



700 West Liberty Street | Louisville, KY 40203-1911
Phone: 502.540.6000 | LouisvilleMSD.org

November 15, 2018

Crystal Dennis
Permit Support Section
Surface Water Permits Branch
Division of Water
200 Fair Oaks Lane 4th Floor
Frankfort, KY 40601

Re: Morris Forman Water Quality Treatment Center
KPDES Permit No. KY0022411

Dear Ms. Dennis:

In accordance with the provisions of the KPDES Permit referenced above, the monthly Discharge Monitoring Report (DMR) and monthly Discharge (overflow) Reports for the reporting period October 1st to October 31st 2018 are provided through NetDMR. The Morris Forman Water Quality Treatment Center (MFWQTC) did not meet 30 day TSS, 7 day TSS, 30 day BOD, 7 day BOD, and Percent Removal BOD and TSS for the reporting period.

Compromised solids handling equipment is contributing to the exceedances. MFWQTC continues to employ additional solids processing methods: dewatered cake and an outside vendor to assist with solids handling in addition to purchasing additional Liquid Oxygen in an effort to meet permit requirements.

Should you have any questions, please contact me at (502) 540-6793.

Sincerely,

Alex E. Novak, P.E.
Treatment Facilities Director

DMR Copy of Record

Permit					
Permit #:	KY0022411	Permittee:	Morris Forman WQTC MSD	Facility:	MORRIS FORMAN WQTC MSD
Major:	Yes	Permittee Address:	700 W Liberty St Louisville, KY 40203	Facility Location:	4522 ALGONQUIN PKWY LOUISVILLE, KY 40211
Permitted Feature:	001 External Outfall	Discharge:	001-1 MUNICIPAL DISCHARGE		

Report Dates & Status					
Monitoring Period:	From 10/01/18 to 10/31/18	DMR Due Date:	11/28/18	Status:	NetDMR Validated

Considerations for Form Completion
 G - INFLUENTE - SECONDARY EFFLUENT1 - FINAL EFFLUENT - Parameter 74055 - Use Season 1 for summer months (May, June, July, August, September, and October) and Season 2 for winter months (November, December, January, February March, and April); enter NODI=9 for the Season not needed.

Principal Executive Officer					
First Name:	James A.	Title:	Executive Director	Telephone:	502-540-6000
Last Name:	Parrott				

