

MOON LAKE WATER USERS ASSOCIATION 2024



<u>Project Water Supply:</u> 2024 was a rather average year. All the reservoirs were filled resulting in a full cancel on June 20th. This was achieved largely due to the above average carry-over storage from the previous year. The winter was decent, and the runoff was sufficient. The hard part was the long dry spell during the hot summer which caused many to pull very hard on their storage water. There continues to be controversy on the Colorado River System as the Upper and Lower States struggle to agree on how the river system should be managed after the current agreements expire. The MLWUA strives to keep track of all these issues and do all they can to protect the Association's water rights as well as those of their stockholders.

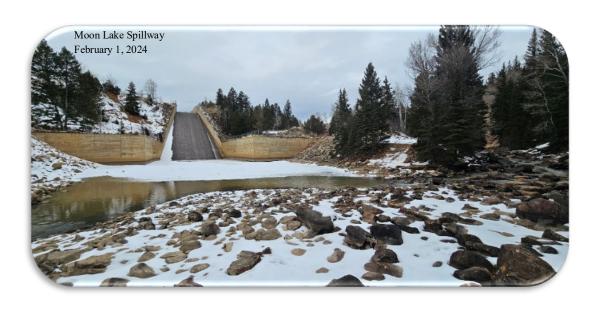
MOON LAKE PROJECT

2024 Water Supply Summary

	2024	Used	Holdover	Percent of
	Project	in	and or	total storage
Facility	Yield	Ac. Ft.	inactive	as used
Moon Lake Reservoir	9,989	25,841	11,555	30.9%
Sandwash Reservoir	13,640	22,376	6,895	26.8%
Browns Draw Reservoir	2,007	5,796	1,474	6.9%
Twin Pots Reservoir	4,654	5,318	823	6.4%
Duchesne River Exchange	22,423	22,423	0	26.8%
Dry Gulch Irr. Exchange	1,835	1,835	0	2.2%
TOTALS	54,548	83,590	20,747	100.0%

MOON LAKE RESERVOIR HYDROGRAPHIC DATA This Hydrographic data only represents the outlflow through the valves below the dam.

	Time Try are grap.	ine data only rep		ovi unough uno vi				2023	Number
	Surface	Total	Period	Changes	Outflow	Inflow	2024 avg.	Avg. cfs	Days in
Date	Elev.	Storage	Stored	Released			cfs Inflow	Inflow	period
2023									
1-Nov-23	8123.0	27,407							
			0	202	3,118	2,916	49.00	47.17	30
1-Dec-23	8122.7	27,205							
2024			1,607	0	676	2,283	37.13	42.41	31
1-Jan-24	8124.9	28,812							
4 = 1 41	0444	• • • • • •	1,249	0	682	1,931	31.40	42.85	31
1-Feb-24	8126.7	30,061	1.206	0	(2)	1 0 40	22.76	24.25	20
1 M 24	0120 4	21.267	1,306	0	636	1,942	33.76	34.25	29
1-Mar-24	8128.4	31,367	1,204	0	663	1,867	30.37	36.56	31
1-Apr-24	8130.1	32,571	1,204	U	003	1,007	30.37	30.30	31
1-Api-24	6130.1	32,371	1,574	0	3,417	4,991	83.88	60.33	30
1-May-24	8132.2	34,145	1,574	O	3,417	7,771	03.00	00.55	
1 17144 21	0132.2	5 1,1 15	141	0	17,127	17,268	280.82	331.21	31
1-Jun-24	8132.3	34,286		-	,	,			
		,	1,893	0	14,067	15,960	268.22	317.60	30
1-Jul-24	8134.8	36,179							
			0	15,654	19,669	4,015	65.29	140.98	31
1-Aug-24	8112.9	20,525							
			0	7,440	10,567	3,127	50.86	99.90	31
1-Sep-24	8100.8	13,085							
			0	2,545	4,823	2,278	38.29	113.14	30
1-Oct-24	8096.3	10,540							
			1,015	0	1,419	2,434	39.59	73.09	31
1-Nov-24	8098.1	11,555							
TOTALS			9,989	25,841	76,864	61,012	84.04	111.62	366
IOIALS			2,202	43,041	70,004	01,012	04.04	111.02] 300





Moon Lake Reservoir: Carryover storage was a big deal for the 2024 water year. Moon Lake started the water year at over 70% full. The up and down of the spring weather made runoff hard to predict and with supply looking to be slim for the year, MLWUA was conservative with the releases from the reservoir. However, while trying to maintain some room for peaks in runoff, the outflow was set just below the Bureau of Reclamation's "safe channel capacity" of 1300



cfs for a short time. During that time, the USGS came and re-rated the gaging station below Moon Lake plotting the flow to be over 1400 cfs. MLWUA manager worked with the BOR to release a notification to response agencies of the higher flows. Bridges on the stretch of the river from Moon Lake to the confluence of the Yellowstone River were observed and found to not be affected by the flow. The BOR may consider raising their safe channel capacity for that stretch. The reservoir filled on the evening of June 12th and hovered around full until the afternoon of June 19th. The reservoir then steadily declined until reaching its low elevation for the year of 8095.48 ft on September 23rd. The BOR continued their investigation of the spillway floor this year by coming and cutting cores in areas of concern identified by last year's GPR survey. Voids of 0 to about 5 inches were measured in a few different locations along the floor of the spillway. It is still unclear what recommendations, actions, or funding may come because of the investigation. A 20-foot-wide gate was added in the chain link fence along the spillway to help facilitate upcoming repair projects. The Association proceeded with the repair project that was talked about last year on the spillway. Gerber Construction was hired to perform repair work on certain portions of the concrete on the spillway floor and walls as well as repair work in the valve house and other locations. All the work on repairing the floor was completed this year but Gerber will return next year to continue repairing the walls. Over 500 feet of walls where the top portion of concrete is deteriorating were identified for repair.







DAILY R	ECORD FLOV	V CFS		MOON LAKE RESERVOIR								2024
DAY	NOV	DEC	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	ОСТ
1	10.8	10.9	11.1	11.1	11.2	10.6	284.8	166.6	285.4	312.9	62.5	10.4
2	10.8	10.9	11.1	7.5	11.2	10.6	308.9	163.2	291.3	310.9	62.8	8.5
3	10.8	10.9	11.1	11.1	11.2	10.6	323.3	175.1	303.5	314.1	67.6	6.9
4	10.7	10.9	11.1	11.2	11.2	10.6	329.7	285.3	322.8	312.2	74.7	6.9
5_	10.6	10.9	11.0	11.2	11.2	10.6	328.6	361.0	336.8	314.7	75.8	6.9
6	10.6	10.9	11.0	11.2	11.2	11.4	327.6	471.0	353.5	312.6	75.7	6.9
7	10.7	10.9	11.0	11.2	11.2	12.1	323.2	337.8	364.5	311.0	75.7	6.9
8	10.6	10.9	11.1	11.2	11.2	11.8	286.1	269.5	361.0	316.5	75.6	6.9
9	10.8	10.9	11.1	11.2	11.2	11.9	285.0	165.8	313.5	314.2	75.6	7.0
10	71.3	11.0	11.1	11.2	10.9	11.7	284.3	63.2	312.4	312.1	75.4	10.7
11	121.0	11.0	11.1	11.2	10.6	14.8	292.9	14.5	311.5	313.3	82.8	30.4
12	120.9	10.9	11.1	11.2	10.6	22.7	362.8	89.5	316.0	281.5	119.1	20.6
13	120.7	11.0	11.1	11.2	10.6	53.1	351.0	203.0	314.9	183.7	118.9	22.3
14	120.5	11.0	11.1	11.1	10.6	77.5	344.3	241.4	313.5	171.1	121.6	38.3
15	120.3	11.0	11.1	11.2	10.6	77.6	320.4	233.5	312.5	170.5	138.4	38.4
16	120.2	11.0	11.1	11.2	10.6	77.8	296.7	148.8	311.9	101.5	141.1	60.0
17	119.9	11.0	11.1	11.2	10.6	76.2	277.8	241.3	322.4	80.2	140.7	69.3
18	119.8	11.0	11.1	11.1	10.6	75.9	234.9	208.6	327.7	88.9	137.6	63.0
19	119.7	11.0	11.1	11.2	10.6	75.3	195.1	176.2	326.1	88.9	128.9	68.3
20	119.4	11.0	11.1	11.2	10.6	74.7	171.8	253.0	325.0	88.9	128.5	68.2
21	104.5	11.0	11.1	11.2	10.6	36.5	173.0	311.7	323.7	66.3	128.1	68.2
22	10.8	11.0	11.1	11.1	10.6	36.5	186.1	315.9	322.3	63.7	107.5	26.9
23	10.8	11.0	11.1	11.2	10.6	51.1	242.0	306.0	317.9	59.2	88.6	7.1
24	10.7	11.0	11.1	11.2	10.6	35.0	268.5	274.9	313.5	56.3	39.7	7.0
25	10.8	11.1	11.1	11.2	10.6	36.4	328.0	255.3	316.5	56.4	30.6	7.0
26	10.8	11.1	11.1	11.2	10.6	113.8	308.8	262.7	319.8	56.1	16.1	7.0
27	10.8	11.1	11.1	11.2	10.6	107.5	298.9	264.5	318.3	51.3	10.6	7.1
28	10.8	11.1	11.1	11.2	10.6	135.3	327.5	277.8	321.8	51.3	10.5	7.1
29	10.8	11.1	11.1	11.2	10.6	170.5	229.9	277.6	319.5	51.5	10.5	7.1
30	10.8	11.1	11.1		10.6	262.7	174.1	277.5	309.0	57.8	10.5	7.1
31		11.1	11.1		10.6		168.5		307.6	58.0		7.1
TOTAL CFS DAYS	1571.7	340.7	343.8	320.6	334.3	1722.8	8634.5	7092.2	9916.1	5327.6	2431.7	715.5
TOTAL ACRE FEET	3117.5	675.8	681.9	635.9	663.1	3417.2	17126.5	14067.4	19668.6	10567.3	4823.3	1419.2
TOTAL ACRE FEET	RELEASED	76863.7										

