

**OSAGE BEACH / LAKE OZARK
JOINT SEWER BOARD MEETING
AGENDA
January 17, 2023 @ 4:00 p.m.
LAKE OZARK CITY HALL**

1. CALL TO ORDER

2. ROLL CALL

Mayor, Lake Ozark, Dennis Newberry
Mayor, Osage Beach, Michael Harmison
City Administrator, Lake Ozark, Harrison Fry
City Administrator, Osage Beach, Jeana Woods
Alderman, Osage Beach, Kevin Rucker
Alderman, Lake Ozark, Pat Thompson
Public Works Director, Lake Ozark, Matt Michalik
Public Works Operations Manager, Osage Beach, Kevin Crooks
Member at Large, Mr. Gary Hamner

3. MINUTES

Page Numbers

Regular Meeting: November 15, 2022 2-3

4. REPORTS –

Bill List	4-19
Revenue Budget Analysis	20
Expenditure Budget Analysis	21
Income & Expense Summary	22

November and December 2022 Alliance Report of Operations 23-58

Approval of Flow Chart; November and December 2022

5. OLD BUSINESS

A. Board Representative Update

6. NEW BUSINESS

A. Sewer Plant Flow

B. Lake Ozark/Osage Beach Joint Wastewater Plant Inventory and ERP discussion

7. ADDITIONAL DISCUSSION ITEMS

8. ADJOURNMENT

THE NEXT MEETING WILL February 21, 2023 at 4:00 PM at LAKE OZARK CITY HALL

**LAKE OZARK-OSAGE BEACH
JOINT SEWER BOARD**
Meeting Minutes – November 15th, 2022

CALL TO ORDER:

Resident Member, Mr. Gary Hamner called the meeting to order at 4:03 pm on Tuesday November 15th, 2022 at Lake Ozark City Hall.

ROLL CALL:

Mayor, Lake Ozark, Dennis Newberry – Absent
Mayor, Osage Beach, Michael Harmison- Present
City Administrator Lake Ozark, Harrison Fry - Present
City Administrator Osage Beach, Jeana Woods - Present
Alderman Osage Beach, Kevin Rucker- Present
Alderman Lake Ozark, Pat Thompson- Present
Public Works Director Lake Ozark, Matt Michalik – Present
Public Works Operations Manager, Kevin Crooks – Absent
Resident Member, Mr. Gary Hamner - Present

MINUTES:

Alderman Osage Beach, Kevin Rucker motioned to approve the meeting minutes from October 18th, 2022. The motion was seconded Alderman Lake Ozark, Pat Thompson and passed unanimously.

REPORTS:

- Bill List – Motion to approve by Alderman Lake Ozark, Pat Thompson. The motions was seconded by City Administrator Osage Beach, Jeana Woods. and was passed unanimously.
- Revenue Budget Analysis.
- Expenditure Budget Analysis.
- Income & Expense Summary, Check Registers and Bank Statements were reviewed.
- FY2023 Operating Budget.

Alderman Lake Ozark, Pat Thompson motioned to approve the Bill List, Revenue Budget Analysis, Expenditure Budget Analysis and the Income & Expense Summary, Check Registers and Bank Statements. The motion was seconded by City Administrator Osage Beach, Jeana Woods and was unanimously approved.

Alderman Osage Beach, Kevin Rucker motion to approve the FY2023 Operating Budget. The motion was seconded by Public Works Director Lake Ozark, Matt Michalik and was unanimously approved.

Alderman Lake Ozark, Pat Thompson motioned to approve the proposed 2023 equipment replacement fund. The motion was seconded by City Administrator Lake Ozark, Harrison Fry and was unanimously approved.

ALLIANCE REPORT OF OPERATIONS:

Alliance Report of Operations: The average daily incoming flow for October was 1.198 mgd. We had 5.2 inches of precipitation in October measured at the WWTP.

Operationally, the plant's discharge was excellent, with an effluent monthly average BOD and TSS of 2.5 mg/l and 3.0 mg/l respectively for October which represents a 98.1 + % or better removal.

The MLSS average for both aeration basins was 3,994 mg/l in October. There were 42 loads of biosolids or 151,200 gallons land applied in October. We received 33 loads of septage or 71,000 gallons for October.

Other – pending getting numbers back from the vendors for the 5-Year CIP. Targeting getting numbers back by the January 2023 meeting.

Discussion to add the recommendation to raise the dump fee to .05 cents per gallon to the November Meeting.

APPROVAL OF FLOW CHART

Public Works Director Lake Ozark, Matt Michalik motioned to approve the flow chart. The motion was seconded by Alderman Lake Ozark, Pat Thompson and it was unanimously approved.

OLD BUSINESS:

- A. Board Representative Update. Performing as expected.

NEW BUSINESS:

- A. Alderman Lake Ozark, Pat Thompson motion to approve the haulers fee raise from \$.04 /gallon to \$.05 /gallon as of January 1st, 2023. City Administrator Osage Beach, Jeana Woods seconded the motion, and it was unanimously approved.

ADDITIONAL DISCUSSION ITEMS:

Janitorial increase discussion and review to be added the January 17th, 2022. Agenda

ADJOURNMENT:

With no further business to discuss, the meeting adjourned at 4:33 pm. Motion made by City Administrator Lake Ozark, Harrison Fry to adjourn and was seconded by City Administrator Osage Beach, Jeana Woods.

Approved on:

Mayor, Dennis Newberry

Clerk, Robin Craig

JOINT SEWER BOARD
BILL LIST
JANUARY 17, 2023

OPERATING FUND BILLS PAID PRIOR TO BOARD MEETING:	\$	43,531.96
OPERATING FUND BILLS TO BE PAID:	\$	44,255.23
EQUIPMENT REPLACEMENT FUND BILLS PAID PRIOR TO BOARD MEETING:	\$	-
EQUIPMENT REPLACEMENT FUND BILLS TO BE PAID:	\$	324.79

TOTAL \$ 88,111.98

OPERATING FUND BILLS PAID PRIOR TO BOARD MEETING:

Account	Check	Paid To:	Description:	Amount:
4000	1058	Equipment Replacement Fund	Payment into ER Fund	\$ 4,584.00
4020	1060	American Sun Control	Railing for Steps to Outfall	\$ 2,819.00
4020	1061	Gralnger	Replament Timers	\$ 235.98
4020	1062	Heartland Environmental Dist. Inc.	Grease Bacteria	\$ 570.00
4020	1063	Majestic Franchising Inc.	December	\$ 187.16
4020	1064	M/C Calco Industrial Electronics, Inc	Delay Timer for Bar Screens	\$ 82.46
4020	1064	M/C QuickBooks	Accounting Software	\$ 30.00
4020	1065	Ray Lindsey Co.	Mechanical Seal for Pump	\$ 172.48
4150	1066	O'Reilly Auto	Tire Repair Kit	\$ 32.98
4170	1067	Alliance Water Resources, Inc.	December	\$ 27,590.00
4176	1068	Ameren MO	11673321	\$ 4,396.66
4176	1068	Ameren MO	98041275	\$ 54.41
4176	1069	AT&T	December	\$ 103.47
4176	1070	Republic	December	\$ 61.77
4020	1071	Capital Materials	Rock for Road	\$ 2,050.35
4020	1072	Gralnger	Limit Switch, Relay Sockets	\$ 551.26
TOTAL				\$ 43,531.96

OPERATING FUND BILLS TO BE PAID:

Account	Check	Paid To:	Description:	Amount:
4000	1073	Equipment Replacement Fund	Payment into ER Fund	\$ 4,584.00
4020	1074	Catalyst Electric	Troubleshoot Barscreen	\$ 280.00
4020	1074	Catalyst Electric	Install 480V heater, repair bar scree	\$ 640.00
4020	1075	Controlled Heating	Annual HVAC Service	\$ 208.15
4020	1076	Core & Main	Valve pit risers for headworks	\$ 106.74
4020	1077	Majestic Franchising Inc.	January	\$ 275.00
4020	1078	M/C Calco Industrial Electronics, Inc	Sockets for new style timer delay	\$ 17.71
4020	1078	M/C Gifted Gardens	Document Shred	\$ 35.16
4020	1078	M/C Calco Industrial Electronics, Inc	Contactator & Relay	\$ 93.07
4020	1078	M/C QuickBooks	Accounting Software	\$ 30.00
4020	1079	Menards	39377 Cleaner	\$ 28.68
4020	1079	Menards	39982 Cord, Thermo, misc.	\$ 69.01
4020	1079	Menards	39983 Sandpaper	\$ 5.99
4020	1079	Menards	40262 Valve	\$ 10.19
4020	1079	Menards	40268 Return Valve	\$ (10.19)
4020	1079	Menards	40269 Brass Cap	\$ 6.67
4020	1080	JCI Industries, Inc.	Pista Grit Pump Repair	\$ 1,750.00
4020	1081	Smart Printing Centers	Waste Hauler Forms	\$ 311.68
4020	1082	Wallis Lubricant LLC	311 Gallons Diesel Fuel	\$ 959.76
4170	1083	Alliance Water Resources, Inc.	January	\$ 29,466.00
4176	1084	Ameren MO	11673321	\$ 4,144.53
4176	1084	Ameren MO	98041275	\$ 79.74
4176	1085	AT&T	January	\$ 103.47
4176	1086	Ferrellgas	434.1 Gallons of Propane	\$ 998.43
4176	1087	Republic	January	\$ 61.45
TOTAL				\$ 44,255.23

EQUIPMENT REPLACEMENT FUND BILLS PAID PRIOR TO BOARD MEETING:

Account	Check	Paid To:	Description:	Amount:
TOTAL				\$ -

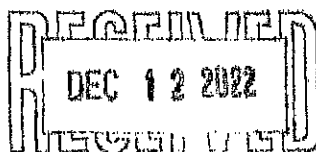
EQUIPMENT REPLACEMENT FUND BILLS TO BE PAID:

Account	Check	Paid To:	Description:	Amount:
4000		M/C Amazon	Replacement Heater RAS Rm	\$ 324.79

American Sun Control
 PO Box 1117
 Osage Beach, MO 65066
 US
 (573) 348-4594
 info@americansuncontrol.com
 om
 americansuncontrol.com



BILL TO
 Joint Sewer Board
 PO Box 1986
 Lake Ozark, MO 65049



INVOICE 5623

DATE 09/20/2022 TERMS Due on receipt

DUE DATE 12/09/2022

SALESMAN
 DJ Lang

PO#
 #9 Anderson Rd

DATE	ACTIVITY	QTY	AMOUNT
	Railing:Railing ADA Railing/ approx. 21 ft straight/ approx. 36 ft down rake/ 36" tall/ 2x2 square posts with pyramid caps/ 1 " sch 40 single grip bar/ Color: Dull Metallic/ Installed on the left side going down. Standard installation.	57	2,819.00

THANK YOU FOR YOUR BUSINESS!

Payment is Due and Payable Upon Completion of Work.
 Finance charges will be charged on past due balances @18%
 APR. Such finance charges, if any, begin accruing and become
 due and payable 30 days after the payment is due.

*RAILING FOR STEPS GOING
 DOWN TO OUTFALL*
 GL Acct#: 4020
 Signature: [Signature]
 Date: 12/12/22

TOTAL DUE \$2,819.00



- Pay by phone: 1.800.268.8728
- Pay by mail: PO Box 88088, Chicago, IL 60680-1088
- Pay online or manage your account: AmerenMissouri.com
- Customer Service: 1.877.426.8736

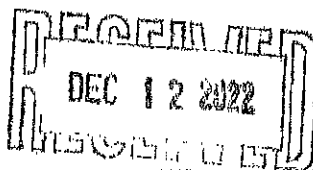
FOCUSED ENERGY. For Life.

Account Number 4880005832
 Customer Name ALLIANCE WATER RESOURCES INC
 Service Address 3 ANDERSON RD.,
 LAKE OZARK, MO 66049

Current Billing for Statement 12/03/2022

Total Electric Charges \$4,396.65

Total Amount Due \$4,396.65



AMOUNT DUE \$4,396.65

Due Date 01/03/2023

Amount After Due Date \$4,440.82

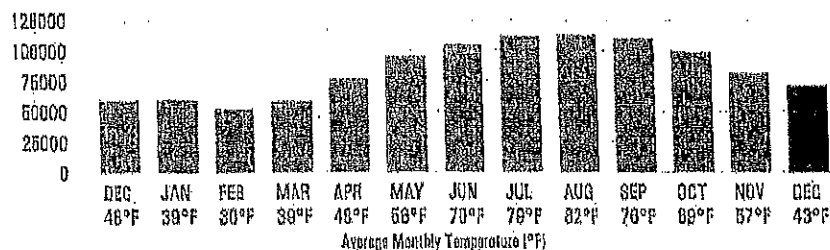
Previous Statement \$4,981.18

Total Payments \$4,981.18

Payment Received, Thank You

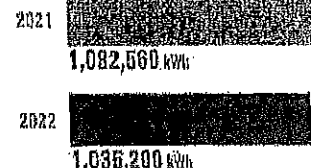
Electric Usage History

Electric Usage in Kilowatt Hours (kWh)



Electric Usage Summary (kWh)

So far this year, you're using **1.4% less** than last year.



Usage from Jan-Dec for 2021 & 2022

13075 02759 2152381 015971 00310002

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#: 4675

Signature: [Signature]

Date: 12/12/22



» See next page for service details.

Keep this portion for your records.

Page 1 of 4

Please return this portion with your payment.



☐ Check if you have address changes on back.

Amount Due	Due Date
\$4,396.65	January 03, 2023
Delinquent Amount After Due Date	Account Number
\$4,440.82	4880005832

Amount Enclosed \$

>002750 2152381 0001 092139 10Z

ALLIANCE WATER RESOURCES INC
 PO BOX 1985
 LAKE OZARK, MO 66049-1985

AMEREN MISSOURI
 PO BOX 88088
 CHICAGO IL 60680-1088



- Pay by phone: 1.888.268.3729
- Pay by mail: PO Box 88000, Chicago, IL 60680-1000
- Pay online or manage your account: AmerenMissouri.com
- Customer Service: 1.877.426.3736

FOCUSED ENERGY. For Life.

Electric Service Details

Service from 11/03/2022 - 12/06/2022 (33 days)

Electric Meter Read

METER NUMBER	SERVICE FROM - TO	NO. DAYS	USAGE TYPE	READING TYPE	CURRENT READING	PREVIOUS READING	READING DIFFERENCE	MULTIPLIER	USAGE
11873321	11/03 - 12/03	33	Total kWh	Actual	70844.0000	70591.0000	443.0000	100.0000	70880.0000
11873321	11/03 - 12/06	33	Peak kW	Actual	0.0000	0.0000	0.0000	100.0000	138.2000

Usage Summary

Total kWh	70880.0000	Non-Summer kWh	70880.0000
Peak kW	138.2000	Billing Demand	138.2000
Total Billing Demand	138.2000	October Winter Base kW	164.0000
Winter Base Demand	138.2000	Base kWh Ratio	1.0000
Base kWh (HUD)	70880.0000	Seasonal kWh (HUD)	0.0000

Rate 3M Large General Service

DESCRIPTION	USAGE	UNIT	RATE	CHARGE
Seasonal Energy Charge	0.00	kWh	@ \$ 0.03870000	\$0.00
Summer Demand Charge	138.20	kW	@ \$ 0.00000000	\$0.00
Winter Demand Charge	138.20	kW	@ \$ 2.10000000	\$290.12
Energy Charge/Hours Used	0.00	kWh	@ \$ 0.10540000	\$0.00
Base Energy Charge / Hours Used	20,730.00	kWh	@ \$ 0.06820000	\$1,372.33
Base Energy Charge / Hours Used	27,640.00	kWh	@ \$ 0.04920000	\$1,359.80
Base Energy Charge / Hours Used	22,810.00	kWh	@ \$ 0.03870000	\$871.14
Customer Charge				\$104.88
Fuel Adjustment Charge	70,880.00	kWh	@ \$ 0.00270000	\$191.38
Energy Efficiency Investment Charge	70,880.00	kWh	@ \$ 0.00326200	\$231.21
Renewable Energy Adjustment	70,880.00	kWh	@ \$ -0.00050000	-\$35.44
Total Service Amount				\$4,398.85
Total Electric Charges				\$4,398.85

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

Page 2 of 4

Address Changes or Corrections

Name _____
 Address _____
 City, State, Zip _____
 Phone Number _____

AmerenMissouri.com/WaysToPay



ONLINE
E-CHECK



PHONE
888.268.3729



IN PERSON
FIND A PAY STATION AT
AMERENMISSOURI.COM/
PAYSTATION



ONLINE
CREDIT CARD



MAIL
STUB & CHECK



- Pay by phone: 1.800.288.3728
- Pay by mail: PO Box 88088, Chicago, IL 60680-1088
- Pay online or manage your account: AmerenMissouri.com
- Customer Service: 1.877.428.3736

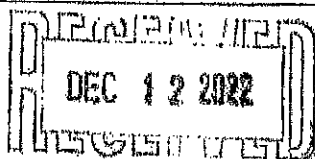
FOCUSED ENERGY. For life.

Account Number: 5580005920
 Customer Name: ALLIANCE WATER RESOURCES INC
 Service Address: 3 ANDERSON RD
 LAKE OZARK, MO 65049

Current Detail for Statement 12/03/2022

Total Electric Charges \$54.41

Total Amount Due \$54.41



AMOUNT DUE \$54.41

Due Date 01/03/2023

Amount After Due Date \$54.95

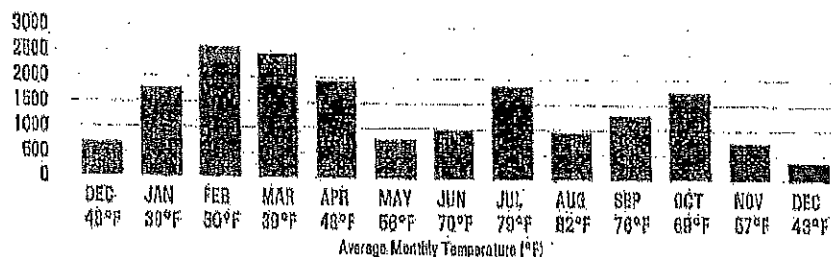
Previous Statement \$89.88

Total Payments \$89.88

Payment Received Thank You

Electric Usage History

Electric Usage in Kilowatt Hours (kWh)



Electric Usage Summary (kWh)

So far this year, you're using **30.5% less** than last year.