No Data Indicator (NODI)
 Form NODI: --

Code	Parameter Name	Monitoring Location	Season #	Param. NODI	Quantity or Loading					Quality or Concentration					# of Ex.	Frequency of Analysis	Sample Type				
					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3				Value 3	Units		
00300	Oxygen, dissolved [DO]	1 - Effluent Gross	0	--	Sample					=	2.9					19 - mg/L	2	01/01 - Daily	GR - GRAB		
					Permit Req.					>=	2 INST MIN					19 - mg/L		01/01 - Daily	GR - GRAB		
					Value NODI																
X 00310	BOD, 5-day, 20 deg. C	E - Secondary/Biological Process Complete	0	--	Sample	=	55398	=	63260	26 - lb/d		=	84	=	96	19 - mg/L	2	01/01 - Daily	CP - COMPOS		
					Permit Req.		Req Mon MO AVG		Req Mon MX WK AV	26 - lb/d		<=	30 MO AVG	<=	45 MX WK AV	19 - mg/L		01/01 - Daily	CP - COMPOS		
					Value NODI																
00310	BOD, 5-day, 20 deg. C	G - Raw Sewage Influent	0	--	Sample	=	252457	=	244711	26 - lb/d		=	390	=	401	19 - mg/L	2	01/01 - Daily	CP - COMPOS		
					Permit Req.		Req Mon MO AVG		Req Mon MX WK AV	26 - lb/d		<=	30 MO AVG	<=	45 MX WK AV	19 - mg/L		01/01 - Daily	CP - COMPOS		
					Value NODI																
00400	pH	1 - Effluent Gross	0	--	Sample					=	6.3				12 - SU	2	01/01 - Daily	GR - GRAB			
					Permit Req.					>=	6 MINIMUM			<=	9 MAXIMUM		12 - SU	01/01 - Daily	GR - GRAB		
					Value NODI																
X 00530	Solids, total suspended	E - Secondary/Biological Process Complete	0	--	Sample	=	145478	=	174630	26 - lb/d		=	220	=	268	19 - mg/L	2	01/01 - Daily	CP - COMPOS		
					Permit Req.		Req Mon MO AVG		Req Mon MX WK AV	26 - lb/d		<=	30 MO AVG	<=	45 MX WK AV	19 - mg/L		01/01 - Daily	CP - COMPOS		
					Value NODI																
00530	Solids, total suspended	G - Raw Sewage Influent	0	--	Sample	=	297965	=	289799	26 - lb/d		=	451	=	468	19 - mg/L	2	01/01 - Daily	CP - COMPOS		
					Permit Req.		Req Mon MO AVG		Req Mon MX WK AV	26 - lb/d		<=	30 MO AVG	<=	45 MX WK AV	19 - mg/L		01/01 - Daily	CP - COMPOS		
					Value NODI																
00610	Nitrogen, ammonia total [as N]	E - Secondary/Biological Process Complete	0	--	Sample	=	6563	=	7134	26 - lb/d		=	10.4	=	12.2	19 - mg/L	2	01/01 - Daily	CP - COMPOS		
					Permit Req.		Req Mon MO AVG		Req Mon MX WK AV	26 - lb/d		<=	20 MO AVG	<=	30 MX WK AV	19 - mg/L		01/01 - Daily	CP - COMPOS		
					Value NODI																
00610	Nitrogen, ammonia total [as N]	G - Raw Sewage Influent	0	--	Sample	=	8033	=	8498	26 - lb/d		=	12.5	=	14.2	19 - mg/L	2	01/01 - Daily	CP - COMPOS		
					Permit Req.		Req Mon MO AVG		Req Mon MX WK AV	26 - lb/d		<=	20 MO AVG	<=	30 MX WK AV	19 - mg/L		01/01 - Daily	CP - COMPOS		
					Value NODI																
50050	Flow, in conduit or thru treatment plant	E - Secondary/Biological Process Complete	0	--	Sample	=	76.58	=	105.21	03 - MGD							2	99/99 - Continuous	CN - CONTIN		
					Permit Req.		Req Mon MO AVG		Req Mon DAILY MX	03 - MGD								99/99 - Continuous	CN - CONTIN		
					Value NODI																
50060	Chlorine, total residual	1 - Effluent Gross	0	--	Sample									<	0.019	19 - mg/L	2	01/01 - Daily	GR - GRAB		
					Permit Req.											<=		.019 DAILY MX	19 - mg/L	01/01 - Daily	GR - GRAB
					Value NODI																
74055	Coliform, fecal general	1 - Effluent Gross	1	--	Sample							=	46	=	117	13 - #/100mL	2	01/01 - Daily	GR - GRAB		
					Permit Req.							<=	200 30DA GEO	<=	400 7 DA GEO	13 - #/100mL		01/01 - Daily	GR - GRAB		
					Value NODI																
X 81010	BOD, 5-day, percent removal	K - Percent Removal	0	--	Sample					=	78				23 - %	1	01/30 - Monthly	CA - CALCTD			
					Permit Req.					>=	85 MO MIN				23 - %		01/30 - Monthly	CA - CALCTD			
					Value NODI																
X 81011	Solids, suspended percent removal	K - Percent Removal	0	--	Sample					=	51				23 - %	1	01/30 - Monthly	CA - CALCTD			
					Permit Req.					>=	85 MO MIN				23 - %		01/30 - Monthly	CA - CALCTD			
					Value NODI																

Submission Note
 If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors						
Code	Parameter Name	Monitoring Location	Field	Type	Description	Acknowledge