Moon Lake Spillway October 24, 2024





DAILY RECO	RD FLOW CF	S (USGS)		MOON LAKE RESERVOIR(USGS)								2024
DAY	NOV	DEC	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	ОСТ
1	10.4	8.8	10.3	12.1	13.2	15.5	314.0	176.0	342.0	365.0	66.5	
2	10.5	8.8	10.3	12.1	13.2	15.5	328.0	186.0	357.0	368.0	72.0	
3	10.5	8.8	10.3	12.1	13.2	15.5	333.0	381.0	376.0	367.0	79.8	
4	10.5	8.7	10.4	12.1	13.1	15.5	333.0	658.0	389.0	370.0	80.7	
5	10.4	8.7	10.5	12.1	13.1	17.3	331.0	933.0	406.0	367.0	80.7	
6	10.4	8.8	10.9	12.0	13.1	18.9	326.0	1370.0	415.0	362.0	80.7	
7	10.4	8.9	10.9	12.0	13.2	18.2	300.0	1410.0	407.0	340.0	80.7	
8	10.6	9.1	10.7	12.0	13.6	18.2	300.0	1320.0	345.0	338.0	80.7	
9	66.9	9.2	10.9	12.0	13.4	18.2	298.0	1220.0	344.0	336.0	80.7	
10	115.0	9.3	10.9	12.0	13.1	21.8	309.0	822.0	343.0	337.0	92.6	
11	115.0	9.3	10.9	12.0	13.2	29.4	377.0	566.0	346.0	303.0	140.0	
12	115.0	9.3	10.9	12.1	13.6	63.0	364.0	714.0	344.0	214.0	140.0	
13	115.0	9.3	10.9	12.3	13.8	86.4	358.0	763.0	343.0	203.0	144.0	
14	115.0	9.3	10.9	12.6	13.8	86.0	322.0	745.0	341.0	202.0	164.0	
15	115.0	9.7	11.1	12.6	13.8	85.6	296.0	551.0	341.0	107.0	167.0	
16	115.0	9.8	11.5	12.6	13.8	85.2	287.0	463.0	350.0	84.4	167.0	
17	115.0	9.8	11.5	12.6	13.8	85.0	262.0	425.0	355.0	95.6	161.0	
18	114.0	9.8	11.5	12.6	13.8	85.1	226.0	391.0	354.0	95.6	150.0	
19	114.0	9.8	11.5	12.6	13.8	79.4	207.0	390.0	352.0	95.5	149.0	
20	100.0	9.8	11.5	12.6	13.8	39.4	209.0	377.0	350.0	69.1	149.0	
21	8.7	9.8	11.5	12.6	13.8	39.4	223.0	370.0	348.0	67.1	121.0	
22	8.5	9.8	11.5	12.6	13.8	58.6	276.0	341.0	358.0	61.8	94.9	
23	8.4	9.8	11.5	12.5	13.9	38.7	300.0	311.0	367.0	58.8	36.7	
24	8.8	10.0	11.5	12.7	14.3	49.0	344.0	302.0	371.0	58.8	28.0	
25	8.5	10.2	11.5	12.9	14.6	136.0	326.0	307.0	376.0	58.5	11.9	
26	8.5	10.4	11.6	12.9	14.6	131.0	317.0	312.0	373.0	53.1	6.2	
27	8.5	10.4	11.7	13.0	14.6	168.0	335.0	326.0	378.0	53.4	6.2	
28	8.7	10.4	12.0	13.0	14.6	208.0	239.0	325.0	374.0	53.7	6.2	
29	8.8	10.4	12.1	13.1	14.6	291.0	189.0	324.0	361.0	60.8	6.2	
30	8.8	10.4	12.1		14.6	293.0	183.0	335.0	360.0	61.2	6.1	
31		10.3	12.1		15.3		180.0		367.0	66.4		
L CFS DAYS	1484.8	296.7	347.4	360.4	428.1	2311.8	8992.0	17114.0	11233.0	5672.8	2649.5	
ACRE FEET	2945	588.4	689.1	714.9	849.1	4585.5	17835.6	33945.6	22280.7	11252	5255.2	1



TWIN POTS RESERVOIR HYDROGRAPHIC DATA

	Surface	Total	Period	Changes	Outflow	Inflow	
Date	Elev.	Storage	Stored	Released		2024	2023
2022							
2023 Nov. 1	17.84	1,487					
INOV. I	17.04	1,407	2,352	0		2,352	-663
Dec. 1	31.64	3,839		· ·		2,352	005
2024			0	377		-377	0
Jan. 1	29.77	3,461					
T 1 1	20.15	2 151	0	310		-310	0
Feb. 1	28.15	3,151	0	234		-234	0
Mar. 1	26.88	2,917	O	234		-234	V
		,	0	252		-252	0
Apr. 1	25.46	2,665					
	22.00	4.40.	1,460	0	0	1,460	3,979
May 1	33.00	4,125	56	0	0	56	65
June 1	33.26	4,181	30	U	U	30	0.5
	33.20	1,101	0	560	388	-172	-16
July 1	30.57	3,620					
			0	2,139	1,899	-240	185
Aug. 1	17.80	1,482		1 204	1 202	10	27
Sept. 1	4.47	88	0	1,394	1,383	-10	37
Бер і. 1	7.7	00	0	52	40	-12	1,210
Oct. 1	3.71	36		-			-,
			786	0	0	786	36
Nov. 1	12.55	823					
TOTALS			4653.9	5318	3710	3046	4833





Twin Pots Reservoir: The reservoir was nearly full all winter and the conditions along the toe of the dam reflected that as there was a lot more seepage and water there than during typical years. There was no indication of piping or running water to cause concern but the additional water is worthy of note. The Association began sending water down the Farnsworth Canal on April 5th to open the channel up and to begin filling the reservoir. A week or so later the flow was increased. The reservoir was full as of April 21st and was maintained full until June 25th when the Association began releasing water. The datalogger on the flume below the dam was upgraded to a newer version with a better radio that works with the 900 MHz radio between the Moon Lake Shed and the top of Twin Pots Dam. Once it was up and working it has performed very well.







DAILY RECORD I	FLOW CFS		TWIN POT	2024			
DAY	APRIL	MAY	JUNE	JULY	AUGUST	SEP	OCT
1	0.0	0.0	0.0	34.9	25.6	6.6	0.0
2	0.0	0.0	0.0	34.6	25.3	4.6	0.0
3	0.0	0.0	0.0	34.3	24.9	3.6	0.0
4	0.0	0.0	0.0	34.1	24.5	3.5	0.0
5	0.0	0.0	0.0	33.9	24.1	1.9	0.0
6	0.0	0.0	0.0	33.7	29.4	0.0	0.0
7	0.0	0.0	0.0	33.4	32.1	0.0	0.0
8	0.0	0.0	0.0	33.1	31.4	0.0	0.0
9	0.0	0.0	0.0	32.8	30.8	0.0	0.0
10	0.0	0.0	0.0	32.8	30.1	0.0	0.0
11	0.0	0.0	0.0	32.7	29.5	0.0	0.0
12	0.0	0.0	0.0	32.3	28.7	0.0	0.0
13	0.0	0.0	0.0	32.0	28.0	0.0	0.0
14	0.0	0.0	0.0	31.6	27.1	0.0	0.0
15	0.0	0.0	0.0	31.3	26.2	0.0	0.0
16	0.0	0.0	0.0	31.1	25.3	0.0	0.0
17	0.0	0.0	0.0	30.9	24.5	0.0	0.0
18	0.0	0.0	0.0	30.6	23.6	0.0	0.0
19	0.0	0.0	0.0	30.3	22.5	0.0	0.0
20	0.0	0.0	0.0	30.0	21.3	0.0	0.0
21	0.0	0.0	0.0	29.6	20.3	0.0	0.0
22	0.0	0.0	0.0	29.3	19.3	0.0	0.0
23	0.0	0.0	0.0	29.0	18.1	0.0	0.0
24	0.0	0.0	0.0	28.7	17.2	0.0	0.0
25	0.0	0.0	17.5	28.3	16.2	0.0	0.0
26	0.0	0.0	36.0	28.0	15.2	0.0	0.0
27	0.0	0.0	35.9	27.5	13.6	0.0	0.0
28	0.0	0.0	35.7	27.1	12.4	0.0	0.0
29	0.0	0.0	35.4	26.8	11.4	0.0	0.0
30	0.0	0.0	35.2	26.4	10.2	0.0	0.0
31		0.0		26.0	8.8		0.0
TOTAL CFS DAYS	0.00	0.00	195.62	957.22	697.34	20.30	0.00
TOTAL ACRE FEET	0.00	0.00	388.01	1898.65	1383.17	40.27	0.00
TOTAL ACRE FE	ET RELEASED	3710.1					



