

LAKE ARROWHEAD COMMUNITY SERVICES DISTRICT

MEMORANDUM

DATE: APRIL 25, 2023

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 2023.

D. FISCAL IMPACT

This is an information item.

E. ENVIRONMENTAL IMPACT

This is an information item.

F. ATTACHMENTS

- 2023 Monthly Report
- 2022 Monthly Report
- 2021 Monthly Report
- March 2023 Water Delivered Quarterly Analysis

**ARROWHEAD WOODS MONTHLY DATA
ACRE FEET**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
2023 MONTH	TRANSFER TO GV LAKE (b)	WELLS TO SYSTEM (c)	BERNINA PLANT	CEDAR GLEN PLANT	COMBINED PLANT (b) (c)	COMBINED PLANT BACKWASH (c)	BERNINA RECYCLE (c)	ROTW CLAWA PURCHASE (a)	BRENTWOOD CLAWA PURCHASE (a)	COMBINED PURCHASE (a) (c)	LAKE DRAW (b)	DELIVERED TO DISTRIBUTION (c) (d)	METERED WATER (d)	EMERGENCY TRANSFER TO DLP (d)	STORAGE VOLUME (e)	STORAGE VOLUME CHANGE +/- (d)	UN-METERED WATER (d)
JANUARY	0.00	7.86	64.29	0.00	64.29	5.54	3.50	0.00	0.00	0.00	64.29	70.11	55.40	0.00	28.50	-1.14	15.85
FEBRUARY	0.00	17.71	47.79	0.00	47.79	3.69	2.55	0.00	0.00	0.00	47.79	64.36	45.42	0.00	27.36	-1.00	19.94
MARCH	0.00	16.67	59.44	0.00	59.44	3.60	2.82	0.00	0.00	0.00	59.44	75.33	43.62	0.04	26.36	0.69	30.98
1ST QUARTER	0.00	42.24	171.52	0.00	171.52	12.83	8.87	0.00	0.00	0.00	171.52	209.80	144.44	0.04	82.22	-1.45	66.77
APRIL					0.00					0.00	0.00	0.00			27.05		0.00
MAY					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
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	27.05	0.00	0.00
SEMI-ANNUAL	0.00	42.24	171.52	0.00	171.52	12.83	8.87	0.00	0.00	0.00	171.52	209.80	144.44	0.04	109.27	-1.45	66.77
JULY					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
SEPTEMBER					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	0.00
OCTOBER					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
DECEMBER					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	0.00
ANNUAL TOTAL	0.00	42.24	171.52	0.00	171.52	12.83	8.87	0.00	0.00	0.00	171.52	209.80	144.44	0.04	109.27	-1.45	66.77

(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+14)) - (16)

