

Allegheny County, Pennsylvania

Consulting Engineer's 2019 Annual Report Including the Fiscal 2020 Budget

November 2019





Allegheny County, Pennsylvania

Consulting Engineer's 2019 Annual Report including the Fiscal 2020 Budget

November 2019

Prepared by: Carol McCombs

Michael F. McKee, P.E.

Approved by: Michael B. Ryder, P.E.

Project No.: H/244032/001





Table of Contents

EX	KECUTIVE SUMMARY	iii
1.	PURPOSE AND SCOPE	1
2.	SYSTEM REVIEW	1
	Operations Maintenance and Repairs	
3.	CAPITAL IMPROVEMENTS PROGRAM	3
4.	REVENUES	18
5.	OPERATING EXPENSES	20
6.	DEBT SERVICE COVERAGE CALCULATION	26
7.	INSURANCE	26
Αp	List of Appendices opendix A 2018 – 2019 Monthly Loading and Performance Summary	
Αp	opendix B Proposed Authorized Positions	
	List of Tables	
Та	able 3-1: Capital Improvements Program	4
Та	able 4-1: Summary of Revenues	19
	able 5-1: Summary of Operating Expenses	
Та	able 5-2: Detailed Summary of Operating Expenses	23
Та	able 5-3: Summary of Authorized Positions (as proposed in 2020 Budget)	25
Та	able 7-1: Schedule of Insurance Policies	27



Consulting Engineer's 2019 Annual Report Including the Fiscal 2020 Budget - November 2019

List of Schedules

Schedule I Administration and Engineering

Schedule II Management Information Systems

Schedule III Customer Service and Billing

Schedule IV Environmental Compliance

Schedule V Interceptor System

Schedule VI Plant Operations

Schedule VII Professional Services

Schedule VIII Plant Maintenance

Schedule IX Employee Benefits



Consulting Engineer's 2019 Annual Report Including the Fiscal 2020 Budget - November 2019

EXECUTIVE SUMMARY

This annual report prepared for the Allegheny County Sanitary Authority (ALCOSAN) presents a review of the sewerage system operation and financial status for the year 2019. Additionally, this report outlines ALCOSAN's Capital Improvements Program and associated year 2020 Budget and includes the proposed year 2020 Revenue and Operating Expense Budgets.

The conclusions and recommendations of this report are as follows:

- A review of the monthly Discharge Monitoring Reports from all of the effluent quality requirements established by the National Pollution Discharge Permit (NPDES) permit. In March 2009, the monthly average flow limit increased from 200 million gallons per day (mgd) to 250 mgd with the completion of the dechlorination facilities. A renewal application for the NPDES permit was completed in 2013, and the final permit was issued on December 11, 2018. During the period of October 2018 through September 2019, the monthly average daily flow was 215.8 mgd, with maximum day flows of 250 mgd. Maximum day flows of 250 mgd were recorded in all months except for March, August and September 2019. The minimum monthly average flow of 172.9 mgd occurred in September 2019.
- The quarterly facility reviews conducted by Hatch indicate that the properties and equipment of ALCOSAN have been maintained in good repair and are in proper operating condition.
- The Capital Improvements Program proposed for 2020 consists of the implementation or completion of 35 active projects. These projects plus the \$2,479,100 allocated for low-cost capital improvements total \$854,624,100. It is anticipated that approximately \$110,630,500 will be expended on the 35 active capital projects during 2020.
- The proposed year 2020 budget anticipates revenues of \$193,157,500, operating expenses of \$101,613,100, transfer to capital facilities fund for cash funding of green infrastructure and other capital projects of \$8,800,000, and net operating income available for debt service of \$82,774,400. Net income, combined with the January 1, 2019 beginning Revenue Fund balance in excess of the minimum required fund balance, results in a debt service coverage of 3.37.
- In accordance with the Four-Year Rate Resolution (2018-2021) adopted in 2017, the Authority Board has approved a 7 percent increase in rates effective January 1, 2020. Therefore, it appears that there will be sufficient revenues to meet the Trust Indenture requirements and provide for proper operation, maintenance, and repair of the sewerage system during 2020.
- ALCOSAN's insurance policies are updated annually and satisfy the requirements of the Trust Indenture.



