

**OSAGE BEACH / LAKE OZARK
JOINT SEWER BOARD MEETING
AGENDA
January 16, 2024 @ 4:00 p.m.
LAKE OZARK CITY HALL**

1. CALL TO ORDER

2. ROLL CALL

Mayor, Michael Harmison
Mayor, Dennis Newberry
City Administrator, Harrison Fry
City Administrator, Jeana Woods
Alderman, Kevin Rucker
Alderman, Pat Thompson
Public Works Director, Matt Michalik
Member at Large, Gary Hamner
Assistant City Administrator, Acting Public Works Manager, Mike Welty

3. PUBLIC COMMENT

4. MINUTES

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5. REPORTS

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6. ALLIANCE REPORT OF OPERATIONS 15-32

7. APPROVAL OF FLOW CHARTS

8. OLD BUSINESS

- A. Board update.
- B. Update report Capital Replacement Forecast Plan.

9. NEW BUSINESS

- A. Alliance Management Contract Draft #3 **33-46**
- B. Updated 2024 ERP & Plant Inventory review and discussion. **47-87**

10. ADDITIONAL DISCUSSION ITEMS

11. ADJOURNMENT

LAKE OZARK-OSAGE BEACH JOINT SEWER BOARD

Meeting Minutes – December 19th 2023

CALL TO ORDER:

Mayor Harmison called the meeting to order at 4:00 pm on Tuesday, December 19th, 2023, at Lake Ozark City Hall.

ROLL CALL:

Mayor, Michael Harmison- Present
Mayor, Dennis Newberry – Present
City Administrator, Harrison Fry - Present
City Administrator, Jeana Woods - Present
Alderman, Kevin Rucker- Present
Alderman, Pat Thompson- Absent
Public Works Director, Matt Michalik – Present
Resident Member, Mr. Gary Hamner – Present
Assistant City Administrator, Acting Public Works Manager, Mike Welty - Present

MINUTES:

Public Works Director, Matt Michalik, motioned to approve the meeting minutes from November 21st, 2023. The motion was seconded by City Administrator, Jeana Woods and passed unanimously.

REPORTS:

- Bill List
- Revenue Budget Analysis
- Expenditure Budget Analysis
- Income & Expense Summary

A motion was made Mayor, Dennis Newberry to approve the Bills List, Revenue Budget Analysis and Expenditure Budget Analysis. The motion was seconded by Alderman, Kevin Rucker and passed unanimously.

ALLIANCE REPORT OF OPERATIONS:

Alliance Report of Operations: The average daily incoming flow for November was 0.889 mgd. We had 1.0 inches of precipitation measured at the WWTP for November.

Operationally, the plant's discharge was excellent, with an effluent monthly average BOD of 1.9 mg/l and TSS of 2.1 mg/l respectively for November which represents a 99.2 + % or better removal.

The MLSS average for both aeration basins for November was 5,021 mg/l. The total dry weight sludge inventory for November totaled 243,194 pounds. We received 30 loads of septage or 59,000 gallons for November.

APPROVAL OF FLOW CHART:

Mayor Dennis Newberry motioned to approve the November flow chart. The motion was seconded by City Administrator, Harrison Fry and was unanimously approved.

OLD BUSINESS:

- A. Board Representative Update.

NEW BUSINESS:

- A. Reviewed RAS Pump Replacement bids. A motion was made by Public Works Director Matt Michalik to approve the bid from JCI Industries for the bid amount of \$188,500.00. His motion was seconded by Alderman Kevin Rucker. Mayor Dennis Newberry abstained from the vote. The motion carried.
- B. Discussion and possible action on the Clarifier Paint Project for more time and material. Upon detailed discussion and review, Alderman Kevin Rucker motioned to approve more time and material with an additional cost of \$14,775.00. Assistant City Administrator, Acting Public Works Manager, Mike Welty seconded Matt's motion and it was passed unanimously.

ADDITIONAL DISCUSSION ITEMS:

ADJOURNMENT:

With no further business to discuss, a motion was made by City Administrator, Jeana Woods to adjourn. Mayor Dennis Newberry seconded the motion. The meeting was adjourned at 4:35 pm.

Approved:

Michael Harmison, Mayor

Robin Craig, Clerk

JOINT SEWER BOARD
BILL LIST
JANUARY 16, 2024

OPERATING FUND BILLS PAID PRIOR TO BOARD MEETING:	\$	126.82
OPERATING FUND BILLS TO BE PAID:	\$	40,074.52
EQUIPMENT REPLACEMENT FUND BILLS PAID PRIOR TO BOARD MEETING:	\$	-
EQUIPMENT REPLACEMENT FUND BILLS TO BE PAID:	\$	369.98

TOTAL \$ 40,571.32

OPERATING FUND BILLS PAID PRIOR TO BOARD MEETING:

Account	Paid To:	Description:	Amount:
4176	AT&T	December	\$ 47.85
4176	Republic	January	\$ 78.97

TOTAL \$ 126.82

OPERATING FUND BILLS TO BE PAID:

Account	Paid To:	Description:	Amount:
4000	Equipment Replacement Fund	Payment into ER Fund	\$ 5,000.00
4020	CED	Replacement Relay for Pista Grit	\$ 225.00
4020	M/C QuickBooks	Accounting Software	\$ 30.00
4020	Menards	Conduit Hanger	\$ 4.38
4020	Menards	Door knob, insulation, gease gun	\$ 150.20
4020	USA Blue Book	Float Switches	\$ 373.46
4020	Woodley Building Main.	Janitorial - December	\$ 330.00
4150	O'Reilly Auto	Battery	\$ 202.75
4170	Alliance Water Resources Inc	January	\$ 29,466.00
4175	Ameren MO	11673321	\$ 4,237.12
4175	Ameren MO	98041275	\$ 55.61

TOTAL \$ 40,074.52

EQUIPMENT REPLACEMENT FUND BILLS PAID PRIOR TO BOARD MEETING:

Account	Paid To:	Description:	Amount:
4000			\$ -

TOTAL \$ -

EQUIPMENT REPLACEMENT FUND BILLS TO BE PAID:

Account	Paid To:	Description:	Amount:
4000	M/C Harbor Freight	Replacement Holst 2000#	\$ 369.98

TOTAL \$ 369.98

INVOICE



Invoice No. INV104864

Alliance Water Resources

Lake Ozark/ Osage Beach Joint
Utility Board
20220
City of Osage Beach
1000 City Parkway
Osage Beach, MO 65065

206 South Keene Street
Columbia, MO 65201

Document Date	Due Date	Payment Terms
January 1, 2024	January 31, 2024	Due in 30 Days

Description	Amount
Wastewater Plant operating service for January 2024	29,466.00
Total \$	29,466.00



December 19, 2023

Board of Directors
 Lake Ozark / Osage Beach Joint Wastewater Plant Board
 City of Osage Beach
 c/o Karri Bell
 1000 City Parkway
 Osage Beach, MO 65065

Dear Board of Directors:

As per the terms and conditions of the Alliance O&M Agreement dated December 12, 2018, the base fee is adjusted on January 1st each year to reflect the change in the Consumer Price Index and the other terms of the agreement.

The Agreement specifies the use of the Department of Labor CPI- All Urban Consumer Midwest. The most recent CPI data used to calculate the Alliance Fee beginning January 1, 2023 was the twelve (12) month period November 2021 through November 2022.

Accordingly, the base fee beginning January 1, 2024 will use the 12-month period from November 2022 through November 2023. The appropriate indices and resulting contract adjustment is calculated as follows:

CPI November 2022 276.436

CPI November 2023 284.539

CPI Increase $= (284.539 - 276.436) / 276.436$
 $= 2.9\%$

Per the Agreement, the base fee will be adjusted upward beginning January 1, 2024 by the CPI percentage of 2.9%. The calculation of the 2024 Base Contract Fee is as follows:

Current 2023 Monthly Fee = \$29,466.00

Adjusted 2024 Monthly Fee = $\$29,466.00 \times 1.029 = \$30,321.00$

The invoice for January 2024 will reflect the new base fee of \$30,321.00

On behalf of Gary Hutchcraft and Alliance Water Resources, thank you for allowing us to serve your communities.

Sincerely,

Joshua D. Duncan
Regional Operations Manager
Alliance Water Resources

CC: Tony Sneed
Gary Hutchcraft



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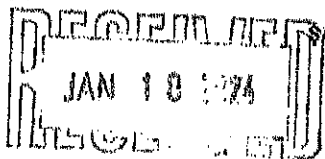
FOCUSED ENERGY. For life.

Account Number 4580005832
Customer Name ALLIANCE WATER RESOURCES INC
Service Address 9 ANDERSON RD.,
LAKE OZARK, MO 65049

Current Billing Statement 01/10/2024

Total Electric Charges \$4,237.12

Total Amount Due \$4,237.12



AMOUNT DUE \$4,237.12

Due Date 02/01/2024

Amount After Due Date \$4,279.49

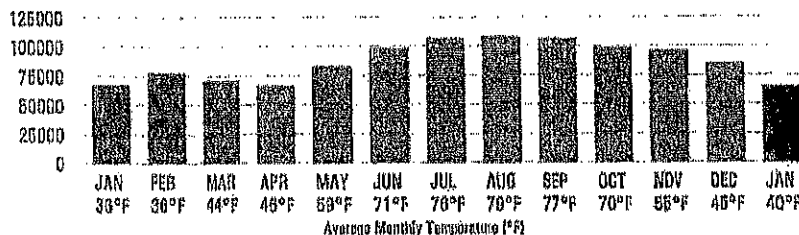
Previous Statement \$5,392.60

Total Payments \$5,392.60

Payment Received Thank You

Electric Usage History

Electric Usage in Kilowatt Hours (kWh)



Electric Usage Summary (kWh)

So far this year you're using 3.1% less than the same time period last year.

2023	67,360 kWh
2024	65,280 kWh

13675 0045800058302 000004237120 000004237120

Keeping You Informed.

Update your account information so we can contact you when crews are working in your neighborhood. Fill out the slip and mail it in or update your online account. Don't have an online account? Sign up today at AmerenMissouri.com.

GL Acct#: 4175

Signature: [Handwritten Signature]

Date: 1/10/24

» See next page for service details.

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Page 1 of 4

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Amount Due	Due Date
\$4,237.12	February 01, 2024
Delinquent Amount After Due Date	Account Number
\$4,279.49	4580005832

Amount Enclosed \$

00000000 0045800058302 000004237120 000004237120

ALLIANCE WATER RESOURCES INC
PO BOX 1885
LAKE OZARK, MO 65049-1885

AMEREN MISSOURI
PO BOX 88068
CHICAGO IL 60680-1068

40600000 0045800058302 000004237120 000004237120



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Electric Service Details Service from 12/08/2023 - 01/09/2024 (31 days)

Electra Motor Road

METER NUMBER	SERVICE FROM - TO	NO. DAYS	USAGE TYPE	READING TYPE	CURRENT READING	PREVIOUS READING	READING DIFFERENCE	MULTIPLIER	USAGE
11673321	12/08 - 01/08	31	Total kWh	Actual	84004.6000	83696.0000	408.6000	100.0000	84280.0000
11673321	12/08 - 01/08	31	Peak kW	Actual	0.0020	0.0000	0.0020	100.0000	105.9000

Usage Summary

Total kWh	84280.0000	Non-Summer kWh	85280.0000
Peak kW	105.9000	Billing Demand	105.9000
Total Billing Demand	105.9000	October Winter Base kW	178.6000
Winter Base Demand	105.9000	Base kWh Ratio	1.0000
Base kWh (HUD)	85280.0000	Seasonal kWh (HUD)	0.0000

Rate 3M Large General Service

DESCRIPTION	USAGE	UNIT		RATE	CHARGE
Seasonal Energy Charge	0.00	kWh	@	\$ 0.04080000	\$0.00
Winter Demand Charge	105.90	kW	@	\$ 2.30000000	\$243.57
Base Energy Charge / Hours Used	15,895.00	kWh	@	\$ 0.06980000	\$1,108.77
Base Energy Charge / Hours Used	21,180.00	kWh	@	\$ 0.05190000	\$1,099.24
Base Energy Charge / Hours Used	26,216.00	kWh	@	\$ 0.04080000	\$1,153.99
Customer Charge					\$110.55
Fuel Adjustment Charge	85,280.00	kWh	@	\$ 0.00309000	\$261.72
Energy Efficiency Investment Charge	85,280.00	kWh	@	\$ 0.00467100	\$208.39
Renewable Energy Adjustment	85,280.00	kWh	@	\$ 0.00032000	\$20.80
Total Service Amount					\$4,237.12
Total Electric Charges					\$4,237.12

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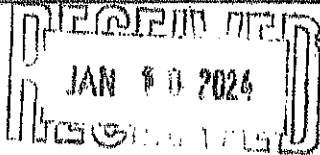
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Account Number 6680005820
 Customer Name ALLIANCE WATER RESOURCES INC
 Service Address 3 ANDERSON RD
 LAKE OZARK, MO 65049

Current Period Statement 01/10/2024

Total Electric Charges \$55.61

Total Amount Due \$55.61



AMOUNT DUE \$55.61

Due Date 02/01/2024

Amount After Due Date \$56.17

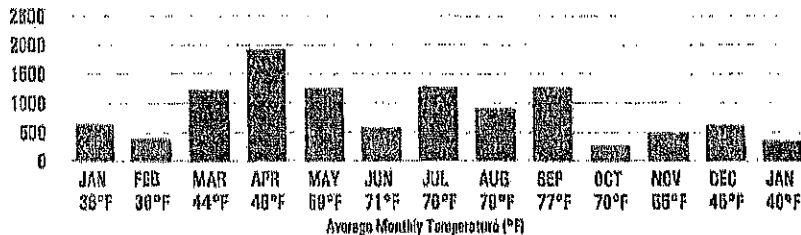
Previous Statement \$81.80

Total Payments \$81.80

Payment Received: Thank You

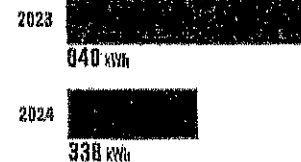
Electric Usage History

Electric Usage in Kilowatt Hours (kWh)



Electric Usage Summary (kWh)

So far this year you're using **47.2% less** than the same time period last year.



13072
02392 2257988 0007 092139 102

Electric Service Details

Service from 12/05/2023 - 01/08/2024 (34 days)

Electric Meter Read

METER NUMBER	SERVICE FROM - TO	NO. DAYS	USAGE TYPE	READING TYPE	CURRENT READING	PREVIOUS READING	READING DIFFERENCE	MULTIPLIER	USAGE
98041275	12/05 - 01/08	31	Total kWh	Actual	26477.0000	26447.0000	30.0000	19.0000	300.0000
98041276	12/05 - 01/08	31	Peak kWh	Actual	7.0000	0.0000	7.0000	10.0000	74.8000



» See next page for service details.

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GL Acct#: 4175

Signature: Amy Butcher Page 1 of 4

Date: 1/10/24

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Amount Due	Due Date
\$55.61	February 01, 2024
Delinquent Amount After Due Date	Account Number
\$56.17	6680005820

Amount Enclosed \$

>002398 2257988 0007 092139 102

ALLIANCE WATER RESOURCES INC
 PO BOX 1885
 LAKE OZARK, MO 65049-1885

AMEREN MISSOURI
 PO BOX 88068
 CHICAGO IL 60680-1068

10633000 0055800057200 000000055610 000000055610



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Electric Service Details (Continued)

METER NUMBER	SERVICE FROM - TO	NO. DAYS	USAGE TYPE	READING TYPE	CURRENT READING	PREVIOUS READING	READING DIFFERENCE	MULTIPLIER	USAGE
70943410	01/08 - 01/08	3	Total kWh	Actual	38.0000	0.0000	38.0000	1.0000	38.0000
70943410	01/08 - 01/08	3	Peak kW	Actual	1.4500	0.0000	1.4500	1.0000	1.4500

Usage Summary

Total kWh	338.0000	Non-Summer kWh	338.0000
Winter Base kWh	1000.0000	Current Base kWh	338.0000
Winter Cur Base kWh	338.0000	Seasonal kWh	0.0000

Rate 2M Sm Gen Svc - 3 Ph w/Dmd

Threshold - Peak Demand

DESCRIPTION	USAGE	UNIT	RATE	CHARGE
Base Energy Charge	338.00	kWh	@ \$ 0.08840000	\$30.22
Seasonal Energy Charge	0.00	kWh	@ \$ 0.05160000	\$0.00
Customer Charge				\$23.07
Fuel Adjustment Charge	338.00	kWh	@ \$ 0.00308000	\$1.04
Energy Efficiency Investment Charge	338.00	kWh	@ \$ 0.00346800	\$1.17
Renewable Energy Adjustment	338.00	kWh	@ \$ 0.00032000	\$0.11
Total Service Amount				\$55.61
Total Electric Charges				\$55.61

Payments Since Previous Statement

DATE RECEIVED	AMOUNT
December 26, 2023	\$81.80

Questions? Contact Ameren Missouri at 1.877.426.3736 or visit AmerenMissouri.com.

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**MONTH-TO-DATE AND YEAR-TO-DATE
REVENUE/BUDGET ANALYSIS**

12/31/2023

Account Number	Account Name	2021 Actual	2022 Actual	2023 Budget	2023 Actual as of 12/31/2023	2023 December Revenue	Percent YTD
3020	Osage Beach	465,202.63	460,708.70	481,940.00	491,201.99	40,612.66	102%
3010	Lake Ozark	84,797.35	91,794.26	98,710.00	87,143.84	7,774.84	88%
3030	Misc.	22,000.00	1,094.92	0.00	234.08	0.00	0%
3100	Interest	2,700.22	2,462.35	2,500.00	5,522.07	30.74	221%
3060	Waste Haulers' Fee	60,520.00	49,490.00	56,000.00	63,160.00	3,850.00	113%
Total Operating Fund		635,220.20	605,550.23	639,150.00	647,261.98	52,268.24	101%
E/R Fund Income		5,508.47	3,588.63	4,000.00	15,011.38	0.00	375%
TOTAL INCOME		640,728.67	609,138.86	643,150.00	662,273.36	52,268.24	103%

MONTH-TO-DATE AND YEAR-TO-DATE
EXPENDITURE/BUDGET ANALYSIS
12/31/2023

Account Number	Account Name	2021 Actual	2022 Actual	2023 Budget Original	2023 Budget Amended	2023 Actual as of 12/31/2023	2023 December Expenses	Percent YTD
4000	Equipment Replace Fund	143,808.00	55,008.00	60,000.00	60,000.00	60,000.00	5,000.00	100%
4020	*Maintenance & Repair	104,853.81	60,030.11	93,500.00	118,000.00	84,665.12	4,431.80	72%
4140	Insurance	21,493.00	22,088.00	23,000.00	23,000.00	22,791.00	0.00	99%
4150	Vehicle Repair/Main	11,099.99	5,999.58	8,000.00	8,000.00	3,255.47	0.00	41%
4170	Contract Management	308,840.00	331,080.00	360,000.00	360,000.00	353,592.00	29,488.00	98%
4175	Electric	82,227.41	79,890.16	81,000.00	88,000.00	88,547.80	5,474.40	101%
4176	Utilities Misc.	3,528.17	3,694.18	5,000.00	5,000.00	4,579.70	126.69	92%
4190	Bank Charges	0.00	12.00	0.00	0.00	3.00	0.00	0%
4200	Audit	2,600.00	2,700.00	2,800.00	2,800.00	2,800.00	0.00	100%
4240	Capital Purchases	399.99	0.00	0.00	0.00	0.00	0.00	0%
	Totals	678,450.37	560,502.03	633,300.00	684,800.00	620,234.09	44,498.89	93%
	**E/R Expenses	202,161.70	11,093.28	103,000.00	120,000.00	112,613.67	0.00	94%
	TOTAL EXPENSES	880,612.07	571,595.29	736,300.00	784,800.00	732,847.76	44,498.89	93%

4020 DETAIL: Equip & Bldg. Repair/Main.

Auto Dialer Yrly Software Fee	600	X
Regular Maintenance	20,000	X
UV Bulbs, Quartz Sleeves, Misc	10,000	X
Painting RAS basement piping	30,000	X
Rock for road	3,000	
Sandblasting & paint Clarifier #2	30,000	

93,600.00

DETAIL: Equipment & Replacement

Replace wooden doors w/fiberglass	3,000	
Replace flow meter for the effluent	25,000	X
*Replace aerator gear box - new	75,000	X

103,000.00

OPERATING FUND INCOME AND EXPENSE SUMMARY
12/31/2023

Beginning Balance	363,396.12
Income - Osage Beach	40,612.66
Income - Lake Ozark	7,774.84
Income - Other	-
Income - Waste Haulers' Fees	3,850.00
Interest - Checking	30.74
Income - CD Interest	-
Transfers From E/R Fund	-
Transfers To E/R Fund	(5,000.00)
Expenses	(39,498.69)
Ending Fund Balance	371,165.67
Central Bank - NOW Acct.	144,816.09
	-
CD First Bank of the Lake, 2/20/25 #8432	110,637.03
CD First Bank of the Lake, 1/22/25 #8433	117,255.40
	-
Outstanding Checks:	(1,542.85)
	371,165.67

EQUIPMENT REPLACEMENT FUND INCOME AND EXPENSE SUMMARY
12/31/2023

Beginning Balance	483,638.32
Interest - Checking	180.63
Income - CD Interest	-
Transfers From Operating Fund	5,000.00
Income - Miscellaneous	-
Expenses	-
Ending Fund Balance	488,818.95
First Bank of the Lake - Money Mkt.	103,898.01
CD First Bank of the Lake, 1/31/24 #8430	114,920.94
CD First Bank of the Lake, 5/07/24 #8434	270,000.00
	-
	-
Outstanding Checks:	-
	488,818.95

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Alliance Water
Resources,
Inc.

206 S. Keane
St.
Columbia, MO
65201

(573) 874-8080

WATER RESOURCES® Alliance

Professional Water and Wastewater Operations

REPORT OF OPERATIONS

LAKE OZARK/OSAGE BEACH
Joint Wastewater Treatment Plant No. 1

Month of December 2023

Submitted by Alliance Water Resources, Inc. for the

January 2024

Joint Sewer Board Meeting

SUMMARY OF FACILITY OPERATION

The Lake Ozark/Osage Beach Joint WWTP produced superior effluent quality throughout the month and was in full compliance with effluent limitations established in NPDES Permit No. MO-0103241. No leaks, no spills, and no unauthorized releases to waters of the state. No work-related lost time accidents have occurred during the month.

