

**OSAGE BEACH / LAKE OZARK
JOINT SEWER BOARD MEETING
AGENDA
APRIL 21, 2020 @ 4:00 p.m.
LAKE OZARK CITY HALL**

1. CALL TO ORDER

2. ROLL CALL

Mayor, Osage Beach, John Olivarri
Mayor, Lake Ozark, Gerry Murawski
City Administrator, Osage Beach, Jeana Woods
City Administrator, Lake Ozark, Dave Van Dee
Alderman, Osage Beach, Greg Massey
Alderman, Lake Ozark, Judy Neels
Public Works Director, Lake Ozark, Matt Michalik
Resident Member, Mr. Gary Hamner

3. MINUTES

Page Numbers

Regular Meeting: March 17, 2020

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4. REPORTS

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March Alliance Report of Operations	15-32
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Approval of Flow Charts March 2020

5. OLD BUSINESS

A. Board Representative update

6. NEW BUSINESS

7. ADDITIONAL DISCUSSION ITEMS

8. ADJOURNMENT

THE NEXT MEETING WILL BE May 19, 2020 4:00 PM @ LAKE OZARK CITY HALL

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**LAKE OZARK-OSAGE BEACH
JOINT SEWER BOARD
Meeting Minutes – March 17, 2020**

CALL TO ORDER:

Mayor John Olivarri called the meeting to order at 4:00 pm on Tuesday, March 17, 2020 at Lake Ozark City Hall

ROLL CALL:

Mayor, Osage Beach, John Olivarri- Present
Mayor, Lake Ozark, Gerry Murawski - Present
City Administrator Osage Beach, Jeana Woods - Present
City Administrator Lake Ozark, Dave Van Dee – Present
Alderman Osage Beach, Greg Massey - Absent
Alderman Lake Ozark, Judy Neels- Absent
Public Works Director Lake Ozark, Matt Michalik – Present
Resident Member, Mr. Gary Hamner - Present

MINUTES:

City Administrator Van Dee motioned to approve the meeting minutes of February 18, 2020 his motion was seconded by City Administrator Woods, and passed unanimously.

REPORTS:

The February Bill list and Revenue Budget, Expenditure Budget Analysis, Income & Expense Summary and Check Registers and Bank Statements were reviewed. A Motion was made by Mayor Murawski to approve the documents and pay the bills. His motion was seconded by City Administrator Woods, and was passed unanimously.

Alliance Report of Operations: The average daily incoming flow for February was 1.251 mgd. We had 3.6 inches of precipitation measured at the WWTP.

Operationally, the plant's discharge was excellent, with an effluent monthly average BOD of 2.9 mg/l and TSS of 3.6 mg/l respectively for February, which represents a 97.7% or better removal.

The MLSS average for both aeration basins was 4,585 mg/l. The total dry weight sludge inventory for February totaled 330,678 pounds. There were 23 tanker loads or 57,000 gallons of septage received for the month.

APPROVAL OF FLOW CHART

Motion was made by Public Works Director Michalik to approve the Flow Chart for February. His motion was seconded by City Administrator Van Dee. Unanimous approval, motion passed.

OLD BUSINESS:

- A. Public Works Director Michalik stated the digesters were full but we can't spread sludge right now but states the plant looks really good. Gary Hutchcraft stated the older sludge truck needs to be surplused. It's not worth keeping and would have to put too much money into it to be safe for his guys and road worthy. Gary will get the information together and will get it over to Karri Bell to move forward with surplusing it

NEW BUSINESS:

- A. None at this time

ADDITIONAL DISCUSSION ITEMS:

ADJOURNMENT:

With no further business to discuss the meeting adjourned at 4:09 pm.

Approved on:

Mayor, John Olivarri

City Collector, Trisha Kane

JOINT SEWER BOARD
BILL LIST
APRIL 21, 2020

OPERATING FUND BILLS PAID PRIOR TO BOARD MEETING:	\$	1,773.85
OPERATING FUND BILLS TO BE PAID:	\$	38,853.58
EQUIPMENT REPLACEMENT FUND BILLS PAID PRIOR TO BOARD MEETING:	\$	-
EQUIPMENT REPLACEMENT FUND BILLS TO BE PAID:	\$	-
TOTAL	\$	40,627.43

OPERATING FUND BILLS PAID PRIOR TO BOARD MEETING:

Account	Check	Paid To:	Description:	Amount:
4020	240	DOC Lubrication	367858 Motor Grease	\$ 40.80
4020	241	John Henry Foster	360445 Air Dryer for UV	\$ 1,733.05
				\$ -
TOTAL				\$ 1,773.85

OPERATING FUND BILLS TO BE PAID:

Account	Check	Paid To:	Description:	Amount:
4000	242	Equipment Replacement Fund	Payment into ER Fund	\$ 5,967.00
4020	243	Cole-Parmer	2201562 Re-Cert. on Thermometer	\$ 201.17
4020	244	Core&Main	91143 Chlorine for cleaning	\$ 405.27
4020	245	Jani King	April	\$ 195.00
4020	246	Lakeland Oil Co.	84855 Diesel for Generator	\$ 348.74
4020	247	Menards	90052 Hose repair parts & nozzle	\$ 16.67
4020	247	Menards	90064 RAS pump repair parts coolant	\$ 15.54
4020	247	Menards	90666 Wire nuts	\$ 9.98
4020	247	Menards	90679 J-B weld epoxy	\$ 9.34
4020	247	Menards	90689 Fittings for RAS basement	\$ 39.96
4020	247	Menards	90695 Fittings for RAS basement	\$ 66.04
4020	247	Menards	90966 Credit for RAS pump coolant line	\$ (61.61)
4020	247	Menards	90967 RAS coolant line supplies	\$ 16.86
4020	248	Milwaukee Rubber	91432 Trash pump hoses	\$ 741.28
4020	249	Technical Services	18943 Property, Liability, Auto	\$ 134.45
4150	250	Crown Power Equip	22803 Lawn mower main & repair	\$ 415.06
4170	251	Alliance Water Resources, Inc.	April	\$ 25,465.00
4175	252	Ameren MO	11673321	\$ 4,577.97
4175	252	Ameren MO	98041275	\$ 59.31
4176	253	AT&T	April	\$ 78.07
4176	254	Republic	676882 April	\$ 152.48
				\$ -
TOTAL				\$ 38,853.58

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:
				\$ -
				\$ -
				\$ -
TOTAL				\$ -



John Henry Foster

pneumatic and hydraulic equipment

www.jhf.com

Invoice #	INV-00360445
Page	1 of 1
Invoice Date	03/09/2020

REMIT TO: P.O. BOX 419161
Creve Coeur, MO 63141-9161

Ph (314) 427-0600
Fax (314) 427-3502

SOLD TO

Account #: C016283
Joint Sewer Board
c/o Alliance Water Resources
P.O. Box 1985
Lake Ozark, MO 65049



SHIP TO

C000462
Alliance Water Resources
#3 Anderson Road
P.O. Box #1985
Lake Ozark, MO 65049

Customer PO Number	Ship Date	Salesperson	Packing Slip #	Terms	Order Date
GARY HUTCHCRAFT	03/09/2020	John Henry Foster	PS-00666547	Net 20 Days	02/12/2020
JHF Order #	Order Entered By	Placed By	Ship Via / Secondary Ship Via		
SO-00300596	Carla Ficke	Gary Hutchcraft	UPSG Bestway		

Part Number / Description	Ordered	Shipped	Backordered	Price Each	Extension
SFD-20 SFD-20 DRYER	1	1	0	1,696.00	1,696.00

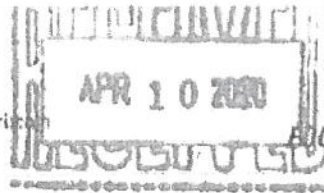
REPLACEMENT AIR DRYER FOR UV

GL Acct#: 4020
Signature: *Gary Hutchcraft*
Date: 3/16/20

Review and place orders at www.jhf.com Subject to Terms and Conditions at http://www.jhf.com/terms_of_purchase.html	Subtotal	Charges	Freight	Sales Tax	TOTAL
	1,696.00	0.00	37.05	0.00	1,733.05



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- Pay online or manage your account: AmerenMissouri.com
- Customer Service: 1.877.426.3736



FOCUSSED ENERGY. For life

Account Number 4580005832
Customer Name ALLIANCE WATER RESOURCES INC
Service Address 3 ANDERSON RD.,
LAKE OZARK, MO 65049

AMOUNT DUE \$8,203.05

Due Date 05/01/2020

Amount After Due Date \$8,328.10

Previous Statement \$3,625.08

Total Payments \$0.00

Payment Not Received.

If the prior balance has been paid, pay current amount of \$4,577.97 only.

