

LAKE ARROWHEAD COMMUNITY SERVICES DISTRICT

MEMORANDUM

DATE: FEBRUARY 26, 2019

TO: BOARD OF DIRECTORS
Lake Arrowhead Community Services District

FROM: 
MATT BROOKS, Operations Manager

SUBJECT: OPERATIONS MANAGER'S REPORT

A. RECOMMENDATION

This is an information item.

B. REASON FOR RECOMMENDATION

This is an information item.

C. BACKGROUND INFORMATION

This report is to give an update on water delivered in 2019, along with any pertinent information in regards to the Operations Department.

The month of February brought a lot of precipitation, but also many challenges for the District and District staff. February precipitation totals within the District range from 23"- 25" (Feb 1 - Feb 19). As you are aware, this much rainfall in a short amount of time can create problems within our wastewater collection system. Even more so when we receive heavy rainfall on top of existing snow pack. Over the past month our wastewater system has been stressed to the maximum, and District staff was faced with many "worst-case" scenarios; many of them coming on the same day, at the same time. Unfortunately, through the past month, District staff has had to report two separate "controlled discharges" from Grass Valley Wastewater Treatment Plant (GVWWTP), one uncontrolled "spill" from GVWWTP, and two Category 1 Sanitary Sewer Overflows (SSOs) within the collection system.

All of these incidents were reported to the California Office of Emergency Services (Cal OES) and Lahontan Regional Water Quality Control Board (Lahontan), as required. District staff is still in the process of gathering data and

information in regards to all of the aforementioned incidents; and we will report out in more detail as the information becomes available.

Separately in Water Operations, we experienced some flooding at our newly renovated North Bay Pump Station (NBPS). At this point the contractor has been made aware, and District staff is meeting with them on February 19 to discuss potential solutions. It is not yet known if there is any major damage, and if so, to what extent. Prior to the flooding, District staff was able to fill Bernina #1 tank, which had been off-line for the re-coating of the interior. Two separate bacteriological (bacti) samples and VOC samples were taken, and results came back absent for bacti and not-detected for VOCs. The Bernina Water Treatment Plant is ready to be put back on-line as soon as the flooding issue at the NBPS is taken care of.

D. FISCAL INFORMATION

This is an information item.

E. ATTACHMENTS

- 2019 Monthly Report
- 2018 Monthly Report
- January 2019 Water Delivered Analysis
- Cedar Glen and Blue Jay Davis rain gage data (Feb 1 – Feb 19)

**ARROWHEAD WOODS MONTHLY DATA
ACRE FEET**

2019 MONTH	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	TRANSFER TO GV LAKE	WELLS TO SYSTEM	BERNINA PLANT	CEDAR GLEN PLANT	COMBINED PLANT	COMBINED PLANT BACKWASH	BERNINA RECYCLE	ROTW CLAWA PURCHASE (a)	BRENTWOOD CLAWA PURCHASE (a)	COMBINED PURCHASE (a)	LAKE DRAW (b)	DELIVERED TO DISTRIBUTION (c)	METERED WATER	STORAGE VOLUME (e)	STORAGE VOLUME CHANGE +/-	UN-METERED WATER (d)
JANUARY	0.00	13.17	0.00	60.63	60.63	4.33	0.00	0.00	0.00	0.00	60.63	69.47	56.45	23.82	0.80	12.22
FEBRUARY	0.00				0.00					0.00	0.00	0.00		24.62		0.00
MARCH	0.00				0.00					0.00	0.00	0.00			0.00	0.00
1ST QUARTER	0.00	13.17	0.00	60.63	60.63	4.33	0.00	0.00	0.00	0.00	60.63	69.47	56.45	48.44	0.80	12.22
APRIL	0.00				0.00					0.00	0.00	0.00			0.00	0.00
MAY	0.00				0.00					0.00	0.00	0.00			0.00	0.00
JUNE	0.00				0.00					0.00	0.00	0.00			0.00	0.00
2ND QUARTER	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
SEMI-ANNUAL	0.00	13.17	0.00	60.63	60.63	4.33	0.00	0.00	0.00	0.00	60.63	69.47	56.45	48.44	0.80	12.22
JULY	0.00				0.00					0.00	0.00	0.00			0.00	0.00
AUGUST	0.00				0.00					0.00	0.00	0.00			0.00	0.00
SEPTEMBER	0.00				0.00					0.00	0.00	0.00			0.00	0.00
3RD QUARTER	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
OCTOBER	0.00				0.00					0.00	0.00	0.00			0.00	0.00
NOVEMBER	0.00				0.00					0.00	0.00	0.00			0.00	0.00
DECEMBER	0.00				0.00					0.00	0.00	0.00			0.00	0.00
4TH QUARTER	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
ANNUAL TOTAL	0.00	13.17	0.00	60.63	60.63	4.33	0.00	0.00	0.00	0.00	60.63	69.47	56.45	48.44	0.80	12.22