2021 25,170 kWh

2022 17,500 kWh

Usage from Jan-Dec for 2021 & 2022

13073 02752-2152381 005430 010979 00510002

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: Gary Hutchinson

Date: 12/12/22

Keep this portion for your records.

See next page for service details.

Page 1 of 4

Please return this portion with your payment.



☐ Check if you have address changes on back.

Amount Due	Due Date
\$54.41	January 03, 2023
Delinquent Amount After Due Date	Account Number
\$54.95	5580005920

Amount Enclosed \$

>002752 2152381 0001 092139 102

ALLIANCE WATER RESOURCES INC
 PO BOX 1085
 LAKE OZARK, MO 65049-1085

AMEREN MISSOURI
 PO BOX 88088
 CHICAGO IL 60680-1088



- Pay by phone: 1.888.268.3729
- Pay by mail: P.O. Box 88008, Chicago, IL 60680-1008
- Pay online or manage your account: AmerenMissouri.com
- Customer Service: 1.877.426.3736

FOCUSED ENERGY. For Life.

Electric Service Details

Service from 11/03/2022 - 12/06/2022 (33 days)

Electric Meter Read

METER NUMBER	SERVICE FROM TO	NO. DAYS	USAGE TYPE	READING TYPE	CURRENT READING	PREVIOUS READING	READING DIFFERENCE	MULTIPLIER	USAGE
88041276	11/03 - 12/06	33	Total kWh	Actual	26370.0000	26334.0000	36.0000	10.0000	360.0000
88041276	11/03 - 12/06	33	Peak kW	Actual	3.3280	0.0000	3.3280	10.0000	33.2800

Usage Summary

Total kWh	360.0000	Non-Summer kWh	360.0000
Winter Base kWh	1000.0000	Current Base kWh	360.0000
Winter Cur Base kWh	360.0000	Seasonal kWh	0.0000

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

Threshold - Peak Demand

DESCRIPTION	USAGE	UNIT	RATE	CHARGE
Base Energy Charge	360.00	kWh	@ \$ 0.08480000	\$30.53
Seasonal Energy Charge	0.00	kWh	@ \$ 0.04880000	\$0.00
Customer Charge				\$21.86
Fuel Adjustment Charge	360.00	kWh	@ \$ 0.00270000	\$0.97
Energy Efficiency Investment Charge	360.00	kWh	@ \$ 0.00343000	\$1.23
Renewable Energy Adjustment	360.00	kWh	@ \$ 0.00050000	\$0.18
Total Service Amount				\$54.41
Total Electric Charges				\$54.41

Payments Since Previous Statement

DATE RECEIVED	AMOUNT
November 21, 2022	\$89.98

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

Page 2 of 4

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Name _____
 Address _____
 City, State, Zip _____
 Phone Number _____

AmerenMissouri.com/WaysToPay



ONLINE
E-CHECK



PHONE
888.268.3729



IN PERSON
FIND A PAY STATION AT
AMERENMISSOURI.COM/PAYSTATION



ONLINE
CREDIT CARD



MAIL
STUB & CHECK

Remittance Address:
Capital Materials
PO Box 104990, Jefferson City, MO 65110
For Invoice & Ticket Information: 660-827-9965

CAPITAL MATERIALS

INVOICE

310090616

INVOICE DATE:

12/20/2022

PO:

JOB/PROJECT:

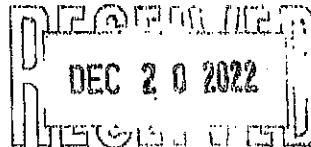
1041

JOINT SEWER BOARD

PO BOX 1985

#3 ANDERSON RD

LAKE OZARK, MO 65049



T PLANT

Net 30 Days

Please detach and return this portion with your payment. Please indicate account number 1041 on check.

Ticket	Date	Product	Qty	Rate	Amount	Other Charge	Rate	Amount	Other Fit Charge	Fee Amount	Tax Amount	Total
2121076	12/16/2022	1" BASE	16.42	7.50	123.15	0.00	6.50	106.73	0.00	0.00	0.00	228.88
2121077	12/16/2022	1" BASE	15.90	7.50	119.25	0.00	6.50	103.35	0.00	0.00	0.00	222.60
2121080	12/16/2022	1" BASE	16.36	7.50	122.70	0.00	6.50	106.34	0.00	0.00	0.00	228.04
2121081	12/16/2022	1" BASE	16.35	7.50	122.63	0.00	6.50	106.28	0.00	0.00	0.00	228.91
2121084	12/16/2022	1" BASE	16.33	7.50	122.48	0.00	6.50	106.15	0.00	0.00	0.00	228.63
2121085	12/16/2022	1" BASE	15.91	7.50	119.33	0.00	6.50	103.42	0.00	0.00	0.00	222.75
2121087	12/16/2022	1" BASE	16.46	7.50	123.45	0.00	6.50	106.89	0.00	0.00	0.00	230.44
2121088	12/16/2022	1" BASE	16.29	7.50	122.18	0.00	6.50	105.89	0.00	0.00	0.00	228.07
2121095	12/16/2022	1" BASE	16.43	7.50	123.23	0.00	6.50	106.80	0.00	0.00	0.00	230.03
Invoice Total			<u>146.45</u>		1,098.40	0.00		951.95	0.00	0.00	0.00	<u>2,050.35</u>

ROCK FOR THE ROAD
GL Acct#: 4020
Signature: [Signature]
Date: 12/21/22

T PLANT

Remit To:

JCI Industries, Inc.
PO Box 411114
Kansas City, MO 64141
816-525-3320



INVOICE

INVOICE	
8244329	
Invoice Date	Page
12/15/2022	1 of 1
ORDER NUMBER	
1220793	

Branch 06

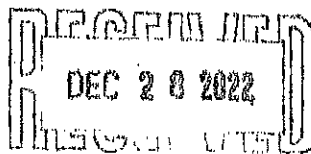
JEFFERSON CITY

Bill To:

LAKE OZARK/OSAGE BEACH JOINT SEWER BOARD
PO BOX 1985
LAKE OZARK, MO 65049

Ship To:

ALLIANCE WATER RESOURCES
#3 ANDERSON ROAD
LAKE OZARK, MO 65049



Customer ID: 400263

PO Number					Term Description		Net Due Date	
GARY HUTCHCRAFT-17					Net 30		1/14/2023	
Order Date		Pick Ticket No		Primary Salesrep Name			Order Taker	
11/22/2022 11:45:14		3233482		Ben Reinkemeyer JJ			MHASKELL	
Quantities					Item ID Item Description	Pricing UOM	Unit Price	Extended Price
Ordered	Shipped	Remaining	UOM Unit Size	Disp		Unit Size		
1.00	1.00	0.00	EA		M REULAND 11-18-22	EA	1,750.00	1,750.00
			1.0		REULAND 7.5HP 284U 1800	1.0000		

Total Lines: 1

PISCA GRIT PUMP REPAIR

SUB-TOTAL: 1,750.00

GL Acct#:

4020

TAX: 0.00

Signature:

AMOUNT DUE: 1,750.00

Date:

12/28/22

Carrier: BEST WAY

Trucking #:

Merchandise cannot be returned without permission. Claims for shortages or errors must be made in writing within thirty (30) days after receipt of goods. All approved returns must include a JCI return authorization number and may be subject to a restocking fee up to 25%.

INVOICE



Invoice No. INV104237

Alliance Water Resources

**Lake Ozark/ Osage Beach Joint
Utility Board**

206 South Keene Street

Columbia, MO 65201

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

Document Date
January 1, 2023

Due Date
January 31, 2023

Payment Terms
Due In 30 Days

Description	Amount
Wastewater Plant operating service for January 2023	29,466.00
Total \$	29,466.00



December 16, 2022

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 – Size Class D, not seasonally adjusted (Series CUURD200SA0). The most recent CPI data used to calculate the Alliance Fee beginning January 1, 2022 was the twelve (12) month period from November 2020 through November 2021.

Accordingly, the base fee beginning January 1, 2023 will use the 12 month period from November 2021 through November 2022. The appropriate indices and resulting contract adjustment is calculated as follows:

CPI November 2021	258.911
CPI November 2022	276.436

$$\begin{aligned} \text{CPI Increase} &= (276.436 - 258.911) / 258.911 \\ &= 6.8\% \end{aligned}$$

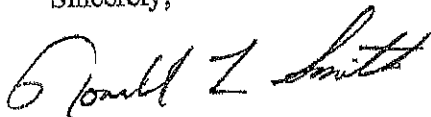
Per the Agreement, the base fee will be adjusted upward beginning January 1, 2023 by the CPI percentage of 6.8%. The calculation of the 2023 Base Contract Fee is as follows:

Current 2022 Monthly Fee	= \$27,590.00
Adjusted 2021 Monthly Fee	= \$27,590.00 x 1.068 = \$ 29,466

The invoice for January 2023 will reflect the new base fee of \$29,466

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

Sincerely,

A handwritten signature in cursive script, appearing to read "Ronald L. Smith".

Ronald L. Smith
Regional Operations Manager
Alliance Water Resources

CC: Tony Sneed
Gary Hutchcraft

U.S. BUREAU OF LABOR STATISTICS

Databases, Tables & Calculators by Subject

Change Output Options: From: 2013 v To: 2022 v

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Data extracted on: December 14, 2022 (1:08:09 PM)

CPI for All Urban Consumers (CPI-U)

Series Id: CUUR0200SA0

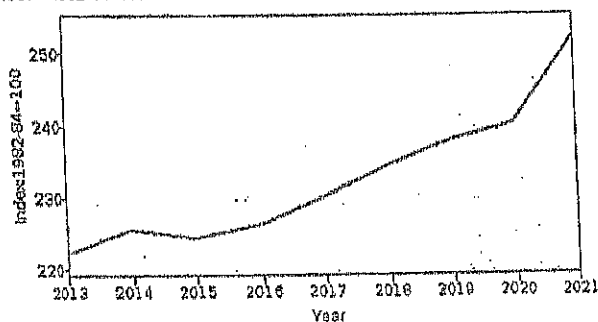
Not Seasonally Adjusted

Series Title: All items in Midwest urban, all urban consumers, not seasonally adjusted

Area: Midwest

Item: All items

Base Period: 1982-84=100

Download: [CSV](#) [Excel](#)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	HALF1	HALF2
2013	219.282	221.699	222.121	221.931	223.049	223.775	222.902	223.046	223.252	222.171	221.718	221.104	222.170	221.960	222.381
2014	222.247	223.493	225.465	226.214	226.665	227.588	226.997	226.587	226.913	226.763	224.396	222.821	225.426	226.265	225.585
2015	221.545	222.301	223.550	223.797	224.732	225.046	225.353	225.630	225.184	225.050	224.009	222.722	224.210	223.645	224.775
2016	223.301	223.186	224.621	225.008	226.476	227.835	226.786	227.087	227.636	227.368	225.673	226.794	226.115	225.173	227.057
2017	226.279	226.633	228.824	229.682	229.705	229.780	229.520	230.443	231.030	230.680	231.084	230.548	229.874	229.151	230.598
2018	232.028	232.512	232.931	233.913	235.065	235.455	235.348	235.276	235.524	235.680	234.292	233.458	234.290	233.651	234.928
2019	233.837	235.444	236.793	237.510	238.219	238.288	238.760	238.788	238.847	238.243	238.850	238.734	237.778	236.682	238.870
2020	239.690	240.421	239.163	236.474	237.281	239.269	240.480	241.382	241.878	241.740	241.318	241.463	240.040	239.716	241.383
2021	242.562	244.477	246.245	248.159	250.582	253.042	254.671	255.142	255.708	257.783	258.911	259.608	252.242	247.511	256.973
2022	261.657	263.998	267.312	268.839	272.673	277.072	276.525	275.875	276.549	278.908	276.456			268.557	

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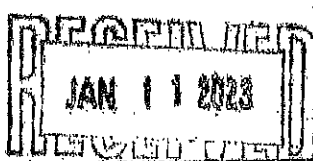
FOCUSED ENERGY. For Life.

Account Number: 4500005832
 Customer Name: ALLIANCE WATER RESOURCES INC
 Service Address: 3 ANDERSON RD.,
 LAKE OZARK, MO 65049

Current Detail for Statement 01/11/2023

Total Electric Charges \$4,144.53

Total Amount Due \$4,144.53



AMOUNT DUE \$4,144.53

Due Date 02/02/2023

Amount After Due Date \$4,185.98

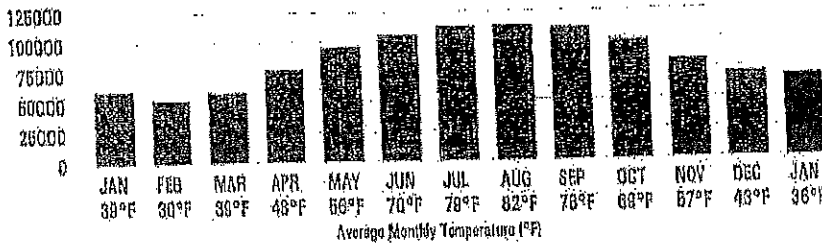
Previous Statement \$4,396.65

Total Payments \$4,396.65

Payment Received (Thank You)

Electric Usage History

Electric Usage in Kilowatt Hours (kWh)



Electric Usage Summary (kWh)

So far this year, you're using **11.7% more** than last year.

2022 60,320 kWh

2023 67,360 kWh

Usage for Jan 2022 & 2023

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: *[Signature]*

Date: 1/11/23

» See next page for service details.

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Page 1 of 4

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Amount Due	Due Date
\$4,144.53	February 02, 2023
Delinquent Amount After Due Date	Account Number
\$4,185.98	4500005832

Amount Enclosed \$

>002571 2163368 0001 092539 10Z

ALLIANCE WATER RESOURCES INC
 PO BOX 1985
 LAKE OZARK, MO 65049-1985

AMEREN MISSOURI
 PO BOX 88068
 CHICAGO IL 60680-1068

64561 13073
 02571 2163368 005129 010257 00010002



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Electric Service Details

Service from 12/08/2022 - 01/09/2023 (34 days)

Electric Meter Read

METER NUMBER	SERVICE FROM - TO	NO. DAYS	USAGE TYPE	READING TYPE	CURRENT READING	PREVIOUS READING	READING DIFFERENCE	MULTIPLIER	USAGE
11673321	12/08 - 01/09	34	Total kWh	Actual	77365.0000	76644.0000	421.0000	100.0000	67360.0000
11673321	12/08 - 01/09	34	Peak kW	Actual	0.7920	0.0000	0.7920	100.0000	126.7200

Usage Summary

Total kWh	67360.0000	Non-Summer kWh	67360.0000
Peak kW	126.7000	Billing Demand	126.7000
Total Billing Demand	126.7000	October Winter Base kW	164.6000
Winter Base Demand	126.7000	Base kWh Ratio	1.0000
Base kWh (HUD)	67360.0000	Seasonal kWh (HUD)	0.0000

Rate 3M Large General Service

DESCRIPTION	USAGE	UNIT		RATE	CHARGE
Seasonal Energy Charge	0.00	kWh	@	\$ 0.03870000	\$0.00
Summer Demand Charge	126.70	kW	@	\$ 0.00000000	\$0.00
Winter Demand Charge	126.70	kW	@	\$ 2.18000000	\$276.21
Energy Charge/Hours Used	0.00	kWh	@	\$ 0.10540000	\$0.00
Base Energy Charge / Hours Used	19,005.00	kWh	@	\$ 0.08620000	\$1,258.13
Base Energy Charge / Hours Used	25,340.00	kWh	@	\$ 0.04820000	\$1,248.73
Base Energy Charge / Hours Used	23,015.00	kWh	@	\$ 0.03870000	\$890.68
Customer Charge					\$104.86
Fuel Adjustment Charge	67,360.00	kWh	@	\$ 0.00270000	\$181.87
Energy Efficiency Investment Charge	67,360.00	kWh	@	\$ 0.00328200	\$219.73
Renewable Energy Adjustment	67,360.00	kWh	@	\$ 0.00060000	\$40.38
Total Service Amount					\$4,144.83
Total Electric Charges					\$4,144.83

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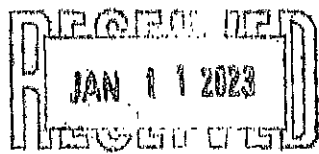
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Account Number 6680005920
Customer Name ALLIANCE WATER RESOURCES INC
Service Address 3 ANDERSON RD
LAKE OZARK, MO 65049

Current Detail for Statement 01/11/2023

Total Electric Charges \$79.74

Total Amount Due



\$79.74

AMOUNT DUE \$79.74

Due Date 02/02/2023

Amount After Due Date \$80.54

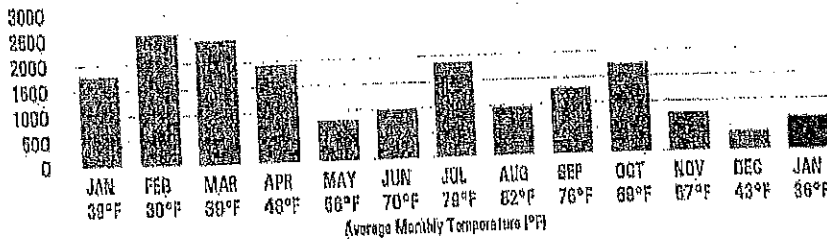
Previous Statement \$54.41

Total Payments \$54.41

Payment Received Thank You

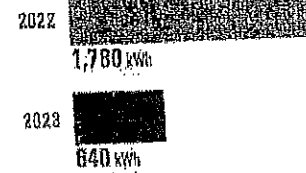
Electric Usage History

Electric Usage in Kilowatt Hours (kWh)



Electric Usage Summary (kWh)

So far this year, you're using 64% less than last year.



Usage for Jan 2022 & 2023

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: [Signature]

Date: 1/19/23

» See next page for service details.

