

**Municipal Sanitary Authority of
The City of New Kensington
Westmoreland County, Pennsylvania**

**2017 Sewage System
Annual Report and
2018 Operating Budget**

December 2017

Submitting Office:

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FIGURES

Figure 1 – Wastewater Flow Schematic

Figure 2 – Service Area Map

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Appendix A – 12-Month Performance Summary

1.0 INTRODUCTION

1.1 Introduction

This Sewage System Annual Report has been prepared in accordance with the authorization given to Mott MacDonald by the Municipal Sanitary Authority of the City of New Kensington (MSANK) in accordance with Section 5.12 of the Trust Indenture between MSANK and The Bank of New York Mellon Trust Company, as Trustee, which requires that the Consulting Engineer shall file with the Trustee, and MSANK, a report setting forth the following:

- A. Their estimate as to the aggregate amount of the rents, rates and charges, connection charges, assessment proceeds, service fees and other amounts, governmental general contributions, and other receipts and revenues which MSANK will receive during the ensuing fiscal year from the operation of the Sewer System.
- B. Their estimate as to the operating expenses of the Sewer System for the ensuing fiscal year.
- C. The MSANK administration expense for the ensuing fiscal year.
- D. The amount of the debt service and cover for the ensuing fiscal year.
- E. The sum of the amounts set forth in the report pursuant to subparagraphs (B) and (D) above.
- F. The excess, if any, of the amount set forth in the report pursuant to subparagraph (E) above over the amount set forth in the report pursuant to subparagraph (A) above, with a statement as to whether there will be compliance by MSANK based upon their estimates of the appropriate provisions of the Indenture.
- G. Their report as to compliance by MSANK with its obligations concerning insurance and his advice and recommendations as to the MSANK's future obligations hereunder.

- H. Their findings as to whether the Sewer System has been maintained in good repair and sound operation condition and a statement of the repairs and maintenance, if any, which are necessary or advisable during the ensuing fiscal year to preserve, develop, or improve the Sewer System or to maintain adequate service to the public.
- I. Their estimate as to reasonable provision for present and future capital expenditures by MSANK.

1.2 Municipal Sanitary Authority of the City of New Kensington Sewage System Description

The Municipal Sanitary Authority of the City of New Kensington Sewage System is comprised of one (1) sewage treatment plant, three (3) sewage pumping stations, collector sewers, conveyance sewers, six (6) combined sewer overflows and associated sewer appurtenances. This sewage system serves the Cities of New Kensington, Arnold, and Lower Burrell and a small area of Plum Borough. Pertinent information about MSANK and its sewage system is provided on the following pages.

A. Water Pollution Control Plant

This facility is operated under National Pollutant Discharge Elimination System (NPDES) Permit No. PA0027111, which became effective July 1, 2017 and will expire on June 30, 2022. The plant is located on Logans Ferry Road in the City of New Kensington. The treatment plant is an aerobic biological treatment facility with grit removal, primary clarification, activated sludge, secondary clarification, chlorine disinfection, sludge thickening, anaerobic biological sludge stabilization, and sludge dewatering. A flow schematic of the system is included at the end of this section and noted as Figure 1.

B. Sewage Pumping Stations

There are three (3) sewage pumping stations that MSANK operates and maintains: 1) Valley Camp, which has capacity of 432,000 gallons per day; 2) Linden Avenue, which has capacity of 1,152,000 gallons per day; and 3) Days Inn which has a capacity of 403,200 gallons per day.

C. Sewer System

The MSANK sanitary sewer conveyance and collection system consists of approximately 63.20 miles of combination and separate sanitary sewer lines ranging in size from 8-inches to 48-inches in diameter, six (6) combined sewer overflows, and three (3) sewage pump stations in the City of New Kensington. The service area also includes the City of Arnold which has 15 miles of combined sanitary sewer lines ranging in size from 8-inches to 18-inches in diameter with two (2) combined sewer overflows and one pump station; the City of Lower Burrell which has 70.3 miles of separate collector and trunk sewers from 8-inches to 24-inches in diameter and twelve sewage pump stations; and, a small area of Plum Borough with five miles of separate collector sewers from 8-inches to 10-inches in diameter. The MSANK service area is shown on Figure 2 at the end of this section.

D. Board Members and Management Staff

The New Kensington Municipal Sanitary Authority is comprised of the following Board Members:

<u>Board Member</u>	<u>Title</u>	<u>Service Began</u>	<u>Term Expires</u>
George Adda	Chairman	2013	2017
Daniel D. Felack	Vice Chairman	2006	2020
Gary Astor	Secretary	2010	2019
Phillip Toney	Treasurer	2014	2018
Delbert J. Brown	Asst. Secretary/Treasurer	1997	2017

The management and advisory staff is comprised of the following:

<u>Title</u>	<u>Advisory Staff</u>	<u>Service Began</u>
Manager:	Daniel H. Rowe, Jr.	1994
Pretreatment Coordinator:	Joseph F. Ditty	1984
Solicitor:	Larry D. Loperfito, Esq.	2014
Consulting Engineer:	Mott MacDonald	1996
Auditor:	Mark Turnley CPA	2009
Bond Counsel:	Lynch and Lynch, Esquires	1999
Trustee:	Bank of New York Mellon Trust Co., N.A.	2002

1.3 Review of Major MSANK Activities in 2017

Management reports that during 2017 MSANK undertook several noteworthy activities which are itemized below:

A. Wastewater Treatment Plant

- MSANK employees replaced the chain, flight and gears on the #2 Bar Screen.
- MSANK employees drained and cleaned both chlorine contact tanks.
- MSANK employees drained, cleaned and repaired the chains, flights, and wear shoes in all four primary settling tanks.
- MSANK employees completely rebuilt the #1 primary drive.
- MSANK employees performed all excavation and other related activities in the investigation into the problem with the portable water supply line to the new office and lab/garage building.
- MSANK employees cleaned the main influent channel in the plant pump station several times.