Detailed information relating to plant performance and operations is presented as follows.

PLANT EFFLUENT QUALITY

	BOD mg/l	TSS mg/l	pH	E.coli Colonies/100 ml	Coliform	Ammonia as N mg/L	O&G mg/L
Monthly/Quarterly Avg	2.4	2.3	N/A	0.0		0.02	< 2.0
Peak Day	2.8	2.9	8.0	0.0		0.03	< 2.0
Percent Removal	98.9	99.3	N/A	N/A		N/A	N/A

NPDES EFFLUENT LIMITATIONS

	BOD mg/l	TSS mg/l	pH	E.coli Colonies/100 ml	Coliform	Ammonia as N mg/L	O&G mg/L
Monthly/Quarterly Avg	30	30	6-9	126		3.1	10
Weekly Average	45	45		630			
Daily Max				N/A		12.1	15

PLANT HYDRAULIC AND ORGANIC LOADING

The average daily influent flow for the month was 0.886 MGD or 30% of Permitted flow with Lake Ozark contributing 16% of the total flow and Osage Beach contributing 84%. Daily influent flow BOD and TSS data is presented in Table A. Daily flow for the month and rainfall are shown in Figure 2. A three-year flow history for each of the two cities is presented in Table B.

Organic loading for the month was 50450 pounds of BOD.

BIOSOLIDS APPLICATION AND INVENTORY

Plant personnel land applied 0 tanker loads of bio-solids during the month equivalent to a total of 0 gallons and 0 pounds dry weight solids.

434,621 pounds of dry weight solids have been land applied year to date.

Bio-solids inventory in the storage tanks at the end of the month was 337,500 gallons with a level of 4.5 feet in Tank 1 and 3.0 feet in Tank 2.

WASTEHAULERS

The plant received 29 loads of septage during the month totaling 77,000 gallons.

WWTP OPERATIONS

- Decanting digesters and wasting weekly.
- Normal operations.

WWTP MAINTENANCE AND REPAIR

- Performed routine maintenance throughout the month as per Maxpanda Maintenance Data Management software schedule.
- A relay in the lift station at the digesters went bad and we replaced it on the 5th of December.
- One of the ducking skimmer trough supports on Clarifier #1 dropped down on the 8th of December, so we came up with a temporary support to hold it in place until we can take the Clarifier down to replace the support bolt.
- We pulled the old Flygt lift station pump out of the lift station at the aeration basins and installed the new backup Keen pump on the 20th of December. JCI picked the old Flygt up to evaluate it to see if it's repairable, and if so give us a quote.

SAFETY

- We conducted our monthly Safety Meeting on Chlorine Safety for Waster & Wastewater Operators, Handling Sodium Hypochlorite, Housekeeping Awareness, Ladder Safety: Safe Use & Chainsaw Safety on the 19th of December.

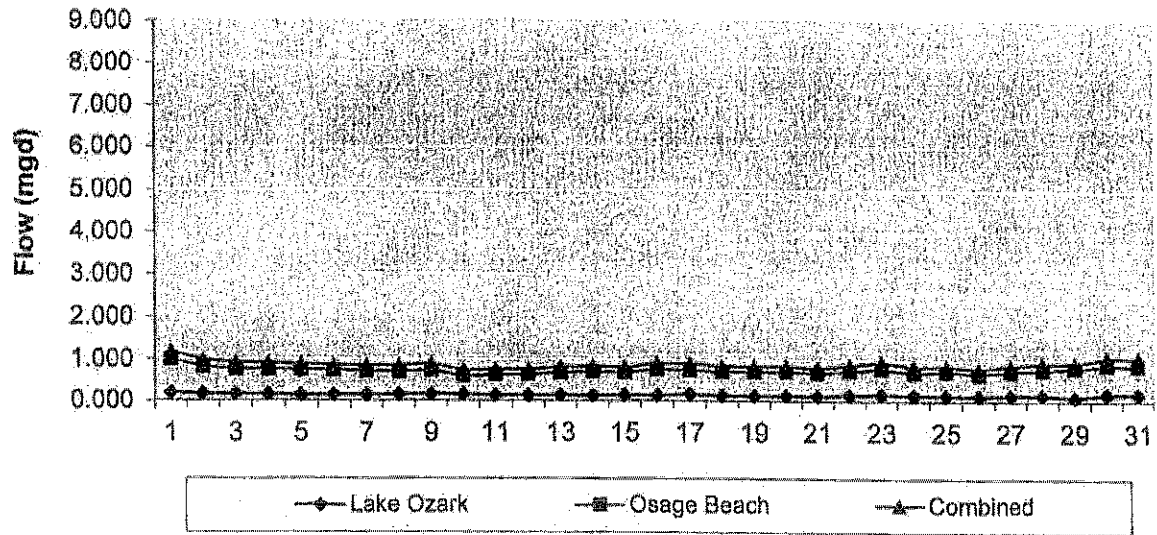
REGULATORY AGENCY, INSPECTION AND REPORT

- We filled out the new EDMR on the EPA MoGEM website on the 8th of January.
- We received a letter from MDNR on the upcoming phosphorus limits. (see attachment)

MISCELLANEOUS AND RECOMMENDATIONS

- We have attached the updated 2024 ERP & Plant Inventory List for review.

Daily Flow
Figure 1



Effect of Rainfall on Flow
Figure 2

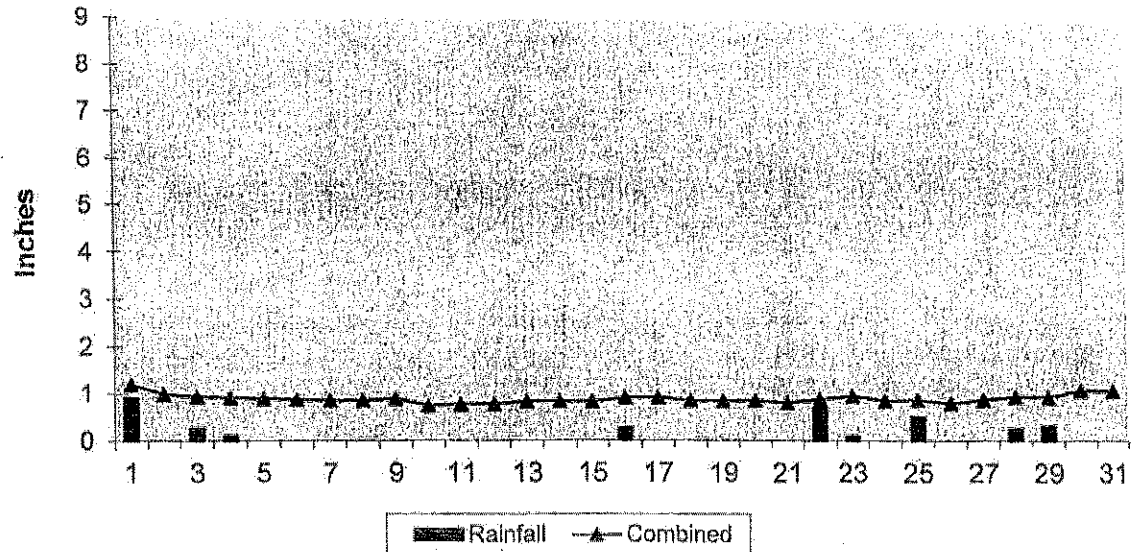


TABLE B
JOINT SEWER BOARD
Monthly Flows

<u>2021</u>	<u>RAINFALL</u>	<u>OSAGE BEACH</u>		<u>LAKE OZARK</u>		<u>TOTAL</u>	<u>%</u>
January	6.0	28,107,000	85%	4,855,000	15%	32,962,000	100%
February	3.0	22,136,000	85%	4,048,000	15%	26,184,000	100%
March	4.0	32,848,000	84%	6,450,000	16%	39,298,000	100%
April	5.2	30,179,000	84%	5,792,000	16%	35,971,000	100%
May	5.2	37,964,000	84%	7,479,000	16%	45,443,000	100%
June	8.0	41,695,000	85%	7,390,000	15%	49,085,000	100%
July	6.9	49,378,000	85%	9,000,000	15%	58,378,000	100%
August	1.8	41,691,000	85%	7,211,000	15%	48,902,000	100%
September	3.1	36,185,000	85%	6,306,000	15%	42,491,000	100%
October	6.0	32,925,000	85%	5,987,000	15%	38,912,000	100%
November	0.8	25,192,000	83%	5,025,000	17%	30,217,000	100%
December	2.3	25,041,000	82%	5,317,000	18%	30,358,000	100%

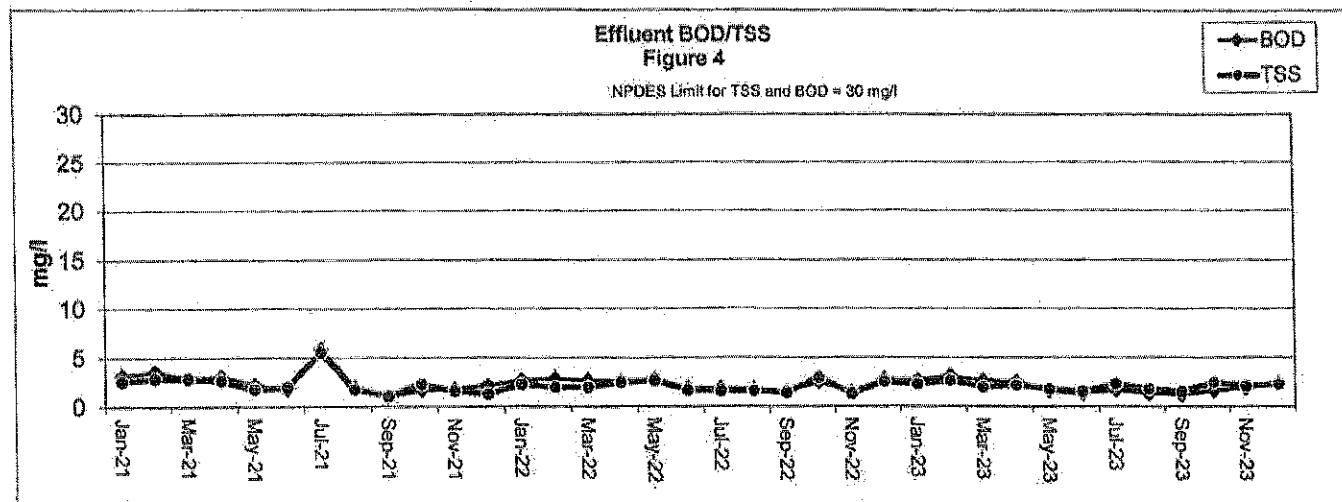
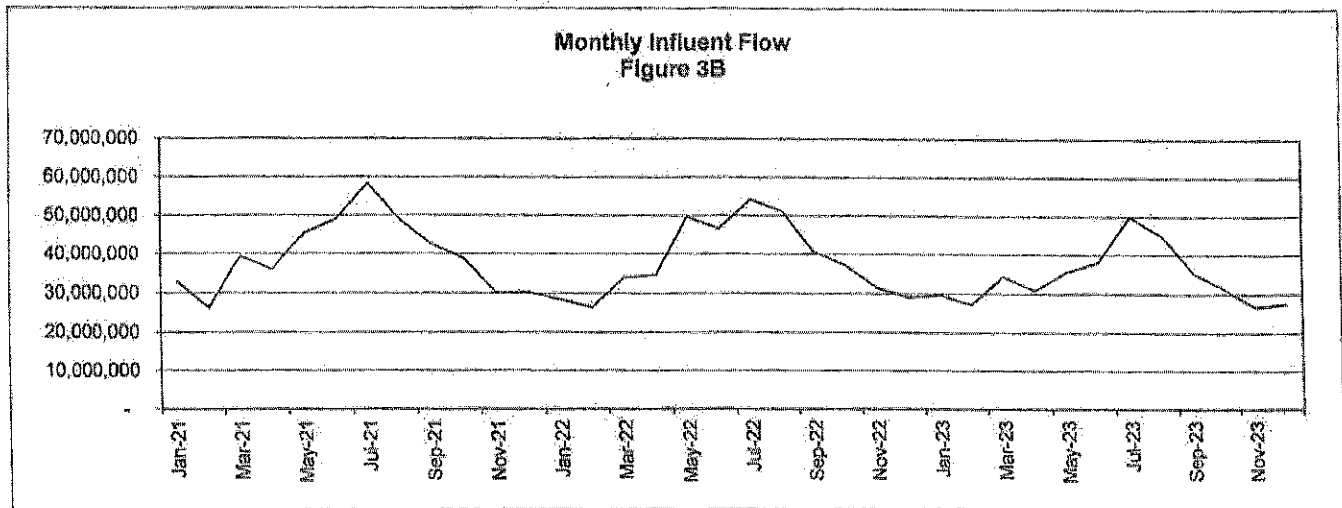
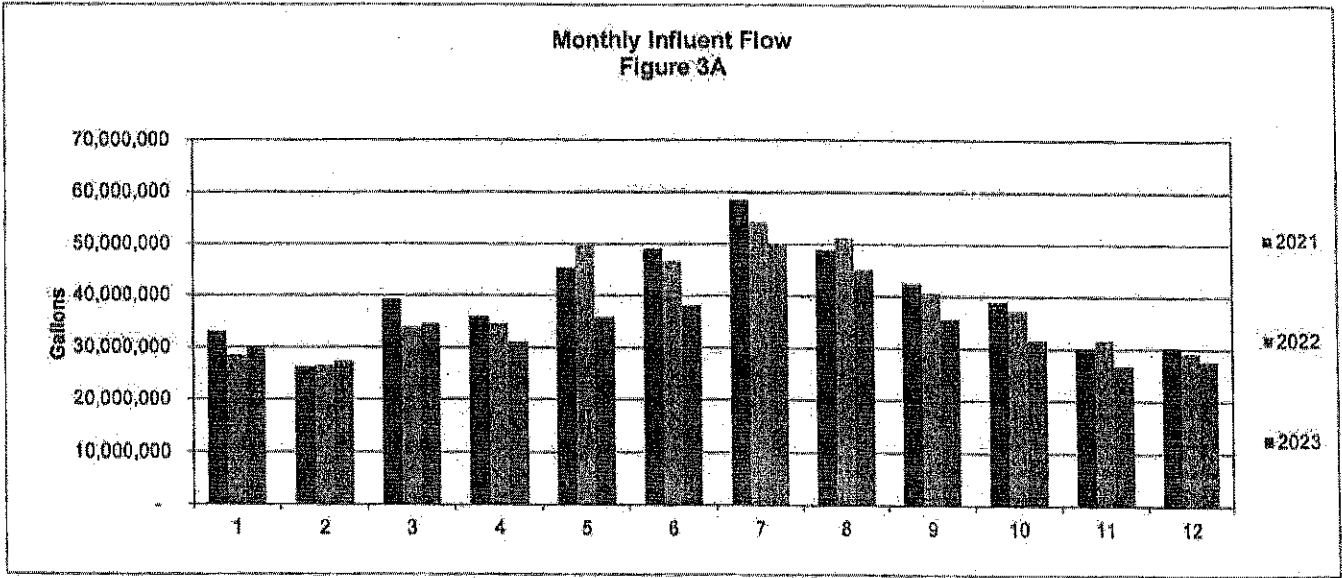
52.2	403,341,000	84%	74,860,000	16%	478,201,000	100%
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<u>2022</u>	<u>RAINFALL</u>	<u>OSAGE BEACH</u>		<u>LAKE OZARK</u>		<u>TOTAL</u>	<u>%</u>
January	1.7	23,599,000	83%	4,824,000	17%	28,423,000	100%
February	3.8	21,853,000	83%	4,610,000	17%	26,463,000	100%
March	5.2	28,266,000	83%	5,657,000	17%	33,923,000	100%
April	6.3	28,580,000	82%	6,088,000	18%	34,668,000	100%
May	9.1	41,076,000	83%	8,597,000	17%	49,673,000	100%
June	3.3	39,125,000	84%	7,563,000	16%	46,688,000	100%
July	2.6	45,728,000	84%	8,591,000	16%	54,319,000	100%
August	6.8	42,549,000	83%	8,716,000	17%	51,265,000	100%
September	2.4	34,238,000	84%	6,499,000	16%	40,737,000	100%
October	5.2	31,814,000	86%	5,317,000	14%	37,131,000	100%
November	4.5	26,905,000	85%	4,739,000	15%	31,644,000	100%
December	1.9	24,749,000	85%	4,376,000	15%	29,125,000	100%

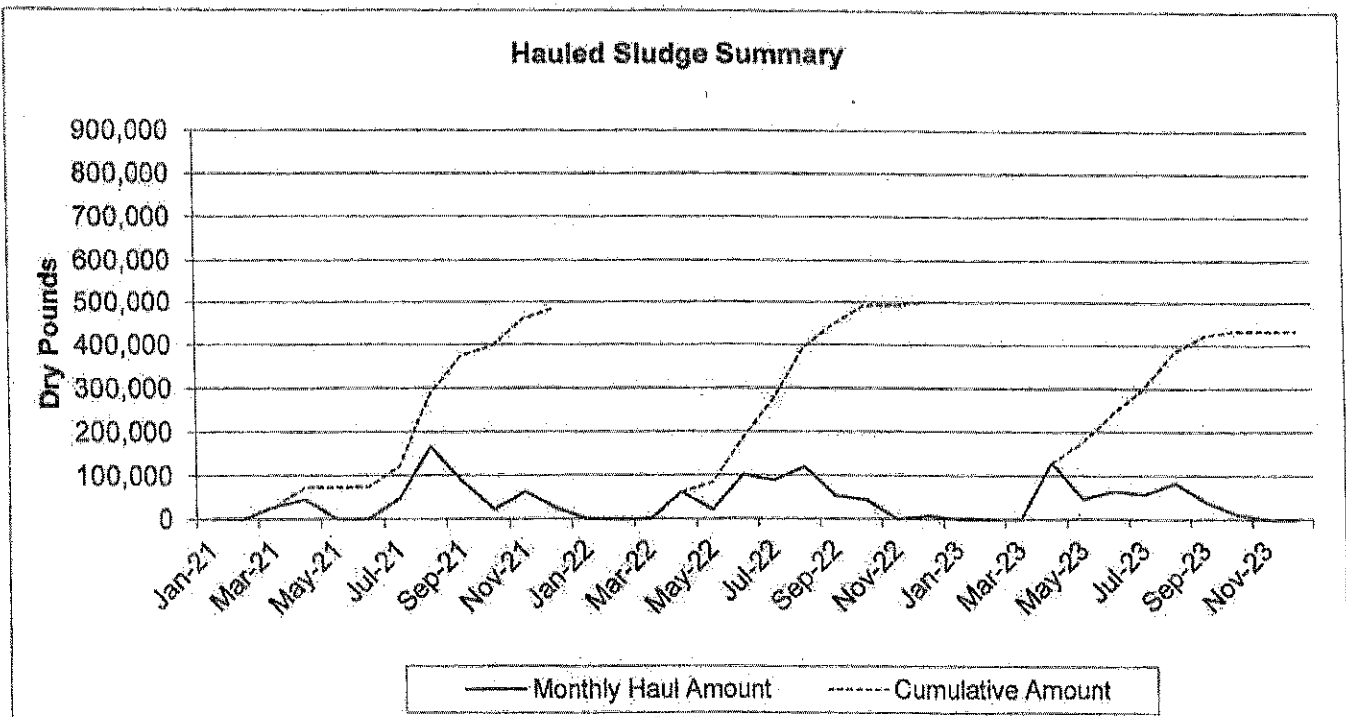
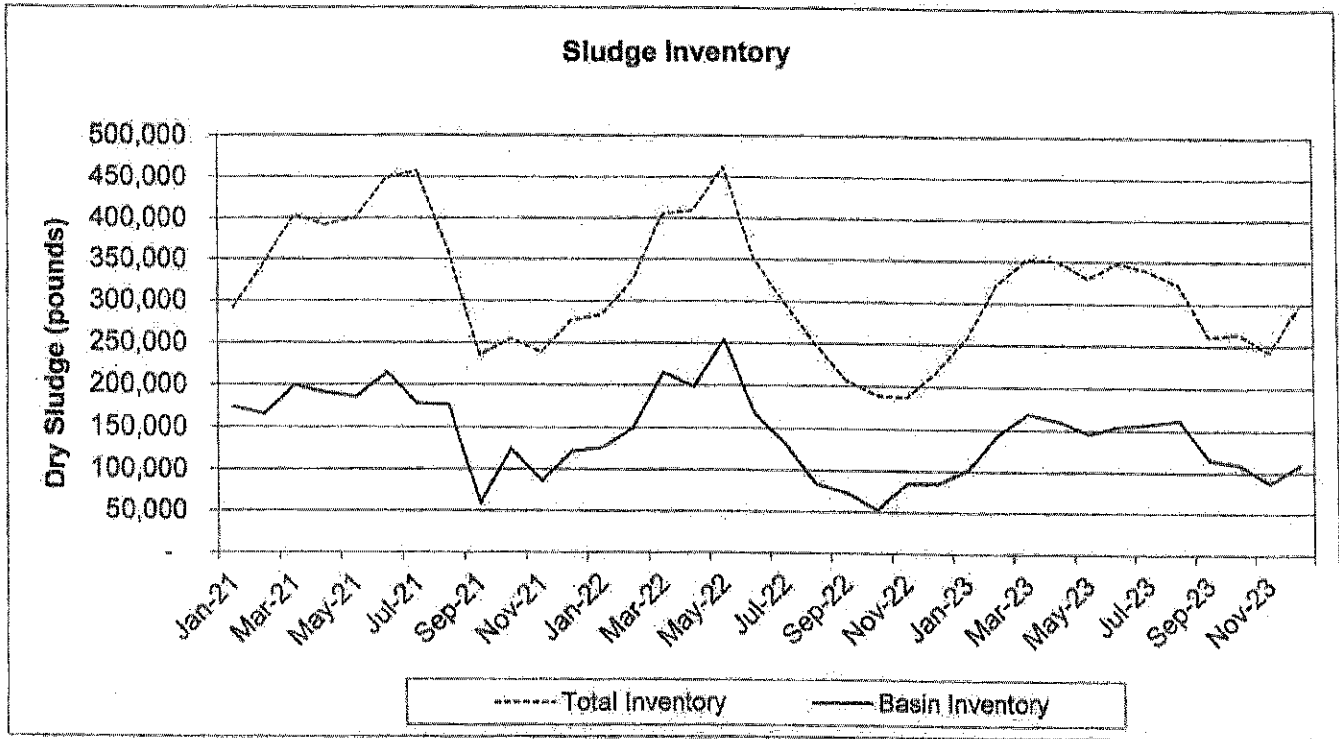
52.7	388,482,000	84%	75,577,000	16%	464,059,000	100%
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<u>2023</u>	<u>RAINFALL</u>	<u>OSAGE BEACH</u>		<u>LAKE OZARK</u>		<u>TOTAL</u>	<u>%</u>
January	2.8	25,972,000	87%	3,812,000	13%	29,784,000	100%
February	3.9	23,448,000	86%	3,820,000	14%	27,268,000	100%
March	6.2	29,920,000	87%	4,559,000	13%	34,479,000	100%
April	1.3	26,903,000	87%	4,085,000	13%	30,988,000	100%
May	2.1	29,783,000	83%	5,950,000	17%	35,733,000	100%
June	0.9	32,155,000	84%	6,040,000	16%	38,195,000	100%
July	7.1	42,263,000	85%	7,678,000	15%	49,941,000	100%
August	8.3	37,375,000	83%	7,664,000	17%	45,039,000	100%
September	2.5	29,574,000	83%	5,917,000	17%	35,491,000	100%
October	3.2	26,468,000	84%	5,067,000	16%	31,535,000	100%
November	1.0	22,375,000	84%	4,282,000	16%	26,657,000	100%
December	3.4	23,026,000	84%	4,445,000	16%	27,471,000	100%

