### CONSULTING ENGINEER'S ANNUAL REPORT

### 2018 / 2019 OPERATING YEAR (November 1, 2018 – December 31, 2019)

### **FOR**

### THE MUNICIPAL WATER AUTHORITY OF ALIQUIPPA

160 HOPEWELL AVENUE ALIQUIPPA, PENNSYLVANIA 15001

**MARCH 2020** 



Lennon, Smith, Souleret Engineering, Inc.

Civil Engineers and Surveyors 846 Fourth Avenue, Coraopolis, PA 15108 (412) 264-4400 • (412) 264-1200 Fax info@lsse.com • www.lsse.com

### MUNICIPAL WATER AUTHORITY OF ALIQUIPPA CONSULTING ENGINEER'S ANNUAL REPORT MARCH 2020

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### CERTIFICATE OF ENGINEER

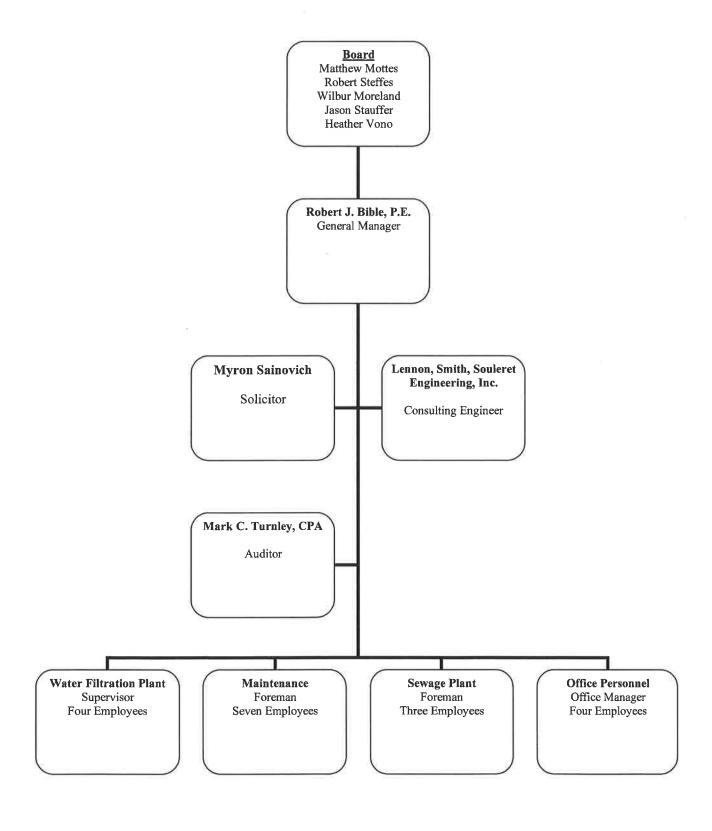
I, Ned Mitrovich, a Licensed Professional Engineer, am the Consulting Engineer for the Municipal Water Authority of Aliquippa, the "Authority", and hereby set forth:

- (A) In the report titled "CONSULTING ENGINEER'S ANNUAL REPORT 2018 / 2019 OPERATING YEAR (November 1, 2018 December 31, 2019)", recommendations for operation, maintenance, and repair of the sewer and water system are identified. The report also details a capital improvement program. Said report was submitted to the Authority and its Trustee in February 2020.
- (B) The Authority's present rates in connection with the Authority's water and sewer systems have been reviewed and, based on information provided by the Authority, the present water and sewer rates are sufficient to pay projected operation and administrative expenses of the Authority in 2020 plus 110 percent of the annual debt service requirement with respect to the outstanding Series of 2017, Series of 2018, and Series of 2019 Bonds. The 2020 Budgets adopted by the Authority include are as follows:
  - i. Water System Revenues = \$4,157,300.00
  - ii. Water System Expenses = \$4,157,300.00
  - iii. Sewer System Revenues = \$2,016,900.00
  - iv. Sewer System Expenses = \$2,016,900.00
- (C) In order to properly operate, maintain and repair the water and sewer system, the Authority, upon advice of the Engineer raised water rates in 2016 and raised sewer rates in 2018 and 2019. Bond issue borrowings were also executed in 2018 / 2019 in order to fund necessary capital improvements.



Ned Mitrovich, P.E.

### ORGANIZATIONAL CHART MUNICIPAL WATER AUTHORITY OF ALIQUIPPA AS OF MARCH 2020



### MUNICIPAL WATER AUTHORITY OF ALIQUIPPA

Aliquippa, Beaver County, Pennsylvania 724-375-5525 Identification No. 25-6007701

### **AUTHORITY BOARD MEMBER AS OF FEBRUARY 29, 2020**

Chairman
Vice Chairman
Treasurer
Secretary
istant Secretary/Treasurer
<u>s</u>
Solicitor
Trustee
Auditor
Depository
Consulting Engineer
General Manager
Office Manager

### MUNICIPAL WATER AUTHORITY OF ALIQUIPPA

### **CONSULTING ENGINEER'S ANNUAL REPORT**

### INTRODUCTION

We are pleased to submit the Consulting Engineer's Report of Operations for Fiscal Year 2019, through December 31, 2019 for the Municipal Water Authority of Aliquippa (MWAA).

### DRINKING WATER SYSTEM

### **DESCRIPTION OF SYSTEM**

The water system serves a population of approximately 13,892 within the City of Aliquippa, Hopewell Township, Potter Township, and Raccoon Township.

MWAA is located in Aliquippa, Pennsylvania. The primary source of water consists of four vertical wells (Wells 25, 26, 27, and 28), one Ranney Well, and one Collector Well, each located along the Ohio River. The Ranney Well and the Collector Well combined can pump approximately 4.0 MGD to the treatment plant. The treatment plant has a rated capacity of 4.0 MGD. The vertical wells were previously considered "backup" wells to provide additional capacity as needed. In 2014, the Pennsylvania Department of Environmental Protection (PaDEP) advised this was no longer allowed. The wells now need to be used for supply and sampled/permitted accordingly. In addition to the wells, there is a permitted interconnect with the Center Township Water Authority system.

In February 2018, Wells 14, 26, and 27 were cleaned and new pumps installed. The Collector Well had its pumps rebuilt and the Collector and Rainey wells were cleaned in May 2018. The Collector Well and Rainey Well responded positively to the cleaning. The motor in Well 18 pump failed in May 2018 and was replaced. The Ranney Well had its pumps replaced in November 2019 and are in operation.

Geographic Information System based mapping of the water system was initiated in 2018 and is largely completed with additional field verification ongoing.

The treatment plant process includes iron and manganese removal, softening, and disinfection. The total amount of treated water storage is 9,178,000 gallons of water via six storage tanks:

- Davidson Heights 1,078,000 Gallon Concrete Reservoir
- Davidson Heights 2,300,000 Gallon Steel Reservoir #1
- Davidson Heights 2,500,000 Gallon Steel Reservoir #2
- Sheffield Terrace 2,000,000 Gallon Steel Reservoir
- West Aliquippa 1,000,000 Gallon Steel Reservoir
- Raccoon 300,000 Gallon Reservoir

Construction was completed in 2019 on a new altitude valve for the West Tank (1.0 MG) as well as construction/rehabilitation of pressure reducing stations to serve West Aliquippa. This project was initiated as a corrective measure in response to an Inspection Report issued by the Department of Environmental Protection (PADEP). The project resulted in the decommission of the West Aliquippa 500,000 gallon reservoir and attendant supply/drain line which was determined to be leaking approximately 245,000 gallons per day.

Lennon, Smith, Souleret Engineering, Inc. has prepared a conceptual cost estimate and began preliminary design work for a new proposed 5.76 MGD drinking water plant. Pilot Testing was performed in September 2019. Construction permits are required by an Administrative Consent Order to be submitted by June 2020.

The Water Allocation Permit was renewed in 2014 for the next 50 years. Rules and Regulations were prepared and adopted in 2014.

The Raccoon Tank is the only tank supplying the Raccoon Township service area and provides less than one day's supply of potable water. MWAA staff installed meters and repaired valves in the system in 2014.

The distribution system is aging and the condition of the waterlines is commensurate with age. Waterlines are repaired as required to maintain service and stop leaks. Construction on replacement of approximately 1,800 linear feet of waterline along Green Street was completed in late 2019.

Due to the age of the system, valves are often inoperable or do not properly seat when operated. When valves cannot be operated properly, the distribution system cannot be isolated into small areas to facilitate repair. The result is the temporary shut-down of service to large portions of the system to repair isolated waterline breaks or leaks causing a disruption of service to a large number of customers. Large scale disruptions of service could be more effectively mitigated if the valves were operable and the system could be properly isolated. In February 2018, the Authority resubmitted an application to the Commonwealth Financing Authority to seek funding through the PA Small Water and Sewer Program to replace many of these inoperable valves. The application was awarded funding in September 2018. These valve replacements are to increase system isolation capabilities and reduce water service outages for customers. Additionally, repairing leaks and making repairs to the system will decrease the amount of unaccounted for water within the system. Design and construction phases are planned for 2020.

In July 2018, the Authority contracted with a third party service to conduct inspections on the interior and exterior of the water storage tanks. Findings / recommendations of these inspections generally include miscellaneous repairs and maintenance to each tank.

Design of the Sheffield Terrace Booster Station Improvements was initiated in 2019 and a Public Water Supply Permit was submitted. The project proposes replacement of the booster station, and replacement of the downstream PRVs. Construction is expected to

begin in Summer 2020. After construction, the Sheffield Terrace Tank will be drained for detailed review

### WATER RATES

Table 1 indicates the current and previous water user rates charged by the MWAA to their customers. Rates were increased effective January 1, 2016 to account for increased costs and to provide for necessary capital improvements. Assuming an average water use of 11,000 gallons per quarter. The water rate is approximately 1.70% of the median household income based on 2016 U.S. Census data.

TABLE 1 SCHEDULE OF RATES – QUARTERLY RESIDENTIAL CHARGES

Current Rate Structur	re – January 1, 2016
First 6,000 gallons	\$75.00 minimum
Over 6,000 gallons	12.50/1,000
Current Rate Structur	re – January 1, 2007
First 6,000 gallons	\$46.27 minimum
Next 12,000 gallons	6.25/1,000
Next 42,000 gallons	5.41/1,000
Over 60,000 gallons	4.66/1,000
Previous Rate Structu	re – January 1, 2005
First 6,000 gallons	\$38.56 minimum
Next 12,000 gallons	5.21/1,000
Next 42,000 gallons	4.51/1,000
Over 60,000 gallons	3.88/1,000
Previous Rate Structu	re – January 1, 2001
First 6,000 gallons	\$34.43 minimum
Next 12,000 gallons	4.65/1,000
Next 42,000 gallons	4.03/1,000
Over 60,000 gallons	3.46/1,000

### WATER WITHDRAWAL AND SALES

The data gathered for this section of the report was taken from official reports of MWAA.

The <u>Daily Water Withdrawal/Instream Flow Requirement Report</u> is a report prepared monthly and indicates the total amount of water pumped from the wells to the treatment plant on a daily basis. The Collector Well and Wells 25, 26, 27 and 28 have a common meter that was replaced in 2015. The total combined well output for 2018 was 1,174,062,171 gallons of water and the total combined well output for 2019 was 1,080,284,900 gallons of water. Tables have been included in the Water System Appendix using MWAA data which details the monthly water withdrawal from each well.

The <u>Report of Operations</u> records the amount of water coming into the treatment plant and the amount of finished water pumped into the distribution system for sale. In comparison, the raw water that entered the plant in 2018 measured 1,129,354,000 gallons of water and in 2019 measured 1,036,149,000 gallons of water according to the report. The finished water leaving the plant in 2018 was 1,085,050,000 gallons of water and in 2019 was 992,239,000 gallons of water and is measured with a magnetic meter installed in 2015.

In 2018 the Metered Sales of 363,585,260 gallons plus the estimated 108,035,620 gallons for maintenance and plant use compared to the finished water of 1,085,050,000 gallons pumped to the system indicates that about 57% of the water leaving the plant is not accounted for. In 2019 the Metered Sales of 419,102,125 gallons plus the estimated 44,091,635 gallons for maintenance and plant use compared to the finished water of 992,239,000 gallons pumped to the system indicates that about 54% of the water leaving the plant is not accounted for. This water loss is significant and is suspected to include undetected leaks, fires, and unreported hydrant usage. The Water System Appendix includes tables and charts which detail the above referenced data.

In early 2016, a "Distribution and Storage Control and Leak Repair Plan" was prepared by the Authority. Implementation of the plan is ongoing.

