MFMO

TO: District Manager

FROM: Director of Operations

SUBJECT: OPERATIONS DEPARTMENT STATUS REPORT

March 2019

DATE: April 18, 2019

RECOMMENDATION:

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

BACKGROUND:

DISTRICT FLUSHING PROGRAM

During the reporting period staff continued the 2019 Mainline Flushing Program. Each year several areas of the distribution system are flushed to remove iron and manganese deposits and sediment from mainlines. The first flushing began on February 11, 2019 and will continue to April 19, 2019. Direct mailing and display ads will be used to notify customers in flushing areas directly affected by the flushing activities, weekly as the flushing moves areas. Flushing is going very well thus far.

BLUE TANK REPLACEMENT

All site enhancements have been complete and the District is awaiting delivery and install of the new tank. The District has received a tentative start date form Superior Tank Company of April 24, 2019.

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

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. Well head design is submitted to the State Water Resources Control Board for approval, there has been some back and forth on the Well pad and piping design. The District still does not have approval from the State as of the end of March.

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

District staff is in the process of disinfecting, flushing and sampling the Well. The Well is being very difficult; staff has been doing all it can to get clean samples. Staff has been running multiple different scenarios of flushing and disinfecting the Well getting only one set of clean samples thus far. Staff will continue to disinfect, flush and sample this Well until we are able to get two consecutive sets of clean samples required to be able to put the Well back online.

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.

SCADA (Supervisory control and data acquisition) UPGRADE

In March 2019 there was good progress on the SCADA upgrade. The SCADA project is in the fine tuning stage. SCADA will be up and fully operational by the end of April 2019. The project is proceeding forward and the District staff is anxious and looking forward to the system upgrade being complete.

The District is about 95% 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: None

Main Line Repairs

2 inch main line repairs Pine St. Boulder Creek, replaced 30 feet.

System Wide

Full service line replacement 133 Grove St. Boulder Creek.

Full service line replacement 330 Manzanita Ave Boulder Creek.

Replaced 2 inch square nut valve on a blow off at the end of Dana Ct. Scotts Valley for flushing.

Install of clarification basin return pump Kirby water treatment plant.

Removed and returned 3000 feet of rain for rent pipe from the probation site used for discharge water from Well development.

Replaced 10' of sewer main at #8 Ridgewood Lane Bear Creek Estates.

Install sound proofing around pump station due to noise complaint at Spring booster off of Scenic Dr. Ben Lomond.

Johnson building clean up lower unit from water infiltration, and clean up and set up of units 3 and 4 of the upper units for a District meeting room for committees meetings.

13+/- Mainline/Service Line Leaks Were Repaired.

James Furtado

Director of Operations

SAN LORENZO VALLEY WATER DISTRICT PRODUCTION COMPARRISON

Source	March-19	February-19	March-13	Difference This Year To 2013
North System				
Surface Water Sources				
Foreman Creek	32,365,580	25,763,519	28,219,000	
Peavine Creek + Hydro	192,070	745,487	5,297,000	
Clear Creek	111,210	2,091,596		
Sweetwater Creek	74,140	1,394,398		
Sub-Total (Streams)	32,743,000	29,995,000	33,516,000	-2.31%
Wells (North)				
Olympia No. 2	1,644,000	1,363,000	0	
Olympia No. 3	70,000	532,000	0	
Quail Well No. 4-A	-	71,000	1,610,000	
Quail Well No. 5-A	9,500	9,700	4,800	
Sub Total North Wells	1,723,500	1,975,700	1,614,800	6.73%
South System Wells				
Pasatiempo 5A	-	-	N/A	
Pasatiempo 6	-	-	6,227,000	
Pasatiempo 7	1,684,000	652,000	2,125,000	
Sub Total Pasatiempo Wells	1,684,000	652,000	8,352,000	-79.84%
North South All Sources Combined	36,150,500	32,622,700	43,482,800	-16.86%
Felton System - Surface Water				
Fall Creek	3,962,605	2,986,356	5,004,570	
Bennett Spring	2,852,872	2,599,300	4,158,400	
Bull 1 & 2	1,258,136	1,097,316	4,130,500	
Total Felton System Sources	8,073,613	6,682,972	13,293,470	-39.27%
Manana Woods System				
Well 1	-	-	386,725	
Total Manana Woods Sources	-	-	386,725	
Sub - Total Production				
North / Felton / Manana	44,224,113	39,305,672	57,162,995	-22.64%
Surface	40,816,613	36,677,972	46,809,470	-12.80%
Wells	3,407,500	2,627,700	10,353,525	-67.09%
Total Surface Water Percentage Total Wells Percentage	92.29 7.71	93.31 6.69	81.89 18.11	12.71% -57.46%

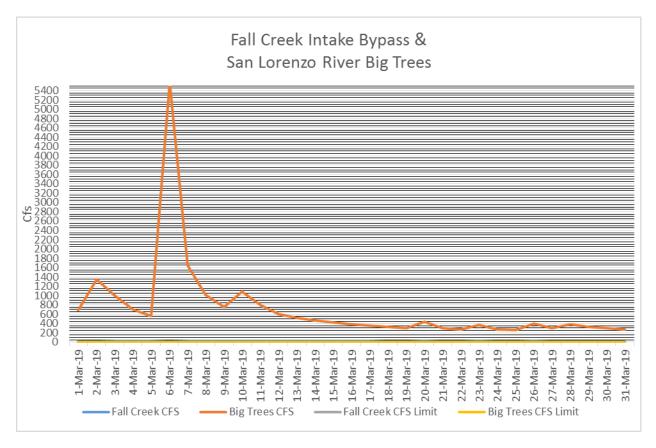
SAN LORENZO VALLEY WATER DISTRICT PRODUCTION BY SYSTEM +/- INTERTIES March 2019

North System All Sources	36,150,500				
Interties IN +	707				
Interties OUT -	6,027,920				
TOTAL NORHT SYSTEM	30,123,287				
Felton Water system All Sources	8,073,613				
Interties IN +	15,419				
Interties OUT -	0				
TOTAL FELTON SYSTEM	8,089,032				
Manana Woods System					
Manana Woods Well 1	0				
Interties IN +					
TOTAL MANANA WOODS	0				

SAN LORENZO VALLEY WATER DISTRICT INTERTIE USAGE March 2019

INTERTIE 2	
SLVWD to SVWD	0
SVWD to SLVWD	0
INTERTIE 3	
SLV SOUTH to SLV NORTH	707
SLV NORTH to SLV SOUTH	6,012,501
INTERTIE 4	
SLVWD to MHWD	0
MHWD to SLVWD	0
INTERTIE 6	
SLV NORTH to SLV FELTON	15,419
SLV FELTON to SLV NORTH	