Current Detail for Statement 04/09/2020

Total Electric Charges **\$4,577.97**
Prior Balance **\$3,625.08**

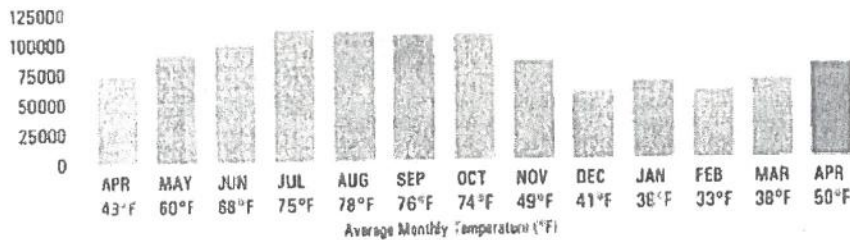
Total Amount Due \$8,203.05



Stay informed about your energy usage anytime. Go to AmerenMissouri.com and create an account. It's simple and free!

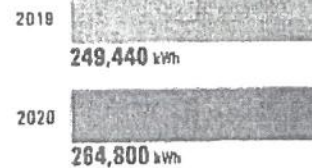
Electric Usage History

Electric Usage in Kilowatt Hours (kWh)



Electric Usage Summary (kWh)

So far this year, you're using **6.2% more** than last year.



Usage from Jan-Apr for 2019 & 2020

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: 4/10/20

Page 1 of 4

» See next page for service details.

Keep this portion for your records.

Please return this portion with your payment.



☐ Check if you have address changes on back.

Amount Due	Due Date
\$8,203.05 \$4,577.97	May 01, 2020
Delinquent Amount After Due Date	Account Number
\$8,328.10	4580005832

Amount Enclosed \$

>000325 6303933 0004 042139 102

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

AMEREN MISSOURI
PO BOX 88068
CHICAGO IL 60680-1068

00600000 0045800058302 000004577970 000008203050



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FOCUSED ENERGY. For life.

Electric Service Details Service from 03/09/2020 - 04/07/2020 (29 days)

Electric Meter Read

METER NUMBER	SERVICE FROM - TO	NO. DAYS	USAGE TYPE	READING TYPE	CURRENT READING	PREVIOUS READING	READING DIFFERENCE	MULTIPLIER	USAGE
11673321	03/09 - 04/07	29	Total kWh	Actual	58645.0000	58160.0000	485.0000	100.0000	77600.0000
11673321	03/09 - 04/07	29	Peak kW	Actual	1.1680	0.0000	1.1680	100.0000	186.6000

Usage Summary

Total kWh	77600.0000	Peak kW	186.6000
Total Billing Demand	186.6000	October Winter Base kW	216.5000
Winter Base Demand	186.6000	Base kWh Ratio	1.0000
Base kWh (HUD)	77600.0000	Seasonal kWh (HUD)	0.0000

Rate 3M Large General Service

DESCRIPTION	USAGE	UNIT		RATE	CHARGE
Seasonal Energy Charge	0.00	kWh	@	\$ 0.03810340	\$0.00
Demand Charge	186.60	kW	@	\$ 2.00000000	\$373.20
Base Energy Charge / Hours Used	27,990.00	kWh	@	\$ 0.06514821	\$1,823.50
Base Energy Charge / Hours Used	37,320.00	kWh	@	\$ 0.04838615	\$1,805.77
Base Energy Charge / Hours Used	12,290.00	kWh	@	\$ 0.03810340	\$468.29
Customer Charge					\$95.12
Fuel Adjustment Charge	77,600.00	kWh	@	\$-0.00077000	\$-59.76
Energy Efficiency Program Charge	77,600.00	kWh	@	\$ 0.00015172	\$11.77
Energy Efficiency Investment Charge	77,600.00	kWh	@	\$ 0.00383900	\$297.90
Renewable Energy Adjustment	77,600.00	kWh	@	\$ 0.00044000	\$34.14
Federal Tax Rate Reduction	77,600.00	kWh	@	\$-0.00350482	\$-271.97
Total Service Amount					\$4,577.97
Total Electric Charges					\$4,577.97

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 _____

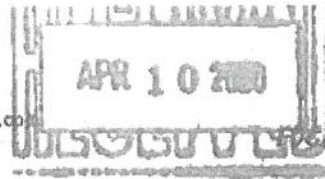
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USED ENERGY. For life.

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

CREDIT BALANCE \$-3,565.77

Due Date DO NOT PAY

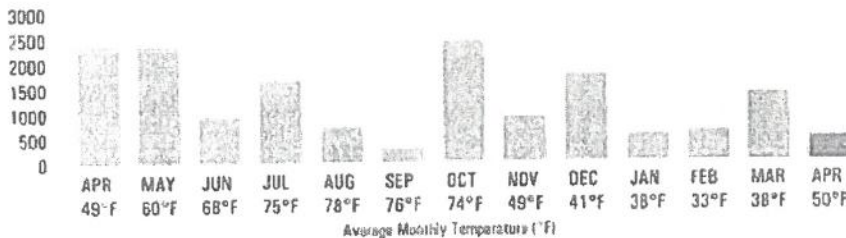
Current Detail for Statement 04/09/2020

Total Electric Charges **\$59.31**
Additional Charges (» see details pages) **\$-3,625.08**
Total Amount Due \$-3,565.77

Amount After Due Date **\$0.00**
Previous Statement **\$134.43**
Total Payments **\$3,759.51**
Payment Received. Thank You.

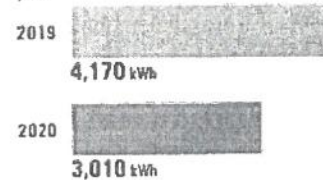
Electric Usage History

Electric Usage in Kilowatt Hours (kWh)



Electric Usage Summary (kWh)

So far this year, you're using **27.8% less** than last year.



Usage from Jan-Apr for 2019 & 2020

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 Acc# 4175

Signature: [Signature]

Date: 4/10/20

13073
00357 6303933 000673 001345 00010002

» See next page for service details.

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Credit Balance	Due Date
\$-3,565.77 \$59.31	May 01, 2020
Delinquent Amount After Due Date	Account Number
\$0.00	5580005920

DO NOT PAY

>000357 6303933 0004 092139 102

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

AMEREN MISSOURI
PO BOX 88068
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FOCUSED ENERGY. For life.

Electric Service Details

Service from 03/09/2020 - 04/07/2020 (29 days)

Electric Meter Read

METER NUMBER	SERVICE FROM - TO	NO. DAYS	USAGE TYPE	READING TYPE	CURRENT READING	PREVIOUS READING	READING DIFFERENCE	MULTIPLIER	USAGE
98041275	03/09 - 04/07	29	Total kWh	Actual	19902.0000	19855.0000	47.0000	10.0000	470.0000
98041275	03/09 - 04/07	29	Peak kW	Actual	4.0550	0.0000	4.0550	10.0000	40.6500

Usage Summary

Total kWh	470.0000	Winter Base kWh	1680.0000
Current Base kWh	470.0000	Seasonal kWh	0.0000

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

Threshold - Peak Demand

DESCRIPTION	USAGE	UNIT	RATE	CHARGE
Base Energy Charge	470.00	kWh	@ \$ 0.08222405	\$38.65
Seasonal Energy Charge	0.00	kWh	@ \$ 0.04740339	\$0.00
Customer Charge				\$21.08
Fuel Adjustment Charge	470.00	kWh	@ \$ 0.00077000	\$-0.36
Energy Efficiency Program Charge	470.00	kWh	@ \$ 0.00007586	\$0.04
Energy Efficiency Investment Charge	470.00	kWh	@ \$ 0.00374300	\$1.76
Renewable Energy Adjustment	470.00	kWh	@ \$ 0.00044000	\$0.21
Federal Tax Rate Reduction	470.00	kWh	@ \$-0.00440758	\$-2.07
Total Service Amount				\$59.31
Total Electric Charges				\$59.31

Additional Charges

DESCRIPTION	CHARGE
Credit	\$-3,825.08
Total Additional Charges	\$-3,825.08

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Page 2 of 4

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 Address _____
 City, State, Zip _____
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**MONTH-TO-DATE AND YEAR-TO-DATE
REVENUE/BUDGET ANALYSIS**

3/31/2020

Account Number	Account Name	2018 Actual	2019 Actual	2020 Budget	2020 Actual as of 3/31/2020	2020 March Revenue	Percent YTD
3020	Osage Beach	480,784.67	475,091.53	473,000.00	119,866.42	39,612.59	25%
3010	Lake Ozark	69,215.30	74,908.46	77,000.00	17,633.59	6,220.75	23%
3030	Misc.	1,485.00	0.00	0.00	0.00	0.00	
3100	Interest	1,484.82	4,286.79	1,400.00	205.85	5.32	15%
3060	Waste Haulers' Fee	25,780.00	26,260.00	29,000.00	6,660.00	2,580.00	23%
Total Operating Fund		578,749.79	580,546.78	580,400.00	144,365.86	48,418.66	25%
E/R Fund Income		4,281.74	9,001.77	4,000.00	241.01	49.88	6%
TOTAL INCOME		583,031.53	589,548.55	584,400.00	144,606.87	48,468.54	25%