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Amount Due	Due Date
\$79.74	February 02, 2023
Delinquent Amount After Due Date	Account Number
\$80.54	6680005920

Amount Enclosed \$

0002570 2143358 0001 092139 102

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

AMEREN MISSOURI
PO BOX 88080
CHICAGO IL 60680-1088

64551 13873
02570 2143358 0001 092139 102

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Electric Service Details

Service from 12/06/2022 - 01/09/2023 (34 days)

Electric Meter Read

METER NUMBER	SERVICE FROM-TO	NO. DAYS	USAGE TYPE	READING TYPE	CURRENT READING	PREVIOUS READING	READING DIFFERENCE	MULTIPLIER	USAGE
09041276	12/08 - 01/09	34	Total kWh	Actual	25434.0000	25370.0000	64.0000	10.0000	640.0000
09041276	12/08 - 01/09	34	Peak kW	Actual	0.7840	0.0000	0.7840	10.0000	7.8400

Usage Summary

Total kWh	640.0000	Non-Summer kWh	640.0000
Winter Base kWh	1000.0000	Current Base kWh	640.0000
Winter Cur Base kWh	640.0000	Seasonal kWh	0.0000

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

Threshold - Peak Demand

DESCRIPTION	USAGE	UNIT	RATE	CHARGE
Base Energy Charge	640.00	kWh	@ \$ 0.08480000	\$54.27
Seasonal Energy Charge	0.00	kWh	@ \$ 0.04880000	\$0.00
Customer Charge				\$21.86
Fuel Adjustment Charge	640.00	kWh	@ \$ 0.00270000	\$1.73
Energy Efficiency Investment Charge	640.00	kWh	@ \$ 0.00343000	\$2.20
Renewable Energy Adjustment	640.00	kWh	@ \$ 0.00050000	\$0.32
Total Service Amount				\$79.74
Total Electric Charges				\$79.74

Payments Since Previous Statement

DATE RECEIVED	AMOUNT
December 20, 2022	\$54.41

Questions? Contact Ameren Missouri at 1.877.428.3738 or visit AmerenMissouri.com.

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

Account Number	Account Name	2020 Actual	12/31/2022 2021 Actual	2022 Budget	2022 Actual as of 12/31/2022	2022 December Revenue	Percent YTD
3020	Osage Beach	475,836.10	465,202.63	470,050.00	460,708.70	39,484.40	98%
3010	Lake Ozark	74,163.90	84,797.35	82,950.00	91,794.26	6,598.93	111%
3030	Misc.	4,500.00	22,000.00	0.00	1,094.92	0.00	0%
3100	Interest	4,019.49	2,700.22	2,500.00	2,462.35	18.19	98%
3060	Waste Haulers' Fee	39,320.00	60,620.00	56,000.00	49,490.00	2,240.00	88%
Total Operating Fund		597,839.49	635,220.20	611,500.00	605,550.23	48,341.52	99%
E/R Fund Income		8,955.85	5,508.47	5,000.00	3,588.63	205.57	72%
TOTAL INCOME		606,795.34	640,728.67	616,500.00	609,138.86	48,547.09	99%

MONTH-TO-DATE AND YEAR-TO-DATE
EXPENDITURE/BUDGET ANALYSIS
12/31/2022

Account Number	Account Name	2020 Actual	2021 Actual	2022 Budget	2022 Actual as of 12/31/2022	2022 December Expenses	Percent YTD
4000	Equipment Replace Fund	71,604.00	143,608.00	55,000.00	55,008.00	4,584.00	100%
4020	*Maintenance & Repair	26,299.39	104,853.81	142,000.00	60,030.11	6,708.68	42%
4140	Insurance	19,865.00	21,493.00	22,000.00	22,088.00	0.00	100%
4150	Vehicle Repair/Main	12,479.74	11,099.99	8,000.00	5,999.58	32.98	75%
4170	Contract Management	305,580.00	308,640.00	327,158.00	331,080.00	27,590.00	101%
4175	Electric	75,077.36	82,227.41	92,000.00	79,890.16	4,451.06	87%
4178	Utilities Misc.	2,485.59	3,528.17	3,750.00	3,694.18	165.24	99%
4190	Bank Charges	32.60	0.00	0.00	12.00	3.00	0%
4200	Audit	2,648.50	2,600.00	2,700.00	2,700.00	0.00	100%
4240	Capital Purchases	0.00	399.99	500.00	0.00	0.00	0%
	Totals	516,072.18	678,460.37	653,108.00	560,502.03	43,534.96	86%
	**E/R Expenses	85,258.27	202,161.70	59,500.00	11,092.76	0.00	19%
	TOTAL EXPENSES	601,330.45	880,612.07	712,608.00	571,594.79	43,534.96	80%

4020 DETAIL: Equip & Bldg. Repair/Main.

Auto Dialer Yrly Software Fee	500	Tier 1 X
Regular Maintenance	18,000	Tier 1
UV Bulbs, Quartz Sleeves, Misc	10,000	Tier 1 X
Concrete Steps to outfall	9,000	Tier 1 X
Rock for road	2,000	Tier 1
Parking Lot seamseal & sealco	2,500	Tier 1
Take #2 Aeration Basin, grit ren	100,000	Tier 2

142,000.00

DETAIL: Equipment & Replacement

Replace garage door in headwork	3,500	Tier 1 X
Replace wooden doors w/fiberglass	2,000	Tier 1
Replace lab refrigerator/freezer	3,500	Tier 1 X
Replacement 6" valve for sludge	500	Tier 1
Replace Light Fixtures in headwork	5,000	Tier 1 X
*Replace aerator gear box - new	45,000	Tier 1

59,500.00

*Zeller Technologies, \$74,900, est completion 2023

OPERATING FUND INCOME AND EXPENSE SUMMARY
12/31/2022

Beginning Balance	339,331.22
Income - Osage Beach	39,484.40
Income - Lake Ozark	6,598.93
Income - Other	-
Income - Waste Haulers' Fees	2,240.00
Interest - Checking	18.19
Income - CD Interest	-
Transfers From E/R Fund	-
Transfers To E/R Fund	(4,584.00)
Expenses	(38,950.96)
Ending Fund Balance	344,137.78
Central Bank - NOW Acct.	122,030.06
	-
CD First Bank of the Lake, 11/20/23 #8432	108,096.30
CD First Bank of the Lake, 10/22/23 #8433	114,562.68
	-
Outstanding Checks:	(551.26)
	344,137.78

EQUIPMENT REPLACEMENT FUND INCOME AND EXPENSE SUMMARY
12/31/2022

Beginning Balance	522,151.03
Interest - Checking	205.57
Income - CD Interest	-
Transfers From Operating Fund	4,584.00
Income - Miscellaneous	-
Expenses	-
Ending Fund Balance	526,940.60
First Bank of the Lake - Money Mkt.	146,700.43
CD First Bank of the Lake, 10/31/23 #8430	110,240.17
CD First Bank of the Lake, 2/07/23 #8434	270,000.00
	-
	-
Outstanding Checks:	-
	526,940.60

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**Alliance Water
Resources,
Inc.**

**206 S. Keene
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 November 2022

Submitted by Alliance Water Resources, Inc. for the

January 2023

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	1.5	1.3	N/A	0.0		0.06	< 4.8
Peak Day	2.4	2.1	8.5	0.0		0.09	< 4.8
Percent Removal	99.2	99.2	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		2.5	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 1.055 MGD or 35% of Permitted flow with Lake Ozark contributing 15% of the total flow and Osage Beach contributing 85%. 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 49681 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.

493,054 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 292,500 gallons with a level of 4.0 feet in Tank 1 and 2.5 feet in Tank 2.

WASTEHAULERS

The plant received 38 loads of septage during the month totaling 89,500 gallons.

WWTP OPERATIONS

- Decanting digesters and wasting weekly.
- Normal operations.
- We shutdown the UV system on the 1st of November and have since cleaned & stored the modules for the season.
- We shut down clarifier #3 on the 15th of November for the winter.

WWTP MAINTENANCE AND REPAIR

- Performed routine maintenance throughout the month as per Antero Maintenance Data Management schedule. (New version of Operator 10 Software)
- We noticed that bar screen #1 wasn't working properly on auto on the 14th of November so we called in Catalyst Electric to help troubleshoot it and they found that the older timer delay and rake limit switch was bad so we have ordered replacements.
- JCI brought the rebuilt decant lift station pump back on the 16th of November and took the pista grit pump so they could give us a repair quote for a rebuild. They also took one of the RAS pumps back that had a mechanical seal leaking that will be covered under warranty.
- We had a hauler dump a load of wet wipes on us on the 23rd of November and it caused the bar screens to sheer 3 pins and a couple hours of labor to get them back in service.

SAFETY

- We conducted our monthly Safety Meeting on Hazard Communication & Hazcom: Safety Data Sheet Sections on the 17th of November.

REGULATORY AGENCY, INSPECTION AND REPORTS

- We filled out the new EDMR on the EPA MoGEM website on the 5th of December.

MISCELLANEOUS AND RECOMMENDATIONS

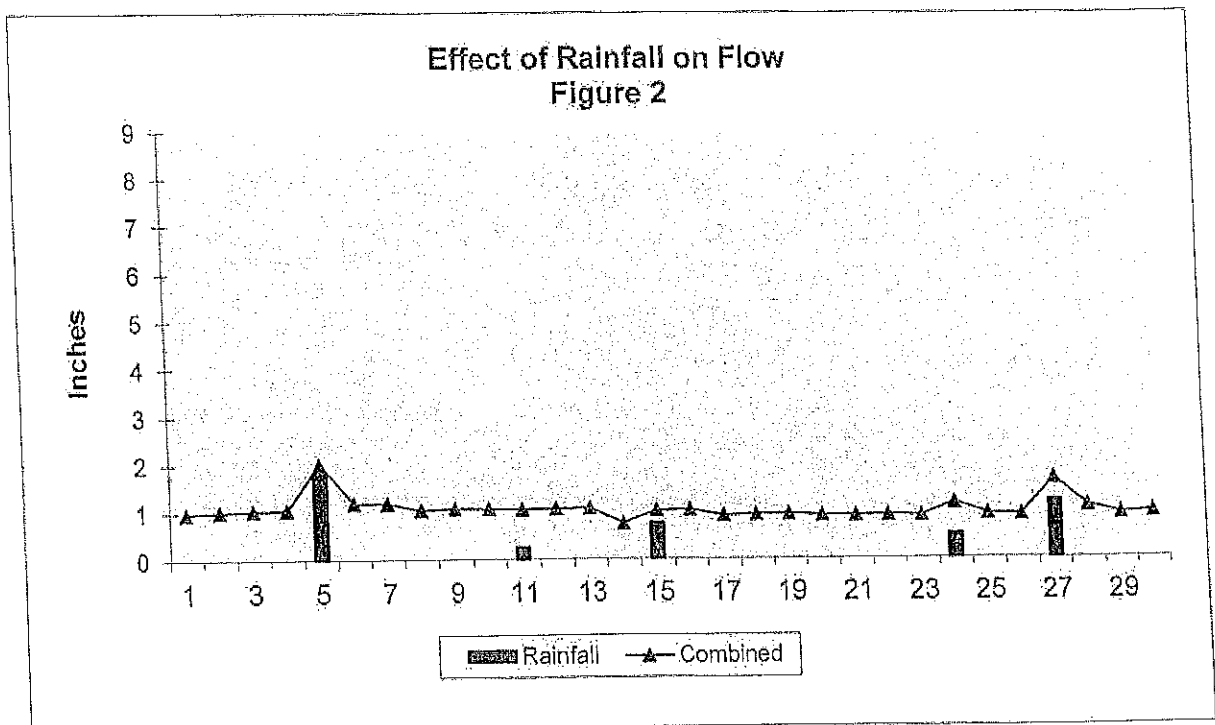
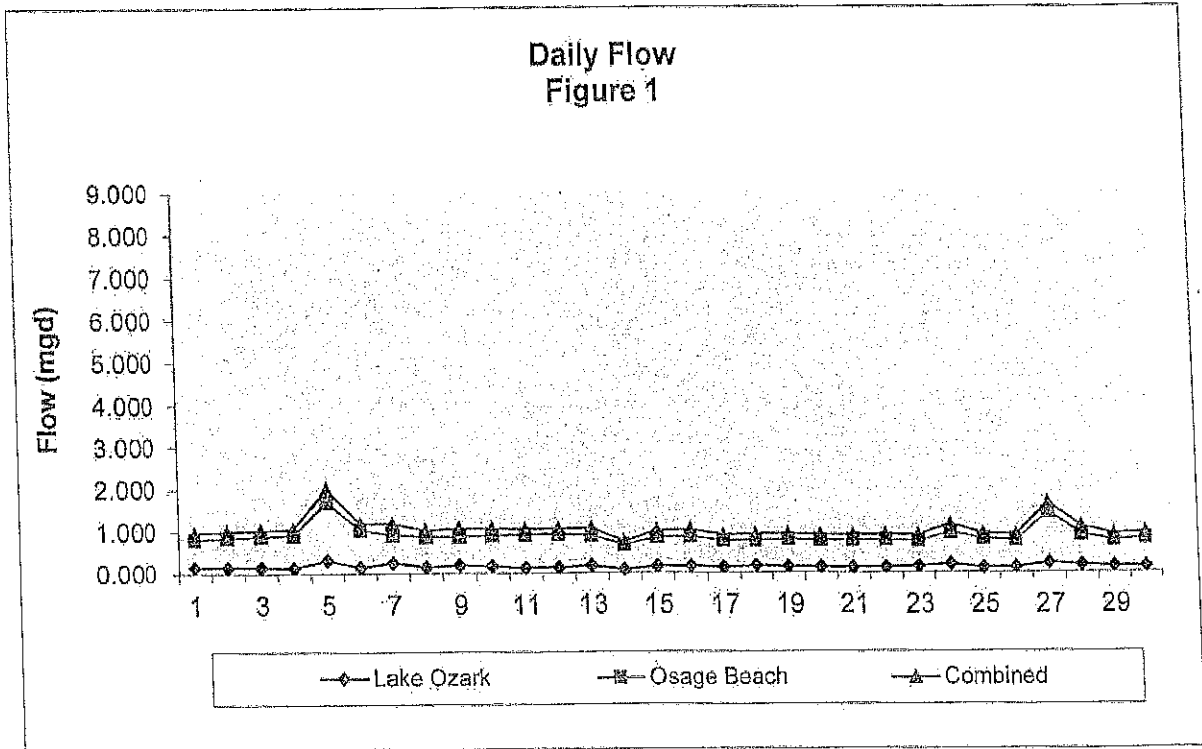


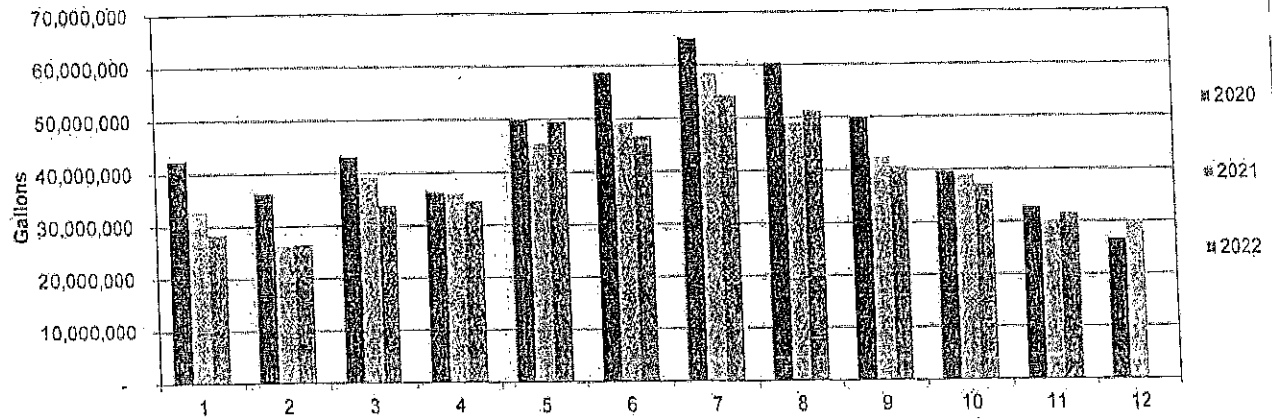
TABLE B
JOINT SEWER BOARD
Monthly Flows

<u>2020</u>	<u>RAINFALL</u>	<u>OSAGE BEACH</u>		<u>LAKE OZARK</u>		<u>TOTAL</u>	<u>%</u>
January	7.7	36,806,000	86%	5,780,000	14%	42,586,000	100%
February	3.6	31,279,000	86%	4,986,000	14%	36,265,000	100%
March	6.1	37,286,000	86%	5,888,000	14%	43,174,000	100%
April	5.2	31,967,000	88%	4,324,000	12%	36,291,000	100%
May	5.3	43,538,000	87%	6,443,000	13%	49,981,000	100%
June	4.8	50,936,000	87%	7,780,000	13%	58,716,000	100%
July	6.9	56,437,000	87%	8,616,000	13%	65,053,000	100%
August	2.3	52,449,000	87%	7,883,000	13%	60,332,000	100%
September	8.4	42,235,000	85%	7,636,000	15%	49,871,000	100%
October	5.4	33,173,000	84%	6,448,000	16%	39,621,000	100%
November	4.3	27,630,000	84%	5,102,000	16%	32,732,000	100%
December	1.3	22,749,000	85%	3,949,000	15%	26,698,000	100%
	61.3	466,485,000	86%	74,835,000	14%	541,320,000	100%

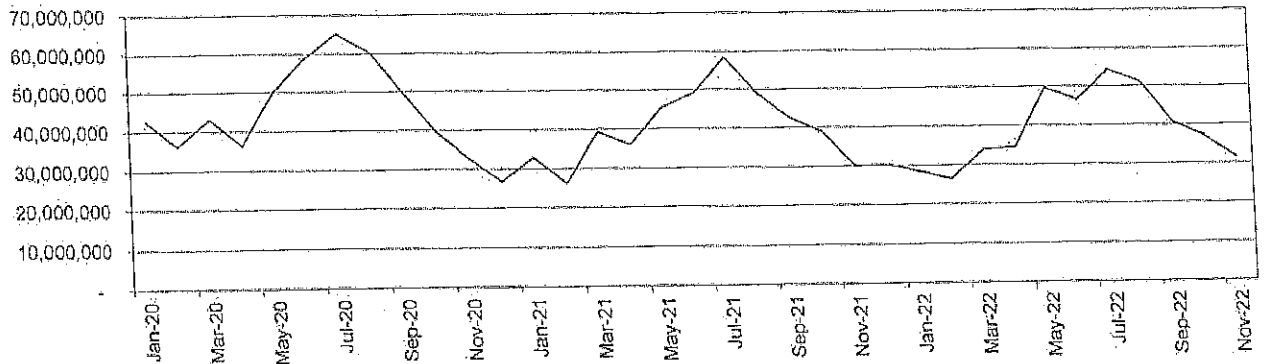
<u>2021</u>	<u>RAINFALL</u>	<u>OSAGE BEACH</u>		<u>LAKE OZARK</u>		<u>TOTAL</u>	<u>%</u>
January	6.0	28,107,000	85%	4,855,000	15%	32,962,000	100%
February	3.0	22,136,000	85%	4,048,000	15%	26,184,000	100%
March	4.0	32,848,000	84%	6,450,000	16%	39,298,000	100%
April	5.2	30,179,000	84%	5,792,000	16%	35,971,000	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%