Consulting Engineer's 2019 Annual Report Including the Fiscal 2020 Budget - November 2019

1. PURPOSE AND SCOPE

Section 7.11 of the Trust Indenture dated July 1, 1997, as supplemented by a Second Supplemental Trust Indenture dated as of August 1, 2001, a Third Supplemental Trust Indenture dated as of December 15, 2002, a Fourth Supplemental Trust Indenture dated as of May 18, 2005, a Fifth Supplemental Trust Indenture dated as of July 1, 2007, a Sixth Supplemental Trust Indenture dated as of October 1, 2010, a Seventh Supplemental Trust Indenture dated December 1, 2013, a Ninth Supplemental Trust Indenture dated September 1, 2015, a Tenth Supplemental Trust Indenture dated September 1, 2016, and an Eleventh Supplemental Trust Indenture dated September 1, 2018 by and between the Authority and the Trustee requires that the Authority employ a Consulting Engineer to, in addition to other duties, prepare and file an annual report containing the following:

- a) His advice and recommendations as to the proper maintenance, repair and operation of the Sewer System during the next Fiscal Year, his estimate for said Fiscal Year of the amounts of money that should be expended for Current Expenses and his estimate of the Gross Revenues of the Sewer System for such Fiscal Year;
- b) His advice and recommendations as to the Capital Additions that should be made during the next Fiscal Year, and his estimate of the amounts of money necessary for such purposes:
- c) His advice and recommendations as to the insurance to be carried under the provisions of Section 6.12 and a statement setting forth the various policies and the amounts thereof then in force, pursuant to the provisions of said Section 6.12;
- d) His recommendations as to any necessary or advisable revision of rates and charges; and
- e) His finding whether the properties of the Sewer System have been maintained in good repair and sound operating condition and his estimate of the amount, if any, required to place such properties in such condition and the details of such expenditures and the approximate time required therefore.

It is the intent of this report to satisfy the requirements set forth in Section 7.11 of the Trust Indenture dated as of July 1, 1997, inclusive.

2. SYSTEM REVIEW

2.1 Operations

The quarterly facility process evaluations conducted by Hatch provide a general overview of the operation and condition of the treatment plant and process equipment. The evaluations conducted in this review period indicate that ALCOSAN facilities have been maintained in good repair and proper operating condition.



Consulting Engineer's 2019 Annual Report Including the Fiscal 2020 Budget - November 2019

All the effluent quality requirements of the plant's National Pollution Discharge Elimination System (NPDES) permit relative to pollutant concentrations and mass loadings for the period of October 2018 to September 2019 were in compliance. No excursions of the permit limits were reported during the period under review.

ALCOSAN completed a renewal application for its NPDES permit for the treatment plant in 2013. A notice of the draft permit was published in the Pennsylvania Bulletin in September 2018 and the final permit was issued on December 11, 2018. The new permit is effective from January 1, 2019 through December 31, 2023.

During the period from October 2018 to September 2019, the monthly average daily flow was 215.8 million gallons per day (mgd), with a maximum day flow of 250 mgd. Maximum day flows of 250 mgd were recorded in October 2018, November 2018, December 2018, January 2019, February 2019, April 2019, May 2019, June 2019 and July 2019. The minimum monthly average flow of 172.9 mgd occurred in September 2019. Appendix A provides a summary of all plant loadings and operating performance from October 2018 through September 2019.

Under normal operating conditions, two to three of the six raw sewage pumps are in operation. Pump Number 2 has been returned to the plant from the manufacturer but has not been installed. Pump Number 5 has been out of service for replacement of the bearings and was returned to the plant but has been sent back to the factory to have the wear rings replaced. All work on the remaining pumps and drives has been completed and all pumps are available for service. The pumps are rated at 120 mgd and are driven by 2,250 horsepower motors.

Scheduled routine maintenance was performed throughout the past year and occasional repairs to the headworks and primary sedimentation tanks were carried out as required. Throughout the review period, the overall removal efficiencies through the primary sedimentation tanks have been very good and relatively constant.

The activated sludge biological treatment process has been in continuous service and has operated in the contact-stabilization mode normally employed. Tanks are routinely taken out of service for inspection and maintenance of the air line piping and the fine bubble diffusers.

All final clarifiers were in use or available for service during the review period. The final clarifiers and all ancillary equipment are serviced in accordance with the preventative maintenance program.

The chlorination facilities have been effective in achieving the required disinfection of the final effluent discharged to the Ohio River. Similarly, the dechlorination facilities have adequately maintained compliance with the total residual chlorine limitation specified in the plant's discharge permit.

Sludge dewatering with the centrifuges has continued and performance has been excellent, producing a dewatered solids content of greater than 30 percent. The centrifuges and ancillary systems such as feed pumps, sludge grinders and the polymer feed system have performed well and are routinely maintained.



