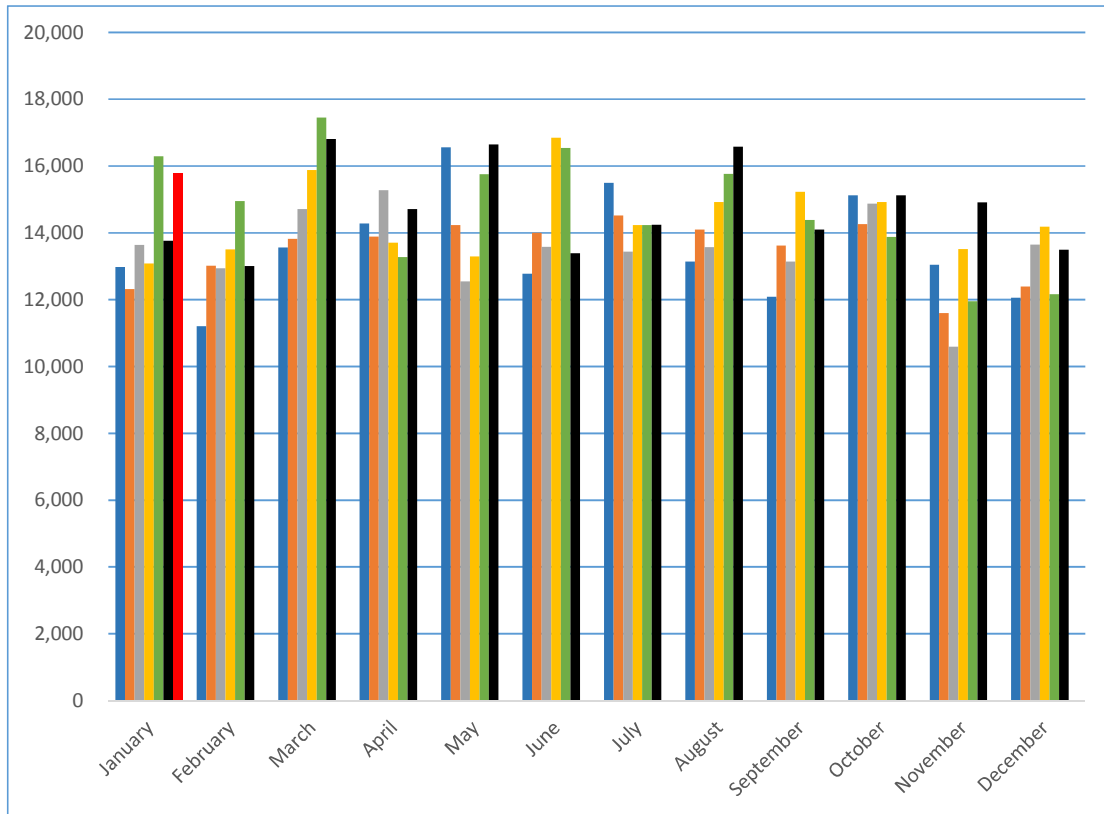
SLV Monthly Water Quality Service Order Summary

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SAN LORENZO VALLEY WATER DISTRICT

