

**OWOSSO MID-SHIAWASSEE COUNTY WWTP
REVIEW BOARD**

MEETING NOTICE

DATE: January 23, 2024 (Tuesday)

TIME: 4:30 P.M.

PLACE: 1410 Chippewa Trail, Owosso, MI 48867 with virtual option for non-board members (details attached)

AGENDA:

1. Roll
2. Agenda Approval
3. Previous Meeting Minutes
 - a) November 28, 2023*
4. Secretary's Report
 - a) Plant Performance Summary (Nov-Dec 2023)*
 - b) Plant Operations and staffing
 - c) WWTP project updates: Solids Handling Project, Phase I, Secondary Clarifier
5. Old Business
 - a) Hydrogen Sulfide Study
 1. Utility Authority Plan Progress
6. New Business
 - a) 2023 Service Unit Flow Summary*
 - b) Continuation of Public Virtual Option for Review Board Meetings
7. Citizens'/Members' comments
8. Adjourn

Tim Guysky, Secretary

* **Written information previously transmitted or enclosed.**

The city of Owosso will provide necessary reasonable auxiliary aids and services, such as signers for the hearing impaired and audiotapes of printed materials being considered at the meeting, to individuals with disabilities at the meeting/hearing upon seventy-two hours' notice to the city of Owosso. Individuals with disabilities requiring auxiliary aids or services should contact the city of Owosso by writing or calling the following: Tim Guysky, 301 West Main Street, Owosso, MI 48867 (989)-725-0562.

PLEASE TAKE NOTICE THAT THE FOLLOWING MEETING WILL HELD IN-PERSON WITH A VIRTUAL ATTENDANCE OPTION

The Owosso Mid-Shiawassee County Wastewater Treatment Plant Review Board will conduct an in-person meeting with a virtual attendance option on January 23, 2024.

**OWOSSO MID-COUNTY WWTP REVIEW BOARD
Tuesday, January 23, 2024
at 4:30 p.m.
1410 Chippewa Trail
Owosso, MI 48867**

The public may attend in-person or virtually but cannot participate in public comment virtually. Virtual attendees may submit questions or comments via email to the Plant Superintendent at timothy.guysky@ci.owosso.mi.us a minimum of 24 hours prior to the meeting.

VIRTUAL OPTION DETAILS:

- **Join Zoom Meeting:**
<https://us02web.zoom.us/j/85441501879?pwd=UTILUVQvVjFzU3ltajYvSUc1TUtXZz09>
- **Meeting ID:** 854 4150 1879
- **Password:** 155179
- **One tap mobile**
+16469313860,,85441501879#,,,,*155179# US
+13017158592,,85441501879#,,,,*155179# US (Washington DC)
- **Dial by your location**
+1 646 931 3860 US
+1 301 715 8592 US (Washington DC)
- **For video instructions visit:**
 - o Signing up and Downloading Zoom <https://youtu.be/qsy2Ph6kSf8>
 - o Joining a Zoom Meeting <https://youtu.be/hlkCmbvAHQQ>
 - o Joining and Configuring Audio and Video <https://youtu.be/-s76QHshQnY>
- **Helpful notes for participants:** [Helpful Hints](#)

Any person who wishes to contact members of the WWTP Review Board to provide input or ask questions on any business coming before the Board on January 23, 2024 may do so by calling or e-mailing the WWTP Superintendent prior to the meeting at (989)725-0562 or timothy.guysky@ci.owosso.mi.us.

The City of Owosso will provide necessary reasonable auxiliary aids and services, such as signers for the hearing impaired and audio recordings of printed materials being considered at the meeting, to individuals with disabilities at the meeting/hearing upon seventy-two (72) hours notice to the City of Owosso. Individuals with disabilities requiring auxiliary aids or services should contact the City of Owosso by writing, calling, or emailing the following: Owosso WWTP Superintendent, 301 West Main Street, Owosso, MI 48867; Phone: (989) 725-0562; Email: timothy.guysky@ci.owosso.mi.us. The City of Owosso Website address is www.ci.owosso.mi.us.

WARNING: According to the State Attorney General, interrupting a public meeting in Michigan with hate speech or profanity could result in criminal charges under several State statutes relating to Fraudulent Access to a Computer or Network (MCL 752.797) and/or Malicious Use of Electronics Communication (MCL 750.540). Per the US Attorney for Eastern Michigan, Federal charges may include disrupting a public meeting, computer intrusion, using a computer to commit a crime, hate crimes, fraud, or transmitting threatening communications.