MONTH-TO-DATE AND YEAR-TO-DATE
EXPENDITURE/BUDGET ANALYSIS
3/31/2020

Account Number	Account Name	2018 Actual	2019 Actual	2020 Budget	2020 Actual as of 3/31/2020	2020 March Expenses	Percent YTD
4000	Equipment Replace Fund	41,804.17	41,604.00	71,606.00	17,901.00	5,967.00	25%
4020	*Maintenance & Repair	9,713.86	104,062.97	88,000.00	10,954.24	5,521.82	12%
4140	Insurance	18,475.25	18,761.00	19,200.00	19,770.00	19,770.00	103%
4150	Vehicle Repair/Maint	3,887.47	5,479.80	10,000.00	6,312.42	5,099.10	63%
4160	Haulers Fees to Contractor	8,000.00	0.00	0.00	0.00	0.00	0%
4170	Contract Management	319,010.64	299,592.00	308,580.00	76,395.00	25,465.00	25%
4175	Electric	79,533.37	73,276.87	75,000.00	10,500.18	3,759.51	14%
4176	Utilities Misc.	0.00	3,717.52	3,100.00	1,259.27	233.30	41%
4190	Bank Charges	24.00	176.00	75.00	18.00	4.00	0%
4200	Audit	2,300.00	2,400.00	2,500.00	0.00	0.00	0%
4240	Capital Purchases	0.00	145,247.00	0.00	0.00	0.00	0%
Totals		482,548.76	694,316.96	578,061.00	143,108.11	65,819.83	25%
**E/R Expenses		42,782.61	41,280.51	83,500.00	38,600.00	0.00	46%
TOTAL EXPENSES		525,331.37	735,597.47	661,561.00	181,708.11	65,819.83	27%

<u>*Maintenance & Repair</u>	2020	<u>**Equipment & Replacement</u>	2020	2019
Auto Dialer Yrly Software Fee	500.00	Pista Grit Suct on tube	5,500.00	
		RAS motor control ctr/elec pane		37,670.00
Regular Maintenance	11,000.00	Replace lift station pump	8,000.00	
UV Spare Parts	10,000.00	Impeller & volute wear ring for Flygt pump	3,000.00	
Road and parking lot main	2,000.00	Ducking skimmer arm mechanism	12,000.00	
Chainlink fence repair	4,000.00	Replace winch for pulling lift station pumps & skim	3,000.00	
Box of BOD bottles	500.00	Rebuild Ducking skimmer arm & arm supports	5,000.00	
Sandblast & paint clarifier #2	80,000.00 FALL 2020	Replace wooden doors w/fiberglass	2,000.00	
		Repair/replace roof on headworks & other bldg	45,000.00	
	<u>88,000.00</u>		<u>83,600.00</u>	

OPERATING FUND INCOME AND EXPENSE SUMMARY
3/31/2020

Beginning Balance	279,211.36
Income - Osage Beach	39,612.59
Income - Lake Ozark	6,220.75
Income - Other	-
Income - Waste Haulers' Fees	2,580.00
Interest - Checking	5.32
Income - CD Interest	-
Transfers From E/R Fund	-
Transfers to E/R Fund	(5,967.00)
Expenses	(59,852.83)
Ending Fund Balance	261,810.19
Central Bank - NOW Acct.	48,002.51
	-
CD First Bank of the Lake, 2/20/21 #101318432	103,807.68
CD First Bank of the Lake, 4/22/21 #101318433	110,000.00
	-
Outstanding Checks:	-
	261,810.19

EQUIPMENT REPLACEMENT FUND INCOME AND EXPENSE SUMMARY
3/31/2020

Beginning Balance	510,646.27
Interest - Checking	49.88
Income - CD Interest	-
Transfers to E/R Fund	5,967.00
Income - Miscellaneous	-
Expenses	-
Ending Fund Balance	516,663.15
First Bank of the Lake - Money Mkt.	101,021.10
CD Providence Bank, 8/20 #1268880	207,553.78
CD First Bank of the Lake, 2/20/21 #101318431	101,942.14
CD First Bank of the Lake, 04/20 #101318430	106,146.13
	-
Outstanding Checks:	-
	516,663.15

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**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 March 2020

Submitted by Alliance Water Resources, Inc. for the

April 2020

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	Metals Selenium ug/L
Monthly Average	1.9	1.6	N/A	0		0.01	< 4.9	< 1.0
Peak Day	2.5	1.9	7.7	0		0.02	< 4.9	< 1.0
Percent Removal	99.3	99.2	N/A	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	Metals Selenium ug/ L
Monthly Average	30	30	6-9	126		2.2	10	3.6
Weekly Average	45	45		630				
Daily Max				N/A		11.5	15	9.1

PLANT HYDRAULIC AND ORGANIC LOADING

The average daily influent flow for the month was 1.393 MGD or 46% of Permitted flow with Lake Ozark contributing 14% of the total flow and Osage Beach contributing 86%. 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 93168 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.

0 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 562,500 gallons with a level of 5.5 feet in Tank 1 and 7.0 feet in Tank 2.

WASTEHAULERS

The plant received 25 loads of septage during the month totaling 64,500 gallons.

WWTP OPERATIONS

- Decanting digesters and wasting weekly.
- Normal operations.
- We put clarifier 3 back online on the 16th of March.
- We ran a process control E. coli on the 24th of March, and all were < 20/100 mg/L, which is very good.

WWTP MAINTENANCE AND REPAIR

- Performed routine maintenance throughout the month as per Antero Maintenance Data Management schedule. (New version of Operator 10 Software)
- We installed the UV modules back in the effluent channels on the 10th of March and only had a couple bulbs that we had to replace.
- We had a couple water coolant lines on the RAS pumps that we had to replace, one on the 16th and the other on the 27th of March.
- We had the wear ring come lose on RAS pump #3 on the 27th of March. We pulled the pump and replaced the wear ring with a spare and had it back on-line that afternoon.
- We took the lawn mower in to get serviced on the 23rd of March. We have been telling them for the past two years that it's hard to start sometimes, and they finally found the starter needed replaced. We got it back on the 31st

SAFETY

- We conducted our monthly routine Safety Meeting on Back Injury Prevention on the 10th of March.

REGULATORY AGENCY, INSPECTION AND REPORTS

- We filled out the EDMR on MDNR's website on the 2nd of April.
- We received the lab results for the 1st quarter 503 sludge regs testing on the 30th of March and everything looked good.