### **SEWER SYSTEM**

### **DESCRIPTION OF SYSTEM**

The MWAA Wastewater Treatment Plant (WWTP) serves both the City of Aliquippa and Hopewell Township. The wastewater treatment plant has a design hydraulic capacity of 3.4 MGD. The maximum wet weather hydraulic capacity is 7.0 MGD. The plant discharges treated effluent to the Ohio River under NPDES Permit (PA0025968) parameters. The WWTP was hydraulically overloaded during the 2018 operating year. The Report projects the 3-month maximum average will exceed the average annual design capacity in 2019. The WWTP was not organically overloaded during the 2018 operating year. The 2018 Annual Wasteload Management Report was completed by MWAA. The hydraulic and organic loading charts from this report are provided in the Sewer Appendix.

As the result of the hydraulic overload, regulations require a Corrective Action Plan (CAP). CAP tasks include smoke and dye testing, flow monitoring, closed circuit televising, night time flow isolation measurements, and a cost effectiveness analysis. Phase II of the Flow Monitoring Program was completed in 2019, with Phase III to begin in early 2020.

The mechanical equipment in one of the primary clarifier tanks was replaced in 2016, while the equipment in the second tank was replaced in 2019.

The NPDES Permit for the system was renewed for another 5 years in 2014. The new permit included a more stringent limit for total residual chlorine (TRC) which was evaluated by the Authority in a feasibility study. The project was bid in October 2017. Installation of a dechlorination facility and the rebuilding of the plant's existing bar

screen was completed in August 2018. Rules and Regulations were adopted in 2015. The NPDES Permit was submitted for renewal on May 24, 2019.

There are seven sewage pump stations that contribute flow to the WWTP.

- 1. The Wye Lift Station serves Aliquippa and portions of Hopewell Township. It is equipped with four 3,000 gpm pumps powered by 75 HP motors.
- 2. The West Aliquippa Lift Station serves West Aliquippa and portions of Hopewell Township. It is equipped with two 500 gpm pumps powered by 10 HP motors.
- 3. The Golf Course Road Lift Station serves the Hospital Drive area. It is equipped with two 160 gpm pumps powered by 15 HP motors.
- 4. The Jail Pump Station serves the new Beaver County Jail. It is equipped with two 300 gpm pumps powered by 5 HP motors.
- 5. The Steel Street Lift Station is equipped with two 200 gpm pumps powered by 5 HP motors.
- 6. The pump station at the Woodlawn Park Area in Hopewell services 12 residential units. The assumed flow at this pump station is 12 gpm, and was designed to handle 85 gpm. (This pump station is owned and operated by Hopewell Township.)
- 7. The Woodlawn Pump Station is equipped with two 122 gpm pumps powered by 4 HP motors. Projected average future flows are only 6,000 gpd (30,000 gpd peak). The pumps are not installed at this time, but are stored for future use. There is no electrical power to the pump station presently. It has never been reported to operate.

The collection system is considered a separate sewer system and is relatively old. Its condition is commensurate with age. The system primarily consists of vitrified clay pipe and is subject to inflow and infiltration.

Replacement of the Wye Lift Station bar screen has been designed with construction proposed in 2020.

Geographic Information System based mapping of the sewer system was initiated in 2018 and is largely complete with additional field verification ongoing.

### **SEWER RATES**

Table 2 indicates the current and previous sewer user rates charged by the MWAA to their customers. The last rate increase was in January 2019. Assuming an average water use of 10,000 gallons per quarter, the sewer rate is approximately 1.14% of the median household income based on 2016 U.S. Census data.

TABLE 2 SCHEDULE OF RATES – QUARTERLY RESIDENTIAL CHARGES

Current Rate Struct	ure – January 1, 2019
First 6,000 gallons	\$56.40 minimum
Over 6,000 gallons	7.50/1,000
Previous Rate Struct	ture – January 1, 2018
First 6,000 gallons	\$47.00 minimum
Over 6,000 gallons	6.25/1,000
Previous Rate Struct	ure – January 1, 2012
First 6,000 gallons	\$39.08 minimum
Next 12,000 gallons	5.24/1,000
Next 42,000 gallons	4.53/1,000
Over 60,000 gallons	3.62/1,000
Previous Rate Struct	ure – January 1, 2007
First 6,000 gallons	\$31.26 minimum
Next 12,000 gallons	4.19/1,000
Next 42,000 gallons	3.62/1,000
Over 60,000 gallons	2.89/1,000
Previous Rate Struct	ure – January 1, 2005
First 6,000 gallons	\$26.05 minimum
Next 12,000 gallons	3.49/1,000
Next 42,000 gallons	3.02/1,000
Over 60,000 gallons	2.41/1,000

### FINANCIAL MANAGEMENT

The Financial Management Appendix provides a summary of significant historical data regarding expenses and revenues. The budget format was changed significantly in 2015 to update budget line items to match the current operations of the Authority. The budgets also provide the required Debt Service Ratio calculation in accordance with the Trust Indenture. A ratio of 5.13 was calculated for the 2018 Operating Year actual expenditures/revenues. A ratio of 0.81 was calculated for the 2019 Operating Year actual expenditures/revenues. A ratio of 1.10 was calculated for the 2020 approved budget.

Several unexpected expenses and lower than budgeted revenues resulted in not achieving the required debt service coverage in 2019.

In 2016, a delinquency policy was put in place by the Authority to address outstanding accounts receivable.

MWAA maintains various insurance policies, a listing of which is included in the Financial Management Appendix. As an "appropriate" level of insurance is not an engineering matter, we can only rely on the recommendation of the Authority's insurance broker regarding the "adequacy" of the insurance coverage.

In September 2017, MWAA refinanced their existing bonds and is proposing to fund CAP tasks and additional capital improvements with a new bond issue.

### **SUMMARY AND RECOMMENDATIONS**

### WATER SYSTEM

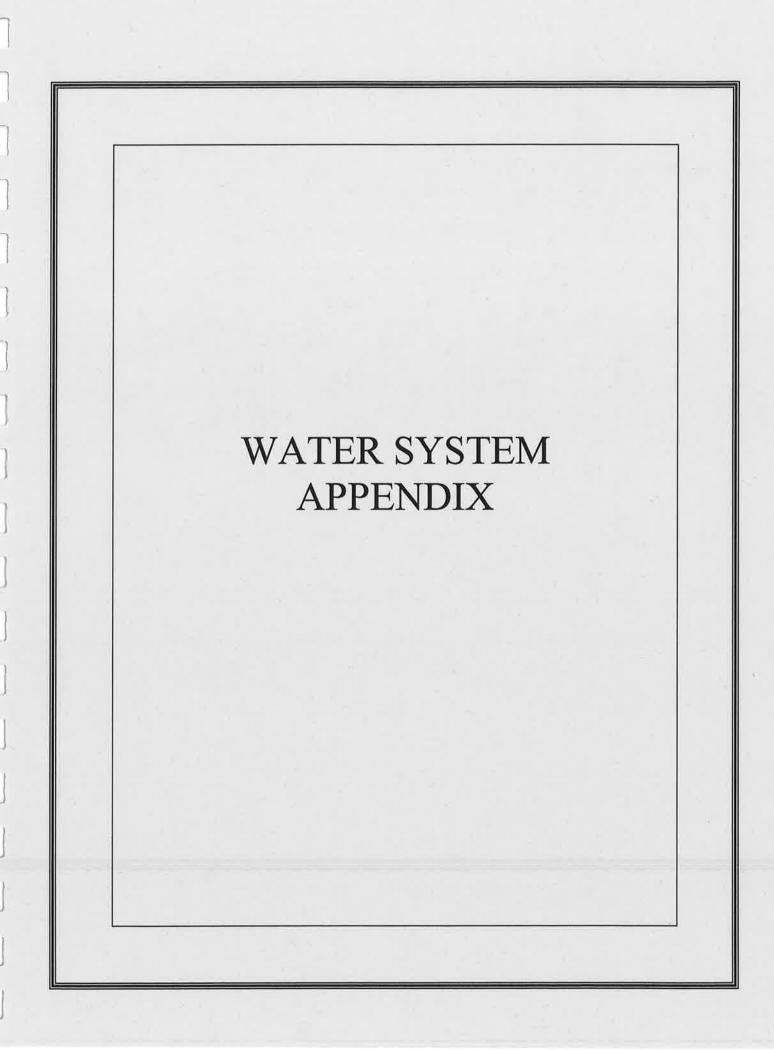
- The supply of water appears to be adequate to accommodate current demand and modest expansions of the service area.
- If future demands require treated water in excess of 4.0 MGD, system updates will be required. Continue with proposed repairs of the recently permitted vertical wells.
- Development and implementation of a replacement program for both lines and valves is recommended. Grant funding was awarded in 2018 for this purpose.
- Storage capacity appears to be adequate for the Aliquippa service area with a total of seven (7) tanks in service.
- The following additional capital improvements are recommended:
  - o Construction of new water treatment plant (in design phase)
  - o Implement aggressive leak detection program and valve/waterline replacements
  - o Integrated SCADA system for wells, water treatment plant, booster stations, and storage facilities
  - o Evaluate water storage tank upgrades
  - o Terrace Booster Station upgrade (Submitted for permits)
  - o Install an additional 500,000 gallon tank in the western end of the Raccoon service area
  - o Demolish 500,000 gallon West Tank (Bid received)
  - o Evaluate standby power need per PADEP requirements.

### SEWER SYSTEM

- Complete revised lead and copper rule evaluation as required by PADEP
- There appears to be adequate annual average hydraulic and organic capacity for the coming 5-year period at the WWTP. Efforts to reduce infiltration and inflow should be continued to increase this available capacity at the treatment plant and the collection and conveyance system as well.
- Infiltration/Inflow with past rehabilitation of sewer lines within many areas of the City is reported as successful. Continuing efforts to televise, clean and rehabilitate lines should continue. A more aggressive I/I program should be implemented to reduce flow storm response.
- Implement Corrective Action Plan, including the Sewer Flow Characterization / Flow Monitoring Program.
- The following additional capital improvements are recommended:
  - Miscellaneous plant upgrades including digester concrete repairs, grit removal system
  - o Integrated SCADA system for sewage pump stations and sewage treatment plant
- Replace Wye Lift Station screen (Project under contract)

### FINANCIAL MANAGEMENT

- Monitor 2020 and 2021 expenses to ensure debt service factor of 1.10 is provided.
- Continued implementation of the delinquency policy.
- Evaluate the need for rate increases.



### MUNICIPAL WATER AUTHORITY OF ALIQUIPPA CONSULTING ENGINEER'S ANNUAL REPORT

# **ANNUAL WATER WITHDRAWAL REPORT - 2018**

2010	Ranney Wells	Well 23	Collector Well	Well 25	Well 26	Well 27	Well 28	Total Well Production	TOTAL
2010			5	GALLONS				GALLONS	AVG MONTHLY MGD
January	63,841,400	0	45,316,600	0	0	- 0	0	109,158,000	3.521
February	60,945,600	0	42,928,800	747,000	0	0	0	104,621,400	3.608
March	61,067,800	0	43,706,400	0	0	0	0	104,774,200	3.380
April	58,969,100	0	41,212,200	0	0	0	0	100,181,300	3.339
May	60,410,200	45,000	39,671,700	45,000	0	0	45,000	100,216,900	3.233
June	53,880,500	0	37,388,100	0	0	0	0	91,268,600	3.042
July	61,322,000	36,000	34,598,920	36,000	0	0	36,000	96,028,920	3.098
August	63,569,376	0	33,126,015	0	0	0	0	96,695,391	3.119
September	59,297,100	0	31,429,010	0	0	0	0	90,726,110	3.024
October	70,840,610	0	33,105,040	0	0	0	0	103,945,650	3.353
November	55,926,300	108,000	29,678,100	108,000	0	0	108,000	85,928,400	2.864
December	55,188,300	0	35,329,000	0	0	0	0	90,517,300	2.920
Total	725,258,286	189,000	447,489,885	936,000	0	0	189,000	1,174,062,171	38.50
DAILY AVE.	1,987,009	518	1,226,000	2,564	0	0	518	3,216,609	3.208