42.7	349,262,000	85%	63,319,000	15%	412,581,000	100%
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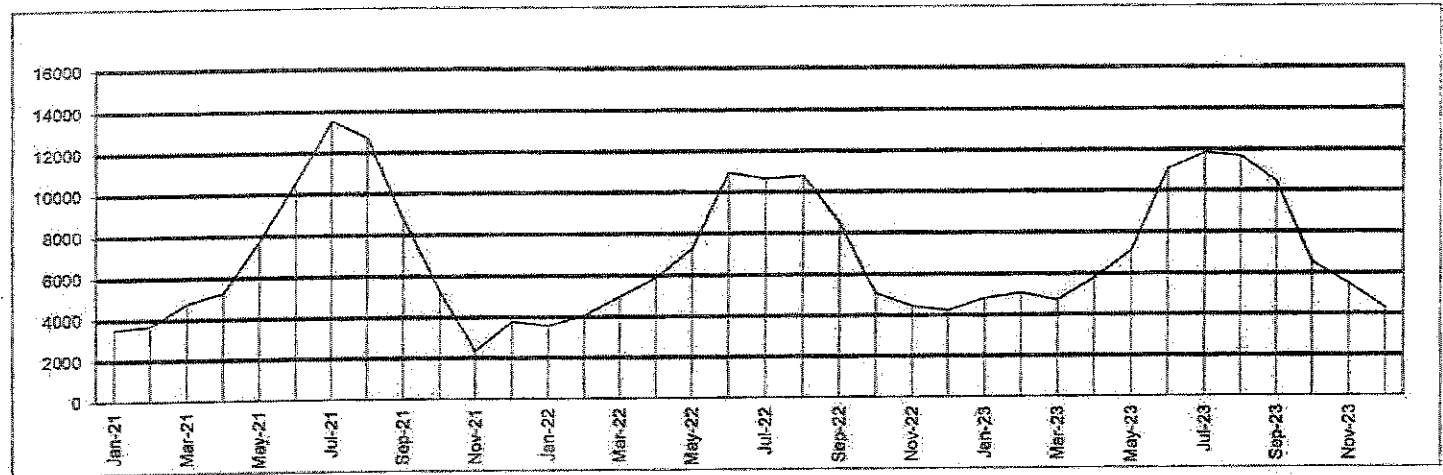
Hauled Sludge					Basin Depths					Blanket Depths					MLSS Inventory					Blanket and MLSS Inventory					MLSS		Total Dry		Accepted Septage	
Loads	Gallons	# Dry	% Solids	Annual Cumulative # Dry	Tank #1	Tank #2	AB #1	Basin Gallons	# Dry	Clar #1	Clar #2	Clar #3	MLSS AB #1	MLSS AB #2	Gallons	# Dry	% Solids	Sludge Inventory		Gallons	# Dry	% Solids	Sludge Inventory			Loads	Gallons			
Jan-21	0	-	0	4.4%	7.0	3.5	0.0	472,500	173,389	6.0	0.0	1.0	5,810	3,780	3,750,000	118,689	0.0038	292,077		3,780	118,689	0.0038	292,077			83	205,500			
Feb-21	0	-	0	4.4%	5.0	5.0	0.0	450,000	185,132	5.0	6.0	0.0	5,490	5,750	3,830,906	179,558	0.00582	344,690		5,750	179,558	0.00582	344,690			28	69,500			
Mar-21	23	85,100	28,883	4.1%	6.0	7.0	0.0	585,000	198,549	2.0	5.0	0.5	8,830	6,330	3,746,046	205,573	0.00658	404,122		6,330	205,573	0.00658	404,122			32	70,000			
Apr-21	39	144,300	45,269	3.8%	6.0	7.5	0.0	607,500	190,582	12.0	5.0	1.0	6,890	5,350	3,945,392	201,375	0.00612	391,957		5,350	201,375	0.00612	391,957			22	52,000			
May-21	0	-	0	3.8%	6.0	7.0	0.0	585,000	185,398	13.0	14.0	1.0	6,200	6,330	4,123,002	215,427	0.00627	400,825		6,330	215,427	0.00627	400,825			48	128,500			
Jun-21	0	-	0	3.8%	7.0	8.0	0.0	675,000	213,921	6.0	7.5	2.0	7,260	8,060	3,926,643	234,903	0.00717	448,824		8,060	234,903	0.00717	448,824			63	151,500			
Jul-21	40	144,000	47,378	3.9%	5.0	7.0	0.0	540,000	177,658	7.0	12.0	3.0	9,190	8,110	4,067,752	279,340	0.00823	457,007		8,110	279,340	0.00823	457,007			117	289,000			
Aug-21	153	550,800	186,363	3.6%	7.0	8.0	0.0	565,000	176,593	1.0	1.0	0.5	6,160	5,840	3,657,238	183,008	0.0060	359,701		5,840	183,008	0.0060	359,701			66	163,000			
Sep-21	92	331,200	87,226	3.2%	2.0	3.0	0.0	225,000	59,257	1.0	1.0	0.5	5,320	6,180	3,657,238	175,383	0.0058	234,640		6,180	175,383	0.0058	234,640			62	159,500			
Oct-21	17	61,200	22,698	4.4%	3.5	4.0	0.0	337,500	125,173	1.0	0.5	0.5	4,430	4,140	3,648,357	130,381	0.0043	255,554		4,140	130,381	0.0043	255,554			34	80,000			
Nov-21	45	165,600	55,621	4.6%	3.0	2.0	0.0	225,000	86,442	0.5	1.0	0.0	5,130	4,980	3,628,843	152,138	0.0050	238,580		4,980	152,138	0.0050	238,580			37	83,000			
Dec-21	16	67,600	24,139	5.0%	4.0	2.5	0.0	292,500	122,581	1.0	1.0	0.0	4,540	5,630	3,635,524	154,178	0.0051	276,759		5,630	154,178	0.0051	276,759			27	62,000			
Jan-22	0	-	0	4.5%	4.5	3.0	0.0	337,500	126,664	1.0	3.5	0.0	5,080	5,180	3,679,929	157,138	0.0051	283,800		5,180	157,138	0.0051	283,800			13	27,000			
Feb-22	0	-	0	4.0%	7.0	3.0	0.0	450,000	150,120	4.0	1.5	0.0	6,280	5,030	3,697,691	174,393	0.0057	324,513		5,030	174,393	0.0057	324,513			32	68,000			
Mar-22	0	-	0	4.4%	6.0	7.0	0.0	585,000	214,572	9.0	10.0	0.0	5,870	5,760	3,937,478	190,484	0.0058	405,185		5,760	190,484	0.0058	405,185			23	48,000			
Apr-22	47	169,200	62,120	4.4%	7.0	5.0	0.0	540,000	198,255	10.0	10.0	1.0	7,100	5,600	3,998,658	211,755	0.0064	410,021		5,600	211,755	0.0064	410,021			52	124,500			
May-22	16	57,600	21,017	4.4%	8.5	7.0	0.0	697,500	254,503	2.0	10.0	1.0	6,290	6,630	3,858,572	207,778	0.0065	462,281		6,630	207,778	0.0065	462,281			37	85,000			
Jun-22	84	302,400	102,052	4.0%	7.0	4.0	0.0	495,000	167,049	4.5	0.5	1.5	5,760	6,010	3,753,952	184,247	0.0059	351,297		6,010	184,247	0.0059	351,297			42	93,500			
Jul-22	80	288,000	98,961	3.7%	7.0	2.5	0.0	427,500	132,051	8.0	3.0	1.5	4,740	5,860	3,860,524	168,295	0.0052	298,348		5,860	168,295	0.0052	298,348			33	68,500			
Aug-22	108	388,800	120,426	3.7%	2.0	4.0	0.0	270,000	83,829	1.5	1.0	0.5	5,490	5,420	3,866,119	168,789	0.0055	250,418		5,420	168,789	0.0055	250,418			168	300,000			
Sep-22	51	183,600	54,073	3.5%	3.5	2.0	0.0	247,500	72,893	1.0	1.0	0.5	4,650	4,160	3,657,238	134,359	0.0044	207,251		4,160	134,359	0.0044	207,251			76	168,000			
Oct-22	42	151,200	44,405	3.5%	1.0	3.0	0.0	180,000	52,863	0.5	0.5	0.5	4,590	4,390	3,639,476	136,286	0.0045	189,149		4,390	136,286	0.0045	189,149			33	71,000			
Nov-22	0	-	0	3.5%	4.0	2.5	0.0	292,500	85,381	1.0	1.0	0.0	4,330	2,340	3,635,524	101,573	0.0034	188,954		2,340	101,573	0.0034	188,954			38	89,500			
Dec-22	8	28,800	7,746	3.2%	4.0	3.0	0.0	315,000	84,722	1.5	1.5	0.0	4,510	4,270	3,653,286	133,756	0.0044	218,478		4,270	133,756	0.0044	218,478			33	71,500			
Jan-23	0	-	0	3.2%	5.0	3.5	0.0	382,500	102,082	1.0	1.0	0.0	4,860	5,380	3,635,524	155,543	0.0051	257,525		5,380	155,543	0.0051	257,525			35	74,500			
Feb-23	0	-	0	3.2%	6.5	5.5	0.0	540,000	144,115	2.0	2.0	0.0	6,080	5,570	3,671,048	177,892	0.0058	321,897		5,570	177,892	0.0058	321,897			38	87,500			
Mar-23	0	-	0	3.2%	7.0	7.0	0.0	630,000	169,134	1.0	2.0	1.0	5,310	6,640	3,696,714	184,213	0.0060	352,347		6,640	184,213	0.0060	352,347			50	115,500			
Apr-23	116	417,000	129,223	3.7%	7.5	4.0	0.0	517,500	160,257	1.0	1.0	1.0	6,200	6,170	3,678,952	189,771	0.0062	350,136		6,170	189,771	0.0062	350,136			82	171,500			
May-23	49	172,800	46,747	3.2%	6.0	6.0	0.0	540,000	146,084	0.5	9.0	0.5	5,120	5,530	3,790,453	184,142	0.0058	330,226		5,530	184,142	0.0058	330,226			49	102,500			
Jun-23	58	208,800	65,362	3.8%	6.0	5.0	0.0	495,000	154,953	1.5	4.0	0.5	6,020	6,440	3,719,405	193,254	0.0062	348,207		6,440	193,254	0.0062	348,207			59	131,500			
Jul-23	51	183,600	58,307	3.8%	6.0	5.0	0.0	495,000	157,200	2.0	3.5	0.5	6,030	5,710	3,719,405	182,086	0.0059	339,287		5,710	182,086	0.0059	339,287			61	120,500			
Aug-23	74	286,400	83,587	3.6%	7.0	4.5	0.0	517,500	162,373	1.0	1.0	0.5	5,600	4,910	3,657,238	160,285	0.0053	322,658		4,910	160,285	0.0053	322,658			27	66,500			
Sep-23	34	122,400	39,271	3.8%	7.5	0.5	0.0	360,000	115,503	1.0	1.0	0.5	4,780	4,750	3,657,238	145,339	0.0048	260,842		4,750	145,339	0.0048	260,842			84	164,000			
Oct-23	9.5	34,200	11,124	3.9%	7.5	0.0	0.0	337,500	109,776	0.5	0.5	0.5	4,530	5,650	3,639,476	154,850	0.0051	264,426		5,650	154,850	0.0051	264,426			40	85,500			
Nov-23	0	-	0	3.9%	3.0	3.0	0.0	270,000	87,820	2.0	2.0	0.5	4,560	5,540	3,692,752	155,374	0.0050	243,194		5,540	155,374	0.0050	243,194			30	59,000			
Dec-23	0	-	0	3.9%	4.5	3.0	0.0	337,500	109,775	1.0	3.0	0.0	5,730	6,450	3,671,048	189,455	0.0061	298,230		6,450	189,455	0.0061	298,230			29	77,000			



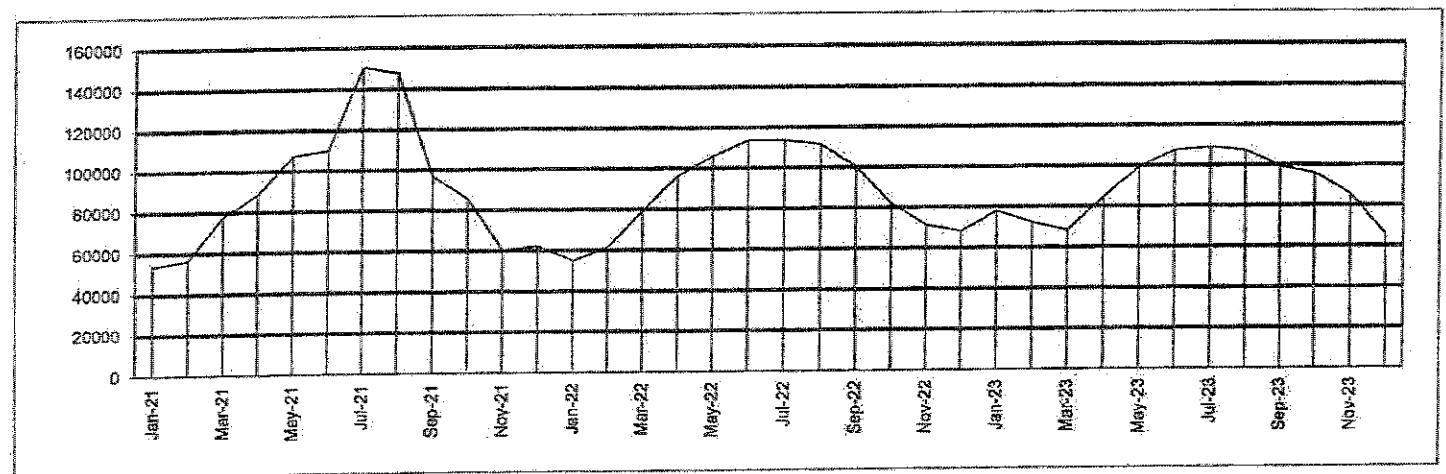
Electric Cost Kilowatts Used

Jan-21	3524	53,730
Feb-21	3696	56,370
Mar-21	4776	77,720
Apr-21	5281	88,390
May-21	7727	107,320
Jun-21	10610	110,130
Jul-21	13533	150,740
Aug-21	12737	147,810
Sep-21	8751	96,600
Oct-21	5233	85,530
Nov-21	2348	60,370
Dec-21	3776	62,100
Jan-22	3547	55,070
Feb-22	4063	61,330
Mar-22	4979	79,050
Apr-22	5907	96,160
May-22	7292	106,100
Jun-22	10958	113,870
Jul-22	10648	113,590
Aug-22	10800	111,690
Sep-22	8498	100,470
Oct-22	5071	82,030
Nov-22	4451	71,240
Dec-22	4224	68,000
Jan-23	4809	77,980
Feb-23	5074	72,420
Mar-23	4730	68,320
Apr-23	5801	84,440
May-23	7128	99,300
Jun-23	11076	107,520
Jul-23	11845	109,070
Aug-23	11697	107,330
Sep-23	10438	99,140
Oct-23	6553	96,000
Nov-23	5474	85,570
Dec-23	4293	65,618

Electric Cost



Kilowatts Used





MISSOURI DEPARTMENT OF NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL QUALITY
 Discharge Monitoring Report For Municipal Wastewater Treatment Plants

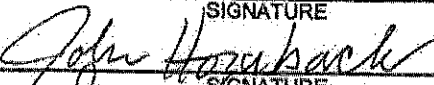
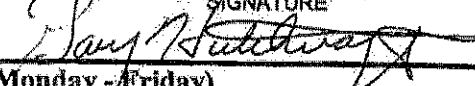
NAME OF FACILITY							LOCATION ADDRESS & CITY							COUNTY/REGION		
Lake of the Ozarks Regional WWTP #1							#3 Anderson Road							Miller/SWRO		
MONTH/YEAR		PERMIT NUMBER					OUTFALL NUMBER		TYPE TREATMENT FACILITY							
Dec-23		MO-0103241					#001		Oxidation Ditch/UV/Sludge Holding-sludge is land applied							
INFLUENT						EFFLUENT								% Removal		
DATE	pH UNITS	BOD mg/L	TSS mg/L	Ammonia as N mg/l	TEMP °C	FLOW MGD	pH UNITS	BOD mg/L	TSS mg/L	Ammonia as N mg/l	DO mg/L	E. coli COLFRM #/100.ML	TEMP °C	BOD mg/L	TSS mg/L	
1	7.4	220	416		15.1	1.448	8.0	2.2	2.6		10.8		12.0	99.0	99.4	
2	7.1				14.0	1.154	7.6				12.2		11.8			
3	6.8				14.2	1.152	7.5				12.4		11.5			
4	6.9				14.2	1.122	7.5				13.1		11.9			
5	6.9				13.2	1.172	7.5				11.4		11.6			
6	7.3			27.9	13.0	1.081	7.4			0.02	11.2		11.0			
7	6.9				15.1	1.027	7.9				11.4		12.1			
8	7.0	185	226		14.5	1.101	7.9	2.2	2.5		10.8		12.5	98.8	98.9	
9	7.5				14.4	1.090	8.0				10.5		12.4			
10	7.4				13.7	0.916	7.6				11.1		11.0			
11	6.8				13.0	0.955	7.6				11.8		12.3			
12	6.9				13.1	0.970	7.5				11.4		9.9			
13	7.1			18.0	12.9	1.040	7.4			0.02	11.4		10.2			
14	6.9				11.8	1.055	7.5				11.7		10.2			
15	6.9	303	448		14.1	1.066	7.5	2.4	2.9		11.9		11.1	99.2	99.4	
16	6.9				14.4	1.111	7.5				11.6		11.8			
17	7.0				13.5	1.131	7.5				11.7		11.6			
18	6.9				12.7	1.046	7.4				11.8		10.9			
19	6.9			16.0	13.0	1.070	7.6			0.02	14.5		9.6			
20	7.0				13.3	0.965	7.5				14.8		10.2			
21	7.0	178	206		13.6	1.057	7.5	2.6	1.6		14.7		10.2	98.5	99.2	
22	7.0				14.7	1.127	7.6				11.8		12.0			
23	6.9				14.5	1.185	8.0				10.5		12.8			
24	7.1				14.7	1.079	8.0				10.1		13.9			
25	7.0				13.8	1.100	7.7				10.4		13.3			
26	6.9			10.0	13.4	1.012	8.0			0.03	10.9		12.2			
27	6.9				13.2	1.113	7.5				11.2		11.1			
28	7.1	215	244		13.4	1.191	7.7	2.8	1.7		11.8		10.7	98.7	99.3	
29	6.8				12.3	1.173	7.4				12.6		10.0			
30	6.8				12.3	1.331	7.5				12.4		9.8			
31	7.2				12.3	1.307	7.7				12.9		9.9			
Total						34.347										
Avg		220	308	18.0	13.6	1.108		2.4	2.3	0.0	11.8	0.0	11.3	98.9	99.2	
Min	6.8	178	206	10.0	11.8	0.916	7.4	2.2	1.6	0.0	10.1	0.0	9.6	98.5	98.9	
Max	7.5	303	448	27.9	15.1	1.448	8.0	2.8	2.9	0.0	14.8	0.0	13.9	99.2	99.4	

MONTHLY EFF MONITORING				QUARTERLY EFF MONITORING				MONTHLY INF MONITORING		
DATE	Phosphorus mg/L	TKN mg/L	Nitrite+Nitrate mg/L	Oil & Grease mg/L	TR. Cadmium mg/L	Selenium mg/L	Hardness mg/L	Phosphorus mg/L	TKN mg/L	Nitrite+Nitrate mg/L
1										
2										
3										
4										
5										
6	3.61	0.201	8.05					5.86	41.8	< 0.030
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
Total	3.61	0.201	8.05					5.9	41.8	< 0.030
Avg	3.61	0.201	8.05					5.9	41.8	< 0.030
Min	3.61	0.201	8.05					5.9	41.8	< 0.030
Max	3.61	0.201	8.05					5.9	41.8	< 0.030