SANDWASH RESERVOIR

HYDROGRAPHIC DATA

		Surface	Total	Period	Changes	Outflow	Inflow	
Date		Elev.	Storage	Stored	Released		2024	2023
	2022							
Nov. 1	2023	5898.09	15,631					
1 10 V. 1		3070.07	13,031	5,575	_	115	5,690	3,060
Dec. 1		5909.88	21,206	-,			2,22	-,
	2024			3,302	-	62	3,364	5,132
Jan. 1		5915.90	24,508					
D-1-1		5016.41	24.001	293	-	109	402	4,615
Feb. 1		5916.41	24,801	602	_	110	712	3,620
Mar. 1		5917.43	25,403	002		110	712	3,020
			,	436	-	71	507	4,196
Apr. 1		5918.17	25,839					
		5016.45	24.027	-	1,012	3,437	2,425	989
May 1		5916.45	24,827	_	2,972	8,401	5,429	3,594
June 1		5911.11	21,855		2,712	0,401	5,425	3,374
			,	1,497	-	9,227	10,724	4,188
July 1		5913.86	23,352					
		5000.00	10.010	-	9,433	11,257	1,824	2,883
Aug. 1		5893.92	13,919		5,163	7,642	2,479	2,279
Sept. 1		5878.86	8,756	-	5,105	7,042	2,479	2,219
			-,,,,,,	-	3,796	5,203	1,407	5,402
Oct. 1		5863.39	4,960					
		#0 = = 0-		1,935	-	293	2,228	4,380
Nov. 1		5872.02	6,895					
TOTAL	S			13640	22376	45926	37190	44336





DAILY	DAILY RECORD FLOW CFS Big Sand Wash Reservoir Daily Flow										2024	
DAY	NOV	DEC	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT
1	2.5	0.0	1.0	2.7	2.7	0.0	154.9	128.2	170.2	175.8	138.9	15.9
2	2.5	0.0	1.8	2.7	2.7	0.0	134.7	136.2	195.4	182.7	125.9	15.2
3	2.5	0.0	1.8	2.7	2.7	1.1	133.7	146.8	205.7	186.7	123.4	13.2
4	2.5	0.0	1.8	2.7	2.7	1.5	121.3	148.9	213.2	191.6	122.3	13.7
5	2.5	0.0	1.8	1.6	2.7	1.4	116.9	144.6	219.5	189.3	116.7	11.5
6	2.5	0.0	1.8	0.2	2.7	1.3	123.9	144.4	209.4	176.4	114.4	8.9
7	2.7	0.0	1.8	0.9	2.7	1.3	136.2	136.1	197.0	158.1	109.0	5.9
8	2.7	0.0	1.8	1.6	2.7	2.3	141.6	128.2	191.5	139.2	92.8	5.7
9	2.7	0.0	1.4	1.6	2.7	5.6	148.9	134.7	169.1	136.7	90.3	5.9
10	2.7	0.0	1.4	1.0	2.7	9.3	168.9	130.9	168.2	120.5	92.6	4.3
11	2.7	0.0	1.4	0.2	2.7	14.8	179.3	137.4	161.3	112.0	95.9	3.8
12	2.7	1.2	1.4	1.0	1.8	11.4	159.7	142.5	175.6	101.5	100.9	3.9
13	2.7	1.2	1.4	1.8	0.9	14.6	171.5	140.0	185.5	96.7	113.6	5.2
14	2.4	1.2	1.4	2.2	0.9	25.5	178.5	142.2	178.4	101.3	123.1	4.7
15	2.4	1.2	1.4	2.7	0.6	30.5	164.9	160.9	174.9	90.5	126.3	4.1
16	2.4	1.2	2.0	2.1	0.4	31.2	156.6	171.2	172.5	84.3	123.1	2.0
17	2.4	1.2	2.0	1.8	0.4	25.5	147.3	190.6	174.6	85.6	115.6	2.1
18	2.4	1.2	2.0	1.8	0.4	31.5	136.4	182.2	171.7	97.0	111.4	0.4
19	2.4	1.5	2.0	1.4	0.4	48.5	137.8	168.3	166.6	96.1	105.3	0.4
20	2.4	1.5	2.0	1.4	0.3	80.1	131.8	168.5	172.5	92.5	98.4	0.4
21	1.0	1.5	2.0	1.6	0.0	112.8	113.3	173.1	191.8	92.9	93.8	0.4
22	1.0	1.5	2.0	1.8	0.0	134.3	96.1	168.7	202.2	86.9	84.9	0.4
23	1.0	1.5	1.8	2.1	0.0	141.3	85.1	172.1	183.7	83.1	72.6	0.4
24	1.0	1.5	1.8	2.7	0.0	130.2	105.8	165.4	178.7	94.7	34.4	1.8
25	1.0	1.5	1.8	2.7	0.0	142.6	128.4	152.7	180.7	108.0	30.0	2.4
26	1.0	2.0	1.8	2.7	0.0	139.7	131.4	157.9	181.8	106.1	15.6	2.5
27	1.1	2.0	1.8	2.7	0.0	145.5	125.7	157.1	179.8	115.1	10.2	2.5
28	0.0	2.0	1.8	2.7	0.0	146.0	115.7	162.0	179.8	130.0	11.4	2.5
29	0.0	2.0	1.8	2.7	0.0	145.9	129.7	179.3	175.8	144.5	15.7	2.5
30	0.0	2.0	2.6		0.0	157.2	129.1	181.0	178.4	143.2	15.0	2.5
31		2.0	2.6		0.0		130.0		170.0	133.5		2.5
TOTAL CFS DAYS	58.0	31.4	54.8	55.5	35.6	1732.8	4235.2	4651.8	5675.3	3852.5	2623.3	147.6
TOTAL ACRE FEET	115.1	62.4	108.7	110.1	70.7	3437	8400.6	9226.9	11256.9	7641.5	5203.4	292.7
TOTAL ACRE FE	ET RELEASED	45926.0		-								_





Big Sand Wash Reservoir: Big Sand Wash Reservoir reached full elevation and began spilling on about April 1st and remained full until April 25th. Releases began on April 18th. Then, during runoff the reservoir refilled and was full from about June 8th to the 20th. Releases continued late into the season ending on October 1st. The reservoir reached a low for the season of elevation 5862.61 on September 27th. A small project was done below the dam in the spring. MLWUA worked with DCWCD to run a power line from the valve house to one of the air vents on the Roosevelt Pipeline that gets too cold during winter operations. Power was also stubbed out to the D-Split structure for future use. The DWR continued improvements to the new access point on the East side of the reservoir by fencing off the road. This will greatly help with many of the access issues. Late in the season, there were some issues with the D-Split heading. There was increasing loss from the outlet of the reservoir to all the turnouts and measurement points. It was found that there is no floor in the wet well of the D-Split flume. For a time, the water was leaking out of the bottom at a rate that would not let the level catch up and be correct resulting in more water being turned down Class D than was being recorded. The bottom was dug up and packed with different material which made a significant difference. Later, there were issues with the sensor and the potentiometer was replaced, but the wiring may need to be changed as well. RC Fencing was hired to fix some areas of the chain link

fence along SR 87 this summer. There were about three areas that had been damaged.







Big Sand Wash Feeder Pipeline: Due to a good water year in 2023 and great carryover storage, the Feeder Pipeline was shut down on December 20th, 2023, so that the reservoir would not spill too early in the spring. The pipeline then sat idle until April 24th when operations were beginning. One of the actuators on one of the gates at the heading got to where it wasn't working properly and would not lift the gate when there was water on it. It was thought for a while that maybe the gate was wearing out and causing too much friction. However, it turned out that the lift bearing in the actuator had worn out and was causing the issue. The actuator was pulled, and the bearings were replaced. Before winter operations began the area in front of the heading grates had to be cleaned as there was a lot of debris and silt that had deposited there and could not be removed by opening the river gate. Excavation Services came in and removed the debris with their excavator. They also went upstream and fixed an area of the riverbank where water was traveling around the structure.





