

Lower Mahanoy Township Municipal Authority

132 River Rd
Dalmatia, PA 17017

February 28, 2019

PA DEP
Water Management Program
208 West Third Street, Suite 101
Williamsport, PA 17701-6448

Re: Lower Mahanoy Township Municipal Authority 2018 Waste Load Management Report

Dear Amy Gesh:

We are submitting (2) copies of our Municipal Waste Load Management Report for 2018. If you have any questions or require any additional information, please contact me at 570-274-0554 between 8:00 AM And 3:00 PM Monday thru Friday.

Sincerely,



RICKY SPOTTS, Plant Operator
Lower Mahanoy Township Municipal Authority



Cc: Engineering
Lmtma file

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CHAPTER 94 MUNICIPAL WASTELOAD MANAGEMENT ANNUAL REPORT

For Calendar Year: 2018

- ☒ Permittee is owner and/or operator of a POTW or other sewage treatment facility
☐ Permittee is owner and/or operator of a collection system tributary to a POTW not owned/operated by permittee

GENERAL INFORMATION

Permittee Name:	Lower Mahanoy Township Municipal Authority	Permit No.:	PA 0228231
Mailing Address:	132 River Road	Effective Date:	08-01-2017
City, State, Zip:	Dalmatia, Pa 17017	Expiration Date:	07-01-2022
Contact Person:	Ricky Spotts	Renewal Due Date:	02-01-2022
Title:	Operator	Municipality:	Lower Mahanoy Twp.
Phone:	5708476991	County:	Northumberland
Email:	RSPOTTS.LMTMA@GMAIL.COM	Consultant Name:	

CHAPTER 94 REPORT COMPONENTS

1. Attach to this report a line graph depicting the monthly average flows (expressed in MGD) for each month for the past 5 years and projecting the flows for the next 5 years. The graph must also include a line depicting the hydraulic design capacity per the WQM permit. (25 Pa. Code § 94.12(a)(1))

Check the appropriate boxes:

- ☒ Line graph for flows attached (**Attachment #1**)
☒ DEP Chapter 94 Spreadsheet used (**Attachment**)
☐ Section 1 is not applicable (report is for a collection system).

2. Attach to this report a line graph depicting the monthly average organic loads (express as lbs BOD5/day) for each month for the past 5 years and projecting the organic loads for the next 5 years. The graph must also include a line depicting the organic design capacity of the treatment plant per the WQM permit. (25 Pa. Code § 94.12(a)(2))

Check the appropriate boxes:

- ☒ Line graph for organic loads attached (**Attachment #1**)
☒ DEP Chapter 94 Spreadsheet used (**Attachment**)
☐ Section 2 is not applicable (report is for a collection system).

If the DEP Chapter 94 Spreadsheet was not used to determine projections, discuss the basis for the hydraulic and organic projections. In all cases, include a description of the time needed to expand the plant to meet the load projections, if necessary, and data used to support the projections should be included in an appendix to this report. (25 Pa. Code § 94.12(a)(3))

4. Attach a map showing all sewer extensions constructed within the past calendar year, sewer extensions approved or exempted in the past year in accordance with Act 537 and Chapter 71, but not yet constructed, and all known proposed projects which require public sewers but are in the preliminary planning stages. The map must be accompanied by a list summarizing each extension or project and the population to be served by the extension or project. If a sewer extension approval or proposed project includes schedules describing how the project will be completed over time, the listing should include that information and the effect this build-out-rate will have on populations served. (25 Pa. Code § 94.12(a)(4))

Check the appropriate boxes:

- ☐ Map showing sewer extensions constructed, approved/exempted but not yet constructed, and proposed projects attached (**Attachment**)
- ☐ List summarizing each extension or project attached (**Attachment**)
- ☐ Schedules describing how each project will be completed over time and effects attached (**Attachment**)

Comments:

5. Discuss the permittee's program for sewer system monitoring, maintenance, repair and rehabilitation, including routine and special activities, personnel and equipment used, sampling frequency, quality assurance, data analyses, infiltration/inflow monitoring, and, where applicable, maintenance and control of combined sewer regulators during the past year. Attach a separate sheet if necessary. (25 Pa. Code § 94.12(a)(5))

The Municipal Authority employs One Full Time licensed operator, Two Part-time employee to operate and maintain the treatment plant. The Operator and employees routinely monitor flow, BOD5, total Suspended solids, fecal coliform, ph, and dissolved oxygen to comply with DEP and NPDES permit requirements. In Order to comply with DEP's requirements, the operator is studying and taking classes to meet the current contact hours needed to maintain their license to operate the treatment plant owned by the Municipal Authority.

6. Discuss the condition of the sewer system including portions of the system where conveyance capacity is being exceeded or will be exceeded in the next 5 years and portions where rehabilitation or cleaning is needed or is underway to maintain the integrity of the system and prevent or eliminate bypassing, CSOs, SSOs, excessive infiltration and other system problems. Attach a separate sheet if necessary. (25 Pa. Code § 94.12(a)(6))

Check the appropriate boxes:

- ☐ System experienced capacity-related bypassing, SSOs or surcharging during the report year. On a separate sheet, list the date, location, and reason for each bypass, SSO or surcharge event.
- ☒ System did not experience capacity-related bypassing, SSOs or surcharging during the report year.