- MSANK employees installed a new drive drum on the new belt filter press conveyor belt.
- MSANK employees drained and cleaned both head cells in the grit removal building.
- MSANK employees excavated and installed four runs of conduit to the new gas flare.
- MSANK employees relocated the grit line in the grit removal building to prevent excess grit from escaping to the primary settling tanks.
- MSANK employees installed a new digester recirculation pump.
- MSANK employees installed a new Auma actuator valve on primary #2.
- MSANK employees installed a new hot water tank in the primary building.
- MSANK employees repaired a digester gas leak on the #3 digester roof.
- MSANK employees greased the rollers and collars on the #3 floating digester roof.
- MSANK employees replaced the sprayer line and pump on the #2 secondary clarifier.
- MSANK employees installed new belts on the belt filter press.
- MSANK employees installed a new hydraulic tank-up cylinder on the belt filter press.
- MSANK employees rotated the conveyor belt supports and installed new wear plates on the #1 grit snail.
- MSANK employees replaced the drive motor and coupler on the #1 primary.

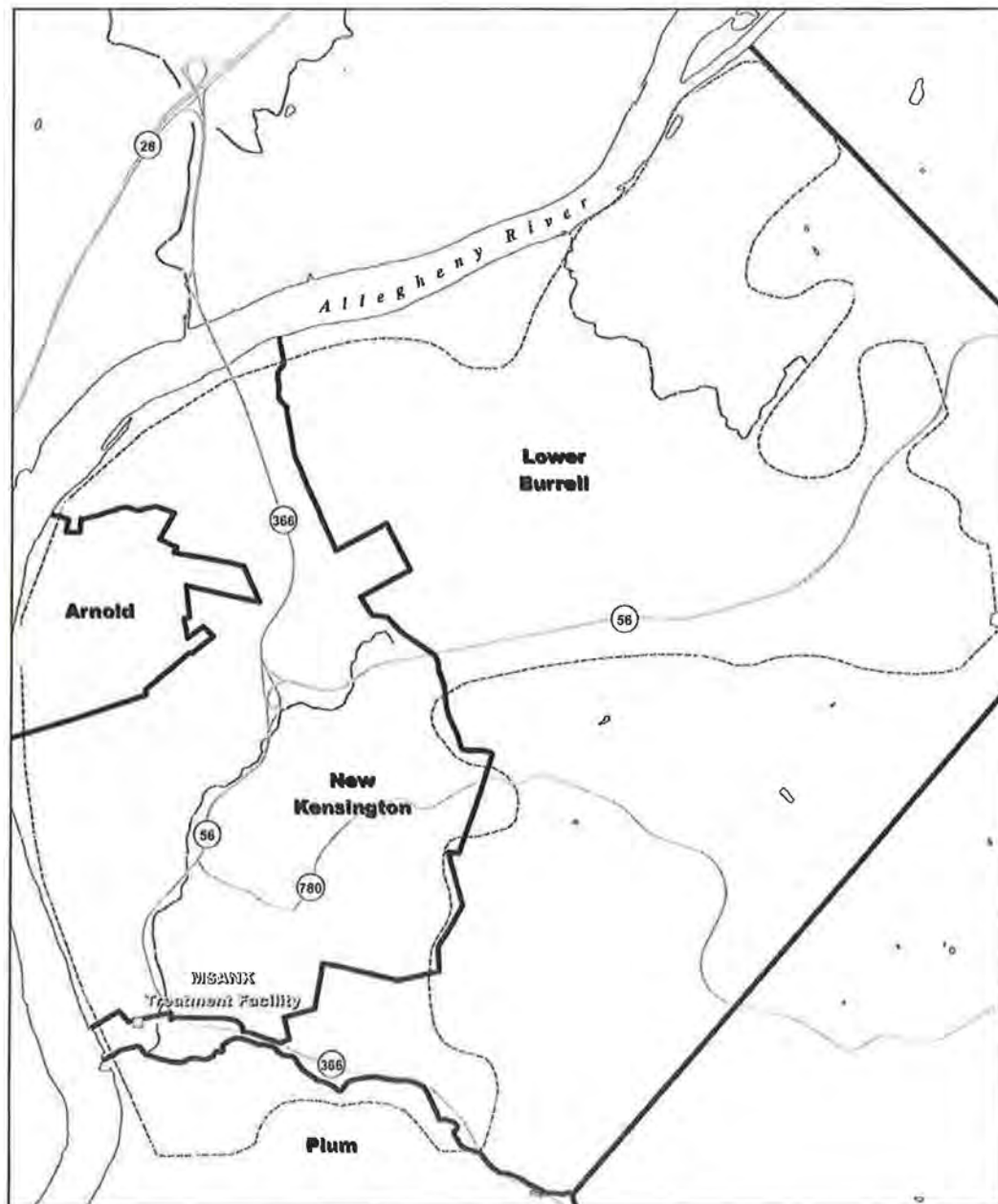
- MSANK employees repaired and replaced the solenoid valve on the thickening unit.

B. Wastewater Collection System

- Conducted internal inspection of approximately 9,014 lineal feet of sanitary sewer line ranging in size from 8-inch to 48-inch.
- Conducted dye testing of approximately 281 units for I/I violations.
- Continued infiltration/inflow (I/I) studies in certain areas of the collection system.
- Cleaned approximately 10,618 lineal feet of sewer line.
- Performed work on 33 manholes. The work comprised of lid and casting replacement to at times installing a new precast manhole.
- Repaired approximately 4,722 feet of sanitary sewer line ranging in size from 6 inches to 18 inches.
- Conducted continuing flow monitoring in select manholes as a part of the CSO requirements of the NPDES Permit.
- Performed inspections of CSO chambers at various intervals and during rain events.
- Responded to all Pa-One Call notices (430).
- Responded to all service calls (65) and made repairs as required.
- Monitored all MSANK pump stations daily.

- Continued to collect and update data regarding our collection system for the GPS information of our Information Management System (City Works Program).
- Performed maintenance on all pump stations.
- Performed some routine maintenance on all collection vehicles and equipment.
- Continued to utilize and upgrade the Service Work Order of the Information Management System (to be City Works Program).
- Continued to up-grade our Sewer Camera CCTV system for NASSCO certification.
- Assisted MSANK contractors performing CCTV and cleaning and repairing of sanitary sewer lines in conjunction with the regions Administrative Order for Compliance on Consent.