DAILY	DAILY RECORD FLOW CFS BSW FEEDER PIPELINE FLOWS									2024		
DAY	NOV	DEC	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT
1	10.79	77.93	0.00	0.00	0.00	0.00	8.62	49.96	0.00	11.35	4.22	14.44
2	12.14	85.66	0.00	0.00	0.00	0.00	7.84	67.66	0.00	11.73	4.27	12.84
3_	11.57	84.94	0.00	0.00	0.00	0.00	8.29	69.44	0.00	11.78	4.41	10.06
4	18.00	94.96	0.00	0.00	0.00	0.00	10.94	73.10	0.00	11.90	5.13	9.73
5_	30.95	90.52	0.00	0.00	0.00	0.00	10.88	105.62	0.00	12.95	9.41	10.52
6	30.15	88.51	0.00	0.00	0.00	0.00	14.32	107.01	0.00	13.57	7.40	21.82
7_	27.44	88.29	0.00	0.00	0.00	0.00	14.32	80.37	0.00	13.41	6.21	26.44
8	24.34	87.19	0.00	0.00	0.00	0.00	9.13	91.66	0.00	13.48	5.47	27.08
9	10.36	81.11	0.00	0.00	0.00	0.00	8.02	30.74	0.00	10.87	5.15	26.94
10	40.60	62.79	0.00	0.00	0.00	0.00	8.00	0.00	0.00	10.98	4.45	26.88
11	70.47	66.53	0.00	0.00	0.00	0.00	9.75	0.00	0.00	11.80	1.84	27.46
12	89.21	71.27	0.00	0.00	0.00	0.00	14.67	0.00	0.00	12.01	2.61	26.39
13	90.42	69.87	0.00	0.00	0.00	0.00	14.17	0.00	0.00	15.26	2.73	26.17
14_	88.67	68.99	0.00	0.00	0.00	0.00	9.85	0.00	0.00	17.30	2.57	27.74
15	88.30	67.92	0.00	0.00	0.00	0.00	10.95	0.00	0.00	13.38	3.20	27.93
16_	88.91	67.26	0.00	0.00	0.00	0.00	9.36	0.00	0.48	10.20	2.49	28.90
17	95.97	73.50	0.00	0.00	0.00	0.00	10.50	0.00	0.00	9.10	2.44	28.29
18	90.66	80.57	0.00	0.00	0.00	0.00	18.51	3.03	1.02	8.69	4.01	33.28
19	88.58	82.08	0.00	0.00	0.00	0.00	24.19	54.92	2.80	11.59	8.42	36.84
20_	92.90	28.03	0.00	0.00	0.00	0.00	28.19	48.29	2.62	13.11	8.25	16.71
21	87.63	0.00	0.00	0.00	0.00	0.00	31.96	39.69	2.25	10.74	9.31	8.85
22	84.02	0.00	0.00	0.00	0.00	0.00	8.80	27.78	2.17	7.87	7.90	7.40
23_	86.41	0.00	0.00	0.00	0.00	0.00	1.89	30.52	2.41	7.65	5.82	3.58
24_	86.67	0.00	0.00	0.00	0.00	2.13	2.39	17.37	12.93	9.18	8.92	3.87
25	91.73	0.00	0.00	0.00	0.00	13.70	1.32	8.24	13.21	10.24	10.98	0.14
26	85.88	0.00	0.00	0.00	0.00	17.53	20.29	8.24	13.94	10.47	11.04	0.00
27_	72.57	0.00	0.00	0.00	0.00	12.92	9.64	0.54	10.79	13.22	11.78	0.00
28_	74.56	0.00	0.00	0.00	0.00	17.10	7.90	0.46	9.93	8.82	13.91	0.00
29_	74.09	0.00	0.00	0.00	0.00	13.47	22.04	1.13	10.68	7.20	13.96	0.00
30	73.92	0.00	0.00		0.00	12.43	35.68	0.03	10.50	5.71	13.94	3.28
31		0.00	0.00		0.00		68.70		11.20	4.59		7.50
TOTAL CFS DAYS	1917.91	1517.92	0.00	0.00	0.00	89.28	461.11	915.80	106.93	340.15	202.24	501.08
TOTAL ACRE FEET	3804.2	3010.8	0.0	0.0	0.0	177.1	914.6	1816.5	212.1	674.7	401.1	993.9
TOTAL ACRE F	EET MOVED	12005.0										_



DAILY RECORD FLOW CFS Big Sand Wash Roosevelt Pipeline							2024					
DAY	NOV	DEC	JAN	FEB	MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	ОСТ
1	2.5	0.0	1.0	2.7	2.7	0.0	16.3	3.7	11.9	15.5	4.6	11.0
2	2.5	0.0	1.8	2.7	2.7	0.0	7.0	4.6	18.7	19.2	5.1	10.3
3	2.5	0.0	1.8	2.7	2.7	1.1	11.0	4.9	18.2	13.6	7.2	8.3
4	2.5	0.0	1.8	2.7	2.7	1.5	7.0	4.7	17.4	16.6	6.1	8.8
5	2.5	0.0	1.8	1.6	2.7	1.4	3.1	5.0	14.4	18.3	4.6	9.0
6	2.5	0.0	1.8	0.2	2.7	1.3	2.9	4.9	12.3	19.5	4.8	8.9
7	2.7	0.0	1.8	0.9	2.7	1.3	3.5	4.6	11.8	17.3	4.4	5.9
8	2.7	0.0	1.8	1.6	2.7	2.3	3.7	4.3	15.3	17.0	4.0	5.7
9	2.7	0.0	1.4	1.6	2.7	2.4	4.2	4.6	18.2	14.8	4.6	5.9
10	2.7	0.0	1.4	1.0	2.7	2.7	9.5	5.0	18.4	21.6	4.6	4.3
11	2.7	0.0	1.4	0.2	2.7	2.6	11.4	4.7	11.9	18.9	6.4	3.8
12	2.7	1.2	1.4	1.0	1.8	2.8	8.1	5.1	10.9	11.0	9.6	3.9
13	2.7	1.2	1.4	1.8	0.9	2.8	7.3	5.2	6.7	5.9	7.8	5.2
14	2.4	1.2	1.4	2.2	0.9	2.6	11.3	5.0	9.0	5.6	5.6	4.7
15	2.4	1.2	1.4	2.7	0.6	2.4	7.7	4.5	10.5	4.7	8.5	4.1
16	2.4	1.2	2.0	2.1	0.4	3.1	9.5	4.4	10.5	4.8	8.8	2.0
17	2.4	1.2	2.0	1.8	0.4	2.7	10.0	8.0	14.1	3.9	5.6	2.1
18	2.4	1.2	2.0	1.8	0.4	3.4	8.6	7.3	10.2	3.2	5.5	0.4
19	2.4	1.5	2.0	1.4	0.4	3.1	7.8	11.1	9.0	3.3	8.0	0.4
20	2.4	1.5	2.0	1.4	0.3	2.8	5.9	9.6	6.5	3.5	9.4	0.4
21	1.0	1.5	2.0	1.6	0.0	2.8	4.4	9.8	7.0	4.9	8.1	0.4
22	1.0	1.5	2.0	1.8	0.0	2.7	5.1	3.8	11.1	4.5	5.9	0.4
23	1.0	1.5	1.8	2.1	0.0	3.1	5.0	4.7	11.9	4.0	4.6	0.4
24	1.0	1.5	1.8	2.7	0.0	4.0	5.6	5.0	21.0	4.0	4.1	1.8
25	1.0	1.5	1.8	2.7	0.0	3.9	3.8	7.7	22.3	4.5	4.8	2.4
26	1.0	2.0	1.8	2.7	0.0	4.1	3.9	5.4	18.7	3.9	5.2	2.5
27	1.0	2.0	1.8	2.7	0.0	4.9	4.7	6.6	18.6	4.3	4.8	2.5
28	0.0	2.0	1.8	2.7	0.0	6.2	4.7	4.8	16.4	5.3	5.9	2.5
29	0.0	2.0	1.8	2.7	0.0	12.1	10.6	5.3	14.5	6.2	10.6	2.5
30	0.0	2.0	2.6		0.0	16.4	6.0	6.0	16.4	5.3	10.1	2.5
31		2.0	2.6		0.0		4.2		13.2	5.0		2.5
TOTAL CFS DAYS	58.0	31.4	54.8	55.5	35.6	102.3	213.9	170.0	426.8	290.1	189.0	125.4
TOTAL ACRE FEET	115	62.3	108.7	110.1	70.7	203	424.3	337.2	846.5	575.4	374.8	248.7
TOTAL ACRE FE	ET RELEASED	3476.7	State Road	1305.0	Roosevelt*	2171.7						
			SR Res Loss	41.0	*	588.06 ac-ft of	Roosevelt's po	rtion was releas	ed at a new tur	nout in loka for	use by XCL	

Big Sand Wash Roosevelt Pipeline: While general operations of the Roosevelt Pipeline are the responsibility of DCWCD, MLWUA is still involved with major decisions and maintenance. DCWCD had the cathodic project designed and put it out to bid. During the first bid process there were no bidders. After discussion with the original designer of the system, it was decided to wait for a time and re-bid the project. He assured us that the extra time would not cause major damage to the pipeline. The second try yielded 4 bids, one of which was accepted. The project has not yet been done. Power has been run to some of the problematic air vents to keep them heated.







C Canal and Heading: The heading continues to perform well. Prior to high flows, Excavation Services was brought in to perform maintenance on the measurement flume below the heading to stop water from running around it and to fill the hole that has been developing below it. Large amounts of material and riprap were required to fill the hole. A bridge was also placed over the measurement structure on the heading to allow for safe passage to drive the canal during high flows. Some large blocks were also placed in the heading below the gates to still the flows as they come out in hopes that it would allow for the measurement on the heading structure to work properly. It made a significant difference, and the flows measured on both structures matched very well after the placement of the blocks. However, during high flows in the canal, the blocks moved, one of them going completely out of the structure.











