

MEMO

TO: District Manager

FROM: Director of Operations

SUBJECT: OPERATIONS DEPARTMENT STATUS REPORT
FEBRUARY 2020

DATE: MARCH 19, 2020

RECOMMENDATION:

It is recommended that the District Manager review and file the Operations Department Project Status Report for the month of February 2020.

BACKGROUND:

DISTRICT WIDE FLUSHING

In February 2020 District staff began the District's flushing program. Flushing began Monday February 3, 2020. The Flushing program is moving right along and staff has continued to see flushing moving along well with the extended period of time on surface water in 2019.

In the following weeks flushing will be done throughout the Manana Woods and Lompico areas. There will be another update to follow at the board of directors meeting on April 16, 2020 in this section of the operations status report.

BEAR CREEK ROAD SLIDE AND WATER MAIN BREAK

During the month of February 2020 staff has worked on plans and specifications for the relocation of the 8 inch main line. Coordination with the County Public Works department for layout and timeline of relocating the main line has been in process as well.

On January 28, 2020 District on-call staff was called out to a main break on Bear Creek Rd. Staff responded and found that a portion of Bear Creek Rd. had slid and 26 feet of 8 inch transite pipe was missing. Staff shut down the main line and made temporary repairs with a two inch polyethylene pipe as a jumper across the slide and break area. Estimated a total of 45,000 gallons of water were lost.

EL SOLYO TEMPORARY TANK

The Districts redwood El Solyo tank has reached the end of its life expectancy and has been experiencing a rise in leakage and deterioration. Staff has been working on installing temporary 10,000 gallon poly water tanks and will be removing the redwood tank when the temporary is in place and ready for service

BLUE TANK GENERATOR SITE

During the month of February 2020 District staff worked on installation of the concrete pad and retaining wall for the installation of propane service for the stand by generator at this site. Work and coordination with the propane company will continue through the month of March 2020. The generator at this site is planned to be operational by the end of March 2020.

ENGINEERING OFFICES

Staff worked on cleaning out, painting and flooring two offices in the Engineering section of the Administrations building. Work was complete and the offices are in use.

FELTON WATER SYSTEM WATER METER REPLACEMENT

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.

MAINTENANCE ISSUES

Hwy 9 and Lorenzo road Boulder Creek repaired a leak on the 6 inch main line.

440 Orman Road staff repaired a section of 4 inch main line.

Installed a new sample station sites on Hidden Glenn Drive Scotts Valley.

Staff had a critical facilities 2 day stand by due to county crossing the Districts Hud Line a 12 inch critical transmission line on Larkspur road.

Facility site maintenance multiple locations

Repaired approximately 23 leaks system wide

James Furtado

Director of Operations

SAN LORENZO VALLEY WATER DISTRICT PRODUCTION COMPARRISON

Source	February-20	January-20	February-13	Difference This Year To 2013
North System				
Surface Water Sources				
Foreman Creek	11,229,884	15,433,738	12,069,000	
Peavine Creek + Hydro	1,625,535	540,689	6,750,000	
Clear Creek	5,532,349	7,091,744	6,519,000	
Sweetwater Creek	3,688,232	4,727,829	4,346,000	
Sub-Total (Streams)	22,076,000	27,794,000	29,684,000	-25.63%
Wells (North)				
Olympia No. 2	1,413,000	162,000	254,000	
Olympia No. 3	149,000	-	219,000	
Quail Well No. 4-A	4,920,000	-	1,000	
Quail Well No. 5-A	-	-	6,200	
Sub Total North Wells	6,482,000	162,000	480,200	1249.85%
South System Wells				
Pasatiempo 5A	4,061,500	2,785,500	N/A	
Pasatiempo 6	-	-	4,942,000	
Pasatiempo 7	1,059,000	724,000	1,836,000	
Pasatiempo 8	2,549,220	1,611,000		
Sub Total Pasatiempo Wells	5,120,500	3,509,500	6,778,000	-24.45%
North South All Sources Combined	33,678,500	31,465,500	36,942,200	-8.83%
Felton System - Surface Water				
Fall Creek	4,258,068	4,023,419	3,751,890	
Bennett Spring	2,436,236	2,748,900	3,605,400	
Bull 1 & 2	1,142,196	1,216,996	3,994,500	
Total Felton System Sources	7,836,500	7,989,315	11,351,790	-30.97%
Manana Woods System				
Well 1	-	-	106,775	
Total Manana Woods Sources	-	-	106,775	
Sub - Total Production				
North / Felton / Manana	41,515,000	39,454,815	48,400,765	-14.23%
Surface	29,912,500	35,783,315	41,035,790	-27.11%
Wells	11,602,500	3,671,500	7,364,975	57.54%
Total Surface Water Percentage	72.05	90.69	84.78	-15.02%
Total Wells Percentage	27.95	9.31	15.22	83.67%

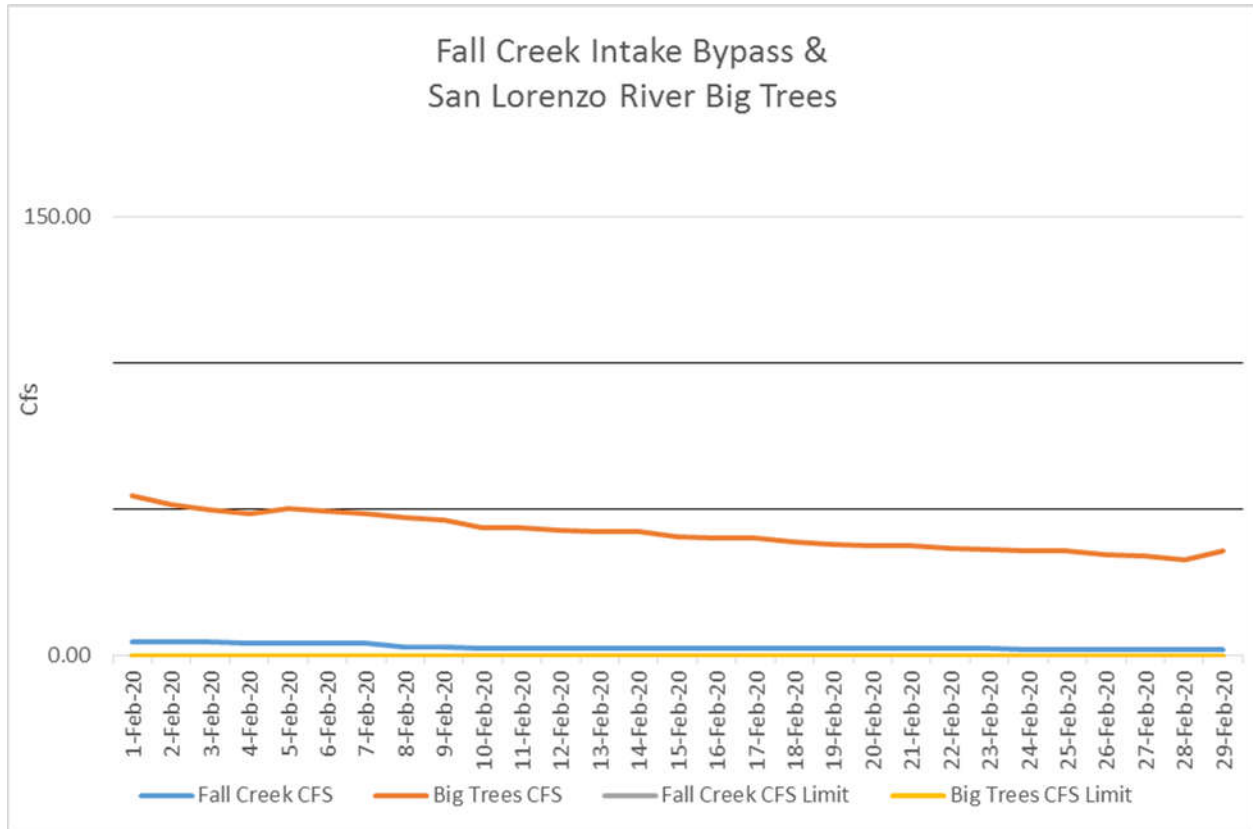
**SAN LORENZO VALLEY WATER DISTRICT
PRODUCTION BY SYSTEM
+/- INTERTIES
February 2020**