City of Owosso related meetings are being monitored and violations of statutes will be prosecuted.

**OWOSSO MID-SHIAWASSEE COUNTY WWTP REVIEW BOARD
MEETING MINUTES - DRAFT**

November 28, 2023

4:30 P.M.

W.W.T.P.

1. Roll (4:30 P.M.)
Members Present: R. Holzheuer, R. Suchanek, J. Archer
Members Absent (no Alternate present): J. Sawyer
Others Present: T. Guysky, WWTP Superintendent/Board Secretary
B. Langtry, Owosso Twp/Caledonia Twp Utility Authority
J. Bloomfield, Owosso Twp/Caledonia Twp Utility Authority
2. Agenda Approval: Motion by Suchanek to approve meeting agenda as presented. Support by Holzheuer. No discussion. Motion carries 3-0.
3. Minutes of the September 26, 2023 meeting: Motion by Archer to approve the September 26, 2023 meeting minutes. Support by Holzheuer. No Discussion. Motion carries 3-0.
4. Secretary's Report:
 - a) Plant Performance Summary (Sep-Oct 2023): Guysky noted full permit compliance for the September – October 2023 period.
 - b) Plant Operations and Staffing: Guysky noted good, efficient plant performance and full staffing. He also noted plant operation modifications have been required to accommodate the current Phase I project since November 1. All have gone well with no permit violations expected.
 - c) WWTP Project Updates: Guysky updated the Board on the current projects. The Solids Handling Project is progressing, with some new auxiliary equipment started up and a schedule that will have dewatering equipment started up in mid-January. The Phase I Project is underway with work progressing at the expected pace so far.
5. Old Business:
 - a) Hydrogen Sulfide Study
 1. Utility Authority Plan Progress: Langtry updated the Board on the Owosso Township-Caledonia Township Utility Authority efforts toward H2S mitigation. Per vendor guidance, the chemical treatment dosage has been increased and H2S logger data will be available next week. There was general discussion on the treatment dosage. Guysky noted the WWTP screening room H2S readings have been consistently zero for the last couple weeks. Langtry said he would be discontinuing the chemical feed at the end of November, as H2S conditions become less favorable in the winter months. The Utility

Authority continues to work with their consultants on a more permanent solution to the H2S problem.

6. New Business:
NONE
7. Citizens'/Members' Comments:
NONE
8. Adjourn: Motion to adjourn by Holzheuer. Support by Suchanek. No discussion. Motion carries 3-0. Meeting adjourned at 4:46 p.m.

Respectfully submitted, Timothy J. Guysky, Secretary
Approval by Review Board pending

PLANT PERFORMANCE SUMMARY

	PERMIT LIMIT	CURRENT YEAR NOVEMBER 2023		PREVIOUS YEAR NOVEMBER 2022
PLANT FLOW				
AVERAGE	No Limit	4.11	MGD	2.14 MGD
MAXIMUM	No Limit	7.27	MGD	2.50 MGD
PRECIPITATION				
		2.76	Inches	1.09 Inches
CARBONACEOUS BIOCHEMICAL OXYGEN DEMAND (CBOD-5)				
"30 Day" Average	25 mg/L	4.9	mg/L	3.0 mg/L
Maximum 7 Day Average	No Limit	9.1	mg/L	3.8 mg/L
Maximum Day	40 mg/L	16.0	mg/L	5.3 mg/L
"30 Day" Average	1300 lbs/day	190	lbs/day	54 lbs/day
Maximum 7 Day Average	2000 lbs/day	415	lbs/day	70 lbs/day
Percent Removal	85%	92	%	97 %
TOTAL SUSPENDED SOLIDS (T.S.S.)				
"30 Day" Average	30 mg/L	10	mg/L	3 mg/L
Maximum 7 Day Average	45 mg/L	19	mg/L	5 mg/L
"30 Day" Average	1500 lbs/day	364	lbs/day	47 lbs/day
Maximum 7 Day Average	2300 lbs/day	835	lbs/day	88 lbs/day
Percent Removal	85%	93	%	99 %
AMMONIA NITROGEN (NH3-N)				
"30 Day" Average	11 mg/L	0.79	mg/L	0.44 mg/L
Maximum Day	15 mg/L	2.64	mg/L	2.08 mg/L
"30 Day" Average	530 lbs/day	30.8	lbs/day	7.9 lbs/day
Maximum 7 Day Average	750 lbs/day	95.5	lbs/day	36.6 lbs/day
TOTAL PHOSPHORUS				
"30 Day" Average	1.0 mg/l	0.68	mg/L	0.52 mg/L
"30 Day" Average	50 lbs/day	24	lbs/day	9 lbs/day
DISSOLVED OXYGEN				
Minimum	G.T. 3.0 mg/L	7.4	mg/L	6.6 mg/L
pH				
Maximum	L.T. 9.0	8.55		8.42
Minimum	G.T. 6.5	6.87		6.86
TOTAL RESIDUAL CHLORINE (TRC)				
Maximum	38 ug/L	< 10	ug/L	< 10 ug/L
FECAL COLIFORM				
"30 Day" Mean	200 Col./100 mls	12	Col./100mls	4 Col./100mls
Maximum 7 Day Mean	400 Col./100mls	161	Col./100mls	7 Col./100mls
COMPLIANCE		Complied with all permit limits		Complied with all permit limits