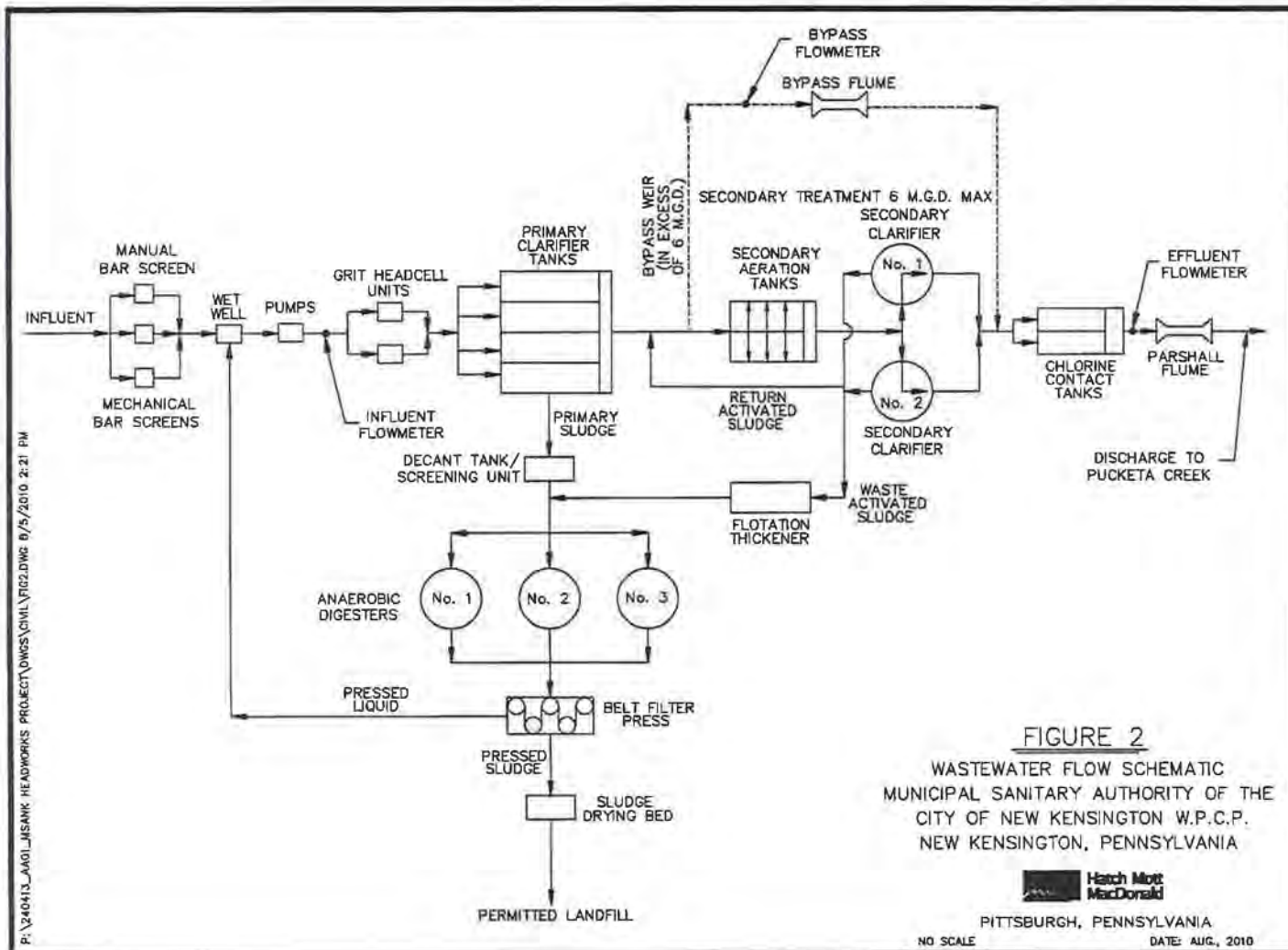
The Authority's maintenance staff continued their efforts relative to the completion of preventive maintenance activities on equipment in an effort to maintain satisfactory operation and performance of all MSANK plant and collection system equipment throughout 2017.



Service Area Map
Municipal Sanitary Authority
New Kensington, PA



Hatch Mott
MacDonald



2.0 OPERATIONAL AND MAINTENANCE STATUS OF MSANK SEWAGE FACILITIES

2.1 Sewage System Operational and Maintenance Status

The general performance of all MSANK sewage collection, conveyance, pumping, and treatment facilities during Fiscal Year 2017 has been satisfactory. See Appendix A for a summary of performance for the recent 12 month period.

A. Water Pollution Control Plant

The plant effluent was in full compliance with the NPDES permit conditions during 2017 with the exception of an instantaneous maximum fecal coliform concentration limit in July. This excursion was attributed to operator error due to unfamiliarity with the NPDES renewal permit that became effective the same month.

All mechanical and electrical work was of the preventive and corrective maintenance type normally associated with the extended use of mechanical/electrical equipment. However, it is noted that some of the older equipment will require replacement in the ensuing years as said equipment approaches its normal life expectancy and warrants replacement due to the age and extended use.

B. Sewer System

MSANK personnel conduct a preventive maintenance program on the sewage collection and conveyance systems each year. During 2017, staff personnel routinely inspected various manholes and sewer lines to determine the structural integrity of the system and to locate any blockages or flow restrictions. The MSANK personnel use their Vactor and Sewer Jet equipment on an as-needed basis to clear blockages and clean the lines.

MSANK uses their own forces and equipment in a continuing program of sanitary sewer cleaning and internal inspection work throughout the City of New Kensington.

C. Administrative Order for Compliance on Consent

- MSANK, City of New Kensington, City of Arnold, City of Lower Burrell, Lower Burrell Municipal Authority, and the Plum Borough Municipal Authority entered into an Administrative Order for Compliance on Consent (AOC) with the U.S. Environmental Protection Agency (USEPA). The AOC became effective on December 11, 2009. Over the next several years, the communities will be carrying out a comprehensive wet weather management plan in accordance with a Long Term Control Plan (LTCP).