North System All Sources	<u>33,678,500</u>
Interties IN +	<u>640,587</u>
Interties OUT -	<u>4</u>
TOTAL NORHT SYSTEM	<u>34,319,083</u>
Felton Water system All Sources	<u>7,836,500</u>
Interties IN +	<u>0</u>
Interties OUT -	<u>0</u>
TOTAL FELTON SYSTEM	<u>7,836,500</u>
Manana Woods System	
Manana Woods Well 1	<u>0</u>
Interties IN +	<u></u>
TOTAL MANANA WOODS	<u>0</u>

SAN LORENZO VALLEY WATER DISTRICT
INTERTIE USAGE
February 2020

INTERTIE 2	
SLVWD to SVWD	<u>0</u>
SVWD to SLVWD	<u>0</u>
INTERTIE 3	
SLV SOUTH to SLV NORTH	<u>640,587</u>
SLV NORTH to SLV SOUTH	<u>4</u>
INTERTIE 4	
SLVWD to MHWD	<u>0</u>
MHWD to SLVWD	<u>0</u>
INTERTIE 6	
SLV NORTH to SLV FELTON	<u>-</u>
SLV FELTON to SLV NORTH	<u>-</u>

Fall Creek Intake February 2020



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 0.75 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 February 2020

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:	February		Year:	2020	Big Trees > 26,500 Acre-ft Oct-Feb Normal Year			Big Trees <26,500 Acre-ft Oct-Feb Dry Year		
Date	Time	Initials	Pump #	Fall Cr. GPM into Kirby plant	Weir Board Height (inches)	Fall Creek Bypass (CFS)	Big Trees Bypass (CFS)	Rainfall (Felton gauge)	Met Fall Cr, Bypass Requirement: Normal Year April 1 - Oct 31 1.0 cfs; Nov 1 - March 31 1.5 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 20cfs Sept 10 cfs Oct 25 cfs (yes/no)	Notes
1	0850	HO	1	63	25	4.761	54.7	0	yes	yes	
2	1040	HO	1	84	25	4.633	51.4	0	yes	yes	
3	1100	SS	1	83	25	4.497	49.9	0	yes	yes	
4	0730	SS	1	91	25	4.36	48.3	0	yes	yes	
5	0830	SS	2	124	25	4.242	50.2	0	yes	yes	
6	0740	SS	2	92	25	4.252	49.4	0	yes	yes	
7	0745	SS	2	61	25	4.321	48.7	0	yes	yes	
8	0930	SS	2	95	25	2.815	47.2	0	yes	yes	Fall Creek meter recalibrated
9	0900	SS	2	85	25	2.805	46.4	0	yes	yes	
10	0745	SS	2	104	25	2.708	43.6	0	yes	yes	
11	0745	SS	2	82	25	2.717	43.6	0	yes	yes	
12	1100	JG	2	97	25	2.649	42.9	0	yes	yes	
13	0800	JG	2	98	25	2.61	42.2	0	yes	yes	
14	0800	JG	2	85	25	2.639	42.2	0	yes	yes	
15	0910	TH	2	95	25	2.571	40.8	0	yes	yes	
16	0845	TH	2	103	25	2.522	40.2	0	yes	yes	
17	0915	TH	2	118	25	2.454	40.2	0	yes	yes	
18	0915	TH	2	145	25	2.336	38.8	0	yes	yes	
19	0945	JG	2	125	25	2.317	38.2	0	yes	yes	
20	1315	JG	2	110	25	2.336	37.5	0	yes	yes	
21	0815	JG	2	97	25	2.434	37.5	0	yes	yes	
22	1145	JG	2	109	25	2.297	36.9	0	yes	yes	
23	1130	JG	2	103	25	2.307	36.3	0	yes	yes	
24	0800	KM	2	111	25	2.277	35.7	0	yes	yes	
25	0830	JG	2	133	25	2.179	35.7	0	yes	yes	
26	0920	SS	2	113	25	2.141	34.5	0	yes	yes	
27	0730	SS	2	112	25	2.121	33.9	0	yes	yes	
28	0845	SS	2	112	25	2.141	32.7	0	yes	yes	
29	0835	JT	2	126	25	2.1	35.8	0	yes	yes	
30											
31											