BROWNS DRAW RESERVOIR

HYDROGRAPHIC DATA

	Surface	Total	Period	Changes	Outflow	Inflow	
Date	Elev.	Storage	Stored	Released		2024	2023
202	2						
202 Nov. 1	3 6047.4	5,263					
NOV. 1	0047.4	3,203	_	32		(32)	2,482
Dec. 1	6047.2	5,231		-		()	_,
202			137	-		137	(10)
Jan. 1	6048.0	5,368				(1 a 1)	(4.0)
Feb. 1	6047.2	5,234	-	134		(134)	(19)
reo. 1	0047.2	3,234	15	_		15	122
Mar. 1	6047.3	5,249					
			471	-		471	829
Apr. 1	6050.0	5,720			22	(22)	(40)
May 1	6049.6	5,665	-	55	32	(23)	(40)
May 1	0049.0	3,003	_	28	2,023	1,995	894
June 1	6049.5	5,637			_,,,	-,	
			-	561	2,198	1,637	248
July 1	6046.3	5,076		2 202	400	(1.012)	(501)
Aug. 1	6031.2	2,773	-	2,303	490	(1,813)	(521)
Aug. 1	0031.2	2,773	_	1,683	1,838	155	290
Sept. 1	6016.5	1,090		-,000	-,000		_, ,
_			-	1,000	238	(762)	674
Oct. 1	5999.4	90					
Nov. 1	6020.4	1 474	1,384	-	-	1,384	4,732
INOV. I	0020.4	1,474					
TOTALS			2007	5796	6819	3030	9682



DAIL	Y RECORD FLO	W CFS	Ві	Browns Draw Reservoir					
DAY	APRIL	MAY	JUNE	JULY	AUGUST	SEP	OCT		
1	0.00	8.95	33.60	37.11	39.41	29.17	0.00		
2	0.00	14.70	38.89	36.03	39.69	33.32	0.00		
3	0.00	19.25	41.40	40.96	39.70	48.46	0.00		
4	0.01	21.33	43.52	39.30	40.27	9.21	0.00		
5	0.00	23.93	40.90	39.44	35.64	0.00	0.00		
6	0.00	21.93	37.88	38.76	30.56	0.00	0.00		
7	0.00	21.87	38.53	41.01	28.43	0.00	0.00		
8	0.00	21.33	36.07	38.19	29.15	0.00	0.00		
9	0.00	27.01	36.56	38.71	30.47	0.00	0.00		
10	0.00	31.20	36.56	39.89	36.31	0.00	0.00		
11	0.00	32.00	40.25	40.63	41.71	0.00	0.00		
12	0.00	32.56	42.46	40.50	39.17	0.00	0.00		
13	0.00	37.32	41.42	38.71	32.88	0.00	0.00		
14	0.00	41.94	37.87	41.59	31.12	0.00	0.00		
15	0.00	47.29	35.21	40.18	29.61	0.00	0.00		
16	0.00	49.04	33.80	40.77	27.55	0.00	0.00		
17	0.00	48.78	35.54	41.77	24.37	0.00	0.00		
18	0.00	47.05	33.91	41.29	26.67	0.00	0.00		
19	0.00	48.55	38.48	39.06	23.03	0.00	0.00		
20	0.00	44.92	38.63	37.66	19.56	0.00	0.00		
21	0.00	41.27	42.64	38.97	19.40	0.00	0.00		
22	1.20	36.94	31.94	37.30	19.42	0.00	0.00		
23	1.24	39.92	29.15	37.77	18.31	0.00	0.00		
24	1.05	38.01	28.85	38.35	24.39	0.00	0.00		
25	0.96	29.18	30.49	35.93	29.79	0.00	0.00		
26	0.92	24.59	30.85	34.47	29.57	0.00	0.00		
27	2.51	28.29	33.53	33.83	28.21	0.00	0.00		
28	3.44	30.69	40.06	35.34	29.65	0.00	0.00		
29	2.21	36.25	41.11	35.03	31.96	0.00	0.00		
30	2.63	38.40	37.85	34.86	28.43	0.00	0.00		
31		35.27		35.66	25.97		0.00		
TOTAL CFS DAYS	16.17	1019.76	1107.95	1189.07	930.40	120.16	0.00		
TOTAL ACRE FEET	32.1	2022.7	2197.6	2358.5	1845.4	238.3	0		
TOTAL ACRE FE	ET RELEASED	8694.6							





Browns Draw Reservoir: The sensor on the flowmeter was replaced in the spring and worked well throughout the season. 6" pipe was obtained to re-do the 2" drain that takes water away from the toe of the dam near the northernmost toe drain. There is a low spot there near the toe drain that can collect water and the 2" drain regularly plugs allowing the water to pool up at the toe of the dam. Two bids were received for the slip line project at the reservoir and BHI was the low. After a slow start to the project, they came in and did a good job. The gate and trash rack were replaced. The lower 30 to 40 feet of the air vent pipe was also replaced after their grout plug failed and filled it with grout during the grouting of the slip line. It turned out to be a good thing as one of the original fittings had been broken for years and it appeared that water had been leaking through it into the outlet pipe. The total cost of the construction portion of the project was just over \$342,000. A BOR Watersmart grant and a UDAF Optimization grant were obtained and between the two paid 90% of all the costs. Due to the project, filling of the reservoir did not start until mid-October. The reservoir reached 50% of capacity prior to the temperatures getting too cold to continue running water in the canal. The Association was also contacted late in the year and asked by Water Resources to participate in a FEMA program that will help pay for phase two dam safety upgrades that have yet to be addressed by the State. It was felt that this was a good opportunity, so the Association opted to participate.



Yellowstone Feeder Canal: The association is waiting for potential funding to address the spill structure in the Dry Gulch area of the canal that was noted in last year's report. A leak about a mile west of the Mud Springs Draw road was fixed in the fall while water was being moved to Browns Draw. Another leak near the heading was noted but is yet to be fixed.







DAILY	RECORD FLO	W CFS	Lake	Fork Conr	nector Proj	ect	2024
DAY	APRIL	MAY	JUNE	JULY	AUGUST	SEP	OCT
1	0.00	0.00	0.00	0.00	8.01	14.96	7.00
2	0.00	0.00	0.00	0.00	8.01	13.38	7.01
3	0.00	0.00	0.00	0.00	8.03	13.30	7.00
4	0.00	0.00	0.00	0.00	8.00	13.27	7.01
5	0.00	0.00	0.00	0.00	8.01	13.23	7.01
6	0.00	0.00	0.00	0.00	6.69	10.00	7.72
7	0.00	0.00	0.00	0.00	4.52	8.80	9.87
8	0.00	0.00	0.00	0.00	7.39	8.25	12.08
9	0.00	0.00	0.00	0.00	8.02	11.22	0.00
10	0.00	0.00	0.00	0.00	8.37	9.21	0.00
11	0.00	0.00	0.00	0.00	10.00	8.02	0.00
12	0.00	0.00	0.00	0.00	10.02	6.87	0.00
13	0.00	0.00	0.00	0.00	10.03	5.00	0.00
14	0.00	0.00	0.00	0.00	10.01	4.99	0.00
15	0.00	0.00	0.00	0.00	10.04	5.00	0.00
16	0.00	0.00	0.00	0.00	10.01	5.00	0.00
17	0.00	0.00	0.00	0.00	10.01	5.01	0.00
18	0.00	0.00	0.00	0.74	10.00	6.36	0.00
19	0.00	0.00	0.00	5.02	10.02	7.01	0.00
20	0.00	0.00	0.00	5.96	10.02	7.02	0.00
21	0.00	0.00	0.00	7.30	10.01	10.21	0.00
22	0.00	0.00	0.00	8.98	11.58	9.18	0.00
23	0.00	0.00	0.00	9.57	13.44	13.13	0.00
24	0.00	0.00	0.00	9.99	14.91	12.36	0.00
25	0.00	0.00	0.00	10.01	15.08	12.18	0.00
26	0.00	0.00	0.00	9.51	14.96	12.29	0.00
27	0.00	0.00	0.00	8.01	12.95	11.34	0.00
28	0.00	0.00	0.00	8.01	12.16	7.00	0.00
29	0.00	0.00	0.00	8.01	13.61	7.00	0.00
30	0.00	0.00	0.00	8.00	13.10	6.98	0.00
31		0.00		8.01	15.81		0.00
TOTAL CFS DAYS	0.00	0.00	0.00	107.12	322.82	277.57	64.70
TOTAL ACRE FEET	0	0	0	212.5	640.3	550.6	128.3
TOTAL ACRE FEE	T RELEASED	1531.7			<u>.</u>		
	PURDY	839.2					
	UTLAND	485.5					
	REDCAP	207.00					

<u>Lake Fork Connector Pipeline:</u> Early in the spring, the manager put plates at either end of the screens in the structure to hold them in place. This will hopefully prevent them from coming out in the future. While loading and preparing the line for use, it was noticed that the Redcap meter was not working properly and that the readout head had moisture in it. McCrometer was contacted and a new meter was ordered to replace the existing one. The turnout was not used until the meter was replaced.