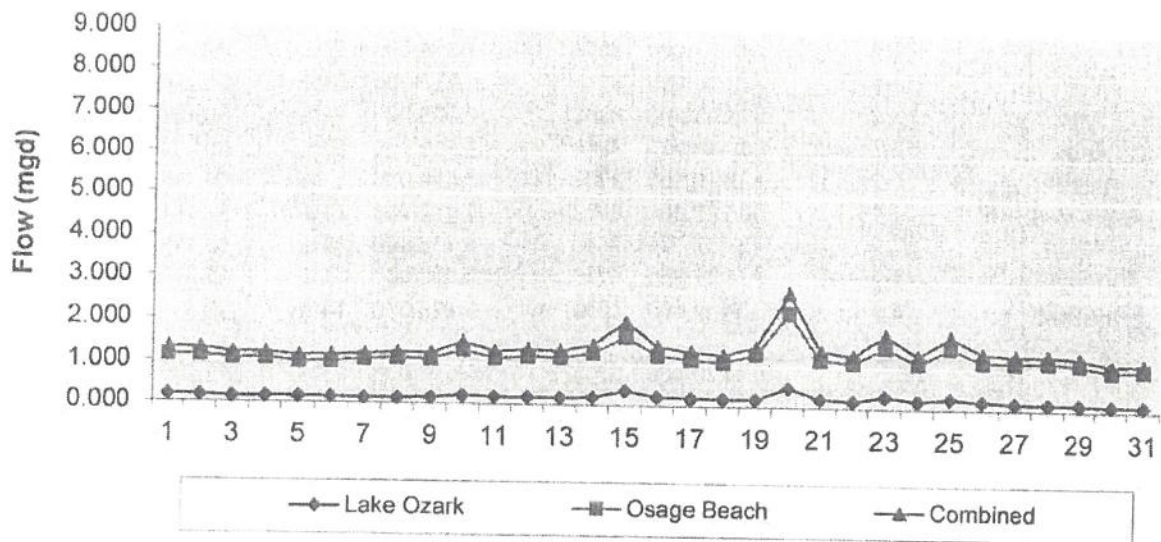
MISCELLANEOUS AND RECOMMENDATIONS

TABLE A
LAKE OZARK/OSAGE BEACH WWTP

MONTH OF **March** 2020

DATE		FLOW					BOD 5 MG/L			TSS MG/L		
	RAIN FALL IN.	LO mgd	OB mgd	COMB mgd	% LO	% OB	LO mg/l	OB mg/l	COMB mg/l	LO mg/l	OB mg/l	COMB mg/l
1-Mar	0	0.177	1.148	1.325	13.4	86.6						
2-Mar	0	0.173	1.138	1.311	13.2	86.8						
3-Mar	0	0.136	1.079	1.215	11.2	88.8						
4-Mar	0	0.139	1.069	1.208	11.5	88.5						
5-Mar	0	0.139	1.006	1.145	12.1	87.9						
6-Mar	0	0.144	1.020	1.164	12.4	87.6	195	225	225	108	170	282
7-Mar	0	0.128	1.065	1.193	10.7	89.3						
8-Mar	0	0.135	1.107	1.242	10.9	89.1						
9-Mar	0.3	0.151	1.083	1.234	12.2	87.8						
10-Mar	0.6	0.198	1.299	1.497	13.2	86.8						
11-Mar	0.25	0.173	1.115	1.288	13.4	86.6						
12-Mar	0	0.168	1.166	1.334	12.6	87.4						
13-Mar	0	0.161	1.145	1.306	12.3	87.7	313	240	320	180	138	186
14-Mar	1	0.192	1.268	1.460	13.2	86.8						
15-Mar	0.2	0.346	1.654	2.000	17.3	82.7						
16-Mar	0.3	0.215	1.217	1.432	15.0	85.0						
17-Mar	0	0.187	1.136	1.323	14.1	85.9						
18-Mar	0.2	0.183	1.073	1.256	14.6	85.4	220	283	285	78	156	146
19-Mar	1.3	0.175	1.283	1.458	12.0	88.0						
20-Mar	0.1	0.472	2.253	2.725	17.3	82.7						
21-Mar	0	0.213	1.173	1.386	15.4	84.6						
22-Mar	0.75	0.170	1.101	1.271	13.4	86.6						
23-Mar	0.1	0.291	1.486	1.777	16.4	83.6						
24-Mar	0.6	0.195	1.103	1.298	15.0	85.0						
25-Mar	0.1	0.261	1.492	1.753	14.9	85.1						
26-Mar	0	0.201	1.166	1.367	14.7	85.3						
27-Mar	0	0.171	1.148	1.319	13.0	87.0	155	188	205	54	152	144
28-Mar	0	0.157	1.174	1.331	11.8	88.2						
29-Mar	0.25	0.158	1.126	1.284	12.3	87.7						
30-Mar	1.25	0.143	0.980	1.123	12.7	87.3						
31-Mar	2.25	0.136	1.013	1.149	11.8	88.2						
SUM	9.6	5.888	37.286	43.174								
AVG		0.190	1.203	1.393	14	86	221	234	259	105	154	190
NOTE: BOLD PRINT INDICATES WEEKEND DAYS												

Daily Flow
Figure 1



Effect of Rainfall on Flow
Figure 2

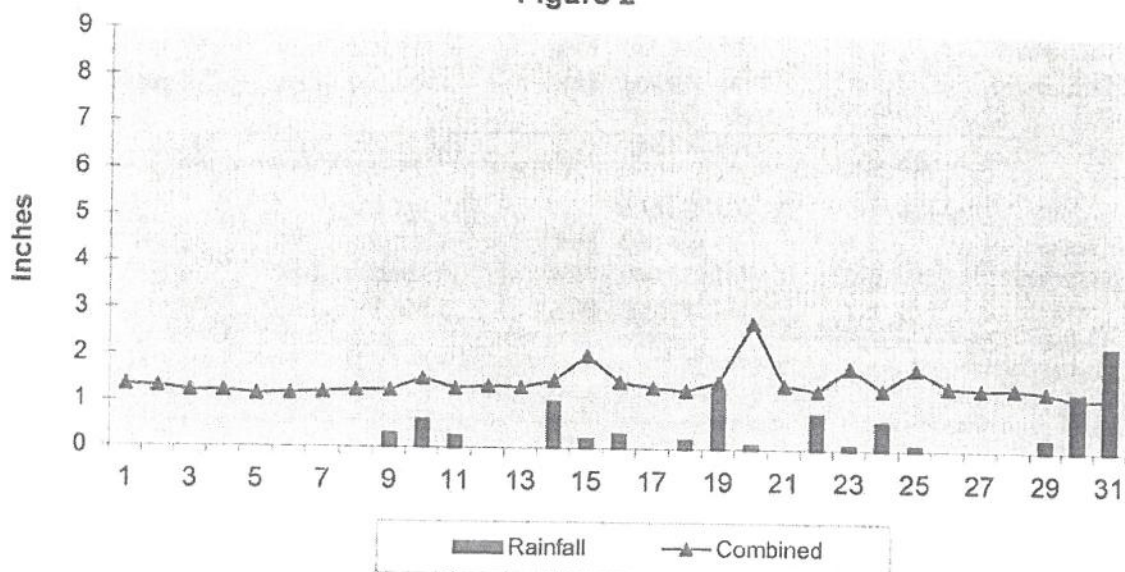
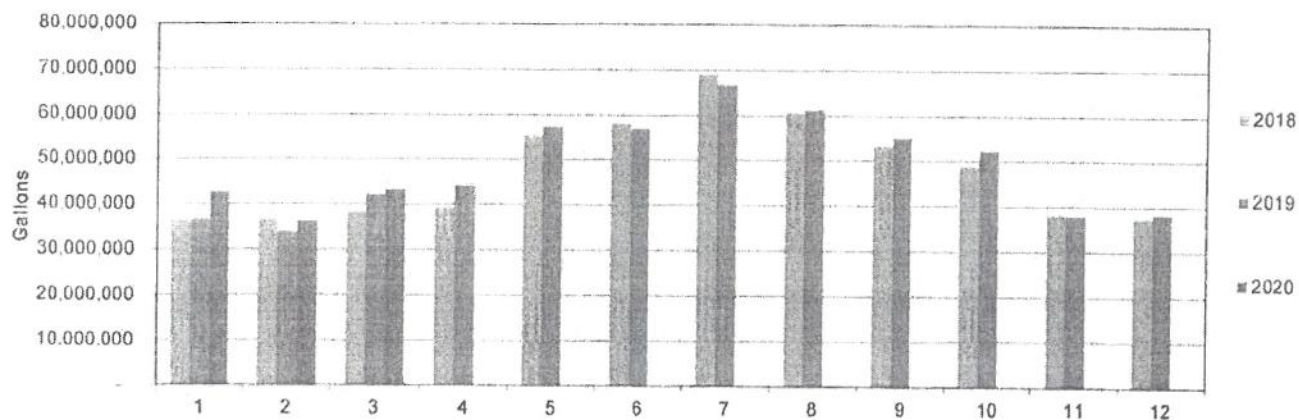