Consulting Engineer's 2019 Annual Report Including the Fiscal 2020 Budget - November 2019

Various repairs were made to the fluidized bed incinerators over the past year including boiler replacement, which required both incinerators to be shut down. During the shut down period, all dewatered sludge was disposed at landfills or land application sites. Repair work has been completed and both incinerators are back on line.

A total of 23,500 dry tons of sludge and ash were disposed between October 2018 and September 2019. Of this total, approximately 5,100 dry tons were disposed in landfills and 9,100 dry tons were land applied. During this same period, approximately 21,700 dry tons of sludge were incinerated in the fluidized bed incinerators, producing approximately 9,300 tons of ash for disposal.

2.2 Maintenance and Repairs

ALCOSAN's facilities are well maintained by a planned maintenance program designed to keep the facilities in efficient operating condition. The facilities benefit from an excellent and conscientious housekeeping effort.

3. CAPITAL IMPROVEMENTS PROGRAM

ALCOSAN's Capital Improvements Program (CIP) is presented in Table 3-1. The CIP is financed through disbursement of Construction Fund moneys made available for certain projects as part of the 2015 and 2018 Series Bond Issues and cash funding mainly used to fund municipal green infrastructure and source reduction GROW projects. The CIP is updated and approved by the Board of Directors annually. The CIP projects can be broadly categorized as:

- Major repairs and rehabilitation work, which are necessary to maintain the capacities of the current facilities.
- System upgrades and improvements, which are intended to enhance the capacities or operating efficiencies of the treatment plant and the interceptor system.
- Long-term capital improvements required by ALCOSAN's Consent Decree.

Currently, there are 35 active capital projects and a low-cost capital improvements item, which are listed in Table 3-1. The current estimated cost of projects to be completed under the CIP is \$854,624,100, which includes \$2,479,100 in low-cost capital improvements.

The 35 active projects, minus the low-cost capital improvements, amount to \$852,145,000, with some \$766,813,181 remaining to be expended. It is anticipated that \$113,109,563 will be spent on the following active capital projects during 2020.

Biosolids Strategic Plan—S408

ALCOSAN produces approximately 350 wet tons (or 100 dry tons) per day of biosolids. For the past 25 years, ALCOSAN has relied on a multi-faceted strategy to manage this material including incineration and production of a lime-stabilized product called



Table 3-1 Capital Improvements Program

Proj.	Description	Current Estimated Cost	Total Expended To 12/31/18	2019 Estimated Expenditure	Remaining To Be Expended	2020 Capital Budget
	ACTIVE PROJECTS					
S408	Biosolids Strategic Plan	\$1,525,600	\$4,371	80	\$1,521,229	\$500,000
S419	Mobile Equipment 2020	947,900	0	0	947,900	947,900
\$423	Plant Energy Efficiency Upgrades	2,319,000	1,095,213	20,000	1,203,787	800,000
S430	Wet Weather Plant Expansion (Program Costs)	49,000,000	6,811,360	1,800,000	40,388,640	4,000,000
5432	Preliminary Planning	18,350,000	7,845,907	4,000,000	6,504,093	6,000,000
S437	Ravine Street Stream Removal and Sewer Separation	4,189,800	49,322	44,400	4,096,078	4,053,000
S438	Four Mile Run Regulator (M29) & Outfall Improvements	2,054,000	137,449	10,000	1,906,551	1,500,000
S440	Green Revitalization of Our Waterways Program	77,021,800	914,415	149,000	75,958,385	15,090,000
S446	Regionalization	49,505,000	19,932,134	4,000,000	25,572,866	12,000,000
S447	Municipal Source Control Evaluation Program	11,637,000	2,642,686	1,386,000	7,608,314	921,600
S448	Interim Wet Weather Planning Compliance	22,850,000	6,839,063	1,000,000	15,010,937	2,000,000
S451	Property Acquisitions	41,029,000	77,199	200,000	40,751,801	7,000,000
S454	Panther Hollow DSI	2,006,600	0	1,000	2,005,600	1,298,000
S455	Green Infrastructure Program Manager	6,300,800	1,043,960	992,000	4,264,840	1,455,000
S456	Program Management Information System (PMIS)	000'000'6	1,299,642	200,000	7,200,358	400,000
S458	Conveyance, Rehabilitation & Enhancements (2018-2020)	6,652,000	205,280	800,000	5,646,720	5,646,720
\$459	Energy Recovery Facility Improvements (2018-2020)	2,300,000	440,330	000'006	029,626	959,670
S460	Plant Facilities and Safety Upgrade (2018-2020)	3,700,000	1,565,827	1,300,000	834,173	834,173
S461	New Outfall, Disinfection Facility & Secondary Clarifiers	180,000,000	13,721	6,000,000	173,986,279	15,000,000
\$462	Wet Weather Headworks Expansion	123,000,000	15,485	2,400,000	120,584,515	4,500,000
S463	Solids Thickening and Dewatering Improvements	33,000,000	500	0	32,999,791	0
S464	New Lab and Industrial Waste Facility	45,000,000	17,946	350,000	44,632,054	2,500,000
S466	Wet Weather Disinfection	40,000,000	0	1,000	39,999,000	200,000
5457	Now Driman Sadimentation Tanks	38.000,000	0	0	38,000,000	0