Fall Creek Intake March 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

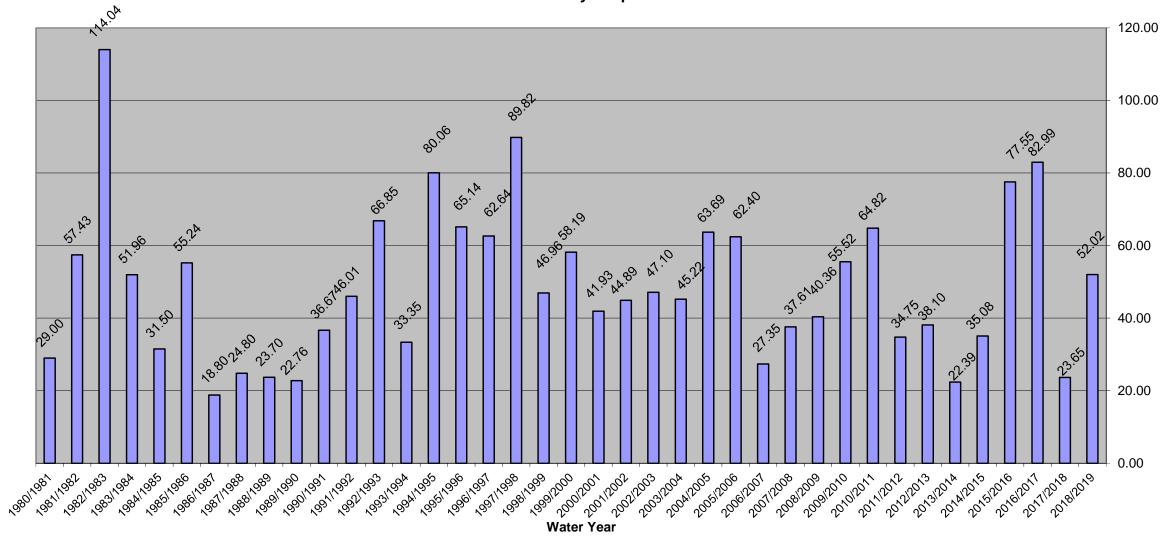
Fall Creek Intake March 2019

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										
	Manth	Ma		Vaar		Big Trees > 26,	500 Acre-ft Oc	t-Feb Normal	Big Trees <26,500 Acı	e-ft Oct-Feb Dry	Year
	Month:	Ma	rcn	Year:	2019	Year		X			
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 Apil 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	0730	НО	2	141	25	9.99	681	0.02	Yes	Yes	
2	0905	НО	2	65	25	9.99	1350	1.86	Yes	Yes	
3	0910	НО	2	102	25	22.0	996	0.05	Yes	Yes	
4	0850	НО	2	94	25	20.31	696	0.04	Yes	Yes	
5	0950	НО	2	130	25	19.52	557	0.15	Yes	Yes	
6	0940	НО	Off	0	0	11.41	5570	1.95	Yes	Yes	Weir Pulled
7	0810	TH	Off	0	0	22.11	1650	0.44	Yes	Yes	Weir Pulled
8	0745	TH	Off	0	0	22.99	1020	0.09	Yes	Yes	Weir Pulled
9	0945	JG	1	68	25	21.73	753	0.2	Yes	Yes	Weir In
10	1045	JG	1	80	25	23.64	1080	1.3	Yes	Yes	
11	0750	НО	1	95	25	22.46	800	0.18	Yes	Yes	
12	0945	НО	1	109	25	21.21	609	0	Yes	Yes	
13	1500	НО	1	45	25	20.09	515	0.02	Yes	Yes	
14	0800	TH	1	50	25	19.57	464	0	Yes	Yes	
15	0830	TH	1	135	25	18.1	418	0.01	Yes	Yes	
16	0915	JT	1	108	25	17.6	382	0	Yes	Yes	
17	1145	JT	1	116	25	17.1	348	0	Yes	Yes	
18	0815	TH	1	72	25	16.32	326	0	Yes	Yes	
19	1345	TH	1	91	25	16.06	301	0	Yes	Yes	
20	0930	НО	1	95	25	17.73	431	1	Yes	Yes	
21	0900	НО	1	80	25	16.49	301	0.02	Yes	Yes	
22	1000	TH	1	70	25	15.86	273	0.03	Yes	Yes	
23	0805	НО	1	80	25	17.03	370	0.8	Yes	Yes	
24	0940	НО	1	60	25	15.63	278	0.02	Yes	Yes	
25	0810	TH	1	107	25	15.36	258	0.03	Yes	Yes	
26	0730	SS	1	112	25	17.36	397	0.74	Yes	Yes	
27	0930	НО	1	65	25	16.5	303	0.24	Yes	Yes	
28	0740	JG	1	99	25	16.87	379	0.42	Yes	Yes	
29	0800	KS	1	43	25	16.45	329	0.25	Yes	Yes	
30	0700	KS	1	63	25	15.86	299	0	Yes	Yes	
31	0920	KS	1	45	25	15.55	273	0	Yes	Yes	

San Lorenzo Valley Water District Annual Rainfall History Graph



SAN LORENZO VALLEY WATER DISTRICT MONTHLY RAINFALL DATA SUMMARY DATA COLLECTED AT SLVWD OFFICE 13060 HIGHWAY 9, BOULDER CREEK