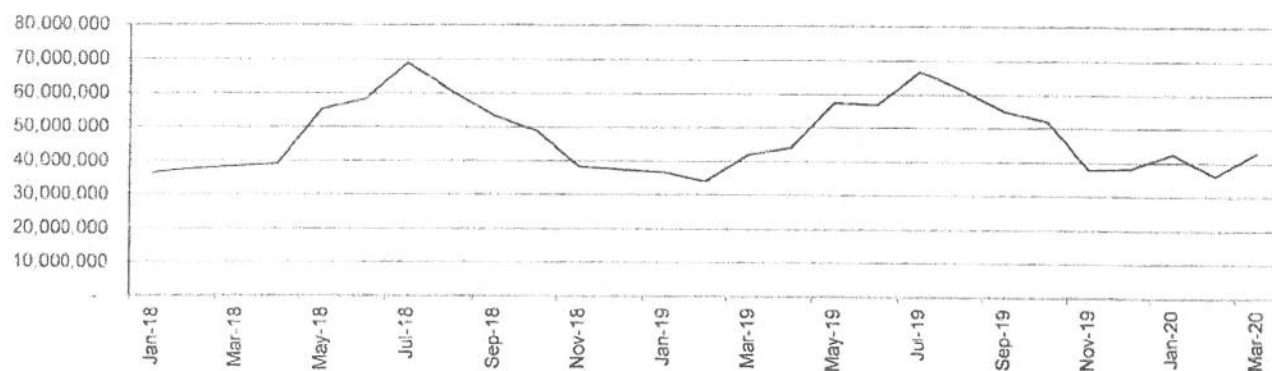
TABLE B
JOINT SEWER BOARD
Monthly Flows

<u>2018</u>	<u>RAINFALL</u>	<u>OSAGE BEACH</u>		<u>LAKE OZARK</u>		<u>TOTAL</u>	<u>%</u>
January	2.8	32,190,000	88%	4,345,000	12%	36,535,000	100%
February	5.4	31,846,000	87%	4,861,000	13%	36,707,000	100%
March	3.2	33,424,000	87%	5,010,000	13%	38,434,000	100%
April	1.9	34,339,000	88%	4,896,000	12%	39,235,000	100%
May	5.4	47,620,000	86%	7,610,000	14%	55,230,000	100%
June	3.2	51,063,000	88%	7,125,000	12%	58,188,000	100%
July	2.7	60,484,000	88%	8,550,000	12%	69,034,000	100%
August	6.9	52,916,000	87%	7,679,000	13%	60,595,000	100%
September	3.4	46,228,000	87%	7,013,000	13%	53,241,000	100%
October	7.5	42,037,000	86%	6,738,000	14%	48,775,000	100%
November	3.6	33,221,000	87%	5,089,000	13%	38,310,000	100%
December	6.3	32,452,000	86%	5,123,000	14%	37,575,000	100%
	52.3	497,820,000	87%	74,039,000	13%	571,859,000	100%
<u>2019</u>	<u>RAINFALL</u>	<u>OSAGE BEACH</u>		<u>LAKE OZARK</u>		<u>TOTAL</u>	<u>%</u>
January	2.1	32,085,000	87%	4,708,000	13%	36,793,000	100%
February	4.4	29,492,000	86%	4,650,000	14%	34,142,000	100%
March	6.3	36,210,000	86%	5,876,000	14%	42,086,000	100%
April	4.1	37,991,000	86%	6,135,000	14%	44,126,000	100%
May	9.9	49,124,000	85%	8,333,000	15%	57,457,000	100%
June	6.0	49,051,000	86%	7,864,000	14%	56,915,000	100%
July	4.8	57,666,000	86%	9,132,000	14%	66,798,000	100%
August	6.0	53,074,000	87%	8,215,000	13%	61,289,000	100%
September	3.5	47,732,000	87%	7,165,000	13%	54,897,000	100%
October	11.1	44,971,000	86%	7,194,000	14%	52,165,000	100%
November	3.5	33,141,000	87%	4,779,000	13%	37,920,000	100%
December	1.8	33,575,000	88%	4,708,000	12%	38,283,000	100%
	63.2	504,112,000	86%	78,759,000	13%	582,871,000	100%
<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						-	
May						-	
June						-	
July						-	
August						-	
September						-	
October						-	
November						-	
December						-	
	17.4	105,371,000	86%	16,654,000	14%	122,025,000	100%