00310	BOD, 5-day, 20 deg. C	E - Secondary/Biological Process Complete	Quality or Concentration Sample Value 2	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes
00310	BOD, 5-day, 20 deg. C	E - Secondary/Biological Process Complete	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes
81010	BOD, 5-day, percent removal	K - Percent Removal	Quality or Concentration Sample Value 1	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes
81011	Solids, suspended percent removal	K - Percent Removal	Quality or Concentration Sample Value 1	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes
00530	Solids, total suspended	E - Secondary/Biological Process Complete	Quality or Concentration Sample Value 3	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes
00530	Solids, total suspended	E - Secondary/Biological Process Complete	Quality or Concentration Sample Value 2	Soft	The provided sample value is outside the permit limit. (Error Code: 1)	Yes

Comments

Attachments

Name	Type	Size
MFWQTCoverletter102018.pdf	pdf	32229
October2018_OverflowReport_MorrisForman.pdf	pdf	99116
MF_MOR_10_2018.pdf	pdf	71761

Report Last Saved By

Morris Forman WQTC MSD

User: kessel@louisvillemsd.org
 Name: John Kessel
 E-Mail: kessel@louisvillemsd.org
 Date/Time: 2018-11-19 10:46 (Time Zone: -05:00)

Report Last Signed By

User: kessel@louisvillemsd.org
 Name: John Kessel
 E-Mail: kessel@louisvillemsd.org
 Date/Time: 2018-11-19 10:46 (Time Zone: -05:00)

DMR Copy of Record

Permit			
Permit #:	KY0022411	Permittee:	Morris Forman WQTC MSD
Major:	Yes	Permittee Address:	700 W Liberty St Louisville, KY 40203
Permitted Feature:	001 External Outfall	Discharge:	001-B SECONDARY BYPASS
Facility:		Facility Location:	MORRIS FORMAN WQTC MSD 4522 ALGONQUIN PKWY LOUISVILLE, KY 40211

Report Dates & Status			
Monitoring Period:	From 10/01/18 to 10/31/18	DMR Due Date:	11/28/18
Status:	NetDMR Validated		

Considerations for Form Completion
 MONITORING DURING PERIODS OF SECONDARY BYPASS IN ADDITION TO REGULAR MONITORING.1 - FINAL EFFLUENTF - SECONDARY BYPASS AFTER PRIMARYTREATMENT.

Principal Executive Officer			
First Name:	James A.	Title:	Executive Director
Last Name:	Parrott	Telephone:	502-540-6000

No Data Indicator (NODI)
 Form NODI: --

Code	Parameter Name	Monitoring Location	Season #	Param. NODI	Quantity or Loading					Quality or Concentration					# of Ex.	Frequency of Analysis	Sample Type
					Qualifier 1	Value 1	Qualifier 2	Value 2	Units	Qualifier 1	Value 1	Qualifier 2	Value 2	Qualifier 3			
00310	BOD, 5-day, 20 deg. C	1 - Effluent Gross	0	--	Sample						=	170	=	289	19 - mg/L	08/30 - Eight Every Month WH/DS - When Discharging	CP - COMPOS CP - COMPOS
					Permit Req.							Req Mon MO AVG		Req Mon MX WK AV	19 - mg/L		
					Value NODI												
00310	BOD, 5-day, 20 deg. C	F - Primary/Preliminary Process Complete	0	--	Sample						=	280	=	284	19 - mg/L	08/30 - Eight Every Month WH/DS - When Discharging	CP - COMPOS CP - COMPOS
					Permit Req.							Req Mon MO AVG		Req Mon MX WK AV	19 - mg/L		
					Value NODI												
00530	Solids, total suspended	1 - Effluent Gross	0	--	Sample						=	388	=	770	19 - mg/L	08/30 - Eight Every Month WH/DS - When Discharging	CP - COMPOS CP - COMPOS
					Permit Req.							Req Mon MO AVG		Req Mon MX WK AV	19 - mg/L		
					Value NODI												
00530	Solids, total suspended	F - Primary/Preliminary Process Complete	0	--	Sample						=	360	=	550	19 - mg/L	08/30 - Eight Every Month WH/DS - When Discharging	CP - COMPOS CP - COMPOS
					Permit Req.							Req Mon MO AVG		Req Mon MX WK AV	19 - mg/L		
					Value NODI												
00610	Nitrogen, ammonia total [as N]	1 - Effluent Gross	0	--	Sample						=	10.8	=	14.9	19 - mg/L	08/30 - Eight Every Month WH/DS - When Discharging	CP - COMPOS CP - COMPOS
					Permit Req.							Req Mon MO AVG		Req Mon MX WK AV	19 - mg/L		
					Value NODI												
00610	Nitrogen, ammonia total [as N]	F - Primary/Preliminary Process Complete	0	--	Sample						=	16.9	=	20.2	19 - mg/L	08/30 - Eight Every Month WH/DS - When Discharging	CP - COMPOS CP - COMPOS
					Permit Req.							Req Mon MO AVG		Req Mon MX WK AV	19 - mg/L		
					Value NODI												
50050	Flow, in conduit or thru treatment plant	F - Primary/Preliminary Process Complete	0	--	Sample	=	9.25	=	41.78	03 - MGD					08/30 - Eight Every Month WH/DS - When Discharging	CN - CONTIN CN - CONTIN	
					Permit Req.		Req Mon MO AVG		Req Mon MX WK AV	03 - MGD							
					Value NODI												