OPERATIONAL CONTROLS/LABORATORY TEST REQUIRED FOR "ACTIVATED SLUDGE" PROCESSES

DATE Dec-23	SLUDGE DISP. LBS. DRY WEIGHT	#1 Aeration Basin, O-Ditch, Etc.				#2 Aeration Basin, O-Ditch, Etc.				*Weather Conditions		
		MIXED LIQUOR				MIXED LIQUOR				* Ambient Temp ° F	*RAIN Inches	Time
		* DO mg/l	** MLSS mg/l	*Settleability		* DO mg/l	** MLSS mg/l	*Settleability				
				*30 min ml	Temp ° C			*30 min ml	Temp ° C			
1		3.5	5,260	810	13.2	3.5	5,830	850	13.2	50	0.90	7:30
2		7.1	5,030	760	12.1	6.8	5,650	860	12.1	44	0	7:30
3		7.2	5,220	800	12.0	7.5	5,670	870	11.9	40	0.25	7:30
4		7.1	5,400	800	12.0	3.2	5,850	850	12.6	44	0.10	7:30
5		5.8	5,580	750	12.1	3.9	5,670	850	12.2	44	0	7:30
6		4.8	5,350	810	11.2	3.8	5,750	820	11.7	35	0	7:30
7		4.1	5,810	760	12.9	2.9	5,400	820	12.6	50	0	7:30
8		3.4	5,180	780	13.0	2.8	5,810	850	13.3	49	0	7:30
9		4.6	4,850	650	12.9	3.4	5,780	860	13.1	47	0	7:30
10		5.6	5,230	760	11.7	5.9	6,130	840	11.7	30	0	7:30
11		5.2	5,200	780	11.7	5.3	5,760	850	12.1	32	0	7:30
12		4.2	5,330	820	10.7	4.4	5,400	840	10.9	32	0	7:30
13		4.2	6,500	880	10.3	4.4	5,060	790	11.0	36	0	7:30
14		3.0	6,340	840	10.6	4.9	5,720	800	11.6	34	0	7:30
15		2.8	5,640	820	11.6	3.6	6,190	860	12.1	45	0	7:30
16		3.4	6,060	810	12.2	2.7	6,490	870	12.6	52	0.25	7:30
17		3.1	6,230	810	11.8	2.7	5,860	830	12.2	44	0	7:30
18		1.8	6,130	830	11.3	2.4	6,260	840	11.9	36	0	7:30
19		3.5	6,020	850	10.2	3.0	6,270	860	10.5	27	0	7:30
20		4.1	5,790	810	10.9	3.7	5,810	840	11.1	43	0	7:30
21		2.6	6,110	820	11.6	2.4	5,610	770	12.0	50	0	7:30
22		1.4	6,320	800	12.5	2.0	5,570	780	12.6	53	0.70	7:30
23		1.8	6,180	840	13.5	2.0	5,710	760	13.3	54	0.10	7:30
24		1.8	6,340	800	14.0	2.2	5,590	780	14.0	58	0	7:30
25		1.4	6,680	830	13.8	2.5	5,310	750	13.9	54	0.50	7:30
26		1.5	6,350	850	12.0	2.6	5,670	760	11.8	37	0	7:30
27		1.5	6,200	810	11.9	3.0	5,660	800	11.9	40	0	7:30
28		1.7	5,980	800	11.6	2.6	5,820	820	11.3	41	0.25	7:30
29		1.6	5,920	820	10.5	1.7	6,100	870	10.8	37	0.3	7:30
30		2.6	5,610	820	10.3	3.2	6,090	840	10.9	32	0	7:30
31		3.2	5,730	770	10.2	2.7	6,450	880	10.6	37	0	7:30

COMMENTS:

TESTS PERFORMED BY (PRINT)	SIGNATURE	PHONE #	DATE
John Hornback		(573)365-0455	1/8/2024
REPORT APPROVED BY (PRINT)	SIGNATURE	PHONE #	DATE
Gary Hutchcraft		(573)365-0455	1/8/2024

*Required Daily (Monday - Friday)

**Required 1/week

Lake of the Ozarks Regional
WWTP 1
#3 Anderson Road
LAKE OZARK, MO, Miller

State of Missouri
Department of Natural Resources
National Pollutant Discharge Elimination System (NPDES)
Discharge Monitoring Report (DMR)

Central Field Operations
P O Box 176
Jefferson City, MO, 65102

Permit Number	Outfall Number
MO0103241	001M
Monitoring Period	
12/1/23	12/31/23
NODI:	*****

Parameters	Reporting Requirements			Unit	Reporting Requirements		Unit
Flow, in conduit or thru treatment plant	*****	*****	*****	*****	1.448	1.108	Mgal/d
Mon. Location.: End of Pipe	*****;*****	*****;*****	*****;*****		Daily Max.:Monitoring Required	Monthly Avg.:Monitoring Required	
Sample Type: Total Measured							
Frequency: Daily							
BOD, 5-day, 20 deg. C	*****	2.8	2.4	mg/L	*****	*****	*****
Mon. Location.: End of Pipe	*****;*****	Weekly Avg.:45	Monthly Avg.:30		*****;*****	*****;*****	
Sample Type: 24 Hour Composite							
Frequency: Weekly							
Total Suspended Solids (TSS)	*****	2.9	2.3	mg/L	*****	*****	*****
Mon. Location.: End of Pipe	*****;*****	Weekly Avg.:45	Monthly Avg.:30		*****;*****	*****;*****	
Sample Type: 24 Hour Composite							
Frequency: Weekly							
Phosphorus, total (as P)	3.61	*****	3.61	mg/L	*****	*****	*****
Mon. Location.: End of Pipe	Daily Max.:Monitoring Required	*****;*****	Monthly Avg.:Monitoring Required		*****;*****	*****;*****	
Sample Type: 24 Hour Composite							
Frequency: Monthly							
Nitrogen, Kjeldahl, total (as N)	0.201	*****	0.201	mg/L	*****	*****	*****
Mon. Location.: End of Pipe	Daily Max.:Monitoring Required	*****;*****	Monthly Avg.:Monitoring Required		*****;*****	*****;*****	
Sample Type: 24 Hour Composite							
Frequency: Monthly							
Nitrite plus nitrate total (as N)	8.05	*****	8.05	mg/L	*****	*****	*****
Mon. Location.: End of Pipe	Daily Max.:Monitoring Required	*****;*****	Monthly Avg.:Monitoring Required		*****;*****	*****;*****	
Sample Type: 24 Hour Composite							
Frequency: Monthly							
Nitrogen, ammonia total (as N)	0.03	*****	0.02	mg/L	*****	*****	*****
Mon. Location.: End of Pipe	Daily Max.:12.1	*****;*****	Monthly Avg.:3.1		*****;*****	*****;*****	
Sample Type: 24 Hour Composite							
Frequency: Weekly							

State of Missouri
Department of Natural Resources
National Pollutant Discharge Elimination System (NPDES)
Discharge Monitoring Report (DMR)

pH	7.4	*****	8.0	SU	*****	*****	*****
Mon. Location.: End of Pipe	Minimum:6.0	*****	Maximum:9.0		*****	*****	
Sample Type: Grab							
Frequency: Weekly							
BOD, 5-day, percent removal	*****	*****	98.5	%	*****	*****	*****
Mon. Location.: End of Pipe	*****	*****	Monthly Avg. Min.:85		*****	*****	
Sample Type: Calculated							
Frequency: Monthly							
Suspended Solids, percent removal	*****	*****	98.9	%	*****	*****	*****
Mon. Location.: End of Pipe	*****	*****	Monthly Avg. Min.:85		*****	*****	
Sample Type: Calculated							
Frequency: Monthly							
Comments:							

Lake of the Ozarks Regional
WWTP 1
#3 Anderson Road
LAKE OZARK, MO, Miller

State of Missouri
Department of Natural Resources
National Pollutant Discharge Elimination System (NPDES)
Discharge Monitoring Report (DMR)

Central Field Operations
P O Box 176
Jefferson City, MO, 65102

Permit Number	Outfall Number
MO0103241	INFIM
Monitoring Period	
12/1/23	12/31/23
NODI:	*****

Parameters	Reporting Requirements			Unit	Reporting Requirements		Unit
BOD, 5-day, 20 deg. C	*****	*****	220	mg/L	*****	*****	*****
Mon. Location.: Influent	*****;*****	*****;*****	Monthly Avg.:Monitoring Required		*****;*****	*****;*****	
Sample Type: 24 Hour Composite Frequency: Monthly							
Total Suspended Solids (TSS)	*****	*****	308	mg/L	*****	*****	*****
Mon. Location.: Influent	*****;*****	*****;*****	Monthly Avg.:Monitoring Required		*****;*****	*****;*****	
Sample Type: 24 Hour Composite Frequency: Monthly							
Nitrogen, ammonia total (as N)	27.9	*****	18.0	mg/L	*****	*****	*****
Mon. Location.: Influent	Daily Max.:Monitoring Required	*****;*****	Monthly Avg.:Monitoring Required		*****;*****	*****;*****	
Sample Type: 24 Hour Composite Frequency: Monthly							
Phosphorus, total (as P)	5.86	*****	5.86	mg/L	*****	*****	*****
Mon. Location.: Influent	Daily Max.:Monitoring Required	*****;*****	Monthly Avg.:Monitoring Required		*****;*****	*****;*****	
Sample Type: 24 Hour Composite Frequency: Monthly							
Nitrogen, Kjeldahl, total (as N)	41.8	*****	41.8	mg/L	*****	*****	*****
Mon. Location.: Influent	Daily Max.:Monitoring Required	*****;*****	Monthly Avg.:Monitoring Required		*****;*****	*****;*****	
Sample Type: 24 Hour Composite Frequency: Monthly							
Nitrite plus nitrate total (as N)	<0.030	*****	<0.030	mg/L	*****	*****	*****
Mon. Location.: Influent	Daily Max.:Monitoring Required	*****;*****	Monthly Avg.:Monitoring Required		*****;*****	*****;*****	
Sample Type: 24 Hour Composite Frequency: Monthly							

Comments:

Lake of the Ozarks Regional
WWTP 1
#3 Anderson Road
LAKE OZARK, MO, Miller

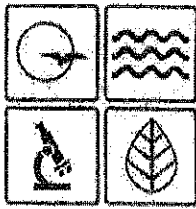
State of Missouri
Department of Natural Resources
National Pollutant Discharge Elimination System (NPDES)
Discharge Monitoring Report (DMR)

Central Field Operations
P O Box 176
Jefferson City, MO, 65102

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I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

eSignature Gary Hutchcraft	Submission Date January 8, 2024	User Phone Number (573)365-0455
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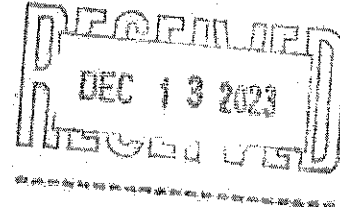
MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

Michael L. Parson
Governor

Dru Buntin
Director

December 6, 2023

CITY OF LAKE OZARK AND OSAGE BEACH
P.O. BOX 370
LAKE OZARK, MO 65049



RE: Updates to 10 CSR 20-7.015 Effluent Regulations
LAKE OF THE OZARKS REGIONAL WWTP 1 - MO0103241

Dear Permittee:

Your wastewater treatment facility has been identified as a facility that may be impacted by recent revisions to 10 CSR 20-7.015 Effluent Regulations which became effective October 30, 2023. This rule applies to all domestic point sources with a design flow greater than or equal to 1 million gallons per day (MGD) and all industrial facilities categorized as major that typically discharge phosphorus in their industrial wastewater, except for facilities subject to provisions in 10 CSR 20-7.015(3)(E), (3)(F), (9)(A)4., and (9)(A)5., or where more stringent phosphorus limits have been established. Target reduction levels are as follows:

1. Total phosphorus target level of 1.0 milligrams per liter (mg/L), as an annual average;
2. Total phosphorus annual mass loading target level equal to 1.0 mg/L based on design flow;
3. An overall reduction of total phosphorus from influent to effluent by 75 percent; or
4. An overall reduction of annual load of total phosphorus discharged by 75 percent.

In the absence of a department approved alternative implementation date, total phosphorus target reduction levels must be implemented no later than:

1. January 1, 2029, for domestic point sources with facility design flows greater than 15 MGD.
2. January 1, 2033, for domestic point sources with facility design flows greater than or equal to 1 MGD but less than 15 MGD.
3. January 1, 2034, for industrial facilities.

The Water Protection Program thanks its stakeholders for the robust discussion and feedback provided during the development of this rule. If you have questions or would like to discuss, please contact Ashley Grupe, of my team, by email at Ashley.Grupe@dnr.mo.gov or by phone at 573-751-1419.

Sincerely,

WATER PROTECTION PROGRAM

John Hoke
Director

JH:agt

AGREEMENT FOR CONTRACT OPERATIONS
OF THE
LAKE OZARK AND OSAGE BEACH WASTEWATER TREATMENT FACILITIES

This AGREEMENT, made and entered into this 1st day of February, 2024 by and between:

The City of Lake Ozark and the City of Osage Beach, fourth-class cities in the Counties of Miller and Camden, State of Missouri, (hereinafter "Cities"), acting through their Joint Sewer Board, (hereinafter "Board") and Alliance Water Resources, Inc., (hereinafter "Alliance") a Missouri corporation with its principal place of business at 206 South Keene St., Columbia, Missouri, agree to the following:

WHEREAS: The Cities own wastewater treatment facilities, (hereinafter "Facilities"); and

WHEREAS: The Board desires to contract with Alliance to provide operation, maintenance and management services for the Facilities, all as more specifically set forth herein below; and

WHEREAS: Alliance desires to provide the services to the Board, subject to the terms and conditions contained herein below; and

WHEREAS: The Board has the authority under the laws of the State of Missouri to enter into a service contract for the operations and maintenance of said Facilities;

NOW THEREFORE, in consideration of the mutual agreements herein contained, and subject to the terms and conditions herein stated, parties hereto agree as follows:

I. PURPOSE

The Board agrees to engage Alliance as an independent contractor to operate and maintain the Facilities during the term of this Agreement.

II. SCOPE OF SERVICES

Performance: Alliance will perform all services necessary for the proper and satisfactory operation and maintenance of the Facilities in full compliance with all legal requirements. Alliance will use accepted operating and maintenance procedures and standard applicable engineering principles during the term of this Agreement. Alliance will keep the Board apprised of changes and proposed changes in Federal, State, and Local laws, rules, and regulations and inform the Board of needed changes to ensure compliance.

Wastewater Treatment Plant: Alliance shall operate, maintain, and manage the Facilities so that the water discharge meets or exceeds the wastewater quality requirements established by all

appropriate federal, state, and local regulatory entities depending only upon the conditions set forth in the Effluent Quality paragraph.

Project Management and Staffing: Alliance shall regularly staff the Facilities with three employees experienced and qualified in management, administrative and technical areas of wastewater treatment, process control and wastewater laboratory analysis. Alliance will provide a certified operator on site with a minimum Missouri Class "A" certification in wastewater. In the event the "A" operator position needs to be replaced, Alliance will provide a satisfactorily licensed operator to satisfy MDNR requirements. Said person shall be on-site a minimum of forty (40) hours per week, during regular business hours, throughout the life of this Agreement, except for excused absence, including training, sick leave, vacation, or other leave periods. Facilities operations staff provided shall have or be working toward the required operator licenses. The Board reserves the right to require the removal by Alliance of any employee the Board believes necessary to protect the interests of the Board. However, such removal shall not violate applicable State and Federal laws or regulations.

Project Support: Alliance shall provide on-call backup expertise in process control and management and maintenance applications to ensure compliance with this Agreement. This on-call support will have a 30-minute response time target, not to exceed 60 minutes. This support shall not constitute a claim for additional compensation for Alliance.

Maintenance Management: Alliance shall institute a comprehensive preventive maintenance program for all equipment and property assigned to Alliance by the Board through this Agreement. Records maintained by Alliance for the Facilities shall include a history of maintenance for each item of equipment, spare parts inventory, and schedule of programmed maintenance.

Information Systems: Alliance will install and update as needed computer software proven to be effective in management of scheduled and preventive maintenance, process control, energy management, and industrial waste monitoring. Alliance will be trained in the use of these computer systems and processes. All records will be available for review by a designated board representative.

Effluent Quality: Alliance shall operate and maintain the Facilities in such manner that the effluent quality is always maintained at a level equal to, or better than, the requirements established by the U.S. Environmental Protection Agency (USEPA), and the Missouri Department of Natural Resources (MoDNR). Alliance will guarantee effluent quality up to design flows and loadings. (See Appendix A.) Subject to terms and conditions on Appendix A.

Fines, Penalties, and Assessments: Alliance shall be responsible and liable for, and shall indemnify and hold harmless the Board against, penalties or fines without dollar limit which may be imposed by the USEPA, MoDNR, or any other regulatory agency having jurisdiction for any effluent quality violations which result due to problems associated with lack of adequate process control or improper operations of the Facilities resulting from Alliance negligence. Additionally,

Alliance shall pay a penalty to the Board equal to two percent (2%) of the total annual contract amount for each month the Facilities fail to meet the requirements of the NPDES permit. Alliance shall not be liable and shall have no duty to indemnify or hold harmless the Board if it can justify by appropriate documentation and evidence that the effluent quality violations occurred as a result of the causes cited in Appendix A.

Alliance shall also be responsible for fines or penalties without any dollar limit imposed by USEPA, MoDNR, or any other regulatory agency having jurisdiction, for failure to comply with the term and conditions of any duly authorized permit, court order, administrative order, law statute, ordinance, etc., for reasons resulting from Alliance's negligence during the period of this Agreement.

Corrective Action: In the event that the effluent quality is not in compliance with the effluent requirements of the NPDES permit, Alliance will submit a report to the Board outlining the proposed corrective action and a schedule thereof. ""

Should the NPDES permit requirements change during the Agreement period, Alliance shall meet the new requirements, provided the existing equipment and/or process is capable of meeting the new requirements. In the event Alliance questions the ability of the existing equipment and/or process to meet the new requirements, the Board will have a qualified engineering firm certify whether or not the Facilities have adequate capability.

Sludge Management and Sludge Disposal: Alliance shall be responsible for handling and disposing of treatment sludge in a manner consistent with existing USEPA and MoDNR - regulations.

Septic Sludge Disposal: Alliance shall allow licensed (Board approved) septic tank hauling contractors to dump septic sludge into the Facilities at the designated area provided all of the following are true: Such wastes are free from organic or inorganic toxic substances (either biologically toxic, or otherwise), which cannot be treated, removed, and reduced to a non-toxic state at the Facilities; such waste do not contain any substances, the discharge of which into the receiving stream would violate any Federal, Interstate, State, or Board rules, requirements, standards, or regulations; and amounts of BOD and suspended solids contained in such waste do not exceed the design loading of the Facilities. All fees applicable to the septic sludge dumping shall be billed and collected by Alliance and transferred to the Board. All septic sludge hauling contractors requesting approval for dumping sludge at the Facilities shall be subject to approval by the Board. Alliance has the right to refuse any septic materials which do not meet Board criteria. A schedule of Septic Sludge Dumping shall be presented to the Board as part of the Annual Budget Process.

Handling and Disposal of Contaminated Sludge: If the influent contains abnormal or biologically toxic substances, the sludge from such influent shall be deemed contaminated. Alliance shall make every effort to isolate such contaminated sludge consistent with current USEPA and MoDNR guidelines. The Board shall reimburse Alliance for overtime and costs directly related to the disposal of the contaminated sludge plus a 10% administrative fee.

If any sludge from the Facilities is classified as hazardous waste as defined by USEPA in the federal regulation, 40 CFR 251 subpart C, which means that the regulatory agencies require the sludge to be transported to a designated hazardous waste landfill, Alliance shall notify the Board and request permission to transport the sludge to a designated landfill. The Board shall reimburse Alliance for the cost of overtime, transport, landfill fees, and any other out-of-pocket costs associated with the handling and disposal of the sludge.

Testing: Alliance shall sample and perform the appropriate influent, effluent, stream, and sludge testing as outlined in the Board's wastewater and land application permits. Should the scope or frequency of testing change due to the requirements of these permits, or to any regulatory or administrative action, Alliance's compensation shall be adjusted upward or downward to reflect the change in its costs.

Laboratory Analysis: Alliance shall perform the necessary testing and laboratory analysis as required by the Board's current wastewater and land application permits as well as for process control. Alliance shall prepare all state permit monitoring and operation reports and submit them to MoDNR with copies to the Board.

Reporting: Alliance shall submit to the Board 6 days prior to regular scheduled Board Meeting, a report showing the results of all testing done on the Facilities, a description of all maintenance activities, and a copy of the operator's log for the previous month. The report shall include all data required by the NPDES permit. Alliance shall include a report of all required daily, weekly, and monthly maintenance, and specify whether or not all maintenance was or was not performed. If maintenance was not performed as required, an explanation must be provided in writing to the Board.

Reports shall include, but not be limited to, the following:

- A report showing all discharge tests and stating whether or not those parameters are being met.
- A monthly flow report showing daily and monthly flows for both cities separately.
- A monthly sludge report showing any test results and areas where sludge has been released, and whether or not the owner of the area has signed a release allowing sludge to be distributed.
- Annual cost of operation report.

Records of Operation: Alliance shall maintain necessary and sufficient records of operation and maintenance activities to meet local, state, and federal requirements under the NPDES and land application permits. These records will be the property of the Board. Alliance will maintain these records at the designated office site, available for use by the authorized personnel. Alliance will be responsible for representing the Board with regards to daily operation and maintenance matters and other matters as deemed appropriate by the Board to the relevant regulatory agencies and the Board will be informed of all meetings, hearings, and pertinent information and will be entitled to participate in any of the above.

Safety: Alliance shall administer a site-specific safety program to include training record keeping, and safety meetings, all in conformance with the Board safety program, OSHA regulations, and any requirements of the State of Missouri, or any other Federal Agency with jurisdiction.

Training: Alliance shall implement an ongoing training program with classroom and hands-on training for all personnel. Training will include, but not be limited to safety, facilities operation, vehicle operations, laboratory operations, and maintenance.

