

**OSAGE BEACH / LAKE OZARK
JOINT SEWER BOARD MEETING
AGENDA
September 21, 2021 @ 4:00 p.m.
LAKE OZARK CITY HALL**

1. CALL TO ORDER

2. ROLL CALL

Mayor, Osage Beach, John Olivarri
Mayor, Lake Ozark, Dennis Newberry
City Administrator, Osage Beach, Jeana Woods
City Administrator, Lake Ozark, Dave Van Dee
Alderman, Osage Beach, Kevin Rucker
Alderman, Lake Ozark,
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: August 17, 2021 2-3

4. REPORTS

Bill List	4-18
Revenue Budget Analysis	20
Expenditure Budget Analysis	21
Income & Expense Summary	19

August Alliance Report of Operations 22-39

Approval of Flow Charts August 2021

5. OLD BUSINESS

A. Board Representative update

6. NEW BUSINESS

A. Sale of old Sludge truck	
B. DNR Finding of Compliance	40-54

7. ADDITIONAL DISCUSSION ITEMS

8. ADJOURNMENT

THE NEXT MEETING WILL BE October 19, 2021 4:00 PM @ LAKE OZARK CITY HALL

**LAKE OZARK-OSAGE BEACH
JOINT SEWER BOARD**
Meeting Minutes – August 17, 2021

CALL TO ORDER:

Mayor John Olivarri called the meeting to order at 4:00 pm on Tuesday, August 17, 2021, at Lake Ozark City Hall.

ROLL CALL:

Mayor, Osage Beach, John Olivarri- Present
Mayor, Lake Ozark, Dennis Newberry - Absent
City Administrator Osage Beach, Jeana Woods – Present
City Administrator Lake Ozark, Dave Van Dee – Present
Alderman Osage Beach, Kevin Rucker – Present
Alderman Lake Ozark, Vacant seat
Public Works Director Lake Ozark, Matt Michalik – Present
Public Works Operations Manager Kevin Crooks – Present
Resident Member, Mr. Gary Hamner – Present

MINUTES:

With one correction to the Alliance Report of Operations, Administrator Van Dee motioned to approve the meeting minutes of July 20, 2021. His motion was seconded by Administrator Woods and passed unanimously.

REPORTS:

The July Bill list and Revenue Budget, Expenditure Budget Analysis, Income & Expense Summary and Check Registers and Bank Statements were reviewed. A Motion was made by Alderman Rucker to approve the documents and pay the bills. His motion was seconded by Director Michalik and was passed unanimously.

Alliance Report of Operations: The average daily incoming flow for July was 1.883 mgd. We had 6.9 inches of precipitation measured at the WWTP.

Operationally, the plant's discharge was excellent, with an effluent monthly average BOD of 5.9 mg/l and TSS of 5.6 mg/l respectively for July which represents a 97.1 % or better removal.

The MLSS average for both aeration basins was 8,235 mg/l. The total dry weight sludge inventory for July totaled 448,824 pounds. There were 40 tanker loads of biosolids or 144,000 gallons land applied for July. 117 loads of septage or 289,000 gallons for July.

APPROVAL OF FLOW CHART

Motion was made by Director Michalik to approve the Flow Chart for July. His motion was seconded by Administrator Wood. Unanimous approval, motion passed.

OLD BUSINESS:

- A. Board Representative Update: The new sludge truck and plant operations were discussed. Mr. Hutchcraft thanked the Board for the new truck, stating that it was very nice. The possibility of selling the old sludge truck will be placed on the next Agenda for consideration.
- B. Alliance Water Resource Contract. Mayor Olivarri advised that the Alliance Contract extension has been signed and distributed.

NEW BUSINESS: None at this time.

ADDITIONAL DISCUSSION ITEMS:

Mayor Olivarri noted that the new operations Permit has been received from the DNR. A brief discussion ensued.

ADJOURNMENT:

With no further business to discuss, the meeting adjourned at 4:18 pm.

Mayor, John Olivarri

City Clerk, Kathy Vance

JOINT SEWER BOARD
BILL LIST
SEPTEMBER 21, 2021

OPERATING FUND BILLS PAID PRIOR TO BOARD MEETING:	\$	13,637.55
OPERATING FUND BILLS TO BE PAID:	\$	67,259.26
EQUIPMENT REPLACEMENT FUND BILLS PAID PRIOR TO BOARD MEETING:	\$	-
EQUIPMENT REPLACEMENT FUND BILLS TO BE PAID:	\$	-
TOTAL	\$	80,896.81

OPERATING FUND BILLS PAID PRIOR TO BOARD MEETING:

Account	Check	Paid To:	Description:	Amount:
4175	457	Ameren MO	11673321	\$ 12,259.44
4175	457	Ameren MO	98041275	\$ 1,273.76
4176	458	AT&T	Aug.	\$ 104.35
				\$ -
TOTAL				\$ 13,637.55

OPERATING FUND BILLS TO BE PAID:

Account	Check	Paid To:	Description:	Amount:
4000	459	Equipment Replacement Fund	Payment into ER Fund	\$ 10,134.00
4020	460	Advanced Microbial Solutions	Bacteria for #1 Digester	\$ 4,000.00
4020	461	Catalyst Electric	RAS Flow Meter, Control Panel Mai	\$ 187.50
4020	462	Core & Main	HTH for Cleaning Clarifiers	\$ 639.34
4020	463	Heartland Environmental Dist.	Ammonia Bacteria for Ditches	\$ 1,520.00
4020	464	Jani King	Sept.	\$ 197.15
4020	465	M/C Quickbooks	Accounting Software	\$ 12.50
4020	466	Menards	Screws	\$ 2.36
4020	467	USA Blue Book	Sludge Judges	\$ 296.57
4140	468	The Cincinnati Insurance	2022 Mack Sludge Trk	\$ 2,414.00
4150	469	Clark Tire Co	Spare Tire 2022 Sludge Trk	\$ 1,645.45
4150	470	D.O.C. Lubrication	DEF & Vac Pump for Sludge Trk	\$ 314.00
4020	471	O'Reilly	Oil for UV Compressor	\$ 79.99
4150	471	O'Reilly	DEF for Sludge Trk	\$ 12.99
4150	471	O'Reilly	Antifreeze for Sludge Trk	\$ 47.96
4150	472	Roemer's Heavy Equip	Replace Transmission Sludge Trk	\$ 7,141.50
4170	473	Alliance Water Resources, Inc.	Sept.	\$ 25,720.00
4176	474	Republic	Sept.	\$ 52.26
4175	475	Ameren MO	11673321	\$ 12,539.03
4175	475	Ameren MO	98041275	\$ 197.97
4176	476	AT&T	Sept.	\$ 104.69
TOTAL				\$ 67,259.26

EQUIPMENT REPLACEMENT FUND BILLS PAID PRIOR TO BOARD MEETING:

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

EQUIPMENT REPLACEMENT FUND BILLS TO BE PAID:

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



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

AMOUNT DUE \$12,539.03

Due Date 09/29/2021

Current Detail for Statement 09/08/2021

Total Electric Charges \$12,539.03

Amount After Due Date \$12,727.12

Total Amount Due \$12,539.03

Previous Statement \$12,259.44

Total Payments \$12,259.44

Payment Received: Thank You.

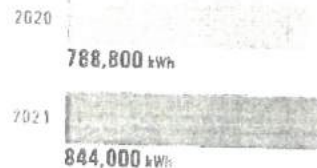
Electric Usage History

Electric Usage in Kilowatt Hours (kWh)



Electric Usage Summary (kWh)

So far this year you're using **7% more** than last year.

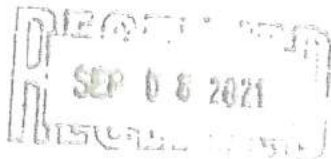


Usage from Jan Sep for 2020 & 2021

39777 12072
02550 6590263 0015 092139 102

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GLA: 4175
 SL: Amy Hultberg
 9/8/21



See next page for service details.

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Page 1 of 4



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Amount Due	Due Date
\$12,539.03	September 29, 2021
Delinquent Amount After Due Date	Account Number
\$12,727.12	4580005832

Amount Enclosed \$

>002550 6590263 0015 092139 102

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

AMEREN MISSOURI
 PO BOX 88068
 CHICAGO IL 60680-1068

20600000 0045800058302 000012539030 000012539030



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Electric Service Details Service from 08/05/2021 - 09/06/2021 (32 days)

Electric Meter Read

METER NUMBER	SERVICE FROM - TO	NO. DAYS	USAGE TYPE	READING TYPE	CURRENT READING	PREVIOUS READING	READING DIFFERENCE	MULTIPLIER	USAGE
11673321	08/05 - 09/06	32	Total kWh	Actual	68983.0000	68069.0000	914.0000	160.0000	146240.0000
11673321	08/05 - 09/06	32	Peak kW	Actual	1.4320	0.0000	1.4320	160.0000	229.1200

Usage Summary

Total kWh	146240.0000	Summer kWh	146240.0000
Peak kW	229.1000	Billing Demand	229.1000
Total Billing Demand	229.1000	October Winter Base kW	176.2000
Winter Base Demand	176.2000	Base kWh Ratio	0.7690
Base kWh (HUD)	0.0000	Seasonal kWh (HUD)	0.0000

Rate 3M Large General Service

DESCRIPTION	USAGE	UNIT	RATE	CHARGE
Seasonal Energy Charge	0.00	kWh	@ \$ 0.03560000	\$0.00
Summer Demand Charge	229.10	kW	@ \$ 5.40000000	\$1,237.14
Winter Demand Charge	229.10	kW	@ \$ 0.00000000	\$0.00
Energy Charge/Hours Used	34,365.00	kWh	@ \$ 0.09690000	\$3,329.97
Energy Charge/Hours Used	45,820.00	kWh	@ \$ 0.07290000	\$3,340.28
Energy Charge/Hours Used	66,055.00	kWh	@ \$ 0.04910000	\$3,243.30
Base Energy Charge / Hours Used	0.00	kWh	@ \$ 0.06090000	\$0.00
Customer Charge				\$95.29
Fuel Adjustment Charge	146,240.00	kWh	@ \$ 0.00308000	\$450.42
Energy Efficiency Investment Charge	146,240.00	kWh	@ \$ 0.00559200	\$817.77
Renewable Energy Adjustment	146,240.00	kWh	@ \$ 0.00017000	\$24.86
Total Service Amount				\$12,538.03
Total Electric Charges				\$12,539.03

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

AMOUNT DUE \$197.97

Due Date 09/29/2021

Current Detail for Statement 09/08/2021

Total Electric Charges \$197.97

Amount After Due Date \$200.94

Total Amount Due \$197.97

Previous Statement \$1,273.76

Total Payments \$1,273.76

Payment Received, Thank You.

Electric Usage History

Electric Usage in Kilowatt Hours (kWh)



Electric Usage Summary (kWh)

This shows how much electric energy you've used this year compared to last year.

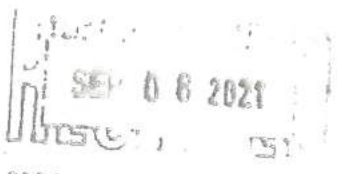
2020 9,120 kWh

2021 21,230 kWh

Usage from Jan Sep for 2020 & 2021

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GL Acct#: 4175

Signature: *Larry Whitecraft*

Date: 9/8/21



» See next page for service details

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Page 1 of 4

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>002435 6590263 0015 092139 102

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

Amount Due	Due Date
\$197.97	September 29, 2021
Delinquent Amount After Due Date	Account Number
\$200.94	5580005920

Amount Enclosed \$

AMEREN MISSOURI
PO BOX 88068
CHICAGO IL 60680 1068

50633000 0055800059200 000000197970 000000197970



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Electric Service Details Service from 08/05/2021 - 09/06/2021 (32 days)

Electric Meter Read

METER NUMBER	SERVICE FROM - TO	NO. DAYS	USAGE TYPE	READING TYPE	CURRENT READING	PREVIOUS READING	READING DIFFERENCE	MULTIPLIER	USAGE
88041275	08/05 - 09/06	32	Total kWh	Actual	23226.0000	23069.0000	157.0000	10.0000	1570.0000
88041275	08/05 - 09/06	32	Peak kW	Actual	5.0570	0.0000	5.0570	10.0000	50.5700

Usage Summary

Total kWh	1570.0000	Summer kWh	1570.0000
Winter Base kWh	1600.0000	Current Base kWh	1570.0000
Summer Cur Base kWh	1570.0000	Seasonal kWh	0.0000

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

Threshold Peak Demand

DESCRIPTION	USAGE	UNIT	RATE	CHARGE
Summer Total Energy Charge	1,570.00	kWh	@ \$ 0.10430000	\$163.75
Base Energy Charge	0.00	kWh	@ \$ 0.07790000	\$0.00
Seasonal Energy Charge	0.00	kWh	@ \$ 0.04490000	\$0.00
Customer Charge				\$19.99
Fuel Adjustment Charge	1,570.00	kWh	@ \$ 0.00308000	\$4.84
Energy Efficiency Investment Charge	1,570.00	kWh	@ \$ 0.00581100	\$9.12
Renewable Energy Adjustment	1,570.00	kWh	@ \$ 0.00017000	\$0.27
Total Service Amount				\$197.97
Total Electric Charges				\$197.97

Payments Since Previous Statement

DATE RECEIVED	AMOUNT
August 23, 2021	\$1,273.76

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- Customer Service 1 877.426.3735

FOCUSED ENERGY. For life.