Monthly Influent Flow
Figure 3A

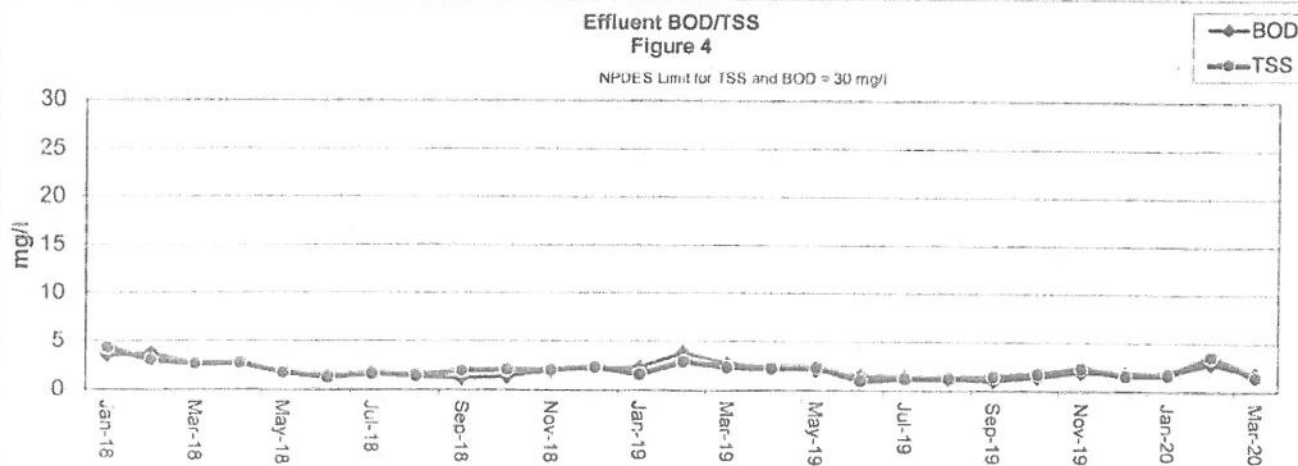


Monthly Influent Flow
Figure 3B



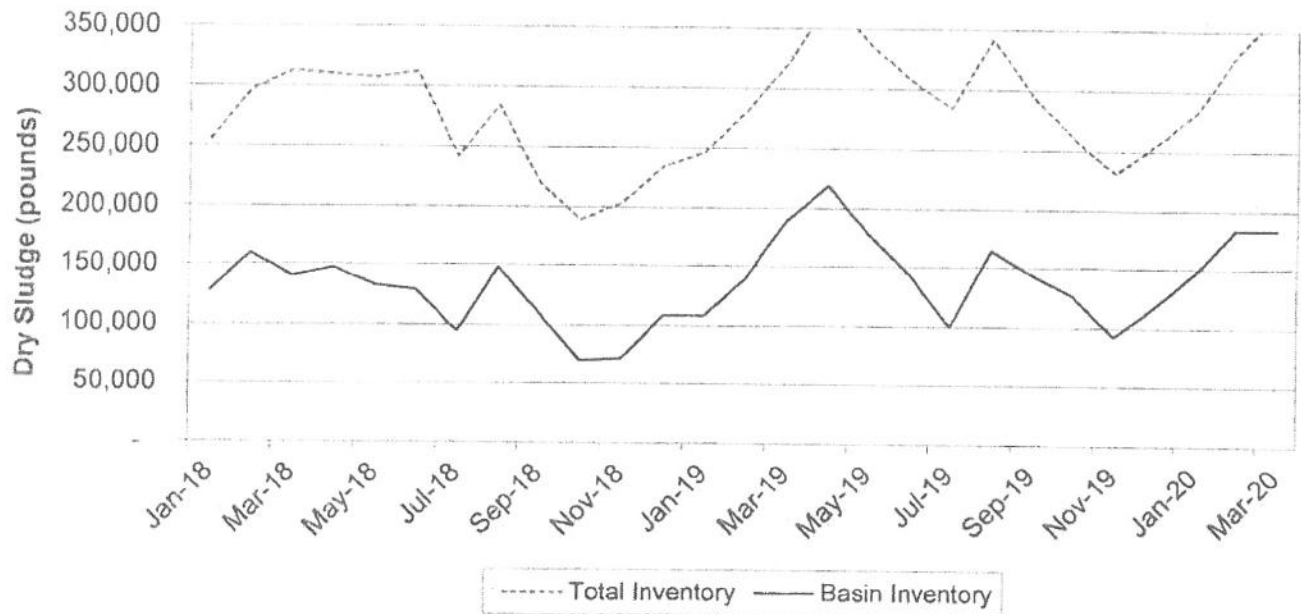
Effluent BOD/TSS
Figure 4

NPDES Limit for TSS and BOD = 30 mg/l

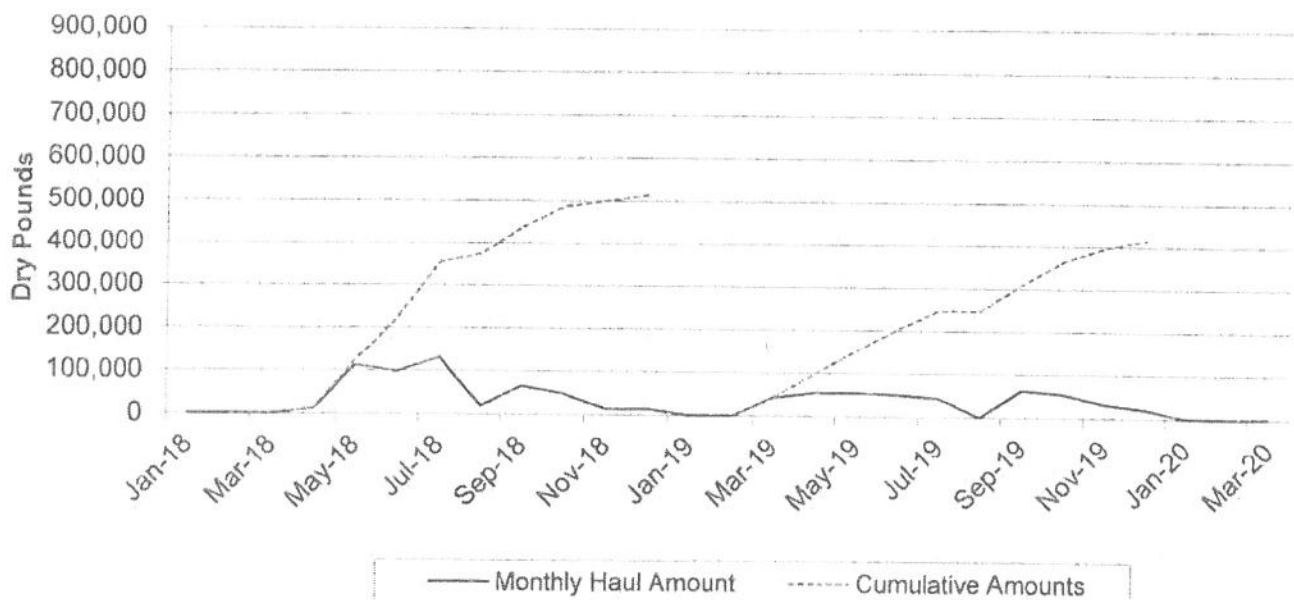


	Hauled Sludge					Basin Degrins					Blanket Degrins			M. SS Inventory		Blanket and M. SS Inventory		M. SS		Total Dry	Accepted Septage	
	Loads	Gallons	# Dry	% Solids	Annual Cumulative # Dry	Tank #1	Tank #2	AB #1	Basin Gallons	# Dry	Clart #1	Clart #2	Clart #3	M. SS AB #1	M. SS AB #2	Gallons	# Dry	% Solids	Sludge Inventory		Loads	Gallons
Jan-18	0	-	0	3.4%	-	5.5	4.5	0.0	450,000	127,602	0.5	1.0	0.0	4,350	4,040	3,625,643	127,488	0.00422	255,060	5	12,500	
Feb-18	0	-	0	3.4%	-	7.5	5.0	0.0	582,500	159,503	2.0	4.0	1.0	4,880	3,920	3,750,000	137,610	0.0044	297,113	16	40,000	
Mar-18	0	-	0	3.4%	-	5.5	5.5	0.0	495,000	140,362	0.5	0.5	0.5	5,580	5,780	3,639,476	172,405	0.00588	312,789	8	15,000	
Apr-18	11	40,700	12,093	3.6%	12,093	5.0	6.0	0.0	495,000	147,114	0.5	0.5	0.5	5,670	5,040	3,639,476	162,542	0.00536	309,655	8	20,000	
May-18	93	344,100	112,893	3.9%	124,789	4.5	4.5	0.0	405,000	132,638	0.5	0.5	0.5	5,933	5,547	3,639,476	174,683	0.00576	307,321	10	24,500	
Jun-18	89	325,000	97,758	3.6%	222,547	4.0	5.5	0.0	427,500	126,589	4.0	3.0	1.0	6,190	5,490	3,767,762	183,511	0.00594	312,100	38	95,000	
Jul-18	125	465,200	131,023	3.4%	353,570	3.0	4.5	0.0	337,500	94,853	1.0	0.5	1.5	4,570	4,990	3,691,785	147,174	0.00478	242,026	42	107,000	
Aug-18	12	44,400	19,441	5.3%	373,011	5.0	2.5	0.0	337,500	147,778	2.5	1.0	1.0	4,590	4,170	3,705,585	136,753	0.00443	284,531	30	75,000	
Sep-18	51	188,700	66,098	4.2%	439,109	4.5	2.5	0.0	315,000	110,338	0.5	1.0	0.0	3,920	3,340	3,626,643	109,794	0.00383	220,132	45	113,500	
Oct-18	38	140,800	48,447	4.1%	487,556	3.0	1.5	0.0	202,500	69,776	0.5	0.5	0.0	4,290	3,640	3,617,752	119,533	0.00397	189,409	21	59,500	
Nov-18	11	40,700	12,896	3.8%	500,455	2.5	2.5	0.0	225,000	71,309	1.0	1.0	0.0	4,100	4,640	3,635,524	132,500	0.00437	203,809	8	21,500	
Dec-18	14	51,800	14,688	3.4%	515,143	6.5	2.0	0.0	382,500	103,459	11.0	12.0	0.0	4,120	3,420	4,008,526	126,035	0.00377	234,494	22	55,000	
Jan-19	0	-	0	3.4%	-	5.0	3.5	0.0	382,500	108,462	1.0	1.0	0.0	4,650	4,480	3,635,524	138,412	0.00457	246,874	19	46,500	
Feb-19	0	-	0	3.4%	-	8.0	5.0	0.0	495,000	140,362	1.0	1.0	0.0	4,570	4,740	3,635,524	141,141	0.00466	281,503	31	79,500	
Mar-19	36	133,200	43,139	3.5%	43,139	6.0	7.0	0.0	585,000	189,462	0.5	1.0	0.0	4,780	3,920	3,626,643	131,571	0.00435	321,033	9	21,500	
Apr-19	39	144,300	53,940	4.5%	97,079	5.5	7.5	0.0	585,000	218,676	1.5	0.5	1.0	5,720	4,530	3,678,952	157,248	0.00513	376,923	23	61,500	
May-19	45	181,300	54,896	3.6%	151,945	8.0	5.0	0.0	585,000	177,036	3.0	1.5	1.0	5,150	5,160	3,723,357	160,077	0.00516	337,113	12	25,500	
Jun-19	44	162,800	51,872	3.8%	203,817	7.0	3.0	0.0	450,000	143,381	2.0	4.0	1.5	5,610	4,810	3,771,714	163,686	0.00521	307,267	19	47,500	
Jul-19	37	138,900	43,533	3.8%	247,450	3.0	4.0	0.0	315,000	100,397	2.0	3.0	0.5	6,060	5,830	3,710,524	183,973	0.00585	284,370	36	84,000	
Aug-19	0	-	0	3.8%	247,450	5.5	6.0	0.0	517,500	164,006	5.0	3.0	0.5	5,660	5,690	3,763,810	177,982	0.00567	341,988	29	72,500	
Sep-19	59	214,600	62,487	3.5%	309,937	7.0	4.0	0.0	495,000	144,134	2.0	1.0	1.0	4,460	5,310	3,698,714	150,607	0.00489	294,741	22	55,000	
Oct-19	50	185,000	54,742	3.5%	364,679	7.5	2.0	0.0	427,500	126,498	2.5	3.0	1.0	4,170	4,350	3,741,119	132,916	0.00426	259,414	40	97,000	
Nov-19	29	107,300	31,629	3.5%	396,308	3.5	3.5	0.0	315,000	92,853	3.5	5.0	0.0	4,980	3,650	3,750,977	138,115	0.00442	230,958	15	36,000	
Dec-19	17	62,900	20,643	3.9%	416,951	6.0	2.0	0.0	360,000	118,148	1.0	1.0	0.0	5,090	3,940	3,635,524	136,896	0.00452	255,044	14	32,000	
Jan-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	
Feb-20	0	-	0	3.9%	-	6.5	6.0	0.0	562,500	182,858	3.5	2.0	0.0	5,190	4,390	3,697,891	147,718	0.00479	330,676	23	57,000	
Mar-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	183,625	0.00585	366,784	25	64,500	