CODE: L.T. = LESS THAN
G.T. = GREATER THAN
N.R. = ANALYSIS NOT REQUIRED

NOTE: ALL PERMIT LIMITS ARE MAXIMUMS UNLESS OTHERWISE INDICATED

PLANT PERFORMANCE SUMMARY

	PERMIT LIMIT	CURRENT YEAR DECEMBER 2023		PREVIOUS YEAR DECEMBER 2022
PLANT FLOW				
AVERAGE	No Limit	4.12	MGD	2.16 MGD
MAXIMUM	No Limit	5.61	MGD	2.54 MGD
PRECIPITATION		2.51	Inches	1.23 Inches
CARBONACEOUS BIOCHEMICAL OXYGEN DEMAND (CBOD-5)				
"30 Day" Average	25 mg/L	10.8	mg/L	2.9 mg/L
Maximum 7 Day Average	NO LIMIT	18.2	mg/L	3.3 mg/L
Maximum Day	40 mg/L	41.5	mg/L	4.1 mg/L
"30 Day" Average	1300 lbs/day	352	lbs/day	52 lbs/day
Maximum 7 Day Average	2000 lbs/day	553	lbs/day	59 lbs/day
Percent Removal	85%	84	%	97 %
TOTAL SUSPENDED SOLIDS (T.S.S.)				
"30 Day" Average	30 mg/L	15	mg/L	3 mg/L
Maximum 7 Day Average	45 mg/L	30	mg/L	3 mg/L
"30 Day" Average	1500 lbs/day	482	lbs/day	49 lbs/day
Maximum 7 Day Average	2300 lbs/day	896	lbs/day	57 lbs/day
Percent Removal	85%	88	%	99 %
AMMONIA NITROGEN (NH3-N)				
"30 Day" Average	11 mg/L	2.13	mg/L	0.03 mg/L
Maximum Day	15 mg/L	7.64	mg/L	0.08 mg/L
"30 Day" Average	530 lbs/day	65.3	lbs/day	0.5 lbs/day
Maximum 7 Day Average	750 lbs/day	241	lbs/day	18.3 lbs/day
TOTAL PHOSPHORUS				
"30 Day" Average	1.0 mg/l	0.91	mg/L	0.83 mg/L
"30 Day" Average	50 lbs/day	30	lbs/day	15 lbs/day
DISSOLVED OXYGEN				
Minimum	G.T. 3.0 mg/L	4.5	mg/L	10.2 mg/L
pH				
Maximum	L.T. 9.0	8.56		8.51
Minimum	G.T. 6.5	7.31		8.01
TOTAL RESIDUAL CHLORINE (TRC)				
Maximum	38 ug/L	< 10	ug/L	< 10 ug/L
FECAL COLIFORM				
"30 Day" Mean	200 Col./100 mls	59	Col./100mls	4 Col./100mls
Maximum 7 Day Mean	400 Col./100mls	594	Col./100mls	10 Col./100mls
COMPLIANCE		Complied with all permit limits except CBOD5 mg/L max day, CBOD5 % removal and Fecal Coliform max 7 Day Mean		Complied with all permit limits

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MEMORANDUM

TO: MID-COUNTY WWTP REVIEW BOARD
FROM: TIM GUYSKY, WWTP Superintendent, Board Secretary
DATE: JANUARY 16, 2024
RE: 2023 SERVICE UNIT FLOW SUMMARY

Calendar year 2023 wastewater flows are detailed on the following Excel Worksheet tables:

- WWTP 2023 Flow Summary
- Mid-County Wastewater Treatment Plant Flow Data – 2023
- Mid-County Wastewater Treatment Plant – Flow Summary 2013-23

Based on these average daily flow figures all service units were within their allocated share of the plant capacity based on the June through October averaging period (per Amendment #1 to the Mid-County Wastewater Agreement). The issue of peak flows under wet weather conditions persists, as there were three incidents of plant influent exceeding capacity.