San Lorenzo Valley Water District
Loch Lomond Water Supply
February 2020

Loch Lomond Water Level



Week ending Wednesday 3 / 11 / 2020

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

Currently: 574.70 ft

Percent of Capacity: 94.6%

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

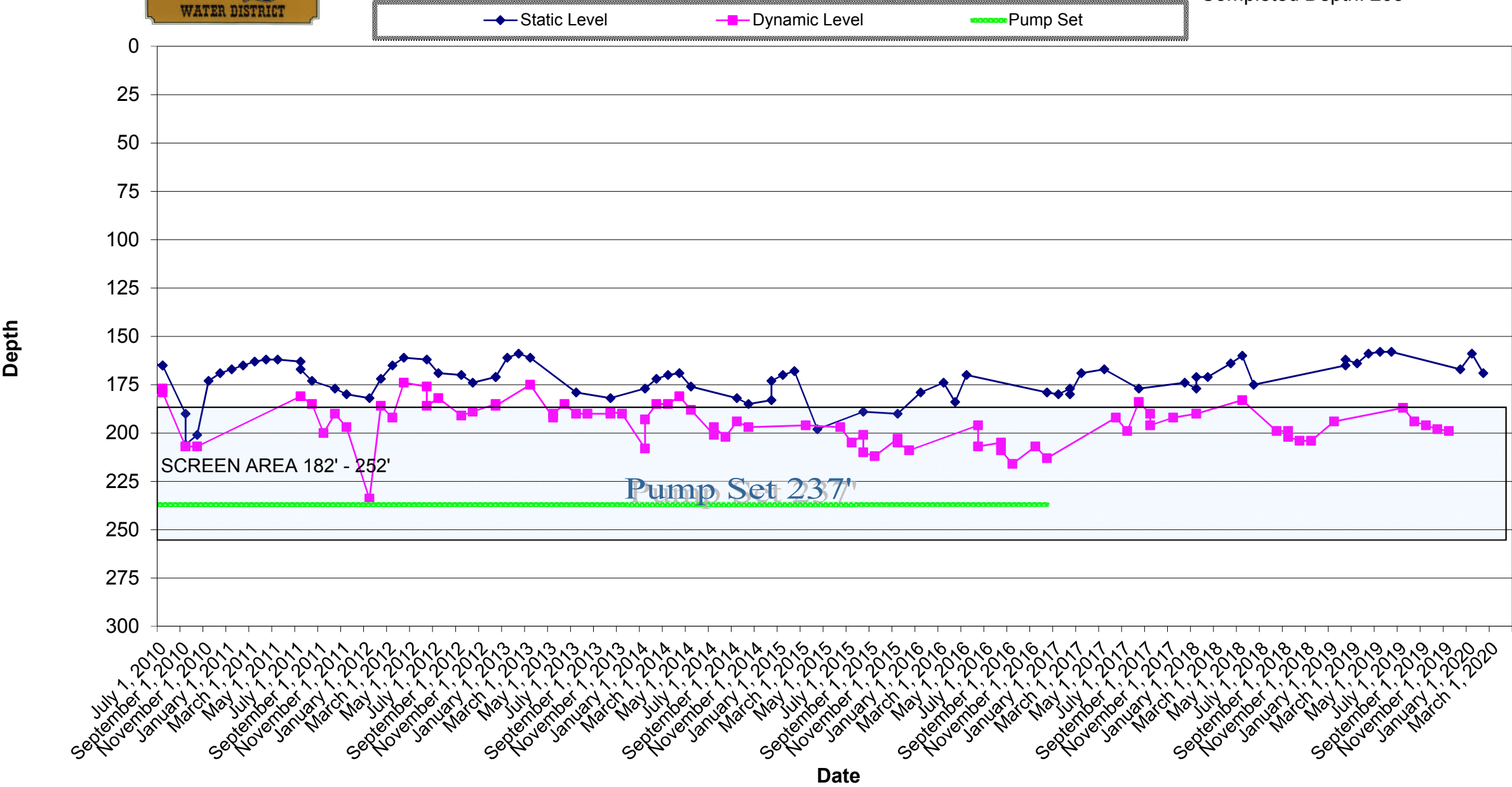
Date	Total Used	Total Available
1976 July to June 1977	353 AF	
1977 July to June 2015	0	313 AF
2015 July to 02/2016	0	313 AF
2/20/16 to Current	0	313 AF

Last time District used Loch Lomond water was June 1977



SAN LORENZO VALLEY WATER DISTRICT
Well Drawdown Report
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



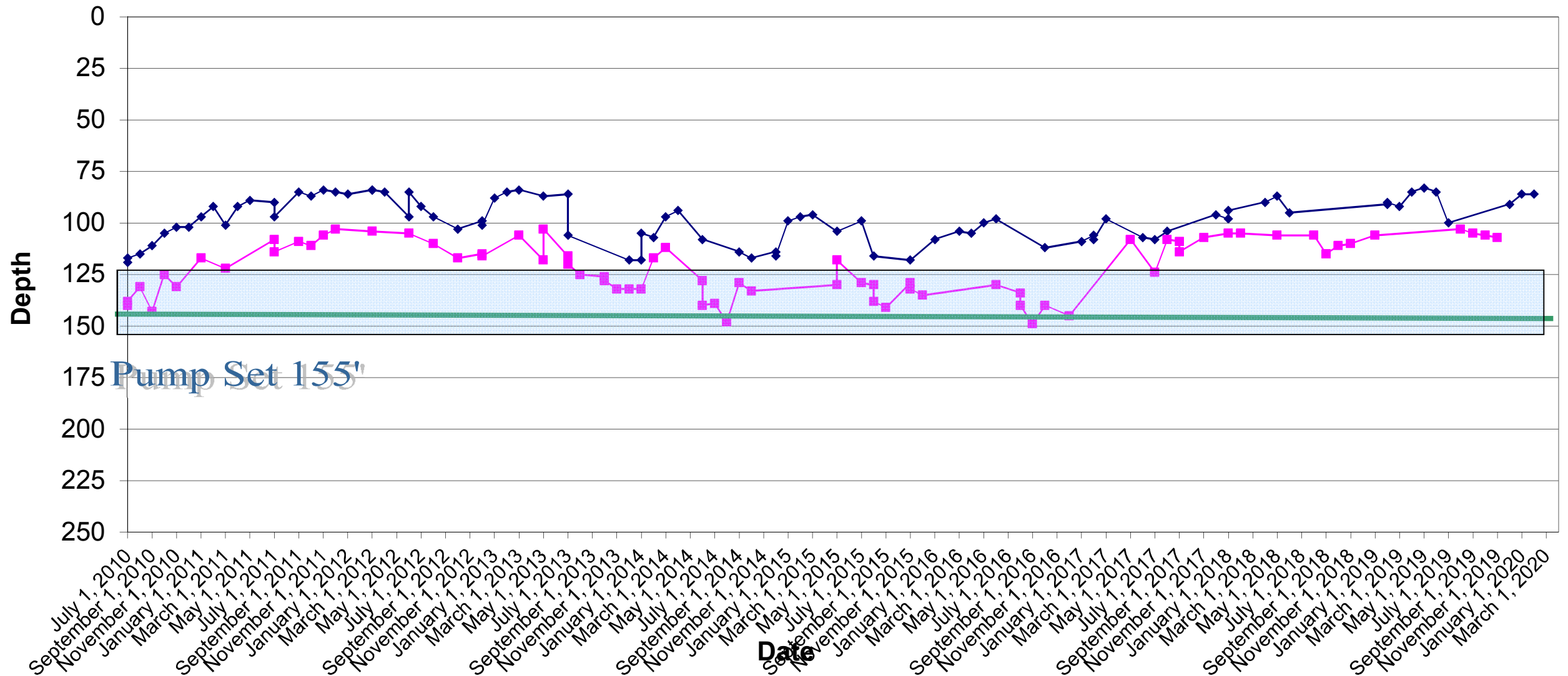


SAN LORENZO VALLEY WATER DISTRICT

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'