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

**ARROWHEAD WOODS MONTHLY DATA
ACRE FEET**

2022 MONTH	(1) TRANSFER TO GV LAKE (b)	(2) WELLS TO SYSTEM (c)	(3) BERNINA PLANT	(4) CEDAR GLEN PLANT	(5) COMBINED PLANT (b) (c)	(6) COMBINED PLANT BACKWASH (c)	(7) BERNINA RECYCLE (c)	(8) ROTW CLAWA PURCHASE (a)	(9) BRENTWOOD CLAWA PURCHASE (a)	(10) COMBINED PURCHASE (a) (c)	(11) LAKE DRAW (b)	(12) DELIVERED TO DISTRIBUTION (c) (d)	(13) METERED WATER (d)	(14) EMERGENCY TRANSFER TO DLP (d)	(15) STORAGE VOLUME (e)	(16) STORAGE VOLUME CHANGE +/- (d)	(17) UN-METERED WATER (d)
JANUARY	0.00	16.52	55.25	0.00	55.25	4.26	2.94	0.00	0.00	0.00	55.25	70.45	55.62	0.00	26.62	-0.12	14.95
FEBRUARY	0.00	15.73	44.80	0.00	44.80	3.41	2.45	0.00	0.00	0.00	44.80	59.57	47.70	0.00	26.50	0.20	11.67
MARCH	0.00	15.16	47.07	0.00	47.07	3.51	2.29	0.00	0.00	0.00	47.07	61.01	47.10	0.00	26.70	0.28	13.63
1ST QUARTER	0.00	47.41	147.12	0.00	147.12	11.18	7.68	0.00	0.00	0.00	147.12	191.03	150.42	0.00	79.82	0.36	40.25
APRIL	0.00	18.57	48.98	0.00	48.98	3.59	3.02	0.03	0.03	0.06	48.98	67.04	54.25	0.00	26.98	-0.78	13.57
MAY	0.00	21.32	109.47	0.00	109.47	8.20	4.85	0.00	0.05	0.05	109.47	127.49	108.73	0.00	26.20	-0.69	19.45
JUNE	0.00	19.97	98.89	14.72	113.61	8.72	4.97	0.00	20.01	20.01	113.61	149.84	132.46	0.00	25.51	-0.91	18.29
2ND QUARTER	0.00	59.86	257.34	14.72	272.06	20.51	12.84	0.03	20.09	20.12	272.06	344.37	295.44	0.00	78.69	-2.38	51.31
SEMI-ANNUAL	0.00	107.27	404.46	14.72	419.18	31.69	20.52	0.03	20.09	20.12	419.18	535.40	445.86	0.00	158.51	-2.02	91.56
JULY	0.00	17.34	106.06	31.73	137.79	10.38	4.67	0.00	27.34	27.34	137.79	176.76	158.90	0.00	24.60	0.18	17.68
AUGUST	0.00	17.14	93.60	62.76	156.36	11.97	3.70	0.00	5.33	5.33	156.36	170.56	153.37	0.00	24.78	1.10	16.09
SEPTEMBER	0.00	15.71	63.75	67.79	131.54	8.61	4.02	0.00	0.00	0.00	131.54	142.66	125.99	0.00	25.88	1.93	14.74
3RD QUARTER	0.00	50.19	263.41	162.28	425.69	30.96	12.39	0.00	32.67	32.67	425.69	489.98	438.26	0.00	75.26	3.21	48.51
OCTOBER	0.00	16.82	44.37	43.63	88.00	6.20	2.47	0.00	0.00	0.00	88.00	101.09	87.74	0.00	27.81	-0.28	13.63
NOVEMBER	0.00	13.32	50.10	4.68	54.78	5.26	2.85	0.00	0.00	0.00	54.78	65.69	52.19	0.00	27.53	-0.18	13.68
DECEMBER	0.00	13.61	63.97	0.00	63.97	5.77	3.52	0.00	0.00	0.00	63.97	75.33	57.99	0.00	27.35	1.15	16.19
4TH QUARTER	0.00	43.75	158.44	48.31	206.75	17.23	8.84	0.00	0.00	0.00	206.75	242.11	197.92	0.00	82.69	0.69	43.50
ANNUAL TOTAL	0.00	201.21	826.31	225.31	1051.62	79.88	41.75	0.03	52.76	52.79	1051.62	1267.49	1082.04	0.00	316.46	1.88	183.57