### MUNICIPAL WATER AUTHORITY OF ALIQUIPPA CONSULTING ENGINEER'S ANNUAL REPORT

# **ANNUAL WATER WITHDRAWAL REPORT - 2019**

Y         54,328,100         0         0         0         90,391,500         2.916           Y         54,328,100         0         0         0         90,391,500         2.916           Y         54,610,700         0         33,272,800         0         0         87,883,500         3.037           1         58,43,400         0         37,578,300         0         0         0         87,883,500         3.037           2         60,640,300         0         0         0         0         97,100,300         3.037           46,850,000         0         37,578,300         0         0         0         97,100,300         3.037           46,850,000         0         0         0         0         97,100,300         3.037           46,850,000         0         0         0         97,100,300         3.037           46,850,000         0         0         0         93,586,500         3.039           48,702,500         0         0         0         94,852,800         3.050           48,800,000         0         0         0         94,852,800         3.050           49,891,800         0         0 <t< th=""><th>2010</th><th>Ranney Wells</th><th>Well 23</th><th>Collector Well</th><th>Well 25</th><th>Well 26</th><th>Well 27</th><th>Well 28</th><th>Total Well Production</th><th>TOTAL</th></t<>	2010	Ranney Wells	Well 23	Collector Well	Well 25	Well 26	Well 27	Well 28	Total Well Production	TOTAL
54,328,100         0         36,063,400         0         0         90,391,500         4           54,610,700         0         33,272,800         0         0         0         87,883,500         1           58,431,400         0         37,578,300         0         0         0         96,021,700         1           60,640,300         0         36,460,000         0         0         0         91,100,300         1           46,850,000         0         46,736,500         0         0         0         91,100,300         1           46,850,000         0         46,736,500         0         0         0         91,100,300         1           46,850,000         0         46,736,500         0         0         0         93,586,500         1           49,891,800         0         0         0         0         9         94,603,800         1           49,891,800         0         0         0         0         0         94,603,800         1           46,837,900         0         12,000         0         0         0         94,603,800         1           46,831,300         0         37,378,500         0	6402			9	SNOTIN				GALLONS	AVG MONTHLY MGD
54,610,700         0         33,272,800         0         0         87,883,500         0           58,443,400         0         37,578,300         0         0         96,021,700         96,021,700           60,640,300         0         35,460,000         0         0         97,100,300         97,100,300           46,850,000         0         46,736,500         0         0         93,586,500         93,586,500           48,850,000         0         46,133,100         0         0         93,586,500         93,586,500           43,702,500         0         0         0         0         93,586,500         93,586,500           43,702,500         0         0         0         0         93,586,500         93,586,500           44,981,800         0         0         0         0         94,603,800         94,603,800           44,598,700         0         0         0         0         84,216,400         94,603,800           58,981,300         0         0         0         0         83,499,100         95,478,000           58,981,300         0         0         0         0         0         82,691,800           58,981,300 <td< th=""><th>January</th><th>54,328,100</th><th>0</th><th>36,063,400</th><th>0</th><th>0</th><th>0</th><th>0</th><th>90,391,500</th><th>2.916</th></td<>	January	54,328,100	0	36,063,400	0	0	0	0	90,391,500	2.916
58,443,400         0         37,578,300         0         0         96,021,700         0           60,640,300         0         36,460,000         0         0         97,100,300         7,100,300           46,850,000         0         46,736,500         0         0         93,586,500         7,100,300           46,850,000         0         46,133,100         0         0         93,586,500         83,586,500           43,702,500         0         46,133,100         0         0         93,586,500         94,637,600           49,891,800         30,000         44,877,000         27,000         0         94,633,800         94,633,800           46,837,900         0         37,378,500         0         0         84,216,400         94,633,800           44,598,700         0         38,900,400         0         0         83,499,100         95,478,000           58,981,300         0         26,478,000         0         0         82,691,800         95,601,900           58,981,300         0         26,620,600         0         0         83,000         1,080,284,900         96,000           622,623,800         42,000         42,7541,100         39,000         0	February	54,610,700	0	33,272,800	0	0	0	0	87,883,500	3.030
60,640,300         0         36,460,000         0         0         97,100,300         70,100,300           46,850,000         0         46,736,500         0         0         93,586,500         70,100,300           45,850,000         0         46,133,100         0         0         89,835,600         70,838,500           43,702,500         0         46,133,100         27,000         0         0         89,835,600         70,838,500           49,891,800         0         44,042,500         12,000         0         0         94,852,800         70,800           46,837,900         0         12,000         0         0         84,216,400         70,83,499,100         84,599,100         84,599,100         83,499,100         83,	March	58,443,400	0	37,578,300	0	0	0	0	96,021,700	3.097
46,850,000         0         46,736,500         0         0         93,586,500         4           43,702,500         0         46,133,100         0         0         0         89,835,600         6           49,891,800         0         46,133,100         0         0         0         89,835,600         6           50,525,300         12,000         44,042,500         12,000         0         0         94,603,800         6           46,837,900         0         37,378,500         0         0         84,216,400         6           44,598,700         0         38,900,400         0         0         84,216,400         8           53,213,800         0         29,478,000         0         0         82,691,800         8           58,981,300         0         26,620,600         0         0         85,691,800         8           622,623,800         42,000         457,541,100         39,000         0         39,000         1,080,284,900         1,080,284,900           1,705,819         11,705,819         10         0         0         10         2,959,685         1	April	60,640,300	0	36,460,000	0	0	0	0	97,100,300	3.237
43,702,500         0         0         0         69,835,600         6           49,891,800         30,000         44,877,000         27,000         0         27,000         94,852,800         6           50,525,300         12,000         44,042,500         12,000         0         0         94,603,800         6           46,837,900         0         37,378,500         0         0         0         84,216,400         6           44,598,700         0         37,378,500         0         0         0         83,499,100         6           53,213,800         0         29,478,000         0         0         0         82,691,800         6           58,981,300         0         26,620,600         0         0         0         85,601,900         6           622,623,800         42,000         457,541,100         39,000         0         39,000         1,080,284,900         6           1,705,819         11,705,819         10         0         0         25,559,685         1	May	46,850,000	0	46,736,500	0	0	0	0	93,586,500	3.019
49,891,800         30,000         44,877,000         27,000         0         0         27,000         94,852,800         6           50,525,300         12,000         44,042,500         12,000         0         0         94,603,800         6           46,837,900         0         37,378,500         0         0         0         84,216,400         6           44,598,700         0         38,900,400         0         0         0         83,499,100         6           53,213,800         0         29,478,000         0         0         0         82,691,800         6           58,981,300         0         26,620,600         0         0         0         85,601,900         6           622,623,800         42,000         457,541,100         39,000         0         39,000         1,080,284,900         6           1,705,819         15         1,253,537         107         0         0         22,959,685         9	June	43,702,500	0	46,133,100	0	0	0	0	89,835,600	2.995
50,525,300         12,000         44,042,500         12,000         0         0         12,000         94,603,800         6           46,837,900         0         37,378,500         0         0         0         84,216,400         7           44,598,700         0         38,900,400         0         0         83,499,100         82,691,800           53,213,800         0         29,478,000         0         0         82,691,800         7           58,981,300         0         26,620,600         0         0         85,601,900         7           622,623,800         42,000         457,541,100         39,000         0         39,000         1,080,284,900         7           1,705,819         115         1,253,537         107         0         0         29,59685         8	July	49,891,800	30,000	44,877,000	27,000	0	0	27,000	94,852,800	3.060
46,837,900         0         0         0         84,216,400         7           44,598,700         0         38,900,400         0         0         83,499,100         7           53,213,800         0         29,478,000         0         0         82,691,800         7           58,981,300         0         26,620,600         0         0         85,601,900         7           622,623,800         42,000         457,541,100         39,000         0         39,000         1,080,284,900         7           1,705,819         15         1,253,537         107         0         0         2,959,685         8	August	50,525,300	12,000	44,042,500	12,000	0	0	12,000	94,603,800	3.052
44,598,700         0         38,900,400         0         0         0         83,499,100         7           53,213,800         0         29,478,000         0         0         0         82,691,800         7           58,981,300         0         26,620,600         0         0         0         85,601,900         7           622,623,800         42,000         457,541,100         39,000         0         39,000         1,080,284,900         7           1,705,819         115         1,253,537         107         0         0         107         2,959,685         1	September	46,837,900	0	37,378,500	0	0	0	0	84,216,400	2.807
53,213,800000082,691,800058,981,300000085,601,90045,601,900622,623,80042,000457,541,10039,000039,0001,080,284,90045,596,855	October	44,598,700	0	38,900,400	0	0	0	0	83,499,100	2.694
58,981,3000000085,601,9007622,623,80042,000457,541,10039,000039,0001,080,284,9001,705,8191151,253,537107001072,959,685	November	53,213,800	0	29,478,000	0	0	0	0	82,691,800	2.756
622,623,800         42,000         457,541,100         39,000         0         39,000         1,080,284,900           1,705,819         115         1,253,537         107         0         0         107         2,959,685	December	58,981,300	0	26,620,600	0	0	0	0	85,601,900	2.761
1,705,819 115 1,253,537 107 0 0 107 <b>2,959,685</b>	Total	622,623,800	42,000	457,541,100	39,000	0	0	39,000	1,080,284,900	35.42
	DAILY AVE.	1,705,819	115	1,253,537	107	0	0	107	2,959,685	2.952

# MUNICIPAL WATER AUTHORITY OF ALIQUIPPA CONSULTING ENGINEER'S ANNUAL REPORT

## WATER WITHDRAWAL AND SALES - 2018 (GALLONS)

**Metered Sales** 363,585,260 996,124 Line Breaks and 9,175,628 9,175,628 8,879,640 9,175,628 8,879,640 9,175,628 9,175,628 9,175,628 9,175,628 295,988 8,287,664 8,879,640 8,879,640 Flushing <sup>(1)</sup> 108,035,620 295,988 1,144,975,400 107,998,400 102,306,000 103,552,500 101,416,300 98,442,000 99,293,800 89,962,300 92,839,600 88,259,300 85,332,900 82,966,600 92,605,700 3,136,919 Total Finished Output Rinse/Wash 59,925,400 5,558,400 5,157,800 4,711,300 5,005,600 4,880,300 5,327,300 5,109,000 5,127,500 4,917,000 4,979,700 4,704,900 4,446,600 164,179 REPORT OF OPERATIONS 1,085,050,000 102,440,000 93,525,000 94,136,000 85,251,000 000'680'96 97,197,000 98,425,000 87,834,000 87,626,000 83,379,000 80,628,000 78,520,000 2,972,740 Finished Raw Water Input 1,129,354,000 106,583,000 100,921,000 102,138,000 98,048,000 88,994,000 97,091,000 91,419,000 91,702,000 86,985,000 99,643,000 82,019,000 83,811,000 3,094,121 Combined Well Output WATER WITHDRAWAL 1,174,062,171 100,216,900 109,158,000 104,621,400 104,774,200 100,181,300 103,945,650 91,268,600 96,028,920 90,726,110 85,928,400 90,517,300 96,695,391 3,216,609 DAILY AVG. Month TOTAL Sept Mar May Aug Nov Feb Apr Jun Oct Dec Ju Jan

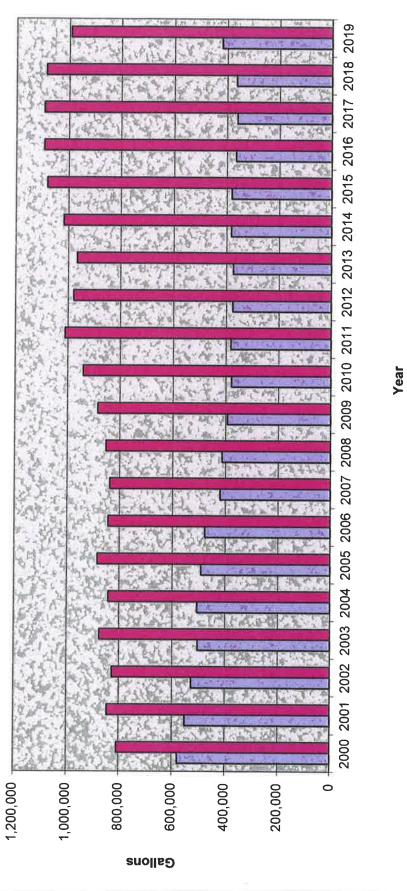
(1) Maintenance data includes water used to flush lines after line break repair operations and bi-annual line flushing water. These numbers are estimates only.