(a) CLAWA consumption numbers are based upon monthly billing statements provided by CLAWA. CLAWA reads these meters on or near the 24th of each month, so the numbers may not be an actual representation of water consumed for said calendar month.

(b) Lake Draw = (1) + (5)

(c) Delivered to Distribution = (2) + (5) - (6) + (7) + (10)

(d) Un-Metered Water = ((12) - (13)) - (15)

(e) Storage Volume calculated 8:00 am the 1st of every month.

**ARROWHEAD WOODS MONTHLY DATA
ACRE FEET**

2018 MONTH	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
	TRANSFER TO GV LAKE	WELLS TO SYSTEM	BERNINA PLANT	CEDAR GLEN PLANT	COMBINED PLANT	COMBINED PLANT BACKWASH	BERNINA RECYCLE	ROTW CLAWA PURCHASE (a)	BRENTWOOD CLAWA PURCHASE (a)	COMBINED PURCHASE (a)	LAKE DRAW (b)	DELIVERED TO DISTRIBUTION (c)	METERED WATER	STORAGE VOLUME (e)	STORAGE VOLUME CHANGE +/-	UN-METERED WATER (d)
JANUARY	0.00	11.57	0.00	32.93	32.93	1.57	0.00	19.68	0.00	19.68	32.93	62.61	51.30	27.73	-1.89	13.00
FEBRUARY	0.00	10.12	0.00	52.02	52.02	2.43	0.00	0.00	0.00	0.00	52.02	59.71	48.50	26.04	1.26	9.95
MARCH	0.00	11.29	0.00	49.63	49.63	1.69	0.00	0.00	0.00	0.00	49.63	59.23	48.48	27.30	-0.22	10.97
1ST QUARTER	0.00	32.98	0.00	134.58	134.58	5.69	0.00	19.68	0.00	19.68	134.58	181.55	148.28	81.07	-0.65	33.92
APRIL	0.00	11.74	0.00	53.17	53.17	3.35	0.00	0.00	5.56	5.56	53.17	67.12	58.56	27.08	-0.84	9.40
MAY	0.00	10.66	0.00	88.24	88.24	5.38	0.00	0.00	26.83	26.83	88.24	120.35	107.30	26.24	-0.30	13.95
JUNE	0.00	11.78	0.00	92.50	92.50	6.17	0.00	16.61	40.51	57.12	92.50	155.23	142.44	25.34	2.37	10.42
2ND QUARTER	0.00	34.18	0.00	233.91	233.91	14.90	0.00	16.61	72.90	89.51	233.91	342.70	308.30	78.66	0.63	33.77
SEMI-ANNUAL	0.00	67.16	0.00	368.49	368.49	20.59	0.00	36.29	72.90	109.19	368.49	524.25	456.58	159.73	-0.02	67.69
JULY	0.00	11.50	9.40	99.83	109.23	9.96	0.00	55.46	19.89	75.35	109.23	186.12	170.23	27.71	-2.07	17.96
AUGUST	0.00	13.97	131.55	48.47	180.02	16.04	6.83	1.90	0.07	1.97	180.02	181.94	170.15	25.64	2.25	9.54
SEPTEMBER	0.00	13.54	9.19	84.19	93.38	8.19	0.54	60.52	0.00	60.52	93.38	159.79	149.19	27.89	-4.66	15.26
3RD QUARTER	0.00	39.01	150.14	232.49	382.63	34.19	7.37	117.88	19.96	137.84	382.63	527.85	489.57	81.24	-4.48	42.76
OCTOBER	0.00	13.07	0.00	75.67	75.67	6.96	0.00	31.73	0.00	31.73	75.67	113.51	102.84	23.23	1.00	9.67
NOVEMBER	0.00	12.56	0.00	72.33	72.33	5.71	0.00	0.00	0.00	0.00	72.33	79.18	65.62	24.23	-0.63	14.19
DECEMBER	0.00	12.04	0.00	66.31	66.31	4.59	0.00	0.00	0.00	0.00	66.31	73.76	60.03	23.60	0.22	13.51
4TH QUARTER	0.00	37.67	0.00	214.31	214.31	17.26	0.00	31.73	0.00	31.73	214.31	266.45	228.49	71.06	0.59	37.37
ANNUAL TOTAL	0.00	143.84	150.14	815.29	965.43	72.04	7.37	185.90	92.86	278.76	965.43	1318.55	1174.64	312.03	-3.91	147.82