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

AMOUNT DUE \$12,259.44

Due Date 08/30/2021

Current Detail for Statement 08/09/2021

Total Electric Charges \$12,259.44

Amount After Due Date \$12,443.33

Total Amount Due \$12,259.44

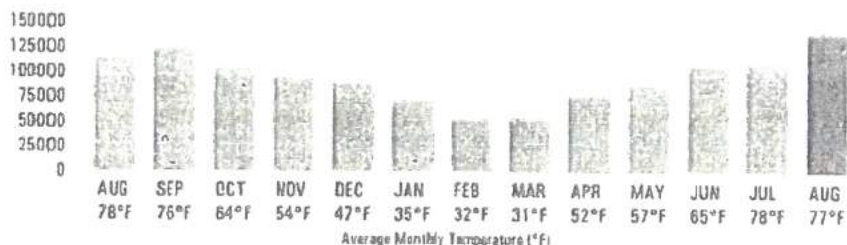
Previous Statement \$10,548.36

Total Payments \$10,548.36

Payment Received. Thank You

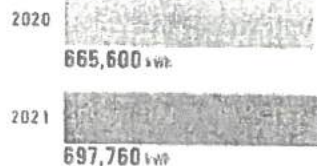
Electric Usage History

Electric Usage in Kilowatt Hours (kWh)



Electric Usage Summary (kWh)

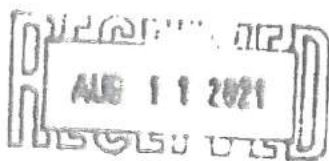
So far this year, you're using 4.8% more than last year.



Usage from Jan-Aug for 2020 & 2021

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CL Acct/#: 4175

Signature: [Signature]

Date: 8/11/21

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Amount Due	Due Date
\$12,259.44	August 30, 2021
Delinquent Amount After Due Date	Account Number
\$12,443.33	4580005832

Amount Enclosed \$

>001339 6582432 0006 092139 102

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

AMEREN MISSOURI
PO BOX 88068
CHICAGO IL 60680-1068

00600000 0045800058302 000012259440 000012259440



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Electric Meter Read: 07/07/2021 - 08/05/2021 (29 days)

Electric Meter Read

METER NUMBER	SERVICE FROM - TO	NO. DAYS	USAGE TYPE	READING TYPE	CURRENT READING	PREVIOUS READING	READING DIFFERENCE	MULTIPLIER	USAGE
11873321	07/07 - 08/05	29	Total kWh	Actual	68068.0000	67196.0000	872.0000	160.0000	139680.0000
11873321	07/07 - 08/05	29	Peak kW	Actual	1.4680	0.0000	1.4680	160.0000	234.8800

Usage Summary

Total kWh	139680.0000	Summer kWh	139680.0000
Peak kW	234.9000	Billing Demand	234.9000
Total Billing Demand	234.9000	October-Winter Base kW	176.2000
Winter Base Demand	176.2000	Base kWh Ratio	0.7501
Base kWh (HUD)	0.0000	Seasonal kWh (HUD)	0.0000

Rate 3M Large General Service

DESCRIPTION	USAGE	UNIT	RATE	CHARGE
Seasonal Energy Charge	0.00	kWh	@ \$ 0.03560000	\$0.00
Summer Demand Charge	234.90	kW	@ \$ 5.40000000	\$1,268.46
Winter Demand Charge	234.90	kW	@ \$ 0.00000000	\$0.00
Energy Charge/Hours Used	35,235.00	kWh	@ \$ 0.09690000	\$3,414.27
Energy Charge/Hours Used	46,980.00	kWh	@ \$ 0.07290000	\$3,424.84
Energy Charge/Hours Used	57,465.00	kWh	@ \$ 0.04910000	\$2,821.53
Base Energy Charge / Hours Used	0.00	kWh	@ \$ 0.06090000	\$0.00
Customer Charge				\$95.28
Fuel Adjustment Charge	139,680.00	kWh	@ \$ 0.00308000	\$430.21
Energy Efficiency Investment Charge	139,680.00	kWh	@ \$ 0.00558200	\$781.09
Renewable Energy Adjustment	139,680.00	kWh	@ \$ 0.00170000	\$23.75
Total Service Amount				\$12,258.44
Total Electric Charges				\$12,258.44

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

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

AMOUNT DUE \$1,273.76

Due Date 08/31/2021

Total Electric Charges \$1,273.76

Amount After Due Date \$1,292.87

Total Amount Due \$1,273.76

Previous Statement \$61.93

Total Payments \$61.93

Payment Received, Thank You

Electric Usage History

Electric Usage in Kilowatt Hours (kWh)



Electric Usage Summary (kWh)

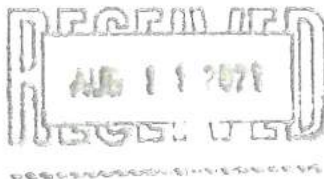
This shows how much electric energy you've used this year compared to last year.

2020 7,520 kWh
2021 19,660 kWh

Usage from Jan-Aug to 2021 & 2020

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Gl. Acct#: 4175
Signature: Gary H. Huthwaite
Date: 8/11/21



» See next page for service details.

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Amount Due	Due Date
\$1,273.76	August 31, 2021
Amount After Due Date	Account Number
\$1,292.87	5580005920

Amount Enclosed \$

>000015 6562795 0003 092139 102

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

AMEREN MISSOURI
PO BOX 88068
CHICAGO IL 60680-1068

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1.3607 - 1.3608 01005

Service from 07/07/2021 - 08/05/2021 (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	07/07 - 08/05	29	Total kWh	Actual	23959.0000	21963.0000	1106.0000	10.0000	11060.0000
98041276	07/07 - 08/05	29	Peak kW	Actual	6.6000	0.0000	6.6000	10.0000	66.0000

Usage Summary

Total kWh	11060.0000	Summer kWh	11060.0000
Winter Base kWh	1600.0000	Current Base kWh	1600.0000
Summer Cur Base kWh	1600.0000	Seasonal kWh	9460.0000
Summer Seasonal kWh	9460.0000		

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

Threshold Peak Demand

DESCRIPTION	USAGE	UNIT	RATE	CHARGE
Summer Total Energy Charge	11,060.00	kWh	@ \$ 0.10430000	\$1,153.56
Base Energy Charge	0.00	kWh	@ \$ 0.07790000	\$0.00
Seasonal Energy Charge	0.00	kWh	@ \$ 0.04490000	\$0.00
Customer Charge				\$19.99
Fuel Adjustment Charge	11,060.00	kWh	@ \$ 0.00308000	\$34.06
Energy Efficiency Investment Charge	11,060.00	kWh	@ \$ 0.00581100	\$64.27
Renewable Energy Adjustment	11,060.00	kWh	@ \$ 0.00017000	\$1.88
			Total Service Amount	\$1,273.76
			Total Electric Charges	\$1,273.76

Payments Since Previous Statement

DATE RECEIVED	AMOUNT
July 26, 2021	\$61.93

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

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Advanced Microbial Solutions, LLC

Invoice

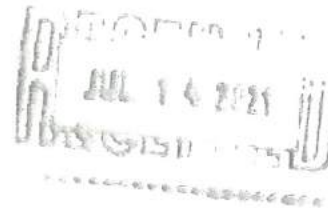
P.O. Box 433
Carthage, TX 75633

Date
7/14/2021

Invoice #
1070

Bill To

Joint Sewer Board - Lake of the Ozarks
P.O. Box 1985
Lake Ozark, MO 65049



P.O. No.

Terms

Project

Quantity

Description

Rate

Amount

2 300 gallon tote of Live Sludge Removal Bacteria

2,000.00

4,000.00

BACTERIA FOR #1 DIGESTER

GL Acct#: 4020

Signature: *Ray Hattaway*

Date: 7/14/21

Thank you for your business.

Total

\$4,000.00

Heartland Environmental Distributors, Inc.

Invoice

PO Box 8

Weston, MO 64098

573-592-4815 fax 573-592-7210

Date	Invoice #
7/9/2021	104772

Bill To
Joint Sewer Board Po Box 1985 Lake Ozark, MO 65049



P.O. No	Terms	Rep	Project
	Net 30		

Quantity	Description	Rate	Amount
40	gals of Ammonia (8x5gal pails) Shipping Charges Bo Higgins 7647 07092021	38.00 0.00	1,520.00 0.00
AMMONIA NITRIFYING BACTERIA FOR THE DITCHES GL Acct #: <u>4020</u> Signature: <u>[Signature]</u> Date: <u>9/9/21</u>			
Thank you for your business, we appreciate you!		Total	\$1,520.00



Statement Prepared On: 08/19/2021

Questions regarding your insurance coverage:
Naught-Naught Insurance Agency, Inc. (24016)
(573)634-2727



Statement – Premium Due

001333 128 1000568398 24016 03
LAKE OZARK OSAGE BEACH JOINT SEWER
TREATMENT PLANT
1000 CITY PKWY
OSAGE BEACH MO 65065-5305

Amount Due:	\$2,414.00
Due Date:	09/10/2021

Account Number: 1000568398
Policy Number(s) with Premium Due:
0484322

Questions regarding your statement:
Cincinnati Corporate Billing
877-942-2455, CinciBill@cinfin.com
Monday-Friday, 7:30 a.m.- 6 p.m. Eastern Time
Saturday, 8 a.m.- noon Eastern Time

Pay Online or by Phone:	<i>cinfin.com</i> 800-364-3400 Payments may be made by checking, savings or credit card. We accept Visa®, MasterCard®, Discover®, and American Express® cards. Payments confirmed prior to 3 p.m. Eastern Time are applied the same business day, Monday-Friday, excluding bank holidays.
Payment Address:	The Cincinnati Insurance Company P.O. Box 145620 Cincinnati, OH 45250 - 5620
Overnight Payment Address:	The Cincinnati Insurance Company Attention: Corporate Accounts Receivable 6200 South Gilmore Road Fairfield, OH 45014 - 5141

----- Please detach and return the remittance stub below with your payment. -----

Make check payable to: THE CINCINNATI INSURANCE COMPANY. *Please include your account number on the check. Do not send cash. If paying multiple accounts include the remittance stub for each.

Account Number	Due Date	Amount Due
1000568398	09/10/2021	\$2,414.00

Late Payments: A fee of up to \$25 and/or account cancellation may result if the total amount due is not received and posted by the due date.

LAKE OZARK OSAGE BEACH JOINT SEWER
TREATMENT PLANT
1000 CITY PKWY
OSAGE BEACH MO 65065-5305

☐ Please mark for change of address and complete the reverse side.