Alliance's Insurance Requirements: Alliance shall maintain the following insurance during the term of the Agreement:

Contractor will provide applicable insurance requirements as follows:

Workmen's Compensation -Statutory	100,000/occurrence
Comprehensive General Liability (Bodily)	1,000,000/occurrence
Comprehensive General Liability (Property)	1,000,000/occurrence
Comprehensive Auto Liability (Bodily)	1,000,000/occurrence
Comprehensive Auto Liability (Property)	1,000,000/occurrence

The above policies will contain a Waiver of Subrogation in favor of the Board

Alliance shall furnish the Board with a Certificate of such insurance, and each policy shall require a 30-day notice of cancellation or material change to be given to the Board while this Agreement is in effect. These policies will be in effect at the time Alliance and the Board execute this Agreement.

Odor: Alliance shall operate the Facilities and program to minimize the generation of odors through an ongoing odor control program and deal in a concerned, professional manner with any individuals or community groups concerned with odors.

Capital Budget Submission: Alliance shall be knowledgeable about the Board's capital expenditure program for the Facilities. During the budget process Alliance shall submit a recommendation of capital improvements Alliance believes necessary to upgrade the Facilities covered under this Agreement, however, implementation of these recommendations by the Board is not a condition of Alliance's performance under this Agreement. Annually thereafter, prior to a date selected by the Board, Alliance shall submit its recommendations regarding additions to or deletions from the Board's scheduled program. Alliance will submit a detailed rationale for any changes or additions, and preliminary cost estimates. Review and approval of these capital expenditures shall remain the authority of the Board.

Inventory: By February 28th of each year during this contract, Alliance shall submit an inventory of the equipment, tools, materials, consumables and expendable supplies, and spare parts at the Facility. At the termination of this Agreement, Alliance shall pay the Board in the event that the inventory of these items is less at the time of termination than the initial inventory. Alliance agrees to maintain an adequate spare part inventory for proper maintenance and repair of the Facilities.

Any purchase of equipment, tools, materials, supplies, spare parts, or capital improvements shall upon the purchase thereof become the sole and absolute property of the Board subject to only the

terms of this Agreement. At the termination of the Agreement, all said items shall be turned over to the Board. Only purchases of items by Alliance which are outside the scope of this Agreement and are not directly or indirectly reimbursed by the Board, shall be titled in and remain the property of Alliance.

Emergency Response Plan: Alliance will develop, maintain, and implement, if necessary, an emergency response plan for the Facilities acceptable to State and Federal regulators. Alliance will submit its proposed plan to the Board for its approval annually by March 1st.

III. RESPONSIBILITIES OF THE BOARD

In addition to its other obligations under this Agreement, the Board shall provide for Alliance's use, all equipment, structures, and vehicles under its ownership presently assigned to the Facilities (Appendix B) which will be updated by Alliance by February 28th each year and made a part of this contract. The Board will be responsible for the cost of replacing these items, presently assigned to the Facilities as listed in Appendix B.

The Board shall maintain all existing licenses, permits, and agreements which have been granted to the Board as owner of the Facilities, and shall procure all other necessary to operate and maintain the Facilities covered by this Agreement.

Capital Expenditures: The Board shall make capital expenditures at the Facilities as deemed necessary by the Board or as otherwise required. Alliance will cooperate with the Board to determine the necessity and cost of capital expenditures.

Board Insurance: The Board will maintain the following insurance during the term of this Agreement:

Property Insurance (all risks):

All Facilities, Contents Equipment & Computers	Replacement Value
---	-------------------

Commercial General Liability:

Bodily Injury and Property Damage	\$1,000,000 Occurrence
	\$1,000,000 Aggregate
Personal Injury Liability	\$1,000,000

The above policies will contain a Waiver of Subrogation in Favor of Alliance.

Commercial Automobile Liability:

Automobile Liability	\$1,000,000 Occurrence
Comprehensive and Collision Coverages	All Vehicles used by Alliance

The policy will contain a Waiver of Subrogation in Favor of Alliance. Alliance shall be an additional named insured on all automobile policies.

Umbrella:

Bodily Injury and Property Damage	\$1,000,000 per accident
	\$1,000,000 Aggregate

IV. COMPENSATION

Expenses: Alliance shall pay all expenses required for the normal operation and maintenance of the Facilities, including, but not limited to, personnel costs, fuels, chemicals, services, spare parts, material and expendable supplies.

Examples of items not paid for by Alliance include, but are not limited to, the following:

- Change in scope of services.
- Maintenance and Repair Expenditures as defined hereinafter.
- Capital Expenditures
- Any damage which results from an Act of God, the Board, or any third party.
- Utilities (electric, propane, solid waste, and land line telephone)

Base Compensation: Starting February 1, 2024, the Board shall pay Alliance, as compensation for the services to be performed as described in this Agreement, the sum of \$30,321.00 per month with adjustments as specified hereinafter. Monthly payments are due each month for which services will be rendered, upon presentation of invoices by Alliance. Late payments shall accrue interest at then current prime rate plus one percent per annum on the unpaid balance.

Annual CPI Fee Adjustment: The Base Compensation amount shall be adjusted effective January 1, 2025. The adjustment will be based upon the percentage change in the CPI-All Urban Consumers, Midwest- Size Class D, not seasonally adjusted (Series ID: CUURD200SAO) for the period of October 1 through September 30 preceding each adjustment date unless otherwise agreed in writing by the parties. Total Annual Compensation adjustments will be cumulative.

The following is an example of the CPI calculation based on a start date of March 1, 1999.

1. For the months of December, 1998 and December, 1999 the CPI figures are as follows:

CPI	<u>December, 1998</u>	<u>December, 1999</u>
	100	105

2. The monthly compensation is \$10,000 and is adjusted by the following calculations:

$$(105-100) / 100 = 0.05$$
$$\$10,000 \times 1.05 = \$10,500$$

The new monthly compensation starting in January, 2000 is \$10,500.

3. For the months of December, 1999 and December, 2000, the CPI figures are as follows:

CPI	<u>December, 1999</u>	<u>December, 2000</u>
	105	110

4. The monthly compensation as of January, 2000 is \$10,500 and is adjusted by the following calculations:

$$(110-105) / 105 = 0.048$$
$$\$10,500 \times 1.048 = \$11,004$$

The new monthly compensation starting in January, 2001 is \$11,004.

The above calculation is an example only and does not predict the actual monthly compensation for future years of this Agreement.

Annual Maintenance and Repair Cost: The Board will pay 100% of all maintenance and repair items. Purchasing, bidding and approval of items will follow the Joint Sewer Board Policy and Procedures for Purchasing adopted July 2023.

V. MISCELLANEOUS

Term: Services under this Agreement shall commence on February 1, 2024 and end on December 31, 2025, unless the Agreement is terminated as hereinafter provided, however, since the Board cannot obligate more than one (1) year's budget at a time, this Agreement is terminable each December 31 date (with 150 days written notice) during this term and must be renegotiated annually with written documentation given Alliance by the Board no later than July 31, of each year during this contract. The parties' prior agreement dated December 12, 2018 (expiring December 31, 2024) shall be replaced with this contract.

Termination: Either party to this Agreement may terminate this Agreement upon material breach by the other party providing such terminating party first provides written notice of such breach to the other party and assuming that such breach is not corrected within 90 days. Additionally, should Alliance be in default of this Agreement by not using due diligence in operating the Facilities and failing to properly execute all parts of this Agreement, the Board reserves the right to immediately terminate this Agreement upon receipt of Alliance written notice delivered by certified mail to Alliance's home office.

Bidding: Board intends to put out for bid the services contemplated by this contract for a new contract to begin January 1, 2026. Alliance will be invited to bid for such services. Board intends to award said contract no later than July 1, 2025; however, Board reserves the right to conduct the bidding process on whatever terms and conditions it deems appropriate.

Representative:

With the execution of this Agreement, Board and Alliance shall designate with respect to the services to be performed or furnished by Alliance and responsibilities of Board under this Agreement. Such individuals shall have authority to transmit instructions, receive information, and render decisions relative to the contract on behalf of each respective party. Designated Representatives may designate a representative in their place in cases of absence.

Designated Representatives for Board

Title: Public Works Director City of Osage Beach
Phone Number: (573) 302-2020
Address: 5757 Chapel Drive Osage Beach, MO, 65065

Title: Public Works Director City of Lake Ozark
Phone Number: (573) 365-5378 ext 20
Address: 3162 Bagnell Dam Blvd, Lake Ozark, 65049

Designated Representatives for Alliance President

Phone Number: (573) 874-8080
Address: 206 South Keene Street, Columbia, MO 65201

Warranties and Guarantees: Alliance shall assist the Board with enforcement of existing equipment, warranties, and guarantees, and maintain all warranties on any new equipment purchased after the Agreement is executed. The Board shall cooperate with Alliance on any existing guarantees and warranties for the mutual benefit of the Board and Alliance.

Noncollusion: Alliance certifies, under the penalties for perjury, by the signature of the duly authorized corporate representative below, that it has neither given nor received anything of value other than the consideration set forth herein, to secure this Agreement with the Cities of Lake Ozark and Osage Beach. It further certifies that Alliance has not promised anything of value to any agent, employee, or officer of the Board nor colluded with them to obtain this Agreement.

Scheduled Meetings: Alliance shall meet with the designated Board representative at the Board's convenience, at the Board's scheduled meetings unless otherwise requested or authorized. The purpose of these meetings will be to discuss the operations at the Facilities with special emphasis placed on items which are to be funded by the Board's maintenance and repair budget or capital expense budget. Alliance's Manager will be required to attend all monthly committee meetings, monthly council meetings, and any other meetings as requested by the designated Board representative.

Existing Laws: Alliance shall comply with all applicable local, state, and federal laws, and regulation as they pertain to the Facilities.

Changes: In the event that any changes in the scope of the operation of the Facilities shall occur including, but not limited to, changes in governmental regulation or reporting requirements effluent standards, sludge disposal restrictions, or changes in scope of services in Article II of this Agreement, which increase or decrease the cost of operating the Facilities, the parties agree to revise the compensation, retroactive to the date of the change and negotiated by the parties within 90 days.

Hold Harmless: Alliance agrees to and shall hold the Board, its elected and appointed officers, and its employees harmless from any liabilities for claims or damages, including attorneys' fees, for person injury or property damage which is caused by or arises from the negligence of Alliance, unless such claims or damages, or fines are caused or contributed to (i) by the failure of the wastewater influent to meet the criteria established in Appendix A, or (ii) by the presence of any hazardous toxic or radioactive substance within the wastewater system. The obligation of Alliance to hold the Board harmless is subject to the Limitation of Liability provision of this Agreement.

Limitation of Liability: Under no circumstances shall either party be liable to the other party for consequential, incidental, indirect, special, or punitive damages, whether due to delay, breach of contract, tort (including, without limitation, negligence) or any other cause.

Comparative Responsibility: In the event that both Alliance and the Board are found by an independent fact finder to be negligent, and the negligence of both is the proximate cause of such claim for damage, for person injury, or property damage, then in such an event each party shall be responsible for the portion of the liability equal to such party's comparative share of the total negligence.

Waiver: The failure on the part of either party to enforce its rights as to any provision of this Agreement shall not be construed as a waiver of its rights to enforce such provisions in the

future.

Assignments: This Agreement shall not be assigned by either party without the prior written consent of the other party.

Nondiscrimination: Alliance agrees and shall refrain from unlawful discrimination in employment and undertakes affirmative action to ensure a quality of employment opportunity; shall comply with procedures and requirements of the State Human Rights Department's regulations concerning equal employment opportunity and Affirmative Action; and shall provide such information, with respect to its employees and applicants for employment and assistance as the Department may reasonably request.

Relationship: It is understood that the relationship of Alliance to the Board is that of an independent contractor and that none of the employees or agents of Alliance shall be considered employees of the Board.

Force Majeure: Each party's performance under this Agreement shall be excused if the party is unable to perform because of actions due to causes beyond its reasonable control, including, but not limited to, Acts of God, the acts of civil or military authority, floods, epidemics, quarantine restrictions, riots, strikes, and commercial impossibility. In the event of any such force majeure, the party unable to perform shall notify the other party as soon as possible and no later than 24 hours of existence of such force majeure and shall be required to resume performance of its obligations under this Agreement upon the termination of the aforementioned force majeure.

Authority to Contract: Each party warrant and represent that is has authority to enter this Agreement. The Board warrants, represents, and certifies that is has appropriate funds available for payments to Alliance required by this Agreement. If the Board is unable to provide appropriate funds, Alliance shall have the option of terminating this Agreement.

Access: Alliance agrees to allow Board officials access to the Facilities covered by this Agreement at any time as long as an Alliance representative is present; however, Board Representatives will have access to the Facilities at any time with or without Alliance Representatives Present.

Notices: Required notices shall be addressed to:

President
Alliance Water Resources, Inc.
206 South Keene St.
Columbia, MO 65201

Clerk, City of Lake Ozark
PO Box 370
Lake Ozark, MO 65049

City Clerk, City of Osage Beach
1000 City Parkway
Osage Beach, MO 65065

Prevailing Wage: Alliance agrees to pay prevailing wage where applicable, as required by Missouri Law. Alliance shall provide copies of Certified Payrolls when Prevailing Wage is Required. Prevailing Wage as determined by the Federal Wage Determination and/or the Industrial Commission of Missouri, Annual Wage Order shall be determined when the work is to occur, including amendments, will be complied with on this project when required. When requested to perform work requiring the payment of the prevailing wage, Alliance shall first determine the amount of any additional cost to the Board and have the amount approved by the Board prior to beginning work.

IN WITNESS WHEREOF, the parties sign the Agreement effective as of the date first above written.

WITNESS:

JOINT SEWER BOARD OF LAKE
OZARK AND OSAGE BEACH

Secretary

Board Chairman

Date

WITNESS:

ALLIANCE WATER RESOURCES, INC.

Secretary

President

Date

Subscribed and sworn to before me this _____ day of _____, _____.

My commission expires:

APPENDIX A: EFFLUENT QUALITY GUARANTEE

Wastewater

Alliance will be responsible for meeting the effluent quality requirements of all applicable permits unless one or more of the following occurs.

- The influent to the treatment plant does not contain adequate nutrients to support operation of biological process and/or contains toxic substances which cannot be removed by existing processes and Facilities (see Definition below).
- Toxic discharges into the sewer system in volumes which would make compliance with discharge limits substantially impossible.
- The flow, influent BOD, influent TSS, and/or influent Ammonia is greater than the plant design parameters, which are the following:

Average Flow	3.0 MGD
Influent BOD	364 mg/I
Influent TSS	364 mg/I

- If the Treatment Plant can operate only at reduced capacity due to construction activities, fire, flood, adverse weather conditions, labor disputes, or other causes beyond Alliance's control.

TOXIC: Any substance or combination of substances contained in the influent to the Facilities in sufficiently high concentrations so as to interfere with the treatment processes necessary for the removal of organic and chemical constituents.

APPENDIX B: WASTEWATER TREATMENT PLANT AND EQUIPMENT DESCRIPTION

Wastewater Facilities

3.0 MGD oxidation ditch consisting of degritting, 2 aeration basins with 3 each fixed in place surface aerators, 3 secondary clarifiers, 2 aerated solids holding tanks and aeration building, one 72 bulb Wedeco UV system, and 1 laboratory/office building.

Equipment

1 - 2020 John Deere Z915E ZTrak Stock #324703 ID# ITC915EVELT081845

Vehicles

1 - 2022 MACK Granite Sludge Truck TMV 3600-gallon tank, VIN# 1M2GR2GC7NM028115

1 - 2018 Ford F-250, VIN# 1FTBF2B66JEC64283

1 - Mini Pro Tailgate Spreader TRYN SP-575X-1 S/N# 190730300540SP-575X-1

1 - Knapplied Snow Blade

The Lake of the Ozarks Regional Wastewater Treatment Plant #1

Emergency Response Plan, Emergency Operations Plan, Emergency Action Plan, and Fire Protection Plan

January 2024

Purpose

The purpose of the Emergency Response Plan (ERP) is to provide for an organized response to an emergency situation at the Lake of the Ozarks Regional Wastewater Treatment Plant #1 (WWTP). The primary emphasis in the ERP is to minimize risk to public health, and to minimize damage to private and public property. The secondary emphasis in the ERP is to provide the best possible wastewater treatment in the event of an emergency situation.

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Purpose of this Manual

This Emergency Response/Operations Plan Manual has been designed to assist in the first hours and days after a major disaster has damaged or destroyed the wastewater treatment system for the Lake of the Ozarks.

The manual is set up into several chapters of which some are in checklist format to assist you in prioritizing and planning your response.

The manual is designed to comply with MoDNR 10 CSR 60-12.101 Emergency Response/Operations Plan.

Updated/Reviewed for Accuracy Annually:

<i>Date:</i> 12/31/14	2015	<i>Initials:</i>	GH
<i>Date:</i> 1/4/16	2016	<i>Initials:</i>	GH
<i>Date:</i> 1/4/17	2017	<i>Initials:</i>	GH
<i>Date:</i> 1/4/18	2018	<i>Initials:</i>	GH
<i>Date:</i> 12/20/18	2019	<i>Initials:</i>	GH
<i>Date:</i> 1/3/20	2020	<i>Initials:</i>	GH
<i>Date:</i> 2/12/21	2021	<i>Initials:</i>	GH
<i>Date:</i> 12/14/21	2022	<i>Initials:</i>	GH
<i>Date:</i> 1/13/23	2023	<i>Initials:</i>	GH
<i>Date:</i> 1/10/24	2024	<i>Initials:</i>	GH

Preliminary Damage Assessment Checklist

- ☐ Call key plant personnel, starting with Contact Order on page 3 of this ERP. Determine need for additional personnel.
- ☐ Notify fire department if appropriate.
- ☐ Identify person in charge at the site.
- ☐ Make preliminary site evaluation, determine extent of physical and operating damage. (Check piping, pumps, basins, structures, look for seepage, leaks, cracks, landslides, broken pipes and drains).
- ☐ Check for downed power lines and propane gas odors and notify Ameren UE if necessary.
- ☐ If damage appears intentional, notify police (site may be a crime scene).
- ☐ Take steps to keep public safe, use barricades, etc. Remove obstacles that will prevent emergency vehicle access.
- ☐ Person in charge should contact key Joint Sewer Board Representatives to inform of situation and discuss further anticipated notifications.
- ☐ If environmental damage is likely, notify MDNR.
- ☐ If public health is at risk, notify local health department.
- ☐ Develop mitigation and recovery plan.

Section I

A. Personnel Inventory, Contact Order & Training

1: Personnel Inventory

Name	Title	Office Phone	Home Phone	Mobile Phone
Gary Hutchcraft	Local Manager II	573-365-0455		573-216-8398
John Hornback	Supervisor	573-365-0455	573-369-2761	573-480-4065
Michael Ray	Utility Worker I	573-365-0455		573-317-8242
Josh Duncan	Division Manager	573-874-8080		573-216-4506
Mark Mahler	Director of Compliance & Safety	573-874-8080	Ext. 226	573-825-8169
Tony Sneed	AWR Vice President	573-874-8080	Ext. 203	256-278-1264
Tim Geraghty	Director of Operations AWR President	573-874-8080	Ext. 229	314-575-4738

2: Contact Order

Contact Order	Corporate Office Contact	Division Contact	Outside Support Contact
1		Gary Hutchcraft	
2		John Hornback	
3		Luke Randall	
4			Lonnie Madole
5			Kevin Klein
6			Josh Thompson
7	Josh Duncan		
8	Tony Sneed		
9	Tim Geraghty		
Client	Mike Welty		
Contact:	Matt Michalik		

3: Annual Staff Training Goals

- * CPR – First Aid
- * Confined Space Entry
- * Vehicle Safety – Defensive Driving
- * Hazard Communication
- * Work Area Protection – Traffic Around Job Sites
- * Lockout – Tagout
- * Back Safety/Lifting Methods
- * Respiratory Protection
- * Emergency Action and Fire Prevention

4: Emergency Response Plan shall be reviewed and updated on an annual basis

B. Facility Emergency Equipment Inventory

1. Communications

a. Cell Phones

The following Cell numbers have been assigned to staff:

Gary Hutchcraft	573-216-8398
John Hornback	573-216-3878 (duty phone)
Mike Ray	573-216-3878 (duty phone)

b. Telephones

WWTP Plant Voice	573-365-0455
WWTP Plant Dialer	573-365-0455
WWTP Duty Cell	573-216-3878

2. Safety Equipment

- a. Full body harness (2) - (Admin. Bldg.)
- b. Lanyard & spreader bar - (Admin. Bldg.)
- c. Tripod and hoist - (Admin. Bldg.)
- d. 4-gas RKL GX-3R gas detector - (Admin. Bldg.- Lab)

3. Other Equipment

- a. Ford 6" trash pump, City owned (Lake Ozark)
- b. 30' of 6" suction hose, City owned (Lake Ozark). 60' of 4" suction hose w/ 4 to 6" adapter.
- c. AMT 3" trash pump, w/ 30' and 50' hoses w/ quick couplers.
- d. Ford F250, 4WD pickup truck w/ snow blade & sand spreader
- e. Mack pump truck w/ 3600-gallon tank.
- f. Miller Wire feed Welder & Hobart Stickmate Stick Welder
- g. Oxygen and Acetylene torch set w/ 50' hose.

C. Command Post Designation

- The command post for the WWTP shall be in the Administration building-office at the WWTP. If conditions make this impossible, then the command post shall be located at a designated site provided for by the Joint Sewer Board.
- All communications shall be coordinated through the City.

D. Communications Policy

1-Report all emergency situations (if possible), to Gary Hutchcraft

If Gary cannot be contacted, then call the people on the following list until someone is notified of the emergency situation.

	Work	Mobile	Home
• Mike Ray	573-365-0455	573-317-6242	
• John Hornback	573-365-0455	573-480-4065	573-369-2761
• Lonnie Madole	573-378-5737	573-789-5242	
• Kevin Klein	573-378-5737	573-378-8510	
• Josh Thompson	573-364-8790	573-308-8229	573-762-9941
• Josh Duncan	573-874-8080	573-216-4506	
• Tony Sneed	573-874-8080x302	256-278-1264	
• Tim Geraghty	573-874-8080x229	314-575-4738	

What qualifies as an emergency situation?