<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							
	50.8	363,733,000	84%	71,201,000	16%	434,934,000	100%

Monthly Influent Flow
Figure 3A

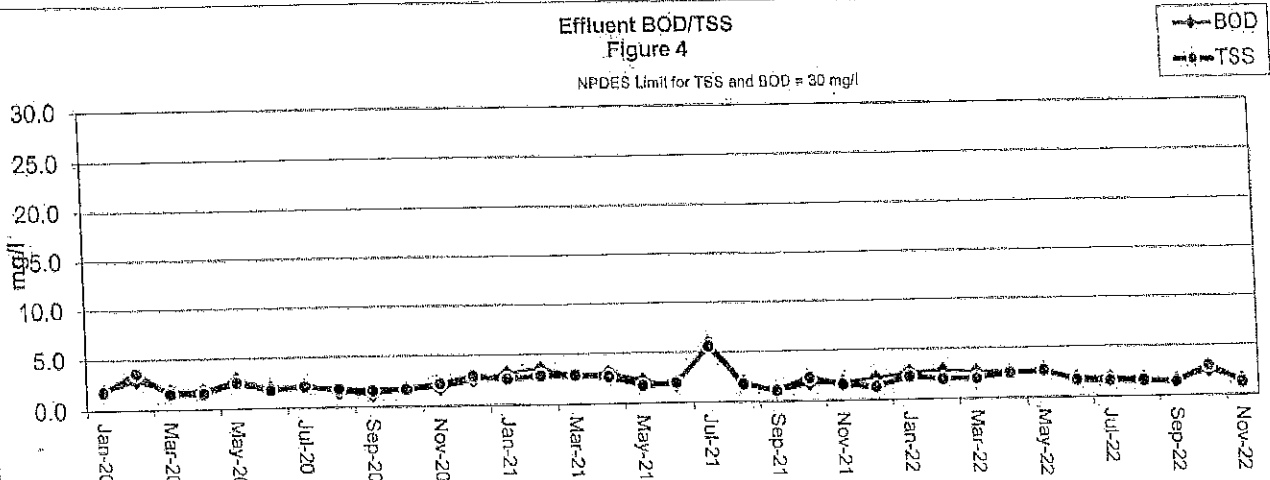


Monthly Influent Flow
Figure 3B



Effluent BOD/TSS
Figure 4

NPDES Limit for TSS and BOD = 30 mg/l

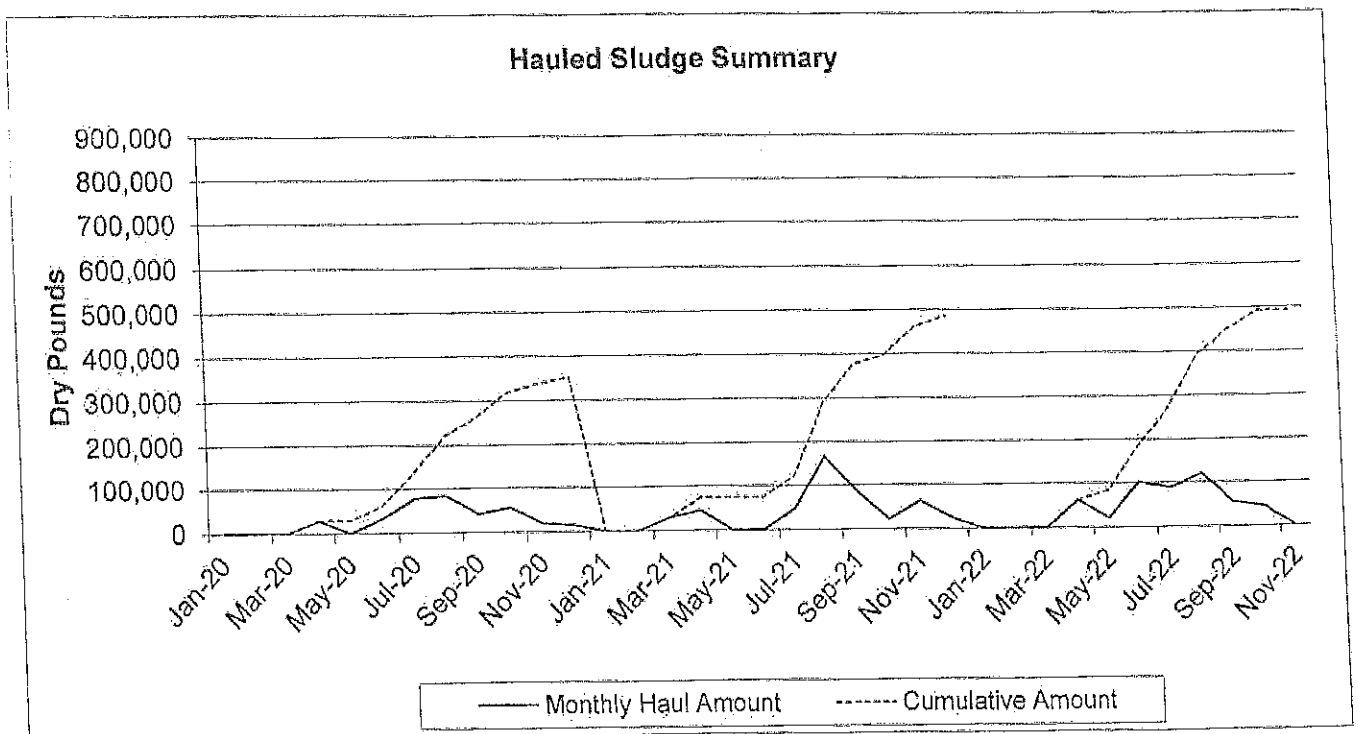
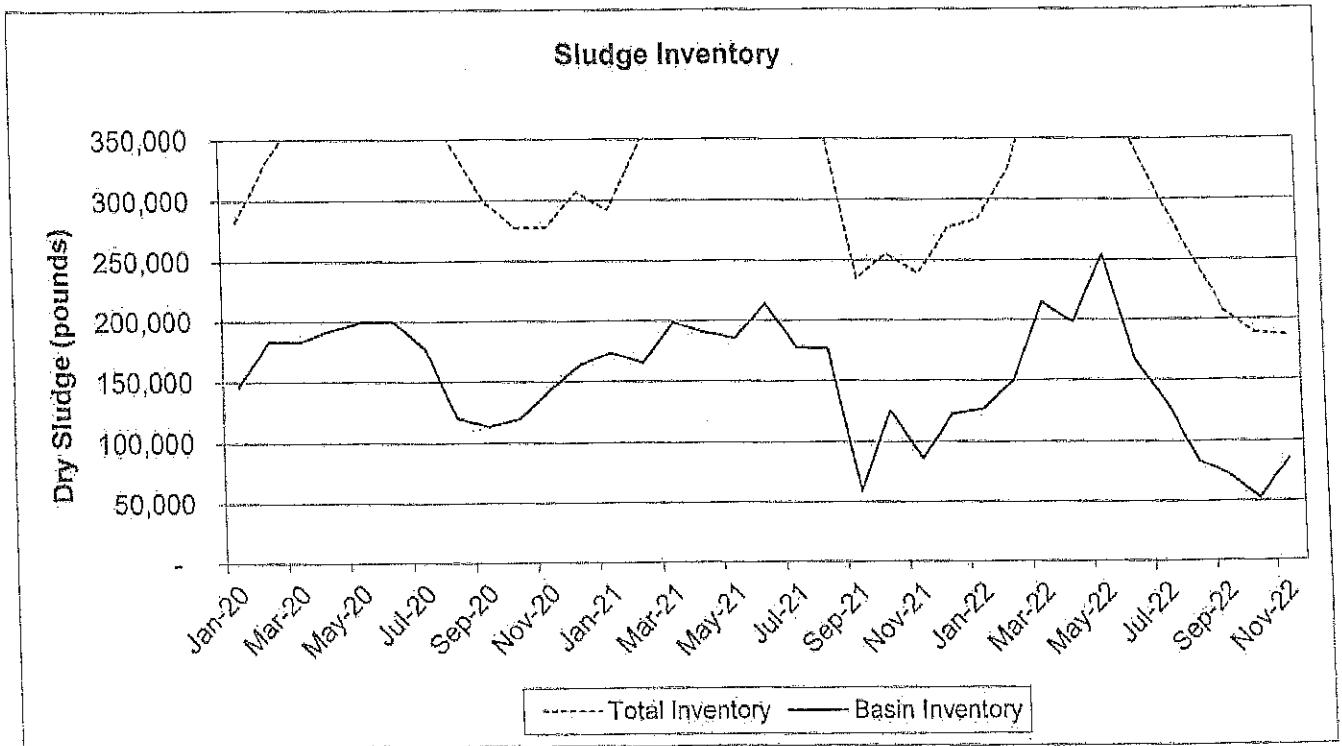


	Hauled Sludge				
	Loads	Gallons	# Dry	% Solids	Annual Cumulative # Dry
r-20	0	-	0	3.9%	-
r-20	0	-	0	3.9%	-
r-20	0	-	0	3.9%	-
r-20	25	92,500	29,315	3.8%	29,315
r-20	0	-	0	3.8%	29,315
r-20	25	92,500	31,660	4.1%	138,243
r-20	69	255,300	77,268	3.6%	221,528
r-20	76	281,200	83,286	3.6%	263,156
r-20	39	140,600	41,627	3.5%	318,454
r-20	45	165,500	55,298	4.0%	337,709
r-20	18	65,600	19,255	3.5%	352,552
r-20	11	40,700	14,843	4.4%	-
n-21	0	-	0	4.4%	-
n-21	0	-	0	4.4%	28,893
n-21	23	85,100	26,683	4.1%	74,152
n-21	39	144,300	45,269	3.8%	74,152
n-21	0	-	0	3.8%	74,152
n-21	0	-	0	3.8%	121,530
n-21	40	144,000	47,378	3.9%	287,893
n-21	153	550,800	166,363	3.6%	375,119
n-21	92	331,200	87,226	3.2%	397,817
n-21	17	61,200	22,693	4.4%	461,438
n-21	48	165,600	63,621	4.6%	485,577
n-21	16	57,600	24,139	5.0%	-
n-22	0	-	0	4.5%	-
n-22	0	-	0	4.0%	-
n-22	0	-	0	4.4%	62,120
n-22	47	169,200	62,120	4.4%	83,137
n-22	16	57,600	21,017	4.4%	185,189
n-22	84	302,400	102,052	4.0%	274,150
n-22	60	288,000	88,961	3.7%	394,576
n-22	108	388,800	120,426	3.7%	448,649
n-22	51	183,600	54,073	3.5%	493,054
n-22	42	151,200	44,405	3.5%	493,054
n-22	0	-	0	3.5%	-

Basin Depths				# Dry
Tank #1	Tank #2	AB #1	Basin Gallons	
6.0	4.0	0.0	450,000	148,367
6.5	6.0	0.0	562,500	182,959
5.5	7.0	0.0	562,500	182,959
6.0	7.5	0.0	607,500	192,528
6.0	8.0	0.0	630,000	199,680
6.0	7.0	0.0	585,000	200,228
6.0	7.0	0.0	585,000	177,054
6.0	7.0	0.0	405,000	119,953
5.0	4.0	0.0	405,000	113,246
4.0	4.5	0.0	382,500	119,563
5.0	3.0	0.0	360,000	143,111
5.0	6.0	0.0	495,000	164,112
4.5	5.5	0.0	450,000	173,389
7.0	3.5	0.0	472,500	165,132
6.0	5.0	0.0	450,000	198,549
6.0	7.0	0.0	585,000	190,582
6.0	7.5	0.0	585,000	185,398
6.0	7.0	0.0	675,000	213,821
7.0	8.0	0.0	540,000	177,658
5.0	7.0	0.0	585,000	176,693
7.0	6.0	0.0	585,000	59,257
2.0	3.0	0.0	225,000	125,173
3.5	4.0	0.0	337,500	86,442
3.0	2.0	0.0	225,000	122,581
4.0	2.5	0.0	292,500	126,664
4.5	3.0	0.0	337,500	150,120
7.0	3.0	0.0	450,000	214,672
6.0	7.0	0.0	585,000	198,255
7.0	5.0	0.0	540,000	254,503
6.5	7.0	0.0	697,500	167,049
7.0	4.0	0.0	495,000	132,051
7.0	2.5	0.0	427,500	83,629
2.0	4.0	0.0	270,000	72,893
3.5	2.0	0.0	247,500	52,863
1.0	3.0	0.0	180,000	65,381
4.0	2.5	0.0	292,500	-

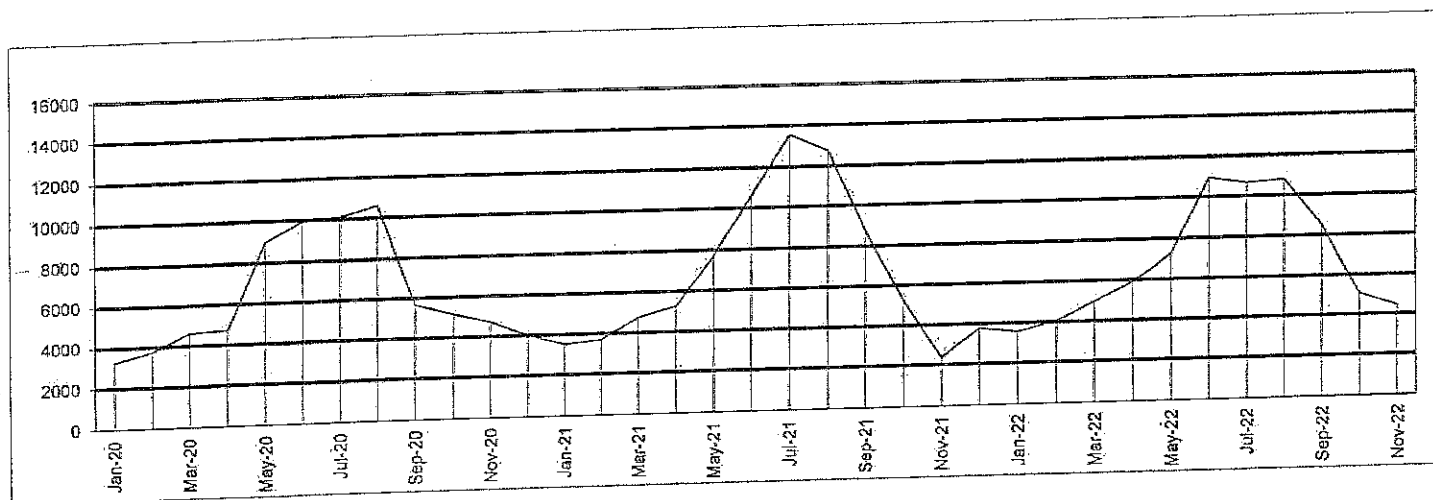
Blanket Depths		MLSS Inventory		Blanket and MLSS Inventory		MLSS		Total Dry
Clar #1	Clar #2	Clar #3	MLSS AB #1	MLSS AB #2	Gallons	# Dry	% Solids	Sludge Inventory
1.0	1.5	0.0	4,260	4,690	3,644,405	136,015	0.00443	282,382
3.5	2.0	0.0	5,190	4,390	3,697,691	147,718	0.00479	330,676
2.0	5.0	1.0	5,760	5,940	3,767,762	183,825	0.00585	366,784
1.0	1.0	1.0	5,740	5,290	3,678,952	169,214	0.00552	361,742
1.0	7.0	1.0	6,010	6,110	3,785,524	191,322	0.00605	390,681
6.0	7.0	0.5	7,050	7,120	3,852,620	227,647	0.00709	427,875
7.0	7.0	1.0	6,890	7,380	3,892,096	231,603	0.00714	408,656
6.0	6.0	1.0	6,530	7,400	3,856,572	224,621	0.00697	343,974
1.0	1.0	0.5	6,000	6,200	3,657,238	186,058	0.0061	299,304
1.0	1.0	1.0	4,960	5,070	3,678,952	169,015	0.00515	277,576
1.0	0.0	0.5	4,780	4,080	3,639,476	134,465	0.00443	277,576
1.0	0.0	0.5	5,030	4,360	3,639,476	142,508	0.0047	306,620
6.0	0.0	1.0	3,810	3,780	3,753,000	118,689	0.0038	292,077
5.0	8.0	0.0	5,490	5,750	3,830,906	179,558	0.00562	344,690
2.0	5.0	0.5	6,830	6,330	3,746,048	205,573	0.00658	404,122
12.0	5.0	1.0	6,890	5,350	3,945,382	201,375	0.00612	391,957
13.0	14.0	1.0	6,200	6,330	4,123,002	215,427	0.00627	420,825
6.0	7.5	2.0	7,260	8,060	3,926,643	234,903	0.00717	448,824
7.0	12.0	3.0	9,190	8,110	4,067,762	279,340	0.00823	457,007
1.0	1.0	0.5	6,160	5,640	3,657,238	183,008	0.0060	359,701
1.0	1.0	0.5	5,320	6,180	3,657,238	175,383	0.0058	234,640
1.0	0.5	0.5	4,430	4,140	3,648,357	130,361	0.0043	255,554
0.5	1.0	0.0	5,130	4,980	3,626,643	152,138	0.0050	238,580
1.0	1.0	0.0	4,640	5,630	3,635,524	154,179	0.0051	276,759
1.0	3.5	0.0	5,060	5,160	3,679,929	157,136	0.0051	283,800
4.0	1.5	0.0	6,280	5,030	3,697,691	174,393	0.0057	324,513
9.0	10.0	0.0	5,870	5,760	3,937,478	190,464	0.0058	405,135
10.0	10.0	1.0	7,100	5,600	3,998,668	211,765	0.0064	410,021
2.0	10.0	1.0	6,290	6,630	3,856,572	207,778	0.0065	462,281
4.5	0.5	1.5	5,760	6,010	3,753,952	184,247	0.0059	351,297
8.0	3.0	1.5	4,740	5,860	3,860,524	166,296	0.0052	298,348
1.5	1.0	0.5	5,490	5,420	3,666,119	166,739	0.0055	250,418
1.0	1.0	0.5	4,650	4,160	3,657,238	134,359	0.0044	207,251
0.5	0.5	0.5	4,590	4,390	3,639,476	136,285	0.0045	189,149
1.0	1.0	0.0	4,330	2,340	3,635,524	101,573	0.0034	186,954