THE CINCINNATI INSURANCE COMPANY
PO BOX 145620
CINCINNATI OH 45250 -5620

11 1 1000568398 09102021 000000241400 6

Payor Name: LAKE OZARK OSAGE BEACH JOINT SEWER TREATMENT

Account Number: 1000568398

SUMMARY OF YOUR ACCOUNT:

Previous Statement 05/10/2021	\$19,079.00
Payment Received 04/26/2021 - Thank You	-\$19,079.00
Current Policy Activity	\$2,414.00
Amount Due for Account	\$2,414.00

CURRENT POLICY ACTIVITY:

POLICY TYPE: Target Market Policy Incl Auto POLICY NUMBER: 0484322 EXPIRATION DATE: 04/10/2024
 PAY PLAN: Annual NAMED INSURED: LAKE OZARK OSAGE BEACH JOINT SEWER TREAT
 COVERAGE PROVIDED BY: The Cincinnati Insurance Company

Effective Date	Description	Amount Due
07/27/2021	Endorsement #1 ADDING 2022 MACK GRANITE VIN#1M2GR2GC7NM028115	\$2,414.00
	Change in premium:	\$2,414.00
		\$2,414.00

Clark Tire Company - (SUNR)

13983 N. Hwy 5, Sunrise Beach, MO 65079
Phone: 573-374-8854

WEB SITE: www.clarktireco.com
Family owned since 1949!

Invoice #137467

Customer Information	Invoice	Additional Information
JOINT SEWER BOARD PO BOX 1985 LAKE OZARK, MO 65049 Acct Number: P: 573-218-8398 Contact:	Date: 9/04/2021 Reference: 137467 Salesperson: Joel (SUNR) Clark Route: Delivery Date: 9/04/2021	PO Number: Work Order#: W 5440313 Comment: Comment: Entered By: Joel (SUNR) Clark

Qty	Description	FET	Unit Price	Ext. Price
1.00	GPX50935833, 48/310020, PRIMEX TERRA TURBO II F (12 Ply)		1,490.00	1,490.00
1.00	O-RING		9.95	9.95
1.00	MOUNT 48X3100X20		65.00	65.00
34.00	SERVICE CALL		2.00	68.00
1.00	TOLL FEE		5.00	5.00
1.00	FUEL SURCHARGE		5.00	5.00
Non-Tax (Non-Profit)				
Subtotal:				1,642.95
Shop Supply Fee:				2.50
Total:				\$1,645.45
Invoice Balance:				\$1,645.45

Terms: NET 30 Days

Terms:	Due Date	Due Amount	Amt Remain
	10/04/2021	\$1,645.45	\$1,645.45

Acct Balance	Current	0-29 Days	30-59 Days	60-89 Days	90+ Days
\$1,645.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

REPLACEMENT TIRE FOR NEW SLUDGE TRK

GL Acct#: 4150
Signature: *[Signature]*
Date: 9/7/21

"Thank you for your business."

Invoices are due and payable within 30 days (NET 30). Clark Tire reserves the right to require full or partial prepayment on accounts. Interest Service Charges will be applied to past due amounts at the rate of 2.0% per month (24% per annum). Payments on account will be applied first to Interest Service Charges, then the remainder to principal. A \$25 fee will be billed for any payment returned for insufficient funds (NSF). Checks to be "held" will not be accepted. The undersigned agrees to pay in addition to the amount due, all costs of collection, court costs and reasonable attorney fees in the event it becomes necessary to pursue collection of this debt.

W-5440313
9/04/2021 10:50 AM Page: 1 Entered By: Joel (SUNR) Clark

Signature: _____

QTY	PART NO. AND DESCRIPTION	PRICE
	REPLACEMENT TRANSMISSION FOR OLD SLUDGE TRK	
	CL Acct'n: 4150	
	Signature: <i>[Signature]</i>	
	Date: 9/8/21	
(MAY BE CONTINUED ON OTHER SIDE)		TOTAL PARTS
ACCESSORIES		
TOTAL ACCESSORIES		

**ROEMER'S HEAVY EQUIPMENT
& TRUCK REPAIR**

P.O. Box 191
Osage Beach, Missouri 65065
(573) 348-3733

19778

[illegible]

OPERATING FUND INCOME AND EXPENSE SUMMARY
8/31/2021

Beginning Balance	307,998.71
Income - Osage Beach	38,932.89
Income - Lake Ozark	6,900.44
Income - Other	-
Income - Waste Haulers' Fees	2,580.00
Interest - Checking	1.55
Income - CD Interest	188.31
Transfers From E/R Fund	-
Transfers to E/R Fund	(10,134.00)
Expenses	(41,174.11)
Ending Fund Balance	305,293.79
Central Bank - NOW Acct.	85,447.32
	-
CD First Bank of the Lake, 11/20/21 #101318432	106,915.65
CD First Bank of the Lake, 7/22/22 #101318433	112,930.82
	-
Outstanding Checks:	-
	305,293.79

EQUIPMENT REPLACEMENT FUND INCOME AND EXPENSE SUMMARY
8/31/2021

Beginning Balance	407,506.40
Interest - Checking	7.27
Income - CD Interest	809.85
Transfers to E/R Fund	10,134.00
Income - Miscellaneous	-
Expenses	-
Ending Fund Balance	418,457.52
First Bank of the Lake - Money Mkt.	39,110.16
CD First Bank of the Lake, 7/30/21 #101318430	109,347.36
CD First Bank of the Lake, 11/07/21 #101318434	270,000.00
	-
	-
Outstanding Checks:	-
	418,457.52

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

Account Number	Account Name	8/31/2021					Percent YTD
		2019 Actual	2020 Actual	2021 Budget	2021 Actual as of 8/31/2021	2021 August Revenue	
3020	Osage Beach	475,091.53	475,836.10	473,000.00	309,560.22	38,932.89	65%
3010	Lake Ozark	74,908.46	74,163.90	77,000.00	57,106.44	6,900.44	74%
3030	Misc.	0.00	4,500.00	0.00	0.00	0.00	0%
3100	Interest	4,286.79	4,019.49	2,000.00	2,263.78	189.86	113%
3060	Waste Haulers' Fee	26,260.00	39,320.00	36,000.00	41,240.00	2,580.00	115%
Total Operating Fund		580,546.78	597,839.49	588,000.00	410,170.44	48,603.19	70%
E/R Fund Income		9,001.77	8,955.85	6,000.00	4,451.04	817.12	74%
TOTAL INCOME		589,548.55	606,795.34	594,000.00	414,621.48	49,420.31	70%

MONTH-TO-DATE AND YEAR-TO-DATE
EXPENDITURE/BUDGET ANALYSIS
6/31/2021

Account Number	Account Name	2019 Actual	2020 Actual	2021 Budget	2021 Actual as of 6/31/2021	2021 August Expenses	Percent YTD
4000	Equipment Replace Fund	41,604.00	71,604.00	121,606.00	70,938.00	10,134.00	58%
4020	*Maintenance & Repair	104,062.97	26,299.39	36,800.00	81,207.17	1,694.73	221%
4140	Insurance	18,761.00	19,865.00	19,200.00	19,079.00	0.00	99%
4150	Vehicle Repair/Main	5,479.60	12,479.74	8,000.00	1,473.41	69.65	18%
4170	Contract Management	299,592.00	305,580.00	314,752.00	205,760.00	25,720.00	65%
4175	Electric	73,276.87	75,077.36	75,000.00	53,157.89	13,533.20	71%
4176	Utilities Misc.	3,717.52	2,485.59	3,500.00	2,846.93	156.53	81%
4190	Bank Charges	176.00	32.80	0.00	0.00	0.00	0%
4200	Audit	2,400.00	2,648.50	2,600.00	2,600.00	0.00	100%
4240	Capital Purchases	145,247.00	0.00	500.00	0.00	0.00	0%
	Totals	694,316.86	516,072.18	802,958.00	437,062.40	51,308.11	79%
	**E/R Expenses	41,280.51	85,258.27	221,000.00	199,488.24	0.00	90%
	TOTAL EXPENSES	735,597.47	601,330.45	802,958.00	636,550.64	51,308.11	79%

2020 CARRY

*Maintenance & Repair

Accounting - QuickBooks	300.00
Auto Dialer Yrly Software Fee	500.00
Regular Maintenance	15,000.00
UV Spare Parts	10,000.00
Ducking skimmer arm Elec repair	5,000.00
Rock for Road	2,000.00
Chain-link fence repair	4,000.00
Sandblast & paint clarifier #2	
	36,800.00

**Equipment & Replacement

Replace Pista Grill Cart w/machine work	3,000.00
Replace wooden doors w/fiberglass	2,000.00
Rebuild 3 RAS pumps	10,000.00
Replace lawn mower	6,000.00 X
Sludge Truck	200,000.00 X
FINAL - Parking Lot Lights	-
	-
	-
	221,000.00

**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

WATER RESOURCES®
Alliance
Professional Water and Wastewater Operations

REPORT OF OPERATIONS

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

Month of August 2021

Submitted by Alliance Water Resources, Inc. for the

September 2021

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	2.0	1.8	N/A	10.0		0.13	
Peak Day	2.6	2.9	8.2	< 20.0		0.21	
Percent Removal	98.9	99.5	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		1.3	10
Weekly Average	45	45		630			
Daily Max				N/A		10.1	15

PLANT HYDRAULIC AND ORGANIC LOADING

The average daily influent flow for the month was 1.575 MGD or 52% 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 73582 pounds of BOD.

BIOSOLIDS APPLICATION AND INVENTORY

Plant personnel land applied 158 tanker loads of bio-solids during the month equivalent to a total of 550,800 gallons and 166,363 pounds dry weight solids.

287,893 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 585,000 gallons with a level of 7.0 feet in Tank 1 and 6.0 feet in Tank 2.

WASTEHAULERS

The plant received 66 loads of septage during the month totaling 163,000 gallons.

WWTP OPERATIONS

- Decanting digesters and wasting weekly.
- Normal operations.

WWTP MAINTENANCE AND REPAIR

- Performed routine maintenance throughout the month as per Antero Maintenance Data Management schedule. (New version of Operator 10 Software)

SAFETY

- We conducted our monthly Safety Meeting on Lockout/Tagout on the 27th of August.

REGULATORY AGENCY, INSPECTION AND REPORTS

- We filled out the new EDMR on the EPA MoGEM website on the 10th of September.