## MUNICIPAL WATER AUTHORITY OF ALIQUIPPA CONSULTING ENGINEER'S ANNUAL REPORT

## WATER WITHDRAWAL AND SALES - 2019 (GALLONS)

**Metered Sales** 419,102,125 1,148,225 Line Breaks and 3,744,769 3,623,970 3,744,769 3,623,970 3,744,769 3,744,769 3,623,970 120,799 3,744,769 3,382,372 3,744,769 3,623,970 3,744,769 Flushing <sup>(1)</sup> 44,091,635 120,799 1,053,185,600 89,756,600 89,188,200 93,057,300 92,441,800 88,658,700 86,288,400 94,294,500 88,879,200 82,496,800 84,114,800 80,068,900 83,940,400 2,885,440 Total Finished Output Rinse/Wash 60,946,600 4,974,200 5,113,300 5,272,800 5,473,800 4,974,700 4,623,400 4,972,500 5,165,200 5,407,600 5,318,800 5,158,900 4,491,400 166,977 REPORT OF OPERATIONS 992,239,000 83,714,000 84,349,000 84,214,000 87,944,000 83,684,000 81,665,000 89,322,000 87,169,000 77,023,000 78,796,000 74,910,000 79,449,000 2,718,463 Finished Raw Water Input 1,036,149,000 92,895,000 87,895,000 89,114,000 87,998,000 91,447,000 91,223,000 86,995,000 84,868,000 80,861,000 82,049,000 78,403,000 82,401,000 2,838,764 Combined Well Output WATER WITHDRAWAL 1,080,284,900 96,021,700 93,586,500 89,835,600 94,852,800 90,391,500 87,883,500 97,100,300 94,603,800 84,216,400 83,499,100 82,691,800 85,601,900 2,959,685 DAILY AVG. Month TOTAL Sept Mar May Feb Apr Jun Aug Oct Nov Dec Jan Ξ

<sup>(1)</sup> Maintenance data includes water used to flush lines after line break repair operations and bi-annual line flushing water. These numbers are estimates only.



■Thousand Gallons of Water Billed

Thousand Gallons of Finished Water Produced

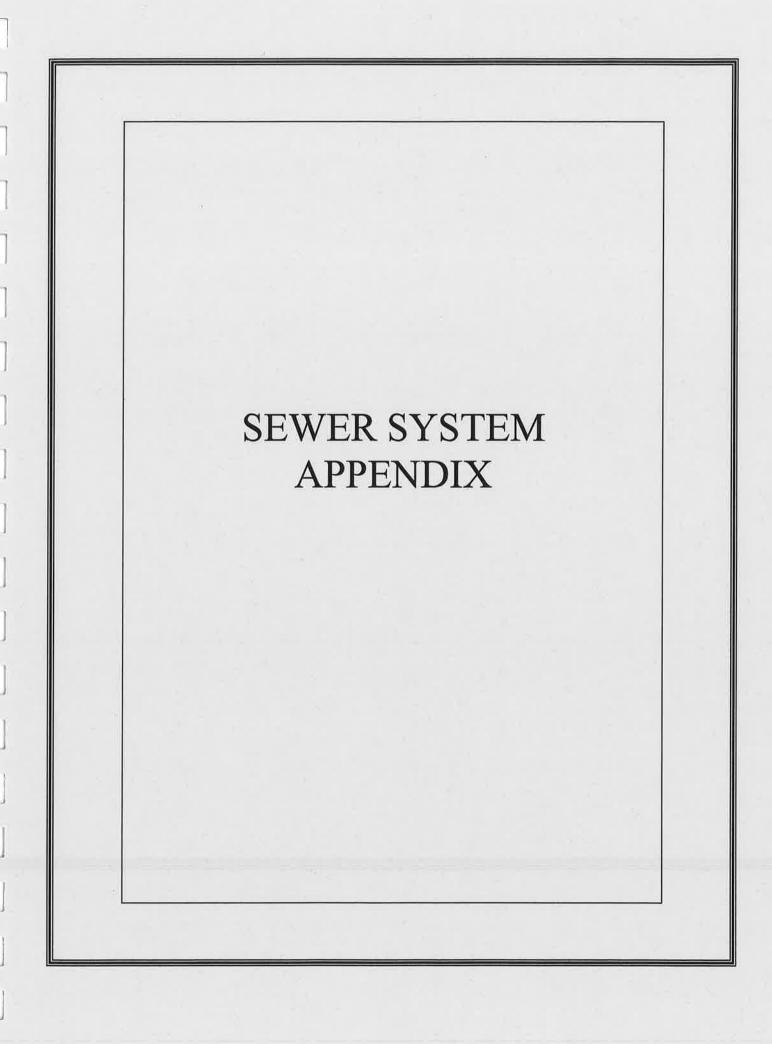
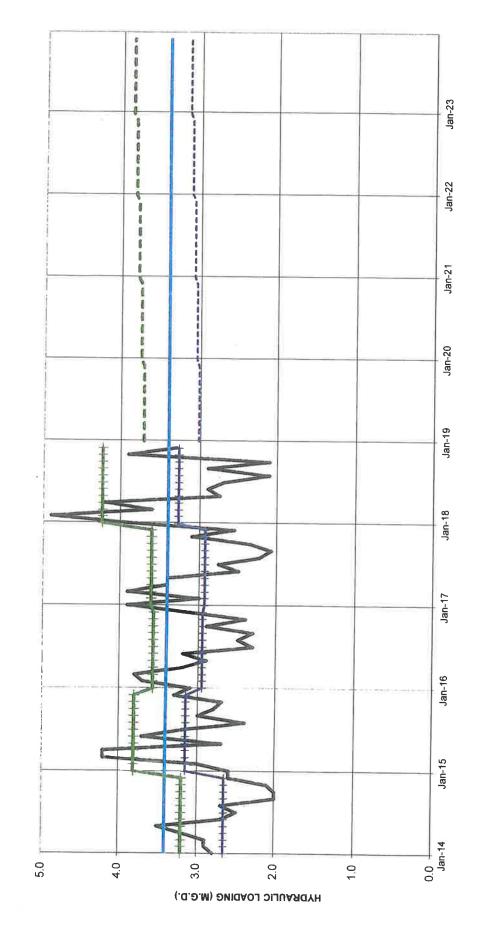