Accepted Septage	
Loads	Gallons
16	34,100
23	57,000
25	64,500
39	107,000
35	83,000
6	18,000
69	208,000
67	153,000
45	104,500
16	32,000
33	69,000
83	205,500
28	69,500
32	70,000
22	52,000
48	128,500
63	151,500
117	289,000
56	163,000
62	159,500
34	80,000
37	83,000
27	62,000
13	27,000
32	68,000
23	48,000
52	124,500
37	85,000
42	93,500
33	68,500
168	300,000
76	168,000
33	71,000
38	89,500

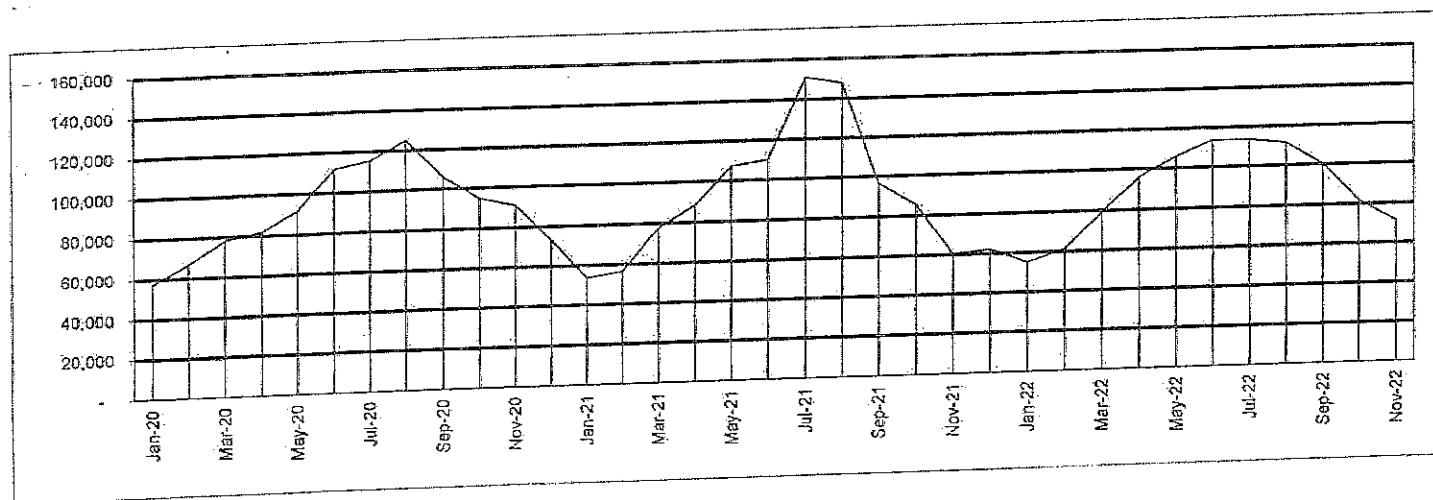


	<u>Electric Cost</u>	<u>Kilowatts Used</u>
20	3259	57,250
20	3760	66,830
20	4637	78,070
20	4741	81,780
20	8962	91,550
20	9959	111,680
20	10100	115,300
20	10619	124,800
20	5669	106,220
20	5155	94,870
20	4734	90,890
20	4009	73,020
21	3524	53,730
21	3696	56,370
21	4776	77,720
21	5281	88,390
21	7727	107,320
21	10610	110,130
21	13533	150,740
21	12737	147,810
21	8751	96,600
21	5233	85,530
21	2348	60,370
21	3776	62,100
22	3547	55,070
22	4063	61,330
22	4979	79,050
22	5907	96,160
22	7292	106,100
22	10958	113,870
22	10648	113,590
22	10800	111,690
22	8498	100,470
22	5071	82,030
22	4451	71,240

Electric Cost



Kilowatts Used





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

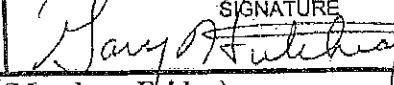
NAME OF FACILITY							LOCATION ADDRESS & CITY							COUNTY/REGION		
Lake of the Ozarks Regional WWTP.#1							#3 Anderson Road							Miller/SWRO		
MONTH/YEAR		PERMIT NUMBER					OUTFALL NUMBER		TYPE TREATMENT FACILITY							
Nov-22		MO-0103241					#001		Oxidation Ditch/UV/Sludge Holding-sludge is land 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	6.9			11.7	17.7	1.340	7.7			0.05	10.1		15.7			
2	7.1				16.0	1.471	7.6				10.1		14.5			
3	7.3	205	202		17.5	1.485	7.6	1.1	0.6		9.9		16.2	99.5	99.7	
4	7.3				19.7	1.467	7.6				10.0		18.5			
5	7.4				15.8	2.522	8.0				10.0		16.5			
6	7.1				15.0	1.742	8.0				10.0		14.7			
7	7.2				17.0	1.576	7.7				10.0		15.9			
8	7.1			8.8	18.9	1.484	7.5			0.05	10.0		16.5			
9	7.3	165	156		17.9	1.560	7.7	0.7	1.0		10.0		16.1	99.6	99.4	
10	7.6				18.8	1.429	7.7				10.0		17.7			
11	7.5				14.0	1.397	7.8				10.0		14.1			
12	7.2				15.3	1.624	7.6				10.5		14.1			
13	7.0				15.8	1.661	7.5				10.4		13.3			
14	7.2				15.6	1.241	7.7				11.0		11.5			
15	7.5				11.8	1.490	8.0				11.0		10.6			
16	7.6			18.7	11.9	1.674	7.9			0.09	11.2		11.1			
17	7.4				10.2	1.510	8.5				11.3		10.0			
18	7.4	178	164		10.7	1.536	7.9	2.4	1.6		11.5		7.5	98.7	99.0	
19	7.4				11.1	1.522	7.7				11.2		8.1			
20	7.5				7.1	1.442	7.7				11.9		7.2			
21	7.2				13.0	1.453	7.6				11.1		9.0			
22	7.0			20.6	14.6	1.428	7.6			0.08	11.1		10.1			
23	7.3	205	108		14.8	1.409	8.1	1.8	2.1		11.1		9.8	99.1	98.1	
24	7.0				14.9	1.492	7.5				10.7		11.9			
25	7.0				14.6	1.456	7.5				10.8		12.3			
26	7.1				13.8	1.427	7.5				10.9		11.4			
27	7.1				14.3	2.270	7.5				10.4		12.6			
28	6.8				14.4	1.605	7.5				11.1		12.6			
29	6.9				14.6	1.385	7.9				10.3		13.3			
30	7.0			17.7	14.1	1.438	7.6			0.05	11.1		11.7			
Total						46.536										
Avg		186	158	15.5	14.7	1.551		1.5	1.3	0.06	10.6	0.0	12.8	99.2	99.0	
Min	6.8	165	108	8.8	7.1	1.241	7.5	0.7	0.6	0.05	9.9	0.0	7.2	98.7	98.1	
Max	7.6	205	202	20.6	19.7	2.522	8.5	2.4	2.1	0.09	11.9	0.0	18.5	99.6	99.7	

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										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16	3.6	< 0.50	24.3					4.8	29.0	< 0.10
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
Total	3.6	< 0.50	24.3					4.8	29.0	< 0.10
Avg	3.6	< 0.50	24.3					4.8	29.0	< 0.10
Min	3.6	< 0.50	24.3					4.8	29.0	< 0.10
Max	3.6	< 0.50	24.3					4.8	29.0	< 0.10

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

DATE 22-Nov	SLUDGE DISP. LBS. DRY WEIGHT	#1 Aeration Basin, O-Ditch, Etc.				#2 Aeration Basin, O-Ditch, Etc.				*Weather Conditions		
		MIXED LIQUOR				MIXED LIQUOR				Outside * Ambient Temp ° F	*RAIN Inches	Time
		* DO mg/l	** MLSS mg/l	*Settleability *30 min ml	Temp ° C	* DO mg/l	** MLSS mg/l	*Settleability *30 min ml	Temp ° C			
1		3.9	3,830	208	15.4	4.9	4,170	330	15.5	45	0	7:30
2		3.1	4,820	340	15.3	3.7	5,240	220	15.4	47	0	7:30
3		2.4	3,250	340	16.4	4.2	3,270	250	16.6	57	0	7:30
4		2.0	4,590	400	18.8	4.0	3,400	240	18.6	69	0	7:30
5		1.0	4,140	360	17.0	2.0	3,540	260	17.0	48	1.8	7:30
6		4.0	4,850	410	15.3	5.0	4,670	330	15.4	45	0	7:30
7		3.4	4,530	380	16.0	5.0	3,940	360	16.3	51	0	7:30
8		4.0	4,170	310	16.3	5.0	4,540	400	16.3	54	0	7:30
9		4.0	4,240	330	16.6	4.0	4,780	420	16.7	56	0	7:30
10		1.4	3,520	340	17.9	3.3	2,420	300	18.0	66	0	7:30
11		1.4	4,390	350	15.0	3.3	4,010	350	15.3	43	0.25	7:30
12		3.8	2,930	330	13.4	4.1	4,420	400	13.7	34	0	7:30
13		4.6	3,050	270	13.3	5.2	4,040	340	13.3	33	0	7:30
14		5.7	3,230	260	11.6	5.7	4,300	320	11.6	29	0	7:30
15		6.0	3,750	250	11.6	6.0	3,850	330	11.5	39	0.75	7:30
16		6.0	4,050	390	11.4	6.0	3,910	300	12.2	36	0	7:30
17		6.3	4,330	440	9.8	6.0	3,550	310	10.5	29	0	7:30
18		7.0	3,540	430	9.2	7.0	3,590	300	10.0	29	0	7:30
19		5.4	3,750	400	10.6	6.2	3,640	320	11.2	28	0	7:30
20		6.1	3,290	410	8.3	7.1	3,350	380	8.8	24	0	7:30
21		5.1	3,450	370	8.5	5.1	4,250	390	9.1	32	0	7:30
22		5.1	3,690	370	9.5	7.2	4,500	440	10.0	32	0	7:30
23		6.2	4,360	400	10.2	4.1	3,990	400	12.4	35	0	7:30
24		4.1	4,410	540	11.9	2.0	3,610	340	12.5	51	0.5	7:30
25		3.3	4,480	500	12.4	1.6	3,710	350	12.9	42	0	7:30
26		4.6	4,430	460	11.4	3.7	3,860	380	12.3	36	0	7:30
27		1.6	4,020	350	12.8	1.9	3,470	290	13.0	48	1.2	7:30
28		3.1	5,060	680	12.0	3.1	3,300	280	12.4	39	0	7:30
29		1.4	4,750	490	13.4	2.6	3,410	310	13.5	55	0	7:30
30		3.0	4,330	530	10.7	3.4	2,340	340	11.5	32	0	7:30

COMMENTS:

TESTS PERFORMED BY (PRINT) John Hornback	SIGNATURE 	PHONE # (573)365-0455	DATE 12/2/2022
REPORT APPROVED BY (PRINT) Gary Hutchcraft	SIGNATURE 	PHONE # (573)365-0455	DATE 12/2/2022

*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	
11/1/22	11/30/22
NODI:	*****

Parameters	Reporting Requirements			Unit	Reporting Requirements		Unit
Flow, in conduit or thru treatment plant	*****	*****	*****	*****	2.522	1.551	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	*****	2.4	1.5	mg/L	*****	*****	*****
Mon. Location.: End of Pipe	*****	Weekly Avg.:45	Monthly Avg.:30		*****	*****	
Sample Type: 24 Hour Composite							
Frequency: Weekly							
Total Suspended Solids (TSS)	*****	2.1	1.3	mg/L	*****	*****	*****
Mon. Location.: End of Pipe	*****	Weekly Avg.:45	Monthly Avg.:30		*****	*****	
Sample Type: 24 Hour Composite							
Frequency: Weekly							
Phosphorus, total (as P)	3.6	*****	3.6	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)	<0.50	*****	<0.50	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)	24.3	*****	24.3	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)	0.09	*****	0.06	mg/L	*****	*****	*****
Mon. Location.: End of Pipe	Daily Max.:Monitoring Required	*****	Monthly Avg.:Monitoring Required		*****	*****	
Sample Type: 24 Hour Composite							
Frequency: Monthly							

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

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

pH	7.5	*****	8.5	SU	*****	*****	*****
Mon. Location.: End of Pipe	Minimum:6.0	*****;*****	Maximum:9.0		*****;*****	*****;*****	
Sample Type: Grab							
Frequency: Weekly							
BOD, 5-day, percent removal	*****	*****	98.7	%	*****	*****	*****
Mon. Location.: End of Pipe	*****;*****	*****;*****	Monthly Avg. Min.:85		*****;*****	*****;*****	
Sample Type: Calculated							
Frequency: Monthly							
Suspended Solids, percent removal	*****	*****	98.1	%	*****	*****	*****
Mon. Location.: End of Pipe	*****;*****	*****;*****	Monthly Avg. Min.:85		*****;*****	*****;*****	
Sample Type: Calculated							
Frequency: Monthly							
Comments:							

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	INPIM
Monitoring Period	
11/1/22	11/30/22
NODI:	*****

Parameters	Reporting Requirements			Unit	Reporting Requirements		Unit
BOD, 5-day, 20 deg. C Mon. Location.: Influent Sample Type: 24 Hour Composite Frequency: Monthly	*****	*****	188	mg/L	*****	*****	*****
	*****;*****	*****;*****	Monthly Avg.:Monitoring Required		*****;*****	*****;*****	
Total Suspended Solids (TSS) Mon. Location.: Influent Sample Type: 24 Hour Composite Frequency: Monthly	*****	*****	158	mg/L	*****	*****	*****
	*****;*****	*****;*****	Monthly Avg.:Monitoring Required		*****;*****	*****;*****	
Nitrogen, ammonia total (as N) Mon. Location.: Influent Sample Type: 24 Hour Composite Frequency: Monthly	20.6	*****	15.5	mg/L	*****	*****	*****
	Daily Max.:Monitoring Required	*****;*****	Monthly Avg.:Monitoring Required		*****;*****	*****;*****	
Phosphorus, total (as P) Mon. Location.: Influent Sample Type: 24 Hour Composite Frequency: Monthly	4.8	*****	4.8	mg/L	*****	*****	*****
	Daily Max.:Monitoring Required	*****;*****	Monthly Avg.:Monitoring Required		*****;*****	*****;*****	
Nitrogen, Kjeldahl, total (as N) Mon. Location.: Influent Sample Type: 24 Hour Composite Frequency: Monthly	29.0	*****	29.0	mg/L	*****	*****	*****
	Daily Max.:Monitoring Required	*****;*****	Monthly Avg.:Monitoring Required		*****;*****	*****;*****	
Nitrite plus nitrate total (as N) Mon. Location.: Influent Sample Type: 24 Hour Composite Frequency: Monthly	<0.10	*****	<0.10	mg/L	*****	*****	*****
	Daily Max.:Monitoring Required	*****;*****	Monthly Avg.:Monitoring Required		*****;*****	*****;*****	
Comments:							

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

State of Missouri
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National Pollutant Discharge Elimination System (NPDES)
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Central Field Operations
P O Box 176
Jefferson City, MO, 65102