Submission Note
 If a parameter row does not contain any values for the Sample nor Effluent Trading, then none of the following fields will be submitted for that row: Units, Number of Excursions, Frequency of Analysis, and Sample Type.

Edit Check Errors
 No errors.

Comments

Attachments
 No attachments.

Report Last Saved By
Morris Forman WQTC MSD

User: kessel@louisvillemsd.org
 Name: John Kessel
 E-Mail: kessel@louisvillemsd.org
 Date/Time: 2018-11-19 10:46 (Time Zone: -05:00)

Report Last Signed By

User: kessel@louisvillemsd.org
 Name: John Kessel
 E-Mail: kessel@louisvillemsd.org
 Date/Time: 2018-11-19 10:46 (Time Zone: -05:00)

Report Selections: Period: 10/01/2018 00:00 thru 10/31/2018 23:59, treatment Plant: MSD0278 MORRIS FORMAN, Excluding PPI Excluding CSO Excluding LAT, Result: WUS, Act Code: DISDW, DISREV

KPDES #	Facility ID	Water Quality Treatment Center	Receiving Stream of Treatment Center	Region
KY0022411	MSD0278	MORRIS FORMAN	OHIO RIVER	WEST

Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SMH Sewer Manhole	CSO166	2201 CROSS HILL RD		MIDDLE FORK BEARGRASS CREEK	STREAM

Activity Code / Description	WO #	Ref No	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
: DISDW: DRY WEATHER DISCHARGE	2994503		10/08/2018	BROWN	MITCHELL	REPAIRED - ISSUE RESOLVED	10/08/2018	OBSTRUCTION-N OT GREASE / ROOTS	UNAUTHORIZED DISCHAGE - WATERS	10/08/18 08:15 PM	

Discharge Reporting:

Discharge Amount:	10,000 GAL
Cause:	OBSTRUCTION.
Clean Up:	NONE REQUIRED. DISCHARGED INTO THE CREEK.
Control Zone:	CONTROL ZONE WAS NOT ESTABLISHED. THE PIPE DISCHARGES DIRECTLY TO CREEK.
Impact:	NONE OBSERVED. OVERFLOW NOTIFICATION RECEIVED FROM REMOTE DISCHARGE ALARM.
Repair:	NONE.
Public Notification:	PUBLIC NOTIFIED THROUGH PERMANENT OVERFLOW ADVISORY SIGNS POSTED ALONG THE CREEK, TO AVOID DIRECT CONTACT WITH DISCHARGED CONTENT.