WATER Date	YEAR 2 Oct-18	018/2019 Nov-18	<u>Dec-18</u>	<u>Jan-19</u>	<u>Feb-19</u>	<u>Mar-19</u>	<u>Apr-19</u>	<u>May-19</u>	<u>Jun-19</u>	<u>Jul-19</u>	<u>Aug-19</u>	<u>Sep-19</u>	<u>Total</u>
1	0.00	0.00	0.18	0.00	0.78	0.06	0.03	0.00	0.00	0.00	0.00	0.00	1.05
2	0.00	0.00	0.01	0.00	2.94	1.24	0.31	0.00	0.00	0.00	0.00	0.00	4.50
3 4	0.00 0.01	0.00	0.00 0.24	0.00	1.15 1.76	0.09 0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.24 2.02
5	0.00	0.00	0.24	1.39	0.33	0.51	0.00	0.00	0.00	0.00	0.00	0.00	2.49
6	0.00	0.00	0.00	4.51	0.01	2.21	0.00	0.00	0.00	0.00	0.00	0.00	6.73
7	0.00	0.00	0.01	0.00	0.01	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.09
8 9	0.00	0.00	0.00 0.01	0.23 0.62	0.74 0.58	0.06 0.69	0.00	0.00	0.00	0.00	0.00	0.00	1.03 1.90
10	0.00	0.00	0.00	0.00	0.38	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.73
11	0.00	0.00	0.01	0.47	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50
12	0.00	0.00	0.00	0.01	0.26	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.28
13 14	0.00	0.00	0.01 0.00	0.00 0.15	3.60 1.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.61 1.63
15	0.00	0.00	0.01	2.44	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.10
16	0.00	0.00	1.77	2.41	0.49	0.01	0.00	0.00	0.00	0.00	0.00	0.00	4.68
17	0.00	0.00	0.20	0.48	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.85
18 19	0.00	0.00	0.00	0.00	0.00 0.01	0.00 0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20	0.00	0.00	0.00	0.47	0.01	0.96	0.00	0.00	0.00	0.00	0.00	0.00	1.44
21	0.00	1.72	0.01	0.02	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	1.76
22 23	0.00	0.99 0.82	0.01	0.01 0.00	0.00	0.09 0.34	0.00	0.00	0.00	0.00	0.00	0.00	1.10 1.16
23 24	0.00	0.02	0.00 0.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60
25	0.00	0.00	0.08	0.01	0.01	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.78
26	0.00	0.00	0.01	0.01	1.84	0.12	0.00	0.00	0.00	0.00	0.00	0.00	1.98
27 28	0.00	0.26 1.72	0.00	0.00	1.97 <u>0.02</u>	0.64 0.11	0.00	0.00	0.00	0.00	0.00	0.00	2.87 1.85
29	0.00	1.72	0.00	0.00	0.02	0.11	0.00	0.00	0.00	0.00	0.00	0.00	1.34
30	0.00	0.00	0.00	0.23		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23
31	0.00		0.00	<u>0.45</u>		0.00		0.00		0.00	0.00		0.45
TOTAL	0.01	6.88	3.37	13.92	19.21	8.29	0.34	0.00	0.00	0.00	0.00	0.00	52.02
MALATER													
WATER	YEAR 2	017/2018	<u>3</u>										
<u>Date</u>	Oct-17	Nov-17	<u>Dec-17</u>	<u>Jan-18</u>	Feb-18	<u>Mar-18</u>	<u>Apr-18</u>	<u>May-18</u>	<u>Jun-18</u>	<u>Jul-18</u>	<u>Aug-18</u>	<u>Sep-18</u>	<u>Total</u>
Date 1	Oct-17 0.00	Nov-17 0.00	Dec-17 0.01	0.00	0.01	2.44	0.00	0.00	0.00	0.00	0.00	0.00	2.46
Date 1 2	Oct-17 0.00 0.00	Nov-17 0.00 0.00	Dec-17 0.01 0.00	0.00	0.01 0.00	2.44 0.55	0.00	0.00	0.00	0.00	0.00	0.00	2.46 0.55
Date 1	Oct-17 0.00	Nov-17 0.00	Dec-17 0.01	0.00	0.01	2.44	0.00	0.00	0.00	0.00	0.00	0.00	2.46
Date 1 2 3 4 5	Oct-17 0.00 0.00 0.00 0.00 0.00 0.00	Nov-17 0.00 0.00 0.15 0.03 0.00	Dec-17 0.01 0.00 0.03 0.00 0.00	0.00 0.00 0.40 0.20 0.38	0.01 0.00 0.00 0.00 0.01	2.44 0.55 0.19 0.01 0.01	0.00 0.00 0.00 0.00 0.30	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	2.46 0.55 0.77 0.24 0.70
Date 1 2 3 4 5 6	Oct-17 0.00 0.00 0.00 0.00 0.00 0.00	Nov-17 0.00 0.00 0.15 0.03 0.00 0.01	0.01 0.00 0.03 0.00 0.00 0.00	0.00 0.00 0.40 0.20 0.38 0.10	0.01 0.00 0.00 0.00 0.01 0.00	2.44 0.55 0.19 0.01 0.01 0.00	0.00 0.00 0.00 0.00 0.30 1.26	0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00	2.46 0.55 0.77 0.24 0.70 1.37
Date 1 2 3 4 5 6 7	Oct-17 0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.15 0.03 0.00 0.01 0.00	0.01 0.00 0.03 0.00 0.00 0.00 0.00	0.00 0.00 0.40 0.20 0.38 0.10 0.01	0.01 0.00 0.00 0.00 0.01 0.00 0.00	2.44 0.55 0.19 0.01 0.01 0.00 0.00	0.00 0.00 0.00 0.00 0.30 1.26 0.86	0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00	2.46 0.55 0.77 0.24 0.70 1.37 0.88
Date 1 2 3 4 5 6	Oct-17 0.00 0.00 0.00 0.00 0.00 0.00	Nov-17 0.00 0.00 0.15 0.03 0.00 0.01	0.01 0.00 0.03 0.00 0.00 0.00	0.00 0.00 0.40 0.20 0.38 0.10	0.01 0.00 0.00 0.00 0.01 0.00	2.44 0.55 0.19 0.01 0.01 0.00	0.00 0.00 0.00 0.00 0.30 1.26	0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00	2.46 0.55 0.77 0.24 0.70 1.37
Date 1 2 3 4 5 6 7 8	Oct-17 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	0.00 0.00 0.15 0.03 0.00 0.01 0.00 0.58	0.01 0.00 0.03 0.00 0.00 0.00 0.00 0.01 0.00	0.00 0.00 0.40 0.20 0.38 0.10 0.01 3.66 0.61	0.01 0.00 0.00 0.00 0.01 0.00 0.00 0.00	2.44 0.55 0.19 0.01 0.01 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.30 1.26 0.86 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	2.46 0.55 0.77 0.24 0.70 1.37 0.88 4.28
Date 1 2 3 4 5 6 7 8 9 10 11	Oct-17 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	Nov-17 0.00 0.00 0.15 0.03 0.00 0.01 0.00 0.58 0.79 0.06 0.00	Dec-17 0.01 0.00 0.03 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.40 0.20 0.38 0.10 0.01 3.66 0.61 0.01	0.01 0.00 0.00 0.00 0.01 0.00 0.00 0.00	2.44 0.55 0.19 0.01 0.00 0.00 0.00 0.04 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.30 1.26 0.86 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	2.46 0.55 0.77 0.24 0.70 1.37 0.88 4.28 1.41 0.08 0.25
Date 1 2 3 4 5 6 7 8 9 10 11 12	Oct-17 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	Nov-17 0.00 0.00 0.15 0.03 0.00 0.01 0.00 0.58 0.79 0.06 0.00 0.00	Dec-17 0.01 0.00 0.03 0.00 0.00 0.00 0.01 0.00 0.01 0.00 0.01	0.00 0.00 0.40 0.20 0.38 0.10 0.01 3.66 0.61 0.01 0.00	0.01 0.00 0.00 0.00 0.01 0.00 0.00 0.00	2.44 0.55 0.19 0.01 0.00 0.00 0.00 0.04 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.30 1.26 0.86 0.00 0.00 0.00 0.25	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	2.46 0.55 0.77 0.24 0.70 1.37 0.88 4.28 1.41 0.08 0.25 0.65
Date 1 2 3 4 5 6 7 8 9 10 11	Oct-17 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	Nov-17 0.00 0.00 0.15 0.03 0.00 0.01 0.00 0.58 0.79 0.06 0.00	Dec-17 0.01 0.00 0.03 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.40 0.20 0.38 0.10 0.01 3.66 0.61 0.01	0.01 0.00 0.00 0.00 0.01 0.00 0.00 0.00	2.44 0.55 0.19 0.01 0.00 0.00 0.00 0.04 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.30 1.26 0.86 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	2.46 0.55 0.77 0.24 0.70 1.37 0.88 4.28 1.41 0.08 0.25
Date 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	Oct-17 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	Nov-17 0.00 0.00 0.15 0.03 0.00 0.58 0.79 0.06 0.00 0.00 0.08 0.00 0.12	Dec-17 0.01 0.00 0.03 0.00 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00	0.00 0.00 0.40 0.20 0.38 0.10 0.01 3.66 0.61 0.01 0.00 0.00 0.00	0.01 0.00 0.00 0.00 0.01 0.00 0.00 0.00	2.44 0.55 0.19 0.01 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.30 1.26 0.86 0.00 0.00 0.00 0.25 0.08 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	2.46 0.55 0.77 0.24 0.70 1.37 0.88 4.28 1.41 0.08 0.25 0.65 0.98 0.32
Date 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Oct-17 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	Nov-17 0.00 0.00 0.15 0.03 0.00 0.01 0.00 0.58 0.79 0.06 0.00 0.00 0.00 0.00 0.01 2.46	Dec-17 0.01 0.00 0.03 0.00 0.00 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00	0.00 0.00 0.40 0.20 0.38 0.10 0.01 3.66 0.61 0.00 0.00 0.00 0.00	0.01 0.00 0.00 0.00 0.01 0.00 0.00 0.00	2.44 0.55 0.19 0.01 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.30 1.26 0.86 0.00 0.00 0.25 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	2.46 0.55 0.77 0.24 0.70 1.37 0.88 4.28 1.41 0.08 0.25 0.65 0.98 0.32 0.88 2.99
Date 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	Oct-17 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	Nov-17 0.00 0.00 0.15 0.03 0.00 0.01 0.00 0.58 0.79 0.06 0.00 0.08 0.00 0.12 2.46 0.02	Dec-17 0.01 0.00 0.03 0.00 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00	0.00 0.00 0.40 0.20 0.38 0.10 0.01 3.66 0.61 0.00 0.00 0.00 0.00 0.01 0.01	0.01 0.00 0.00 0.00 0.01 0.00 0.00 0.00	2.44 0.55 0.19 0.01 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.30 1.26 0.86 0.00 0.00 0.25 0.08 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	2.46 0.55 0.77 0.24 0.70 1.37 0.88 4.28 1.41 0.08 0.25 0.65 0.98 0.32 0.88 2.99 0.15
Date 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Oct-17 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	Nov-17 0.00 0.00 0.15 0.03 0.00 0.01 0.00 0.58 0.79 0.06 0.00 0.00 0.00 0.00 0.01 2.46	Dec-17 0.01 0.00 0.03 0.00 0.00 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00	0.00 0.00 0.40 0.20 0.38 0.10 0.01 3.66 0.61 0.00 0.00 0.00 0.00	0.01 0.00 0.00 0.00 0.01 0.00 0.00 0.00	2.44 0.55 0.19 0.01 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.30 1.26 0.86 0.00 0.00 0.25 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	2.46 0.55 0.77 0.24 0.70 1.37 0.88 4.28 1.41 0.08 0.25 0.65 0.98 0.32 0.88 2.99