(a) CLAWA consumption numbers are based upon monthly billing statements provided by CLAWA. CLAWA reads these meters on or near the 24th of each month, so the numbers may not be an actual representation of water consumed for said calendar month.

(b) Lake Draw = (1) + (5)

(c) Delivered to Distribution = Bernina System Input Meter + (4) + (8)

(d) Un-Metered Water = ((12) - (13)) - (15)

(e) Storage Volume calculated 8:00 am the 1st of every month.

February 26, 2019

January 2019 Water Delivered Analysis

- In January 2019 (69.47 AF), consumption was 11% higher when compared to January 2018 (62.61 AF). These numbers are based off of column (12) on the Report, and only counts water delivered to the Distribution System, and only counts water delivered to the Distribution System.
- January 2019 Lake Draw = 60.63 AF vs January 2018 = 32.93 AF.
- January 2019 Wells to System = 13.17 AF vs January 2018 = 11.57 AF.
- January 2019 total CLAWA purchase = 0 AF vs January 2018 = 0 AF.

MONTHLY CLIMATOLOGICAL SUMMARY for FEB. 2019

NAME: LACSD Blue Jay CITY: Blue Jay STATE: CA
 ELEV: 5220 ft LAT: 34° 14' 46" N LONG: 117° 12' 24" W

TEMPERATURE (°F), RAIN (in), WIND SPEED (mph)

DAY	MEAN TEMP	HIGH	TIME	LOW	TIME	HEAT DEG DAYS	COOL DEG DAYS	RAIN	AVG WIND SPEED	HIGH	TIME	DOM DIR
1	37.7	47.2	11:00a	30.0	7:30a	27.3	0.0	0.00	0.8	12.0	1:00p	S
2	37.7	41.6	9:00a	33.3	12:00m	27.3	0.0	5.00	2.8	21.0	2:00p	SSW
3	34.6	37.0	3:00p	32.1	7:00a	30.4	0.0	1.80	1.8	16.0	4:00a	S
4	34.1	36.3	2:00p	32.1	11:30p	30.9	0.0	3.49	3.2	24.0	2:30p	S
5	29.3	32.3	12:30a	24.2	12:00m	35.7	0.0	1.89	2.4	25.0	11:30a	S
6	22.5	31.4	12:00p	15.2	7:00a	42.5	0.0	0.22	0.6	15.0	11:30a	NE
7	23.9	37.9	11:30a	13.2	4:30a	41.1	0.0	0.00	0.1	5.0	1:00p	NE
8	28.0	40.0	1:00p	17.9	6:30a	37.0	0.0	0.00	0.6	9.0	2:00p	NE
9	31.5	36.0	12:00p	28.2	5:00a	33.5	0.0	0.20	0.8	14.0	1:30p	E
10	30.4	32.6	6:30p	21.8	12:00m	34.6	0.0	1.34	1.9	16.0	1:30p	S
11	25.6	38.1	12:00p	13.4	7:00a	39.4	0.0	0.08	0.8	16.0	1:00a	NNE
12	32.1	45.8	12:00p	19.3	6:00a	32.9	0.0	0.00	0.9	9.0	12:00p	NE
13	39.7	43.7	10:00a	33.3	2:30p	25.3	0.0	1.07	1.7	18.0	12:30p	E
14	40.9	46.7	12:30p	33.9	11:30p	24.1	0.0	6.42	2.7	29.0	2:30p	S
15	33.6	34.8	11:30a	32.3	11:00p	31.4	0.0	0.97	2.2	16.0	1:30a	S
16	31.8	39.0	1:30p	26.1	7:30a	33.2	0.0	0.12	1.0	13.0	1:30p	SSW
17	27.7	32.9	11:00a	22.1	7:00a	37.3	0.0	0.46	1.3	19.0	4:30p	E
18	25.7	33.8	2:00p	18.0	7:30a	39.3	0.0	0.01	2.0	16.0	11:00a	SSW
19	21.7	26.8	9:00a	18.9	6:30a	16.2	0.0	0.00	2.5	13.0	8:30a	SSW
20												
21												
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25												
26												
27												
28												