In accordance with the AOC requirements, some of the activities that were initiated or completed since the AOC became effective include the following:

- Prepared and submitted a Public Participation Plan.
- Provided information to the public.
- Replaced the signage at the combined sewer overflow (CSO) structures.
- Performed a complete sewer system investigation.
- Identified sewer system deficiencies and initiated corrections.
- Developed and prepared sewer system mapping.
- Conducted flow/rainfall monitoring along with CSO pollutant monitoring.
- Developed a hydraulic and hydrologic model of the complete sanitary sewage system utilizing the collected flow and rainfall data.
- Submitted a Regional Long Term Control Plan (LTCP) to the U.S. Environmental Protection Agency and the PA Department of Environmental Protection on October 30, 2014. This information, along with other information management tools MSANK is

implementing (GPS mapping, computerized service work orders, etc.) will be an important asset to MSANK for a regional approach to sewage facility planning. The U.S. Environmental Protection Agency issued approval of the LTCP on January 20, 2017. MSANK was issued a renewal NPDES permit effective July 1, 2017. It should be noted that the LTCP schedule was incorporated into the renewal permit.

D. Pumping Stations

All sewage pumping stations owned and operated by the Municipal Sanitary Authority performed well during 2017. The same preventive maintenance program employed at the treatment plant is also practiced at the pumping stations. No major maintenance was required at the other pump stations during 2017.

E. Management

During 2017, the MSANK management undertook several important initiatives itemized below:

- Worked with the Engineer to implement various Capital Improvements both at the treatment plant and in the collection system.
- Prepared the 2018 Operating Budget.
- Continued to participate in the long-term sewage facilities planning for the existing service area.
- Integrally involved in discussions with the PADEP regarding our position on outside service communities' flows to our collection system and how these flows affect the system, particularly in potential sanitary sewer overflow (SSO) areas and combined sewer overflow areas.

Operational and Maintenance Status of MSANK Sewage Facilities

- Directly involved in meeting and discussions with EPA, PADEP and the existing service communities to address requirements in the Administrative Order for Compliance on Consent to develop a LTCP. These meetings involved discussions of the MSANK future plans for the treatment plant, existing and future collection systems and potential expansion of the service area.
- Directly involved in the submission of a regional LTCP to the U.S. Environmental Protection Agency on October 30, 2014 and its subsequent approval on January 20, 2017.
- Directly involved in the proper allocation of revenues to the various MSANK and Trustee held funds facilitating prompt bill payment, payroll accommodation, bond payments and loan payments. This fund management also allowed MSANK to earn the maximum allowable interest on MSANK funds throughout the year. This is reflected in the Audit.
- MSANK has a continuing education and training program for all employees. Activity in this program this year has included Pretreatment Training Seminars and Operators Training Courses for both union and non-union employees. MSANK will continue to promote this active training program.
- Directly and continually involved in public relations regarding the wastewater treatment facility and sanitary sewage collection and conveyance system. This also involved attending many public meetings addressing sanitary sewage issues in the service communities. These meetings focused on explaining why the Headworks Project was needed, and the costs associate with the Administrative Order for Compliance on Consent, how MSANK intends to fund these projects, and what impact these projects would have on the sewage rates of all the service communities.
- Worked with the engineers in the continued development and implementation of our Information Management System and the upgrade of the SCADA system.

Operational and Maintenance Status of MSANK Sewage Facilities

F. Pretreatment Program

MSANK is required by EPA to implement an Industrial Waste Pretreatment Program. MSANK aggressively administers this program and currently has one hundred and fifty-eight (158) facilities under permit (as of 12/31/17). The Industrial Waste Pretreatment Program is essentially self-supporting through permit fees and penalties.

G. Permits

MSANK has an annual contract for sludge hauling and is presently utilizing Vogel Disposal Service, Inc. and they are disposing of the stabilized sludge at the Seneca landfill in Jackson Township, Butler County, PA. Below is a summary of the status of all pertinent MSANK permits.

<u>Plant</u>	<u>NPDES Permit No.</u>	<u>Expiration Date</u>
Municipal Sanitary Authority of the City of New Kensington Treatment Plant	PA 0027111	June 30, 2022.
<u>Sludge Site</u>	<u>Solid Waste Permit No.</u>	
Seneca Landfill, Inc.	100403	

2.2 Recommendations for Operation and Maintenance During Fiscal Year 2018

After reviewing the operational and maintenance status of all MSANK facilities with the MSANK management staff, we recommend that the following items be addressed during Fiscal Year 2018. These items, if successfully completed, should result in the continued efficient and effective performance of MSANK facilities and functions:

- Continue the Infiltration/Inflow (I/I) remedial program conducted in recent years in an effort to locate and eliminate obvious sources of I/I which presently enter the sewage system of MSANK.
- Continue to implement the plan to clean and internally inspect the sanitary sewer collection system of the City of New Kensington.

Operational and Maintenance Status of MSANK Sewage Facilities

- Continue the development and implementation of the Information Management Systems Tasks as budgeted to the treatment plant and collection system.
- Continue the implementation of the now approved LTCP.

2018 Projected Revenues And Expenses

3.0 2018 PROJECTED REVENUES AND EXPENDITURES

3.1 2018 Total Estimated Revenues

The anticipated revenues for Fiscal Year 2018 are projected to be \$7,351,389.75. In the preparation of the operating budget for Fiscal Year 2018 it is worthy of note that, there are sufficient sewer service fee revenues being projected so that when combined with the other sources of revenue, they would cover the anticipated operation and maintenance and debt service expenses.

3.2 2018 Total Projected Expenditures

Operating, administrative and debt service expenses for Fiscal Year 2018 are estimated to be \$7,351,389.75 and are shown in detail in this section. This estimate has been prepared from a careful analysis of operating expenses incurred during Fiscal Year 2017, and anticipated increases/decreases in these expenses for Fiscal Year 2018 for the wastewater treatment facility and the wastewater collection system.

3.3 Fiscal Year 2018 Operating Budget

The adopted Operating Budget of MSANK for 2018 is contained on the following pages.