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
December 5, 2022

User Phone Number
(573)365-0455

LAKE OZARKOSAGE BEACH WWTP
Operation Report

For NOVEMBER 2022
month year

PLANT OUTPUT										WATER QUALITY COMPONENTS										WATER QUALITY DATA										PLANT EFFICIENCY										ATTENTION/ISSUES										WATER RESERVE/STORAGE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
DATE	TIME	FLOW	TEMP	PH	DO	BOD	COD	TSS	NH3	NO3	PO4	SILICA	CHLOROPHYLL	POTENTIAL	ACTUAL	O2	O3	O4	O5	O6	O7	O8	O9	O10	O11	O12	O13	O14	O15	O16	O17	O18	O19	O20	O21	O22	O23	O24	O25	O26	O27	O28	O29	O30	O31	O32	O33	O34	O35	O36	O37	O38	O39	O40	O41	O42	O43	O44	O45	O46	O47	O48	O49	O50	O51	O52	O53	O54	O55	O56	O57	O58	O59	O60	O61	O62	O63	O64	O65	O66	O67	O68	O69	O70	O71	O72	O73	O74	O75	O76	O77	O78	O79	O80	O81	O82	O83	O84	O85	O86	O87	O88	O89	O90	O91	O92	O93	O94	O95	O96	O97	O98	O99	O100	O101	O102	O103	O104	O105	O106	O107	O108	O109	O110	O111	O112	O113	O114	O115	O116	O117	O118	O119	O120	O121	O122	O123	O124	O125	O126	O127	O128	O129	O130	O131	O132	O133	O134	O135	O136	O137	O138	O139	O140	O141	O142	O143	O144	O145	O146	O147	O148	O149	O150	O151	O152	O153	O154	O155	O156	O157	O158	O159	O160	O161	O162	O163	O164	O165	O166	O167	O168	O169	O170	O171	O172	O173	O174	O175	O176	O177	O178	O179	O180	O181	O182	O183	O184	O185	O186	O187	O188	O189	O190	O191	O192	O193	O194	O195	O196	O197	O198	O199	O200	O201	O202	O203	O204	O205	O206	O207	O208	O209	O210	O211	O212	O213	O214	O215	O216	O217	O218	O219	O220	O221	O222	O223	O224	O225	O226	O227	O228	O229	O230	O231	O232	O233	O234	O235	O236	O237	O238	O239	O240	O241	O242	O243	O244	O245	O246	O247	O248	O249	O250	O251	O252	O253	O254	O255	O256	O257	O258	O259	O260	O261	O262	O263	O264	O265	O266	O267	O268	O269	O270	O271	O272	O273	O274	O275	O276	O277	O278	O279	O280	O281	O282	O283	O284	O285	O286	O287	O288	O289	O290	O291	O292	O293	O294	O295	O296	O297	O298	O299	O300	O301	O302	O303	O304	O305	O306	O307	O308	O309	O310	O311	O312	O313	O314	O315	O316	O317	O318	O319	O320	O321	O322	O323	O324	O325	O326	O327	O328	O329	O330	O331	O332	O333	O334	O335	O336	O337	O338	O339	O340	O341	O342	O343	O344	O345	O346	O347	O348	O349	O350	O351	O352	O353	O354	O355	O356	O357	O358	O359	O360	O361	O362	O363	O364	O365	O366	O367	O368	O369	O370	O371	O372	O373	O374	O375	O376	O377	O378	O379	O380	O381	O382	O383	O384	O385	O386	O387	O388	O389	O390	O391	O392	O393	O394	O395	O396	O397	O398	O399	O400	O401	O402	O403	O404	O405	O406	O407	O408	O409	O410	O411	O412	O413	O414	O415	O416	O417	O418	O419	O420	O421	O422	O423	O424	O425	O426	O427	O428	O429	O430	O431	O432	O433	O434	O435	O436	O437	O438	O439	O440	O441	O442	O443	O444	O445	O446	O447	O448	O449	O450	O451	O452	O453	O454	O455	O456	O457	O458	O459	O460	O461	O462	O463	O464	O465	O466	O467	O468	O469	O470	O471	O472	O473	O474	O475	O476	O477	O478	O479	O480	O481	O482	O483	O484	O485	O486	O487	O488	O489	O490	O491	O492	O493	O494	O495	O496	O497	O498	O499	O500	O501	O502	O503	O504	O505	O506	O507	O508	O509	O510	O511	O512	O513	O514	O515	O516	O517	O518	O519	O520	O521	O522	O523	O524	O525	O526	O527	O528	O529	O530	O531	O532	O533	O534	O535	O536	O537	O538	O539	O540	O541	O542	O543	O544	O545	O546	O547	O548	O549	O550	O551	O552	O553	O554	O555	O556	O557	O558	O559	O560	O561	O562	O563	O564	O565	O566	O567	O568	O569	O570	O571	O572	O573	O574	O575	O576	O577	O578	O579	O580	O581	O582	O583	O584	O585	O586	O587	O588	O589	O590	O591	O592	O593	O594	O595	O596	O597	O598	O599	O600	O601	O602	O603	O604	O605	O606	O607	O608	O609	O610	O611	O612	O613	O614	O615	O616	O617	O618	O619	O620	O621	O622	O623	O624	O625	O626	O627	O628	O629	O630	O631	O632	O633	O634	O635	O636	O637	O638	O639	O640	O641	O642	O643	O644	O645	O646	O647	O648	O649	O650	O651	O652	O653	O654	O655	O656	O657	O658	O659	O660	O661	O662	O663	O664	O665	O666	O667	O668	O669	O670	O671	O672	O673	O674	O675	O676	O677	O678	O679	O680	O681	O682	O683	O684	O685	O686	O687	O688	O689	O690	O691	O692	O693	O694	O695	O696	O697	O698	O699	O700	O701	O702	O703	O704	O705	O706	O707	O708	O709	O710	O711	O712	O713	O714	O715	O716	O717	O718	O719	O720	O721	O722	O723	O724	O725	O726	O727	O728	O729	O730	O731	O732	O733	O734	O735	O736	O737	O738	O739	O740	O741	O742	O743	O744	O745	O746	O747	O748	O749	O750	O751	O752	O753	O754	O755	O756	O757	O758	O759	O760	O761	O762	O763	O764	O765	O766	O767	O768	O769	O770	O771	O772	O773	O774	O775	O776	O777	O778	O779	O780	O781	O782	O783	O784	O785	O786	O787	O788	O789	O790	O791	O792	O793	O794	O795	O796	O797	O798	O799	O800	O801	O802	O803	O804	O805	O806	O807	O808	O809	O810	O811	O812	O813	O814	O815	O816	O817	O818	O819	O820	O821	O822	O823	O824	O825	O826	O827	O828	O829	O830	O831	O832	O833	O834	O835	O836	O837	O838	O839	O840	O841	O842	O843	O844	O845	O846	O847	O848	O849	O850	O851	O852	O853	O854	O855	O856	O857	O858	O859	O860	O861	O862	O863	O864	O865	O866	O867	O868	O869	O870	O871	O872	O873	O874	O875	O876	O877	O878	O879	O880	O881	O882	O883	O884	O885	O886	O887	O888	O889	O890	O891	O892	O893	O894	O895	O896	O897	O898	O899	O900	O901	O902	O903	O904	O905	O906	O907	O908	O909	O910	O911	O912	O913	O914	O915	O916	O917	O918	O919	O920	O921	O922	O923	O924	O925	O926	O927	O928	O929	O930	O931	O932	O933	O934	O935	O936	O937	O938	O939	O940	O941	O942	O943	O944	O945	O946	O947	O948	O949	O950	O951	O952	O953	O954	O955	O956	O957	O958	O959	O960	O961	O962	O963	O964	O965	O966	O967	O968	O969	O970	O971	O972	O973	O974	O975	O976	O977	O978	O979	O980	O981	O982	O983	O984	O985	O986	O987	O988	O989	O990	O991	O992	O993	O994	O995	O996	O997	O998	O999	O1000	O1001	O1002	O1003	O1004	O1005	O1006	O1007	O1008	O1009	O1010	O1011	O1012	O1013	O1014	O1015	O1016	O1017	O1018	O1019	O1020	O1021	O1022	O1023	O1024	O1025	O1026	O1027	O1028	O1029	O1030	O1031	O1032	O1033	O1034	O1035	O1036	O1037	O1038	O1039	O1040	O1041	O1042	O1043	O1044	O1045	O1046	O1047	O1048	O1049	O1050	O1051	O1052	O1053	O1054	O1055	O1056	O1057	O1058	O1059	O1060	O1061	O1062	O1063	O1064	O1065	O1066	O1067	O1068	O1069	O1070	O1071	O1072	O1073	O1074	O1075	O1076	O1077	O1078	O1079	O1080	O1081	O1082	O1083	O1084	O1085	O1086	O1087	O1088	O1089	O1090	O1091	O1092	O1093	O1094	O1095	O1096	O1097	O1098	O1099	O1100	O1101	O1102	O1103	O1104	O1105	O1106	O1107	O1108	O1109	O1110	O1111	O1112	O1113	O1114	O1115	O1116	O1117	O1118	O1119	O1120	O1121	O1122	O1123	O1124	O1125	O1126	O1127	O1128	O1129	O1130	O1131	O1132	O1133	O1134	O1135	O1136	O1137	O1138	O1139	O1140	O1141	O1142	O1143	O1144	O1145	O1146	O1147	O1148	O1149	O1150	O1151	O1152	O1153	O1154	O1155	O1156	O1157	O1158	O1159	O1160	O1161	O1162	O1163	O1164	O1165	O1166	O1167	O1168	O1169	O1170	O1171	O1172	O1173	O1174	O1175	O1176	O1177	O1178	O1179	O1180	O1181	O1182	O1183	O1184	O1185	O1186	O1187	O1188	O1189	O1190	O1191	O1192	O1193	O1194	O1195	O1196	O1197	O1198	O1199	O1200	O1201	O1202	O1203	O1204	O1205	O1206	O1207	O1208	O1209	O1210	O1211	O1212	O1213	O1214	O1215	O1216	O1217	O1218	O1219	O1220	O1221	O1222	O1223	O1224	O1225	O1226	O1227	O1228	O1229	O1230	O1231	O1232	O1233	O1234	O1235	O1236	O1237	O1238	O1239	O1240	O1241	O1242	O1243	O1244	O1245	O1246	O1247	O1248	O1249	O1250	O1251	O1252	O1253	O1254	O1255	O1256	O1257	O1258	O1259	O1260	O1261	O1262	O1263	O1264	O1265	O1266	O1267	O1268	O1269	O1270	O1271	O1272	O1273	O1274	O1275	O1276	O1277	O1278	O1279	O1280	O1281	O1282	O1283	O1284	O1285	O1286	O1287	O1288	O1289	O1290	O1291	O1292	O1293	O1294	O1295	O1296	O1297	O1298	O1299	O1300	O1301	O1302	O1303	O1304	O1305	O1306	O1307	O1308	O1309	O1310	O1311	O1312	O1313	O1314	O1315	O1316	O1317	O1318	O1319	O1320	O1321	O1322	O1323	O1324	O1325	O1326	O1327	O1328	O1329	O1330	O1331	O1332	O1333	O1334	O1335	O1336	O1337	O1338	O1339	O1340	O1341	O1342	O1343	O1344	O1345	O1346	O1347	O1348	O1349	O1350	O1351	O1352	O1353	O1354	O1355	O1356	O1357	O1358	O1359	O1360	O1361	O1362	O1363	O1364	O1365	O1366	O1367	O1368	O1369	O1370	O1371	O1372	O1373	O1374	O1375	O1376	O1377	O1378	O1379	O1380	O1381	O1382	O1383	O1384	O1385	O1386	O1387	O1388	O1389	O1390	O1391	O1392	O1393	O1394	O1395	O1396	O1397	O1398	O1399	O1400	O1401	O1402	O1403	O1404	O1405	O1406	O1407	O1408	O1409	O1410	O1411	O1412	O1413	O1414	O1415	O1416	O1417	O1418	O1419	O1420	O1421	O1422	O1423	O1424	O1425	O1426	O1427	O1428	O1429	O1430	O1431	O1432	O1433	O1434	O1435	O1436	O1437	O1438	O1439	O1440	O1441	O1442	O1443	O1444	O1445	O1446	O1447	O1448	O1449	O1450	O1451	O1452	O1453	O1454	O1455	O1456	O1457	O1458	O1459	O1460	O1461	O1462	O1463	O1464	O1465	O1466	O1467	O1468	O1469	O1470	O1471	O1472	O1473	O1474	O1475	O1476	O1477	O14

**OUR
MISSION**

We partner with communities to deliver the finest water and wastewater services available at a competitive price. We are committed to keeping water safe and clean while serving people and taking care of communities with improved technical operations, careful management and financial oversight, and ensured regulatory compliance.

**Alliance Water
Resources,
Inc.**

**206 S. Keene
St.
Columbia, MO
65201**

(573)874-8080



REPORT OF OPERATIONS

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

Month of December 2022

Submitted by Alliance Water Resources, Inc. for the

January 2023

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	2.8	2.6	N/A	0.0		0.05	< 4.8
Peak Day	4.1	3.6	7.8	0.0		0.13	< 4.8
Percent Removal	98.6	98.8	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 0.940 MGD or 31% of Permitted flow with Lake Ozark contributing 15% of the total flow and Osage Beach contributing 85%. 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 50086 pounds of BOD.

BIOSOLIDS APPLICATION AND INVENTORY

Plant personnel land applied 8 tanker loads of bio-solids during the month equivalent to a total of 28,800 gallons and 7,746 pounds dry weight solids.

500,800 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 315,000 gallons with a level of 4.0 feet in Tank 1 and 3.0 feet in Tank 2.

WASTEHAULERS

The plant received 33 loads of septage during the month totaling 71,500 gallons.

WWTP OPERATIONS

- Decanting digesters and wasting weekly.
- Normal operations.
- American Sun Control was here on the 1st of December and installed the new safety handrail down the steps going to the outfall.

WWTP MAINTENANCE AND REPAIR

- Performed routine maintenance throughout the month as per Antero Maintenance Data Management schedule. (New version of Operator 10 Software)
- We noticed we had an excess build up of grease in the lift station between the aeration basins on the 1st of December. We purchased some grease eating bacteria/enzymes and started putting it in it on the 2nd and it seems to have helped with the breakdown of the excess grease allowing the pump floats to work more efficiently.
- Catalyst Electric came in on the 2nd of December to troubleshoot the timers again and said that the limit switch and the timer base needed changed so we ordered replacements. They came back on the 20th and installed the new timer & base and seems to be working now.
- We had multiple after hrs. call outs during the cold snap through the Christmas holiday. Twice on the 22nd, once on the 23rd and twice on the 26th of December. The first three were just power blinks and we just had to restart everything, but first one on the 26th aerator #1 went down and we noticed the power feed conduit was hanging down due to the excess weight of the ice. We didn't try restarting it until we could further investigate the situation and put aerator #2 back online. We contacted Catalyst Electric on the 27th but they couldn't make it out until after the 1st of January.
- We sprung a non-pot water leak in the headworks on the 27th of December. We located the valves that feed that building and shut them off until we could get it repaired.

SAFETY

- We conducted our monthly Safety Meeting on Chlorine Safety for Water and Wastewater Operations, Handling Sodium Hypochlorite, Housekeeping Awareness, Ladder Safety: Safe Use & Chainsaw Safety on the 13th of December.

REGULATORY AGENCY, INSPECTION AND REPORTS

- We filled out the new EDMR on the EPA MoGEM website on the 6th of January.

MISCELLANEOUS AND RECOMMENDATIONS

- We have completed what we can up to this point on the 5-year CIP, but didn't have it ready before they needed the packet info, so will bring a copy to the Joint Sewer Board meeting and as you'll see it's going to be a document that will need updated as we go.

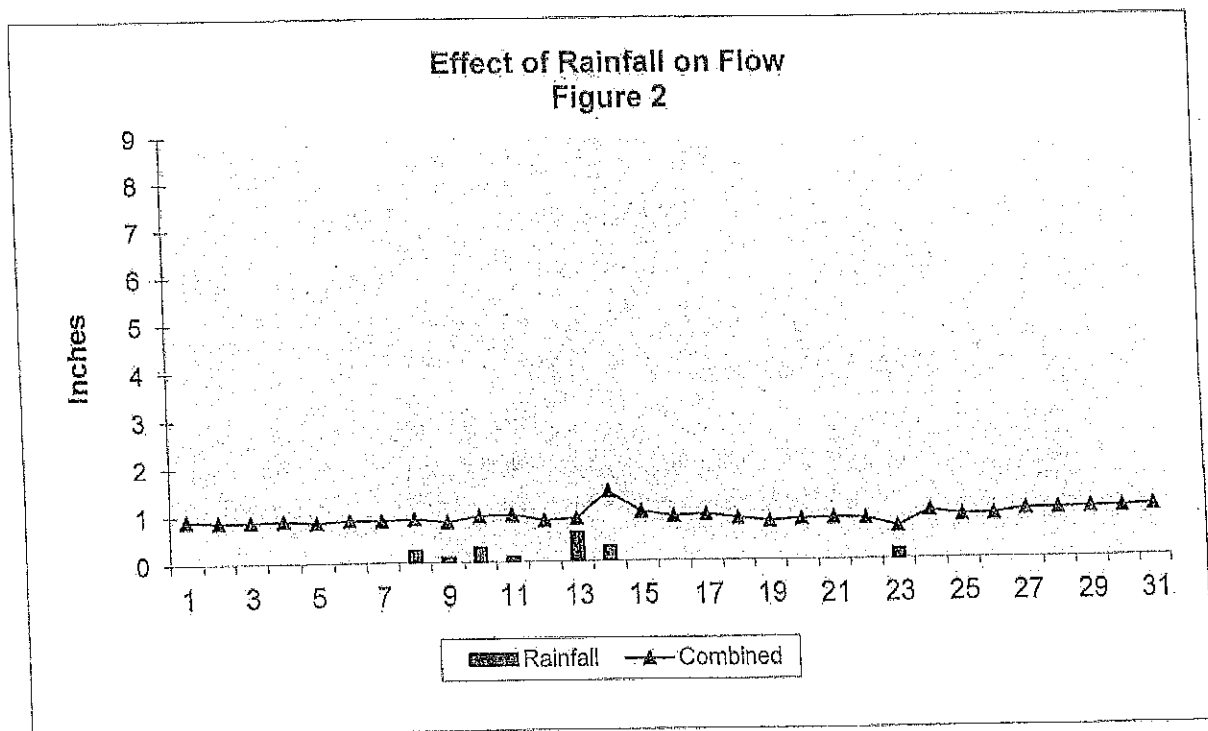
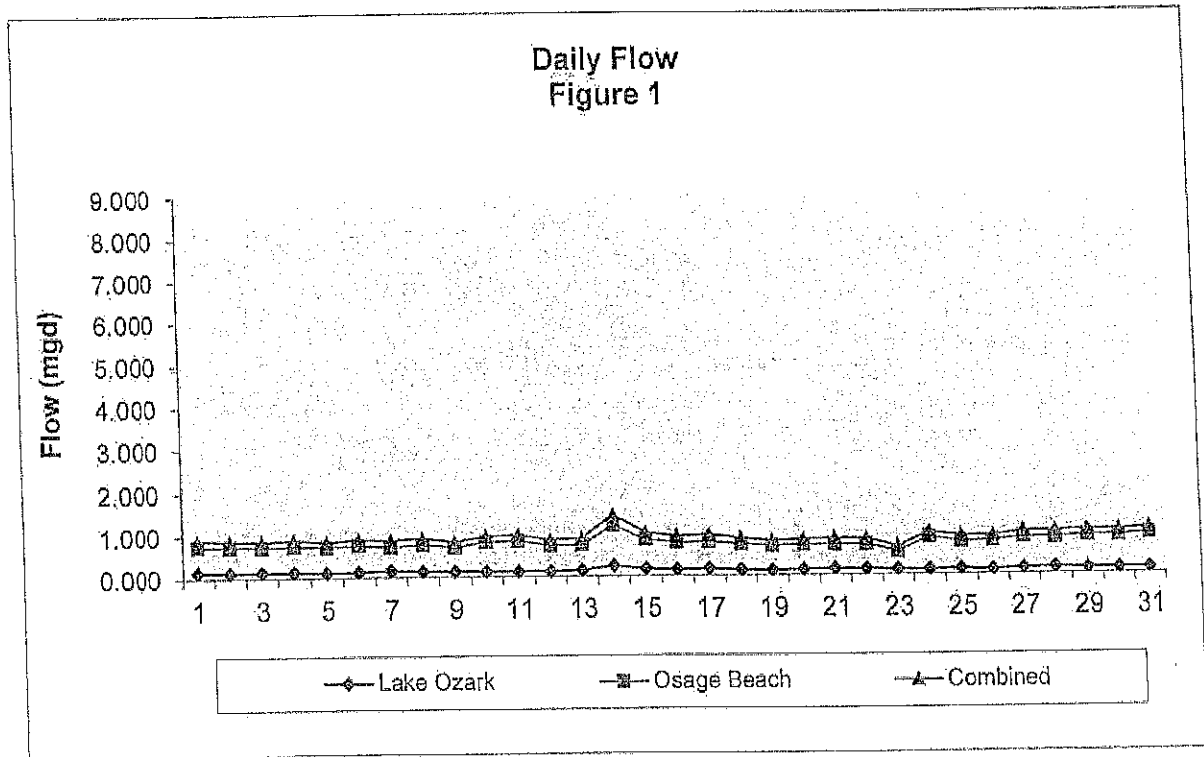
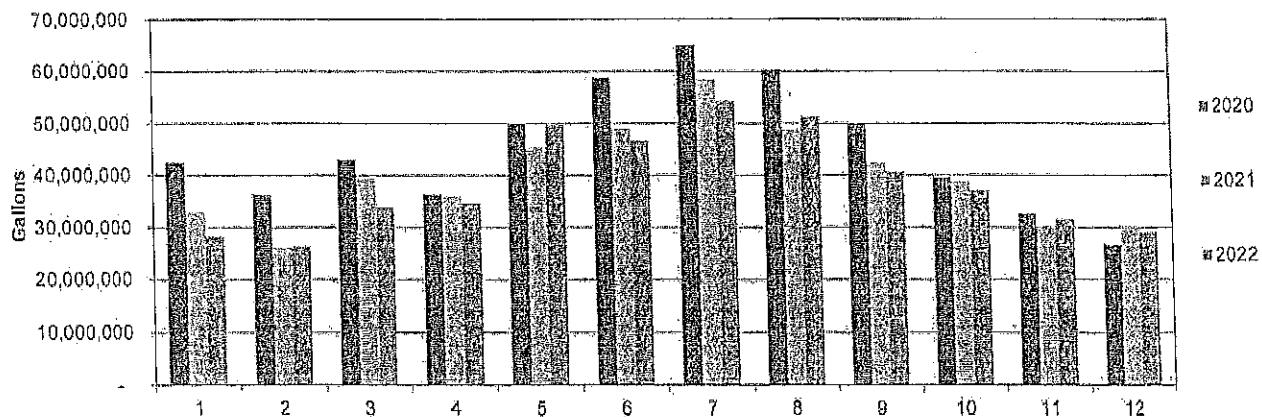