Table 3-1 Capital Improvements Program (Continued)

Proj.	Description	Current Estimated Cost	Total Expended To 12/31/18	2019 Estimated Expenditure	Remaining To Be Expended	2020 Capital Budget
	ACTIVE PROJECTS (Continued)					
S468	Plant Electrial Distribution System Upgrade	\$14,000,000	\$0	\$500,000	\$13,500,000	\$2,000,000
S469	Sewer Rehab for Saw Mill Run & Mon-Subaquesous Interceptor	19,630,000	0	231,000	19,399,000	13,902,000
S470	Flap Gate & Misc Regulator Improvements at Various Locations	3,122,000	0	175,000	2,947,000	1,500,000
S471	Remote Pump Station Improvements	4,376,000	0	100,000	4,276,000	750,000
S472	Plant and Safety Upgrade (2020-2021)	3,000,000	0	0	3,000,000	1,700,000
S473	Energy Recovery Facility Improvements (2020-2021)	1,500,000	0	0	1,500,000	300,000
5474	New Acess Shaft Manholes Near A-40 and M-49 Crossing	4,876,000	0	0	4,876,000	1,420,400
S475	Tunnel Program Management	25,481,000	0	0	25,481,000	150,000
S476	Precipitation Montoring System Replacement and Upgrade	711,200	0	0	711,200	448,000
S477	Water Quality Monitoring Program	2,560,000	0	0	2,560,000	387,000
S478	Flow Targets	200,300	0	0	200,300	167,000
2000	2020 Low Cost Capital Improvements	2,479,100	0	0	2,479,100	2,479,100
	Subtotal	\$854,624,100	\$50,951,519	\$26,859,400	\$776,813,181	\$113,109,563
	2019 COMPLETED PROJECTS			1		
S420	Grit Chambers	1,170,500	894,822	275,678	0	0
8449	Demolition of Old Operations & Maintenance Facility	535,000	461,952	73,048	0	0
	Subtotal	1,705,500	1,356,774	348,726	0	0
	TOTALS	\$856,329,600	\$52,308,293	\$27,208,126	\$776,813,181	\$113,109,563



Consulting Engineer's 2019 Annual Report Including the Fiscal 2020 Budget - November 2019

ALCOSOIL for land application and land filling. While this strategy continues to be effective, there are emerging challenges that threaten the longevity and redundancy of each of the handling options. For example, growing public opposition to land application, the implementation of federal and state regulations on incineration as well as land application, limitations imposed at preferred local landfills, increasing energy costs, and greater importance placed on energy efficiency all create the need for a comprehensive strategy that will identify how to lead ALCOSAN's solids handling during the 21st century.

A Biosolids Strategic Plan will consider ALCOSAN's current biosolids management program in light of the foreseeable challenges, existing wet weather planning initiatives, industry best practices, as well as local opportunities to ultimately recommend a sustainable scenario for the next 15 to 20 years.

Mobile Equipment (2020)—S419

This capital program provides for the purchase of various utility vehicles and equipment that can be used in the operation and maintenance of the ALCOSAN facilities by ALCOSAN personnel. They include a dump truck, combo truck, pick-up trucks, vans, passenger vehicles, and a towable water buffalo.

Plant Energy Efficiency Upgrades—S423

This project will build upon many of the recent upgrades and ongoing activities to improve energy efficiency and to reduce operating costs throughout the wastewater plant. More recent and ongoing projects include participation in electrical demand response programs, facility upgrades to Light Emitting Diode (LED) type lighting, rehabilitation of an existing steam turbine generator, and city water usage evaluations. A finalized energy management study evaluated many of the renewable sources of energy such as solar, wind, hydro, and thermal for possible inclusion in the plant's overall energy efficiency strategy. The budget includes pilot projects in solar, likely installation of an Operations and Maintenance (O&M) building rooftop array and an alternative vehicle fueling pilot evaluation. Other study components will be further considered as part of the Wet Weather Plant Expansion Program.