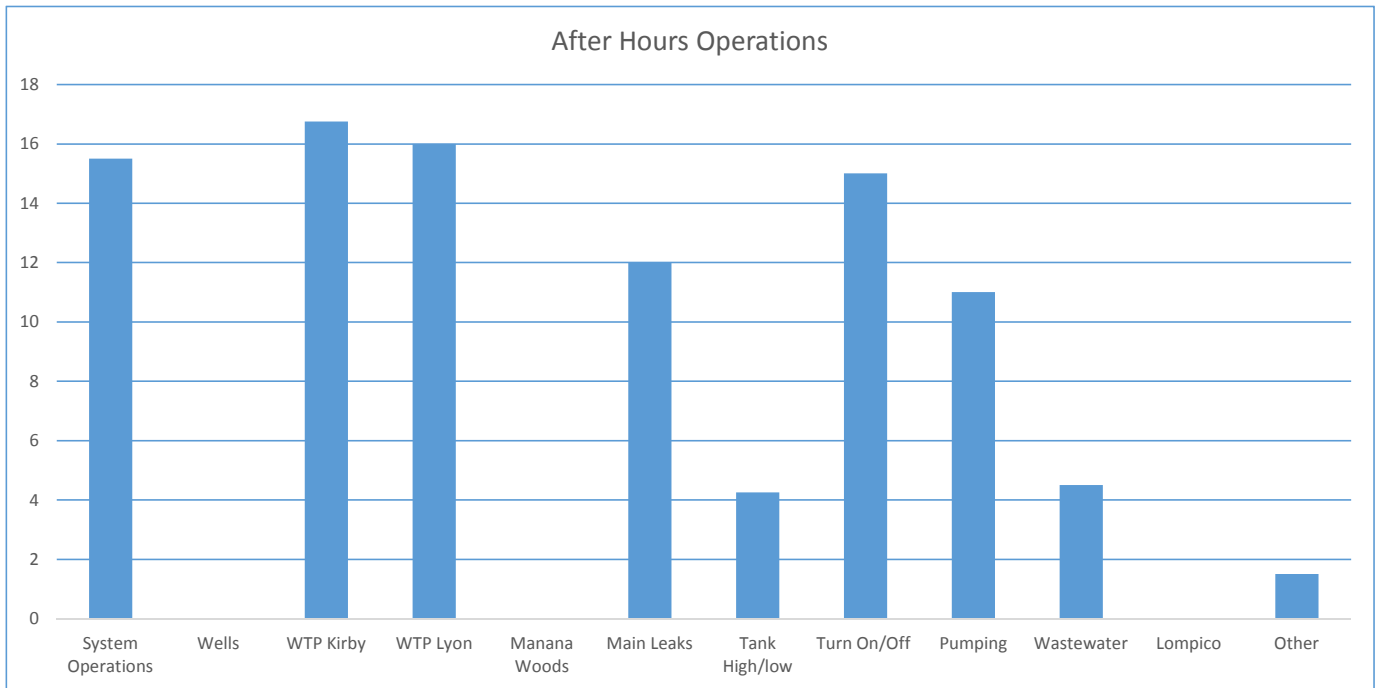
VEHICLE MILEAGE

January 2019



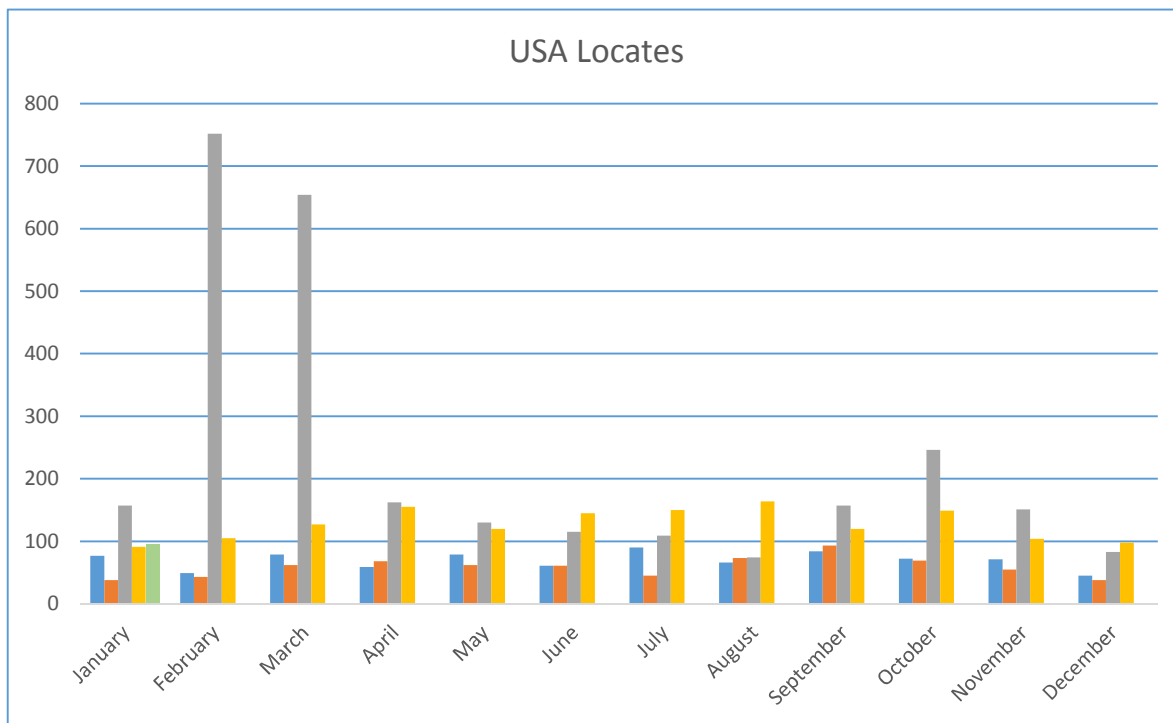
<u>Month</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
January	12,976	12,317	13,633	13,082	16,286	13,763	15,790
February	11,201	13,015	12,934	13,505	14,945	13,003	
March	13,558	13,817	14,714	15,882	17,451	16,809	
April	14,283	13,883	15,279	13,704	13,270	14,711	
May	16,560	14,228	12,550	13,290	15,757	16,646	
June	12,780	14,000	13,582	16,841	16,534	13,390	
July	15,497	14,519	13,441	14,228	14,229	14,242	
August	13,136	14,096	13,569	14,923	15,761	16,576	
September	12,087	13,622	13,137	15,229	14,388	14,094	
October	15,120	14,261	14,868	14,924	13,880	15,126	
November	13,046	11,594	10,591	13,510	11,952	14,908	
December	12,060	12,394	13,648	14,187	12,158	13,492	
Totals	#####	#####	#####	173,305	#####	176,760	15,790

SAN LORENZO VALLEY WATER DISTRICT
OPERATIONS DEPARTMENT
 January 2019



<u>Description</u>	<u>Hours</u>		<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
System Operations	15.5	January	N/A	145.00	280.75	90.50	96.50