Generally speaking, an emergency situation can be anything that has the potential to cause danger to human health, and or damage to property. We can easily extend the meaning of an emergency situation to be anything that has the potential to cause damage to the environment. The practical application thus being: an emergency situation is any situation that has the potential to cause a violation of the NPDES permit.

The NPDES permit is a combination of both numeric and narrative standards that are developed to protect the designated uses of the stream that the Lake of the Ozarks Regional WWTP #1 discharges into. The permit also contains standards that cover wastewater discharges from the collection system.

The following outline lists some (not all) of the situations that qualify as an emergency situation that should trigger notification.

Surcharge

Wet Weather

Dry Weather

Loss of treatment

Power Fail

Equipment damage

Toxic Shock

Short Circuit

Sabotage

2 - In an emergency situation the following information shall be communicated:

- What has been damaged,
- If no damage, why is there an emergency,
- Is there a threat to public health,
- Is there damage to public and/or private property,
- Has treatment been affected,
- Are NPDES permit violations occurring,
- Will NPDES permit violations result from the emergency,
- Are there any safety issues due to the emergency,
- Are help and/or equipment needed to eliminate the emergency?

3-The MODNR will have to be contacted when Section B, 2A-B, (noncompliance notification standards, published in the 'Standard Conditions for NPDES Permits'), have been reached. A copy of these standards is included in the text of this plan on page 24. Follow the directions listed in the 'notification standards'.

MODNR Department Central Office Phone: 573-751-3443 & FBI Phone is 1-800-CALLFBI
Central Field Operations 573-522-3322 or Environmental Emergence Response 573-634-2436
P.O. Box 176
Jefferson City, MO 65102-0176

Always notify the Joint Sewer Board and Corporate before MODNR notification. When notifying the MODNR always record the name of who you are talking to, and the time and date of the notification. Give the following information: what the violation is per notification standards, and what our actions are to eliminate the violation. Be factual; do not assume anything. Finally, find out if the DNR requires written notification concerning the violation.

In the 2 drawer file cabinet by the copier, the file that is marked "DNR Bypass forms" there are two report forms that need to be filled out in any bypass situation, and/or any operations - treatment emergency that reaches notification standards. One report form (Wastewater Bypass Report Form) is for the MODNR, and the other report form (Deviation Notification Form) is for AWR corporate. These forms are also included in Appendix 8 of this manual.

E. Emergency Action Plan

- Procedures for reporting a fire or other emergency situations.
 1. Call 911 and report the situation
 2. If the land line phones don't work, try cells and direct connects
 3. Determine if a response is safe and or necessary
 4. Determine whether or not evacuation is necessary
- Procedures for emergency evacuation including type of evacuation and exit route assignments.
 1. If an emergency evacuation is necessary follow the exit routes posted in the buildings.
 2. All evacuees shall meet at the main entrance gate, and determine what action needs to be taken, and if support can be given to emergency response personnel.
- Procedures to be followed by employees who remain to operate critical plant operations before they evacuate.
 1. If employees need to stay behind to operate critical plant operations, they shall establish communications with an employee who has already evacuated. Communications shall be on a routine basis with information conveyed relating to the safety of the remaining employee, current operation conditions, safety related conditions, etc.
 2. The employee who stayed behind shall evacuate if life threatening conditions present themselves, or if there is evidence that a condition may become life threatening.
- Procedures to account for all employees after evacuation.
 1. As specified above, all employees who evacuate shall meet just outside the entrance gate. An accounting of all employees shall be determined.

- Assignments

1. The on-call operator shall be designated as the employee who stays behind.
2. The local manager shall ensure that communications are being carried out with the employee who stayed behind.
3. The local manager is responsible for making an accounting of all employees.

F. Fire Protection Plan

- Assure that hazardous accumulations of combustible waste material are controlled.
 1. Place used rags in the metal used rag container.
 2. Keep trash picked up and trash cans empty on a regular basis.
 3. Complete and turn in the required hot work permit for all welding or grinding activities.
 4. Keep a 30 minute fire watch after any welding operation has ended.
 5. Keep combustible liquids in the storage cabinets. Keep the cabinet doors closed.
- Identify high risk areas and develop plans to minimize potential fire hazards.
 1. The highest risk area for fires is in the shop. Plans to minimize the risk of a fire include: use of storage cabinets for gasoline, paints, etc. Use of metal trash cans with lids for the storage of used shop rags. And the control of trash accumulation on the floor and in the trash cans.

Alliance WATER RESOURCES		HOT WORK PERMIT/ CHECKLIST	
Location:		Date:	Supervisor:
Work to be done:			
Special Precautions:			
Time Started:		Time Completed:	
Signed:		Date:	

(Individual responsible for Hot Work authorization.)

ATTENTION

Before approval of the Hot Work Permit, the Supervisor or appointee shall inspect the work area and confirm that all precautions have been taken to prevent fire.

Yes	No	N/A	Precautions
			Is all cutting and welding equipment in good repair/ condition?
			Has pre-task Tool Box Talk been administered?

Yes	No	N/A	Within 25 Feet of Work
			Floor/ ground clear of combustibles if possible?
			Combustible floors wet down, covered, or shielded?
			No combustible material or flammable liquids?
			Combustibles and flammable liquids covered or shielded?

Yes	No	N/A	Work on Enclosed Equipment
			Equipment cleaned of all combustibles?
			Containers/ drums purged of flammable vapors/ materials?

Yes	No	N/A	Fire Watch
☒			To be provided during and 30 minutes after work completion?
☒			Supplied with fire extinguisher and or small charged fire hose?
☒			Trained in the use of equipment and emergency procedures?

Yes	No	N/A	Final Check-Up
			Completed 30 minutes after work completion?
Supervisor Signature:			Date:

(To be signed by individual responsible for Final Check-Up, after its completion.)

G. Emergency Identification and Analysis

Emergency	Analysis
Severe storms, high wind, lightning, floods.	• Damage can range from low to medium depending on severity of storm. • Electrical supply, electrical pathways, exposed equipment and equipment located in underground vaults (when flooding is a concern), are most susceptible to damage.
Severe cold, ice storms, blizzards.	• Damage can range from low to medium depending on severity of conditions. • Temperatures below -15° F are cause for emergency response with outside equipment and with buildings that require additional heat to protect equipment with exposed moving parts. In these conditions always make sure the lift stations lids are closed. • Ice storms and blizzards can cause damage to the electrical supply and also hinder access to the Wastewater Treatment Plant.
Earthquakes.	• Damage can range from low to high. • A major earthquake has the potential to cause extensive damage to all phases of wastewater collection and wastewater treatment since a lot of equipment is located underground. • Damage can also occur in weak links of a collection system or weak areas of concrete basins, which may not be apparent by visual observation.
Sabotage, civil unrest, riots, terrorist attacks.	• Damage can range from low to high on electrical supply, and any equipment that is exposed and can be easily damaged (i.e. bar screen, electrical control panels, lift stations, lab-office building equipment, etc.). • Measures to prevent damage from terrorist attacks are detailed in the following section on facilities security.
Air borne chemicals, water borne chemicals, toxic chemical spills, weapons of mass destruction.	• Damage to bacteria mass in the treatment process, and can also affect health of treatment personnel. • Caution should always be taken when confronting a chemical - biological emergency. • If weapons of mass destruction are suspected to have caused the emergency, then treat the affected area as a crime scene and call local authorities.

H. Facilities Security:

The following topics should be analyzed and developed to increase security to its highest Level at the WWTP:

1. Detection (the ability to detect a security threat),
2. Access (deter access to the WWTP),
3. Delay (provide a layered barrier system to delay access to the WWTP)
4. Respond (develop an organized response to a breach in security)

I. Priority Equipment and Processes.

The following list is a list of equipment and/or processes in the order of relative importance to the wastewater treatment process. The list shall be used as a guide when determining what equipment and/or processes need to be placed into service first, second, and so on, when there is a widespread emergency. The list is organized into two categories: WWTP mechanical (piping and valves), and equipment (which includes structures).

Mechanical	Treatment Equipment
1. Raw sewage force mains to WWTP.	1. Oxidation Ditches (at least one aerator per unit that WW is entering)
2. Gravity thru Oxidation Ditches.	2. Final Clarifiers (1,2 & 3).
3. Gravity mains from oxidation ditches to final clarifiers splitter boxes.	3. Adjustable weir gate valves at basins
4. Gravity to Clarifiers.	4. Adjustable weir gate valves at splitter box for Clarifiers
5. Sluice gates in Oxidation Ditches and UV channels for draining purposes	5. Lift Station between aeration basins
6. RAS force main back to Ditches	6. RAS electric pinch valves in middle room of headwork's bldg.
7. RAS waste from clarifiers	7. Waste valves
8. Sludge waste force mains to sludge storage cells.	8. Waste valve pit and waste manhole on top of hill and at bottom by Digesters

J. Emergency Response Guidelines.

1. General Guidelines.

- **Analysis and Planning.** If time permits conduct an initial meeting with staff to assess an expected emergency situation. Outline potential damage to specific equipment, processes, or structures. Plan a strategy to prevent potential damage and/or minimize its effects on public health, property, and wastewater treatment.
- **Inspect.** After the onset of an emergency, inspect WWTP for damage. Follow all applicable safety regulations and lock out and secure any unsafe areas.
- **Communicate.** Document damaged units, and unsafe areas. If damage creates immediate threats to public health, properties, and/or wastewater treatment, contact Joint Sewer Board, AWR, and State, to advise of situation. Consult communications policy on page 4.
- **React.** Execute activities to eliminate threats to public health, property, and/or wastewater treatment. Refer to 'Damage and Response' section of this plan to help direct the activities. Collect necessary samples, as NPDES permit requires. Develop best treatment plan in the event of an emergency that disables one or several process units. Contact City's for emergency purchasing authority. Contact vendors for needed supplies.
- **Communicate.** Update the Joint Sewer Board, AWR, and State as needed. Log important observations and actions.
- **Repair.** Make necessary repairs to bring damaged units back up to full operations.
- **Review.** Review emergency response with staff and make adjustments in the ERP if necessary.

In a widespread emergency, AWR staff will be required to assist the Joint Sewer Board. In this situation, one staff member (two staff if there are safety concerns), will be responsible for implementing the initial steps of the above guidelines.

K. Emergency Action Procedure for Epidemic/Pandemic

Description

- ❖ A pandemic is a global disease outbreak. A flu pandemic occurs when a new influenza virus emerges for which people have little or no immunity and for which there is no vaccine. The disease spreads easily person-to-person, causes serious illness, and can sweep across the country and around the world in a very short time.

Notification chain

Note: Phone numbers are in Section I. Personnel Inventory, Contact Order & Training

- Local Manager notifies
 - o Plant Personnel
 - o Division Manager
 - o Joint Sewer Board Representatives

Preparation/Mitigation

- Scheduling redundancy
- Proper PPE on hand
 - o Masks, gloves, and sanitizer
- Essential supplies for prolonged hours
 - o Cot, non-perishable food

Response

- Masks and other PPE will be required as recommended by AWR and CDC.
 - o Masks are to be worn indoors when more than one person is on the premises.
 - o Masks are to be worn when riding in a vehicle with others.
- Cards will be distributed identifying employees as essential.
- Surfaces, door handles, keyboards/mouse and all common use items must be disinfected on a regular basis.
- No visitors are to be allowed at the plant without approval of superintendent or above.
- Teams and crews are to stay separated from other groups.
- Employees are to spread out in large environments for meetings and lunch.
- Wastewater Plant specific response:
 - o Separate employees into two teams.
 - Operating Team A
 - 2 operators
 - Operating Team B
 - 2 operators
 - o Operating Team A reports and works.
 - o When operating team B performs work at plant, they must inform operator team A of what rooms they will be working in.
 - o Disinfection of common use items is to occur at the beginning and end of each shift.

Recovery

- Normal operations are to resume once CDC or AWR deems it safe.

Remediation

- Normal operations are to resume once CDC or AWR deems it safe.

Section II

Damage and Response

Damage to the WWTP can result in threats to public health and/or damage to private or public property. Damage can also result in an interruption of wastewater treatment in various degrees. The WWTP are constructed of several process units that are linked together to convey and treat the wastewater. This section looks at the possible effects of damage to these process units, and what type of responses can be made to limit the threat to public health, property damage, and the continuation of wastewater treatment.

Process Unit:

Main Power Supply

Key Components:

3 phase power lines from sub, pole and pad mounted transformers feeding MCC1 which feeds MCC2. When power goes out the standby/backup generator will automatically come on and feed both MCC1 & 2 but everything will not come back on automatically. Manually restart all equipment that was going before outage if capable following every precaution mentioned in this ERP.

Effects of Damage

Power lines-

- In severe cases one or all of the power lines can be severed which will result in power loss to the WWTP.
- If power lines are severed upstream from the pole or pad mounted transformers then power loss will affect MCC1 & MCC2
- Power loss of more than 8 hours has the potential to cause the ditches to go septic and the sludge in the clarifiers to surface and bulk and/or cause a violation of permit limits.

Transformers-

- Loss of one or more of the pole or pad mounted transformers will cause power loss to MCC1.

Response

Power lines-

- Call Ameren UE and find out how soon they can make it out. Once you have a response then call the Local Manager and inform, then let him make the decision on what to do next.
- At the least the employee on emergency Duty must stay until Ameren UE restores power or a relief operator shows up to relieve him and once power is restored bring one piece of equipment back on line at a time.

Transformers-

- Checks to see if fuses have blown or flipped down on the pole mounted transformer by the main power control room at the Headwork's Bldg. and inform Ameren UE of it. If that is what it is then, it will be an easy fix for them. **Never try to attempt to flip fuses back up on your own, Let Ameren UE do it.**

Process Unit:**Head Works**Key Components:

MCC1 and MCC2 control power and control equipment (unit specific), mechanical bar screens, grit chamber, grit solids pump, RAS pumps, non-pot and potable pumps.

Effects of Damage

In general-

- In any case, if damage is severe enough to disrupt either the mechanical bar screen, and/or the grit chamber/grit solids pump; both units can be bypassed. This condition is acceptable for a few days.

Response

In general-

- If units must be bypassed, do so immediately by placing a stop gate in its appropriate positions; this job requires two people.
- Install the manual bar screen as needed.
- Do not allow flow into the grit chamber if the paddle drives, grit solids pump, are not working, for more than couple of days.
- If damage results in the loss of the heater then emergency heating needs to be set up in sub-freezing weather.
- Pump out the grit chamber if it will be out of service during sub-freezing weather and are experiencing icing conditions.
- If necessary, also pull the Auto bar screen up and install manual bar screen; this will require getting in influent channel and hooking come-along to eyelets on bottom of bar screen and lifting it up out of the way so you can install the manual screen. This job requires at least 2 people.
- When bringing units back into service the mechanical bar screen shall receive top priority over the grit chamber, grit solids pump.

Process Unit:**Secondary Treatment**Key Components:

MCC1 and MCC2, aerator control box, control power and control equipment, oxidation ditch 1, and oxidation ditch 2.

Effects of Damage

In general-

- MCC1 power center is utilized to operate the aeration equipment.
- The most critical aeration equipment are the motors and gear boxes that drive the Carrouselets. At least one should be in operation at all times.
- Loss of the oxidation ditches will result in at least a 60% reduction in treatment.
- Loss of air to the bacteria in the oxidation ditches for more than: 4 hours in the summer, and 24 hours in the winter, will create anoxic conditions and could possibly kill the bacterial population.

Response

In general-

- The oxidation ditches can, (one at a time), be isolated from the WW treatment process.
- If all aeration equipment is down make arrangements to get a minimum of one carrousel per ditch in operation ASAP.
- Note: If there has been a toxic spill in the collection system, one of the oxidation ditches can be made ready to accept the toxic waste, and then taken out of the process to further treat the toxic waste.
- If bacterial population is killed, plan to get seed from Camdenon or other surrounding communities.

Process Unit:

Clarification

Key Components:

Clarifier splitter box

MCC1 feeds MCC2.

Final clarifiers 1, 2, 3

Control power and control equipment.

Clarifier drive units, skimming mechanism, scraper mechanism, sludge withdrawal, RAS pumps, RAS force main, WAS force main, and clarifier gravity drain

Effects of Damage

In general-

- Severe cold is the most likely threat to damage the clarifiers.
- Earthquakes could cause considerable damage to underground piping.
- There is one inlet line and one drain line on clarifiers #1 and #2, with no drain on #3, so it is appropriate to state that any damage to underground piping could result in total disruption to the function of the clarifiers.
- Damage to sludge withdrawal equipment will disrupt the return of sludge to the oxidation ditches and thus stockpile the sludge in the affected clarifiers.

Response

In general-

- In severe cold, the skimming mechanisms should be modified to minimize potential damage to the skimmer arm/rake mechanism.
- A means of maintaining surface water disturbance (i.e. water sprays) is necessary to keep the surface from forming thick ice.
- Constant attention shall be given to the clarifiers during extreme cold conditions.
- Emergency pumping may be required to remove sludge from the clarifiers. This can be accomplished with the sludge pump truck on a routine interval. Clarifiers 1, and 2, should be placed back into service first.
- Note: Clarifier 3 cannot be drained dry by means gravity drain mains; it has to be pumped dry by RAS pumps.

Process Unit:

RAS Pump Building (basement)

Key Components:

MCC1 feeds MCC2, control power and control equipment, discharge piping, and check valves, discharge valves, force main, pumps/motors.

Effects of Damage**Main power-**

- Will disable pumps and may lead to the stockpiling of sludge in the clarifiers. If left unchecked sludge can be discharged into the receiving stream.

Control power, control equipment-

- Will disable pumps in the automatic mode. Pumps can be operated manually (unless control transformer is damaged).

Piping and valves-

- Damage will inhibit operation of pumps.

Pumps and motors-

- Can disable one or all pumps.
- There are five pumps in the RAS pump building, which should greatly minimize the chance of losing total pumping capacity.

Response**Main power-**

- If there is a power loss feeding the pump building then check to see if you have lost a leg of your 3 phase power in MCC2?
- If there is an interruption of main power within the control panel then isolate the problem (motor starter contacts, thermal overloads, fuses, etc.) and correct.
- Be aware that high amps indicate a motor overload (shorted windings, bad bearings, pump obstructions, etc.), and should be corrected before placing any motor back into service.

Control power, control equipment-

- If pumps operate on hand but not on auto then there is a problem with either the control power and/or the control equipment.
- Check control voltages.

Piping and valves-

- If there is damage to suction piping and/or check valves, then the damage shall be repaired, (ASAP if all pumps are affected; emergency pumping may have to be provided in this situation).
- If damage to piping and valves occurs downstream from the check valve, the damage should be repaired as required to allow RAS to be conveyed under pressure.

Pumps and motors-

- If all pumps are disabled then isolate the problem with each pump and plan corrective action based on which pump can be repaired the fastest. Make repairs to that pump then proceed to the next, etc.

Process Unit:

Sludge Digestion and Sludge Storage

Key Components:

Motor control center at digesters, positive displacement blowers air suction and discharge piping, air distribution piping and diffusers, sludge loading station, force main(s), valves.

Effects of Damage

In general-

- Damage will most likely have a minimal effect except in a situation where the sludge basins are discharging sludge.
- Loss of aeration will turn the sludge basins into facultative storage.
- Long-term loss of air may damage the diffusers.

Response

In general-

- If the sludge basins are discharging sludge then action should be taken immediately to contain the sludge and prevent it from reaching the receiving stream.
- If flood conditions exist, let water recede and then evaluate the situation. If sludge spill takes place fill out MODNR SSO/Bypass and AWR Deviation Notification forms, found in (Appendix 7). Make needed repairs and get back on line ASAP.
- Loss of air should be addressed as time permits.

Section III

Contingency Plans

Contingency Plan for Total Loss of Electrical Power

Goal: Develop strategies and to assign specific duties to plant staff: to provide for continuance of pumping at critical points of Plant; and to provide for at least primary treatment at the wastewater plant.

Response:

1. The employee on call must come to the plant and make sure the generator is going, then get into service one aerator in each ditch and at the minimum 2 clarifiers depending on flow conditions.
2. Get into service the head works building equipment.
3. In below freezing weather check to make sure heaters in all buildings are operating properly.
4. Check to make sure that lift stations are operating properly.
5. Check status of wastewater plant.
6. Check all lift stations, secure by taking one of the two pumps off line, and providing emergency pumping if needed.
7. Conduct a meeting to evaluate the situation and make necessary decisions as the need arises.

Contingency Plan for High Flows

Goal: Minimize solids wash out and provide for best treatment of all influent flow.

Note: During a high flow event both oxidation ditches will be needed to prevent solids wash out.

Response: Response depends on whether one ditch is in service or if both ditches are in service. Great care must be used when, at the onset of high flows, that sludge blanket depths are monitored. If sludge blankets are rising then several options present themselves, first, more clarifiers can be placed into service, if any is out, second, #1 and #4 carrousel aerators can be shut off reduce mixing in the ditch (es), third, #3 and #6 can be taken out of service to further reduce mixing in the ditch (es), fourth, all aerators can be taken out of service (for short periods of time, i.e. up to 8 hours) to eliminate mixing in the ditch (es). Or a combination of the above measures can be used. The overall goal is to save the mixed liquor suspended solids (mlss) in the ditch from being discharged in the receiving stream. Past high flow events have demonstrated that proper management of flow through the plant can achieve good treatment (within NPDES permit standards). It is also important to note that effluent sampling should be done during high flow events to assure that NPDES permit standards are being met, and that proper documentation in the plant daily bench sheet must be maintained on all process changes to manage high flows. Whenever all the carrousel aerators are shut off to prevent solids wash out the event must be reported as a bypass at the WWTP. Always leave 1 aerator in each ditch going if at all possible, even if it means moving the oxidation ditch inlet gates to aerators #3 and #6 and running only those aerators. This will give the mixed liquor suspended solids (mlss) time to settle in the ditch before entering the clarifiers.

Bulking Sludge

Response:

If a clarifier is bulking sludge and flows are normal for dry weather, first raise splitter box gate to the clarifier or clarifiers that are bulking, then go over to the RAS pinch valve and open them up all the way and if that doesn't calm things down then go down in the RAS basement and clean pumps.