Lake Fork Connector Pipeline Heading April 22, 2024





<u>Coyote Canal Rehabilitation:</u> There appeared to be some progress with the PL-566 funding this year. The environmental assessment has finally been allowed to be submitted to the national headquarters for review. This is hopefully the last step prior to entering final design and construction.

<u>Big Sand Wash House:</u> Water damage on the ceiling of the garage was noted on the house at Big Sand Wash. The water damage was due to the deck above that part of the garage not being sealed properly. Mike Ivie was hired to seal and re-do the deck.



2024 Exchange

	DREX	NF	Assoc.	DG Filing	DG Exc
12/1/2023	0.00	0.00	5993.59	0.00	52.29
1/1/2024	0.00	0.00	4559.06	0.00	39.77
2/1/2024	0.00	0.00	1442.41	0.00	12.58
3/1/2024	0.00	1699.32	0.00	0.00	21.14
4/1/2024	0.00	1447.93	481.43	0.00	22.22
4/15/2024	0.00	1034.40	157.29	0.00	14.24
4/15/2024	0.00	0.00	15976.67	0.00	139.37
4/29/2024	650.84	3673.28	643.83	0.00	51.32
5/13/2024	1893.34	1452.96	1987.74	12.91	35.67
5/20/2024	946.67	6036.26	995.90	40.68	84.58
5/28/2024	1487.63	5447.21	1111.38	44.23	78.33
6/11/2024	2975.25	19594.75	3448.77	175.06	277.27
6/20/2024	2125.18	8121.03	1760.72	91.00	118.16
6/20/2024	0.00	0.00	67808.62	0.00	591.54
7/1/2024	2337.70	4684.23	2018.73	85.39	77.54
7/8/2024	1487.63	131.06	1300.72	52.76	13.99
7/15/2024	946.67	637.22	795.25	29.16	15.43
7/22/2024	946.67	433.73	1047.76	4.17	14.62
7/29/2024	946.67	0.00	947.22	0.00	8.26
8/5/2024	801.03	0.00	663.55	0.00	5.79
8/12/2024	693.75	0.00	944.05	0.00	8.24
8/26/2024	1301.67	1423.98	1588.28	55.88	32.65
9/2/2024	650.84	317.59	871.42	13.69	11.82
9/9/2024	650.84	226.84	559.27	4.17	7.78
9/16/2024	650.84	0.00	662.91	1.39	5.81
9/23/2024	650.84	0.00	660.97	0.00	5.77
9/30/2024	278.93	908.71	442.86	0.00	15.17
10/15/2024	0.00	2257.20	-68.25	0.00	27.49
10/28/2024	0.00	2539.82	195.15	0.00	33.31
11/1/2024	0.00	999.50	95.16	0.00	13.27
Totals	22422.99	63067.02	119092.46	610.49	1835.42

