Wells	0	February	N/A	86.50	192.25	72.00	
WTP Kirby	16.75	March	N/A	153.75	105.75	80.25	
WTP Lyon	16	April	82.50	72.00	128.75	19.00	
Manana Woods	0	May	104.75	49.25	132.75	105.5	
Main Leaks	12	June	172.50	83.25	112.75	89.00	
Tank High/low	4.25	July	124.25	80.25	162.00	145.25	
Turn On/Off	15	August	111.75	81.25	141.25	134.5	
Pumping	11	September	230.25	175.00	201.25	155.25	
Wastewater	4.5	October	128.25	78.50	104.00	111.5	
Lompico	0	November	114.25	96.25	122.50	197.5	
Other	1.5	December	186.25	130.75	134.00	220.25	
Total	96.5		1254.75	1231.75	1818.00	1420.50	96.50

SAN LORENZO VALLEY WATER DISTRICT
OPERATIONS DEPARTMENT
 January 2019



<u>Month</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
January	77	38	157	91	95
February	49	43	752	105	
March	79	62	654	127	
April	59	68	162	155	
May	79	62	130	120	
June	61	61	115	145	
July	90	45	109	150	
August	66	73	74	164	
September	84	93	157	120	
October	72	69	246	149	
November	71	55	151	104	
December	45	38	83	98	
Total to Date	832	707	2,790	1528	95