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

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

**ARROWHEAD WOODS MONTHLY DATA
ACRE FEET**

2021 MONTH	(1) TRANSFER TO GV LAKE (b)	(2) WELLS TO SYSTEM (c)	(3) BERNINA PLANT	(4) CEDAR GLEN PLANT	(5) COMBINED PLANT (b) (c)	(6) COMBINED PLANT BACKWASH (c)	(7) BERNINA RECYCLE (c)	(8) ROTW CLAWA PURCHASE (a)	(9) BRENTWOOD CLAWA PURCHASE (a)	(10) COMBINED PURCHASE (a) (c)	(11) LAKE DRAW (b)	(12) DELIVERED TO DISTRIBUTION (c) (d)	(13) METERED WATER (d)	(14) EMERGENCY TRANSFER TO DLP (d)	(15) STORAGE VOLUME (e)	(16) STORAGE VOLUME CHANGE +/- (d)	(17) UN-METERED WATER (d)
JANUARY	0.00	14.30	64.52	0.00	64.52	4.64	1.77	0.00	0.00	0.00	64.52	75.95	62.23	0.00	26.75	-1.05	14.77
FEBRUARY	0.00	12.49	37.67	21.25	58.92	5.34	1.37	0.00	0.00	0.00	58.92	67.44	52.34	0.00	25.70	0.41	14.69
MARCH	0.00	14.09	55.59	0.00	55.59	4.39	2.87	0.00	0.00	0.00	55.59	68.16	54.05	0.00	26.11	0.91	13.20
1ST QUARTER	0.00	40.88	157.78	21.25	179.03	14.37	6.01	0.00	0.00	0.00	179.03	211.55	168.62	0.00	78.56	0.27	42.66
APRIL	0.00	16.84	45.63	0.00	45.63	3.66	2.42	0.00	13.13	13.13	45.63	74.36	65.08	0.00	27.02	-0.94	10.22
MAY	0.00	16.99	110.09	0.00	110.09	7.32	6.54	0.00	13.58	13.58	110.09	139.88	125.77	0.00	26.08	0.30	13.81
JUNE	0.00	15.51	134.39	16.25	150.64	11.62	5.81	0.00	13.10	13.10	150.64	173.44	156.67	0.00	26.38	0.30	16.47
2ND QUARTER	0.00	49.34	290.11	16.25	306.36	22.60	14.77	0.00	39.81	39.81	306.36	387.68	347.52	0.00	79.48	-0.34	40.50
SEMI-ANNUAL	0.00	90.22	447.89	37.50	485.39	36.97	20.78	0.00	39.81	39.81	485.39	599.23	516.14	0.00	158.04	-0.07	83.16
JULY	0.00	15.99	147.54	41.07	188.61	14.32	4.44	0.00	5.39	5.39	188.61	200.11	182.05	0.00	26.39	0.81	17.25
AUGUST	0.00	16.43	141.86	37.35	179.21	13.81	7.62	0.00	0.00	0.00	179.21	189.45	171.87	0.00	27.20	-2.67	20.25
SEPTEMBER	0.00	15.84	128.21	37.96	166.17	11.70	7.81	0.00	0.00	0.00	166.17	178.12	159.11	0.00	24.53	-0.10	19.11
3RD QUARTER	0.00	48.26	417.61	116.38	533.99	39.83	19.87	0.00	5.39	5.39	533.99	567.68	513.03	0.00	78.12	-1.96	56.61
OCTOBER	0.00	16.53	38.52	14.98	53.50	4.55	1.62	48.73	0.04	48.77	53.50	115.87	100.68	0.00	24.63	3.62	11.57
NOVEMBER	0.00	16.07	13.19	0.00	13.19	1.86	0.00	47.21	0.00	47.21	13.19	74.61	63.01	0.00	28.25	-0.63	12.23
DECEMBER	0.00	15.65	34.01	0.00	34.01	3.23	1.19	27.87	0.00	27.87	34.01	75.49	62.20	0.00	27.62	-1.00	14.29
4TH QUARTER	0.00	48.25	85.72	14.98	100.70	9.64	2.81	123.81	0.04	123.85	100.70	265.97	225.89	0.00	80.50	1.99	38.09
ANNUAL TOTAL	0.00	186.73	951.22	168.86	1120.08	86.44	43.46	123.81	45.24	169.05	1120.08	1432.88	1255.06	0.00	316.66	-0.04	177.86

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

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

(d) Un-Metered Water = ((12) - (13+14)) - (16)

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

* Due to technical issues with our metering system, the METERED WATER (13) data for January was collected between 02-01-2021 and 02-10-2021.

April 25, 2023

March 2023 Water Delivered Quarterly Analysis

- In March 2023 (75.33 AF) consumption was up by 23.5% when compared to March 2022 (61.01 AF) and was up 10.5% when compared to 2021 (68.16 AF). Through the 1st Quarter of 2023 (209.80 AF), consumption was 9.8% higher than when compared to the 1st Quarter of 2022 (191.03 AF) and very similar to 2021 (211.55 AF). These numbers are based off column (12) on the Report, and only counts water delivered to the Distribution System. The increase in 2023 consumption compared to 2022 can be attributed to the multiple challenges faced during the storm events during the first quarter of 2023. Issues such as: the community being stuck home (snowed in) and using water, lots of frozen/broken pipes (mostly private), issues with accessing District facilities along accessing and finding District and/or private water leaks, and lack of available manpower due to access issues during the storm events; all contributed to the above average water consumption in the 1st Quarter of 2023.
- March 2023 Lake Draw = 59.44 AF vs March 2022 = 47.07 AF vs March 2021 = 55.59 AF. Through the 1st Quarter of 2023 Lake Draw = 171.52 AF vs through the 1st Quarter of 2022 = 147.12 AF vs through the 1st Quarter of 2021 = 179.03.
- March 2023 Wells to System = 16.67 AF vs March 2022 = 15.16 AF vs March 2021 = 14.09 AF. Through the 1st Quarter of 2023 Wells to System = 42.24 AF vs through the 1st Quarter of 2022 = 47.41 AF vs the 1st Quarter of 2021 = 40.88 AF.
- Through the 1st Quarter of 2023 total CLAWA purchase = 0 AF vs through the 1st Quarter of 2022 = 0 AF vs through the 1st Quarter of 2021 = 0 AF.
- Through the 1st Quarter of 2023 total Recycled Water Delivered to the LACC = 0 AF vs through the 1st Quarter of 2022 = 0 AF vs through the 1st Quarter of 2021 = 0 AF.