Notifications:

10/9/18 1:00 pm	DISNOT	EMAIL NOTIFICATION OF UNAUTHORIZED DISCHARGE SENT TO:DISCHARGENOTICES@LOUISVILLEMSD.ORG, SAYRE.DENNIS@EPAMAIL.EPA.GOV
10/9/18 1:00 pm	DISSNO	WAITING TO COMPLETE THE DISCHARGE INFORMATION

Report Selections: Period: 10/01/2018 00:00 thru 10/31/2018 23:59, treatment Plant: MSD0278 MORRIS FORMAN, Excluding PPI Excluding CSO Excluding LAT, Result: WUS, Act Code: DISDW, DISREV

KPDES #	Facility ID	Water Quality Treatment Center	Receiving Stream of Treatment Center	Region
KY0022411	MSD0278	MORRIS FORMAN	OHIO RIVER	WEST

Facility Type	Facility ID	Facility Address	If Pump Station, Name of Pump Station:	Receiving Stream	Discharge to
SMH Sewer Manhole	CSO197	1218 S 3RD ST		OHIO RIVER	STREAM

Activity Code / Description	WO #	Ref No	Initiated	Initiated By	Assigned To	Disch Status	Event Date	Problem	Result	Completed	Condition
: DISDW: DRY WEATHER DISCHARGE	2991573		10/03/2018	BROWN	MITCHELL	REPAIRED - ISSUE RESOLVED	10/03/2018	OBSTRUCTION-N OT GREASE / ROOTS	UNAUTHORIZED DISCHAGE - WATERS	10/03/18 12:38 PM	

Discharge Reporting:

Discharge Amount:	137 GAL
Cause:	OBSTRUCTION.
Clean Up:	NO CLEAN UP PERFORMED. PIPE DISCHARGING TO CENTRAL RELIEF DRAIN.
Control Zone:	NO CONTROL ZONE SET UP. PIPE DISCHARGING TO CENTRAL RELIEF DRAIN.
Impact:	SEWAGE DISCHARGING THROUGH OVERFLOW PIPE TO CRD.
Repair:	FLUSH & ROOT CUT HEAVY SEDIMENT AND BRICKS IN THE LINE.
Public Notification:	PUBLIC NOTIFICATION THROUGH PERMANENT OVERFLOW ADVISORY SIGNS POSTED ALONG THE OUTFALL POINT.

Notifications:

10/3/18 1:00 pm	DISNOT	EMAIL NOTIFICATION OF UNAUTHORIZED DISCHARGE SENT TO:DISCHARGENOTICES@LOUISVILLEMSD.ORG, SAYRE.DENNIS@EPAMAIL.EPA.GOV
10/3/18 1:00 pm	DISSNO	WAITING TO COMPLETE THE DISCHARGE INFORMATION

Total Facilities Printed: 2

Total Work Orders Printed: 2

Format: Month/Day/Year
 Enter Start Date : 10/1/18

MORRIS FORMAN WATER QUALITY TREATMENT CENTER JEFFERSON COUNTY, KENTUCKY October-18
 KPDES PERMIT NO. KY0022411 PLANT CAPACITY - 120 MGD RECEIVING STREAM-OHIO RIVER