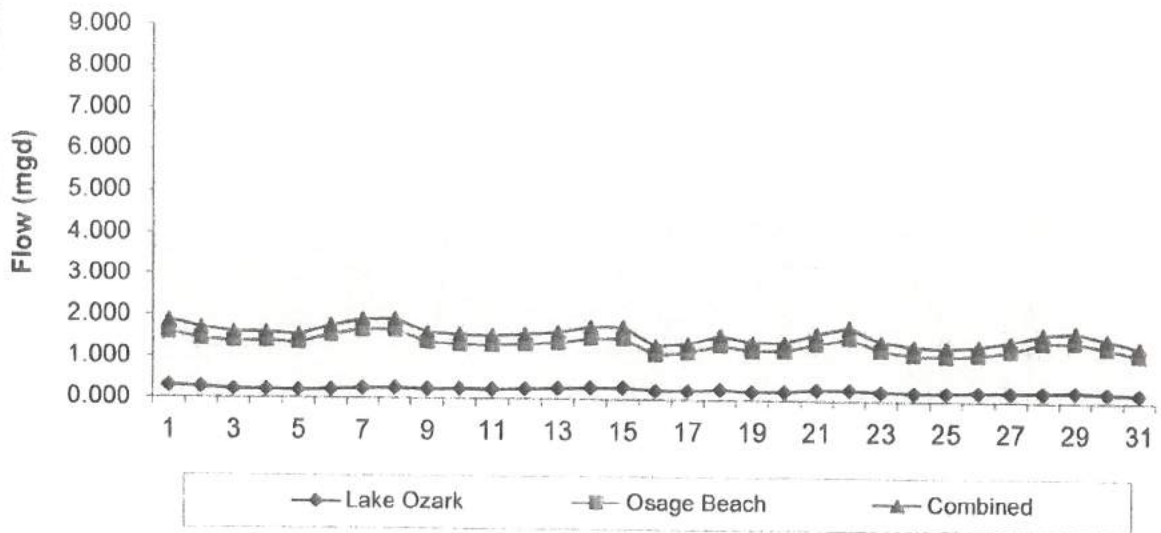
MISCELLANEOUS AND RECOMMENDATIONS

TABLE A
LAKE OZARK/OSAGE BEACH WWTP

MONTH OF August 2021

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-Aug	0	0.296	1.592	1.888	15.7	84.3						
2-Aug	0	0.266	1.435	1.701	15.6	84.4						
3-Aug	0	0.213	1.385	1.598	13.3	86.7						
4-Aug	0	0.207	1.389	1.596	13.0	87.0						
5-Aug	0	0.195	1.344	1.539	12.7	87.3	325	193	190	274	276	282
6-Aug	0	0.211	1.543	1.754	12.0	88.0						
7-Aug	0	0.244	1.660	1.904	12.8	87.2						
8-Aug	0	0.250	1.668	1.918	13.0	87.0						
9-Aug	0	0.228	1.370	1.598	14.3	85.7						
10-Aug	0	0.241	1.319	1.560	15.4	84.6						
11-Aug	0.25	0.232	1.303	1.535	15.1	84.9						
12-Aug	0	0.240	1.333	1.573	15.3	84.7	245	215	155	304	302	238
13-Aug	0.75	0.258	1.357	1.615	16.0	84.0						
14-Aug	0	0.281	1.474	1.755	16.0	84.0						
15-Aug	0	0.288	1.474	1.762	16.3	83.7						
16-Aug	0	0.221	1.087	1.308	16.9	83.1						
17-Aug	0	0.218	1.147	1.365	16.0	84.0						
18-Aug	0	0.254	1.321	1.575	16.1	83.9						
19-Aug	0	0.204	1.197	1.401	14.6	85.4						
20-Aug	0	0.214	1.198	1.412	15.2	84.8	188	188	210	136	292	584
21-Aug	0.8	0.255	1.370	1.625	15.7	84.3						
22-Aug	0	0.265	1.515	1.780	14.9	85.1						
23-Aug	0	0.220	1.219	1.439	15.3	84.7						
24-Aug	0	0.200	1.121	1.321	15.1	84.9						
25-Aug	0	0.201	1.088	1.289	15.6	84.4						
26-Aug	0	0.221	1.121	1.342	16.5	83.5						
27-Aug	0	0.220	1.236	1.456	15.1	84.9	438	223	168	730	312	236
28-Aug	0	0.223	1.425	1.648	13.5	86.5						
29-Aug	0	0.247	1.457	1.704	14.5	85.5						
30-Aug	0	0.213	1.315	1.528	13.9	86.1						
31-Aug	0	0.185	1.138	1.323	14.0	86.0						
SUM	1.8	7.211	41.601	48.812								
AVG		0.233	1.342	1.575	15	85	299	205	181	361	296	335
NOTE: BOLD PRINT INDICATES WEEKEND DAYS												

**Daily Flow
Figure 1**



**Effect of Rainfall on Flow
Figure 2**

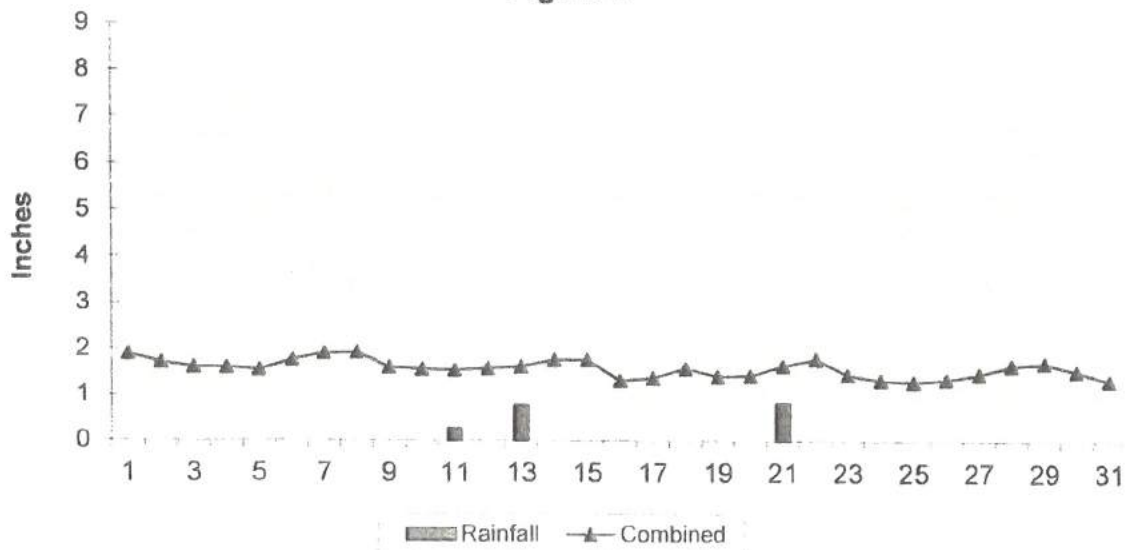
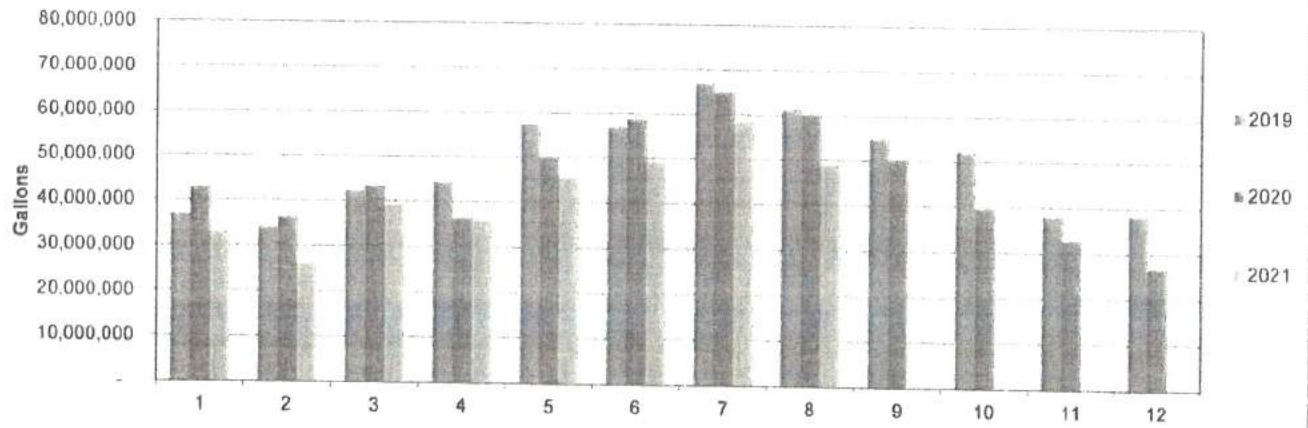


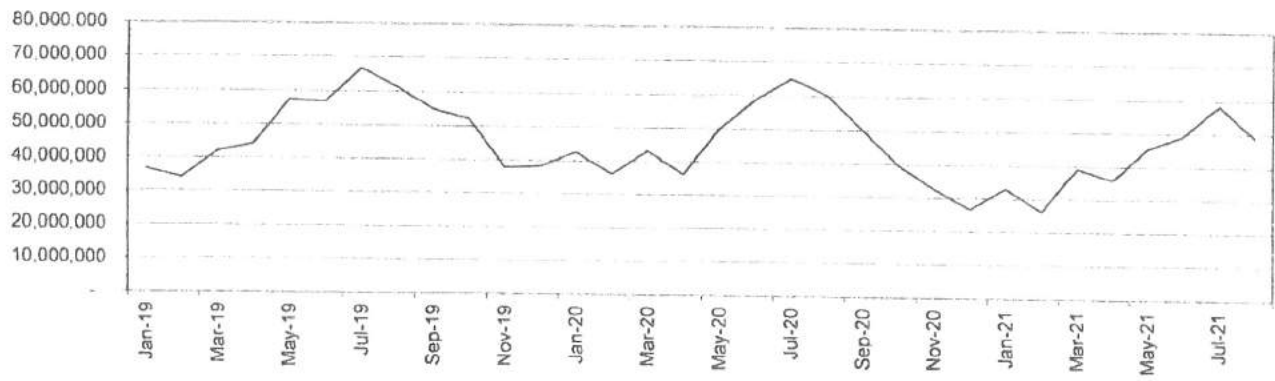
TABLE B
JOINT SEWER BOARD
Monthly Flows

<u>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	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							
October							
November							
December							
	40.0	283,998,000	84%	52,225,000	16%	336,223,000	100%