Sludge Inventory



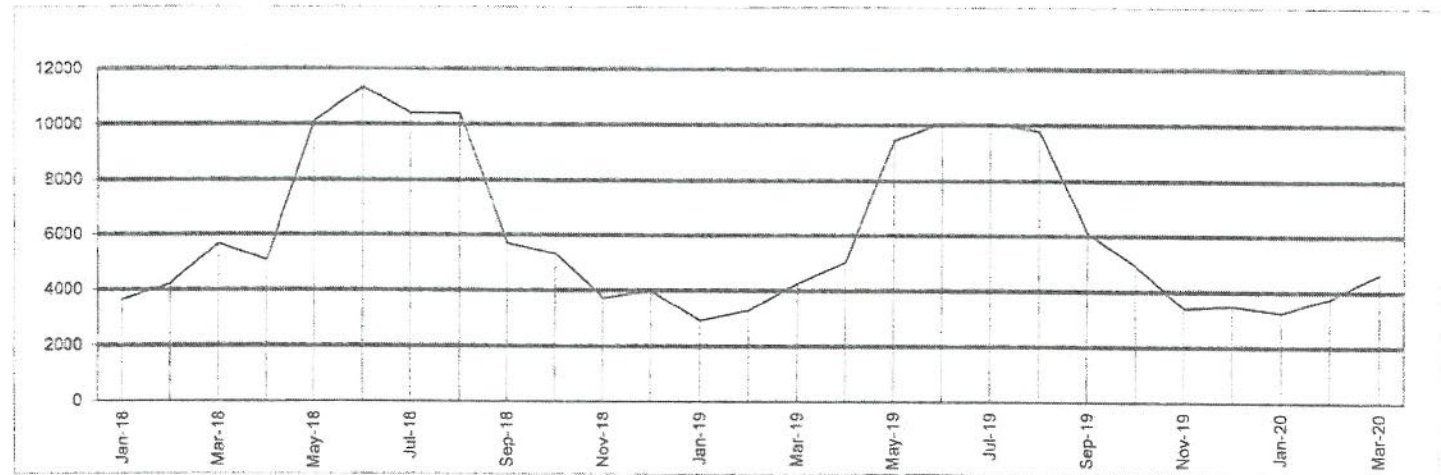
Hauled Sludge Summary



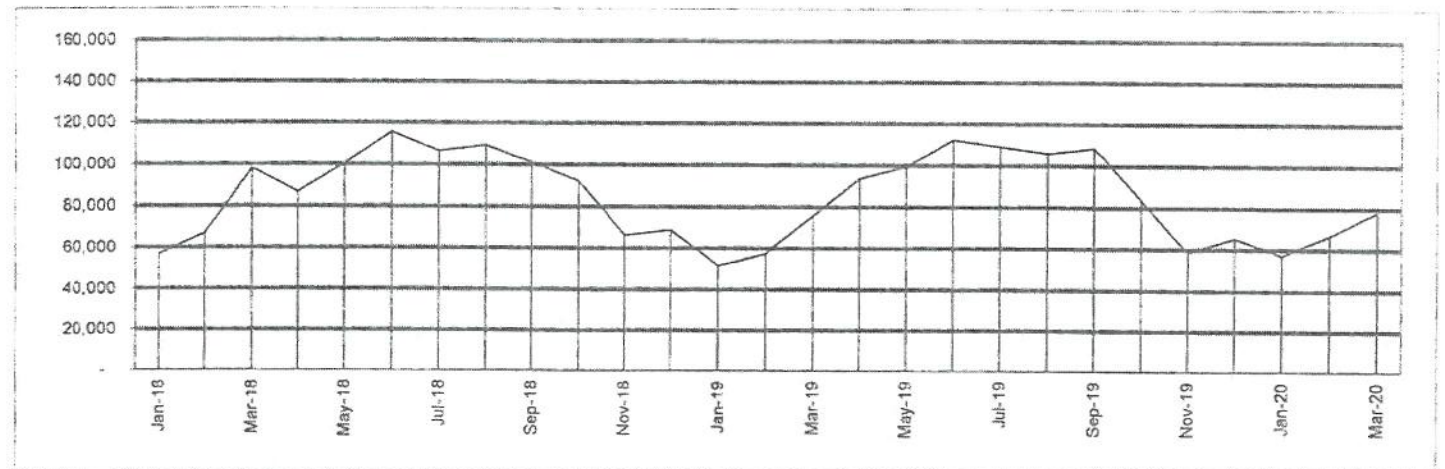
Electric Cost Kilowatts Used

Jan-18	3640	55,750
Feb-18	4207	66,930
Mar-18	5667	98,010
Apr-18	5060	86,650
May-18	10116	100,520
Jun-18	11336	115,750
Jul-18	10417	106,550
Aug-18	10400	109,290
Sep-18	5685	101,170
Oct-18	5317	92,210
Nov-18	3731	66,280
Dec-18	3990	68,840
Jan-19	2926	51,490
Feb-19	3295	57,450
Mar-19	4251	75,830
Apr-19	5014	93,570
May-19	9452	99,330
Jun-19	10074	112,400
Jul-19	10066	109,190
Aug-19	9784	106,020
Sep-19	6115	108,680
Oct-19	4920	83,790
Nov-19	3390	58,410
Dec-19	3482	65,660
Jan-20	3259	57,250
Feb-20	3760	66,830
Mar-20	4637	78,070

Electric Cost



Kilowatts Used





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

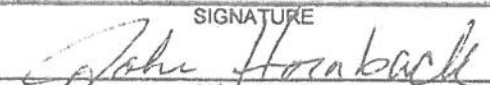
NAME OF FACILITY						LOCATION ADDRESS & CITY								COUNTY/REGION	
Lake of the Ozarks Regional WWTP #1						#3 Anderson Road								Miller/SWRO	
MONTH/YEAR		PERMIT NUMBER				OUTFALL NUMBER		TYPE TREATMENT FACILITY							
Mar-20		MO-0103241				#001		Oxidation Ditch/UV/Sludge Holding-sludge is land applied							
INFLUENT					EFFLUENT								% Removal		
DATE	pH UNITS	BOD mg/L	TSS 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			11.8	1.722	7.2				5.7		10.4			
2	7.0			11.9	1.616	7.4				5.7		11.5			
3	6.5			11.9	1.474	7.5				6.1		11.3			
4	6.4			11.4	1.546	7.3				6.3		11.2			
5	6.7			12.2	1.518	7.3			0.01	5.9		11.2			
6	6.7	225	282	11.5	1.517	7.4	2.5	1.9		6.6		10.8	98.9	99.3	
7	6.9			11.0	1.289	7.3				6.8		10.0			
8	7.2			10.9	1.536	7.4				6.2		10.2			
9	7.2			12.2	1.490	7.5				5.6		11.8			
10	6.7			12.1	1.934	7.4				4.9		11.6			
11	6.6			12.3	1.675	7.4				5.6		11.9			
12	6.6			13.0	1.642	7.5			0.01	5.4		12.9			
13	7.1	320	186	11.9	1.607	7.4	2.0	1.6		5.7		12.2	99.4	99.1	
14	6.7			12.3	1.897	7.5				5.4		11.5			
15	6.8			12.0	2.538	7.4				5.2		11.1			
16	7.0			10.9	1.899	7.3				6.2		10.3			
17	7.3			12.0	1.864	7.5			0.01	6.2		11.4			
18	7.1	285	146	11.8	1.613	7.3	1.6	1.5		6.2		11.7	99.4	99.0	
19	7.2			13.4	1.644	7.4				5.0		13.1			
20	7.0			12.4	3.303	7.4				6.0		12.7			
21	7.2			10.1	1.973	7.4				6.6		10.4			
22	7.2			10.9	1.873	7.4				7.6		10.7			
23	7.1			12.1	2.023	7.3				6.3		11.4			
24	7.2			12.3	1.628	7.4				6.7		11.6			
25	7.2			11.7	2.279	7.3				6.5		12.0			
26	7.3			13.3	1.692	7.5			0.02	6.6		13.4			
27	7.2	205	144	13.6	1.529	7.4	1.6	1.2		6.3		14.5	99.2	99.2	
28	7.2			14.4	1.534	7.6				5.8		15.7			
29	7.3			13.3	1.488	7.6				6.5		14.4			
30	7.3			13.4	1.389	7.4				6.2		14.2			
31	7.2			13.8	1.426	7.7				6.2		14.1			
Total					54.158										
Avg		259	190	12.2	1.747		1.9	1.6	0.01	6.1	0.0	12.0	99.2	99.2	
Min	6.4	205	144	10.1	1.289	7.2	1.6	1.2	0.01	4.9	0.0	10.0	98.9	99.0	
Max	7.3	320	282	14.4	3.303	7.7	2.5	1.9	0.02	7.6	0.0	15.7	99.4	99.3	

MONTHLY MONITORING					QUARTERLY MONITORING					
DATE	Oil & Grease mg/L	Selenium µg/L	SM1 Hardness mg/L	SM2 Hardness mg/L	Phosphorus mg/L	SM1 Phosphorus mg/L	T. Nitrogen mg/L	SM1 T. Nitrogen mg/L	TR. Cadmium ug/L	TR. Copper µg/L
1										
2										
3										
4										
5										
6										
7										
8										
9	< 4.9	< 1.0	249	307						
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										
31										
Total	< 4.9	< 1.0	249	307						
Avg	< 4.9	< 1.0	249	307						
Min	< 4.9	< 1.0	249	307						
Max	< 4.9	< 1.0	249	307						

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

DATE	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		* DO mg/l	** MLSS mg/l	*Settleability				
				*30 min ml	Temp ° C			*30 min ml	Temp ° C			
1		1.4	5,010	810	10.6	3.9	4,160	700	10.5	47	0	7:30
2		1.4	4,400	710	11.5	1.5	5,050	820	11.8	48	0	7:30
3		2.2	4,520	750	11.5	2.3	4,720	830	11.6	38	0	7:30
4		2.2	4,910	770	11.4	3.6	4,570	710	11.5	37	0	7:30
5		2.0	5,000	760	12.3	2.8	4,590	750	11.6	34	0	7:30
6		2.9	4,820	760	10.7	3.3	4,990	840	11.0	37	0	7:30
7		3.4	4,820	800	9.9	3.8	4,920	830	9.8	31	0	7:30
8		3.2	5,300	860	10.3	3.6	4,820	820	10.3	41	0	7:30
9		1.2	5,000	800	11.8	1.7	5,010	820	11.7	51	0.3	7:30
10		1.6	5,020	780	11.9	2.0	5,130	800	12.0	42	0.6	7:30
11		0.7	5,000	800	12.0	1.8	5,660	840	12.4	45	0.25	7:30
12		0.7	5,120	750	13.0	1.4	5,120	800	13.0	53	0	7:30
13		1.0	5,110	800	12.1	1.8	5,220	820	12.1	42	0	7:30
14		1.0	4,770	780	12.0	1.3	5,030	840	11.9	42	1.0	7:30
15		0.6	4,480	700	11.6	1.3	4,890	820	11.5	39	0.2	7:30
16		2.4	4,590	750	11.1	2.8	5,280	850	11.1	41	0.3	7:30
17		1.6	5,890	880	11.2	3.8	4,430	740	11.0	45	0	7:30
18		1.7	6,160	870	11.7	4.2	4,620	770	11.5	49	0.2	7:30
19		1.1	5,540	800	13.5	1.2	4,930	750	13.1	61	1.3	7:30
20		1.3	4,410	730	12.6	1.2	5,680	870	12.7	48	0.1	7:30
21		2.2	5,810	860	10.4	5.2	4,420	780	10.3	29	0	7:30
22		1.4	6,510	900	10.9	6.7	3,390	580	10.7	40	0.75	7:30
23		1.2	6,870	900	11.6	4.6	4,550	790	11.4	47	0.1	7:30
24		1.6	6,150	870	11.7	3.8	5,570	870	11.6	46	0.6	7:30
25		2.3	5,840	900	11.8	4.6	4,870	830	11.7	46	0.1	7:30
26		1.2	6,640	900	13.2	4.5	4,360	750	13.0	55	0	7:30
27		1.5	5,970	870	14.5	3.6	4,810	800	14.4	60	0	7:30
28		1.0	5,910	850	15.9	1.8	5,330	850	15.8	64	0	7:30
29		1.7	5,920	870	14.6	2.6	5,910	870	14.9	51	0.25	7:30
30		1.1	6,000	900	14.6	3.2	5,220	850	14.5	44	0	7:30
31		2.6	5,760	880	13.9	3.3	5,940	870	14.0	51	0	7:30