DATE	WASTEWATER FLOWS (Million Gallons)			TEMP (DEGF)		pH		SETS (M/L)		TSS (mg/L)		5-DAY BOD (mg/L)			RETURN SLUDGE			AERATION BASIN					ACTIVE		CHLORINATION			FINAL EFFLUENT	
	Final	Sec.	Bypass	raw	final	raw	final	raw	final	raw	final	raw	final	prim.	FLOW	TSS	TVSS	D.O	MLSS	MLVSS	SET	SVI	Sludge Wasted	Primary Sludge	Chlorine Dosage	Resid	Fecal Coliform	NH3-N	Pump.
	Effluent	Effluent												final	MG	g/L	g/L	mg/L	g/L	g/L			MG	MG	KLBS	mg/L	#/100 ml	mg/L	Hours
10/1/18	87.79	87.79	0.00	75	75	7.0	6.5	16.8	0.8	395	73	287	199	32	25.1	22.2	17.4	8.1	4.8	3.8	246	52	1.37	0.18	2.65	0.016	48	7	24.0
10/2/18	86.38	86.38	0.00	77	77	7.0	6.5	15.1	3.4	412	186	393	246	79	25.2	21.1	16.5	2.9	5.5	4.3	281	50	1.37	0.11	3.71	0.016	19	8	24.0
10/3/18	82.85	82.85	0.00	76	76	7.0	6.6	10.8	4.5	415	226	326	244	89	25.4	22.5	17.8	3.1	4.7	4.0	310	66	1.35	0.19	3.48	0.016	295	9	24.0
10/4/18	81.35	81.35	0.00	79	79	6.9	6.4	11.9	2.1	365	136	257	181	76	26.0	22.1	17.8	2.1	9.8	8.1	284	31	1.35	0.26	4.16	0.016	5	10	14.2
10/5/18	81.50	81.50	0.00	77	77	7.1	6.6	16.0	3.2	492	164	400	281	62	25.8	22.0	17.6	2.8	6.0	4.8	320	53	1.37	0.23	4.44	0.016	104	11	0.0
10/6/18	73.00	73.00	0.00	79	79	7.2	6.6	15.4	4.4	440	202	448	333	87	25.8	23.0	18.3	3.6	5.8	4.6	357	61	1.36	0.21	4.45	0.016	1240	9	0.0
10/7/18	69.39	69.39	0.00	80	80	7.1	6.5	18.0	1.0	503	119	476	307	54	25.6	24.7	19.7	2.3	6.0	4.9	346	57	1.37	0.24	4.21	0.016	1750	7	0.0
10/8/18	71.72	71.72	0.00	78	78	6.8	6.5	18.1	2.7	544	184	325	283	103	25.8	23.7	19.1	3.6	6.1	4.9	376	61	1.37	0.26	4.14	0.016	23	10	0.0
10/9/18	73.84	73.84	0.00	78	78	6.6	6.6	10.0	4.0	392	193	385	319	108	25.9	21.6	17.4	3.5	5.3	4.3	351	67	1.35	0.13	3.80	0.016	16	10	0.0
10/10/18	96.82	87.90	8.92	79	79	6.7	6.6	10.0	18.0	432	468	359	298	194	25.7	20.5	16.7	1.4	5.2	4.4	332	65	1.37	0.13	4.29	0.016	10	10	0.0
10/11/18	73.37	73.37	0.00	77	77	6.6	6.5	19.0	0.4	376	82	376	156	40	25.6	21.6	17.6	3.6	3.8	3.1	276	73	1.37	0.28	4.09	0.016	29	8	0.0
10/12/18	67.15	67.15	0.00	72	72	7.2	6.7	13.0	1.7	396	118	498	295	62	25.5	22.7	18.3	6.1	7.8	6.3	341	35	1.41	0.31	2.97	0.016	48	12	0.0
10/13/18	74.76	73.15	1.61	68	68	7.1	6.5	13.9	10.1	752	337	398	205	142	25.3	22.1	17.9	9.9	9.4	7.7	331	35	1.43	0.23	3.46	0.016	410	11	0.0
10/14/18	92.95	91.18	1.77	68	68	6.8	6.6	15.0	4.0	248	190	268	256	102	25.4	20.6	16.9	15.1	8.9	7.3	303	34	1.44	0.13	4.44	0.016	10	8	0.0
10/15/18	105.71	97.75	7.96	72	72	6.6	6.6	13.0	15.0	377	372	376	301	182	25.4	21.1	17.1	12.5	5.1	4.1	270	53	1.43	0.16	4.58	0.016	60	8	0.0