Wet Weather Expansion Program—S430

In conjunction with all of the legal requirements of the U.S. Environmental Protection Agency (EPA) Consent Decree, ALCOSAN proposes an expansion of the existing treatment plant to a wet-weather capacity of 600 mgd, including an expansion of secondary treatment to 295 mgd. The plant expansion alternatives were developed as part of the development of the Wet Weather Plan that was submitted to the agencies in January 2013. Although the Plan is still under review and subject to negotiations, the regulatory agencies have agreed that the expansion of the plant is a key component of the Plan and ALCOSAN should proceed with its implementation.



Consulting Engineer's 2019 Annual Report Including the Fiscal 2020 Budget - November 2019

Expansion of the plant will include new expanded headworks, two new final secondary clarifiers including a new RAS pumping station, and a new chlorine contact tank and outfall. It will also include improvements to the plant dewatering process. The existing outfall will be modified to discharge bypassed wet weather flow and the existing disinfection process and odor control systems will be upgraded. The expansion may also include a new tunnel dewatering pump station, as well as additional structures to convey and distribute the increased flow through the plant.

A Program Manager (PM) was procured in 2016 to advance the expansion of the plant facilities. The PM will assess, verify, and further evaluate the components of the plant expansion contained in the Plan, as well as update the estimated project costs. This will include developing an operating sequence for initiating and exiting wet weather operations treatment modes. This will include coordinating the proposed plant work with the preliminary planning for improvements upstream of the plant under Capital Project No. S432 described hereafter. The PM will evaluate components of the recent energy management study for potential incorporation into the plant expansion improvements. The PM will also devise a plan to package and sequence the design and construction projects. In addition, the PM will assist ALCOSAN staff in preparing engineering design Requests for Proposals.

During the design of the individual projects, the PM will review the various design products. The PM will participate in value engineering for each of the projects. The PM will also participate in constructability and bid-ability reviews of the progressing design products and bid documents for each of the projects. The PM will also verify estimates provided by the various design consultants. The PM will identify potential interferences with existing utilities and the need for utilities to the new proposed facilities. The PM will identify any needed update or expansion of the plant Distributed Control System (DCS) operating system. The PM will use cost control measures to update and maintain budgetary goals.

In 2017, the PM completed performance modeling and hydraulic modeling to validate the proposed plant expansion. Basis of Design Reports have been completed and were included in the Water Quality Part 2 permit application to the Pennsylvania Department of Environmental Protection (DEP). In 2018, a Construction Manager was procured to assist in the packaging and review of design products. Procurement of design firms has begun and will continue in 2020.

Preliminary Planning—S432

The goal of Preliminary Planning is to (1) develop the basis and criteria for the individual design projects needed to construct all above-ground and under-ground Gray and GSI facilities upstream of the wastewater treatment plant and (2) optimize the existing Basin Facilities Plans using value engineering and flow reduction strategies to yield significant cost savings.



Consulting Engineer's 2019 Annual Report Including the Fiscal 2020 Budget - November 2019

Specific tasks to be performed under Preliminary Planning include the following: developing a project management plan; identifying and scheduling key milestone dates and deliverables; evaluating the effectiveness of GSI and flow reduction efforts on regional infrastructure sizing; providing value engineering of the treatment plant expansion versus satellite treatment; establishing the criteria and implementing geotechnical investigations; evaluating and optimizing key alignments of all facilities; developing property acquisition strategy; identifying key properties for acquisition; air entrainment and surge analysis; optimizing odor control and developing noise mitigation standards; evaluating and presenting alternate design concepts for regional conveyance facilities; evaluating alternate operational schemes, passive versus active; evaluating and optimizing flow to the existing interceptor system; evaluating preliminary sizing criteria; evaluating microtunneling and surface consolidation routes; surveying; optimizing the use of green leavebehind projects at all critical facility locations; evaluating various project delivery systems; providing updated cost estimates; consulting, in conjunction with ALCOSAN personnel, during all financing strategy sessions; and coordinating with plant expansion program activities performed under Capital Project No. S430.

A Planning Consultant was hired in 2017 to perform the preliminary planning. There is a three-year schedule to perform the activities described above.