Monthly Influent Flow
Figure 3A

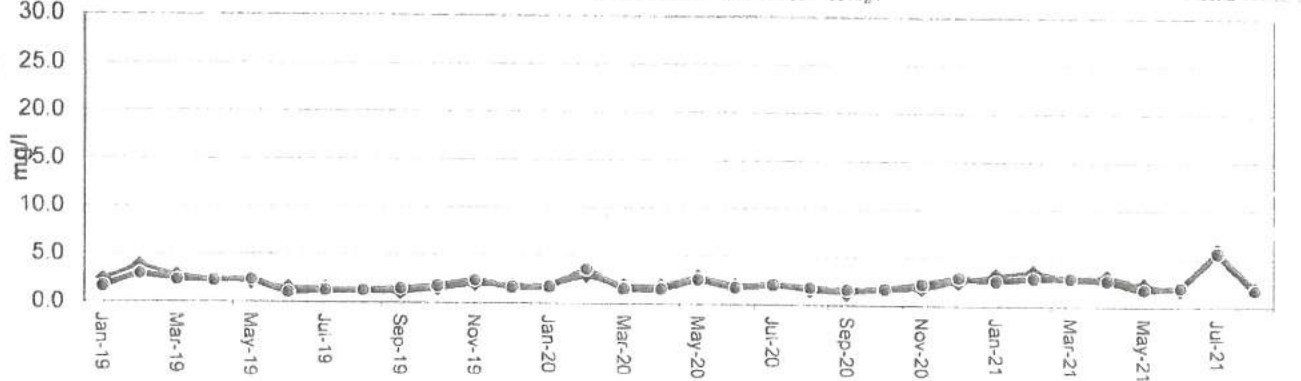


Monthly Influent Flow
Figure 3B



Effluent BOD/TSS
Figure 4

NPDES Limit for TSS and BOD = 30 mg/l

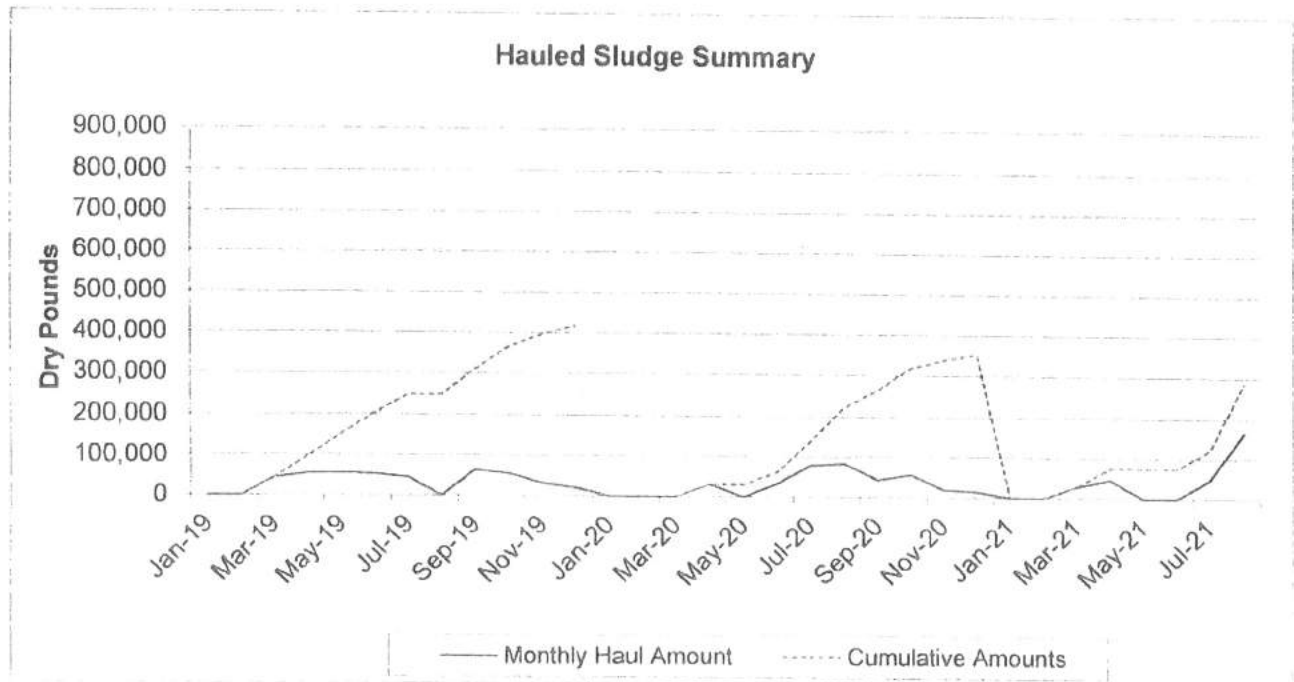
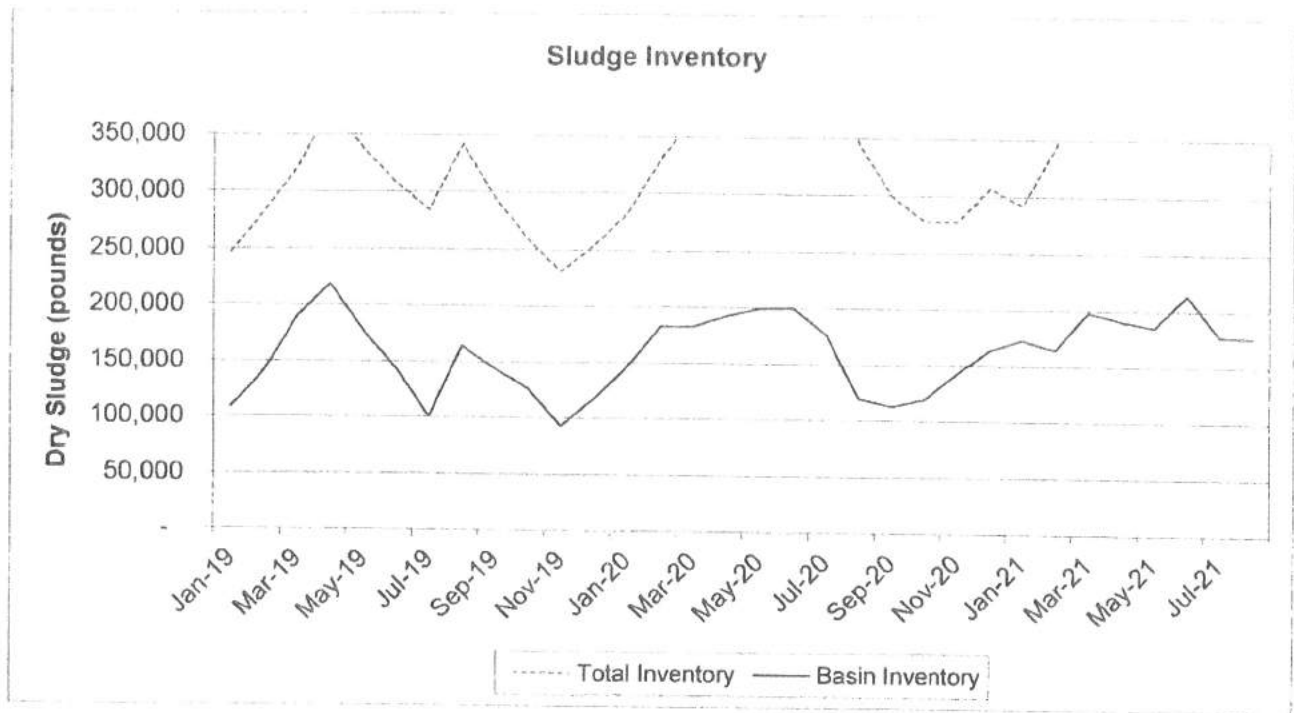


	Hauled Sludge				Annual Cumulative # Dry
	Loads	Gallons	# Dry	% Solids	
Jan-19	0	-	0	3.4%	-
Feb-19	0	-	0	3.4%	-
Mar-19	36	133,200	43,139	3.9%	43,139
Apr-19	39	144,300	53,940	4.5%	97,079
May-19	49	181,300	54,865	3.5%	151,945
Jun-19	44	162,800	51,872	3.8%	203,817
Jul-19	37	135,900	43,633	3.8%	247,450
Aug-19	0	-	0	3.8%	247,450
Sep-19	58	214,600	62,487	3.5%	309,937
Oct-19	50	185,000	54,742	3.5%	364,679
Nov-19	29	107,300	31,629	3.5%	396,308
Dec-19	17	62,900	20,643	3.9%	416,951
Jan-20	0	-	0	3.9%	-
Feb-20	0	-	0	3.9%	-
Mar-20	0	-	0	3.9%	-
Apr-20	25	92,500	29,315	3.8%	29,315
May-20	0	-	0	3.8%	29,315
Jun-20	25	92,500	31,680	4.1%	60,975
Jul-20	69	255,300	77,258	3.6%	138,243
Aug-20	76	281,200	83,285	3.6%	221,529
Sep-20	38	140,600	41,627	3.5%	263,156
Oct-20	45	165,500	55,298	4.0%	318,454
Nov-20	18	66,600	19,255	3.5%	337,709
Dec-20	11	40,700	14,843	4.4%	352,552
Jan-21	0	-	0	4.4%	-
Feb-21	0	-	0	4.4%	-
Mar-21	23	85,100	28,883	4.1%	28,883
Apr-21	29	144,300	45,289	3.8%	74,152
May-21	0	-	0	3.8%	74,152
Jun-21	0	-	0	3.8%	74,152
Jul-21	40	144,000	47,378	3.9%	121,530
Aug-21	153	550,800	165,363	3.6%	287,893

Basin Depths				
Tank #1	Tank #2	AB #1	Basin Gallons	# Dry
5.0	3.5	0.0	382,500	108,482
6.0	5.0	0.0	495,000	140,382
6.0	7.0	0.0	585,000	189,462
5.5	7.5	0.0	585,000	218,676
8.0	5.0	0.0	585,000	177,036
7.0	3.0	0.0	450,000	143,381
3.0	4.0	0.0	315,000	100,397
5.5	6.0	0.0	517,500	164,006
7.0	4.0	0.0	495,000	144,134
7.5	2.0	0.0	427,500	126,498
3.5	3.5	0.0	315,000	92,853
6.0	2.0	0.0	360,000	118,146
6.0	4.0	0.0	450,000	146,367
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	199,660
6.0	7.0	0.0	585,000	200,228
6.0	7.0	0.0	585,000	177,054
5.0	4.0	0.0	405,000	119,953
4.0	4.5	0.0	382,500	113,246
5.0	3.0	0.0	360,000	119,563
5.0	6.0	0.0	495,000	143,111
4.5	5.5	0.0	450,000	164,112
7.0	3.5	0.0	472,500	173,389
5.0	5.0	0.0	450,000	165,132
6.0	7.0	0.0	585,000	198,549
6.0	7.5	0.0	607,500	190,582
6.0	7.0	0.0	585,000	185,398
7.0	8.0	0.0	675,000	213,921
5.0	7.0	0.0	540,000	177,688
7.0	6.0	0.0	585,000	176,693

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	1.0	0.0	4,850	4,480	3,635,524	138,412	0.00457	246,874	-
1.0	1.0	0.0	4,570	4,740	3,635,524	141,141	0.00466	281,503	-
0.5	1.0	0.0	4,780	3,920	3,626,643	131,571	0.00435	321,033	-
1.5	0.5	1.0	5,720	4,530	3,678,952	157,248	0.00513	375,923	-
3.0	1.5	1.0	5,150	5,160	3,723,357	160,077	0.00516	337,113	-
2.0	4.0	1.5	5,610	4,810	3,771,714	163,886	0.00521	307,267	-
2.0	3.0	0.5	6,060	5,830	3,710,524	183,973	0.00595	284,370	-
5.0	3.0	0.5	5,680	5,680	3,763,610	177,982	0.00567	341,988	-
2.0	1.0	1.0	4,460	5,310	3,695,714	150,607	0.00489	294,741	-
2.5	3.0	1.0	4,170	4,350	3,741,119	132,916	0.00426	259,414	-
3.5	5.0	0.0	4,980	3,850	3,750,977	138,115	0.00442	230,968	-
1.0	1.0	0.0	5,090	3,940	3,635,524	136,886	0.00452	255,044	-
1.0	1.5	0.0	4,260	4,090	3,644,405	136,015	0.00448	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	3,767,782	183,825	0.00585	366,784	-
1.0	1.0	1.0	5,740	5,290	3,678,952	169,714	0.00552	351,742	-
6.0	7.0	0.5	6,010	6,110	3,785,524	191,322	0.00606	390,981	-
7.0	7.0	1.0	7,060	7,120	3,852,620	227,647	0.00709	427,875	-
6.0	6.0	1.0	6,890	7,380	3,892,096	231,603	0.00714	408,555	-
1.0	1.0	0.5	6,530	7,400	3,856,572	224,021	0.00697	343,974	-
1.0	1.0	1.0	6,000	6,200	3,657,238	185,058	0.0061	299,304	-
1.0	0.0	0.5	4,960	5,070	3,678,952	158,015	0.00515	277,578	-
1.0	0.0	0.5	4,780	4,080	3,639,476	134,465	0.00443	277,576	-
6.0	0.0	1.0	5,030	4,360	3,639,476	142,508	0.0047	306,620	-
5.0	8.0	0.0	3,810	3,780	3,750,000	118,689	0.0038	292,077	-
2.0	5.0	0.5	5,490	5,750	3,830,906	179,558	0.00562	344,680	-
12.0	5.0	1.0	6,930	6,330	3,746,048	205,573	0.00658	404,122	-
13.0	14.0	1.0	6,890	5,350	3,945,382	201,375	0.00512	391,957	-
6.0	7.5	2.0	6,200	6,330	4,123,002	215,427	0.00627	400,825	-
7.0	12.0	3.0	8,060	8,060	3,926,643	234,903	0.00717	446,824	-
1.0	1.0	0.5	9,190	8,110	4,067,762	279,340	0.00823	457,007	-
			6,160	5,840	3,657,238	183,008	0.0060	359,701	-

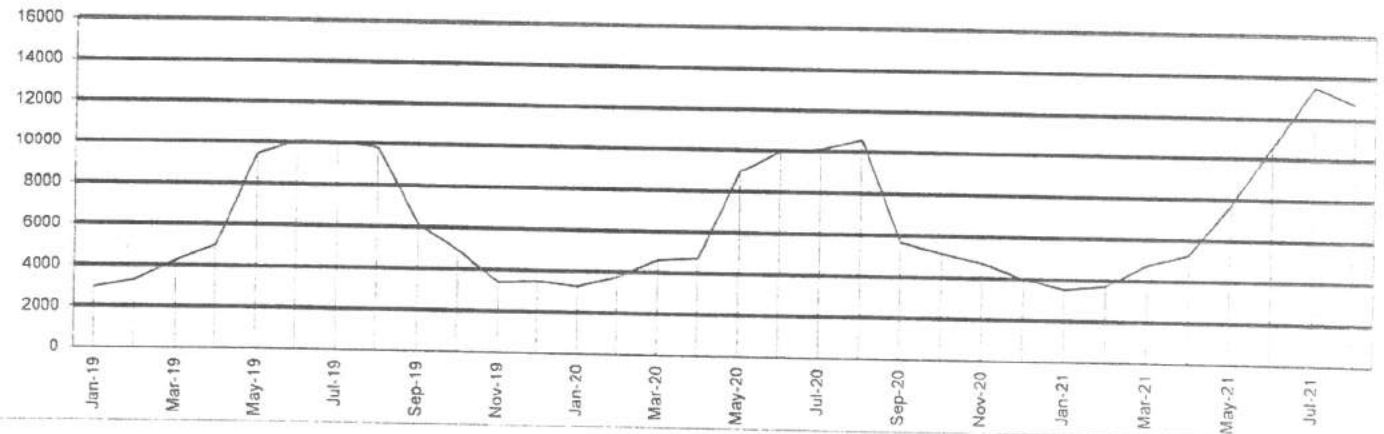
Accepted Septage	
Loads	Gallons
10	46,500
31	79,500
9	21,500
23	61,500
12	25,500
19	47,500
36	84,000
29	72,500
22	55,000
40	97,000
15	36,000
14	32,000
16	34,100
23	57,000
25	64,500
39	107,000
35	83,000
6	18,000
88	208,000
67	159,000
45	104,500
16	32,000
16	36,000
33	69,000
83	205,600
28	69,500
32	70,000
22	52,000
49	128,500
63	151,500
117	289,000
66	163,000