If the pumps are not clogged but is flowing clear water then there is probably a short circuit in the clarifier caused by structural damage of the rake mechanism. Shut flow off to the clarifier and drain it and check for damage. Put other clarifiers (if one is down) on line as appropriate.

If the pump is not clogged and the discharge is dirty, then check the other clarifier to see if it is bulking as well. There could be a toxic shock. First try shutting the aerators off closest to the outlet weir gates and if that doesn't work try moving the basin inlet gates to, (#3 and #6) and running only those aerators, will minimize solid loss, and may be an appropriate response.

Contingency Plan for Toxic Chemical Release

Toxic chemical release to the wastewater treatment plant will most likely take place in one of two forms, regardless of the toxic agent.

The first likely scenario would be the discovery, containment and cleanup of a fuel leak. This would involve participation of Lake Ozark Fire Department, Lake Ozark Emergency Response personnel and a HAZMAT unit. In order to accept this type of waste a few conditions must be met: first, the BTEX test result (if available) should be less than 2.13 mg/l; and second, the plant is operating under dry weather flow conditions. If both conditions are met then the waste can be placed into one of the basins that has been determined to be used for that purpose. The waste can then be diluted and intermittently fed into the treatment process to minimize shock on the biological community in the treatment process. Bench testing of the waste can also be performed to demonstrate if there will be problems to the bacterial community.

The second most likely scenario would be notification of a toxic release into the sewer system. This has never happened (at least the notification part) but if this condition should arise then the most likely first response would be to divert all flow to the designated basin. The second step

would be to ascertain what type of toxic chemical it is (ask for MSDS information) and how much of the toxic chemical is in the system. The third step would be notification of City or Cities, Corporate and MODNR. With data available try to estimate when the chemical will arrive at the treatment plant and how long it will take to flush the chemical from the sewer system. This information will determine the length of time all flow will need to be diverted before it is safe to resume normal flow. Again, the availability of taking one basin off line will allow temporary containment (provided dry weather flows) and the ability to further treat the chemical and either release the chemical into the treatment process or allow for its removal and disposal at another location.

Contingency Plan for SSO's

SSO's can occur in both wet and dry weather.

Wet weather SSO's are usually caused by inflow and infiltration (I&I) of storm water into the wastewater collection system. A high rate of I&I can cause hydraulic overloading in the collection pipes and thus create an overflow in a manhole or a lift station.

Dry weather SSO's can occur due to collection pipe blockages, long term power fails, and /or lift station pump malfunction.

Whenever an SSO is observed use the Missouri Department of Natural Resources Wastewater Bypass Report Form (Appendix 7), along with the Deviation Notification Form (Appendix 7) to record the SSO event. Copies of these reports must be kept on file along with daily and monthly reports file. Wet weather bypasses at the WWTP are reported on the monthly monitoring report, and filed accordingly.

When bypasses occur at the treatment plant (flow discharged from the WWTP without proper treatment, and/or all aerators are shut off), then document the bypass in the plant daily bench sheet and start the effluent composite sampler. Bypasses from WWTP shall be noted on the monthly DMR, Daily bench sheet and Plant log book; until further notice.

Contingency Plan for Sludge Spills

Whenever sludge spills occur, documentation and cleanup services must begin immediately.

Documentation –

- Describe in the log book the location, cause and amount of the sludge spill.
- If the spill is greater than 25 gallons then treat the spill as a bypass and fill out the necessary documents (Appendix 7) and report the incident to the control authorities.

Clean Up –

- Treat spill area with lime
- Remove spilled material and dispose at the WWTP.
- If spill occurs on a public road way then use appropriate traffic control and warning signals as necessary

Appendix 1

Local Radio Stations

Call Letters	Frequency	Location	Phone#	Fax#
KRMS	AM 1150	Osage Beach, Mo	573-302-7000	
KRMS	FM 93.5	" " "	573-348-2779	
KLOZ	FM 92.7	" " "	573-302-1993	
KTKS	FM 95	Versailles, MO	573-378-5669	573-378-6640

Local Television Stations

Call Letters	Channel	Location	Phone#	Fax#
KMOS	PBS 7	Warrensburg, MO	573-543-4155	
KRCG	CBS 13	Jefferson City, MO	573-896-5144	
KMOU	NBC 8	Columbia, MO	573-882-8888	

Local Newspapers

Name of Paper	Address	Contact Person	Phone#	Fax#
Lake News Focus	5107 Hwy. 54 Osg Bch		573-348-6050	
Lake Sun Leader	450 N. Hwy. 5 Camdenton	Justin	573-346-2132	
Eldon Advertiser	415 S. Maple St., Eldon		573-392-5658	
Leader-Statesman	104 W. Jasper, Versailles		573-378-5441	
Westside Star	400 N. Main St., Grvs Mls		573-374-3100	

Systems Personnel

Name	Position	Work Phone#	Mobile Phone#	Home Phone#
Gary Hutchcraft	Local Manager II	573-365-0455	573-216-8398	
John Hornback	Supervisor	573-365-0455	573-480-4065	573-369-2761
Mike Ray	Utility Worker I	573-365-0455	573-889-8960	
Josh Duncan	Division Manager	573-874-8080	573-216-4506	
Mark Mahler	Director of Compliance & Safe	573-874-8080 x226	573-825-8169	
Tony Sneed	AWR Director of Operations	573-874-8080 x203	256-278-1264	

City Personnel

Name	Position	Work Phone#	Mobile Phone#
Jeana Woods	City Admin. Osage Beach	573-302-2000 ext. 1010	573-280-1174
Mike Welty	Acting Public Works Op Manager	573-302-2020 Ext. 2000	573-286-3704
Nathan Earp	Osage Beach Sewer Supervisor	573-302-2020	573-280-2473
Harrison Fry	City Admin. Lake Ozark	573-365-5378	573-280-9517
Matt Michalik	Dir. P/W Lake Ozark	573-365-5378	573-216-6063
Nathanial Boggs	Lake Ozark Sewer Supervisor	573-365-1741	573-216-6991
L.O. Police Dept.		573-365-5371	
O.B. Police Dept.		573-302-2010	

City Engineer

Name	Company	Work Phone#	Mobile Phone#	Fax#
	Osage Beach	573-320-2020		

Sewer Board

Name	Position/Department	Work Phone#
Michael Harmison	Mayor / Osage Beach	573-302-2000
Kevin Rucker	Board Member / Osage Beach	573-302-2000
Gary Hamner	Board Member / Osage Beach	573-302-2000
Dennis Newberry	Mayor / Lake Ozark	573-365-5378
Pat Thompson	Board Member / Lake Ozark	573-365-5378

Local and County Authorities

Name	Position	Phone#	Fax#
Lake Ozark Fire Dept.		573-365-3380 or 911	573-365-3758
Osage Beach Fire Dept.		573-348-1221 or 911	
Miller Co. Sheriff Dept.		573-369-2341 or 911	
L.O. Police Dept.		573-365-5371 or 911	
O.B. Police Dept.		573-302-2010 or 911	
Miller County Health Dept.		573-369-2359	
Camden County Health Dept.		573-346-5479	

Local Ambulance Service

Name	Phone#	Emergency #
Osage Beach	573-302-2010	911
Miller County	573-369-2444	911

System Maps/Drawings

Name	Position	Work Phone#	Mobile Phone#	Home Phone#
Gary Hutchcraft	Local Manager	573-365-0455	573-216-8398	
Mike Welty	Osage Beach	573-302-2020	573-286-3704	
Matt Michalik	Dir. P/W Lake Ozark	573-365-5378	573-216-6063	

Local Utilities/Services/Suppliers

Service	Contact	Company	Phone#	Mobile Phone
Phone	Bruce	AT&T	800-286-8313	573-286-0954
Electric	Brent	Ameren UE	800-552-7583	573-694-5914
Propane	David	Ferrell Gas	573-392-5400	573-280-7184
UV System	John of Walt	ITT Wedeco	704-996-9233	704-409-9818
Standby Generator	Nelson Coblentz	Martin Energy Group	800-436-9190	573-681-8027
Laboratory	Ann Wagner	Pace Labs	913-563-1406	
Electrician	Steve Durban	Aesthetix Electric	573-348-1429	573-219-0043
Electrician	David	Catalyst Electric	573-552-8488	573-286-9435
Truck Repair	Norm	Crump Truck & Trailer	417-869-2515	417-861-8055
Truck Repair	Noah	Tri-State Truck Center	417-869-0566	417-496-7113
Truck Repair	Larry	Roemer Equipment Repair	573-348-3733	
Truck Repair	Tom Irwin	Irwin Diesel Repair	573-286-2585	573-286-2585
Heat A/C		Controlled Heating & Air	573-348-5455	
Heat A/C & KVAR		Comfort Heating & Cooling	573-348-9999	
Auto Mechanic		Precision Auto	573-348-2233	
Auto Mechanic	Tim	C.A.R Automotive	573-693-1500	
Instrumentation	Mike Ross	Vandevanter Engineering	636-225-8133	314-422-2872
Instrumentation	Scott Keith	ECCO Electric	573-348-1798	573-524-3399
Electric Motors	Jim	Bowling Electric	573-346-4355	
Pumps / Motors	B.J. Hedrick	Evans Enterprises	417-886-8886	417-844-3607
Pumps / Motors	Ben	JCI / MEMC	573-636-7061	573-694-9555
Clarifiers	Field Service	Eimco	801-526-2000	
Pumps / Motors, Aerator Gear Boxes	Bruce	S & S Electric	573-581-7667	
Backhoe / Dirt Work	Steve Butler	Drain Masters, LLC		573-216-1169
Building Repair	Jeff Carroll	Above & Beyond	573-302-0354	573-286-2006
Building Repair	John	Missouri Builders	573-636-7733	

Chemical Supplier	Larry Startin	Brenntag	417-887-3663	417-593-0108
Digester Aerators	Patrick	EDI	573-474-9456	
Truck Tires	Steve	Purcell Tire	573-348-4010	417-861-1955
Truck Tires	Kevin	McKnight Tire	573-635-0101	573-338-3350
Truck Tires	Correy	Clark Tire	573-374-8854	573-434-4539
Piping Supplies	Justin	Core & Main	573-348-1273	
Welding Service	Gary Koerber	GL Welding		573-680-3957
Welding Service	Eric	PMF		573-680-6434

Waste Haulers

Source	Address	Phone#
Amos Septic	Linn Creek, MO	573-346-5992
Camden County	Lake Ozark, MO	573-374-5850
Bullock Septic	Laurie, MO	573-374-6688
A & A Septic	Camdenton, MO	573-346-5123

Emergency Rental Equipment

Company	Equipment	Location	Contact Person	Phone#
Midway Rental	All Types	Eldon, MO	Jim or Tom Dial	573-392-1611
Lake Lifestyle Rentals	All Types	Osage Beach, MO		573-348-3250
A-B Rental	All Types	Camdenton, MO		573-346-7700
United Rental	All Types	Kaiser, MO		573-693-9044

MODNR & FBI Contacts

Names	Office	Phone #	Fax #
Keith Forck	Jefferson City	573-526-4232	
E.C. West	Springfield	417-891-4300	417-891-4399
Sieu T. Dang	Springfield	417-891-4300	417-891-4399
Emergency Response	After Hours Call	573-634-2436	
FBI		1-800-CALLFBI	

Appendix 2

Chemical List / Facility Map

Chemicals:

Lab Office Building

- Hydrochloric acid
- Sulfuric acid
- Sodium Hydroxide
- Denatured Alcohol
- Weed Killer

Maintenance Room/Shop (located in old Chlorine Tank room) or UV building.

- Chevron Gear Lube
- Transmission fluid
- Motor oil, various grades.
- Anti-Freeze
- WD-40
- Dry Film Silicone
- Chain Lubricant

Sludge Digester Blower Building

- Hydrated bag Lime, 50lb bags

Headwork's Bldg. Storage Room

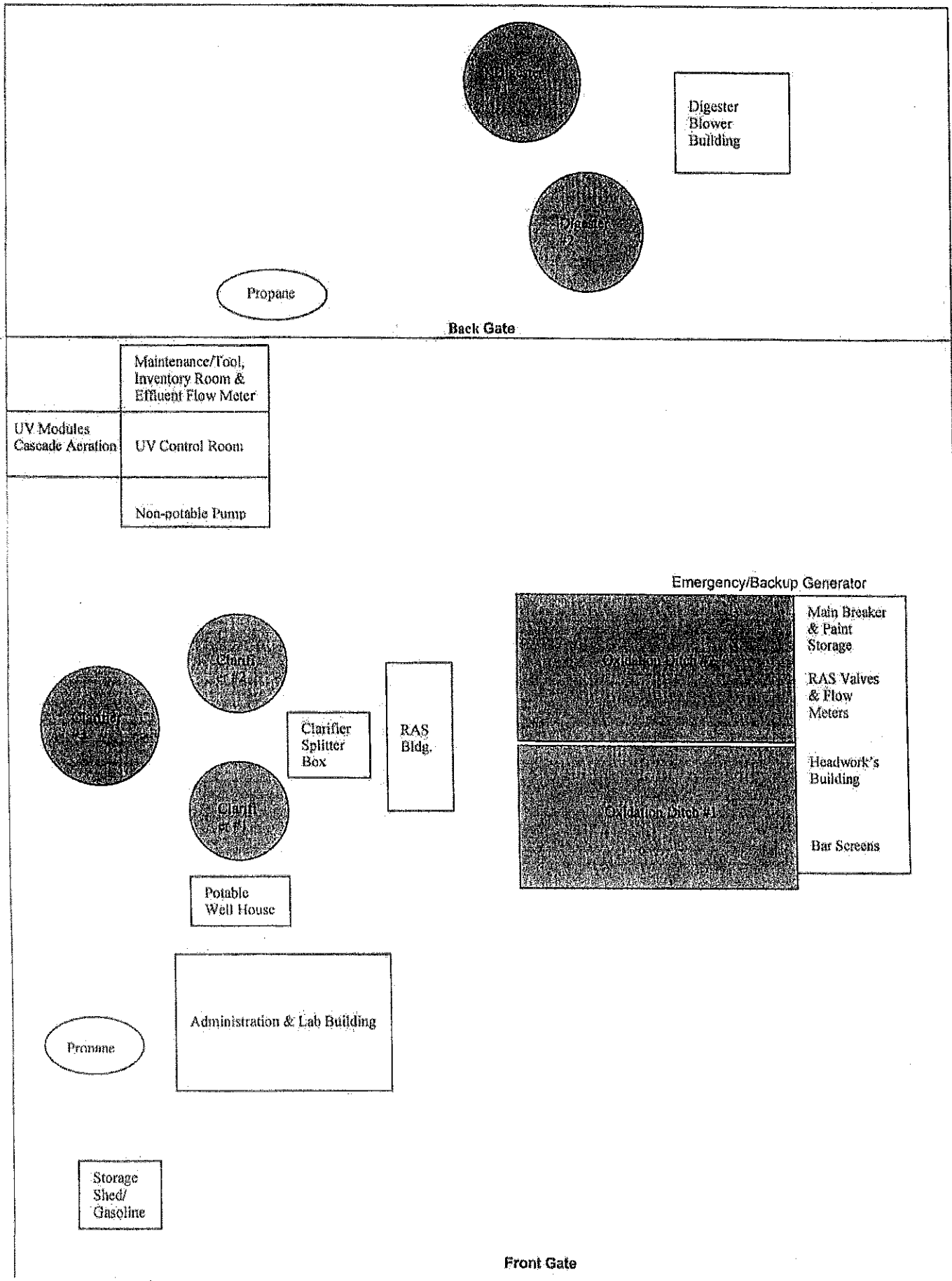
- Chevron Tube Grease
- Mystic tube Grease
- Hydraulic fluid
- Assorted cans spray paint
- Assorted cans building and grounds paint.
- Paint thinner / solvents

Storage Shed by Admin. Bldg.

- Gasoline
- Weed eater oil

There are two 500-gallon liquid propane tanks located on the property; one is north of UV building and one west of Admin. Bldg. There is a 700-gallon diesel tank mounted under the emergency/standby generator located at the headworks building beside the electrical room. There is a 100-gallon portable diesel tank located normally stored at the sludge digester building over the hill.

Facility Map



Appendix 3

Standard Conditions for NPDES Permits

Part 1 – General Conditions, Section B – Management Requirements, Part 2. Noncompliance Notification.

A. If, for any reason, the permittee does not comply with or will be unable to comply with any daily maximum effluent limitation specified in this permit, the permittee shall provide the Department with the following information, in writing within five (5) days of becoming aware of such condition: A description of the discharge and cause of noncompliance, and the period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent recurrence of the non-complying discharge.

B. Twenty-four-hour reporting. The permittee shall report any noncompliance, which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The Department may waive the written report on a case-by-case basis if the oral report has been received within 24 hours.

Appendix 4

Instructions for Daily Readings & Maintenance / Daily Rounds

Sludge Decant Lift Station (at digesters)

Turn both pumps to off position. Turn pump 1 to hand, walk over and observe operation of pump, pump vibration, pump noise, and visually check and watch water level to see if water level is dropping. Turn pump 1 back to auto. Repeat above procedure for pump 2.

Decant / Dewater Lift Station (at aeration basins)

Check operation of pumps by turning both pumps to off position. Turn pump 1 to hand, walk over and observe operation of pump by looking at the discharge going into aeration basin. Listen for pump vibration, pump noise. Record pump hours daily in Admin. Bldg.

RAS Pump Building

One way to check operation of pumps by going over to the headwork's building and look at the RAS flumes and use the RAS pinch valves to adjust flow according to which ditch is the heaviest or lightest. If you can't adjust with valve, then your next step is to clean the pumps. Clean RAS pumps as needed or before each waste. Record pump hours daily in Admin. Bldg. office on the Honeywell data recorder.

Final Clarifiers

Check operation of clarifiers for rotation, motor vibration, noise, and heat. Check quality of effluent discharging over the weirs. Record sludge depth, wash scum collection troughs if necessary. Exercise #1 & #2 scum troughs down if they look like they haven't been working on auto. Go to control panel on clarifier and turn scum trough switch to manual, after exercising turn back to auto. Weekly checks on the clarifiers include checking oil levels in all gear reduction units and checking condensation drains.

Oxidation Ditch 1 and 2

Check operation of rotors, aerators, and discharge weir. Run down rotors on Monday, Wednesday, and Friday. Weekly checks consist of, checking the oil levels in the gear reduction units and checking the oil breathers on them also.

Head Works Building

Check operation of grit paddle, start grit solids pump, and observe for proper operation. To check automatic bar screen, turn bar screen switch to hand and observe for proper operation, and wash bar screen debris as needed. Check and see if the high flow floats in bar screen channels for grease or debris buildup and clean as necessary. Check operation of influent sampler/refrigerator, and record temperature. Weekly checks include checking the grit chamber and bar screen gearboxes for proper oil levels, checking both the Vac. & Compressor pumps for proper operation, and checking the suction globe on the grit solids pump for any excess buildup in the globe and/or air lines. The suction globe needs to be cleaned monthly. Check what day PM is performed.

Blower Building

Check oil levels and position of valves before turning on blowers then check operation of blowers. Weekly PM consist of checking of oil levels and deflection of belts.

Outfall / UV Structure & Building

Go into UV control room and touch the screen on the front of the panel to check and see if all UV bulbs in the bank or banks that are online at the time are working. If all are working and if there are no failures, then go out to outfall structure and visually inspect channels for any excess algae or debris buildup. Remove all banks monthly to clean and inspect bulbs, wipers, brushes and listen for any air leaks or any other types of odd noises. Also clean any algae buildup on the weir system at the end of the UV system.

Appendix 5

Permit Required Confined Spaces

The following list of confined spaces requires a permit to enter.

- Lake Ozark Influent Wet Well (right before flow meter)
- Osage Beach Influent Wet Well (right before flow meter)
- All Manholes
- Both Lift Station Wet Wells
- Both UV channel drain / valve pits

The safety protocol outlined in the company safety rules specifies that a confined space hazard assessment and rescue plan and a confined space entry permit both be completed and submitted to the safety coordinator whenever a permitted confined space is entered. The entry permit is included on the following pages for review; copies of the confined space hazard assessment form and the entry permit can be obtained from the safety coordinator.



Post Confined Space Permit at Job Site

CONFINED SPACE ENTRY PERMIT

Date: _____ Start Time: _____ Time Valid to: _____ (End of Shift)

Space to be Entered: _____ Exact Location: _____
 Purpose of Entry: _____
 Customer Name & Location: _____
 Recognized Hazards of Space: ☐ Sewer Gas ☐ O₂ deficiency ☐ Other _____

GENERAL PREPARATIONS CHECKLIST: (Check All Items That Apply)

REQUIRED

VERIFIED COMPLETE

INITIAL

- ☐ Permanent Lines/Hoses Isolated
- ☐ Temporary Lines/Hoses Removed
- ☐ Space Cleaned & Purged
- ☐ GFCI for All Electrical Equipment
- ☐ Energy Sources Locked/Tagged/Tried
- ☐ Air Mover/Ventilation Provided
- ☐ Other Applicable Permits (Hot Work, etc.)
- ☐ Attendant Has Radio or Phone
- ☐ Safety Lighting
- ☐ Rescue Equipment Set Up at Site
- ☐ Safety Harness with Retrieval Line
- ☐ Respiratory Protection
- ☐ Additional PPE Required
- ☐ Continuous Air Monitor
- ☐ Confined Space Sign Visible
- ☐ Rescue Team On-Site
- ☐ Special Requirements (List in Comments)

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Comments: _____

Entrant-Attendant Communication (check applicable) ☐ Verbal ☐ Visual Signal ☐ Radio

ATMOSPHERIC TESTING RECORD

Meter Make/Model/Serial #: _____

Initials	Time	Acceptable Levels →	Oxygen 19.5-23.5%	Combustible Gases <10% LEL	Carbon Monoxide <25 ppm	Hydrogen Sulfide <10 ppm

ENTRY AUTHORIZATION: _____

Entry Supervisor Signature

Customer Health & Safety Representative
(If Applicable)

Rescue Team Status: ☐ Rescue Team Notified ☐ Team Needed at Space

PERMIT CANCELLATION (Check Only One)

☐ Work Complete, All Entrants/Tools Out, Ready For Re-Activation ☐ Work NOT Complete, Entrants Out

Entry Supervisor _____

Date _____

Time _____

Rescue & Emergency Services:

Plant Emergency #: _____

Nearest Phone: _____

Other Means of Summoning Help: _____

AUTHORIZED ENTRANTS:

Name (Print)	Signature	Y/N? (with as dir test optional)	Entry Time	Exit Time

AUTHORIZED ATTENDANT:

Name	Signature	Department	Time

ENTRY SUPERVISOR:

Name	Signature	Department	Time

Return Expired Permit to Office

Appendix 6

Lockout-Tag out Instructions are found in site specific locations of each building inside the Facility.