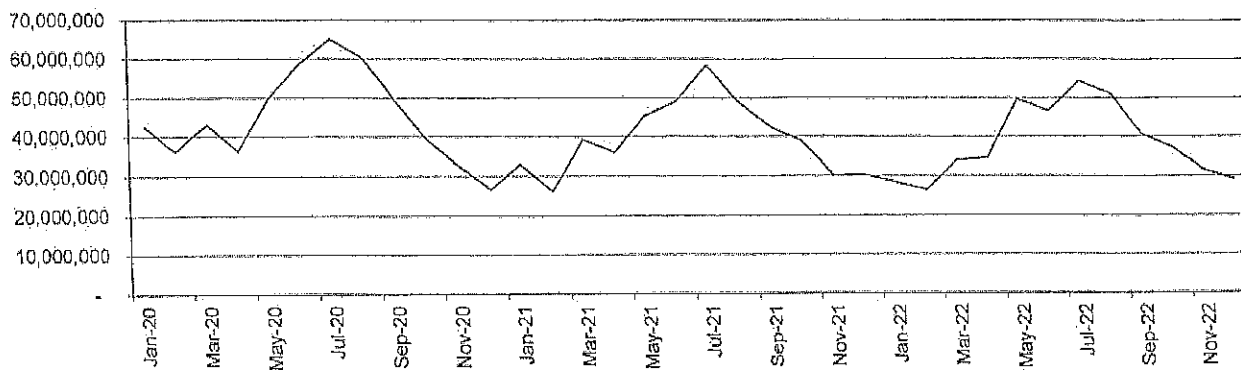
TABLE B
JOINT SEWER BOARD
Monthly Flows

<u>2020</u>	<u>RAINFALL</u>	<u>OSAGE BEACH</u>		<u>LAKE OZARK</u>		<u>TOTAL</u>	<u>%</u>
January	7.7	36,806,000	86%	5,780,000	14%	42,586,000	100%
February	3.6	31,279,000	86%	4,986,000	14%	36,265,000	100%
March	6.1	37,286,000	86%	5,888,000	14%	43,174,000	100%
April	5.2	31,967,000	88%	4,324,000	12%	36,291,000	100%
May	5.3	43,538,000	87%	6,443,000	13%	49,981,000	100%
June	4.8	50,936,000	87%	7,780,000	13%	58,716,000	100%
July	6.9	56,437,000	87%	8,616,000	13%	65,053,000	100%
August	2.3	52,449,000	87%	7,883,000	13%	60,332,000	100%
September	8.4	42,235,000	85%	7,636,000	15%	49,871,000	100%
October	5.4	33,173,000	84%	6,448,000	16%	39,621,000	100%
November	4.3	27,630,000	84%	5,102,000	16%	32,732,000	100%
December	1.3	22,749,000	85%	3,949,000	15%	26,698,000	100%
	61.3	466,485,000	86%	74,835,000	14%	541,320,000	100%
<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%
<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%

Monthly Influent Flow
Figure 3A

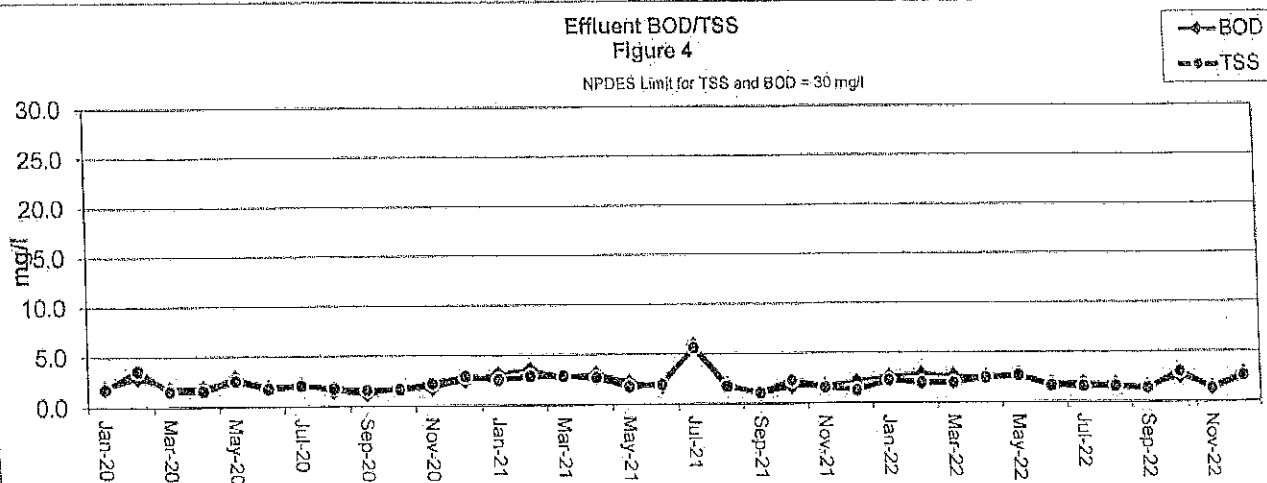


Monthly Influent Flow
Figure 3B

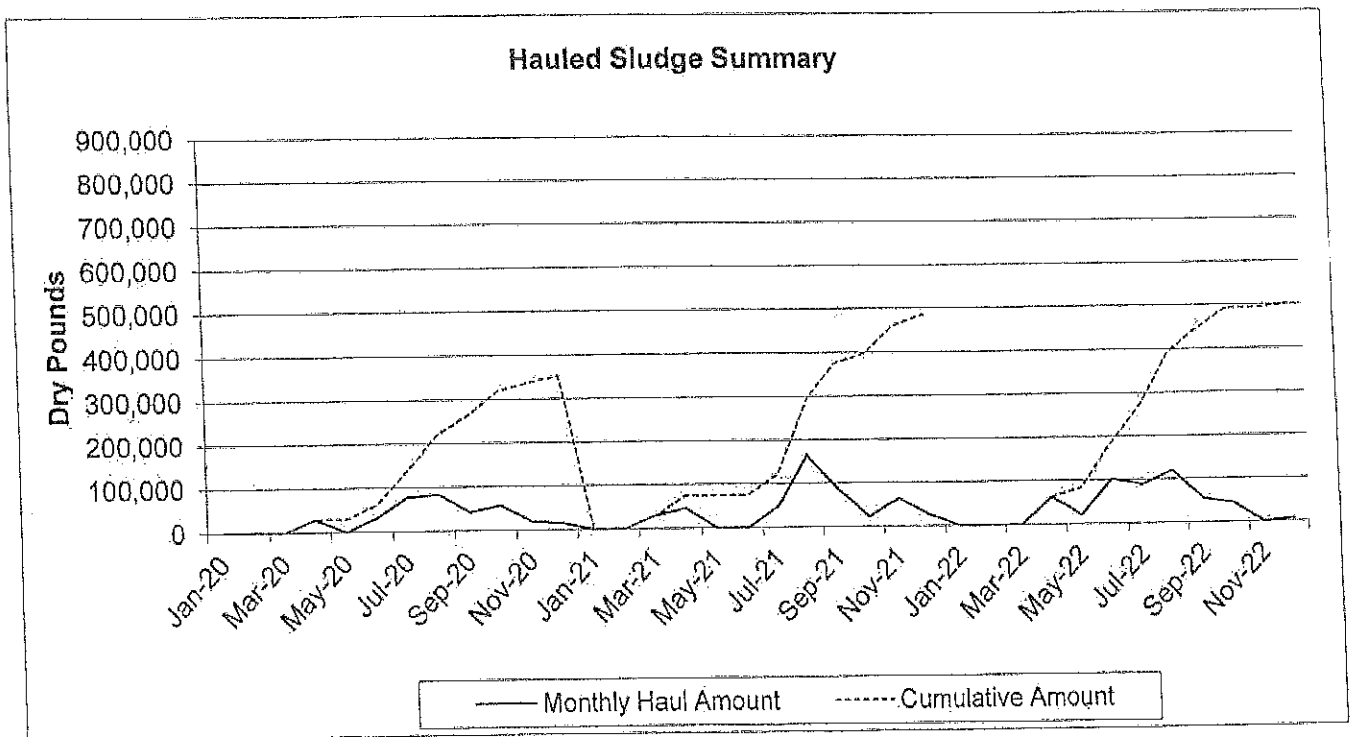
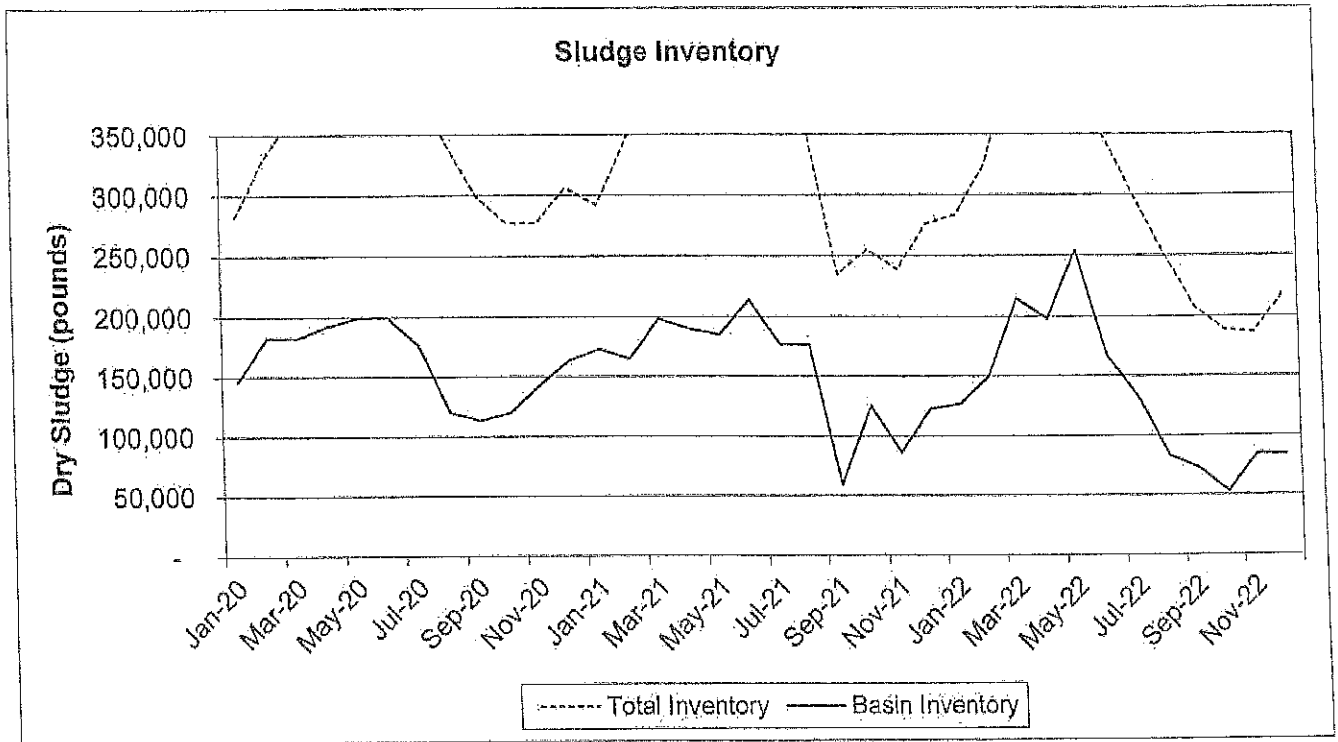


Effluent BOD/TSS
Figure 4

NPDES Limit for TSS and BOD = 30 mg/l



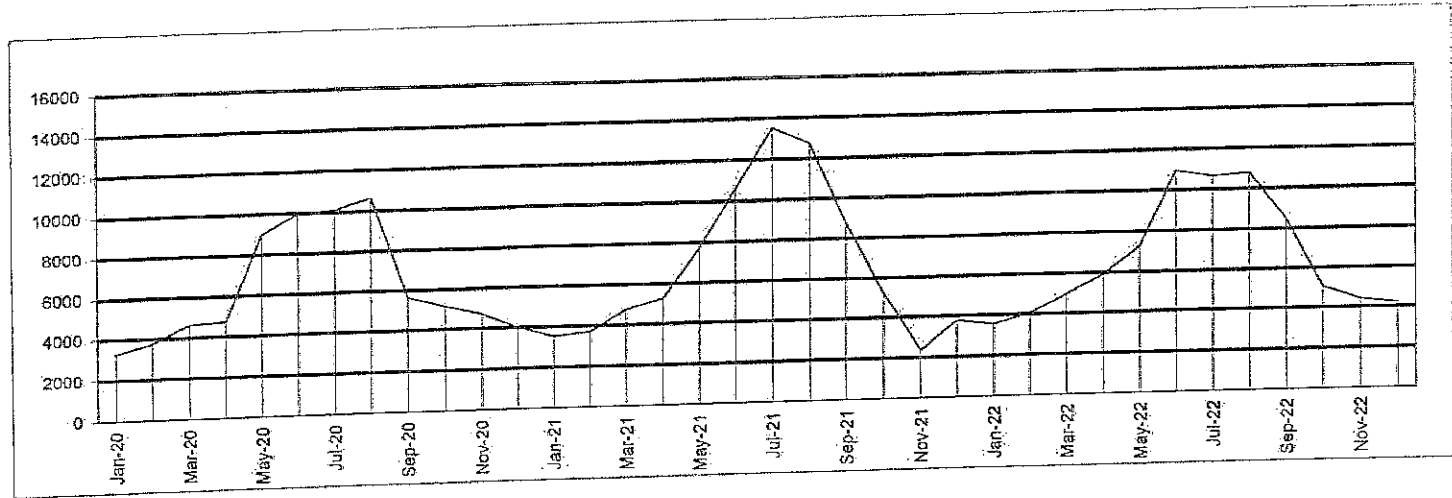
Hauled Sludge					Basin Depths					Blanket Depths				MLSS Inventory		Blanket and MLSS Inventory		MLSS	Total Dry	Accepted Septage	
Loads	Gallons	# Dry	% Solids	Annual Cumulative # Dry	Tank #1	Tank #2	AB #1	Basin Gallons	# Dry	Clar #1	Clar #2	Clar #3	MLSS AB #1	MLSS AB #2	Gallons	# Dry	% Solids	Sludge Inventory		Loads	Gallons
r-20	0	-	0	3.9%	-	6.0	4.0	0.0	450,000	146,367	1.0	1.5	0.0	4,260	4,690	3,644,405	136,015	0.00448	282,382	16	34,100
r-20	0	-	0	3.9%	-	8.5	6.0	0.0	562,500	182,959	3.5	2.0	0.0	5,190	4,390	3,697,691	147,718	0.00479	330,676	23	57,000
r-20	0	-	0	3.9%	-	5.5	7.0	0.0	562,500	182,959	2.0	5.0	1.0	5,760	5,940	3,767,762	183,825	0.00585	366,784	25	64,500
r-20	25	92,500	29,315	3.8%	29,315	6.0	7.5	0.0	607,500	192,528	1.0	1.0	1.0	5,740	5,290	3,678,952	169,214	0.00552	361,742	39	107,000
r-20	0	-	0	3.8%	-	6.0	8.0	0.0	630,000	199,660	1.0	7.0	1.0	6,010	6,110	3,785,524	191,322	0.00606	390,981	35	83,000
r-20	25	92,500	31,660	4.1%	60,975	6.0	7.0	0.0	585,000	177,054	6.0	7.0	0.5	7,050	7,120	3,852,620	227,647	0.00709	427,875	6	18,000
r-20	69	255,300	77,268	3.8%	138,243	6.0	7.0	0.0	585,000	177,054	7.0	7.0	1.0	6,890	7,380	3,892,096	231,603	0.00714	408,656	88	208,000
r-20	76	281,200	83,286	3.8%	221,529	5.0	4.0	0.0	405,000	119,953	6.0	6.0	1.0	6,530	7,400	3,856,572	224,021	0.00697	343,974	67	158,000
r-20	38	140,600	41,627	3.5%	263,156	4.0	4.5	0.0	382,500	113,246	1.0	1.0	0.5	6,000	6,200	3,657,238	188,058	0.0061	299,304	45	104,500
r-20	45	166,600	55,298	4.0%	318,454	5.0	3.0	0.0	360,000	119,563	1.0	1.0	1.0	4,960	5,070	3,678,952	158,015	0.00515	277,578	16	32,000
r-20	18	66,600	19,255	3.5%	337,709	5.0	6.0	0.0	495,000	143,111	1.0	0.0	0.5	4,780	4,080	3,639,476	134,465	0.00443	277,576	16	36,000
r-20	11	40,700	14,843	4.4%	352,552	4.5	5.5	0.0	450,000	164,112	1.0	0.0	0.5	5,030	4,380	3,639,476	142,508	0.0047	306,620	33	69,000
r-21	0	-	0	4.4%	-	7.0	3.5	0.0	472,500	173,389	6.0	0.0	1.0	3,810	3,780	3,750,000	118,689	0.0038	292,077	83	205,500
r-21	0	-	0	4.4%	-	5.0	5.0	0.0	450,000	165,132	5.0	8.0	0.0	5,490	5,750	3,830,906	179,558	0.00562	344,690	28	69,500
r-21	23	85,100	28,863	4.1%	28,863	6.0	7.0	0.0	585,000	198,549	2.0	5.0	0.5	6,830	6,350	3,746,048	205,573	0.00658	404,122	32	70,000
r-21	39	144,300	45,269	3.8%	74,152	6.0	7.5	0.0	607,500	190,582	12.0	5.0	1.0	6,890	5,350	3,945,382	201,375	0.00612	391,957	22	52,000
r-21	0	-	0	3.8%	74,152	6.0	7.0	0.0	585,000	185,393	13.0	14.0	1.0	6,200	6,330	4,123,002	215,427	0.00627	400,825	48	128,500
r-21	0	-	0	3.8%	74,152	7.0	8.0	0.0	675,000	213,921	6.0	7.5	2.0	7,280	8,060	3,926,643	234,903	0.00717	448,824	63	151,500
r-21	40	144,000	47,378	3.9%	121,530	5.0	7.0	0.0	540,000	177,668	7.0	12.0	3.0	9,190	8,110	4,057,762	279,340	0.00823	457,007	117	289,000
r-21	153	550,800	186,363	3.6%	287,893	7.0	6.0	0.0	585,000	176,693	1.0	1.0	0.5	5,160	5,840	3,657,238	183,003	0.0060	359,701	66	163,000
r-21	92	331,200	87,226	3.2%	375,119	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	62	159,500
r-21	17	61,200	22,698	4.4%	397,817	3.5	4.0	0.0	337,500	125,173	0.5	1.0	0.0	4,430	4,140	3,648,357	130,381	0.0043	255,554	34	80,000
r-21	46	165,600	63,621	4.6%	461,438	3.0	2.0	0.0	225,000	88,442	1.0	0.0	0.0	5,130	4,980	3,626,643	152,138	0.0050	238,580	37	83,000
r-21	16	57,600	24,139	5.0%	485,577	4.0	2.5	0.0	292,500	122,581	1.0	1.0	0.0	4,540	5,630	3,635,524	154,179	0.0051	276,759	27	62,000
r-22	0	-	0	4.5%	-	4.5	3.0	0.0	337,500	126,664	1.0	3.5	0.0	5,060	5,180	3,679,929	157,136	0.0051	283,800	13	27,000
r-22	0	-	0	4.0%	-	7.0	3.0	0.0	450,000	160,120	4.0	1.5	0.0	6,280	5,030	3,697,691	174,393	0.0057	324,513	32	88,000
r-22	0	-	0	4.4%	-	6.0	7.0	0.0	585,000	214,672	9.0	10.0	0.0	5,870	5,760	3,937,478	190,464	0.0058	405,135	23	48,000
r-22	47	169,200	62,120	4.4%	62,120	7.0	5.0	0.0	540,000	198,255	10.0	10.0	1.0	7,100	5,800	3,998,668	211,765	0.0064	410,021	52	124,500
r-22	16	57,600	21,017	4.4%	83,137	8.5	7.0	0.0	697,500	254,503	4.5	0.5	1.5	5,780	6,010	3,753,952	184,247	0.0059	462,281	37	85,000
r-22	84	302,400	102,052	4.0%	185,189	7.0	4.0	0.0	495,000	167,049	2.0	10.0	1.0	6,290	6,630	3,856,572	207,778	0.0065	482,281	42	93,500
r-22	80	288,000	88,961	3.7%	274,150	7.0	2.5	0.0	427,500	132,051	8.0	3.0	1.5	4,740	5,880	3,880,524	166,296	0.0052	351,297	33	88,500
r-22	108	388,800	120,426	3.7%	394,576	2.0	4.0	0.0	270,000	83,629	1.5	1.0	0.5	5,490	5,420	3,686,119	166,789	0.0055	250,418	168	300,000
r-22	51	183,600	54,073	3.5%	448,649	3.5	2.0	0.0	247,500	72,893	0.5	0.5	0.5	4,650	4,160	3,657,238	134,359	0.0044	207,251	76	168,000
r-22	42	151,200	44,405	3.5%	493,054	1.0	3.0	0.0	180,000	52,863	1.0	1.0	0.0	4,590	4,390	3,639,476	138,286	0.0045	189,149	33	71,000
r-22	0	-	0	3.5%	493,054	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	186,954	38	89,500
r-22	8	28,800	7,746	3.2%	500,800	4.0	3.0	0.0	315,000	84,722	1.5	1.5	0.0	4,510	4,270	3,653,285	133,756	0.0044	218,478	33	71,500