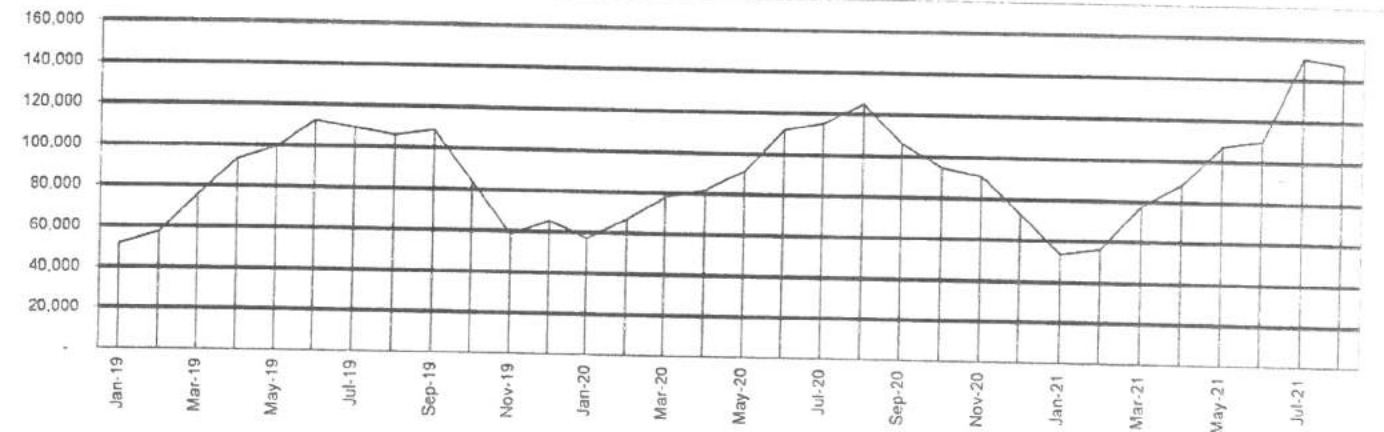
Electric Cost Kilowatts Used

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
Apr-20	4741	81,780
May-20	8962	91,550
Jun-20	9959	111,680
Jul-20	10100	115,300
Aug-20	10619	124,800
Sep-20	5669	106,220
Oct-20	5155	94,870
Nov-20	4734	90,890
Dec-20	4009	73,020
Jan-21	3524	53,730
Feb-21	3696	56,370
Mar-21	4776	77,720
Apr-21	5281	88,390
May-21	7727	107,320
Jun-21	10610	110,130
Jul-21	13533	150,740
Aug-21	12737	147,810

Electric Cost



Kilowatts Used





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

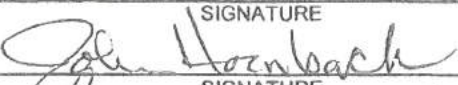
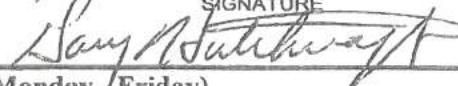
NAME OF FACILITY							LOCATION ADDRESS & CITY							COUNTY/REGION		
Lake of the Ozarks Regional WWTP #1							#3 Anderson Road							Miller/SWRO		
MONTH/YEAR		PERMIT NUMBER					OUTFALL NUMBER		TYPE TREATMENT FACILITY							
Aug-21		MO-0103241					#001		Oxidation Ditch/UV/Sludge Holding-sludge is land 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	7.9				24.1	2.185	8.0				7.8		24.1			
2	7.9				24.8	1.947	8.0				8.0	< 20	25.7			
3	7.9			31.2	24.8	1.931	8.1			0.1	8.1		24.8			
4	7.9				23.7	1.963	8.1				8.2		24.0			
5	7.9	190	282		23.8	1.885	8.2	1.5	0.7		8.2		23.6	99.2	99.8	
6	7.9				25.2	1.952	8.1				8.1		25.2			
7	7.9				25.0	2.269	8.0				8.0		24.9			
8	7.8				25.3	2.264	7.9				7.9		25.6			
9	8.0				26.6	1.787	8.1				7.8	< 20	26.3			
10	7.8			44.5	24.2	1.919	8.2			0.2	7.9		25.5			
11	7.9				26.7	1.841	8.0				7.7		28.1			
12	7.8	155	238		26.9	1.928	8.0	2.6	1.3		7.8		27.8	98.3	99.5	
13	7.9				24.3	2.090	7.9				8.0		25.1			
14	7.5				24.5	2.126	7.9				8.0		25.0			
15	7.3				22.8	1.987	7.9				8.1		22.8			
16	7.6				25.3	1.641	8.0				8.0	< 20	25.6			
17	6.9				23.9	1.700	7.4				8.1		24.5			
18	6.9			27.3	24.5	1.923	7.4			0.14	8.0		25.3			
19	6.8				24.1	1.742	7.5				8.0		24.7			
20	6.8	210	584		24.7	1.775	7.4	1.9	2.9		8.0		25.5	99.1	99.5	
21	6.8				24.2	2.040	7.4				8.0		25.3			
22	7.0				24.1	2.144	7.4				8.1		24.9			
23	7.3				24.3	1.770	8.0				7.8	< 20	25.7			
24	7.3				25.6	1.555	7.7				7.7		26.3			
25	7.1			15.5	24.5	1.620	7.7			0.06	7.8		25.9			
26	7.3				24.8	1.535	7.8				7.8		26.0			
27	7.1	168	236		23.2	1.795	7.9	1.9	2.3		7.7		26.4	98.9	99.0	
28	7.5				24.3	1.870	7.9				7.8		25.0			
29	7.5				23.1	1.990	7.9				7.9		24.7			
30	7.6				25.6	1.796	8.1				7.8	< 20	26.4			
31	6.9				24.7	1.527	7.4				7.8		25.7			
Total						58.497										
Avg		181	335	29.6	25	1.887		2.0	1.8	0.13	7.9	10.0	25.4	98.9	99.4	
Min	6.8	155	236	15.5	23	1.527	7.4	1.5	0.7	0.06	7.7	< 20	22.8	98.3	99.0	
Max	8.0	210	584	44.5	27	2.269	8.2	2.6	2.9	0.20	8.2	< 20	28.1	99.2	99.8	

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										
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27										
28										
29										
30										
31	2.7	3.0	21.3					6.3	43.6	< 0.10
Total	2.7	3.0	21.3					6.3	43.6	< 0.10
Avg	2.7	3.0	21.3					6.3	43.6	< 0.10
Min	2.7	3.0	21.3					6.3	43.6	< 0.10
Max	2.7	3.0	21.3					6.3	43.6	< 0.10

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		0.7	9,090	950	25.1	0.7	8,750	940	24.9	66	0	7:30
2	11,109	0.6	8,340	930	25.5	0.6	9,250	950	25.3	72	0	7:30
3	12,100	0.9	8,750	940	24.8	0.9	9,380	960	24.6	64	0	7:30
4	13,661	0.9	8,460	940	23.9	0.6	9,180	950	23.8	65	0	7:30
5	9,608	0.9	8,310	940	23.7	0.6	8,980	950	23.3	65	0	7:30
6	8,887	1.1	8,130	940	25.2	1.0	8,380	950	24.7	70	0	7:30
7	7,026	0.7	8,150	930	24.8	0.7	8,180	940	24.3	72	0	7:30
8		0.7	8,040	930	25.4	0.6	8,390	950	25.1	78	0	7:30
9		0.8	8,370	930	26.7	0.6	8,940	940	26.2	78	0	7:30
10		0.7	8,250	930	25.0	0.7	8,410	940	25.1	78	0	7:30
11	6,665	0.9	7,520	900	27.7	0.7	8,520	930	27.2	75	0.25	7:30
12	4,684	0.8	7,410	870	27.3	0.6	8,910	840	26.9	73	0	7:30
13		1.0	7,960	900	25.2	0.9	9,160	920	25.0	72	0.75	7:30
14	8,407	1.0	8,440	940	25.1	1.0	7,320	880	24.5	70	0	7:30
15	5,705	1.0	7,780	910	23.2	1.1	7,580	910	23.3	64	0	7:30
16		1.0	7,580	880	26.0	0.8	8,860	920	25.6	64	0	7:30
17	5,855	1.2	6,960	860	24.0	1.0	8,370	940	23.9	67	0	7:30
18	15,973	1.1	7,800	900	25.2	1.0	8,420	920	25.0	70	0	7:30
19		1.2	7,700	900	24.5	1.0	8,060	920	24.5	71	0	7:30
20		1.2	7,590	900	25.2	0.9	8,100	910	25.0	72	0	7:30
21		1.0	6,950	900	25.1	0.9	7,820	920	25.1	71	0.8	7:30
22		1.1	7,560	900	24.7	1.0	7,760	920	24.7	67	0	7:30
23	11,109	1.2	7,130	900	25.6	1.0	8,260	910	25.4	72	0	7:30
24	7,986	1.8	6,940	880	26.3	1.0	7,830	910	26.1	75	0	7:30
25	9,608	2.4	7,080	880	25.7	2.4	6,540	880	25.7	74	0	7:30
26	11,349	2.2	6,990	880	25.9	1.6	7,450	890	25.8	74	0	7:30
27	7,386	2.8	5,940	770	26.2	1.8	6,590	860	25.9	73	0	7:30
28		3.6	5,380	750	24.6	3.5	5,310	750	24.7	73	0	7:30
29		1.9	5,230	700	24.7	1.9	5,230	730	24.4	72	0	7:30
30	5,885	0.9	5,740	730	25.9	0.9	5,570	720	25.8	74	0	7:30
31	3,363	1.5	6,160	790	25.4	1.6	5,840	790	25.5	70	0	7:30

COMMENTS:

TESTS PERFORMED BY (PRINT)	SIGNATURE	PHONE #	DATE
John Hornback		(573)365-0455	9/10/2021
REPORT APPROVED BY (PRINT)	SIGNATURE	PHONE #	DATE
Gary Hutchcraft		(573)365-0455	9/10/2021

*Required Daily (Monday - Friday)

**Required 1/week

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

Permit Number	Outfall Number
MO0103241	001M
Monitoring Period	
8/1/21	8/31/21
NODI:	*****

Parameters	Reporting Requirements			Unit	Reporting Requirements			Unit
Flow, in conduit or thru treatment plant	*****	*****	*****	*****	2.269	1.887		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	*****	2.6	2.0	mg/L	*****	*****	*****	
Mon. Location.: End of Pipe	*****;*****	Weekly Avg.:45	Monthly Avg.:30		*****;*****	*****;*****		
Sample Type: 24 Hour Composite								
Frequency: Weekly								
Total Suspended Solids (TSS)	*****	2.9	1.8	mg/L	*****	*****	*****	
Mon. Location.: End of Pipe	*****;*****	Weekly Avg.:45	Monthly Avg.:30		*****;*****	*****;*****		
Sample Type: 24 Hour Composite								
Frequency: Weekly								
Escherichia coli (E. coli)	*****	10.0	10.0	#/100mL	*****	*****	*****	
Mon. Location.: End of Pipe	*****;*****	7 Day Geo.:630	30 Day Geo. Mean:126		*****;*****	*****;*****		
Sample Type: Grab								
Frequency: Weekly								
Phosphorus, total (as P)	2.7	*****	2.7	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)	3.0	*****	3.0	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)	21.3	*****	21.3	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	0.20	*****	0.13	mg/L	*****	*****	*****	

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

N)							
Mon. Location.: End of Pipe	Daily Max.:10.1	*****	Monthly Avg.:1.3		*****	*****	
Sample Type: 24 Hour Composite							
Frequency: Weekly							
pH							
	7.4	*****	8.2	SU	*****	*****	*****
Mon. Location.: End of Pipe	Minimum:6.0	*****	Maximum:9.0		*****	*****	
Sample Type: Grab							
Frequency: Weekly							
BOD, 5-day, percent removal							
	*****	*****	98.3	%	*****	*****	*****
Mon. Location.: End of Pipe	*****	*****	Monthly Avg.		*****	*****	
			Min.:85				
Sample Type: Calculated							
Frequency: Monthly							
Suspended Solids, percent removal							
	*****	*****	99.0	%	*****	*****	*****
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)

Permit Number	Outfall Number
MO0103241	INFIM
Monitoring Period	
8/1/21	8/31/21
NODR	*****

Parameters	Reporting Requirements			Unit	Reporting Requirements			Unit
BOD, 5-day, 20 deg. C	*****	*****	181	mg/l	*****	*****	*****	
Mon. Location.: Influent	*****;*****	*****;*****	Monthly Avg.:Monitoring Required		*****;*****	*****;*****		
Sample Type: 24 Hour Composite								
Frequency: Monthly								
Total Suspended Solids (TSS)	*****	*****	335	mg/L	*****	*****	*****	
Mon. Location.: Influent	*****;*****	*****;*****	Monthly Avg.:Monitoring Required		*****;*****	*****;*****		
Sample Type: 24 Hour Composite								
Frequency: Monthly								
Nitrogen, ammonia total (as N)	44.5	*****	29.6	mg/L	*****	*****	*****	
Mon. Location.: Influent	Daily Max.:Monitoring Required	*****;*****	Monthly Avg.:Monitoring Required		*****;*****	*****;*****		
Sample Type: 24 Hour Composite								
Frequency: Monthly								
Phosphorus, total (as P)	6.3	*****	6.3	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)	43.6	*****	43.6	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
September 10, 2021

User Phone Number
(573)365-0455

FOR AUGUST 2021

[illegible]



Missouri Department of dnr.mo.gov

NATURAL RESOURCES

Michael L. Parson, Governor

Dru Buntin, Director

September 9, 2021

City of Lake Ozark and City of Osage Beach
Attn: John Olivarri, Joint Sewer Board President
P.O. Box 370
Lake Ozark, MO 65049

FINDING OF COMPLIANCE

Dear John Olivarri:

Staff from the Missouri Department of Natural Resources conducted an inspection on July 19, 2021, of the Lake of the Ozarks Wastewater Treatment Plant #1 located at #3 Anderson Road, Lake Ozark in Miller County. The entity operates under the authority of permit number MO0103241.