FIGURE 1
HYDRAULIC LOADING GRAPH
MWAA WASTEWATER TREATMENT PLANT



PLANT'S DESIGN HYDRAULIC LOADING

- - PROJ. 3 MONTH MAXIMUM FLOW

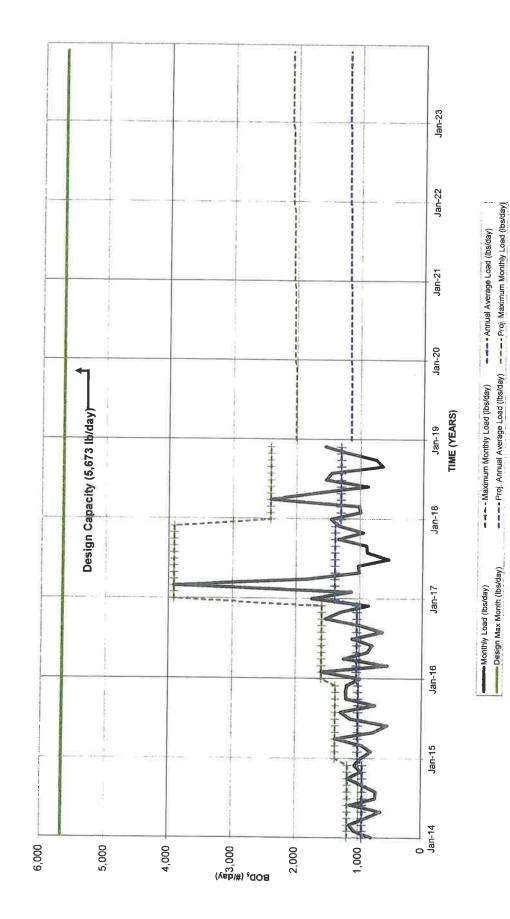
---- ANNUAL AVERAGE FLOW

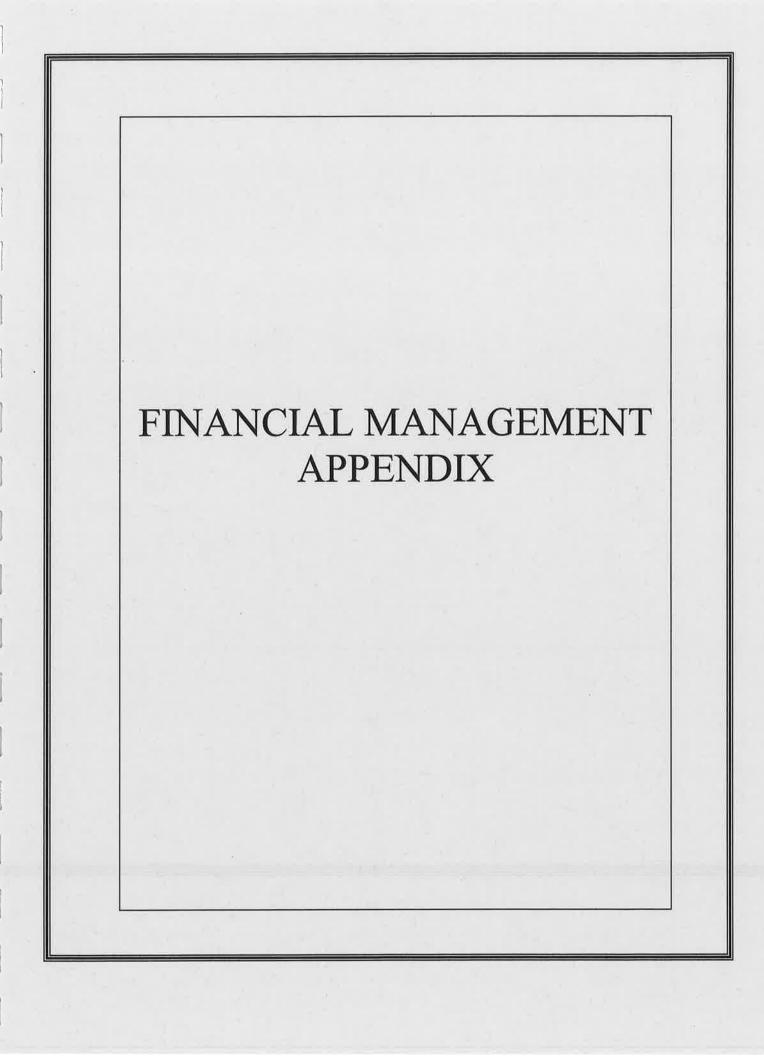
AVG DAILY FLOW

MONTH MAXIMUM FLOW

---- PROJ. YEARLY AVG

FIGURE 2
ORGANIC LOADING GRAPH
MWAA WASTEWATER TREATMENT PLANT





### MUNICIPAL WATER AUTHORITY OF ALIQUIPPA CONSULTING ENGINEER'S ANNUAL REPORT WATER FUND BUDGET VS ACTUAL

		2018 Budget	2018 Actual	2019 Budget	2019 Actual	2020 Budget
	Revenue					
	Metered Sales					
01.01. 430110	Metered Sales - Domestic	\$2,878,500.00	\$3,213,005.80	\$2,878,500.00	\$2,486,695.62	\$2,500,000.00
01.01. 430120 01.01. 430130	Metered Sales - Commercial Metered Sales - Industrial	\$555,500.00 \$550,450.00	\$414,548.66 \$571,438.07	\$440,000.00 \$550,450.00	\$803,137.09 \$635,620.64	\$740,000.00 \$630,000.00
01.01. 430130		\$3,984,450.00		\$3,868,950.00	\$3,925,453.35	\$3,870,000.00
	5451012	\$5,50 i, i20.00	<i>ϕ</i> 1,230,332.00	+5,000,550.00	40,323, 100.00	<i>43,010,000.00</i>
	Fire Protection					
01.01. 430410	Private Fire Protection	\$20,000.00	\$23,578.87	\$20,000.00	\$21,793.41	\$20,000.00
01.01. 430420	Public Fire Protection	\$265,000.00	\$52,769.80	\$45,000.00	\$60,783.44	\$50,000.00
	Subtota	\$285,000.00	\$76,348.67	\$65,000.00	\$82,576.85	\$70,000.00
	Other Water Sales					
01.01. 430610	Sales to Public Authority	\$60,600.00	\$73,342.08	\$60,600.00	\$76,104.90	\$75,000.00
	Subtota	\$60,600.00	\$73,342.08	\$60,600.00	\$76,104.90	\$75,000.00
04.04.404040	Miscellaneous Revenue	475 000 00	405.005.40	475 000 00	4400.000.04	4
01.01. 431210 01.01. 412520	Customer Penalties Miscellaneous Water Revenue	\$75,000.00	\$95,985.43 \$3,278.82	\$75,000.00 \$0.00	\$102,209.94	\$75,000.00
01.01. 412320	Water Tap Fees	\$0.00 \$0.00	\$7,000.00	\$0.00	-\$3,278.82 \$19,000.00	\$0.00 \$0.00
01.01. 431240	Turn on Charges & NSF Charge	\$5,000.00	\$6,231.00	\$5,000.00	\$4,845.00	\$5,000.00
01.01. 451240	Subtota		\$112,495.25	\$80,000.00	\$122,776.12	\$80,000.00
		400,000.00	<b>7</b> 222, 155125	400,000.00	Ţ===)	400,000.00
	Misc Non-Operating Revenue					
01.01. 432010	Revenue from Frozen Meters	\$500.00	\$3,574.60	\$500.00	\$686.95	\$500.00
01.01. 432610	Misc Non-Operating Revenue	\$15,000.00	\$23,547.60	\$15,000.00	\$33,986.45	\$15,000.00
01.01. 432630	Employee Contribution	\$38,870.00	\$47,440.00	\$41,860.00	\$55,990.00	\$46,800.00
	Subtotal	\$54,370.00	\$74,562.20	\$57,360.00	\$90,663.40	\$62,300.00
	Total Revenue	\$4,464,420.00	\$4,535,740.73	\$4,131,910.00	\$4,297,574.62	\$4,157,300.00
	Total Revenue	\$4,464,420.00	\$4,535,740.73	\$4,131,910.00	\$4,297,574.62	\$4,157,300.00
	Expenses	\$4,464,420.00	\$4,535,740.73	\$4,131,910.00	\$4,297,574.62	\$4,157,300.00
01.01.542210	Expenses  Power and Pumping					
01.01. 542210 01.01. 542410	Expenses  Power and Pumping  Non-Salary Compensation / Meals	\$1,500.00	\$952.95	\$1,500.00	\$505.00	\$1,500.00
01.01. 542210 01.01. 542410 01.01. 542610	Expenses  Power and Pumping					
01.01. 542410	Expenses  Power and Pumping  Non-Salary Compensation / Meals  Supplies and Expenses	\$1,500.00 \$15,000.00	\$952.95 \$20,363.10	\$1,500.00 \$20,000.00	\$505.00 \$25,778.51	\$1,500.00 \$25,000.00
01.01. 542410 01.01. 542610	Expenses  Power and Pumping  Non-Salary Compensation / Meals  Supplies and Expenses  Maintenance of Structures and Improvements	\$1,500.00 \$15,000.00 \$5,000.00 \$40,000.00 \$6,000.00	\$952.95 \$20,363.10 \$8,544.86	\$1,500.00 \$20,000.00 \$5,000.00 \$40,000.00 \$6,000.00	\$505.00 \$25,778.51 \$182,750.00	\$1,500.00 \$25,000.00 \$5,000.00
01.01. 542410 01.01. 542610 01.01. 542710 01.01. 542910 01.01. 542930	Power and Pumping Non-Salary Compensation / Meals Supplies and Expenses Maintenance of Structures and Improvements Maintenance of Power and Pumping Equip Utility - Power - Wells Utility - Power - Collector Well	\$1,500.00 \$15,000.00 \$5,000.00 \$40,000.00	\$952.95 \$20,363.10 \$8,544.86 \$11,915.00	\$1,500.00 \$20,000.00 \$5,000.00 \$40,000.00 \$6,000.00 \$45,000.00	\$505.00 \$25,778.51 \$182,750.00 \$15.00	\$1,500.00 \$25,000.00 \$5,000.00 \$30,000.00 \$3,000.00 \$45,000.00
01.01. 542410 01.01. 542610 01.01. 542710 01.01. 542910 01.01. 542930 01.01. 542950	Power and Pumping Non-Salary Compensation / Meals Supplies and Expenses Maintenance of Structures and Improvements Maintenance of Power and Pumping Equip Utility - Power - Wells Utility - Power - Collector Well Utility - Power - Ranney Well	\$1,500.00 \$15,000.00 \$5,000.00 \$40,000.00 \$6,000.00 \$45,000.00 \$63,000.00	\$952.95 \$20,363.10 \$8,544.86 \$11,915.00 \$1,400.09 \$26,437.71 \$59,673.60	\$1,500.00 \$20,000.00 \$5,000.00 \$40,000.00 \$6,000.00 \$45,000.00 \$63,000.00	\$505.00 \$25,778.51 \$182,750.00 \$15.00 \$866.97 \$29,564.72 \$45,980.49	\$1,500.00 \$25,000.00 \$5,000.00 \$3,000.00 \$45,000.00 \$63,000.00
01.01. 542410 01.01. 542610 01.01. 542710 01.01. 542910 01.01. 542930 01.01. 542950 01.01. 542960	Power and Pumping Non-Salary Compensation / Meals Supplies and Expenses Maintenance of Structures and Improvements Maintenance of Power and Pumping Equip Utility - Power - Wells Utility - Power - Collector Well Utility - Power - Ranney Well Utility - Power - Booster Station	\$1,500.00 \$15,000.00 \$5,000.00 \$40,000.00 \$6,000.00 \$45,000.00 \$63,000.00	\$952.95 \$20,363.10 \$8,544.86 \$11,915.00 \$1,400.09 \$26,437.71 \$59,673.60 \$9,699.36	\$1,500.00 \$20,000.00 \$5,000.00 \$40,000.00 \$6,000.00 \$45,000.00 \$63,000.00 \$25,000.00	\$505.00 \$25,778.51 \$182,750.00 \$15.00 \$866.97 \$29,564.72 \$45,980.49 \$15,114.80	\$1,500.00 \$25,000.00 \$5,000.00 \$3,000.00 \$45,000.00 \$63,000.00 \$25,000.00
01.01. 542410 01.01. 542610 01.01. 542710 01.01. 542910 01.01. 542930 01.01. 542950 01.01. 542960 01.01. 542970	Power and Pumping Non-Salary Compensation / Meals Supplies and Expenses Maintenance of Structures and Improvements Maintenance of Power and Pumping Equip Utility - Power - Wells Utility - Power - Collector Well Utility - Power - Ranney Well Utility - Power - Booster Station Utility - Power - Raccoon Townshlp	\$1,500.00 \$15,000.00 \$5,000.00 \$40,000.00 \$45,000.00 \$63,000.00 \$30,000.00 \$5,000.00	\$952.95 \$20,363.10 \$8,544.86 \$11,915.00 \$1,400.09 \$26,437.71 \$59,673.60 \$9,699.36 \$18,562.71	\$1,500.00 \$20,000.00 \$5,000.00 \$40,000.00 \$45,000.00 \$63,000.00 \$25,000.00 \$15,000.00	\$505.00 \$25,778.51 \$182,750.00 \$15.00 \$866.97 \$29,564.72 \$45,980.49 \$15,114.80 \$19,955.62	\$1,500.00 \$25,000.00 \$5,000.00 \$30,000.00 \$45,000.00 \$63,000.00 \$25,000.00 \$20,000.00
01.01. 542410 01.01. 542610 01.01. 542710 01.01. 542910 01.01. 542930 01.01. 542950 01.01. 542960	Expenses  Power and Pumping Non-Salary Compensation / Meals Supplies and Expenses Maintenance of Structures and Improvements Maintenance of Power and Pumping Equip Utility - Power - Wells Utility - Power - Collector Well Utility - Power - Ranney Well Utility - Power - Booster Station Utility - Power - Raccoon Township Utility - Power - West Reservoir / Jail	\$1,500.00 \$15,000.00 \$5,000.00 \$40,000.00 \$65,000.00 \$63,000.00 \$30,000.00 \$5,000.00 \$30,000.00	\$952.95 \$20,363.10 \$8,544.86 \$11,915.00 \$1,400.09 \$26,437.71 \$59,673.60 \$9,699.36 \$18,562.71 \$369.11	\$1,500.00 \$20,000.00 \$5,000.00 \$40,000.00 \$45,000.00 \$63,000.00 \$25,000.00 \$15,000.00 \$300.00	\$505.00 \$25,778.51 \$182,750.00 \$15.00 \$866.97 \$29,564.72 \$45,980.49 \$15,114.80 \$19,955.62 \$195.10	\$1,500.00 \$25,000.00 \$5,000.00 \$30,000.00 \$45,000.00 \$63,000.00 \$25,000.00 \$300.00
01.01. 542410 01.01. 542610 01.01. 542710 01.01. 542910 01.01. 542930 01.01. 542950 01.01. 542960 01.01. 542970	Power and Pumping Non-Salary Compensation / Meals Supplies and Expenses Maintenance of Structures and Improvements Maintenance of Power and Pumping Equip Utility - Power - Wells Utility - Power - Collector Well Utility - Power - Ranney Well Utility - Power - Booster Station Utility - Power - Raccoon Townshlp	\$1,500.00 \$15,000.00 \$5,000.00 \$40,000.00 \$45,000.00 \$63,000.00 \$30,000.00 \$5,000.00	\$952.95 \$20,363.10 \$8,544.86 \$11,915.00 \$1,400.09 \$26,437.71 \$59,673.60 \$9,699.36 \$18,562.71	\$1,500.00 \$20,000.00 \$5,000.00 \$40,000.00 \$45,000.00 \$63,000.00 \$25,000.00 \$15,000.00	\$505.00 \$25,778.51 \$182,750.00 \$15.00 \$866.97 \$29,564.72 \$45,980.49 \$15,114.80 \$19,955.62	\$1,500.00 \$25,000.00 \$5,000.00 \$30,000.00 \$45,000.00 \$63,000.00 \$25,000.00 \$20,000.00
01.01. 542410 01.01. 542610 01.01. 542710 01.01. 542910 01.01. 542930 01.01. 542950 01.01. 542960 01.01. 542970	Expenses  Power and Pumping Non-Salary Compensation / Meals Supplies and Expenses Maintenance of Structures and Improvements Maintenance of Power and Pumping Equip Utility - Power - Wells Utility - Power - Collector Well Utility - Power - Ranney Well Utility - Power - Booster Station Utility - Power - Raccoon Township Utility - Power - West Reservoir / Jail	\$1,500.00 \$15,000.00 \$5,000.00 \$40,000.00 \$65,000.00 \$63,000.00 \$30,000.00 \$5,000.00 \$30,000.00	\$952.95 \$20,363.10 \$8,544.86 \$11,915.00 \$1,400.09 \$26,437.71 \$59,673.60 \$9,699.36 \$18,562.71 \$369.11	\$1,500.00 \$20,000.00 \$5,000.00 \$40,000.00 \$45,000.00 \$63,000.00 \$25,000.00 \$15,000.00 \$300.00	\$505.00 \$25,778.51 \$182,750.00 \$15.00 \$866.97 \$29,564.72 \$45,980.49 \$15,114.80 \$19,955.62 \$195.10	\$1,500.00 \$25,000.00 \$5,000.00 \$30,000.00 \$45,000.00 \$63,000.00 \$25,000.00 \$300.00
01.01. 542410 01.01. 542610 01.01. 542710 01.01. 542910 01.01. 542930 01.01. 542950 01.01. 542960 01.01. 542970	Power and Pumping Non-Salary Compensation / Meals Supplies and Expenses Maintenance of Structures and Improvements Maintenance of Power and Pumping Equip Utility - Power - Wells Utility - Power - Collector Well Utility - Power - Ranney Well Utility - Power - Booster Station Utility - Power - Raccoon Townshlp Utility - Power - West Reservoir / Jail	\$1,500.00 \$15,000.00 \$5,000.00 \$40,000.00 \$65,000.00 \$63,000.00 \$30,000.00 \$5,000.00 \$30,000.00	\$952.95 \$20,363.10 \$8,544.86 \$11,915.00 \$1,400.09 \$26,437.71 \$59,673.60 \$9,699.36 \$18,562.71 \$369.11	\$1,500.00 \$20,000.00 \$5,000.00 \$40,000.00 \$45,000.00 \$63,000.00 \$25,000.00 \$15,000.00 \$300.00	\$505.00 \$25,778.51 \$182,750.00 \$15.00 \$866.97 \$29,564.72 \$45,980.49 \$15,114.80 \$19,955.62 \$195.10	\$1,500.00 \$25,000.00 \$5,000.00 \$30,000.00 \$45,000.00 \$63,000.00 \$25,000.00 \$300.00
01.01. 542410 01.01. 542610 01.01. 542710 01.01. 542910 01.01. 542930 01.01. 542950 01.01. 542950 01.01. 542970 01.01. 542980 01.01. 544210 01.01. 544220	Power and Pumping Non-Salary Compensation / Meals Supplies and Expenses Maintenance of Structures and Improvements Maintenance of Power and Pumping Equip Utility - Power - Wells Utility - Power - Collector Well Utility - Power - Ranney Well Utility - Power - Booster Station Utility - Power - Raccoon Township Utility - Power - West Reservoir / Jail Subtotal  Purification and Lab Operations Salaries Water Testing	\$1,500.00 \$15,000.00 \$5,000.00 \$40,000.00 \$6,000.00 \$45,000.00 \$30,000.00 \$30,000.00 \$300.00 \$310,800.00 \$343,360.00 \$15,000.00	\$952.95 \$20,363.10 \$8,544.86 \$11,915.00 \$1,400.09 \$26,437.71 \$59,673.60 \$9,699.36 \$18,562.71 \$369.11 \$157,918.49	\$1,500.00 \$20,000.00 \$5,000.00 \$40,000.00 \$6,000.00 \$45,000.00 \$25,000.00 \$15,000.00 \$300.00 \$220,800.00	\$505.00 \$25,778.51 \$182,750.00 \$15.00 \$866.97 \$29,564.72 \$45,980.49 \$15,114.80 \$19,955.62 \$195.10 \$320,726.21	\$1,500.00 \$25,000.00 \$5,000.00 \$30,000.00 \$3,000.00 \$45,000.00 \$63,000.00 \$20,000.00 \$300.00 \$217,800.00
01.01. 542410 01.01. 542610 01.01. 542710 01.01. 542910 01.01. 542930 01.01. 542950 01.01. 542970 01.01. 542980 01.01. 542980 01.01. 544210 01.01. 544220 01.01. 544310	Power and Pumping Non-Salary Compensation / Meals Supplies and Expenses Maintenance of Structures and Improvements Maintenance of Power and Pumping Equip Utility - Power - Wells Utility - Power - Collector Well Utility - Power - Ranney Well Utility - Power - Booster Station Utility - Power - Raccoon Townshlp Utility - Power - West Reservoir / Jail Subtotal  Purification and Lab Operations Salaries Water Testing Supplies - Salt	\$1,500.00 \$15,000.00 \$5,000.00 \$40,000.00 \$6,000.00 \$45,000.00 \$30,000.00 \$30,000.00 \$300.00 \$310,800.00 \$15,000.00 \$15,000.00	\$952.95 \$20,363.10 \$8,544.86 \$11,915.00 \$1,400.09 \$26,437.71 \$59,673.60 \$9,699.36 \$18,562.71 \$369.11 \$157,918.49 \$195,831.39 \$9,221.26 \$119,677.68	\$1,500.00 \$20,000.00 \$5,000.00 \$40,000.00 \$45,000.00 \$45,000.00 \$25,000.00 \$300.00 \$220,800.00 \$344,615.00 \$15,000.00 \$15,000.00	\$505.00 \$25,778.51 \$182,750.00 \$15.00 \$866.97 \$29,564.72 \$45,980.49 \$15,114.80 \$19,955.62 \$195.10 \$320,726.21 \$191,557.44 \$7,263.25 \$114,025.73	\$1,500.00 \$25,000.00 \$5,000.00 \$3,000.00 \$45,000.00 \$63,000.00 \$25,000.00 \$20,000.00 \$300.00 \$193,000.00 \$15,000.00 \$15,000.00