Comments:

7. Attach a discussion on the condition of sewage pumping (pump) stations. Include a comparison of the maximum pumping rate with present maximum flows and the projected 2-year maximum flows for each station. (25 Pa. Code § 94.12(a)(7))

Check the appropriate boxes:

- ☐ The collection system does not contain pump stations
- ☒ The collection system does contain pump stations (Number – 2)
- ☒ Discussion of condition of each pump station attached (**Attachment 3**)

8. If the sewage collection system receives industrial wastes (i.e., non-sanitary wastes), attach a report with the information listed below. (25 Pa. Code § 94.12(a)(8))

- a. A copy of any ordinance or regulation governing industrial waste discharges to the sewer system or a copy of amendments adopted since the initial submission of the ordinance or regulation under Chapter 94, if it has not previously been submitted.
- b. A discussion of the permittee's or municipality's program for surveillance and monitoring of industrial waste discharges into the sewer system during the past year.
- c. A discussion of specific problems in the sewer system or at the plant, known or suspected to be caused by industrial waste discharges and a summary of the steps being taken to alleviate or eliminate the problems. The discussion shall include a list of industries known to be discharging wastes which create problems in the plant or in the sewer system and action taken to eliminate the problem or prevent its recurrence. The report may describe pollution prevention techniques in the summary of steps taken to alleviate current problems caused by industrial waste dischargers and in actions taken to eliminate or prevent potential or recurring problems caused by industrial waste dischargers.

Check the appropriate boxes:

- ☐ Industrial waste report as described in 8 a., b. and c. attached (**Attachment**)
- ☐ Industrial pretreatment report as required in an NPDES permit attached (**Attachment**)

9. Existing or Projected Overload.

Check the appropriate boxes:

- ☐ This report demonstrates an existing hydraulic overload condition.
☐ This report demonstrates a projected hydraulic overload condition.
☐ This report demonstrates an existing organic overload condition.
☐ This report demonstrates a projected organic overload condition.

If one or more boxes above have been checked, attach a Corrective Action Plan (CAP) to reduce or eliminate present or projected overloaded conditions under §§ 94.21 and/or 94.22 (relating to existing overload and projected overload). (25 Pa. Code § 94.12(a)(9))

☐ Corrective Action Plan attached (**Attachment**)

10. Where required by the NPDES permit, attach a Sewage Sludge Management inventory that demonstrates a mass balance of solids coming in and leaving the facility over the previous calendar year.

☒ Sewage Sludge Management Inventory attached (**Attachment 3**)

11. For facilities with CSOs and where required by the NPDES permit, attach an Annual CSO Report (including satellite combined sewer systems).

☐ Annual CSO Report attached (**Attachment**)

12. For POTWs, attach a calibration report documenting that flow measuring, indicating and recording equipment has been calibrated annually. (25 Pa. Code § 94.13(b))

☒ Flow calibration report attached (**Attachment 4**)

RESPONSIBLE OFFICIAL CERTIFICATION

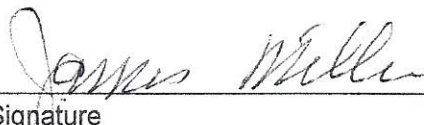
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage 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 knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

James Miller

Name of Responsible Official

570-758-3615

Telephone No.



Signature

2-20-19

Date

PREPARER CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared by me or otherwise under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. 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 knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Ricky Spotts

Name of Preparer

Signature

570-847-6991

Telephone No.

Date

**PADEP Chapter 94 Spreadsheet
Sewage Treatment Plants**

Reporting Year: 2018

Facility Name: Lower Mahanoy Township Municipal Authority

Permit No.: PA0228231

Persons/EDU: 3.5

Existing Hydraulic Design Capacity:

Upgrade Planned in Next 5 Years?

Future Hydraulic Design Capacity:

0.125	MGD
NO	Year: 2018
	MGD

Existing Organic Design Capacity:

Upgrade Planned in Next 5 Years?

Future Organic Design Capacity:

171	lbs BOD5/day
NO	Year: 2018
	lbs BOD5/day

Monthly Average Flows for Past Five Years (MGD)

Month	2014	2015	2016	2017	2018
January	0.034	0.033	0.032	0.035	0.038
February	0.03	0.036	0.041	0.035	0.052
March	0.027	0.035	0.033	0.036	0.045
April	0.034	0.034	0.029	0.04	0.04
May	0.03	0.031	0.031	0.035	0.039
June	0.028	0.031	0.029	0.03	0.034
July	0.028	0.03	0.028	0.037	0.041
August	0.027	0.03	0.028	0.033	0.038
September	0.029	0.03	0.026	0.03	0.041
October	0.028	0.029	0.027	0.03	0.039
November	0.031	0.03	0.03	0.0345	0.049
December	0.037	0.029	0.032	0.032	0.047

Monthly Average BOD5 Loads for Past Five Years (lbs/day)