**THE MUNICIPAL SANITARY AUTHORITY OF THE
CITY OF NEW KENSINGTON
FISCAL YEAR 2018 BUDGET**

**WASTEWATER TREATMENT FACILITY
OPERATING BUDGET**

OPERATING EXPENSES

Payroll	\$ 670,000.00
Taxes	\$ 65,000.00
Retirement Plan	\$ 83,000.00
Hospitalization	\$ 234,000.00
Office Expenses	\$ -
Management Expenses	\$ -
Engineering	\$ 1,500.00
Legal Expenses	\$ 5,000.00
Contracted Services	\$ 167,000.00
Utilities	\$ 440,000.00
Equipment Maintenance	\$ 80,000.00
Line Maintenance	\$ -
Building Maintenance	\$ 5,000.00
Grounds Maintenance	\$ 5,000.00
Vehicle Expenses	\$ 10,000.00
Process Expenses	\$ 50,000.00
Laboratory Supplies	\$ 12,000.00
Personnel Training	\$ 2,000.00
Employee Safety	\$ 14,000.00
Other	\$ 10,000.00
Workmen's Compensation	\$ 28,625.00
TOTAL TREATMENT FACILITY OPERATING EXPENSE	\$ 1,882,125.00

TREATMENT FACILITY REPAIRS AND UPGRADES

All other major plant capital expenses
paid by Capital Expenditures Fund

TOTAL TREATMENT FACILITY EXPENSES **\$ 1,882,125.00**

**THE MUNICIPAL SANITARY AUTHORITY OF THE
CITY OF NEW KENSINGTON
FISCAL YEAR 2018 BUDGET**

**WASTEWATER COLLECTION SYSTEM
OPERATING BUDGET**

OPERATING EXPENSES

Payroll	\$ 340,500.00
Taxes	\$ 28,200.00
Retirement Plan	\$ 50,569.75
Hospitalization	\$ 127,670.00
Office Expenses	\$ -
Management Expenses	\$ -
Engineering	\$ 3,000.00
Legal Expenses	\$ 8,000.00
Contracted Services	\$ 25,000.00
Utilities	\$ 18,500.00
Equipment Maintenance	\$ 16,000.00
Line Maintenance	\$ 20,000.00
Building Maintenance	\$ 1,000.00
Grounds Maintenance	\$ 1,000.00
Vehicle Expenses	\$ 20,000.00
Maintenance Chemicals	\$ 1,000.00
Personnel Training	\$ 1,000.00
Employee Safety	\$ 5,000.00
Other	\$ 4,200.00
Workmen's Compensation	\$ 15,365.00
TOTAL COLLECTION SYSTEM OPERATING EXPENSES	\$ 686,004.75

COLLECTION SYSTEM CAPITAL PROJECTS EXPENSES

Loans	\$ 45,800.00
6th Street Sewer Rehab/Seperation	\$ 500,000.00
Upper Kinlock line Rehab.-followup flow monitor	\$ 50,000.00
Cityworks Annual Lic/Support	\$ 7,500.00
Rain Garden New Ken Parking Lots -Design only	\$ 200,000.00
Parkview Drive Project	\$ 150,000.00
Woodlawn Drive Project	\$ 150,000.00
TOTAL COLLECTION SYSTEM CAPITAL PROJECT	\$ 1,103,300.00

TOTAL COLLECTION SYSTEM EXPENSES **\$1,789,304.75**

**THE MUNICIPAL SANITARY AUTHORITY OF THE
CITY OF NEW KENSINGTON
FISCAL YEAR 2018 BUDGET**

AUTHORITY ADMINISTRATION OPERATING BUDGET

Payroll	\$ 7,000.00
Taxes	\$ 700.00
Consulting Engineer	\$ 16,000.00
Solicitor	\$ -
Trustee	\$ 10,000.00
Auditor	\$ 8,900.00
TOTAL ADMINISTRATION EXPENSES	\$ 42,600.00

MANAGEMENT OPERATING BUDGET

Billing and Collecting	\$ 135,000.00
Insurance	\$ 70,000.00
Management Expenses	\$ 50,000.00
Office Expenses	\$ 12,000.00
TOTAL MANAGEMENT EXPENSE	\$ 267,000.00

FACILITY DEBT SERVICE

2001 PENNVEST (Plant Loan #22624 only!)	\$ 33,125.00
2012 Bonds w/10%cover	\$ 2,273,885.62
2012 Series A Bonds(Re-fl 2009)	\$ 757,631.88
2015 Bonds	\$ 305,717.50

TOTAL DEBT SERVICE **\$ 3,370,360.00**

TOTAL EXPENSES

TOTAL TREATMENT FACILITY OPERATING EXPENSE	\$ 2,067,200.00
TOTAL TREATMENT FACILITY CAPITAL PROJECT	Construction and Capital Exp.Fund
TOTAL COLLECTION SYSTEM OPERATING EXPENSE	\$ 687,880.00
TOTAL COLLECTION SYSTEM CAPITAL PROJECT	\$ 513,300.00
TOTAL ADMINISTRATIVE EXPENSE	\$ 56,600.00
TOTAL MANAGEMENT EXPENSE	\$ 346,000.00
TOTAL DEBT SERVICE	\$ 3,367,775.00
TOTAL EXPENSES	\$ 7,038,755.00

**THE MUNICIPAL SANITARY AUTHORITY OF THE
CITY OF NEW KENSINGTON
FISCAL YEAR 2018 BUDGET**

AUTHORITY OPERATING REVENUES

RATES, CHARGES AND SERVICE FEES

City of New Kensington	\$ 4,644,903.57
City of Arnold	\$ 929,841.09
City of Lower Burrell	\$ 1,670,245.28
Borough of Plum	<u>\$ 71,399.80</u>

TOTAL RATES, CHARGES AND SERVICE FEES **\$7,316,389.74**

CONNECTIONS

Tap I Fees and Inspections

\$ -
\$ -

TOTAL CONNECTIONS

PENALTIES

Consumer- from New Kensington only.

\$ 25,000.00

TOTAL PENALTIES **\$ 25,000.00**

INTEREST ON INVESTMENTS

Interest Income

\$ 7,000.00

TOTAL INTEREST ON INVESTMENTS **\$ 7,000.00**

SURCHARGE (Net)

Pretreatment to Plant

\$ 3,000.00

TOTAL SURCHARGES **\$ 3,000.00**

TOTAL REVENUES **\$ 7,351,389.74**

TOTAL EXPENSES **\$ 7,351,389.74**

**THE MUNICIPAL SANITARY AUTHORITY OF THE
CITY OF NEW KENSINGTON
FISCAL YEAR 2018 BUDGET**

**PRETREATMENT PROGRAM OPERATING BUDGET
OPERATING EXPENSES**

Payroll	\$	57,000.00
Taxes	\$	4,600.00
Retirement Plan	\$	6,650.00
Hospitalization	\$	24,670.00
Engineering	\$	3,000.00
Legal Expenses	\$	2,000.00
Contracted Services	\$	7,000.00
Utilities	\$	900.00
Vehicle Maintenance	\$	2,800.00
Equipment Maintenance	\$	500.00
Laboratory Supplies	\$	500.00
Personnel Training	\$	500.00
Employee Safety	\$	200.00
Workmen's Compensation	\$	220.00
Office Expense	\$	500.00
Other	\$	-
TOTAL PRETREATMENT PROGRAM O & M EXPENSES	\$	111,040.00

TOTAL PRETREATMENT EXPENSE **\$ 111,040.00**

3.4 Conclusions and Recommendations About Sewer Rental Rates

For purposes of future rate calculations, it is recommended that the MSANK obtain consumption figures for all customers for each billing period. This will provide an up-to-date database for tracking consumption trends and for computing the impact of future rate changes.