Compliance with Clean Water Law was evaluated. The entity was found to be **in compliance** based on the observations made at the time of the evaluation.

The enclosed report describes the findings and may provide important recommendations, to ensure continued compliance. Your cooperation in implementing those recommendations will be appreciated.

If you have any questions or would like to schedule a time to meet with Department staff to discuss compliance requirements, please contact Keith Forck by mail at the Missouri Department of Natural Resources, Central Field Operations, P.O. Box 176, Jefferson City, MO 65102, by phone at 573-526-4232, or by email at keith.forck@dnr.mo.gov.

Sincerely,

CENTRAL FIELD OPERATIONS

Laura M.G. Grootens
Environmental Supervisor

Enclosure

c: Gary Hutchcraft, Local Manager, Alliance Water Resources



**Missouri Department of Natural Resources
Central Field Operations
Report of Inspection
Lake of the Ozarks Wastewater Treatment Plant #1
#3 Anderson Road, Lake Ozark / Miller County
MO0103241
September 9, 2021**

Introduction

On July 19, 2021, a routine compliance inspection of the Lake of the Ozarks Wastewater Treatment Plant #1 (WWTP), located at #3 Anderson Road, Lake Ozark, Miller County, Missouri, was conducted by the Missouri Department of Natural Resources' Central Field Operations (CFO). The purpose of this inspection was to determine compliance with Missouri State Operating Permit (MSOP) MO0103241, the Missouri Clean Water Commission Regulations, and Missouri Clean Water Law. This report presents the findings and observations made during the compliance inspection, including file review, site visits, and communications with entity representatives. Authority for this inspection is provided in Missouri Clean Water Law 644.026.1(21), Revised Statutes of Missouri.

The following participants were present during the inspection:

Lake Ozark and Osage Beach Joint Sewer Board

Gary Hutchcraft Local Manager, Alliance Water Resources 573-365-0455
ghutchcraft@alliancewater.com

Missouri Department of Natural Resources, Central Field Operations

Keith Forck Environmental Engineer 573-526-4232
keith.forck@dnr.mo.gov

Entity Description and History

As part of the inspection, I reviewed the files for the Lake of the Ozarks WWTP #1, including previous inspection reports, correspondence, and the conditions of permit MO003241, for familiarization with the requirements specific to this facility. The facility is under the authority of Lake Ozark and Osage Beach Joint Sewer Board (Board). The Board does not maintain or fund the collection system. The Cities of Lake Ozark and Osage Beach fund and maintain their own collection systems independently.

MSOP MO0103241 was issued on August 1, 2021, with an expiration date of December 31, 2025. This permit sets forth effluent limitations, monitoring requirements, and permit conditions, both standard and specific, that the permittee is to follow.

The facility consists of automatic bar screens, grit removal, two oxidation ditches, three final clarifiers, ultraviolet disinfection (UV), cascade reaeration, and two aerobic sludge digesters with a design flow of 3.0 million gallons per day for the purpose of treating wastewater from the cities of Lake Ozark and Osage Beach. Each City maintains their own separate collection system. The receiving stream for this facility is a tributary to Osage River, which is located in the Lower Osage watershed (HUC 10290111).

The previous compliance inspection of the facility was on August 29, 2017. The inspection report noted the facility in non-compliance with some unsatisfactory features for failure to develop and implement a Stormwater Pollution Prevention Plan (SWPPP), and have properly certified operators. These issues were resolved by September 20, 2017.

I reviewed the Discharge Monitoring Reports for the previous five-year period. The wastewater treatment facility had no effluent violations during the five-year period.

Discussion of Inspection and Observations

The inspection was conducted during normal business hours. Prior notification of the inspection was provided to ensure timely access to the site. Upon arrival at the wastewater treatment facility, I met with Gary Hutchcraft, and outlined the purpose and scope of the inspection. Gary Hutchcraft granted permission to access the site and accompanied me throughout the inspection of the wastewater treatment facility.

The inspection started with a brief pre-meeting at the treatment facility. During the meeting, it was discussed that Gary Hutchcraft is the certified wastewater operator for the facility. We discussed the operating permit status as it expired on December 31, 2020, and the draft permit is going to be issued soon. We discussed the permit requirements in the draft permit including the standard and special conditions. Since the inspection the new permit has been issued.

We started the inspection by observing wastewater treatment facility (Figure #1). The facility is located east of the City of Lake Ozark. The facility was surrounded by a fence of adequate height and a lockable gate to dissuade unauthorized access. The facility had adequate warning signs. The access road was in good condition.

The wastewater treatment facility influent flows through an influent parshall flume (Photo #1 and 2). Each City has a separate flow meter to document flow. The other source of flow is from the septage hauler receiving station (Photo #3). The influent flow flows through the influent mechanical bar screens (Photo #4) and grit chamber (Photo #5). Gate valves (Photo #6) are used to split the flow between the two oxidation ditches. The sludge return is mixed with the return sludge (Photo #7) before flowing into the oxidation ditches.

The oxidation ditches (Photo #8) appear to be well mixed with good aeration. The mixed liquor appeared a little dark. The flow continues to the clarifier flow splitter, which appeared to be splitting the flow proportionally between the three clarifiers. The clarifiers appeared to fairly clean with the effluent appearing clear (Photo #11-14). Clarifier #1 had a gasket failure around the influent piping, which was allowing water in the clarifier to discharge without flowing over the weir (**Recommendation #1**). The influent stilling wells had some floating solids build-up and vegetation was observed growing on the clarifier surfaces and solids build-up (**Recommendation #2**).

Following the clarifier, the water flows to the effluent parshall flume (Photo #14). The effluent flow rate at the time of the inspection was approximately two million gallons per day. Then the effluent goes to the ultraviolet disinfection screen (Photo #15). The material from the screen is dried on the ultraviolet disinfection screen drying bed (Photo #16). Then the effluent flows into the ultraviolet disinfection system. The disinfection system was operating properly with a low level alarm of wiper end fail. The UV system consists of two banks in series - each with three modules. Each module has twelve bulbs. During normal operations, only one bank is necessary, but both banks were on due to a wiper end fail low level alarm. The banks in the UV system are normally alternated and the system is automatically controlled with the banks are adjusted as the system intensity demand changes. The UV units are protected from turtles and other wildlife by

an effluent screen (Photo #19). The last treatment is the cascade reaeration steps (Photo #20). These steps reaerate the effluent. The outfall was marked with a sign and no visual impact to the receiving stream due to Outfall #001 was observed.

The facility uses the two aerobic sludge digesters (Photo #21 and 22). The facility fills the first aerobic sludge digester and decant it along with transferring the solids to the second aerobic sludge digester before land application. The facility has an emergency generator on site (Photo #23). The facility has a schematic drawing in the laboratory of all the sample points (Photo #24).

We continued the inspection with reviewing the facility's documents regarding the laboratory procedures, operational monitoring records, and the operation and maintenance manuals. The records appeared thorough and were fairly well organized. The facility maintained good records, appeared to be conducting the proper equipment calibrations with current standards, and the operator certifications were current. One standard was nearing expiration (**Recommendation #3**). We discussed the calculations for the BOD and TSS percent removal should be conducted in accordance with Note 2 on Page 3 of the permit (**Recommendation #4**). We discussed the geometric mean calculation for E. coli (**Recommendation #5**). The facility conducts monthly Stormwater Pollution Prevention Plan inspections. The facility keeps maintenance records and reports no operational issues with the exception of a broken down sludge truck and waiting for a new one. Gary Hutchcraft said that they get no citizen concerns about odors or anything with the wastewater treatment plant. We briefly discussed the corrosion and soil pH concerns from the previous inspections and Gary Hutchcraft said that it is all good as recent soil tests were conducted and the corrosion is not excessive.

A brief post meeting was held in the laboratory summarizing the issues with sludge, clarifiers, ultraviolet disinfection, and paperwork

Sampling and Monitoring

I took the appropriate sampling materials on the inspection, including a copy of the Department's Standard Operating Procedures, as well as instruments for field monitoring that were capable of testing pH, temperature, conductivity, and dissolved oxygen. The field monitoring equipment had been properly calibrated and/or compared to standards in accordance with the Department's Quality Assurance/Quality Control procedures.

No sampling was conducted as the Environmental Services Program collected a composite sample on March 3, 2021. The Environmental Services Program sample analysis results are summarized in Table #3.

Table #3 – Outfall #001 for Lake of the Ozarks WWTP #1						
Results of Sample Analyses			Permitted Effluent Limitations			
Parameter	Sample Result	Units	Daily Maximum	Weekly Average	Monthly Average	Units
Composite Sample; Sample # 2103025 and 2103026						
pH ¹	6.91	SU	*		*	SU
Temperature ¹	8.4	°C				
Ammonia as N ²	0.02	mg/L	11.5		2.7	mg/L
Biochemical Oxygen Demand ₅ ²	2.67	mg/L		45	30	mg/L
Total Suspended Solids ²	<5.00	mg/L		45	30	mg/L

Oil & Grease	<2.00	mg/L	15		10	mg/L
Total Recoverable Selenium	<0.625	µg/L	9.1		4.0	µg/L

¹On-Site Water Quality Monitoring.

²Sample analysis conducted by Environmental Services Program.

*pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.5-9.0 pH units.

Abbreviations: SU (Standard pH Units)

Compliance Determination, Violations, and Required Actions

The facility was found to be in compliance with the Missouri Clean Water Law, the Missouri Clean Water Commission regulations, and MSOP MO0103241, based upon observations made during the inspection.

Recommendations

1. The clarifier should have the gaskets maintained so that the water is discharged over the weir.
2. The clarifier should be cleaned of vegetation and stilling well should be cleaned of the excessive floating sludge.
3. The laboratory standards should have the expiration dates checked upon receipt and at regular intervals to ensure current.
4. The permit removal of BOD and TSS should be calculated in accordance with Note 2 on Page 3 of the proposed permit. The averaging of each weekly average may make a tenth or so difference in the monthly calculations.
5. For the sample results of <20 #/100 mL of *E. coli*, a value of 10 #/100 mL should be used in the calculation of the monthly geometric mean. A more precise method of testing may be used if lower values are desired.

Additional Comments/Conclusion

Any questions regarding this report should be directed to Keith Forck, by mail at Central Field Operations, PO Box 176, Jefferson City, Missouri 65102; by phone at 573-522-3322; or by email at keith.forck@dnr.mo.gov.