Month	2014	2015	2016	2017	2018
January	41	63	56	81	97
February	46	75	76	60	57
March	46	55	108	49	65
April	52	73	60	40	65
May	121	53	42	59	7
June	49	64	50	36	45
July	34	48	68	76	38
August	83	68	36	33	27
September	40	77	69	55	40
October	32	91	68	35	51
November	51	46	54	50	44
December	68	134	58	95	139

Annual Avg	0.03	0.032	0.031	0.034	0.042
Max 3-Mo Avg	0.032	0.035	0.035	0.037	0.046
Max : Avg Ratio	1.07	1.09	1.13	1.09	1.10
Existing EDUs	234.0	235.0	236.0	236.0	236.0
Flow/EDU (GPD)	128.2	136.2	131.4	144.1	178.0
Flow/Capita (GPD)	36.6	38.9	37.5	41.2	50.8
Exist. Overload?	NO	NO	NO	NO	NO

Annual Avg	55	71	62	56	56
Max Mo Avg	121	134	108	95	139
Max : Avg Ratio	2.19	1.90	1.74	1.70	2.47
Existing EDUs	234	235	236	236	236
Load/EDU	0.236	0.300	0.263	0.236	0.238
Load/Capita	0.067	0.086	0.075	0.067	0.068
Exist. Overload?	NO	NO	NO	NO	NO

Projected Flows for Next Five Years (MGD)

	2019	2020	2021	2022	2023
New EDUs	1.0	1.0	1.0	1.0	1.0
New EDU Flow	0.0001	0.0001	0.0001	0.0001	0.0001
Proj. Annual Avg	0.0339	0.034	0.0341	0.0342	0.0343
Proj. Max 3-Mo Avg	0.0371	0.0372	0.0373	0.0374	0.0375
Proj. Overload?	NO	NO	NO	NO	NO

Projected BOD5 Loads for Next Five Years (lbs/day)

	2019	2020	2021	2022	2023
New EDUs	1	1	1	1	1
New EDU Load	0.255	0.255	0.255	0.255	0.255
Proj. Annual Avg	60	60	61	61	61
Proj. Max Avg	121	121	122	122	123
Proj. Overload?	NO	NO	NO	NO	NO

Total Monthly Precipitation for Past Five Years (Inches)

Month	2014	2015	2016	2017	2018
January				6.0	5.0
February				2.0	5.0
March				9.0	3.0
April				4.0	10.0
May				5.0	7.0
June				4.0	14.0
July				13.0	13.0
August				5.0	3.0
September				2.0	6.0
October				6.0	5.0
November				5.0	8.0
December				5.0	5.0

Pumping Stations Condition:

There is one submersible pump station within the collection system which operates a maximum of 15 minutes per day per pump and with no expansion planned in the next two years we have approx. 1425 minutes of pumping time for any increase in flow, also this station is rated at 45 gpm and the Board has approved a complete rebuild of the stations pumps and control panel including an omni site auto dialer for alarms and level control.

Located at the treatment plant is a suction/lift pumping station which operates a maximum of 120 minutes per day per pump and there is no large increase in flow anticipated so the pumping station has more capacity than our permit allows, also this station is rated at 250 gpm. These pumping stations were placed into operation in May 2002.

The pumps have been in operation for 16 years.

SEWAGE SLUDGE MANAGEMENT INVENTORY

We produced 75,600 gals. or 5.36 dry tons & hauled 75,600 gals. or 5.36 dry tons off site. We store 30,000 gals. or 2.1 dry tons in digester on average all year.

WG Malden

P.O. BOX 196, EAST EARL, PA 17519
PHONE: (717) 768-0800 FAX: (717) 768-0802

*** SERVICE REPORT ***

LOWER MAHANoy TOWNSHIP
132 RIVER ROAD
DALMATIA, PA 17017

SERVICE DATE: DECEMBER 19, 2018 SERVICE CONTRACT: ANNUAL (A12)
LOCATION: EFFLUENT METER
METER #: C8114 AA

PRIMARY: WEIR V-NOTCH 30°
MAXIMUM CAPACITY: 500 GPM
METER: SIEMENS
RECORDER: PARTLOW

MODEL #: SITRANS LUT400
MODEL #: MRC 5000

SERIAL #: PBD/E3140213
SERIAL #: 891870-0001

*** WORK PERFORMED ***

METER CALIBRATION ERROR: -0.10 INCHES TOLERANCE: ± 0.125 INCHES
METHOD: LEVEL MEASUREMENTS AND FLOW CHECKS

RECORDER CALIBRATION ERROR: 0%, 0%, 0% TOLERANCE: $\pm 1\%$
CHECKED AT: 0%, 50%, 100%

TOTALIZER CALIBRATION ERROR: 0% TOLERANCE: $\pm 1.000\%$
CHECKED AT: 0%, 50%, 100%

*** TECHNICIAN COMMENTS ***

PERFORMED ANNUAL CALIBRATION
CLEANED PRIMARY
ADJUSTED EQUIPMENT
VERIFIED TOTALIZER (PASSED)
TESTED 4-20MA LOOP
LEFT EQUIPMENT OPERATING PROPERLY

SERVICE REPRESENTATIVE(S): DENNIS WEIDNER