The year 2018 budget contains a rate increase for the City of New Kensington rate payers of 3.56%. The 2018 budget was approved by MSANK at its regular meeting on October 16, 2017, and MSANK passed Resolution 03-17 adopting the rate structure at this meeting. The 2018 uniform sewage rate for the City of New Kensington is \$8.84 per ccf.(per 100 cubic feet). A copy of the resolution and 2018 rate schedule are on the following pages.

LEGAL NOTICE

MUNICIPAL SANITARY AUTHORITY OF THE CITY OF NEW KENSINGTON

Effective **January 1, 2018**, customers in New Kensington will notice an increase in billing for their sewage services. This rate increase is required to facilitate sewer line repairs and equipment improvements within the City of New Kensington, along with repairs to the sewage treatment plant. The Pennsylvania Department of Environmental Protection has mandated some of these projects.

The following schedule of rates has been authorized by the Municipal Sanitary Authority of the City of New Kensington for the various classes of service:

The Municipal Sanitary Authority Of the City of New Kensington

Minimum Sewage Rates Based on \$8.84/100 Cubic Feet Sewage Rates for Consumption over Minimum Usage Based on \$8.84/100 Cubic Feet

Meter Size	Cubic Feet Minimum (Quarterly)	Minimum Rate (Quarterly)	Cubic Feet Minimum (Monthly)	Minimum Rate (Monthly)
5/8 inch	1500	\$132.60	500	\$44.20
3/4 inch	2900	\$256.36	967	\$85.48
1 inch	4000	\$353.60	1333	\$117.84
1 1/4 inch	5900	\$521.56	1967	\$173.88
1 1/2 inch	7900	\$698.36	2633	\$232.76
2 inch	16500	\$1,458.60	5500	\$486.20
3 inch	36000	\$3,182.40	12000	\$1,060.80
4 inch	80800	\$7,142.72	26933	\$2,380.88
6 inch	148500	\$13,127.40	49500	\$4,375.80

Flat Rate for Customers without City Water - \$135.00 / Quarter

The Security Deposit - \$135.00

*All Rates Effective on Bills Rendered After January 1, 2018

RESOLUTION NO. 03 -17

RESOLUTION ADOPTING CHANGES TO THE
RATE STRUCTURE OF THE MUNICIPAL SANITARY
AUTHORITY OF THE CITY OF NEW KENSINGTON

IT IS HEREBY RESOLVED by the Municipal Sanitary Authority of the City of New Kensington, hereinafter called the Authority, that the minimum sewage rates heretofore charged by the Authority shall be amended and revised to be those such rates as are reflected in the Authority's Rate Chart entitled "Minimum Sewage Rates Based on \$8.84/100 Cubic Feet", attached hereto and made a part hereof.

In addition to the rates reflected in the Rate Chart, it is further resolved that all consumption over Minimum usage shall be at the rate of \$8.84 per 100 cubic feet and the flat rate charged to customers without city water shall be charged at the rate of \$135.00 per quarter.

It is also resolved that the Security Deposit for Sewage Service is \$135.00.

These changes in the rates shall take effect on bills rendered after January 1, 2018. Resolved by the Authority at its regular monthly meeting held this 20th day of November, 2017.

MUNICIPAL SANITARY AUTHORITY
OF THE CITY OF NEW KENSINGTON

Chairman

ATTEST:

Secretary

4.0 INSURANCE

4.1 Insurance

The insurance program of MSANK for the sewage system has been reviewed in detail by the Authority with its insurance agent. An outline of the insurance coverage carried by MSANK is presented in this section of the report. The complete insurance policy is on file at the MSANK office. The current coverage is based on an appraisal by an independent professional appraiser. This appraisal is updated annually. It is recommended that this practice be continued.

4.2 Insurance Outline

A copy of the Insurance Outline, which was obtained from The HDH Group, Inc., through MSANK, is as follows:

**MUNICIPAL SANITARY AUTHORITY OF
THE CITY OF NEW KENSINGTON**

POLICY DESCRIPTION: INLAND MARINE

INSURER: MRM Property and Liability Trust

POLICY NUMBER: PHPK1573474

POLICY PERIOD: 2/18/17 - 2/17/18

POLICY LIMITS: <u>Contractor's Equipment</u>	<u>Total Values</u> \$407,219
<u>Miscellaneous Property Protection</u>	<u>Total Values</u> \$134,979
Sewer Camera/Video Equipment/flow meters	
<u>Miscellaneous Tools and Equipment</u>	<u>Total Values</u> \$50,000

Deductible - \$250 per occurrence

Coverage:

1. Valuation

- Actual Cash Value for Miscellaneous Tools and Equipment
- Replacement Cost for Contractor's Equipment, Camera/Video Equipment and Flow Meters

**MUNICIPAL SANITARY AUTHORITY OF
THE CITY OF NEW KENSINGTON**

POLICY DESCRIPTION:	PUBLIC OFFICIALS
INSURER:	United States Liability Insurance Co.
POLICY NUMBER:	PO1000540I
POLICY PERIOD:	2/18/17 - 2/17/18
POLICY LIMITS:	
\$4,000,000	Each Wrongful Act
\$4,000,000	Total Limit
DEDUCTIBLES:	
\$1,000	

**MUNICIPAL SANITARY AUTHORITY OF
THE CITY OF NEW KENSINGTON**

POLICY DESCRIPTION:	CRIME
INSURER:	MRM Property and Liability Trust
POLICY NUMBER:	PHPK1573474
POLICY PERIOD:	2/18/17 – 2/1718
POLICY LIMITS:	
\$100,000	Employee Theft
\$100,000	Forgery/Alteration
\$100,000	Inside Premises -Robbery
\$100,000	Outside the Premises
\$100,000	Computer Fraud
DEDUCTIBLES:	\$250