Date 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Oct-17 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	Nov-17 0.00 0.00 0.15 0.03 0.00 0.58 0.79 0.06 0.00 0.08 0.00 0.12 2.46 0.02 0.01 0.01 0.00	Dec-17 0.01 0.00 0.03 0.00 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01	0.00 0.00 0.40 0.20 0.38 0.10 0.01 3.66 0.61 0.00 0.00 0.00 0.00 0.01 0.01 0	0.01 0.00 0.00 0.00 0.01 0.00 0.00 0.00	2.44 0.55 0.19 0.01 0.00 0.00 0.00 0.00 0.00 0.56 0.90 0.30 0.67 0.27 0.13 0.00 0.00	0.00 0.00 0.00 0.00 0.30 1.26 0.86 0.00 0.00 0.25 0.08 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	2.46 0.55 0.77 0.24 0.70 1.37 0.88 4.28 1.41 0.08 0.25 0.65 0.98 0.32 0.88 2.99 0.15 0.18 0.08
Date 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21	Oct-17 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	Nov-17 0.00 0.00 0.15 0.03 0.00 0.58 0.79 0.06 0.00 0.08 0.00 0.12 2.46 0.02 0.01 0.01 0.00 0.00	Dec-17 0.01 0.00 0.03 0.00 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01	0.00 0.00 0.40 0.20 0.38 0.10 0.01 3.66 0.61 0.01 0.00 0.00 0.00 0.01 0.00 0.00	0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00	2.44 0.55 0.19 0.01 0.00 0.00 0.00 0.00 0.00 0.56 0.90 0.30 0.67 0.27 0.13 0.00 0.00	0.00 0.00 0.00 0.00 0.30 1.26 0.86 0.00 0.00 0.25 0.08 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	2.46 0.55 0.77 0.24 0.70 1.37 0.88 4.28 1.41 0.08 0.25 0.65 0.98 0.32 0.88 2.99 0.15 0.18 0.08
Date 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Oct-17 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	Nov-17 0.00 0.00 0.15 0.03 0.00 0.58 0.79 0.06 0.00 0.08 0.00 0.12 2.46 0.02 0.01 0.01 0.00	Dec-17 0.01 0.00 0.03 0.00 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01	0.00 0.00 0.40 0.20 0.38 0.10 0.01 3.66 0.61 0.00 0.00 0.00 0.00 0.01 0.01 0	0.01 0.00 0.00 0.00 0.01 0.00 0.00 0.00	2.44 0.55 0.19 0.01 0.00 0.00 0.00 0.00 0.00 0.56 0.90 0.30 0.67 0.27 0.13 0.00 0.00	0.00 0.00 0.00 0.00 0.30 1.26 0.86 0.00 0.00 0.25 0.08 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	2.46 0.55 0.77 0.24 0.70 1.37 0.88 4.28 1.41 0.08 0.25 0.65 0.98 0.32 0.88 2.99 0.15 0.18 0.08
Date 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	Oct-17 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	Nov-17 0.00 0.00 0.15 0.03 0.00 0.01 0.00 0.58 0.79 0.06 0.00 0.08 0.00 0.12 2.46 0.02 0.01 0.00 0.00 0.00 0.00 0.00 0.00	Dec-17 0.01 0.00 0.03 0.00 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.40 0.20 0.38 0.10 0.01 3.66 0.61 0.00 0.00 0.00 0.00 0.01 0.00 0.00	0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00	2.44 0.55 0.19 0.01 0.00 0.00 0.00 0.00 0.00 0.56 0.90 0.30 0.67 0.27 0.13 0.00 0.00 0.03 0.00	0.00 0.00 0.00 0.00 0.30 1.26 0.86 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	2.46 0.55 0.77 0.24 0.70 1.37 0.88 4.28 1.41 0.08 0.25 0.65 0.98 0.32 0.88 2.99 0.15 0.18 0.04 0.04 0.94
Date 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	Oct-17 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	Nov-17 0.00 0.00 0.15 0.03 0.00 0.58 0.79 0.06 0.00 0.08 0.00 0.12 2.46 0.02 0.01 0.00 0.00 0.00 0.00 0.00 0.00	Dec-17 0.01 0.00 0.03 0.00 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.40 0.20 0.38 0.10 0.01 3.66 0.61 0.00 0.00 0.00 0.01 0.01 0.01 0	0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00	2.44 0.55 0.19 0.01 0.00 0.00 0.00 0.00 0.00 0.56 0.90 0.30 0.67 0.27 0.13 0.00 0.00 0.33 0.00	0.00 0.00 0.00 0.00 0.30 1.26 0.86 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00	0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	2.46 0.55 0.77 0.24 0.70 1.37 0.88 4.28 1.41 0.05 0.25 0.65 0.98 0.32 0.88 2.99 0.15 0.18 0.08 0.64 0.04 0.98 0.04 0.98 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.0
Date 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26	Oct-17 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	Nov-17 0.00 0.00 0.15 0.03 0.00 0.58 0.79 0.06 0.00 0.08 0.00 0.12 2.46 0.02 0.01 0.00 0.01 0.00 0.00 0.00 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	Dec-17 0.01 0.00 0.03 0.00 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.40 0.20 0.38 0.10 0.01 3.66 0.61 0.00 0.00 0.00 0.01 0.01 0.01 0	0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00	2.44 0.55 0.19 0.01 0.00 0.00 0.00 0.00 0.00 0.56 0.90 0.30 0.67 0.27 0.13 0.00 0.00 0.33 0.00 0.33	0.00 0.00 0.00 0.00 0.30 1.26 0.86 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	2.46 0.55 0.77 0.24 0.70 1.37 0.88 4.28 1.41 0.08 0.25 0.65 0.98 0.32 0.88 2.99 0.15 0.18 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.0
Date 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25	Oct-17 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	Nov-17 0.00 0.00 0.15 0.03 0.00 0.58 0.79 0.06 0.00 0.08 0.00 0.12 2.46 0.02 0.01 0.00 0.00 0.00 0.00 0.00 0.00	Dec-17 0.01 0.00 0.03 0.00 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.40 0.20 0.38 0.10 0.01 3.66 0.61 0.00 0.00 0.00 0.01 0.01 0.01 0	0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00	2.44 0.55 0.19 0.01 0.00 0.00 0.00 0.00 0.00 0.56 0.90 0.30 0.67 0.27 0.13 0.00 0.00 0.33 0.00	0.00 0.00 0.00 0.00 0.30 1.26 0.86 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00	0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	2.46 0.55 0.77 0.24 0.70 1.37 0.88 4.28 1.41 0.05 0.25 0.65 0.98 0.32 0.88 2.99 0.15 0.18 0.08 0.64 0.04 0.98 0.04 0.98 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.0
Date 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	Oct-17 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	Nov-17 0.00 0.00 0.15 0.03 0.00 0.01 0.00 0.58 0.79 0.06 0.00 0.00 0.01 2.46 0.02 0.01 0.01 0.00 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01	Dec-17 0.01 0.00 0.03 0.00 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.00 0.01 0.00	0.00 0.00 0.40 0.20 0.38 0.10 0.01 3.66 0.61 0.00 0.00 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.01 0.00 0.00 0.00 0.01 0.00	0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00	2.44 0.55 0.19 0.01 0.00 0.00 0.00 0.00 0.00 0.56 0.90 0.30 0.67 0.27 0.13 0.00 0.00 0.33 0.00 0.33 0.00 0.00	0.00 0.00 0.00 0.00 0.30 1.26 0.86 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	2.46 0.55 0.77 0.24 0.70 1.37 0.88 4.28 1.41 0.08 0.25 0.65 0.98 0.32 0.88 2.99 0.15 0.18 0.08 0.04 0.04 0.04 0.04 0.04 0.04 0.0
Date 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	Oct-17 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	Nov-17 0.00 0.00 0.15 0.03 0.00 0.01 0.00 0.58 0.79 0.06 0.00 0.00 0.01 2.46 0.02 0.01 0.01 0.00 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01	Dec-17 0.01 0.00 0.03 0.00 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.00 0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.01 0.00	0.00 0.00 0.00 0.40 0.20 0.38 0.10 0.01 3.66 0.61 0.01 0.00 0.00 0.01 0.01 0.00 0.01 0.01 0.00 0.57 0.00 0.59 0.06 0.00 0.00 0.01 0.01 0.00 0.00 0.01 0.01 0.00 0.01 0.01 0.00 0.00	0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00	2.44 0.55 0.19 0.01 0.00 0.00 0.00 0.00 0.00 0.56 0.90 0.30 0.67 0.27 0.13 0.00 0.00 0.33 0.00 0.03 0.00 0.00	0.00 0.00 0.00 0.00 0.30 1.26 0.86 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00	0.00 0.00	2.46 0.55 0.77 0.24 0.70 1.37 0.88 4.28 1.41 0.08 0.25 0.65 0.98 0.32 0.88 2.99 0.15 0.18 0.04 0.04 0.04 0.04 0.04 0.04 0.04 0.0
Date 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29	Oct-17 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	Nov-17 0.00 0.00 0.15 0.03 0.00 0.01 0.00 0.58 0.79 0.06 0.00 0.00 0.01 2.46 0.02 0.01 0.01 0.00 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01	Dec-17 0.01 0.00 0.03 0.00 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.00 0.01 0.00	0.00 0.00 0.40 0.20 0.38 0.10 0.01 3.66 0.61 0.00 0.00 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.01 0.00 0.00 0.00 0.01 0.00	0.01 0.00 0.00 0.00 0.00 0.00 0.00 0.00	2.44 0.55 0.19 0.01 0.00 0.00 0.00 0.00 0.00 0.56 0.90 0.30 0.67 0.27 0.13 0.00 0.00 0.33 0.00 0.33 0.00 0.00	0.00 0.00 0.00 0.00 0.30 1.26 0.86 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0	2.46 0.55 0.77 0.24 0.70 1.37 0.88 4.28 1.41 0.08 0.25 0.65 0.98 0.32 0.88 2.99 0.15 0.18 0.08 0.04 0.04 0.04 0.04 0.04 0.04 0.0