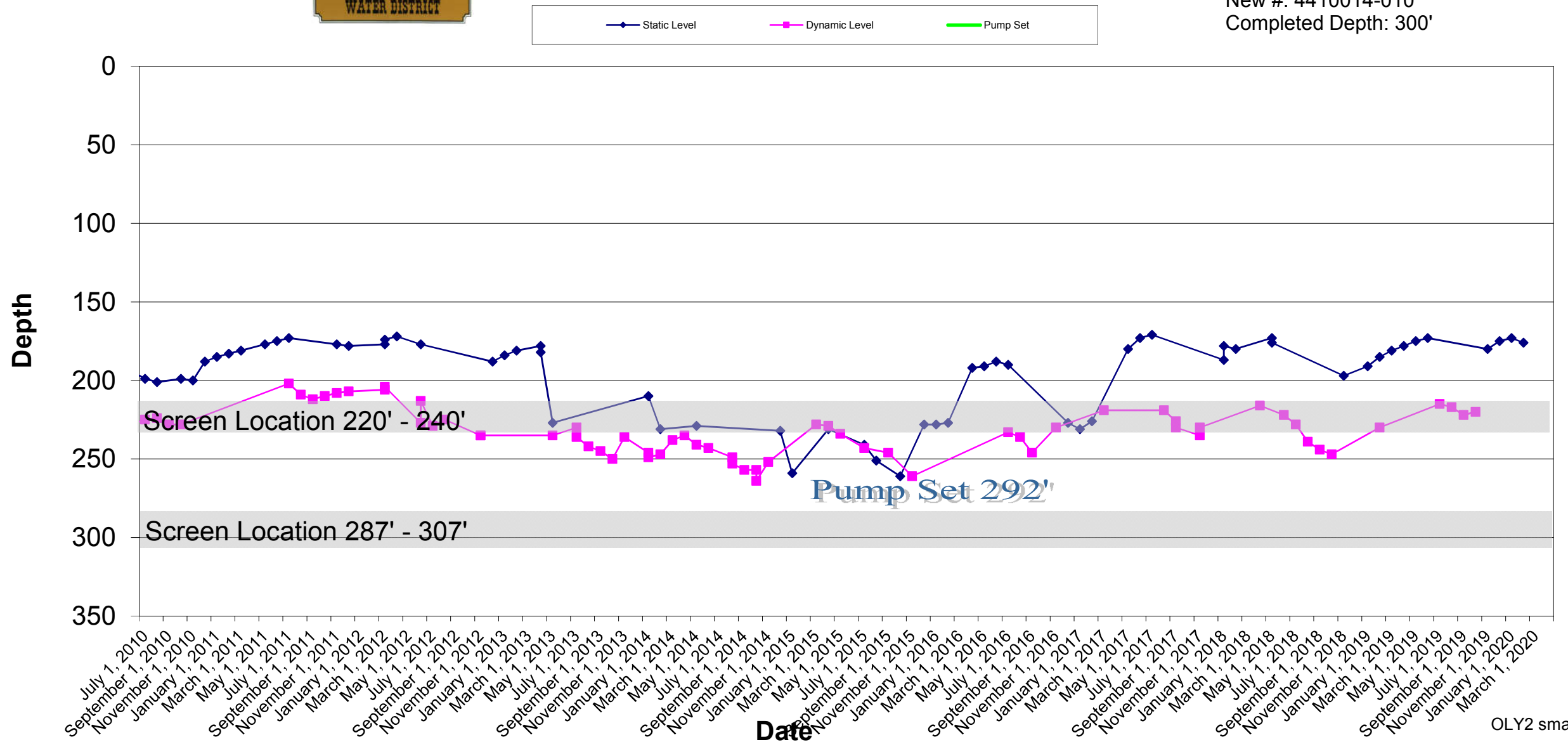


SAN LORENZO VALLEY WATER DISTRICT

Well Drawdown Report

Olympia 2

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



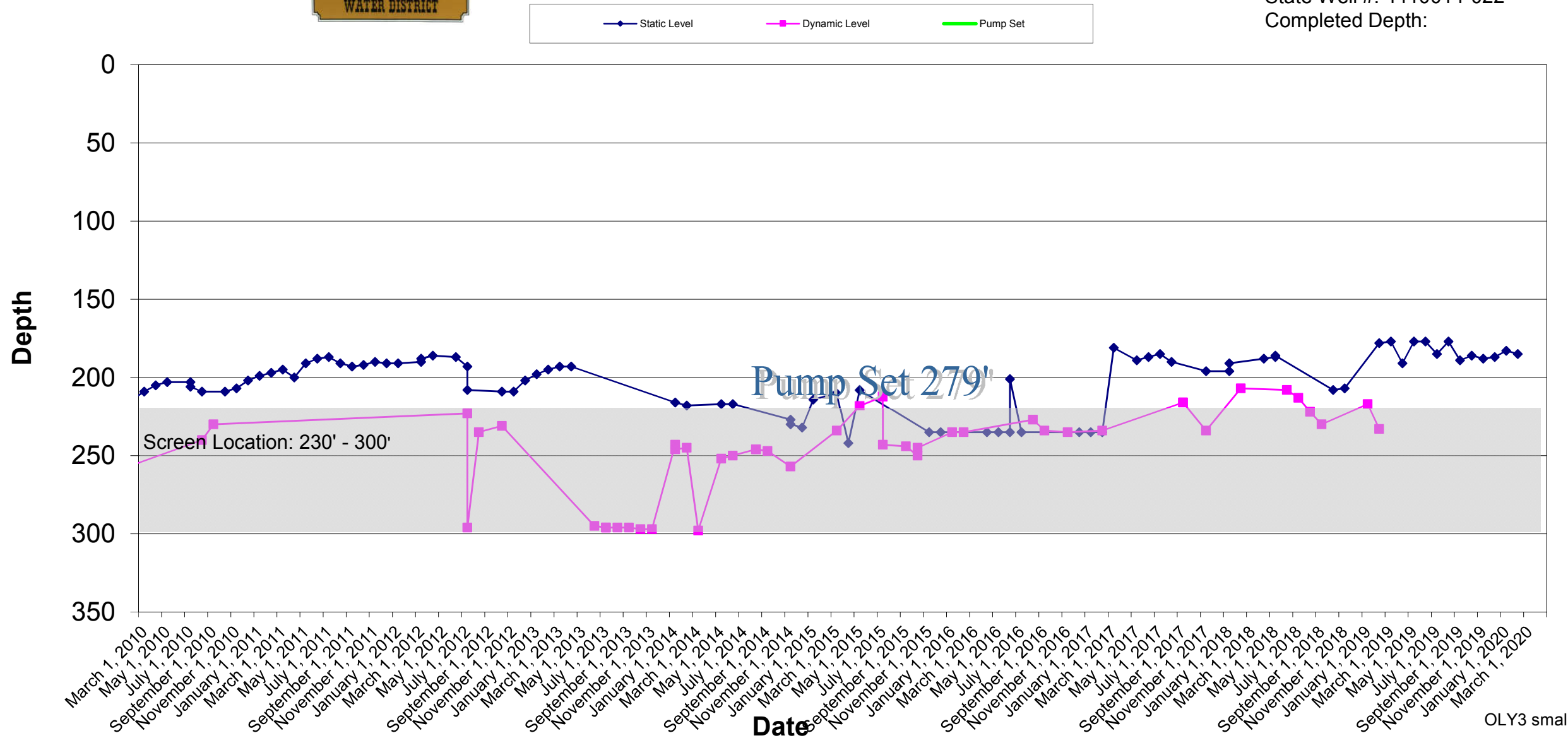


SAN LORENZO VALLEY WATER DISTRICT

Well Drawdown Report

Olympia 3

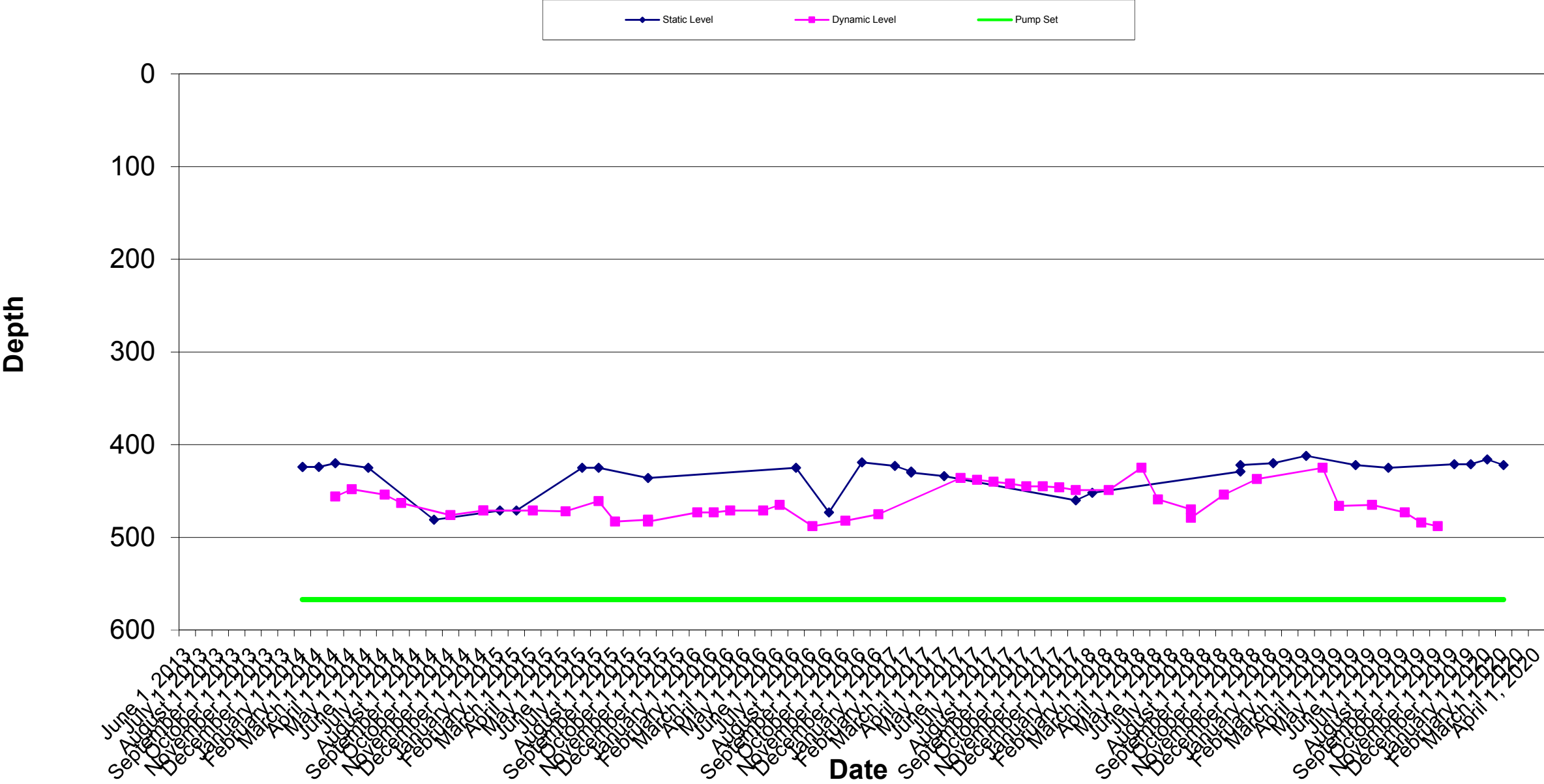
Location: 7701 E. Zayante Rd
Elevation: 538' Mean Sea Level
Installed: 8-15-90
State Well #: 4410014-022
Completed Depth:





SAN LORENZO VALLEY WATER DISTRICT
Well Drawdown Report
Pasatiempo 5-A

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



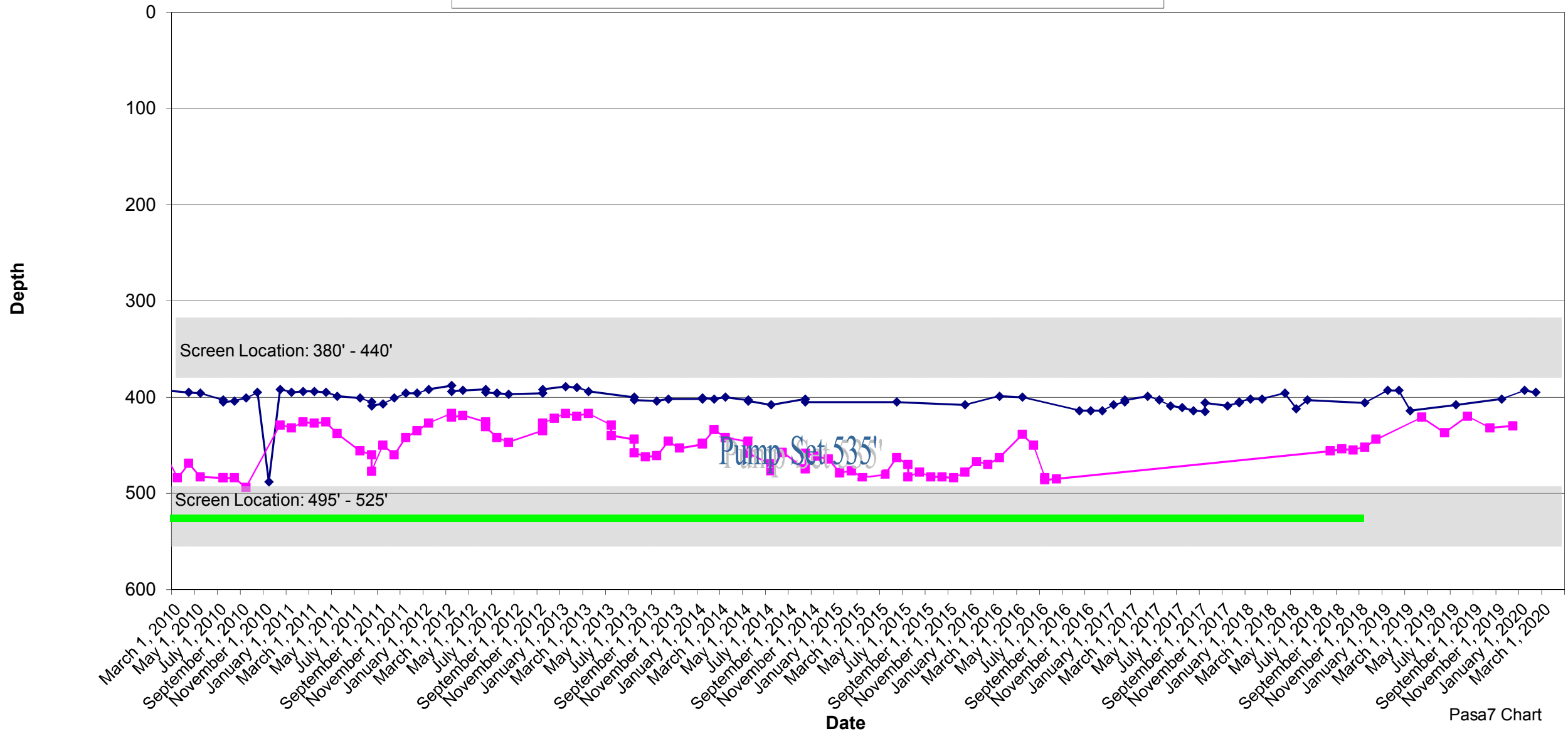


SAN LORENZO VALLEY WATER DISTRICT

Well Drawdown Report

Pasatiempo 7

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





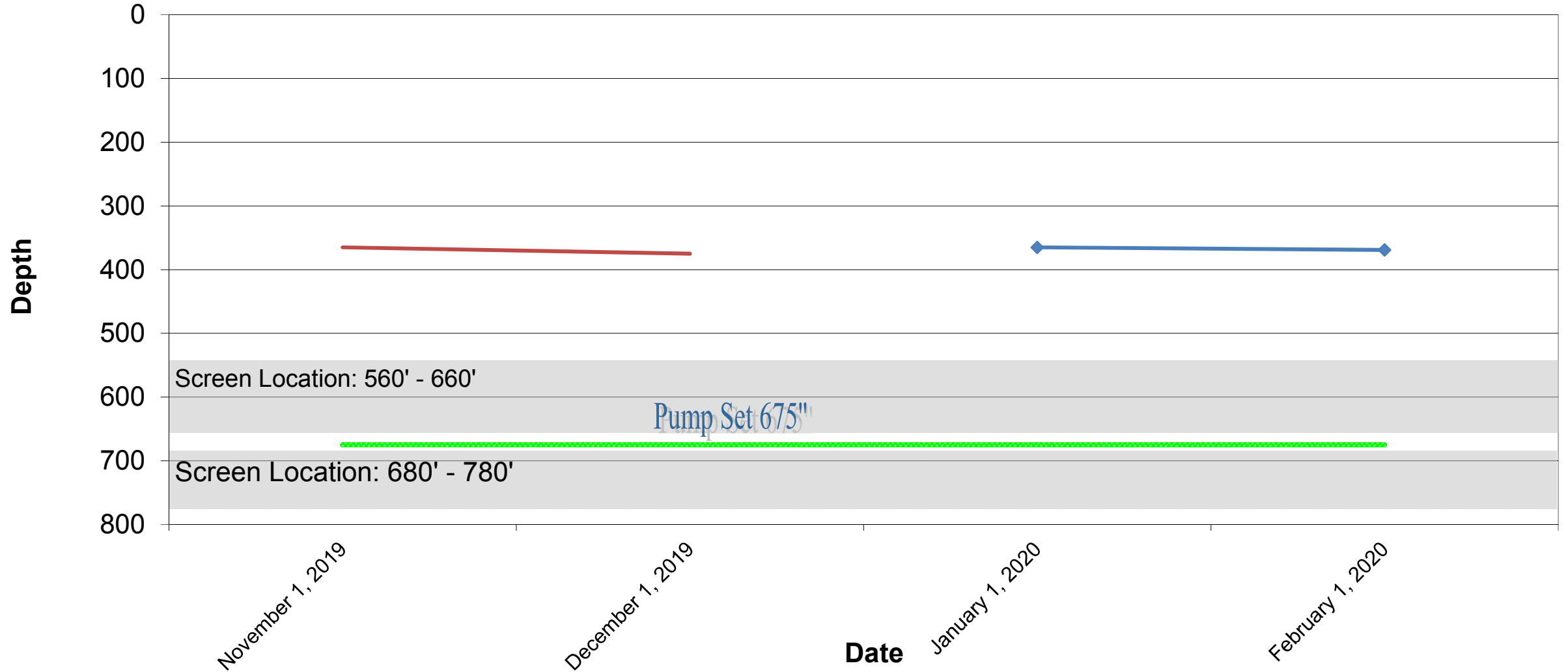
SAN LORENZO VALLEY WATER DISTRICT

Well Drawdown Report

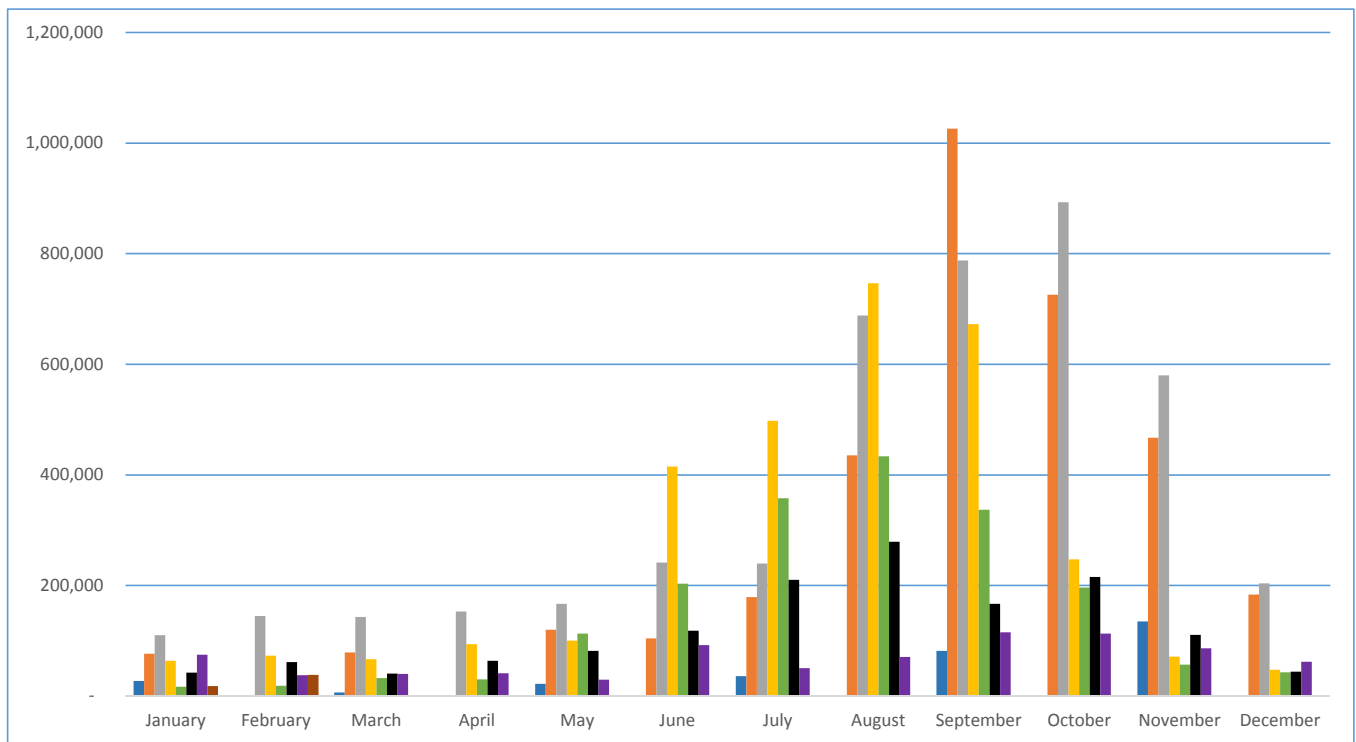
Pasatiempo 8

Location: Behind 3650 Graham Hill Rd.
Elevation: 775'
Installed: 11-20-2019
State Well #: 4410014-041
Completed Depth: 805'

Pump Set STATIC DYNAMIC



SAN LORENZO VALLEY WATER DISTRICT
BULK WATER SALES
GALLONS
February 2020



Month	2013	2014	2015	2016	2017	2018	2019	2020
January	26,928	76,296	109,965	63,850	16,456	41,888	74,800	17,952
February			144,364	72,556	18,700	61,366	37,400	38,148
March	5,984	78,540	142,868	66,572	32,164	40,392	39,644	
April			152,592	93,500	29,920	63,580	41,140	
May	21,692	119,680	166,804	100,232	112,948	81,532	29,172	
June		103,972	240,983	415,140	203,179	118,184	92,004	
July	35,904	178,772	239,360	497,420	357,544	210,188	50,116	
August		435,336	688,160	746,504	433,092	279,004	70,312	
September	81,352	1,026,256	787,644	672,183	336,570	166,804	115,192	
October		725,560	893,112	246,840	195,976	215,424	112,948	
November	134,640	466,752	579,700	71,060	56,848	110,704	86,020	
December		183,260	203,456	47,124	42,636	44,132	62,084	
Totals	306,500	3,394,424	4,349,008	3,092,981	1,836,033	1,433,198	810,832	56,100