Enc.

Mid-County Wastewater Treatment Plant Flow Data - 2023

WWTP 2023 FLOW DATA	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
OWOSSO													
TOTAL FLOW (MG)	49.102	55.142	99.044	134.170	65.532	45.786	61.522	88.406	58.727	70.423	83.232	85.229	896.3
AVERAGE FLOW (MGD)	1.584	1.969	3.195	4.472	2.184	1.526	1.985	2.852	1.958	2.272	2.774	2.749	2.456
% OF ACTUAL TOTAL FLOW	66.45%	65.35%	67.03%	69.86%	67.12%	65.11%	67.49%	68.99%	68.16%	66.80%	67.52%	66.79%	67.50%
OWOSSO TOWNSHIP													
TOTAL FLOW (MG)	10.278	12.938	19.012	18.036	12.585	10.172	11.060	13.222	10.453	12.505	13.268	14.878	158.4
AVERAGE FLOW (MGD)	0.332	0.462	0.613	0.601	0.420	0.339	0.357	0.427	0.348	0.403	0.442	0.480	0.434
% OF ACTUAL TOTAL FLOW	13.91%	15.33%	12.87%	9.39%	12.89%	14.47%	12.13%	10.32%	12.13%	11.86%	10.76%	11.66%	11.93%
CALEDONIA TOWNSHIP													
TOTAL FLOW (MG)	4.146	4.996	10.942	14.341	6.435	3.967	6.058	9.972	5.482	7.744	9.476	10.250	93.8
AVERAGE FLOW (MGD)	0.134	0.178	0.353	0.478	0.214	0.132	0.195	0.322	0.183	0.250	0.316	0.331	0.257
% OF ACTUAL TOTAL FLOW	5.61%	5.92%	7.41%	7.47%	6.59%	5.64%	6.65%	7.78%	6.36%	7.35%	7.69%	8.03%	7.06%
CORUNNA													
TOTAL FLOW (MG)	10.368	11.303	18.763	25.517	13.083	10.391	12.521	16.541	11.501	14.746	17.292	17.256	179.3
AVERAGE FLOW (MGD)	0.334	0.404	0.605	0.851	0.436	0.346	0.404	0.534	0.383	0.476	0.576	0.557	0.491
% OF ACTUAL TOTAL FLOW	14.03%	13.40%	12.70%	13.29%	13.40%	14.78%	13.74%	12.91%	13.35%	13.99%	14.03%	13.52%	13.50%
TOTAL PLANT FLOW													
TOTAL FLOW (MG)	73.894	84.379	147.761	192.064	97.635	70.315	91.160	128.142	86.163	105.419	123.268	127.613	1327.8
AVERAGE FLOW (MGD)	2.384	3.014	4.766	6.402	3.255	2.344	2.941	4.134	2.872	3.401	4.109	4.117	3.638
PRECIPITATION (INCHES)													
	1.91	2.79	4.17	3.80	0.95	1.77	8.41	6.80	1.86	5.12	2.76	2.51	42.85

MG = MILLION GALLONS
MGD = MILLION GALLONS / DAY

WWTP 2023 Flow Summary

	Year	June to October	Contract Capacity
OWOSSO			
TOTAL FLOW (MG)	896.3	324.864	
AVERAGE FLOW (MGD)	2.456	2.123	3.18
% of 6 MGD	40.9%	35.4%	53.0%
OWOSSO TOWNSHIP			
TOTAL FLOW (MG)	158.4	57.412	
AVERAGE FLOW (MGD)	0.434	0.375	1.29
% of 6 MGD	7.2%	6.3%	21.5%
CALEDONIA TOWNSHIP			
TOTAL FLOW (MG)	93.8	33.223	
AVERAGE FLOW (MGD)	0.257	0.217	0.98
% of 6 MGD	4.3%	3.6%	16.3%
CORUNNA			
TOTAL FLOW (MG)	179.3	65.7	
AVERAGE FLOW (MGD)	0.491	0.429	0.55
% of 6 MGD	8.2%	7.2%	9.2%
TOTAL PLANT FLOW			
TOTAL FLOW (MG)	1327.8	481.199	
AVERAGE FLOW (MGD)	3.638	3.145	6.00
% of 6 MGD	60.6%	52.4%	100.0%
PRECIPITATION (INCHES)	42.85	23.96	