**MUNICIPAL SANITARY AUTHORITY OF
THE CITY OF NEW KENSINGTON**

POLICY DESCRIPTION: AUTOMOBILE

INSURER: MRM Property and Liability Trust

POLICY NUMBER: PHPK1573474

POLICY PERIOD: 2/18/17 – 2/17/18

POLICY LIMITS:

\$1,000,000	Each Accident Liability
\$35,000	Un-insured / Under-insured Motorists

DEDUCTIBLES:

\$500	Comprehensive
\$500	Collision
	Except Vactors
\$1,000	Comprehensive
\$1,000	Collision

**MUNICIPAL SANITARY AUTHORITY OF
THE CITY OF NEW KENSINGTON**

POLICY DESCRIPTION:	GENERAL LIABILITY
INSURER:	MRM Property and Liability Trust
POLICY NUMBER:	PHPK1573474
POLICY PERIOD:	2/18/17 – 2/17/18
POLICY LIMITS:	
\$2,000,000	General Aggregate
\$2,000,000	Products/Completed Operations Aggregate
\$1,000,000	Each Occurrence
\$1,000,000	Personal and Advertising Injury
\$ 100,000	Damage to Premises Rented to You

**MUNICIPAL SANITARY AUTHORITY OF
THE CITY OF NEW KENSINGTON**

POLICY DESCRIPTION:	PROPERTY
INSURER:	MRM Property and Liability Trust
POLICY NUMBER:	PHPK1573474
POLICY PERIOD:	2/18/17 – 2/17/18
POLICY LIMITS:	See Policy

**MUNICIPAL SANITARY AUTHORITY OF
THE CITY OF NEW KENSINGTON**

POLICY DESCRIPTION:	EXCESS LIABILITY
INSURER:	MRM Property and Liability Trust
POLICY NUMBER:	PHUB562554
POLICY PERIOD:	2/18/17 – 2/17/18
POLICY LIMITS:	See Policy

**MUNICIPAL SANITARY AUTHORITY OF
THE CITY OF NEW KENSINGTON**

POLICY DESCRIPTION:	EQUIPMENT BREAKDOWN
INSURER:	MRM Property and Liability Trust
POLICY NUMBER:	PHPK1573474
POLICY PERIOD:	2/18/17 – 2/17/18
POLICY LIMITS:	Same as Property
DEDUCTIBLES:	Same as Property

**MUNICIPAL SANITARY AUTHORITY OF
THE CITY OF NEW KENSINGTON**

POLICY DESCRIPTION:	WORKERS COMPENSATION
INSURER:	Municipal Risk Management Workers' Compensation Pooled Trust
POLICY NUMBER:	Trust Membership No. MRM-225-1718 Excess Insurance Coverage By Safety National Casualty Corp. under Policy No. SP-4057537
POLICY PERIOD:	10/1/17 to 9/30/18
POLICY LIMITS:	
Workers Compensation	Statutory
Employers Liability:	\$2,000,000
Retention:	\$750,000
State of Operations:	Pennsylvania
DEDUCTIBLES:	None

Proposed Treatment Facility and Collection System Repairs and Upgrades

5.0 PROPOSED TREATMENT FACILITY AND COLLECTION SYSTEM REPAIRS AND UPGRADES

MSANK will continue to make or plan for several repairs and upgrades to their sewage system during Fiscal Year 2018. Many of these have been identified in the Fiscal Year 2018 Operating Budget set out in a previous section of this report.

Repairs and upgrades that have been identified for implementation in 2018 are tabulated below:

5.1 Wastewater Treatment Facility

- Continue Primary Tank Internals Replacement. Some of the main drive units may need to be replaced this year.

Estimated Cost: \$15,000

- Replace piping in the #2 Secondary Clarifier

Estimated Cost: \$15,000

It should be noted that the Trustee held Capital Expenditures Fund will be used to fund the Wastewater Treatment Plant projects.

5.2 Wastewater Collection System

- Information Management System Tasks include updating GPS/GIS and payment of required license fees.

Estimated Cost: \$7,500

- Sixth Street Sewer Rehabilitation/Separation

Estimated Cost: \$500,000

Proposed Treatment Facility and Collection System Repairs and Upgrades

- Upper Kinloch Sewer Line Rehabilitation-follow up flow monitoring
Estimated Cost: \$50,000
- Woodlawn Drive Project-CIPP lining of sanitary sewer lines.
Estimated Cost: \$150,000 (to be bid)
- Design of Rain Gardens in downtown New Kensington parking lots.
Estimated Cost: \$200,000
- Parkview Drive Project-CIPP lining of sanitary sewer lines.
Estimated Cost: \$150,000 (to be bid)

6.0 CAPITAL ADDITION AND PLANNING PROJECTS

6.1 Capital Addition and Planning Projects

In the past few years, MSANK has been obligated to make certain modifications and improvements at the sewage treatment plant to maintain the efficient operation of the plant and to maintain compliance with NPDES Permit effluent limits. This resulted in effecting “piece-meal” solutions to an immediate problem without consideration of the long-term impact of such actions. After due consideration by MSANK and its consultants, the need for an overall “Comprehensive Master Plan” was recognized. Implementation of the plan will enable MSANK to make necessary improvements to deal with urgent problems that will be compatible with future planning.

The Master Plan study was completed in November 1998. Five Scenarios were presented in this report for consideration. After in depth review, the MSANK Board adopted Scenario No.3 as their long range Master Plan. This scenario addresses corrective actions and represents the facilities needed to meet the needs of the existing service area and the Pucketa Creek service area, including 20-year growth for each. Although considering the Pucketa Creek service area is in its preliminary phases of study, ultimate implementation of the project is assumed to occur under Scenario Three. The master plan needs to consider these additional flows and loadings. Adoption of one scenario has enabled MSANK to set priorities within the selected scenario and construct the project in phases. This phased process has begun.