SAN LORENZO VALLEY WATER DISTRICT Well Drawdown Report Location Elevation

Static Level

en Drawdown i Olympia 2

Pump Set

Dynamic Level

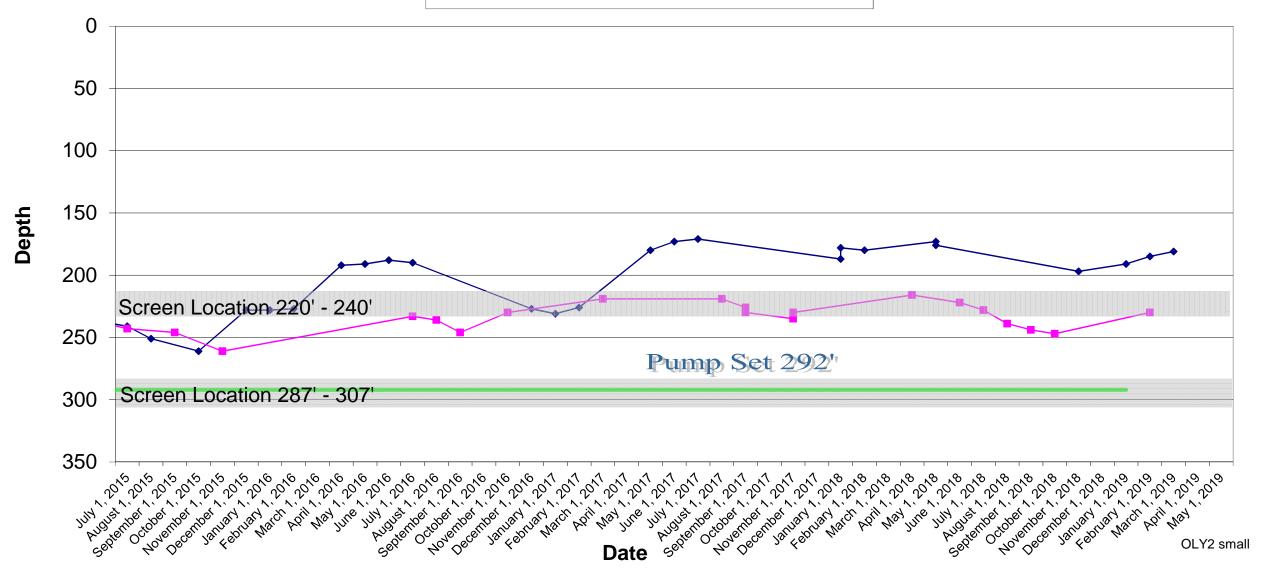
Location: 7701 E. Zayante Rd.