COMMENTS:

TESTS PERFORMED BY (PRINT)	SIGNATURE	PHONE #	DATE
John Hornback		(573)365-0455	4/2/2020
REPORT APPROVED BY (PRINT)	SIGNATURE	PHONE #	DATE
Gary Hutchcraft		(573)365-0455	4/2/2020

*Required Daily (Monday -Friday)

**Required 1/week

State of Missouri
Department of Natural Resources
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Dep. of Natural Resources
(REGIONAL OFFICE)
Southwest Regional Office
2640 W. Woodland
Springfield, MO 65807-5912
4178914300
4178914399 (fax)

PERMITTEE NAME-ADDRESS

NAME: Lake of the Ozarks Regional WWTP 1
ADDRESS: #3 Anderson Road
LAKE OZARK, MO 65019

MO0105241 001 A
PERMIT NUMBER DISCHARGE NUMBER

MONITORING PERIOD

FROM YEAR MO DAY TO YEAR MO DAY
2020 03 01 2020 03 31

NOTE: READ PERMIT AND GENERAL INSTRUCTIONS BEFORE COMPLETING THIS FORM

Parameter		MASS	Unit	CONCENTRATION	Unit	FREQUENCY OF ANALYSIS	SAMPLE TYPE	LAB CODE
BOD ₅ , 5-day, 20 deg. C (00310)	REPORTED	*****	*****	*****	2.5	1.9	Weekly	24 Hour Composite
Stage Type: End of Pipe	REQUIREMENT	*****	*****	*****	Weekly Average: 45	Monthly Average: 30	Weekly	24 Hour Composite
BOD ₅ , 5-day, percent removal (81010)	REPORTED	*****	*****	*****	*****	98.9	Monthly	Calculated
Stage Type: End of Pipe	REQUIREMENT	*****	*****	*****	*****	Monthly Average: Minimum: 85	Monthly	Calculated
Flow, in conduit or thru treatment plant (50050)	REPORTED	3.303	1.747	*****	*****	*****	Daily	Total Measured
Stage Type: End of Pipe	REQUIREMENT	Daily Maximum Monitoring Required	Monthly Average Monitoring Required	*****	*****	*****	Daily	Total Measured
Nitrogen, ammonia total (as N) (00610)	REPORTED	*****	*****	*****	0.02	0.01	Weekly	Grab
Stage Type: End of Pipe	REQUIREMENT	*****	*****	*****	Daily Maximum: 11.5	Monthly Average: 2.2	Weekly	Grab
Oil and grease (suspended extr.) (00550)	REPORTED	*****	*****	*****	<4.9	<4.9	Monthly	Grab
Stage Type: End of Pipe	REQUIREMENT	*****	*****	*****	Daily Maximum: 15	Monthly Average: 10	Monthly	Grab
pH (00400)	REPORTED	*****	*****	*****	7.2	7.7	Weekly	Grab
Stage Type: End of Pipe	REQUIREMENT	*****	*****	*****	Minimum: 6.5	Maximum: 9.0	Weekly	Grab
Selenium (Se), total recoverable (00981)	REPORTED	*****	*****	*****	<1.0	<1.0	Monthly	Grab
Stage Type: End of Pipe	REQUIREMENT	*****	*****	*****	Daily Maximum: 9.1	Monthly Average: 3.0	Monthly	Grab

GENERAL PERMIT REQUIREMENTS OR COMMENTS
(i.e. USE ONLY IF NECESSARY)
PARAMETER-SPECIFIC COMMENTS

I certify that each of the data on this report 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 made the measurements or observations, and on the basis 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 being held criminally liable.

Gary Hutchcraft		7305	
TYPED OR PRINTED NAME		CERTIFICATE NUMBER	
PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		TELEPHONE	
Gary F. Hutchcraft	Gary F. Hutchcraft	2020-04-02 14:45:52	
TYPED OR PRINTED NAME	SIGNATURE	Date	

Page 1

State of Missouri
Department of Natural Resources
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Dep. of Natural Resources
(REGIONAL OFFICE)
Southwest Regional Office
2640 W. Woodland
Springfield, MO 65807-5912
4178914300
4178914399 (fax)

PERMITTEE NAME-ADDRESS

NAME: Lake of the Ozarks Regional WWTP 1
ADDRESS: #3 Anderson Road
LAKE OZARK, MO 65019

MO0105241 001 A
PERMIT NUMBER DISCHARGE NUMBER

MONITORING PERIOD

FROM YEAR MO DAY TO YEAR MO DAY
2020 03 01 2020 03 31

NOTE: READ PERMIT AND GENERAL INSTRUCTIONS BEFORE COMPLETING THIS FORM

Parameter		MASS	Unit	CONCENTRATION	Unit	FREQUENCY OF ANALYSIS	SAMPLE TYPE	LAB CODE
Suspended Solids, percent removal (81011)	REPORTED	*****	*****	*****	*****	99.0	Monthly	Calculated
Stage Type: End of Pipe	REQUIREMENT	*****	*****	*****	*****	Monthly Average: Minimum: 85	Monthly	Calculated
Total Suspended Solids (TSS) (00350)	REPORTED	*****	*****	*****	1.9	1.6	Weekly	24 Hour Composite
Stage Type: End of Pipe	REQUIREMENT	*****	*****	*****	Weekly Average: 45	Monthly Average: 30	Weekly	24 Hour Composite

GENERAL PERMIT REQUIREMENTS OR COMMENTS
(i.e. USE ONLY IF NECESSARY)
PARAMETER-SPECIFIC COMMENTS

I certify that each of the data on this report 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 made the measurements or observations, and on the basis 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 being held criminally liable.

Gary Hutchcraft		7305	
TYPED OR PRINTED NAME		CERTIFICATE NUMBER	
PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		TELEPHONE	
Gary F. Hutchcraft	Gary F. Hutchcraft	2020-04-02 14:45:52	
TYPED OR PRINTED NAME	SIGNATURE	Date	

Page 2

PERMITTEE NAME-ADDRESS

State of Missouri
Department of Natural Resources
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Dep. of Natural Resources
(REGIONAL OFFICE)
Southwest Regional Office

2040 W. Woodland
Springfield, MO 65807-5912
4178914300
4178914399 (fax)

NAME: Lake of the Ozarks Regional WWTP 1
ADDRESS: 413 Andersen Road
LAKE OZARK, MO 65049

MO0103241	SM2 A
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD					
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FROM	YEAR	MO	DAY	TO	YEAR	MO	DAY
	2020	03	01		2020	03	31

NOTE: READ PERMIT AND GENERAL INSTRUCTIONS
BEFORE COMPLETING THIS FORM

Parameter		MASS	Unit	CONCENTRATION	Unit	FREQUENCY OF ANALYSIS	SAMPLE TYPE	LAB CODE
Hardness, total (as CaCO ₃) (009900)	REPORTED	*****		307	*****	Monthly	Grab	
Stage Type: Instream Monitoring	REQUIRED	*****		Daily Maximum Monitoring Required	*****	Monthly	Grab	
				Monthly Average Monitoring Required				

GENERAL PERMIT REQUIREMENTS OR COMMENTS
OPTIONAL SUPPLEMENTARY COMMENTS
PARAMETER-SPECIFIC COMMENTS

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 criminal and civil penalties for knowingly violating.

OPERATOR IN RESPONSIBLE CHARGE				7305			
Gary Hutchcraft				CERTIFICATE NUMBER			
TYPED OR PRINTED NAME				5733650455			
PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT				TELEPHONE			
Gary F Hutchcraft				2020-04-02 14:45:52			
TYPED OR PRINTED NAME				SIGNATURE			
				Date			

MARCH 2021

Use following abbreviations: R=raw, S=sense, U=unrelated, C=clear, PC=partly clear

Prepared by GIL, HL, (DS, EJ)

Approved by: GRI

4/2/2020

Semi - Annual I & I Flow Report
Wastewater Treatment Summary for the City of Lake Ozark
(Million Gallons)

2019 - 2020

	October	November	December	January	February	March
L.O. Total MG	7.194	4.779	4.708	5.780	4.986	5.888
L.O. Peak MG	0.765	0.341	0.339	0.788	0.310	0.472
Avg. Daily MG	0.232	0.159	0.152	0.186	0.172	0.190
% Diff.	230%	114%	123%	324%	80%	148%
Rainfall Inches	11.1	3.5	1.8	7.7	3.6	6.1

Semi - Annual I & I Flow Report
Wastewater Treatment Summary for the City of Osage Beach
(Million Gallons)

2019 - 2020

	October	November	December	January	February	March
O.B. Total MG	44.971	33.141	33.575	36.806	31.279	37.286
O.B. Peak MG	3.733	1.658	1.745	3.431	1.691	2.253
Avg. Daily MG	1.451	1.105	1.083	1.187	1.079	1.203
% Diff.	157%	50%	61%	189%	57%	87%
Rainfall Inches	11.1	3.5	1.8	7.7	3.6	6.1