There are hanging file holders with 3 ring binders in them found in each building with site specific instructions and pictures, for each piece of equipment that is located within that approximate location.

The main LOTO procedures manual is found in the Administration building as you walk in the main door. This manual has everything in the plant, that LOTO is required.

The Headwork's building LOTO binder is found in the Main Breaker room to the left of the door.

The UV building LOTO binder is found in the UV control room to the right.

The blower building LOTO binder is found to the left of the walk-in door beside electric panel.

After a piece of equipment has been determined in need of Lockout-Tag out devices you must fill out the Lockout / Tag out Permit before doing anything else. It must be approved by Supervisor or Plant Manager before doing any work. All required steps must be checked then verified complete, then the work can be started and completed.

All copies of LOTO permits must be kept and recorded on the annual log in the main LOTO manual in the Administration Building.



LOCKOUT/ TAGOUT PERMIT

Date: _____ Start Time: _____ Time Valid to: _____ (End of Shift)

Equipment to be Isolated: _____ Exact Location: _____
 Purpose of Isolation: _____
 LOTO procedure used: _____

GENERAL PREPARATIONS CHECKLIST: (Check All Items That Apply)

REQUIRED

VERIFIED COMPLETE

INITIAL

- ☐ Alliance Lockout/ Tagout Devices Applied
- ☐ Temporary Lines/Hoses Removed/ Isolated
- ☐ Energy Sources Locked/Tagged/Tried
- ☐ Notification of Affected Employees
- ☐ Other Applicable Permits (Hot Work, etc.)
- ☐ Additional PPE Required
- ☐ Lockout/ Tagout Devices Visible
- ☐ Special Requirements (List in Comments)

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Comments: _____

ISOLATION AUTHORIZATION:

Supervisor Signature _____

Customer Health & Safety Representative
(If Applicable)

AUTHORIZED EMPLOYEES:

Name (Print)	Signature

Return Expired Permit to Safety Coordinator

VERSION 1.0
APRIL 2007

Appendix 7

ReCAP
DEVIATION NOTIFICATION FORM

Date of Incident: Time: Division:

Location of deviation:

Type of deviation: ☐ W. Treatment ☐ Distribution ☐ W.W. Treatment ☐ Collections
 Note: Double-click on checkbox and select 'Checked' under Default Value.

Description of deviation: ☐ SSO ☐ Bypass ☐ Pressure Loss ☐ Sample Analysis

SAMPLE TYPE & LIMIT	SAMPLE RESULT

How did we become aware of the issue:

Possible reason(s) for or event(s) leading to deviation:

Immediate corrective actions taken:

Further action planned to eliminate or reduce future incidents:

Other information or attachments:

Completed by: Title: Date Reported:

Who was notified?

Name	Title	Date	Time
Comments			

Completed form is to be filled out electronically and e-mailed with any other documentation through the Deviation Notification ReCAP mailbox no later than the next business day of the incident.

REPORT OF SANITARY SEWER OVERFLOW (SSO) OR WASTEWATER TREATMENT PLANT BYPASS

PERMITTEE(MUNICIPALITY/DISTRICT & PLANT):	PERMIT NUMBER:
COUNTY:	PHONE NUMBER:

a. Street Address/Landmark/Cross Street:		
b. Complaint Name & Telephone #:		
c. Start Date & Time	End Date & Time:	
d. Total Time:	Volume (Gallons):	
e. Categories of SSO		
☐ Vandalism	☐ Power Outage	☐ Broken Sewer
☐ Inflow & Infiltration	☐ Plugged Sewer	☐ Equipment Failure
Rain Inches _____	Manhole location # _____	☐ Widespread Flooding
☐ Other		
f. Categories of STP Bypass		
☐ Head Works	☐ Aeration/Biological Treatment	☐ Digester
☐ Primary Basins	☐ Clarifiers	☐ Solids Handling/Drying Beds
☐ Other		
g. Strength of SSO/Bypass: ☐ Raw (Dry weather SSO or Influent)		
☐ Partially Treated Bypass or Wet weather SSO		
Was sampling performed? ☐ yes ☐ no		
Type of Samples Taken: ☐ BOD ☐ TSS ☐ Fecal ☐ Ammonia ☐ DO ☐ Other		

a. Name of Receiving Stream:	Length Affected:
b. Discharge Course	
☐ Runs on ground and absorbs into the soil.	
☐ Ditch. Name of surface water it drains to: _____	
☐ Storm sewer. Name of surface water it drains to: _____	
☐ Surface water direct discharge: _____	
☐ Other, describe: _____	

a. ☐ Flushing ☐ Removing ☐ Chemical Application ☐ Other: _____
b. Describe detailed actions taken to correct & clean up the SSO/Bypass and any follow up actions:
CLEAN UP PERFORMED BY: _____

NAME (PRINTED):	TITLE:
SIGNATURE:	DATE:

Lake Ozark / Osage Beach Joint Wastewater Plant
INVENTORY LIST
January 2024

TOOLS		Purchased In
Item No.	Quantity & Item	2023
1	1 - Craftsman 3 drawer tool box	
2	1 - Craftsman 5 drawer tool box	
3	1 - Assortment SAE Allen wrenches	
4	1 - Assortment Metric Allen wrenches	
5	1 - 3/8 SAE T Allen wrench	
6	1 - Set 3/8 Allen wrench sockets 1/8 - 1/2	
7	1 - Set SAE & Metric nutdrivers in tool bag	
8	7 - SAE nutdrivers 3/16 - 1/2	
9	7 - Metric nutdrivers 5mm - 11mm	
10	5 - Torx screwdriver assorted sizes	
11	1 - Assortment of straight & Phillips screwdrivers	
12	1 - 1/2" straight screwdriver socket	
13	1 - 1/4" deep socket set 4mm - 14mm	
14	1 - 1/4" deep socket set 3/16 - 1/2	
15	1 - 1/4" shallow socket set 4mm - 13mm	
16	1 - 1/4" shallow socket set 5/32 - 1/2 w/ 2 & 3" extensions	
17	1 - 1/4" Ratchet	
18	1 - 40 piece 1/4 & 3/8 socket set, in RAS basement	
19	1 - 3/8" X 1/4" socket adapter	
20	1 - 3/8" deep & shallow socket set 3/8 - 3/4	
21	1 - 3/8" deep socket set 9mm - 19mm	
22	1 - 3/8" Craftsman socket set 3/8 - 13/16	
23	2 - 3/8" 1 1/2" extensions & 1 - 6" ext.	
24	1 - 3/8" Ratchet	
25	4 - 3/8" 6 point sockets 1/4 - 7/16	
26	2 - 3/8" spark plug sockets 5/8 & 13/16	
27	2 - 1/2" Ratchets & 1 set 1/2" extensions 2, 3 & 6"	
28	1 - 1/2" deep socket set 3/8 - 13/16	
29	1 - 1/2" socket shallow socket set 9mm - 21mm	
30	1 - 1/2" socket shallow socket set 7/16 - 1 1/4	
31	6 - KD brand 3/4" sockets, 1 3/8, 1 7/16, 1 1/2, 1 5/8, 1 13/16 & 2 3/4"	
32	1 - 3/4" Breaker bar & 16" extension, True craft	
33	1 - 10 piece ignition wrench set 4mm - 13mm	
34	1 - 10 piece ignition wrench set 5/32 - 7/16	
35	2 - Boxed end wrench's 1/2-9/16 & 5/8-11/16	
36	3 - 3/8, 4 - 7/16, 2 - 11/16, 2 - 3/4, 2 - 13/16, 2 - 7/8 combination wrenches	
37	4 - 15/16, 4 - 1", 3 - 1 1/16, 5 - 1 1/4 & 4 - 1 1/8 comb. wrenches	
38	3 - open end wrenches 7/16-17/32, 5/8-11/16, & 3/4-7/8	
39	1 - Set pm comb. Wrench's 1/4 thru 7/8 in pouch	
40	3 - snap ring pliers	
41	2 - pair channel lock pliers, 1 blue handle & 1 black	
42	2 - pair electrical channel lock pliers, 6 & 10"	
43	1 - set of left handed drill bits	

Lake Ozark / Osage Beach Joint Wastewater Plant
INVENTORY LIST
January 2024

TOOLS		Purchased In
Item No.	Quantity & Item	2023
44	6 - electrical screwdrivers, 3 straight & 3 philips head	
45	2 - wire strippers	
46	1 - pair lineman pliers	
47	1 - pair needle nose pliers	
48	1 - pair side cutters, 6"	
49	3 - 10" Vise grip pliers, 2 curved jaw & 1 straight	
50	2 - 6" Vise grip pliers, 1 curved & 1 needle jaw	
51	1 - yellow handle tin snips	
52	1 - 12" crescent wrench, Craftsman	
53	3 - pipe wrenches, 18", 24", & 36"	
54	1 - 10" Stanley level	
55	1 - 24" Craftsman level	
56	2 - 25' Task Force tape measures	
57	2 - 6" pocket metal rules	
58	1 - points file	
59	1 - file assortment	
60	1 - rasp file	
61	2 - Concrete trowel	
62	1 - feeler gauge	
63	1 - tool bag	
64	1 - ice pick	
65	1 - punch & chisel set	
66	1 - 2" C clamp & 2 - 4" C clamps	
67	2 - putty knives	
68	1 - parts brush	
69	1 - ball peen hammer	
70	1 - 4lb shop hammer	
71	1 - claw hammer	
72	1 - 10 lb sledge hammer	
73	1 - rubber mallet	
74	1 - hacksaw	
75	3 - wire brushes	
76	1 - tire gauge	
77	1 - 6" square	
78	2 - rag pullers	
79	1 - crow bar	
80	1 - garden rake	
81	1 - round point shovel	
82	1 - flat shovel	
83	1 - 10lb straight bar	
84	1 - pick	
85	1 - anti freeze tester	
86	1 - flat bar	

**Lake Ozark / Osage Beach Joint Wastewater Plant
INVENTORY LIST
January 2024**

TOOLS		Purchased In
Item No.	Quantity & Item	2023
87	1 - Craftsman 28 pc. tap & die set	
88	1 - Black & Decker drill & driver set	
89	1 - 7" carbide masonry drill bit set 3/16 - 3/4	
90	3 - masonry bits, 1/4, 5/16 & 3/8	
91	1 - Black & Decker metal drill bit set, 1/16 to 1/2 & HS bits assorted sizes	
92	2 - gear pullers, 1 large & 1 small	
93	1 - Black & Decker 3/8 variable speed drill	
94	1 - mini copper tubing cutter	
95	1 - PVC cutter	
97	1 - 1/2" Electric Impact Wrench	
98	1 - Sandblaster w/ 24ft of hose & 2 bags of blasting material	
99	1 - Hitachi hammer drill*	
SLUDGE TRUCK TOOLS		
100	1 - grease gun	
101	1 - 20 piece Stanley SAE Comb. end wrenches 1/4 - 7/8	
102	1 - Set Comb. End wrenches 8mm - 18mm	
103	1 - Rubber maid tool bag	
104	4 - Stanley flathead screwdrivers	
105	2 - Stanley phillips screwdrivers	
106	AC Delco T20x4" star screwdriver	
107	AC Delco 2x1 1/2" phillips screwdriver	
108	AC Delco 1/4"x1 1/2" slotted screwdriver	
109	13 oz. Wood handle claw hammer	
110	RayOVac industrial flashlight	
111	25' task force tape measure	
112	7 WR vise grip	
113	10 WR vise grip	
114	Stanley lineman pliers 84-113	
115	Stanley wire cutters 84-060	
116	Stanley crescent wrench 85-763	
117	1 - Set of wheel chocks	
118	1 - log chain	
119	1 - air hose	
120	1 - assortment Buse fuses	
MISCELLANEOUS EQUIPMENT		
121	1 - Hobart Stickmate 160i Stick Welder	
122	1 - Ryobi 18 volt Drill, Circular Saw, Recip saw, Flashlight, Vacuum Combo Kit w/2 batteries	
123	1 - Millermatic Wire feed welder w/helmet & gloves	
124	1 - 10-3 50ft & 1 - 10-3 100ft Extension cord	
125	4 - metal lockers in men's restroom	
126	2 - metal lockers in women's restroom	
127	1 - plastic mop bucket w/wringer	
128	1 - Gorilla ladder MPX-22	

Lake Ozark / Osage Beach Joint Wastewater Plant
INVENTORY LIST
January 2024

MISCELLANEOUS EQUIPMENT		Purchased In
Item No.	Quantity & Item	2023
129	1 - 4' step ladder, fiberglass	
130	1 - 6' step ladder, fiberglass	
131	10' stepladder, wood	
132	24' 300 lb rated extension ladder, aluminum	
133	24' 300 lb. rated extension ladder, fiberglass	
134	2 - set of plastic saw horses	
135	1 - 6" x 10' suction hoses	
136	2 - 6" x 25' suction hose	
137	1 - 4" x 60' suction hose	
138	1 - 4" x 15' discharge hose @ septic unloading station	
139	1 - Schumacher battery charger model SE-82-6	
140	1 - DieHard 12 volt automatic battery charger/engine starter model 28.71331	
141	1 - 100' extension cord	
142	1 - 50' extension cord	
143	1 - 1 gallon plastic gas cans	
144	2 - 5 gallon steel safety gas cans	
145	1 - misc. log chains, headwork's tool room	
146	3 - 50' x 1 1/2" fire hoses with 2 nozzles	
147	5 - Garden hoses	
148	1 - mechanic creeper	
149	1 - Craftsman gas leaf blower	
150	1 - Craftsman 4 cycle weed eater	
151	1 - cherry picker (engine hoist)	
152	1 - 9 gallon portable air tank	
153	1 - Campbell Hausfield 26 gallon air compressor	
154	1 - CH air drill	
155	1 - CH air ratchet	
156	1 - CH air grinder	
157	1 - CH air impact wrench	
158	1 - CH air chisel w/4 chisels	
159	1 - air tire inflator	
160	1 - Pro-Arc oxy-acc torch kit & tanks	
161	1 - Pro-Force 33 paint sprayer	
162	1 - 15 gal 12 volt portable sprayer	
163	1 - 60gal Ingersoll Rand in UV building	
164	1 - 3 ea. grease gun	
165	1 - Cowhbian 5" multi bench vise	
166	3 - shop vac's	
167	2 - drum dollies	
168	1 - Commercial Elec. Amp meter, HDSA 500	
169	1 - Commercial Elec. Multi meter, HDM 4100	
170	2 - insulated fuse pullers, 1 large & 1 small	
171	1 - GB circuit tester	

Lake Ozark / Osage Beach Joint Wastewater Plant
INVENTORY LIST
January 2024

MISCELLANEOUS EQUIPMENT		Purchased In
Item No.	Quantity & Item	2023
172	1 - 3/8 hammer drill	
173	1 - Skil 14.4 drill kit, w/ battery & charger	
174	1 - Black & Decker bench grinder	
175	1 - Black & Decker hand grinder, 4 1/2"	
176	1 - 115V 3/8 VSR Drill/ Driver	
177	1 - propane torch, elec. Start	
178	1 - strap 1 ton come along	
179	2 - chain come alongs, 1 ton & 3 ton	
180	1 - cable come along, 1 ton	
181	1 - 2 ton floor jack	
182	1 - 12 ton high lift jack	
183	2 - yellow air hoses	
184	1 - 100gal. Portable Diesel fuel tank	
185	1 - Fluke T5-1000 Volt/Amp meter	
186	3 - 2 wheel wheel-barrows, 2 are being used for bar green tubs	
187	1 - garden cart	
188	1 - Garden power 65ft. 5/8" Auto-Retractable Garden Hose reel	
189	1 - portable hand work light	
190	1 - portable work light stand w/ dual mounted lights	
191	3 - Strong Arm electric winches for clarifier skimmer baskets	
192	1 - Strongway electric hoist for lift station pumps	1
193	1 - AMT 3" trash pump w/wheel kit	
194	1 - 3" 50ft & 1 - 30ft suction/discharge hose w/couplings	
195	1 - North Star 3000 PSI Steam and Hot Water Pressure Washer	
196	1 - Warn 120 volt Winch/Hoist for pulling UV channel basket	
197	1 - Chapin Homepro backpack sprayer	
OFFICE INVENTORY		
198	1 - wooden desk	
199	1 - metal desk	
200	4 - Office chairs	
201	3 - file cabinets, 1 - 4 drawer & 2 - 2 drawer	
202	1 - 3 shelf bookshelf	
203	1 - PC, w, speaker in monitor, keyboard, and surge arrest--DELL	
204	1 - MFC-L2685DW Brother copier / printer	
205	1 - conference table	
206	27 - folding steel chairs	
207	1 - Samsung Mobile phone w/ AT&T service	1
208	1 - Fellowes paper shredder	
209	1 - Bissell vacuum cleaner	
210	1 - Emerson TV / VCR Combo (for training)	
211	1 - Emerson microwave	
212	1 - Magic chef refrigerator	
213	1 - Culligan water cooler	

Lake Ozark / Osage Beach Joint Wastewater Plant
INVENTORY LIST
January 2024

CONSUMABLE MATERIALS		Purchased In
Item No.	Quantity & Item	2023
214	2 - 500 Gallon propane tanks, w/ 535 gallons as of 1/10/24	917 gal.
215	1 - 700 Gallon diesel fuel tank in Generator, w/ 550 gallons as of 1/10/24	350 gal.
VEHICLE'S		
216	1 - TRYN SP-575X-1 Mini Pro Tailgate Spreader SN#190730300540SP-575X-1	
217	1 - 2018 Ford F-250 w/Knapplied snow blade vin# 1FTBF2B66JEC64283	
218	1 - 2022 Mack Granite Sludge Truck w/3600 gallon tank vin# 1M2GR2GC7NM028115	
219	1 - John Deere Z915E ZTrak 54" Zero-Turn Mower	
LABORATORY EQUIPMENT		
Item No.	Quantity & Item	
220	1 - OHAUS adventurer analytical balance	
221	1 - Orion & 1 no name brand bench top electrode arms	
222	1 - USA Bluebook electric stirrer	
223	3 - Isco Auto samplers, 1 - NI-CAD batteries, 1 small & 1 larger charger	
224	1 - Isco Auto sampler pump	
225	1 - Hach Sension+ MM340 Ammonia meter & probe	
226	1 - Hach HQ411D pH/mv meter & probe with stand	
227	1 - Allied stirrer and hot plate	
228	1 - Vector spotlight, for discharging Isco batteries	
229	2 - VWR ASTM certified / calibrated thermometers	
230	2 - Nalgene desiccators	
231	1 - muffle furnace-Therolyne	
232	1 - vacuum pump-Fisher	
233	1 - sterilizer-Electric Steno Clave	
234	1 - Incubator-Fisher ISO temp	
235	1 - drying oven-Fisher ISO temp oven	
236	1 - portable D.O. meter-YSI 550-A	
237	1 - BOD Incubator- Revco	
238	1 - microscope-Micromaster	
239	1 - Lab refrigerator-Criterion	
240	2 - timers-West Bend	
241	1 - Hanna portable pH meter	
242	1 - Hach HQ40D meter w/ LBOD probe	
243	1 - Hach HQ1130 DO meter w/ Rugged LDO probe	
244	1 - Hach Distillation Glassware set for Ammonia	
245	1 - Thermo Hot plate for distillation	
246	1 - Igloo Ice Maker for Samplers	
247	2 - Frigidaire Ice Maker for Samplers	

Lake Ozark / Osage Beach Joint Wastewater Plant
INVENTORY LIST
January 2024

SAFETY EQUIPMENT		Purchased In
Item No.	Quantity & Item	2023
248	10 - Safety Glasses / Goggles	
249	2 - Face Shield	
250	2 - UV Face shields	
251	4 - Rubber Gloves	
252	100 - Disposable Face mask	
253	150 - Disposable Nitrile/Rubber Gloves	200
254	185 - pair disposable ear plugs	
255	2 - Ear Protection muffs	
256	1 - Eye Wash Stations	
257	2 - Back Supports	
258	1 - Gas Detector / Monitor, portable RKI GX-3R with (Bump/Calibration kit)	
259	1 - Lock Out/Tagout Station	
260	2 - Full Body Harness	
261	1 - Lanyards & 1 spreader bar	
262	1 - Tripod, Winch and air machine	
263	3 - First Aid Kits	
264	6 - Fire Extinguishers, Plant	
265	1 - Fire Extinguishers, Office	
266	3 - Fire Extinguishers, Vehicles	
SPARE EQUIPMENT & PARTS		
267	4 - electrical contact relay	
268	1 - 3 phase monitors	
269	3 - Allen Bradley PLC I/O Boards for UV control panel	
270	26 - UV bulbs	
271	42 - UV quartz sleeve	
272	3 - UV ballast	
273	2 - UV air cylinder rebuild kit & 2 outer bands	
274	7 - New UV air cylinder	
275	1 - UV air cylinder hose, approx. 20 ft.	
276	10 - Wiper Rings	144
277	2 - UV bulb cord w/2 bulb sockets	
278	1 - Blue Poly tubing for outdoor UV panel 5ft 6mm & 5ft 10mm	10 ft
279	2 - UV sensor brushes	
280	1 - blower for digesters	
281	1 - Carboy for BOD water	
282	6 - Fluorescent bulb ballast & 7 - T-8 bulbs	
283	1 - quantity of assorted 3/4" & 1" PVC pipe fittings	
284	1 - quantity of assorted nuts & bolts	
285	1 - Transtector ACP-100 surge suppressor	
286	1 - Transtector PDS 1 tube surge protector	
287	1 - Alternating relay for lift stations	
288	9 - Ice cube relays for UV system	
289	3 - Thermal overloads for aerator MDP	