01.01. 542410 01.01. 542610 01.01. 542710 01.01. 542910 01.01. 542930 01.01. 542950 01.01. 542950 01.01. 542980 01.01. 542980 01.01. 542980	Power and Pumping Non-Salary Compensation / Meals Supplies and Expenses Maintenance of Structures and Improvements Maintenance of Power and Pumping Equip Utility - Power - Wells Utility - Power - Collector Well Utility - Power - Ranney Well Utility - Power - Booster Station Utility - Power - Raccoon Township Utility - Power - West Reservoir / Jail  Subtotal  Purification and Lab Operations Salaries Water Testing Supplies - Salt Supplies - Chlorine	\$1,500.00 \$15,000.00 \$5,000.00 \$40,000.00 \$6,000.00 \$45,000.00 \$30,000.00 \$300.00 \$210,800.00 \$15,000.00 \$150,000.00	\$952.95 \$20,363.10 \$8,544.86 \$11,915.00 \$1,400.09 \$26,437.71 \$59,673.60 \$9,699.36 \$18,562.71 \$369.11 \$157,918.49 \$195,831.39 \$9,221.26 \$119,677.68 \$16,369.50	\$1,500.00 \$20,000.00 \$5,000.00 \$40,000.00 \$6,000.00 \$45,000.00 \$25,000.00 \$300.00 \$220,800.00 \$364,615.00 \$15,000.00 \$15,000.00 \$15,000.00	\$505.00 \$25,778.51 \$182,750.00 \$15.00 \$866.97 \$29,564.72 \$45,980.49 \$15,114.80 \$19,955.62 \$195.10 \$320,726.21 \$191,557.44 \$7,263.25 \$114,025.73 \$24,701.41	\$1,500.00 \$25,000.00 \$30,000.00 \$3,000.00 \$45,000.00 \$63,000.00 \$25,000.00 \$20,000.00 \$300.00 \$1193,000.00 \$15,000.00 \$125,000.00 \$30,000.00
01.01. 542410 01.01. 542610 01.01. 542710 01.01. 542910 01.01. 542930 01.01. 542960 01.01. 542960 01.01. 542980 01.01. 542980 01.01. 542980 01.01. 544210 01.01. 544220 01.01. 544310 01.01. 544320 01.01. 544325	Power and Pumping Non-Salary Compensation / Meals Supplies and Expenses Maintenance of Structures and Improvements Maintenance of Power and Pumping Equip Utility - Power - Wells Utility - Power - Collector Well Utility - Power - Ranney Well Utility - Power - Booster Station Utility - Power - Raccoon Township Utility - Power - West Reservoir / Jail Subtotal  Purification and Lab Operations Salaries Water Testing Supplies - Salt Supplies - Chlorine Supplies - Buffer	\$1,500.00 \$15,000.00 \$5,000.00 \$40,000.00 \$63,000.00 \$30,000.00 \$300.00 \$300.00 \$15,000.00 \$15,000.00 \$150,000.00 \$9,000.00	\$952.95 \$20,363.10 \$8,544.86 \$11,915.00 \$1,400.09 \$26,437.71 \$59,673.60 \$9,699.36 \$18,562.71 \$369.11 \$157,918.49 \$195,831.39 \$9,221.26 \$119,677.68 \$16,369.50 \$1,002.87	\$1,500.00 \$20,000.00 \$5,000.00 \$40,000.00 \$45,000.00 \$25,000.00 \$300.00 \$220,800.00 \$364,615.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00	\$505.00 \$25,778.51 \$182,750.00 \$15.00 \$866.97 \$29,564.72 \$45,980.49 \$15,114.80 \$19,955.62 \$195.10 \$320,726.21 \$191,557.44 \$7,263.25 \$114,025.73 \$24,701.41 \$0.00	\$1,500.00 \$25,000.00 \$30,000.00 \$30,000.00 \$45,000.00 \$63,000.00 \$25,000.00 \$300.00 \$217,800.00 \$15,000.00 \$15,000.00 \$30,000.00 \$30,000.00
01.01. 542410 01.01. 542610 01.01. 542710 01.01. 542910 01.01. 542930 01.01. 542950 01.01. 542960 01.01. 542980 01.01. 542980 01.01. 542980 01.01. 544210 01.01. 544220 01.01. 544320 01.01. 544320 01.01. 544325 01.01. 544410	Power and Pumping Non-Salary Compensation / Meals Supplies and Expenses Maintenance of Structures and Improvements Maintenance of Power and Pumping Equip Utility - Power - Wells Utility - Power - Collector Well Utility - Power - Ranney Well Utility - Power - Ranney Well Utility - Power - Booster Station Utility - Power - West Reservoir / Jail Subtotal  Purification and Lab Operations Salaries Water Testing Supplies - Salt Supplies - Chlorine Supplies - Buffer Outside Services	\$1,500.00 \$15,000.00 \$5,000.00 \$40,000.00 \$45,000.00 \$63,000.00 \$5,000.00 \$300.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$0.00 \$30,000.00	\$952.95 \$20,363.10 \$8,544.86 \$11,915.00 \$1,400.09 \$26,437.71 \$59,673.60 \$9,699.36 \$18,562.71 \$369.11 \$157,918.49 \$195,831.39 \$9,221.26 \$119,677.68 \$16,369.50 \$1,002.87 \$53,821.88	\$1,500.00 \$20,000.00 \$5,000.00 \$40,000.00 \$45,000.00 \$25,000.00 \$15,000.00 \$300.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00	\$505.00 \$25,778.51 \$182,750.00 \$15.00 \$866.97 \$29,564.72 \$45,980.49 \$15,114.80 \$19,955.62 \$195.10 \$320,726.21 \$191,557.44 \$7,263.25 \$114,025.73 \$24,701.41 \$0.00 \$35,188.12	\$1,500.00 \$25,000.00 \$5,000.00 \$30,000.00 \$45,000.00 \$45,000.00 \$25,000.00 \$20,000.00 \$300.00 \$115,000.00 \$15,000.00 \$30,000.00 \$30,000.00 \$30,000.00
01.01. 542410 01.01. 542610 01.01. 542710 01.01. 542910 01.01. 542930 01.01. 542950 01.01. 542960 01.01. 542970 01.01. 542980 01.01. 542980 01.01. 544210 01.01. 544210 01.01. 544320 01.01. 544320 01.01. 544325 01.01. 544410 01.01. 544410	Power and Pumping Non-Salary Compensation / Meals Supplies and Expenses Maintenance of Structures and Improvements Maintenance of Power and Pumping Equip Utility - Power - Wells Utility - Power - Collector Well Utility - Power - Ranney Well Utility - Power - Ranney Well Utility - Power - Booster Station Utility - Power - Raccoon Township Utility - Power - West Reservoir / Jail Subtotal  Purification and Lab Operations Salaries Water Testing Supplies - Salt Supplies - Chlorine Supplies - Chlorine Supplies - Buffer Outside Services Maintenance of Structures and Improvements	\$1,500.00 \$15,000.00 \$5,000.00 \$40,000.00 \$45,000.00 \$63,000.00 \$30,000.00 \$300.00 \$300.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00	\$952.95 \$20,363.10 \$8,544.86 \$11,915.00 \$1,400.09 \$26,437.71 \$59,673.60 \$9,699.36 \$18,562.71 \$369.11 \$157,918.49 \$195,831.39 \$9,221.26 \$119,677.68 \$16,369.50 \$1,002.87 \$53,821.88 \$54,128.99	\$1,500.00 \$20,000.00 \$5,000.00 \$40,000.00 \$45,000.00 \$45,000.00 \$25,000.00 \$300.00 \$220,800.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$18,000.00 \$5,000.00	\$505.00 \$25,778.51 \$182,750.00 \$15.00 \$866.97 \$29,564.72 \$45,980.49 \$15,114.80 \$19,955.62 \$195.10 \$320,726.21 \$191,557.44 \$7,263.25 \$114,025.73 \$24,701.41 \$0.00 \$35,188.12 \$52,566.19	\$1,500.00 \$25,000.00 \$3,000.00 \$3,000.00 \$45,000.00 \$63,000.00 \$20,000.00 \$20,000.00 \$217,800.00 \$15,000.00 \$15,000.00 \$30,000.00 \$30,000.00 \$30,000.00 \$30,000.00 \$30,000.00
01.01. 542410 01.01. 542610 01.01. 542710 01.01. 542910 01.01. 542950 01.01. 542960 01.01. 542960 01.01. 542980 01.01. 542980 01.01. 544210 01.01. 544210 01.01. 544310 01.01. 544325 01.01. 544310 01.01. 544410 01.01. 544410 01.01. 544410 01.01. 544410 01.01. 544410 01.01. 544410	Power and Pumping Non-Salary Compensation / Meals Supplies and Expenses Maintenance of Structures and Improvements Maintenance of Power and Pumping Equip Utility - Power - Wells Utility - Power - Collector Well Utility - Power - Ranney Well Utility - Power - Booster Station Utility - Power - Raccoon Township Utility - Power - West Reservoir / Jail Subtotal  Purification and Lab Operations Salaries Water Testing Supplies - Salt Supplies - Chlorine Supplies - Buffer Outside Services Maintenance of Structures and Improvements Maintenance of Backwash	\$1,500.00 \$15,000.00 \$5,000.00 \$6,000.00 \$45,000.00 \$30,000.00 \$30,000.00 \$300.00 \$300.00 \$15,000.00 \$15,000.00 \$9,000.00 \$30,000.00 \$5,000.00	\$952.95 \$20,363.10 \$8,544.86 \$11,915.00 \$1,400.09 \$26,437.71 \$59,673.60 \$9,699.36 \$18,562.71 \$369.11 \$157,918.49 \$195,831.39 \$9,221.26 \$119,677.68 \$16,369.50 \$1,002.87 \$53,821.88 \$54,128.99 \$100,978.30	\$1,500.00 \$20,000.00 \$5,000.00 \$40,000.00 \$45,000.00 \$45,000.00 \$25,000.00 \$300.00 \$220,800.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$5,000.00 \$5,000.00	\$505.00 \$25,778.51 \$182,750.00 \$15.00 \$866.97 \$29,564.72 \$45,980.49 \$15,114.80 \$19,955.62 \$195.10 \$320,726.21 \$191,557.44 \$7,263.25 \$114,025.73 \$24,701.41 \$0.00 \$35,188.12 \$52,566.19 \$69.00	\$1,500.00 \$25,000.00 \$3,000.00 \$3,000.00 \$45,000.00 \$63,000.00 \$25,000.00 \$30,000.00 \$30,000.00 \$15,000.00 \$30,000.00 \$30,000.00 \$30,000.00 \$30,000.00 \$30,000.00 \$2,500.00 \$2,500.00
01.01. 542410 01.01. 542610 01.01. 542710 01.01. 542910 01.01. 542930 01.01. 542950 01.01. 542960 01.01. 542970 01.01. 542980 01.01. 542980 01.01. 544210 01.01. 544210 01.01. 544320 01.01. 544320 01.01. 544325 01.01. 544410 01.01. 544410	Power and Pumping Non-Salary Compensation / Meals Supplies and Expenses Maintenance of Structures and Improvements Maintenance of Power and Pumping Equip Utility - Power - Wells Utility - Power - Collector Well Utility - Power - Ranney Well Utility - Power - Ranney Well Utility - Power - Booster Station Utility - Power - Raccoon Township Utility - Power - West Reservoir / Jail Subtotal  Purification and Lab Operations Salaries Water Testing Supplies - Salt Supplies - Chlorine Supplies - Chlorine Supplies - Buffer Outside Services Maintenance of Structures and Improvements	\$1,500.00 \$15,000.00 \$5,000.00 \$40,000.00 \$45,000.00 \$63,000.00 \$30,000.00 \$300.00 \$300.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00	\$952.95 \$20,363.10 \$8,544.86 \$11,915.00 \$1,400.09 \$26,437.71 \$59,673.60 \$9,699.36 \$18,562.71 \$369.11 \$157,918.49 \$195,831.39 \$9,221.26 \$119,677.68 \$16,369.50 \$1,002.87 \$53,821.88 \$54,128.99	\$1,500.00 \$20,000.00 \$5,000.00 \$40,000.00 \$45,000.00 \$45,000.00 \$25,000.00 \$300.00 \$220,800.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$18,000.00 \$5,000.00	\$505.00 \$25,778.51 \$182,750.00 \$15.00 \$866.97 \$29,564.72 \$45,980.49 \$15,114.80 \$19,955.62 \$195.10 \$320,726.21 \$191,557.44 \$7,263.25 \$114,025.73 \$24,701.41 \$0.00 \$35,188.12 \$52,566.19	\$1,500.00 \$25,000.00 \$3,000.00 \$3,000.00 \$45,000.00 \$63,000.00 \$25,000.00 \$300.00 \$217,800.00 \$15,000.00 \$125,000.00 \$30,000.00 \$30,000.00 \$30,000.00 \$69,000.00 \$69,000.00 \$69,000.00
01.01. 542410 01.01. 542610 01.01. 542910 01.01. 542910 01.01. 542950 01.01. 542960 01.01. 542980 01.01. 542980 01.01. 542980 01.01. 544210 01.01. 544310 01.01. 544310 01.01. 544310 01.01. 544310 01.01. 544310 01.01. 544310 01.01. 544410 01.01. 544510 01.01. 544710 01.01. 544710 01.01. 544610	Power and Pumping Non-Salary Compensation / Meals Supplies and Expenses Maintenance of Structures and Improvements Maintenance of Power and Pumping Equip Utility - Power - Wells Utility - Power - Collector Well Utility - Power - Ranney Well Utility - Power - Booster Station Utility - Power - Raccoon Township Utility - Power - West Reservoir / Jail Subtotal  Purification and Lab Operations Salaries Water Testing Supplies - Salt Supplies - Chlorine Supplies - Buffer Outside Services Maintenance of Structures and Improvements Maintenance of Equipment	\$1,500.00 \$15,000.00 \$5,000.00 \$6,000.00 \$45,000.00 \$63,000.00 \$30,000.00 \$300.00 \$300.00 \$15,000.00 \$15,000.00 \$9,000.00 \$5,000.00 \$5,000.00 \$5,000.00	\$952.95 \$20,363.10 \$8,544.86 \$11,915.00 \$1,400.09 \$26,437.71 \$59,673.60 \$9,699.36 \$18,562.71 \$369.11 \$157,918.49 \$195,831.39 \$9,221.26 \$119,677.68 \$16,369.50 \$1,002.87 \$53,821.88 \$54,128.99 \$100,978.30 \$0.00	\$1,500.00 \$20,000.00 \$40,000.00 \$6,000.00 \$45,000.00 \$45,000.00 \$25,000.00 \$300.00 \$220,800.00 \$15,000.00 \$15,000.00 \$15,000.00 \$30,000.00 \$30,000.00 \$30,000.00 \$30,000.00 \$2,500.00 \$100,000.00	\$505.00 \$25,778.51 \$182,750.00 \$15.00 \$866.97 \$29,564.72 \$45,980.49 \$15,114.80 \$19,955.62 \$195.10 \$320,726.21 \$191,557.44 \$7,263.25 \$114,025.73 \$24,701.41 \$0.00 \$35,188.12 \$52,566.19 \$69.00 \$99,794.02	\$1,500.00 \$25,000.00 \$3,000.00 \$3,000.00 \$45,000.00 \$63,000.00 \$25,000.00 \$30,000.00 \$30,000.00 \$15,000.00 \$30,000.00 \$30,000.00 \$30,000.00 \$30,000.00 \$30,000.00 \$2,500.00 \$2,500.00
01.01. 542410 01.01. 542610 01.01. 542910 01.01. 542910 01.01. 542950 01.01. 542950 01.01. 542970 01.01. 542980 01.01. 542980 01.01. 544210 01.01. 544220 01.01. 544310 01.01. 544310 01.01. 544310 01.01. 544410 01.01. 544510 01.01. 544510 01.01. 544510 01.01. 544610 01.01. 5442920	Power and Pumping Non-Salary Compensation / Meals Supplies and Expenses Maintenance of Structures and Improvements Maintenance of Power and Pumping Equip Utility - Power - Wells Utility - Power - Collector Well Utility - Power - Ranney Well Utility - Power - Ranney Well Utility - Power - Raccoon Township Utility - Power - West Reservoir / Jail Subtotal  Purification and Lab Operations Salaries Water Testing Supplies - Salt Supplies - Chlorine Supplies - Buffer Outside Services Maintenance of Structures and Improvements Maintenance of Backwash Maintenance of Equipment Utility - Power	\$1,500.00 \$15,000.00 \$5,000.00 \$6,000.00 \$45,000.00 \$45,000.00 \$30,000.00 \$300.00 \$15,000.00 \$15,000.00 \$9,000.00 \$0.00 \$30,000.00 \$210,800.00 \$15,000.00	\$952.95 \$20,363.10 \$8,544.86 \$11,915.00 \$1,400.09 \$26,437.71 \$59,673.60 \$9,699.36 \$18,562.71 \$369.11 \$157,918.49 \$195,831.39 \$9,221.26 \$119,677.68 \$16,369.50 \$1,002.87 \$53,821.88 \$54,128.99 \$100,978.30 \$0.00 \$275,797.17	\$1,500.00 \$20,000.00 \$40,000.00 \$40,000.00 \$45,000.00 \$45,000.00 \$25,000.00 \$300.00 \$220,800.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$15,000.00 \$22,500.00 \$25,000.00	\$505.00 \$25,778.51 \$182,750.00 \$15.00 \$866.97 \$29,564.72 \$45,980.49 \$15,114.80 \$19,955.62 \$195.10 \$320,726.21 \$191,557.44 \$7,263.25 \$114,025.73 \$24,701.41 \$0.00 \$35,188.12 \$52,566.19 \$69.00 \$99,794.02 \$263,984.87	\$1,500.00 \$25,000.00 \$5,000.00 \$3,000.00 \$45,000.00 \$63,000.00 \$25,000.00 \$300.00 \$217,800.00 \$15,000.00 \$125,000.00 \$30,000.00 \$30,000.00 \$30,000.00 \$30,000.00 \$45,000.00 \$25,000.00 \$25,000.00 \$25,000.00 \$25,000.00 \$25,000.00 \$25,000.00 \$25,000.00 \$25,000.00 \$25,000.00 \$25,000.00