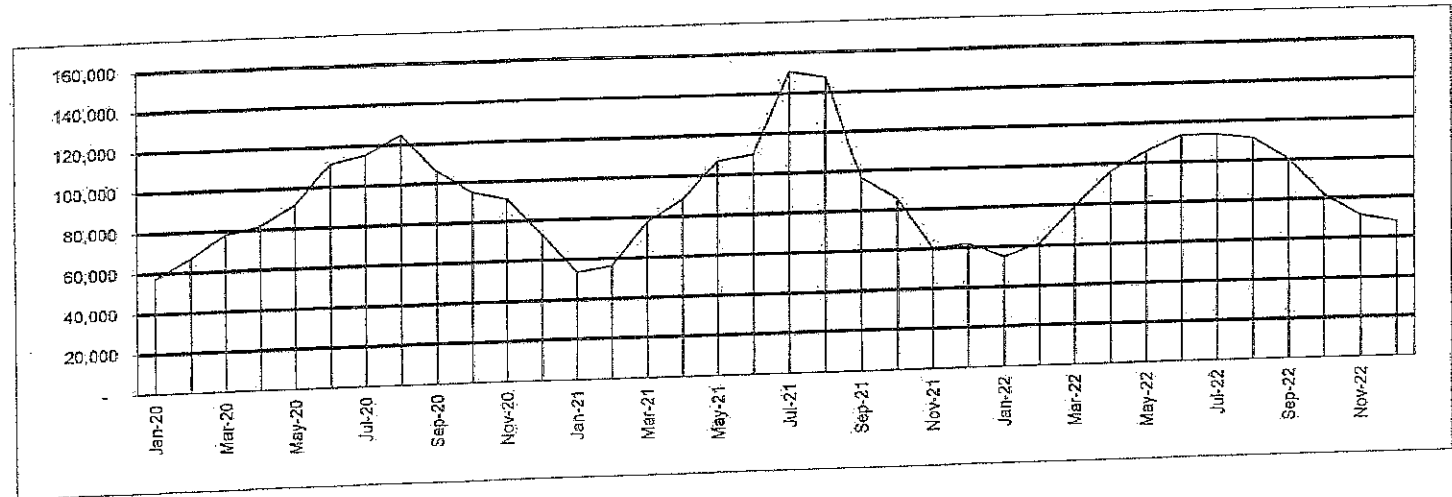
Electric Cost Kilowatts Used

-20	3259	57,250
-20	3760	66,830
-20	4637	78,070
-20	4741	81,780
-20	8962	91,550
-20	9959	111,680
-20	10100	115,300
-20	10619	124,800
-20	5669	106,220
-20	5155	94,870
-20	4734	90,890
-20	4009	73,020
-21	3524	53,730
-21	3696	56,370
-21	4776	77,720
-21	5281	88,390
-21	7727	107,320
-21	10610	110,130
-21	13533	150,740
-21	12737	147,810
-21	8751	96,600
-21	5233	85,530
-21	2348	60,370
-21	3776	62,100
-22	3547	55,070
-22	4063	61,330
-22	4979	79,050
-22	5907	96,160
-22	7292	106,100
-22	10958	113,870
-22	10648	113,590
-22	10800	111,690
-22	8498	100,470
-22	5071	82,030
-22	4451	71,240
-22	4224	68,000

Electric Cost



Kilowatts Used





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

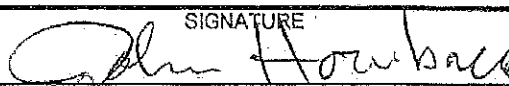
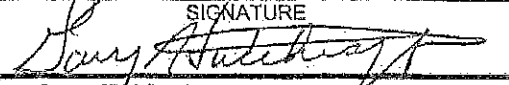
NAME OF FACILITY							LOCATION ADDRESS & CITY							COUNTY/REGION		
Lake of the Ozarks Regional WWTP #1							#3 Anderson Road							Miller/SWRO		
MONTH/YEAR		PERMIT NUMBER					OUTFALL NUMBER		TYPE TREATMENT FACILITY							
Dec-22		MO-0103241					#001		Oxidation Ditch/UV/Sludge Holding-sludge is land 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	7.3				10.2	1.399	7.1				11.3		8.7			
2	7.2	205	100		11.7	1.447	7.7	1.8	2.1		11.0		11.5	99.1	97.9	
3	7.3				9.8	1.337	7.6				11.3		9.1			
4	7.4				10.4	1.432	7.6				11.3		9.4			
5	7.3				13.9	1.360	7.7				11.0		10.8			
6	7.3			16.0	14.0	1.396	7.7			0.02	11.1		11.9			
7	7.0				14.8	1.369	7.5				11.1		12.1			
8	7.0				15.6	1.360	7.5				11.1		13.2			
9	7.5	218	244		13.9	1.322	7.7	2.6	2.3		11.1		12.3	98.8	99.1	
10	7.2				13.7	1.472	7.7				10.8		12.2			
11	7.1				13.2	1.522	7.8				10.8		11.7			
12	7.1				14.5	1.341	7.7				11.0		11.7			
13	7.0			20.3	13.9	1.424	7.6			0.13	10.7		11.9			
14	7.3				13.2	1.995	7.7				12.1		11.1			
15	7.7				10.9	1.509	7.6				11.1		10.5			
16	7.5	188	264		11.4	1.451	7.5	1.9	2.4		11.1		9.5	99.0	99.1	
17	7.6				8.7	1.329	7.6				11.2		8.6			
18	7.6				7.3	1.392	7.6				11.3		6.0			
19	7.3				11.3	1.382	7.7				11.0		8.9			
20	7.0			24.2	12.3	1.324	7.5			0.02	11.0		9.5			
21	7.0				12.6	1.354	7.5				11.1		9.1			
22	7.4	225	236		8.8	1.414	7.6	3.5	2.8		11.0		6.5	98.4	98.8	
23	7.6				6.0	1.173	7.5				12.0		4.0			
24	7.1				10.2	1.651	7.5				12.7		5.8			
25	7.1				10.8	1.499	7.6				12.7		6.1			
26	7.2				10.6	1.443	7.4				12.5		6.0			
27	7.0			9.2	10.0	1.543	7.5			0.02	12.4		5.5			
28	7.4				10.8	1.554	7.5				12.1		7.3			
29	7.2	195	206		13.7	1.524	7.6	4.1	3.6		11.9		12.2	97.9	98.3	
30	4.5				11.8	1.401	7.6				11.1		10.0			
31	7.5				10.1	1.559	7.6				11.3		9.6			
Total						44.678										
Avg		206	210	17.4	11.6	1.441		2.8	2.6	0.05	11.4	0.0	9.4	98.7	98.6	
Min	4.5	188	100	9.2	6.0	1.173	7.1	1.8	2.1	0.02	10.7	0.0	4.0	97.9	97.9	
Max	7.7	225	264	24.2	15.6	1.995	7.8	4.1	3.6	0.13	12.7	0.0	13.2	99.1	99.1	

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	2.8	< 0.50	28.1					4.8	24.1	< 0.10
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	2.8	< 0.50	28.1					4.8	24.1	< 0.10
Avg	2.8	< 0.50	28.1					4.8	24.1	< 0.10
Min	2.8	< 0.50	28.1					4.8	24.1	< 0.10
Max	2.8	< 0.50	28.1					4.8	24.1	< 0.10

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

DATE Dec-22	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		4.1	3,650	370	9.9	4.1	3,770	540	10.1	29	0	7:30
2		4.1	3,580	320	11.6	3.2	4,690	620	13.6	52	0	7:30
3		4.0	4,050	390	10.1	3.1	4,540	490	10.6	34	0	7:30
4		4.1	4,410	490	9.7	3.1	4,130	490	10.5	34	0	7:30
5	4,954	3.4	4,620	450	11.0	3.0	4,240	440	11.3	45	0	7:30
6	2,792	2.1	4,280	480	12.0	1.2	4,250	470	12.3	52	0	7:30
7		2.1	4,280	410	12.3	2.1	4,740	580	12.5	48	0	7:30
8		2.2	4,280	400	12.9	2.1	4,700	520	15.5	51	0.25	7:30
9		1.4	4,460	500	12.6	1.3	4,430	500	13.3	50	0.1	7:30
10		1.1	3,660	460	12.1	1.7	4,370	470	12.3	45	0.3	7:30
11		2.3	4,280	500	11.9	2.0	4,180	550	12.1	44	0.1	7:30
12		1.8	4,690	550	11.7	1.6	4,040	480	11.9	42	0	7:30
13		1.1	4,320	500	11.6	1.3	4,510	500	11.8	44	0.6	7:30
14		1.2	4,550	450	12.2	1.2	3,940	530	13.1	46	0.3	7:30
15		2.0	4,360	490	11	2.0	4,820	670	11.3	39	0	7:30
16		3.1	4,590	550	9.7	2.0	4,710	650	10.2	32	0	7:30
17		5.1	4,350	550	8.6	5.1	4,300	490	9.5	27	0	7:30
18		5.5	4,010	470	7.8	4.5	4,370	480	8.9	23	0	7:30
19		4.2	4,070	520	9	2.2	4,570	530	9.5	36	0	7:30
20		5.2	3,920	510	8.7	2.6	4,590	560	9.6	39	0	7:30
21		4.4	4,300	500	7.9	2.1	3,890	550	8.8	32	0	7:30
22		3.0	4,470	500	8	2.0	4,250	470	9.5	26	0	7:30
23		4.2	4,460	770	4.2	6.1	4,440	730	5.5	-5	0.2	7:30
24		5.6	4,180	670	5.2	3.4	4,440	580	6.3	7	0	7:30
25		6.1	4,280	660	5.4	3.6	4,920	660	6.0	5	0	7:30
26		3.6	4,730	650	5.9	3.6	4,830	750	6.7	37	0	7:30
27		5.3	4,330	700	4.8	3.5	4,800	700	5.8	12	0	7:30
28		5.2	4,280	530	7.2	2.1	4,770	740	7.8	38	0	7:30
29		4.1	4,290	540	10.5	2.1	4,660	740	10.9	59	0	7:30
30		3.1	4,870	630	11	2.1	4,150	420	11.8	48	0	7:30
31		1.4	4,510	450	9.5	2.1	4,270	450	10.3	38	0	7:30

COMMENTS:

TESTS PERFORMED BY (PRINT) John Hornback	SIGNATURE 	PHONE # (573)365-0455	DATE 1/5/2023
REPORT APPROVED BY (PRINT) Gary Hutchcraft	SIGNATURE 	PHONE # (573)365-0455	DATE 1/5/2023

*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	
12/1/22	12/31/22
NODI:	*****

Parameters	Reporting Requirements			Unit	Reporting Requirements		Unit
Flow, in conduit or thru treatment plant	*****	*****	*****	*****	1.995	1.441	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	*****	4.1	2.8	mg/L	*****	*****	*****
Mon. Location.: End of Pipe	*****;*****	Weekly Avg.:45	Monthly Avg.:30		*****;*****	*****;*****	
Sample Type: 24 Hour Composite							
Frequency: Weekly							
Total Suspended Solids (TSS)	*****	3.6	2.6	mg/L	*****	*****	*****
Mon. Location.: End of Pipe	*****;*****	Weekly Avg.:45	Monthly Avg.:30		*****;*****	*****;*****	
Sample Type: 24 Hour Composite							
Frequency: Weekly							
Phosphorus, total (as P)	2.8	*****	2.8	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)	<0.50	*****	<0.50	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)	28.1	*****	28.1	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)	0.13	*****	0.05	mg/L	*****	*****	*****
Mon. Location.: End of Pipe	Daily Max.:12.1	*****;*****	Monthly Avg.:3.1		*****;*****	*****;*****	
Sample Type: 24 Hour Composite							
Frequency: Weekly							

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

pH	7.1	****	7.8	SU	****	****	****
Mon. Location.: End of Pipe	Minimum:6.0	****;****	Maximum:9.0		****;****	****;****	
Sample Type: Grab							
Frequency: Weekly							
BOD, 5-day, percent removal	****	****	97.9	%	****	****	****
Mon. Location.: End of Pipe	****;****	****;****	Monthly Avg. Min.:85		****;****	****;****	
Sample Type: Calculated							
Frequency: Monthly							
Suspended Solids, percent removal	****	****	97.9	%	****	****	****
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	
12/1/22	12/31/22
NODI:	*****

Parameters	Reporting Requirements			Unit	Reporting Requirements		Unit
BOD, 5-day, 20 deg. C	*****	*****	206	mg/L	*****	*****	*****
Mon. Location.: Influent	*****	*****	Monthly Avg.:Monitoring Required		*****	*****	
Sample Type: 24 Hour Composite							
Frequency: Monthly							
Total Suspended Solids (TSS)	*****	*****	210	mg/L	*****	*****	*****
Mon. Location.: Influent	*****	*****	Monthly Avg.:Monitoring Required		*****	*****	
Sample Type: 24 Hour Composite							
Frequency: Monthly							
Nitrogen, ammonia total (as N)	24.2	*****	17.4	mg/L	*****	*****	*****
Mon. Location.: Influent	Daily Max.:Monitoring Required	*****	Monthly Avg.:Monitoring Required		*****	*****	
Sample Type: 24 Hour Composite							
Frequency: Monthly							
Phosphorus, total (as P)	4.8	*****	4.8	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)	24.1	*****	24.1	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)	<0.10	*****	<0.10	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

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 6, 2023

User Phone Number
(573)365-0455

DATE: 2022
PAGE: 2

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