Elevation: 525'

Installed: April 28, 1980

State Well #:10S/O2W-11P01

New #: 4410014-010 Completed Depth: 300'



→ Static Level

SAN LORENZO VALLEY WATER DISTRICT Well Drawdown Report Olympia 3

Dynamic Level

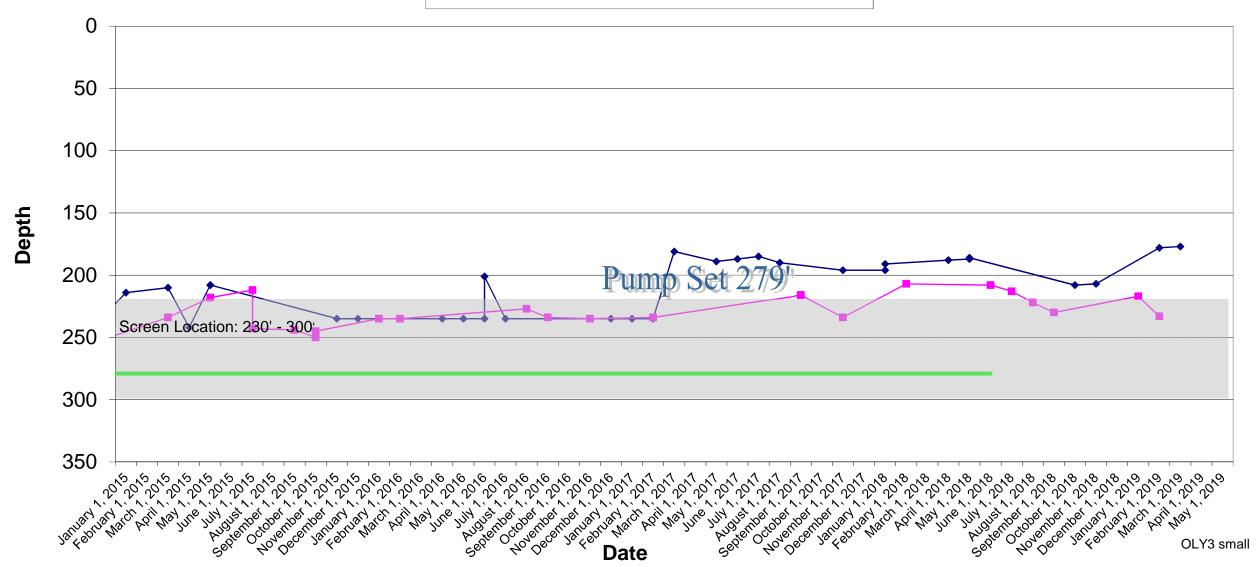
Pump Set

Location: 7701 E. Zayante Rd Elevation: 538' Mean Sea Level

Installed: 8-15-90

State Well #: 4410014-022

Completed Depth:

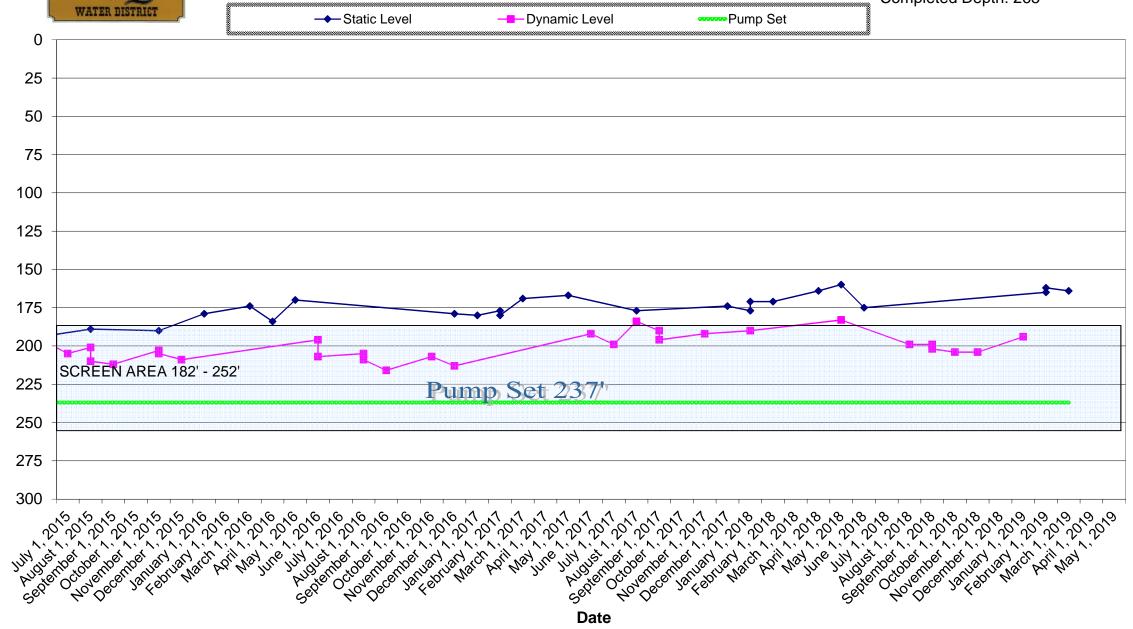


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SAN LORENZO VALLEY WATER DISTRICT Well Drawdown Report Quail Well 4-A

Location: Cumora Ln. Ben Lomond Elevation: 596.54 ft @ Pad

Installed: 6-07-2001 State Well #: 4410014-026 Completed Depth: 265





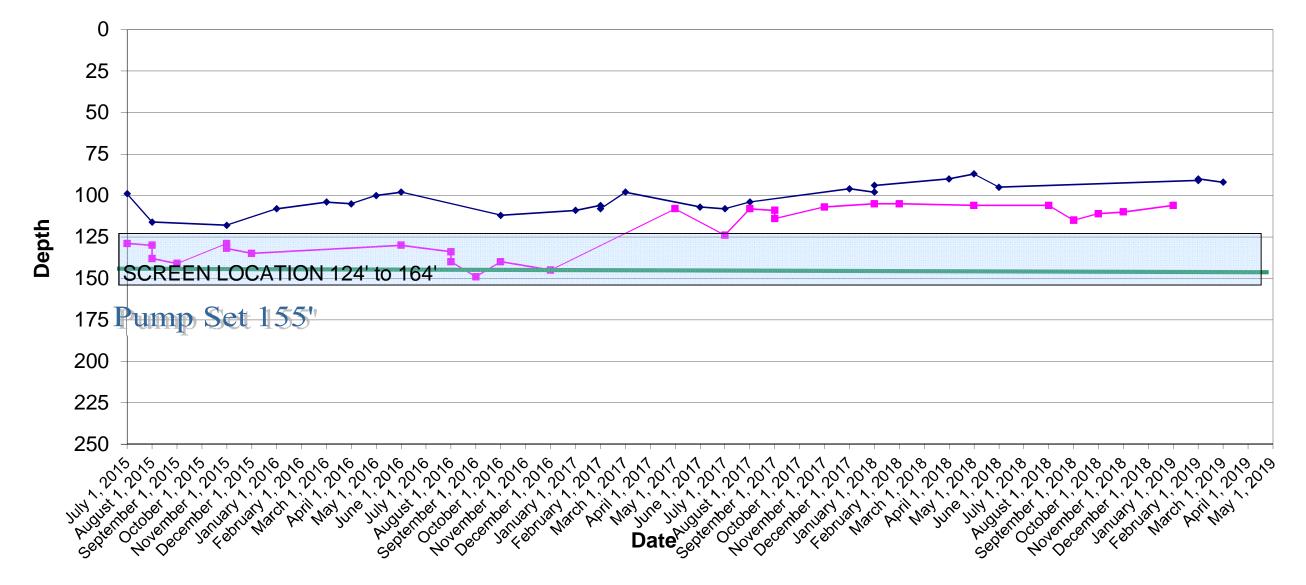
SAN LORENZO VALLEY WATER DISTRICT Well Drawdown Report Quail Well 5-A

→ Static Level — Dynamic Level — Pump Set

Location: 1161 Quail Hollow Rd.