Commencing in the year 2001, and continuing through 2004, work proceeded on the repair of the existing digesters and associated equipment through the Anaerobic Digestion and Ancillary Facilities Project. This estimated \$7 million project has been completed. These repairs and associated debt service requirements resulted in rate increases to the rate payers of all tributary communities. The “phasing” of the project will result in reducing the impact of these rate increases. The engineering and design for the next phase of construction at the plant began in 2005 and was completed in 2006. The Headworks and Blower Building project included reconstruction of the plant’s headworks along with construction of a separate building to house the secondary aeration blowers. The project began in October of 2007 and was completed in 2011.

MSANK is now involved in the design phase of the Wastewater Treatment Plant Upgrade Project. The project proposes new primary clarifiers, new secondary aeration equipment, a new clarifier, a new clarifier distribution box, a new chlorine contact tank and distribution box, a new flow distribution box from the grit facility, a new effluent channel and a new blending channel.

The project also proposes modifications to Clarifier No. 1 and No. 2, the secondary aeration equipment and the primary clarifiers. The new office and garage and locker room buildings have been constructed. The design and engineering phase of the Wastewater Treatment Plant Upgrade Project is underway.

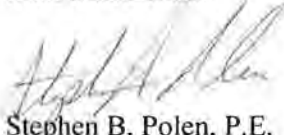
With a phased approach to ongoing maintenance and rehabilitation of the treatment plant and collection system, and continued support to revitalization of the region, MSANK will continue to move forward in a pro-active direction.

ACKNOWLEDGEMENT

Mott McDonald would like to take this opportunity to express its sincere thanks to the MSANK Budget Committee, Mr. Adda and Mr. Felack, along with Mr. Rowe and the management staff, along with Mr. Curt Carion and Mr. James Gardlock for their teams' work and valuable contributions to this report.

Respectfully submitted,

Mott MacDonald



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SBP/lf

Appendix A
12 Month Performance Summary

MUNICIPAL SANITARY AUTHORITY OF THE CITY OF NEW KENSINGTON
WASTEWATER TREATMENT PLANT
2016-2017
MONTHLY PERFORMANCE SUMMARY

	INFLUENT											MAX. WEEKLY AVERAGE			INSTANTANEOUS MAXIMUM				MAXIMUM DAY		Avg. Mon.	
	BLEND	TREAT	TOTAL	FLOW	CBOD5	CBOD5	CBOD5	TSS	TRC	EFFLUENT	LOAD	CBOD5	TSS	FECAL	CBOD5	TSS	TRC	FECAL	CBOD5	TSS	D.O.	pH
	FLOW	FLOW	FLOW	MAX	INF.	INF.	EFF.	EFF.	EFF.	CBOD5	TSS	mg/l	mg/l	COL.	mg/l	mg/l	mg/l	COL.	mg/l	mg/l	mg/l	S.U.
	MGD	MGD	MGD	MGD	mg/l	LB/D	mg/l	mg/l	mg/l	LB/D	LB/D	LB/D	LB/D	#/100 ml	mg/l	mg/l	mg/l	#/ml	LB/D	LB/D	mg/l	
PLANT DESIGN	****	****	Report	Report	204	8500																
PERMIT PA0027111			Average Monthly	Daily Max.			25	30	1.0	1251	1501	37.5 1877	45 2252	200 * 2000	50	60	3.3	1,000 10,000			Min. 4.0	6.0 - 9.0
JANUARY 2017	1.215	6.425	7.640	13.27	144	9332	9	7	0.50	601	480	11.0 794	9 616	78	***	***	***	***	20 1510	28 1849	***	6.7 7.1
FEBRUARY 2017	0.461	5.652	6.113	9.70	175	8523	9	9	0.6	491	454	11.0 746	11 736	37	***	***	***	***	17 1375	21 1699	***	6.8 7.6
MARCH 2017	0.800	5.865	6.665	13.06	168	9239	7	5	0.64	432	299	7.0 523	10 409	41	***	***	***	***	12 1139	23 697	***	6.7 7.6
APRIL 2017	0.734	5.806	6.540	13.85	185	9617	8	7	0.79	464	415	11.0 878	9 697	52	***	***	***	***	18 1495	29 2409	***	6.7 7.2
MAY 2017	1.50	5.940	7.440	13.09	229	13752	8	7	0.64	503	470	8.0 694	10 605	58	***	***	***	***	8 1345	22 1558	***	6.7 7.2
JUNE 2017	0.469	5.204	5.673	7.81	270	12868	8	9	0.56	400	408	10.0 453	12 556	71	***	***	***	***	12 687	26 1328	***	6.8 7.5
JULY 2017	0.798	5.307	6.105	13.60	203	9596	8	6	0.50	444	367	8.0 420	10.0 454	129	15	22	1.07	6500	12.0 1106	22.0 2495	***	6.6 7.4
AUGUST 2017	0.349	4.900	5.249	9.52	218	9412	6	5	0.68	287	253	7.0 370	7 424	50	10	30	2.21	340	9 715	7 1831	4.0	6.4 7.6
SEPTEMBER 2017	0.055	3.811	3.866	5.21	208	6822	6	6	0.56	202	188	7.0 260	6 220	46	14	13	1.02	136	14 520	11 408	5.8	6.6 7.3
OCTOBER 2017	0.543	4.457	5.000	12.74	173	6981	7	6	0.61	336	299	8.0 386	8.0 356	61	19	22	1.57	4100	15 1488	15 1594	5.3	6.8 7.5
NOVEMBER 2016	0.060	3.612	3.672	6.53	185	5838	6	5	0.39	167	142	8.0 227	8.0 224	74					14 382	43 564		6.5 7.2
DECEMBER 2016	0.313	5.269	5.582	9.59	151	6961	8	6	0.40	380	290	10.0 504	7 367	209					11 839	17 685		6.7 7.1
ANNUAL AVERAGE	0.608	5.187	5.795	MAX. 13.85	192	9078	8	7	0.57	392	339	8.8 521	9 472	75					14 1050	22 1426		6.7 7.4

CBOD5 - FIVE DAY CARBONACEOUS BIOCHEMICAL OXYGEN DEMAND

TSS - TOTAL SUSPENDED SOLIDS

*PERMIT LIMIT FOR PERIOD 5/1 - 9/30

NH3-N - AMMONIA NITROGEN

DO - DISSOLVED OXYGEN

FECAL COL. - FECAL COLIFORM

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OCTOBER 2016	0.345	4.552	4.897	13.75	111	4542	5	4	0.45	195	211	5.0 281	5.0 389	36					8 699	5 2096		6.7 7.5
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