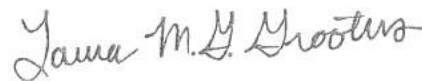
Signatures

SUBMITTED BY:



Keith Forck, PE
Environmental Inspector
Central Field Operations

REVIEWED BY:



Laura M.G. Grootens
Environmental Supervisor
Central Field Operations

Attachments

Report of Inspection
September 9, 2021
Lake of the Ozarks Regional WWTP #1
Page 5 of 5

Attachment # 1 – Photographs (#1 through #24)
Attachment # 2 – Aerial Map



Photograph: #1
Taken By: Keith Forck
Entity: Lake of the Ozarks WWTP #1
Permit: MO-0103241
Location: Lake of the Ozarks WWTP #1

Description: Looking down at the influent flow meter for the City of Osage Beach.

Date Taken: 07/19/21
Program: WPC Unit



Photograph: #2
Taken By: Keith Forck
Entity: Lake of the Ozarks WWTP #1
Permit: MO-0103241
Location: Lake of the Ozarks WWTP #1

Description: Looking down at the influent flow meter for the City of Lake Ozark.

Date Taken: 07/19/21
Program: WPC Unit



Photograph: #3
Taken By: Keith Forck
Entity: Lake of the Ozarks WWTP #1
Permit: MO-0103241
Location: Lake of the Ozarks WWTP #1

Description: Looking southwest at the septage hauler receiving station.

Date Taken: 07/19/21
Program: WPC Unit



Photograph: #4
Taken By: Keith Forck
Entity: Lake of the Ozarks WWTP #1
Permit: MO-0103241
Location: Lake of the Ozarks WWTP #1

Description: Looking at the influent mechanical bar screens.

Date Taken: 07/19/21
Program: WPC Unit



Photograph: #5
Taken By: Keith Forck
Entity: Lake of the Ozarks WWTP #1
Permit: MO-0103241
Location: Lake of the Ozarks WWTP #1

Description: Looking at the grit chamber.

Date Taken: 07/19/21
Program: WPC Unit



Photograph: #6
Taken By: Keith Forck
Entity: Lake of the Ozarks WWTP #1
Permit: MO-0103241
Location: Lake of the Ozarks WWTP #1

Description: Looking at the valves for the flow splitter to the oxidation ditches.

Date Taken: 07/19/21
Program: WPC Unit



Photograph: #7
Taken By: Keith Forck
Entity: Lake of the Ozarks WWTP #1
Permit: MO-0103241
Location: Lake of the Ozarks WWTP #1

Description: Looking north at the sludge return piping, which mixes with the influent before flowing into the oxidation ditches.

Date Taken: 07/19/21
Program: WPC Unit



Photograph: #8
Taken By: Keith Forck
Entity: Lake of the Ozarks WWTP #1
Permit: MO-0103241
Location: Lake of the Ozarks WWTP #1

Description: Looking north at Oxidation Ditch #1. Oxidation Ditch #2 in the background.

Date Taken: 07/19/21
Program: WPC Unit



Photograph: #9
Taken By: Keith Forck
Entity: Lake of the Ozarks WWTP #1
Permit: MO-0103241
Location: Lake of the Ozarks WWTP #1

Description: Looking south at the clarifier flow splitter.

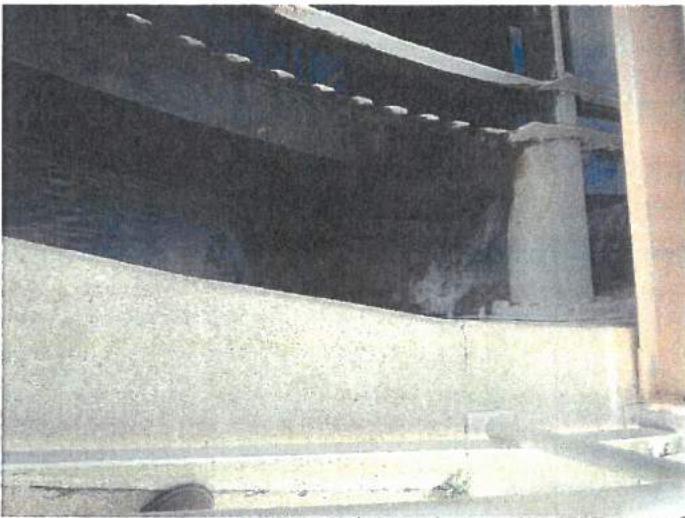
Date Taken: 07/19/21
Program: WPC Unit



Photograph: #10
Taken By: Keith Forck
Entity: Lake of the Ozarks WWTP #1
Permit: MO-0103241
Location: Lake of the Ozarks WWTP #1

Description: Looking southwest at Clarifier #1.

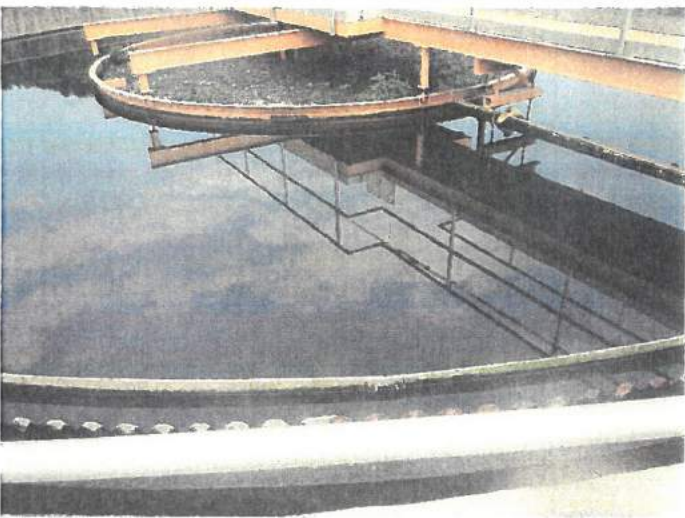
Date Taken: 07/19/21
Program: WPC Unit



Photograph: #11
Taken By: Keith Forck
Entity: Lake of the Ozarks WWTP #1
Permit: MO-0103241
Location: Lake of the Ozarks WWTP #1

Description: Looking down at the effluent discharging around the influent pipe.

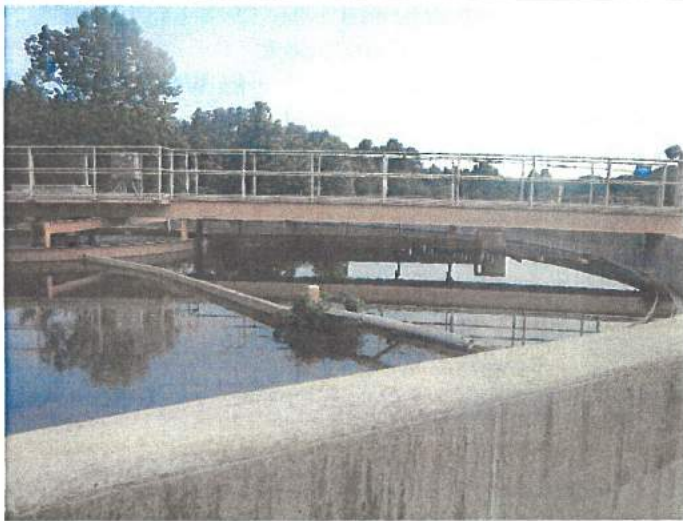
Date Taken: 07/19/21
Program: WPC Unit



Photograph: #12
Taken By: Keith Forck
Entity: Lake of the Ozarks WWTP #1
Permit: MO-0103241
Location: Lake of the Ozarks WWTP #1

Description: Looking northwest at Clarifier #2.

Date Taken: 07/19/21
Program: WPC Unit



Photograph: #13
Taken By: Keith Forck
Entity: Lake of the Ozarks WWTP #1
Permit: MO-0103241
Location: Lake of the Ozarks WWTP #1

Description: Looking northwest at Clarifier #3.

Date Taken: 07/19/21
Program: WPC Unit



Photograph: #14
Taken By: Keith Forck
Entity: Lake of the Ozarks WWTP #1
Permit: MO-0103241
Location: Lake of the Ozarks WWTP #1

Description: Looking down at the effluent flow parshall flume.

Date Taken: 07/19/21
Program: WPC Unit



Photograph: #15
Taken By: Keith Forck
Entity: Lake of the Ozarks WWTP #1
Permit: MO-0103241
Location: Lake of the Ozarks WWTP #1

Description: Looking down at the ultraviolet disinfection screen.

Date Taken: 07/19/21
Program: WPC Unit



Photograph: #16
 Taken By: Keith Forck
 Entity: Lake of the Ozarks WWTP #1
 Permit: MO-0103241
 Location: Lake of the Ozarks WWTP #1

Description: Looking down at the drying bed for the ultraviolet disinfection influent screen.

Date Taken: 07/19/21
 Program: WPC Unit



Photograph: #17
 Taken By: Keith Forck
 Entity: Lake of the Ozarks WWTP #1
 Permit: MO-0103241
 Location: Lake of the Ozarks WWTP #1

Description: Looking down at the ultraviolet disinfection system.

Date Taken: 07/19/21
 Program: WPC Unit



Photograph: #18
 Taken By: Keith Forck
 Entity: Lake of the Ozarks WWTP #1
 Permit: MO-0103241
 Location: Lake of the Ozarks WWTP #1

Description: Controls for the ultraviolet disinfection system.

Date Taken: 07/19/21
 Program: WPC Unit



Photograph: #19
 Taken By: Keith Forck
 Entity: Lake of the Ozarks WWTP #1
 Permit: MO-0103241
 Location: Lake of the Ozarks WWTP #1

Description: Looking down at the ultraviolet disinfection system effluent screen.

Date Taken: 07/19/21
 Program: WPC Unit



Photograph: #20
 Taken By: Keith Forck
 Entity: Lake of the Ozarks WWTP #1
 Permit: MO-0103241
 Location: Lake of the Ozarks WWTP #1

Description: Looking west at the cascade aeration steps with the outfall sign in the background.

Date Taken: 07/19/21
 Program: WPC Unit



Photograph: #21
 Taken By: Keith Forck
 Entity: Lake of the Ozarks WWTP #1
 Permit: MO-0103241
 Location: Lake of the Ozarks WWTP #1

Description: Looking northwest at Aerobic Sludge Digester #1.

Date Taken: 07/19/21
 Program: WPC Unit

Attachment #1 - Photographs
Lake of the Ozarks Regional WWTP #1
Page 8 of 8



Photograph: #22
Taken By: Keith Forck
Entity: Lake of the Ozarks WWTP #1
Permit: MO-0103241
Location: Lake of the Ozarks WWTP #1

Description: Looking south at Aerobic Sludge Digester #2.

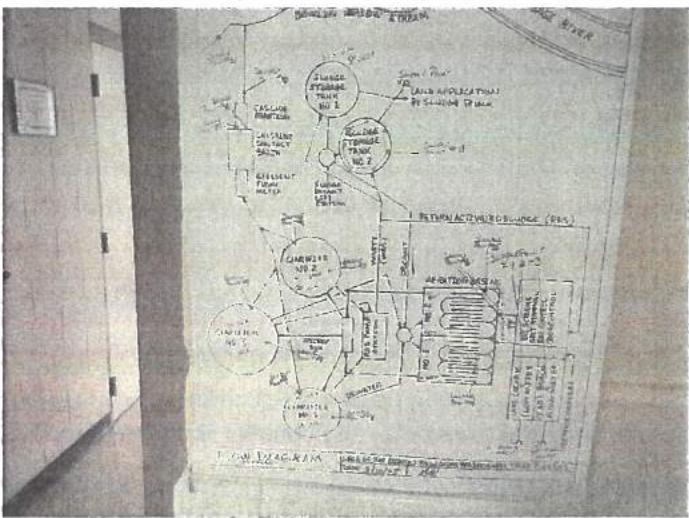
Date Taken: 07/19/21
Program: WPC Unit



Photograph: #23
Taken By: Keith Forck
Entity: Lake of the Ozarks WWTP #1
Permit: MO-0103241
Location: Lake of the Ozarks WWTP #1

Description: Looking west at the emergency generator.

Date Taken: 07/19/21
Program: WPC Unit



Photograph: #24
Taken By: Keith Forck
Entity: Lake of the Ozarks WWTP #1
Permit: MO-0103241
Location: Lake of the Ozarks WWTP #1

Description: Schematic of the wastewater treatment plant showing the sample locations.

Date Taken: 07/19/21
Program: WPC Unit

Figure 1: Aerial map of Lake of the Ozarks WWTP #1 courtesy of MapIT GIS System.