YEARLY DATA - PROJECT WATER SUPPLY

Year Total Reservoir Reservoir Texervoir Reservoir Propried STORAGE		M	Moon Lake	e	Twin Pots	Pots	Big	Big Sandwash	ų;	Browns Draw	Draw	Exchange	ınge	Moon	Moon Lake Project	ect
TObs STORAGE STORAGE STORAGE STORAGE STORAGE STORAGE Duchesus Day Gulds PROFECT MATTER 60,728 3.1564 1.644 1		R	eservoir		Reser	voir	R	eservoir								
Inflow Stored Lised Total Stored Lised 1,554 3,473 3,504 8,673 1,573 3,524 1,573 3,524 1,573 3,524 1,573 3,524 1,573 3,524 1,573 3,724 1,573 3,524 1,573 3,724 1,573 3,724 1,573 3,243 3,724 3,724 1,573 3,244 3,724 1,574 3,524 1,573 3,724 3,724 3,724 1,574 3,244 3,724 1,474 1,074 3,424 3,724		Total	STOR	AGE	STOR	4GE	Total	STOR	4GE	STOR	4GE	Duchesne I	Ory Gulch	ŀ		SUMMARY
60,725 15,654 31,165 2,573 3,873 3,2904 8,621 1,079 3,094 5,623 1,236 1,570 5,234 1,570 5,234 1,570 5,234 1,570 5,234 1,570 5,234 1,570 5,234 1,570 5,234 1,570 5,234 2,536 1,584 6,234 5,624 1,017 6,234 1,584 6,234 5,624 1,017 6,234 1,519 1,617 6,234 1,617 6,234 1,017 6,234 1,017 6,234 1,017 6,234 1,017 6,234 1,017 6,234 1,017 6,234 1,017 6,234 1,017 6,234 1,017 6,234 1,017 6,234 1,017 6,234 1,017 6,234 1,017 6,234 1,017 6,234 1,017 1,017 1,017 1,017 1,017 1,017 1,017 1,017 1,017 1,017 1,018 1,017 1,018 1,017 1,018 1,018 1,018	Year	Inflow	Stored	Used	Total	Osed	Inflow	Stored	Used	Stored	Used		Irr. Co.	New Supply		Held Over
76,910 27,328 29,456 3,786 3,876 40,570 10,563 10,563 1,563 1,524 1,603 1,524 1,633 1,534 1,633 1,534 1,633 1,534 1,633 1,534 1,633 1,534 1,633 1,634 1,633 1,634 1,633 1,634	2000	60,727	15,654	31,165	2,573	3,873	32,904	8,621	10,797	3,094	5,627	22,364	1,570	57,238	78,757	19,265
42,478 18,900 14,173 0 0 18,204 11,421 10,663 3,322 1,643 15,846 623 52,437 67,042 65,079 25,288 8,440 3,000 3,221 27,924 6,679 10,395 5,863 5,627 20,811 987 67,042 65,079 25,362 2,469 3,769 3,769 3,769 1,769 10,71 67,042 95,349 21,788 3,769 3,769 1,769 4,736 5,254 10,93 7,784 56,350 1,768 4,888 3,762 4,172 3,764 3,714 1,789 6,781 3,764 3,714 1,789 6,784 3,764 3,714 1,789 6,713 3,764 3,714 1,789 6,781 3,764 3,714 1,789 1,789 1,789 1,789 1,789 1,789 1,789 1,789 1,789 1,789 1,789 1,789 1,789 1,789 1,789 1,789 1,789<	2001	76,910	27,398	29,456	3,786	3,873	40,570	10,563	10,563	4,856	7,530	22,080	1,692	76,324	80,630	14,446
65.079 25.298 28,430 3,060 3,221 27,942 6,679 10,815 5,863 5,627 20,811 987 67,042 67,042 67,042 67,042 6,679 10,815 5,827 21,009 1,017 62,889 14,886 26,346 21,138 3,142 4,444 1,472 3,442 4,505 3,742 4,444 1,476 38,734 3,712 4,444 1,476 38,734 3,364 3,712 1,173 4,248 3,249 3,712 1,173 4,248 3,712 4,444 1,476 38,73 3,748 1,878 4,676 3,874 3,364 3,712 1,173 4,748 3,712 4,444 1,946 3,679 3,712 3,444 1,947 3,678 3,712 3,444 1,444 1,476 3,712 3,448 3,448 3,448 3,448 3,448 3,448 3,448 3,448 3,448 3,448 3,448 3,448 3,448 3,448 3,448 3,448 3,448<	2002	42,478	18,900	14,173	0	0	18,264	11,421	10,663	3,322	1,643	15,846	623	52,437	45,273	21,538
63,726 15,490 12,193 3,769 3,769 2,691 12,100 10,395 7,422 5,627 21,009 1,017 62,869 14,883 29,463 23,763 4,888 3,156 41,732 7 4,936 5,234 1,093 1,017 62,869 95,349 21,728 4,988 3,133 3,273 3,172 3,172 3,172 3,173 3,173 3,173 3,173 3,173 3,173 3,173 3,173 3,173 3,173 3,173 3,174 1,173 2,173 3,173 3,173 3,173 3,174 <	2003	62,079	25,298	28,430	3,060	3,221	27,942	6,679	10,815	5,863	5,627	20,811	286	67,042	74,235	14,345
144,863 29,463 25,763 4,888 3,156 41,732 6,1172 5,315 3,768 2,254 1,094 5,284 1,178 70,580 95,349 21,728 26,488 3,327 3,712 44,414 19,476 88,724 4,936 5,284 21,141 1,789 77,504 56,330 17,529 27,682 4,978 3,732 3,712 32,237 3,712 3,237 3,712 3,238 1,889 3,619 3,5619 22,409 22,539 1,230 78,311 1,789 77,544 2,400 22,532 1,118 3,741 18,887 4,664 5,328 3,022 0,2440 77,554 4,030 3,741 18,887 4,664 5,328 3,022 0,2440 2,743 17,652 17,554 4,364 5,328 4,364 4,364 5,328 3,022 0,2440 2,288 1,441 1,788 4,884 5,328 3,022 0,2480 1,432 4,434 4,372 1,442	2004	63,726	15,490	12,193	3,769	3,769	26,914	12,100	10,395	7,452	5,627	21,009	1,017	65,869	59,452	18,169
95.349 21,728 26,148 3,237 3,712 44,414 19,476 38,724 4,936 5,284 21,141 1,789 77,504 70,440 26,532 17,632 27,682 2,783 1,187 3,112 3,248 3,112 3,344 3,712 1,136 77,504 1,230 78,317 70,440 26,942 29,320 3,619 3,817 27,091 2,3282 20,390 0.25 1,230 78,311 76,94 22,136 29,320 3,703 3,747 1,2884 4,884 5,371 1,7062 87,314 1,755 100,318 47,867 29,406 1,7884 4,884 5,371 1,762 87,314 1,755 100,318 47,867 29,406 1,7884 6,884 5,373 3,092 0,2482 1,455 1,4484 8,884 9,531 1,449 1,178 1,488 4,884 1,4884 1,4884 1,4884 1,4884 1,488 1,488 1,488	2005	144,863	29,463	23,763	4,898	3,156	41,732	0	41,732	5,315	3,768	22,554	1,693	70,580	61,692	26,782
56,330 17,559 27,682 4,978 3,733 32,788 21,587 30,127 3,364 3,712 17,062 514 67,113 70,440 26,940 24,402 2,881 3,712 32,883 18,190 35,619 2,588 2,409 17,062 514 67,113 76,944 26,940 24,402 3,619 3,817 27,091 23,882 2,409 22,559 1,202 87,810 75,543 24,966 3,503 3,706 2,871 18,894 4,687 5,301 17,73 87,81 56,33 10,919 29,930 3,706 2,878 20,288 6,832 2,409 74,755 87,88 56,53 30,021 2,878 3,747 18,894 6,838 9,631 25,495 17,455 17,491 18,747 18,884 9,631 25,495 17,456 17,894 47,71 18,894 9,631 25,496 17,459 18,471 17,490 19,208 3,645	2006	95,349	21,728	26,148	3,237	3,712	44,414	19,476	38,724	4,936	5,284	21,141	1,789	77,504	77,057	27,300
7,0,440 2,6,940 24,402 2,851 3,712 32,833 18,190 35,619 2,583 2,409 22,559 1,239 78,317 7,6,944 26,946 3,405 3,619 3,817 2,0388 4,361 5,901 22,424 1,262 87,810 7,5,43 24,965 3,705 3,706 2,871 1,884 4,664 5,381 9,091 74,554 1,262 87,810 160,318 4,966 2,875 4,650 3,736 1,788 4,664 5,388 9,631 1,092 9,641 1,262 1,085 1,467 1,475 1,467 1,467 1,467 1,467 1,488 4,566 1,488 4,671 1,284 4,571 2,538 1,605 1,473 1,401 1,402 1,401 1,401 1,401 1,401 1,401 1,401 1,401 1,401 1,401 1,402 1,401 1,402 1,402 1,401 1,402 1,402 1,402 1,402 1,402	2007	56,350	17,559	27,682	4,978	3,733	32,788	21,587	30,127	3,364	3,712	17,062	514	67,113	73,678	20,803
7,6,34 2,136 2,810 3,817 27,091 23,282 4,361 5,901 22,424 1,262 87,810 75,543 24,965 29,375 4,050 3,783 37,471 18,987 40,645 4,687 5,371 21,753 808 74,554 160,318 47,867 2,875 4,050 3,783 3,741 18,987 4,687 5,371 0* 74,554 160,318 47,867 2,875 17,888 6,580 35,266 6,288 18,024 473 40,190 69,632 30,021 20,447 3,784 2,881 35,263 17,888 6,580 35,266 1,845 40,190 69,632 30,021 20,447 3,886 4,652 22,788 20,431 3,662 3,462 3,462 3,462 3,462 3,462 3,462 3,462 3,462 3,462 3,462 3,462 3,462 3,462 3,462 3,462 3,462 3,462 3,462 3,462	2008	70,440	26,940	24,402	2,851	3,712	32,833	18,190	35,619	2,583	2,409	22,559	1,230	78,317	75,919	19,425
75.543 24,965 29,375 4,605 3,783 37,471 18,987 40,645 4,687 5,371 0* 0* 74,555 160,318 47,867 29,058 3,706 2,871 1,884 48,344 5,328 3,092 0* 74,755 55,939 10,919 29,950 3,376 2,871 17,884 6,580 35,266 6,288 9,631 5,665 18,426 1,085 81,290 69,632 30,021 20,247 3,374 1,7480 6,580 20,288 9,631 5,665 18,426 1,085 81,290 84,619 20,247 1,7480 1,038 20,433 3,456 4,6712 20,288 20,431 1,042 1,478 1,478 1,471 1,447 1,425 3,456 4,572 1,489 3,455 1,489 1,489 3,449 3,449 3,449 3,449 3,449 3,444 3,444 3,449 3,444 3,444 3,444 3,444 3,444	2009	76,954	32,136	29,320	3,619	3,817	27,091	23,282	20,388	4,361	5,901	22,424	1,262	87,810	80,029	28,244
140,318 47,867 29,058 3,706 2,871 54,061 17,884 48,834 5,328 3,099 0* 0* 0* 74,755 55,393 10,919 29,950 3,503 3,456 17,884 6,580 35,266 69,63 5,688 18,024 473 40,190 69,632 30,021 20,247 373 0 35,995 22,768 20,288 9,631 5,605 18,426 1,085 81,299 66,581 30,021 20,247 37,84 2,811 39,605 23,361 20,386 42,217 17,490 19,208 3,452 3,696 22,748 1,22 3,696 20,493 3,452 3,696 22,548 1,221 22,140 1,242 81,893 81,893 81,893 81,893 81,893 81,893 81,893 81,893 82,002 3,441 1,544 24,266 3,234 1,542 1,448 1,894 3,243 1,512 3,244 2,548 1,549 3,452<	2010	75,543	24,965	29,375	4,050	3,783	37,471	18,987	40,645	4,687	5,371	21,753	808	74,554	82,555	16,931