10/16/18	77.01	77.01	0.00	64	64	6.7	6.8	15.0	1.0	353	102	383	248	65	25.4	21.1	17.0	10.5	4.7	3.9	283	59	1.40	0.29	2.79	0.016	5	9	0.0
10/17/18	69.39	69.39	0.00	70	70	6.7	6.7	11.0	2.5	346	163	343	269	71	25.4	20.5	16.5	6.4	5.3	4.2	321	60	1.44	0.29	3.02	0.016	4	10	0.0
10/18/18	66.02	66.02	0.00	69	69	6.8	6.4	20.0	0.9	536	62	468	288	33	25.5	21.4	17.5	4.2	5.5	4.5	350	63	1.41	0.19	2.93	0.016	3	11	0.0
10/19/18	70.55	69.57	0.98	69	69	7.0	6.4	19.5	3.5	464	196	423	336	86	25.3	20.7	17.2	5.9	6.1	5.1	404	65	1.43	0.19	3.65	0.016	32	12	0.0
10/20/18	73.47	72.35	1.12	69	69	7.1	6.6	18.5	4.0	444	237	353	215	92	25.7	22.4	18.2	4.1	11.7	9.5	294	25	1.44	0.14	4.52	0.016	17	9	0.0
10/21/18	59.38	59.38	0.00	69	69	6.7	6.3	11.0	0.2	400	64	358	290	28	25.7	22.2	18.2	7.0	2.2	1.8	376	169	1.44	0.19	2.41	0.016	529	10	0.0
10/22/18	64.48	64.48	0.00	67	67	6.8	6.6	18.0	6.5	552	260	343	289	101	25.3	21.3	17.2	5.9	10.0	8.3	386	38	1.44	0.24	2.42	0.016	5	14	0.0
10/23/18	64.21	64.21	0.00	71	71	6.7	6.6	12.0	26.0	444	680	424	321	188	22.3	21.1	17.3	4.3	4.6	3.9	289	62	1.52	0.38	5.27	0.016	160	15	0.0
10/24/18	61.32	61.32	0.00	64	64	6.8	6.4	14.0	10.0	460	372	494	349	159	21.0	22.7	18.3	3.7	4.6	3.8	255	55	1.49	0.26	3.21	0.016	850	15	0.0
10/25/18	63.60	63.60	0.00	66	66	7.0	6.4	15.0	6.5	452	287	483	318	112	21.0	22.7	18.7	4.1	7.0	5.9	273	39	1.44	0.34	3.43	0.016	200	15	0.0
10/26/18	96.75	86.91	9.84	69	69	6.9	6.3	16.0	28.0	355	770	363	284	286	21.0	18.4	15.1	10.8	4.6	3.8	252	55	1.43	0.33	6.15	0.016	6100	15	0.0
10/27/18	82.29	82.29	0.00	67	67	7.2	6.4	14.0	0.8	516	115	368	175	51	21.0	23.9	19.7	10.8	8.2	6.8	187	23	1.44	0.30	3.45	0.016	25	8	0.0
10/28/18	79.16	79.16	0.00	69	69	7.0	6.4	8.4	0.1	500	28	334	297	21	21.0	22.5	18.9	6.3	7.7	6.4	202	27	1.44	0.21	2.60	0.016	2	7	0.0
10/29/18	77.66	77.66	0.00	69	69	7.0	6.4	13.8	1.4	467	168	522	332	87	21.1	23.5	19.7	7.6	4.5	3.7	224	50	1.44	0.14	2.99	0.016	2	9	0.0
10/30/18	77.13	77.13	0.00	68	68	6.9	6.3	16.5	7.6	520	356	548	366	188	22.4	24.4	20.3	8.6	5.0	4.1	240	48	1.41	0.22	4.05	0.016	27	16	0.0
10/31/18	146.99	105.21	41.78	64	64	6.8	6.5	11.4	17.1	636	532	305	345	272	25.2	17.9	15.1	10.7	3.6	3.0	198	44	1.36	0.29	8.22	0.016	240	12	0.0
Sum	2448.0	2374.0	74.0												757.8								43.7	7.1					86.2
Average	79.0	76.6	9.2	71.6	71.6	6.9	6.5	14.5	6.2	451.1	240.1	389.8	278.3	104.9	24.4	21.9	17.8	6.2	6.1	5.0	298.6	54.0	1.4	0.2	3.9	0.016	46.0	10.4	

SEWER CONNECTIONS 147853 TIMES 4 = 591412 SEWER POPULATION

380

149265
 886183
 774824

Authorized Agent

Certification No. 26893