Ben Lomond

Elevation: 517.65 ft. @ Pad Installed: March 2000 State Well #: 4410014-025 Completed Depth: 174'



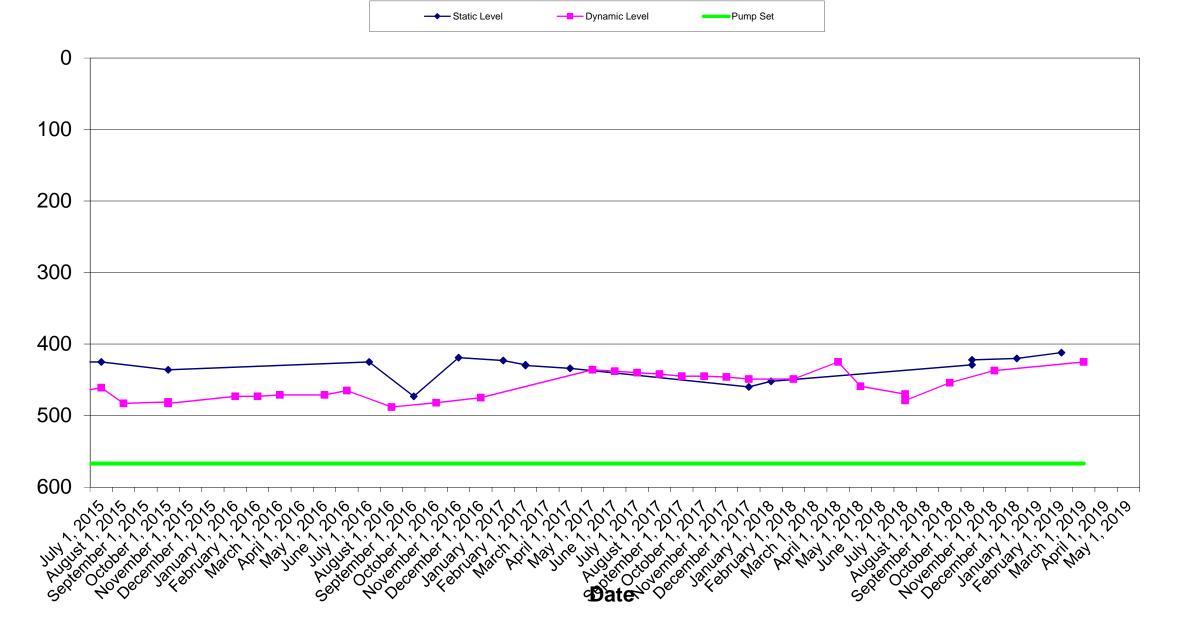


SAN LORENZO VALLEY WATER DISTRICT Well Drawdown Report Pasatiempo 5-A

Location: So. Of 3650 Graham Hill Rd Elevation: 752'

Installed 1-1-14

State Well #:4410014-014 Completed Depth: 710'



Son and a series water district

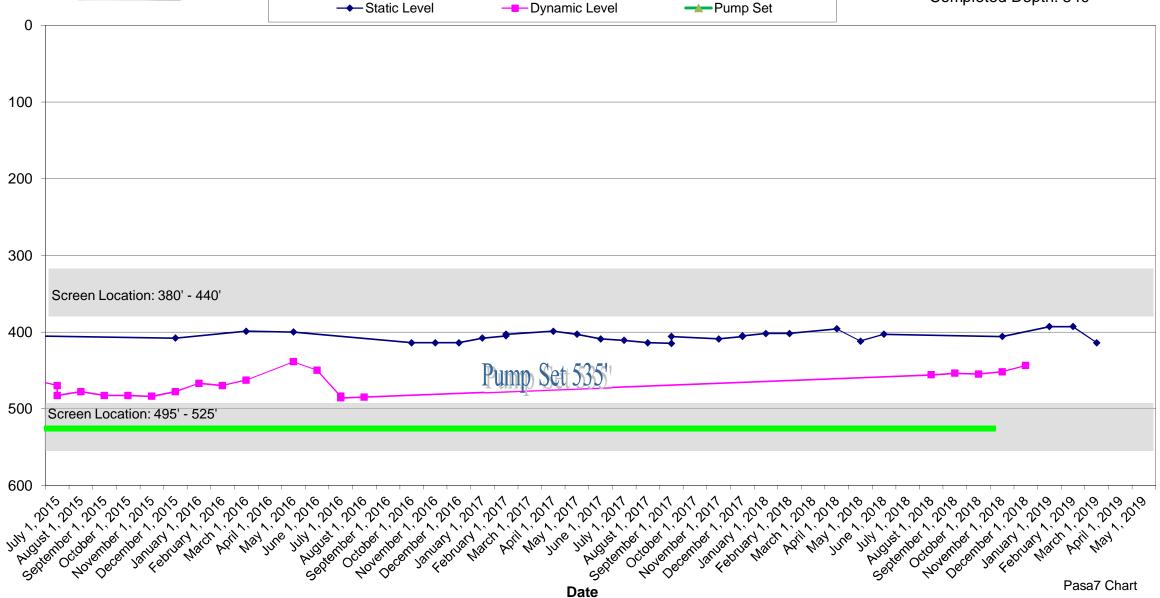
Depth

SAN LORENZO VALLEY WATER DISTRICT Well Drawdown Report Pasatiempo 7

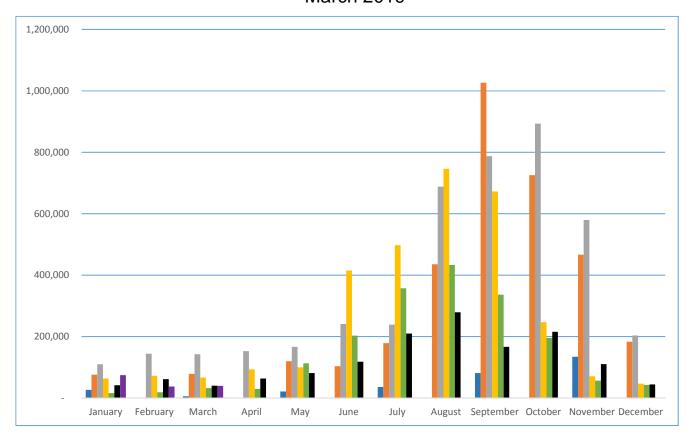
Location: South of Probation

Center

Elevation: 734' MSL Installed: July 21,1990 State Well #: 4410014-024 Completed Depth: 540'