	31.0	47.2	1	13.2	7	619.4	0.0	23.07	1.6	29.0	14	S

Max >= 90.0: 0
 Max <= 32.0: 2
 Min <= 32.0: 13
 Min <= 0.0: 0
 Max Rain: 6.42 ON 02/14/19
 Days of Rain: 13 (>.01 in) 12 (>.1 in) 7 (>1 in)
 Heat Base: 65.0 Cool Base: 65.0 Method: Integration

MONTHLY CLIMATOLOGICAL SUMMARY for FEB. 2019

NAME: LACSD_Cedar_Glen CITY: Cedar Glen STATE: CA
 ELEV: 5317 ft LAT: 34° 15' 12" N LONG: 117° 10' 22" W

TEMPERATURE (°F), RAIN (in), WIND SPEED (mph)

DAY	MEAN TEMP	HIGH	TIME	LOW	TIME	HEAT DEG DAYS	COOL DEG DAYS	RAIN	AVG WIND SPEED	HIGH	TIME	DOM DIR
1	40.0	47.5	1:00p	34.3	3:30a	25.0	0.0	0.00	1.2	14.0	2:00p	SSE
2	38.5	43.3	9:00a	34.4	7:30p	26.5	0.0	6.28	3.5	23.0	1:00p	SE
3	35.6	38.3	2:30p	33.0	5:00a	29.4	0.0	1.49	2.5	19.0	1:30a	SE
4	34.7	36.8	2:00p	32.9	12:00m	30.3	0.0	4.31	4.2	27.0	1:00p	SE
5	30.0	33.3	1:00a	24.8	11:30p	35.0	0.0	1.61	0.6	17.0	2:30a	SE
6	24.2	31.7	3:30p	17.6	7:00a	40.8	0.0	0.25	0.0	0.0	---	---
7	26.7	38.3	3:00p	18.3	6:00a	38.3	0.0	0.00	0.2	7.0	4:00p	WSW
8	32.1	44.0	2:00p	22.8	6:00a	32.9	0.0	0.00	1.2	12.0	3:00p	SE
9	32.9	37.5	1:00p	28.9	4:00a	32.1	0.0	0.21	1.8	14.0	9:00p	SE
10	31.2	33.7	10:30a	22.8	12:00m	33.8	0.0	1.36	1.9	16.0	1:30p	SE
11	28.8	43.9	2:00p	17.1	6:30a	36.2	0.0	0.03	0.1	7.0	2:00p	SE
12	39.4	50.6	1:00p	28.3	12:30a	25.6	0.0	0.00	1.5	21.0	7:30p	SE
13	42.0	44.9	10:00a	35.5	2:30p	23.0	0.0	0.99	3.4	23.0	11:30a	SE
14	41.9	47.3	12:30p	34.7	12:00m	23.1	0.0	6.96	4.0	31.0	2:30p	SE
15	34.7	37.6	11:30a	33.1	5:30a	30.3	0.0	0.99	3.5	19.0	5:30a	SE
16	32.6	39.9	2:30p	26.8	7:30a	32.4	0.0	0.29	1.5	15.0	10:00a	SE
17	28.9	33.0	12:00p	24.5	7:30a	36.1	0.0	0.44	1.9	18.0	4:30p	SE
18	25.6	33.9	2:00p	18.1	7:30a	39.4	0.0	0.01	1.6	15.0	5:00p	W
19	21.1	24.2	9:00a	18.2	7:30a	16.5	0.0	0.00	1.3	10.0	8:30a	WNW
20												
21												
22												
23												
24												
25												
26												
27												
28												

32.7 50.6 12 17.1 11 586.7 0.0 25.22 1.9 31.0 14 SE

Max >= 90.0: 0
 Max <= 32.0: 2
 Min <= 32.0: 12
 Min <= 0.0: 0
 Max Rain: 6.96 ON 02/14/19
 Days of Rain: 13 (>.01 in) 12 (>.1 in) 6 (>1 in)
 Heat Base: 65.0 Cool Base: 65.0 Method: Integration