MG = MILLION GALLONS
 MGD = MILLION GALLONS / DAY

Mid-County Wastewater Treatment Plant - Flow Summary (2013 through 2023)

WWTP Annual FLOWS	2013-2023	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
	Average											
OWOSSO												
TOTAL FLOW (MG)	981.6	896.3	818.5	864.8	1068.2	1133.2	1047.9	1047.5	1023.6	817.2	1055.5	1025.5
AVERAGE FLOW (MGD)	2.689	2.456	2.243	2.369	2.919	3.105	2.871	2.870	2.797	2.239	2.892	2.809
% OF TOTAL PLANT FLOW	69.45%	67.50%	68.41%	67.10%	70.19%	70.20%	70.93%	70.39%	69.81%	69.37%	69.78%	70.25%
% of 3.18 MGD Allocated Flow	84.6%	77.2%	70.5%	74.5%	91.8%	97.6%	90.3%	90.3%	88.0%	70.4%	90.9%	88.3%
OWOSSO CHARTER TOWNSHIP												
TOTAL FLOW (MG)	145.7	158.4	142.7	171.2	173.6	161.3	134.2	139.1	140.1	105.3	150.1	126.7
AVERAGE FLOW (MGD)	0.399	0.434	0.391	0.469	0.474	0.442	0.368	0.381	0.383	0.288	0.411	0.347
% OF TOTAL PLANT FLOW	10.37%	11.93%	11.92%	13.28%	11.41%	9.99%	9.08%	9.35%	9.56%	8.94%	9.93%	8.68%
% of 1.29 MGD Allocated Flow	30.9%	33.6%	30.3%	36.4%	36.7%	34.3%	28.5%	29.5%	29.7%	22.3%	31.9%	26.9%
CALEDONIA CHARTER TOWNSHIP												
TOTAL FLOW (MG)	104.9	93.8	77.8	86.6	93.8	112.5	119.1	118.7	117.8	102.5	110.8	120.5
AVERAGE FLOW (MGD)	0.287	0.257	0.213	0.237	0.256	0.308	0.326	0.325	0.322	0.281	0.304	0.330
% OF TOTAL PLANT FLOW	7.44%	7.06%	6.50%	6.72%	6.17%	6.97%	8.06%	7.98%	8.04%	8.70%	7.33%	8.25%
% of 0.98 MGD Allocated Flow	29.3%	26.2%	21.8%	24.2%	26.1%	31.4%	33.3%	33.2%	32.9%	28.7%	31.0%	33.7%
CORUNNA												
TOTAL FLOW (MG)	179.4	179.3	157.6	166.2	186.2	207.3	176.1	182.8	184.8	153.1	194.1	186.4
AVERAGE FLOW (MGD)	0.492	0.491	0.432	0.455	0.509	0.568	0.482	0.501	0.505	0.420	0.532	0.511
% OF TOTAL PLANT FLOW	12.73%	13.50%	13.17%	12.89%	12.24%	12.84%	11.92%	12.28%	12.60%	13.00%	12.83%	12.77%
% of 0.55 MGD Allocated Flow	89.4%	89.3%	78.5%	82.7%	92.5%	103.3%	87.6%	91.1%	91.8%	76.4%	96.7%	92.9%
TOTAL PLANT FLOW												
TOTAL FLOW (MG)	1411.7	1327.8	1196.6	1288.8	1521.8	1614.3	1477.3	1488.1	1466.3	1178.0	1512.5	1459.7
AVERAGE FLOW (MGD)	3.868	3.638	3.278	3.531	4.158	4.423	4.047	4.077	4.006	3.227	4.144	3.999
% of 6 MGD Design Flow	64.44%	60.63%	54.64%	58.85%	69.30%	73.72%	67.45%	67.95%	66.77%	53.78%	69.07%	66.65%
PRECIPITATION (INCHES)	37.5	42.9	29.6	36.8	41.7	42.13	37.99	36.28	38.15	30.59	35.52	40.44

MG = MILLION GALLONS

MGD = MILLION GALLONS / DAY