		2018 Budget	2018 Actual	2019 Budget	2019 Actual	2020 Budget
01.01. 545210	<u>Transmission and Distribution</u> Operations Salaries	\$306,030.00	\$416 142 02	¢396 E90 00	£483 470 40	¢470.000.00
01.01. 545215	Outside Services	\$125,000.00		\$386,580.00 \$125,000.00	\$483,470.49 \$206,258.20	\$470,000.00 \$165,000.00
01.01. 545310	Maintenance of Lines	\$250,000.00			\$221,787.15	\$250,000.00
01.01. 545920	Maintenance of Meters	\$50,000.00		\$50,000.00	\$54,435.29	\$50,000.00
01.01. 545930	Maintenance of Hydrants	\$10,000.00		\$10,000.00	\$4,382.34	\$10,000.00
01.01. 545710	Maintenance of Structures and Improvements	\$10,000.00	\$24.84	\$10,000.00	\$450.09	\$10,000.00
	Subtot	al \$751,030.00	\$747,475.73	\$831,580.00	\$970,783.56	\$955,000.00
	Vehicles and Equipment					
01.01. 546010	Rentals	\$1,000.00	\$5,700.00	\$6,400.00	\$5,200.00	\$5,000.00
01.01. 546110	Purchase	\$8,820.00		\$40,000.00	\$4,124.50	\$20,000.00
01.01. 546145	Maintenance	\$15,000.00		\$20,000.00	\$14,299.22	\$20,000.00
01.01. 546155	Fuel	\$20,000.00		\$20,000.00	\$18,089.51	\$20,000.00
	Subtot	al \$44,820.00	\$51,294.60	\$86,400.00	\$41,713.23	\$65,000.00
	Canada Administration					
01.01. 549010	General Adminstration Board Salaries	\$3,000.00	\$1,475.00	\$3,000.00	\$2,570.01	\$3,000.00
01.01. 549110	Office Salaries	\$111,410.00	\$90,572.37	\$94,370.00	\$75,668.23	\$111,300.00
01.01. 549020	Manager's Salary	\$47,500.00	\$54,226.80	\$82,500.00	\$72,716.16	\$86,700.00
01.01. 549310	Office Supplies and Expenses	\$30,000.00	\$25,162.52	\$30,000.00	\$45,797.08	\$40,000.00
01.01. 549410	Real Estate Taxes / Sohn Road	\$225.00	\$176.89	\$225.00	\$179.83	\$225.00
01.01. 549510	Auditor	\$4,000.00	\$3,542.00	\$3,500.00	\$3,690.00	\$3,750.00
01.01. 549890	Solicitor - Retainer	\$7,200.00	\$3,900.00	\$3,900.00	\$3,900.00	\$3,900.00
01.01. 549870	Solicitor - Expenses	\$6,000.00	\$13,356.25	\$6,000.00	\$2,291.83	\$6,000.00
01.01. 549610	Engineer - Retainer	\$1,200.00	\$1,100.00	\$1,200.00	\$1,100.00	\$1,200.00
01.01. 549620	Engineer - Expenses	\$35,000.00	\$48,326.58	\$35,000.00	\$59,316.18	\$50,000.00
01.01. 549720	Insurance - General Liability	\$25,000.00	\$23,040.00	\$25,500.00	\$24,362.50	\$29,000.00
01.01. 549730	Insurance - Workmen's Compensation	\$26,300.00	\$27,904.90	\$24,500.00	\$33,597.40	\$29,200.00
01.01. 549770	Insurance - Property / Equipment	\$17,900.00	\$20,317.50	\$18,500.00	\$16,014.50	\$19,600.00
01.01. 549810	Insurance - Bonds	\$300.00	\$300.00	\$300.00	\$300.00	\$300.00
01.01. 549820	Insurance Retirement	\$0.00	\$16,406.02	\$0.00	\$0.00	\$0.00
01.01. 549830	Hospitalization / Health Insurance	\$251,340.00	\$337,786.81	\$275,600.00	\$356,373.98	\$256,900.00
01.01. 549840 01.01. 549841	Employees Pension	\$88,440.00	\$103,782.83	\$93,600.00	\$130,159.74	\$108,300.00
01.01. 549841	Utilities - Telephone Utilities - Power	\$6,000.00 \$5,000.00	\$4,843.57	\$6,000.00	\$3,614.83	\$6,000.00
01.01. 549855	Utilities - Gas	\$5,000.00	\$4,282.62 \$7,729.55	\$5,000.00 \$8,000.00	\$4,519.78 \$7,980.00	\$5,000.00 \$8,000.00
01.01. 549865	Utilities - Cellular	\$3,000.00	\$2,350.50	\$3,000.00	\$2,678.70	\$3,000.00
01.01. 549880	Postage	\$13,000.00	\$10,823.55	\$13,000.00	\$13,718.18	\$15,000.00
01.01, 549885	Uniforms / Clothing Allowance	\$12,000.00	\$13,678.08	\$14,000.00	\$18,521.41	\$20,000.00
01.01. 549895	Dues, Memberships, Subscriptions	\$3,500.00	\$3,838.50	\$5,000.00	\$7,632.00	\$7,500.00
01.01. 549905	Software	\$6,000.00	\$5,327.25	\$9,000.00	\$11,858.73	\$9,000.00
01.01. 549925	Office Equipment	\$2,500.00	\$0.00	\$2,500.00	\$0.00	\$2,500.00
01.01. 549920	Travel and Education	\$1,500.00	\$1,919.94	\$4,000.00	\$1,990.77	\$4,000.00
01.01. 549850	Miscellaneous General Expenses	\$25,000.00	\$74,704.48	\$25,000.00	\$99,051.49	\$25,000.00
01.01. 549860	Maintenance - Property	\$5,000.00	\$915.29	\$5,000.00	\$1,222.44	\$5,000
	Subtot	al \$742,315.00	\$901,789.80	\$797,195.00	\$1,000,825.77	\$859,375.00
	Capital Improvements					
01.01. 545970	Capital Improvements	\$1,661,662.00	\$406,607.27	\$419,244.00	\$844,098.64	\$655,125.00
01.01.	Capital Improvements - Raccoon	\$0.00		\$0.00	\$0.00	\$0.00
		al \$1,661,662.00	\$406,607.27	\$419,244.00	\$844,098.64	\$655,125.00
	Dobt Sarvice					
	Debt Service	\$174 020 00	¢174 020 20	¢E20 E24 00	¢E20 E24 20	¢=30,000,00
	2017 Bond Issue 2018 Bond Issue	\$174,030.00 \$0.00	\$174,030.26 \$0.00	\$530,531.00 \$199,538.00	\$530,531.26 \$0.00	\$530,000.00
	2019 Bond Issue	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00 \$0.00
01.01. 549915	Debt Service Coverage	\$17,403.00	\$0.00	\$73,007.00	\$0.00	\$53,000.00
	Subtot		\$174,030.26	\$803,076.00	\$530,531.26	\$583,000.00
	Total Expense	es \$4,464,420.00	53,272,143.04	\$4,131,910.00	<b>\$4,502,870.02</b>	\$4,157,300.00
	Net Incom	e \$0.00	\$1,263,597.69	\$0.00	-\$205,295.40	\$0.00