SAN LORENZO VALLEY WATER DISTRICT
MONTHLY LEAK REPORT
February 2020

Leak Type	Location - NORTH SYSTEM	Town	Gallons Lost
400 MAIN LEAKING	WILLOWBROOK DR	BEN LOMOND	1,080
400 MAIN LEAKING	222 MAIN ST	BEN LOMOND	5,760
400 MAIN LEAKING	14401 BEAR CREEK RD	BOULDER CREEK	4,320
400 MAIN LEAKING	13090 PINE ST	BOULDER CREEK	10,800
400 MAIN LEAKING	Harmon	BOULDER CREEK	2,400
400 MAIN LEAKING	E. LOMOND	BOULDER CREEK	540
400 MAIN LEAKING	APPLE KNOLL	BOULDER CREEK	630
400 MAIN LEAKING	LORENZO AVE	BOULDER CREEK	10,000
400 MAIN LEAKING	113 OAK ST.	BROOKDALE	720
Total North			36,250
FELTON SYSTEM			
400 MAIN LEAKING	OLYMPIA WATERSHED	FELTON	3,600
400 MAIN LEAKING	5455 HWY 9	FELTON	2,880
Total Felton			6,480
LOMPICO			
Total Lompico			-
SCOTTS VALLEY			
Total Scotts Valley			-
Total All Systems			42,730

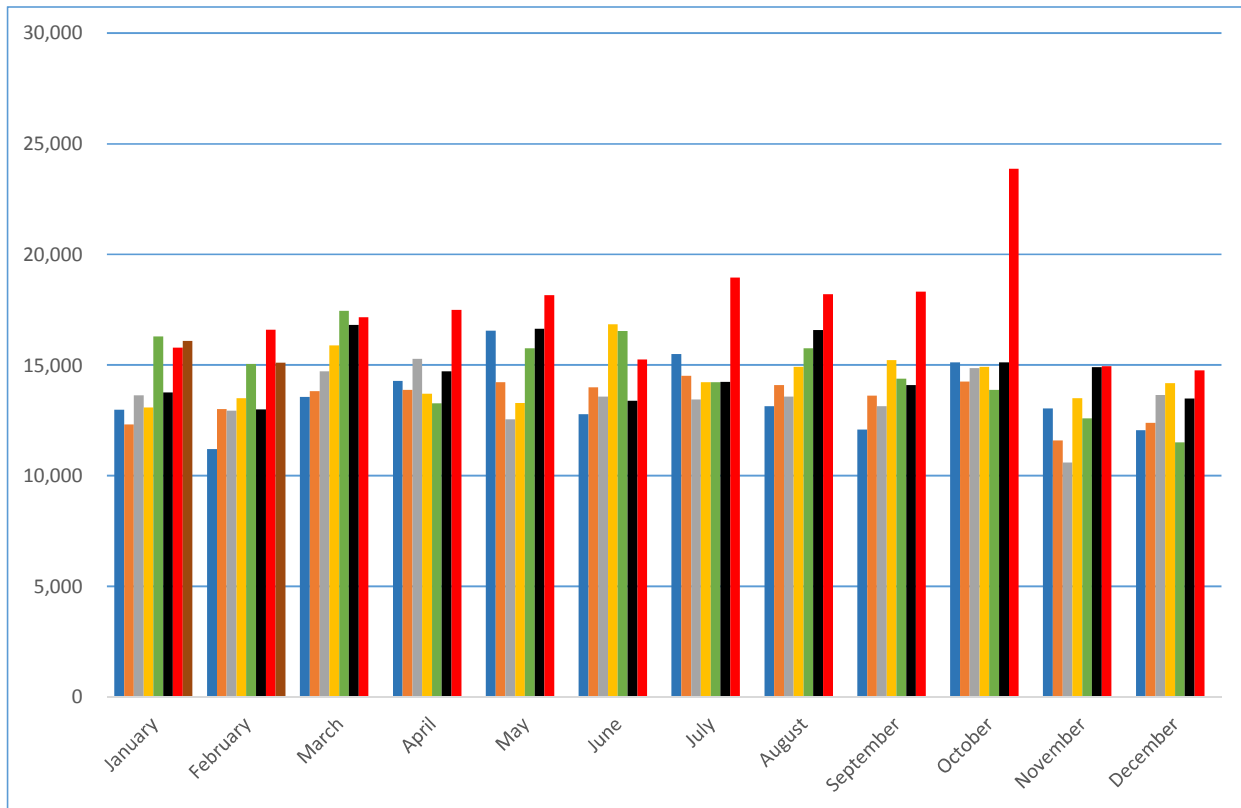
SLV Monthly Water Quality Service Order Summary

				Water Quality Complaint List						
Date Received	Type Of Complaint							Address	Conclusion	System
	Taste/ Odor	Color	Turbidity/ Particles	Worms/ Other Visible Organisms	Pressure (High/Low)	Illness (Waterborne)	Other (Specify)			
2/12/2020	X						Customer complained of Taste and Odor of water.	201 Hihn St	Upon investigation by SLVWD staff, water quality results appeared normal and within range at customers front hose bib. Free Cl2 was 0.9 mg/L, turbidity was 0.3 NTU and no odor was observed in a field odor test. Customer also agreed that there was no detectible odor at the front hose bib. Customer was advised to periodically flush internal plumbing. In addition, a sample was collected for total coliform bacteria as well as Threshold Odor Number Analysis at a contract lab. The bacteriological sample was absent of colifom bacteria, while the TON sample was non-detect for odor.	SLVWD-Felton