55,939 10,919 29,950 3,503 3,456 6,580 35,266 692 5,588 18,024 473 40,190 69,632 30,021 20,247 373 0 35,995 22,768 20,288 9,631 5,605 18,426 1,085 81,290 84,619 20,247 37,364 2,811 39,605 23,361 20,380 5,055 4,271 1,242 81,895 81,290 67,581 20,516 27,520 3,866 4,6712 22,298 20,493 3,452 3,696 21,547 1,092 67,983 74,321 28,625 28,320 3,762 3,964 4,6712 22,298 20,493 3,452 3,696 21,547 1,092 67,983 94,583 22,612 19,024 4,572 4,471 15,447 24,266 3,289 5,687 1,7916 1,291 67,983 98,467 34,883 19,873 4,520 2,784 19,591 25,784 3,291<	2011	160,318	47,867	29,058	3,706	2,871	54,061	17,854	48,834	5,328	3,092	*0	*0	74,755	47,648	45,092
69,632 30,021 20,247 373 0 35,995 22,768 20,688 9,631 5,605 18,426 1,083 81,290 84,619 26,311 19,368 3,784 2,811 39,605 23,361 20,386 5,055 4,271 1,024 1,026 1,247 1,092 67,881 67,81 20,516 27,520 3,886 4,652 4,5712 17,490 19,208 3,452 3,696 21,547 1,092 67,983 74,321 28,625 28,330 3,762 3,644 46,712 22,298 20,493 3,452 3,696 21,547 1,092 67,983 94,832 2,626 48,324 17,655 17,512 4,579 5,099 23,205 1,692 67,983 94,838 18,095 30,129 4,439 4,431 15,447 24,566 3,283 5,687 22,208 1,7915 8,791 27,716 1,716 1,716 1,716 1,716 1,716 1,71	2012	55,939	10,919	29,950	3,503	3,456	17,898	6,580	35,266	692	5,588	18,024	473	40,190	81,439	12,016
84,619 26,311 19,368 3,784 2,811 39,605 23,361 20,386 4,671 20,388 4,672 17,490 19,208 3,452 3,696 21,547 1,092 67,983 74,321 28,526 28,320 3,762 3,964 46,712 22,298 20,493 3,452 3,696 22,548 1,320 67,983 94,583 22,612 19,024 5,973 4,562 48,324 17,655 17,512 4,579 5,039 23,205 1,692 75,716 88,328 22,612 19,024 5,973 4,562 4,471 15,447 24,266 3,283 5,687 17,915 52,88 75,716 <	2013	69,632	30,021	20,247	373	0	35,995	22,768	20,288	9,631	5,605	18,426	1,085	81,290	64,637	29,170
67.581 20,516 27,520 3,886 4,652 4,6272 17,490 19,208 3,452 3,696 21,547 1,092 67,983 74,321 28,625 28,320 3,462 3,482 3,462 3,462 3,462 3,462 3,462 3,462 3,462 3,462 3,462 3,462 3,462 3,469 3,452 3,696 22,548 1,320 82,005 82,005 3,471 1,465 17,512 4,579 5,039 23,268 1,692 75,716 82,005 1,692 75,716 82,005 1,692 75,716 82,005 1,692 75,716 82,005 1,692 75,716 82,005 1,692 75,716 82,005 1,716 74,716 74,716 74,726 75,716 <	2014	84,619	26,311	19,368	3,784	2,811	39,605	23,361	20,380	5,055	4,271	22,140	1,242	81,893	70,212	40,696
74,321 28,625 28,330 3,462 3,964 46,712 22,298 20,493 3,452 3,452 3,452 3,452 3,452 3,452 3,452 3,452 3,452 3,452 3,452 3,452 17,512 4,579 5,039 23,205 1,692 75,716 48,328 18,095 30,129 2,067 34,471 15,447 24,266 3,283 5,687 17,915 52,8 75,716 98,467 34,883 19,873 4,302 4,302 24,46 18,959 6,565 4,285 22,994 2,315 95,527 51,879 18,202 32,875 4,133 43,168 19,591 25,784 3,291 21,965 22,994 2,315 95,527 53,111 19,729 13,310 34,392 22,091 19,184 3,969 4,276 21,665 896 6,565 4,276 21,665 896 6,532 11,021 18,491 3,492 22,091 19,184 3,5	2015	67,581	20,516	27,520	3,886	4,652	42,272	17,490	19,208	3,452	3,696	21,547	1,092	67,983	77,715	31,643
94,583 22,612 19,024 5,973 4,562 17,655 17,512 4,579 5,039 23,205 1,692 75,716 48,328 18,095 30,129 2,067 34,471 15,447 24,266 3,283 5,687 17,915 528 75,716 98,467 34,883 19,873 4,302 4,439 52,001 24,468 18,959 6,565 4,285 22,994 2,315 95,527 51,879 18,220 32,875 4,133 43,168 19,591 25,784 3,291 5,158 20,510 1,211 67,375 71,027 18,969 15,018 5,290 4,707 44,336 24,440 22,833 8,414 5,336 1,094 81,100 81,091 24,235 15,412 3,613 3,608 24,440 22,833 8,414 5,336 14,109 3,756 4,107 22,893 1,094 81,100 81,091 24,012 23,230 14,109 23,236 <	2016	74,321	28,625	28,320	3,762	3,964	46,712	22,298	20,493	3,452	3,696	22,548	1,320	82,005	80,341	33,551
48,328 18,095 30,129 0 2,067 34,471 15,447 24,266 3,283 5,687 17,915 52,88 55,268 98,467 34,885 19,873 4,302 4,439 52,001 24,468 18,959 6,565 4,285 22,994 2,315 95,527 51,879 18,220 32,875 4,133 43,168 19,591 25,784 3,291 5,158 20,510 1,211 67,375 53,111 19,729 13,310 5,290 4,707 44,336 24,440 22,833 8,414 5,336 8,214 5,336 8,414 5,336 8,414 5,336 1,094 81,100 81,091 24,225 15,412 3,613 3,508 24,40 22,336 14,109 3,756 4,167 22,432 1,895 78,535 81,091 24,601 23,230 14,109 2,376 2,007 2,007 2,007 2,007 2,007 2,007 2,007 2,007 2,00	2017	94,583	22,612	19,024	5,973	4,562	48,324	17,655	17,512	4,579	5,039	23,205	1,692	75,716	71,034	38,824
98,467 34,883 19,873 4,302 4,430 22,001 24,468 18,959 6,565 4,285 22,994 2,315 95,527 51,879 18,220 32,875 4,133 43,168 19,591 25,784 3,291 5,158 20,510 1,211 67,375 51,879 18,220 32,875 4,133 43,168 19,591 25,784 3,291 5,158 20,510 1,211 67,375 71,027 18,969 15,018 5,290 4,707 44,336 24,440 22,833 8,414 5,336 8,109 8,10	2018	48,328	18,095	30,129	0	2,067	34,471	15,447	24,266	3,283	5,687	17,915	528	55,268	80,592	13,500
51,879 18,220 32,875 4,133 43,168 19,591 25,784 3,291 5,158 20,510 1,211 67,375 53,111 19,729 13,310 50.0 4,707 44,336 22,091 19,184 3,969 4,276 21,665 896 68,851 71,027 18,969 15,018 5,290 4,707 44,336 24,440 22,833 8,414 5,336 1,094 81,100 81,091 24,235 15,412 3,613 3,508 24,010 23,230 14,109 3,756 4,167 21,412 2,289 78,535 61,012 9,989 25,841 4,654 5,318 13,640 22,376 2,007 5,796 21,054 1,261 71,761 76,013 23,461 24,082 3,389 3,330 16,896 94.8% 44,336 21,054 1,261 71,761 80,3% 26,01 23,396 16,873 23,598 4,728 10,568 10,568	2019	98,467	34,883	19,873	4,302	4,439	52,001	24,468	18,959	6,565	4,285	22,994	2,315	95,527	72,865	36,162
53,111 19,729 13,310 501 119 34,969 4,276 21,665 896 68,851 71,027 18,969 15,018 5,290 4,707 44,336 24,440 22,833 8,414 5,336 22,893 1,094 81,100 81,091 24,235 15,018 3,613 3,508 54,010 23,230 14,109 3,756 4,167 21,412 2,289 78,535 61,012 9,989 25,841 4,654 5,318 37,190 13,640 22,376 2,007 5,796 22,423 1,835 54,548 76,013 23,461 24,082 3,389 3,330 16,873 23,598 4,728 1,054 1,261 71,761 80,3% 42,6% 107.3% 137.3% 180.8% 94.8% 44.3% 102.6% 105.6% 76.0% 76.0% 106.6% 86.8% 106.8% 106.8% 106.8% 106.8% 106.8% 106.8% 106.8% 106.8% 106.8% <t< td=""><td>2020</td><td>51,879</td><td>18,220</td><td>32,875</td><td>4,552</td><td>4,133</td><td>43,168</td><td>19,591</td><td>25,784</td><td>3,291</td><td>5,158</td><td>20,510</td><td>1,211</td><td>67,375</td><td>89,671</td><td>13,866</td></t<>	2020	51,879	18,220	32,875	4,552	4,133	43,168	19,591	25,784	3,291	5,158	20,510	1,211	67,375	89,671	13,866
71,027 18,969 15,018 5,230 4,707 44,336 24,440 22,833 8,414 5,336 22,893 1,094 81,100 81,091 24,225 15,412 3,613 3,508 24,440 22,330 14,109 3,756 4,167 21,412 2,289 78,535 81,091 24,235 15,412 3,613 3,789 13,640 22,376 2,007 5,796 22,423 1,835 54,548 76,013 23,461 24,082 3,389 37,894 16,873 23,598 4,532 4,728 12,054 12,61 71,761 80,3% 42,6% 107.3% 137.3% 159.7% 98.1% 98.8% 94.8% 122.6% 106.5% 145.6% 76.0% 17.0% 1	2021	53,111	19,729	13,310	501	119	34,392	22,091	19,184	3,969	4,276	21,665	968	68,851	59,450	23,267
81,091 24,235 15,412 3,613 3,618 54,010 23,230 14,109 3,756 4,167 21,412 2,289 78,535 61,012 9,989 25,841 4,654 5,318 37,190 13,640 22,376 2,007 5,796 22,423 1,835 54,548 76,013 23,461 24,082 3,389 3,389 16,873 23,598 4,532 4,728 11,054 17,761 80,3% 42,6% 107.3% 137.3% 159.7% 98.1% 98.8% 94.8% 44.3% 122.6% 106.5% 145.6% 76.0% 16.0% 16.0% 16.0% 16.0% 145.6% 16.0%	2022	71,027	18,969	15,018	5,290	4,707	44,336	24,440	22,833	8,414	5,336	22,893	1,094	81,100	71,881	32,271
61,012 9,989 25,841 4,654 5,318 37,190 13,640 22,376 2,007 5,796 22,423 1,835 54,548 76,013 23,461 24,082 3,389 3,339 16,873 23,588 4,532 4,728 1,054 1,261 71,761 80.3% 42.6% 107.3% 137.3% 159.7% 98.1% 80.8% 94.8% 44.3% 102.6% 106.5% 145.6% 76.0% 1	2023	81,091	24,235	15,412	3,613	3,508	54,010	23,230	14,109	3,756	4,167	21,412	2,289	78,535	60,897	49,788
76,01323,46124,0823,3803,3893,38016,87316,87323,5984,5324,7281,0541,0541,26171,76180.3%42.6%107.3%137.3%159.7%98.1%80.8%94.8%44.3%122.6%106.5%145.6%76.0%1	2024	61,012	6,686	25,841	4,654	5,318	37,190	13,640	22,376	2,007	5,796	22,423	1,835	54,548	83,590	20,747
. 80.3% 42.6% 107.3% 137.3% 159.7% 80.8% 94.8% 44.3% 122.6% 106.5% 145.6% 76.0% 76.0%	Average Annual	76,013	23,461	24,082	3,389	3,330	37,894	16,873	23,598	4,532	4,728	21,054	1,261	71,761	71,569	25,914
	2024 % Ave.	80.3%	42.6%	107.3%	137.3%	159.7%	98.1%	%8.08	94.8%	44.3%	122.6%	106.5%	145.6%	%0.92	116.8%	80.1%