### MUNICIPAL WATER AUTHORITY OF ALIQUIPPA CONSULTING ENGINEER'S ANNUAL REPORT SEWER FUND BUDGET VS ACTUAL

			2018 Budget	2018 Actual	2019 Budget	2019 Actuai	2020 Budget
	Revenue						
	Metered Sales						
01.02. 430110	Metered Sales - Domestic		\$1,120,818.50	\$1,104,013.39	\$1,453,338.00	\$1,279,583.40	\$1,300,000.00
	Metered Sales - Commercial		\$277,493.50	\$119,760.52	\$167,144.00	\$148,433.90	\$150,000.00
	Metered Sales - Industrial		\$58,007.89	\$19,538.15	\$26,838.00	\$34,792.66	\$35,000.00
01.02. 430140	Sales to Public Agencies		\$231,234.00	\$59,663.19	\$82,005.00	\$63,455.79	\$60,000.00
		Subtotal	\$1,687,553.89	\$1,302,975.25	\$1,729,325.00	\$1,526,265.75	\$1,545,000.00
	Public Authorities					*******	4004 000 00
01.02. 430610	Sales to Public Authorities (Hopewell)		\$378,299.11	393,938.99	\$378,299.00	\$394,019.80	\$394,000.00
		Subtotal	\$378,299.11	\$393,938.99	\$378,299.00	\$394,019.80	\$394,000.00
	Miscellaneous Revenue		400	4.6	Ann 200 5	Arn 200 51	405 000 55
	Customer Penalties		\$35,000.00	\$43,744.28	\$35,000.00	\$52,986.96	\$35,000.00
	Sewer Tap Fees		\$0.00	\$2,069.08	\$0.00	\$500.00	\$0.00
01.02. 431630	Employee Contribution		\$32,110.00	\$11,660.00	\$34,580.00	\$17,040.00	\$42,900.00
		Subtotal	\$67,110.00	\$57,473.36	\$69,580.00	\$70,526.96	\$77,900.00
		Total Revenue	\$2,132,963.00	\$1,754,387.60	\$2,177,204.00	\$1,990,812.51	\$2,016,900.00
	Expenses						
, a	Collection System						4
	Maintenance of Collection System		\$55,000.00	\$49,496.06	\$50,000.00	\$29,544.57	\$40,000.00
01.02. 544515	Outside Services		\$50,000.00	\$119,121.49	\$50,000.00	\$45,993.77	\$50,000.00
		Subtotal	\$105,000.00	\$168,617.55	\$100,000.00	\$75,538.34	\$90,000.00
	Treatment Plant and Pump Stations						
01.02. 542410	Utilities - Power - Treatment Plant		\$40,000.00	\$35,570.91	\$40,000.00	\$33,860.63	\$40,000.00
	Utilities - Power - West LS		\$1,500.00	\$1,529.01	\$1,500.00	\$1,493.84	\$1,500.00
	Utilities - Power - Wye LS		\$45,000.00	\$39,832.26	\$45,000.00	\$45,233.17	\$45,000.00
	Utilities - Power - Golf Course LS		\$3,000.00	\$2,607.62	\$3,000.00	\$2,495.42	\$3,000.00
	Utility - Gas - Treatment Plant		\$18,000.00	\$15,602.59	\$18,000.00	\$14,742.10	\$18,000.00
	Utilities - Power - Steel Street LS		\$150.00	\$0.00	\$150.00	\$0.00	\$150.00
	Utilities - Power - Jail LS		\$1,500.00	\$1,459.23	\$2,000.00	\$1,740.93	\$2,000.00
	SUPPLIES		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
	Non-Salary Compensation / Meals		\$10,000.00	\$1,265.00	\$1,500.00	\$906.00	\$1,000.00
	Maintenance of Pump Stations		\$20,000.00	\$52,452.29	\$20,000.00	\$3,498.12	\$10,000.00
	Operations Salaries		\$301,430.00	\$210,554.35	\$274,220.00	\$187,443.88	\$152,000.00
	Testing / Sampling		\$15,000.00	\$12,397.98	\$15,000.00	\$24,452.00 \$6,103.00	\$15,000.00 \$8,000.00
	Supplies Chloring R Sulfur Diquide		\$10,000.00	\$5,358.86	\$10,000.00 \$10,000.00	\$0,103.00	
U1.U2. 544320	Chlorine & Sulfur Dioxide		\$10,000.00 \$30,000.00	\$15,020.36 \$550.76		\$20,820.00	\$20,000.00 \$10,000.00
			220.000.00	3550./6	\$15,000.00	ŞU.UU	310,000.00
01.02. 545215	Outside Services				\$1,000,00	\$725 OO	\$1,000,00
01.02. 545215 01.02. 544510	Maintenance of Structures		\$1,000.00	\$112.38	\$1,000.00	\$735.00 \$56.097.45	\$1,000.00
01.02. 545215 01.02. 544510 01.02. 544610					\$1,000.00 \$15,000.00 \$45,000.00	\$735.00 \$56,097.45 \$0.00	\$1,000.00 \$20,000.00 \$45,000.00

### MUNICIPAL WATER AUTHORITY OF ALIQUIPPA CONSULTING ENGINEER'S ANNUAL REPORT DEBT SERVICE COVERAGE FACTOR CALCULATOIN 2019 ACTUAL BUDGET

	RE	<u>VENUES</u>	EXPE	ENSES (1)	NET INCOM	/IE / (LOSS)	
WATER	\$	4,297,575	\$	3,972,339	\$	325,236	
SEWER	\$	1,990,813	\$	1,601,141	\$	389,672	
	\$	6,288,387	\$	5,573,479	\$	714,908	
DEBT SERVICE 2018 Debt Service		/ments			<u>201</u> \$	1,061,063	
TOTAL ANNUAL DEBT SERVICE PAYMENT					\$	1,061,063	
	TOTA	AL ANNUAL DEBT SI	ERVICE C	OVERAGE (2)	\$	146,014	
			NET	REVENUE (3)	\$	860,922	
		2019 BUDGETED	COVERA	GE FACTOR		0.81	
		REQUIRED	COVERA	GE FACTOR		1.10	

<sup>(1)</sup> Excludes Debt Service

<sup>(2)</sup> Debt Service Coverage for Bond Issue based on 2019 budget

<sup>(3)</sup> Includes Net Income/(Loss) plus Debt Service Coverage

### MUNICIPAL WATER AUTHORITY OF ALIQUIPPA CONSULTING ENGINEER'S ANNUAL REPORT DEBT SERVICE COVERAGE FACTOR CALCULATOIN 2020 APPROVED BUDGET

	<u>RE</u>	VENUES	EXPE	ENSES (1)	NET INCOM	ME / (LOSS)	
WATER	\$	4,157,300	\$	3,627,300	\$	530,000	
SEWER	\$	2,016,900	\$	1,486,900	\$	530,000	
	\$	6,174,200	\$	5,114,200	\$	1,060,000	
DEBT SERVICE 2020 Debt Servi		/ments			<b>20</b> 1 \$	9 Payments 1,060,000	
TOTAL ANNUAL DEBT SERVICE PAYMENT					\$	1,060,000	
	TOTA	AL ANNUAL DEBT S	SERVICE C	OVERAGE (2)	\$	106,000	
			NET	REVENUE (3)	\$	1,166,000	
	25	2020 BUDGETE	D COVERA	GE FACTOR		1.10	
		REQUIRE	D COVERA	GE FACTOR		1.10	

<sup>(1)</sup> Excludes Debt Service

<sup>(2)</sup> Debt Service Coverage for Bond Issue based on 2020 budget

<sup>(3)</sup> Includes Net Income/(Loss) plus Debt Service Coverage

### MUNICIPAL WATER AUTHORITY OF ALIQUIPPA

### Year 2019/2020 - Schedule of Insurance

POLICY	% WATER	% SEWER	TOTAL PREMIUM AMOUNT	DATE
Selective Insurance Company – Commercial Property Policy No. 2242201	50	50	\$39,145.00	07/05/19 – 07/05/20
Selective Insurance Company – Inland Marine Policy No. 2242201	50	50	Included in Above	07/05/19 - 07/05/20
Selective Insurance Company – Crime Policy No. 2242201	50	50	Included in Above	07/05/19 – 07/05/20
State National Insurance – Auto Policy No. BPF-AU-101194-01	50	50	\$8,249.00	10/19/19 – 10/19/20
State National Insurance – General Liability Policy No. BPF-PK- 101194-01	50	50	\$47,559.00	10/19/19 – 10/19/20
BCS Insurance Company – Cyber Policy No. RPS-P-0285408	50	50	\$2,162.00	10/19/19 – 10/19/20
Selective Insurance Company – Workers Compensation Policy No. WC 9036360	50	50	\$58,356.00	08/01/19 – 08/01/20