SAN LORENZO VALLEY WATER DISTRICT BULK WATER SALES GALLONS March 2019



<u>Month</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	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	37,400
March	5,984	78,540	142,868	66,572	32,164	40,392	39,644
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	151,844

SAN LORENZO VALLEY WATER DISTRICT MONTHLY LEAK REPORT March 2019

Leak Type	Location - NORTH SYSTEM	Town	Gallons Lost				
400 MAIN LEAKING	10266 CALIFORNIA DR	BEN LOMOND	17,280				
400 MAIN LEAKING	260 SCENIC WAY	BEN LOMOND	1440				
400 MAIN LEAKING	635 SUNSET RD	BOULDER CREEK	5,760				
400 MAIN LEAKING	BOULDER CREEK	3,600					
400 MAIN LEAKING	BOULDER CREEK	500					
400 MAIN LEAKING	00 MAIN LEAKING PINE ST						
400 MAIN LEAKING	13800 BEAR CREEK RD.	BOULDER CREEK	900				
400 MAIN LEAKING	15000 TWO BAR RD.	BOULDER CREEK	34,560				
400 MAIN LEAKING	630 MANZANITA AVE	BOULDER CREEK	1,440				
400 MAIN LEAKING	13026 HWY 9	BOULDER CREEK	500				
400 MAIN LEAKING	136 DAFFODIL HILL	BOULDER CREEK	25,920				
400 MAIN LEAKING	340 MANZANITA AVE	BOULDER CREEK	2,880				
420 HYDRANT LEAK/REPAIRS	10580 CA-9/BLAKE HAMMOND MANOR	BROOKDALE	900				
		Total North	102,880				
	FELTON SYSTEM						
400 MAIN LEAKING	167 RUSSELL AVE	FELTON	43,200				
		Total Felton	43,200				
		Total Letton	43,200				
	LOMPICO						
400 MAIN LEAKING	10982 SEQUOIA AVE	LOMPICO	30				
400 MAIN LEAKING	221 LAKE ST.	LOMPICO	4,320				
		Total Lompico	4,350				
	SCOTTS VALLEY						
400 MAIN LEAKING	111 & 116 ROYAL OAK CT	SCOTTS VALLEY	10,800.00				

Total Scotts Valley

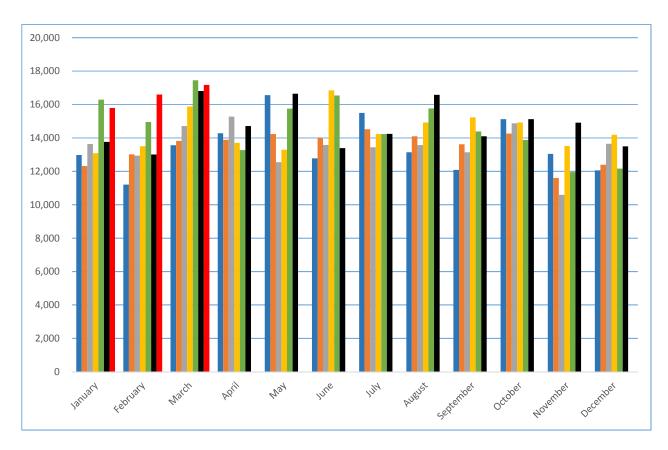
Total All Systems

10,800

161,230

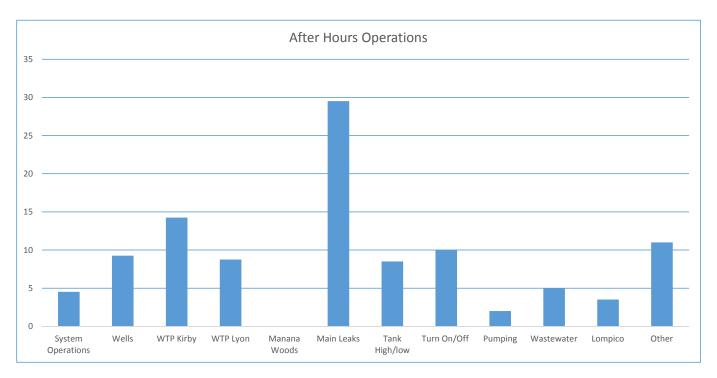
						er Quality Co	omplaint List			
Date Received	Taste/ Odor	Color	Turbidity /Particle s	Worms/ Other Visible Organisms	Pressure (High/Low)	Illness (Waterborne)	Other (Specify)	Address	Conclusion	System
3/15/2019		х					Customer called noticing colored water when her hot tub was filled	250 Fox Ct	Upon investigation by SLVWD staff, water quality resutls were normal and within range at customers front hose bib. Free chlorine was 1.0 mg/L, turbidity was 0.13 NTU, and no color was detected in field sample. Notified customer of results and requested to the customer to call back if colored water is experienced again and to collect a sample of the event in a clean container.	SLVWD-North
3/15/2019	х						Customer states that water has smelled like plastic for last 5 days.	615 Robinhoods Hollow	Upon investigation by SLVWD staff, water quality resutts were normal and within range at customers front hose bib. Free chlorine was 0.8 mg/L, turbidity was 0.21 NTU, no color was detected in field sample, and only a slight chlorine odor was noticed in field odor sample. Notified customer of results and asked to call back if problem persists.	SLVWD-North
3/22/2019	x						Customer stated that the water smells like chlorine.	715 Trinkling Creek Dr	Upon investigation by SLVWD staff, water quality results were normal and within range at 730 Trinkling Creek Dr. Free chlorine was 0.8 mg/L. 715 Trinkling Creek Dr was inaccesable at the time of sampling. Customer was notified of results and asked to call back if problem returns.	SLVWD-North
3/25/2019	х						Customer stated that the water has a strong chlorine taste	107 Hazel Ave	Upon investigation by SLVWD staff, water quality results were normal and within range. Free chlorine was 1.1 mg/L. Customer was asked to call back if strong chlorine taste persists.	SLVWD-North

SAN LORENZO VALLEY WATER DISTRICT VEHICLE MILEAGE March 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	16,599
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	
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	162,304	161,746	161,946	173,305	176,611	176,760	49,556

SAN LORENZO VALLEY WATER DISTRICT OPERATIONS DEPARTMENT March 2019



Description	<u>Hours</u>		2015	2016	2017	2018	2019
System Operations	4.5	January	N/A	145.00	280.75	90.50	96.50
Wells	9.25	February	N/A	86.50	192.25	72.00	180.00
WTP Kirby	14.25	March	N/A	153.75	105.75	80.25	106.25
WTP Lyon	8.75	April	82.50	72.00	128.75	19.00	
Manana Woods	0	May	104.75	49.25	132.75	105.5	
Main Leaks	29.5	June	172.50	83.25	112.75	89.00	
Tank High/low	8.5	July	124.25	80.25	162.00	145.25	
Turn On/Off	10	August	111.75	81.25	141.25	134.5	
Pumping	2	September	230.25	175.00	201.25	155.25	
Wastewater	5	October	128.25	78.50	104.00	111.5	
Lompico	3.5	November	114.25	96.25	122.50	197.5	
Other	11	December	186.25	130.75	134.00	220.25	
Total	106.25		1254.75	1231.75	1818.00	1420.50	382.75

SAN LORENZO VALLEY WATER DISTRICT OPERATIONS DEPARTMENT March 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	74
March	79	62	654	127	65
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	234