SAN LORENZO VALLEY WATER DISTRICT

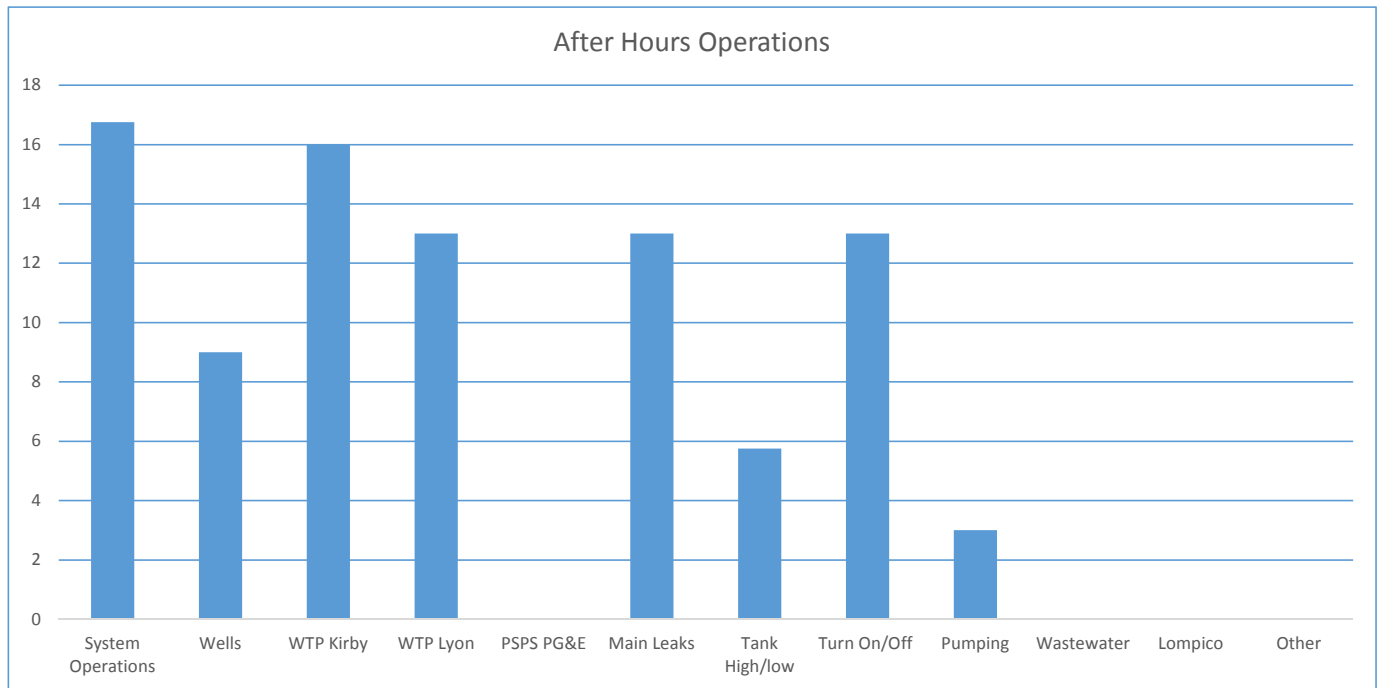
VEHICLE MILEAGE

February 2020



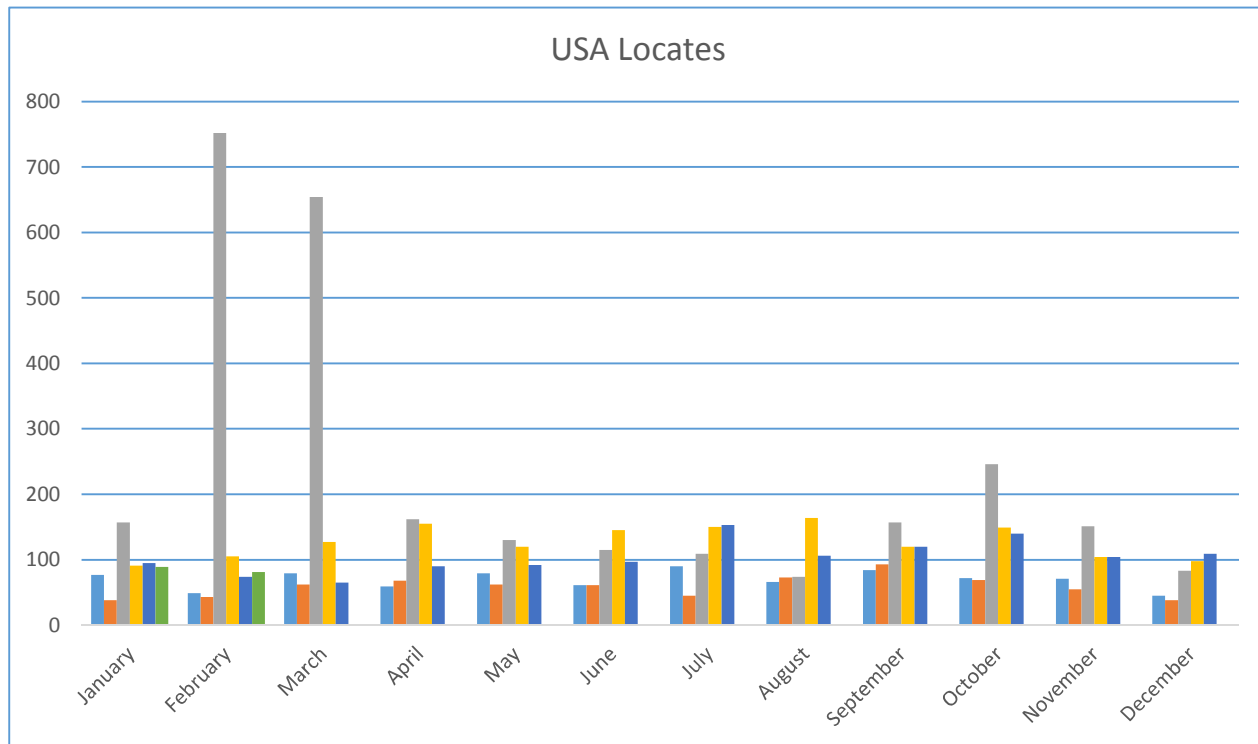
<u>Month</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
January	12,976	12,317	13,633	13,082	16,286	13,763	15,790	16,088
February	11,201	13,015	12,934	13,505	15,045	13,003	16,599	15,113
March	13,558	13,817	14,714	15,882	17,451	16,809	17,167	
April	14,283	13,883	15,279	13,704	13,270	14,711	17,488	
May	16,560	14,228	12,550	13,290	15,757	16,646	18,156	
June	12,780	14,000	13,582	16,841	16,534	13,390	15,249	
July	15,497	14,519	13,441	14,228	14,229	14,242	18,955	
August	13,136	14,096	13,569	14,923	15,761	16,576	18,194	
September	12,087	13,622	13,137	15,229	14,388	14,094	18,321	
October	15,120	14,261	14,868	14,924	13,880	15,126	23,864	
November	13,046	11,594	10,591	13,510	12,598	14,908	14,942	
December	12,060	12,394	13,648	14,187	11,512	13,492	14,763	
Totals	162,304	161,746	161,946	173,305	176,711	176,760	209,488	31,201

SAN LORENZO VALLEY WATER DISTRICT
OPERATIONS DEPARTMENT
February 2020



Description	Hours		2015	2016	2017	2018	2019	2020
System Operations	16.75	January	N/A	145.00	280.75	90.50	96.50	109.00
Wells	9	February	N/A	86.50	192.25	72.00	180.00	89.50
WTP Kirby	16	March	N/A	153.75	105.75	80.25	106.25	
WTP Lyon	13	April	82.50	72.00	128.75	156.75	76.25	
PSPS PG&E	0	May					82.50	
Main Leaks	13	June	172.50	83.25	112.75	89.00	136.75	
Tank High/low	5.75	July	124.25	80.25	162.00	145.25	158.30	
Turn On/Off	13	August	111.75	81.25	141.25	134.5	119.75	
Pumping	3	September	230.25	175.00	201.25	155.25	133.00	
Wastewater	0	October	128.25	78.50	104.00	111.5	605.75	
Lompico	0	November	114.25	96.25	122.50	197.5	182.00	
Other	0	December	186.25	130.75	134.00	220.25	195.50	
Total	89.50		1150.00	1182.50	1685.25	1452.75	2072.55	

SAN LORENZO VALLEY WATER DISTRICT
OPERATIONS DEPARTMENT
February 2020



Month	2015	2016	2017	2018	2019	2020
January	77	38	157	91	95	89
February	49	43	752	105	74	81
March	79	62	654	127	65	
April	59	68	162	155	90	
May	79	62	130	120	92	
June	61	61	115	145	97	
July	90	45	109	150	153	
August	66	73	74	164	106	
September	84	93	157	120	120	
October	72	69	246	149	140	
November	71	55	151	104	104	
December	45	38	83	98	109	
Total to Date	832	707	2,790	1528	1245	170