Ravine Street Stream Removal and Sewer Separation—S437

Removal of the Ravine Street stream inflow has long been a priority of ALCOSAN and other local stakeholders. The combined collection system in Sharpsburg receives streamflow and roadway runoff from two upstream municipalities and PennDOT. In 2015, PennDOT initiated a final design project for the stream removal that includes significant flow redirection and sewer separation. ALCOSAN, Sharpsburg Borough, O'Hara Township, and Shaler Township have committed funds to the construction of the project. State Senators and State Representatives are also committing state funds to this very important local project.

Four Mile Run Regulator (M-29) and Outfall Improvements—S438

Four Mile Run is an urban watershed tributary to the Monongahela River in the City of Pittsburgh that experiences chronic urban flooding. In September 2015, Service Authorization 280-4 was approved for Chester Engineers to provide engineering services to evaluate and to provide for the conceptual design of modifications to the M-29 outfall structure. A LIDAR imaging scan was performed to create a CADD drawing of the regulating chamber and outfall. As a result of the field inspection, the outfall was found to be in poor and failing condition.

Concurrently with the field inspections and survey, Chester Engineers conducted hydraulic modeling, alternatives analysis, and costing comparisons of five alternatives. As a result of the alternatives analysis, the engineering consultant and stakeholders agreed that an effort to repair the outfall pipe, lower the weir, and add a flap gate provided the best



Consulting Engineer's 2019 Annual Report Including the Fiscal 2020 Budget - November 2019

immediate value. The Pittsburgh Water and Sewer Authority (PWSA) has requested to take the lead on construction of this project and a revised cost sharing and cooperation agreement is being developed. This budget is allocated to provide reimbursement to PWSA for construction of ALCOSAN associated infrastructure.

Green Revitalization of Our Waterways Program—S440

This program will provide funding assistance for municipal source control projects over the next several years. Municipalities and/or municipal sewer authorities are eligible to participate. Other stakeholders such as local, county, and state agencies would be eligible for participation (e.g., school districts) provided they enter into a partnership agreement with the respective ALCOSAN customer municipality.

The form of funding assistance would agree with ALCOSAN's legal and fiduciary obligations. Matching funds could be maximized at 85 percent of eligible project costs, thereby requiring a municipal match, which could come from the municipality or outside funding sources such as grants or appropriations. A maximum match per project is \$10 million.

The funding could vary between projects based on such factors as anticipated overflow and source reduction benefits. Each project application will be evaluated to take into account program goals, community and environmental benefits, municipal financial capability, etc.

Funded projects will be required to establish technical standards and an ongoing 20-year maintenance program to ensure the functionality of the reduced stormwater. Post-construction project evaluation and reporting will be conducted and presented in a final report.

Regionalization—S446

ALCOSAN is engaging its member municipalities to transfer ownership and maintenance responsibility for certain inter-municipal trunk sewers. ALCOSAN has been collecting relevant municipal information in an effort to identify any additional sewers that are multimunicipal; to evaluate the location and condition of the sewers for transfer; and to determine approximate extents, exhibits, and mapping for the transfer agreements. ALCOSAN has also been meeting with local municipal officials and engineers in an effort to understand any concerns that may affect the agreements or schedule.

As of October 2018, 267 miles of trunk sewers that meet the criteria are being considered for transfer. Also included are 79 diversion chambers, four pump stations, and four equalization tanks that have been proposed as part of the asset transfer.

ALCOSAN will continue to meet with municipal officials and engineers in 2020 to implement the transfer of these sewers and facilities.



Consulting Engineer's 2019 Annual Report Including the Fiscal 2020 Budget - November 2019

Municipal Source Control Evaluation Program—S447

The Municipal Source Control Evaluation Program will quantify dry and wet weather wastewater flow in municipal collection systems. In addition, the program will furnish, install, and operate all equipment necessary to obtain nighttime flow isolation weir readings per the quantity and manhole structures determined by ALCOSAN. The goals of this program are to:

- Provide wastewater flow monitoring data necessary to develop a comprehensive understanding of existing municipal collection system hydrology and hydraulics, system responses during dry weather periods, and various wet weather events.
- Provide nighttime instantaneous flow rate readings in order to "isolate" smaller areas
 of the municipal collection systems that are contributing significant amounts of system
 infiltration.
- Support planning and design work associated with implementation of ALCOSAN's Clean Water Plan, forthcoming municipal regulatory requirements, and municipal flow targets.

Interim Wet Weather Planning Compliance—S448

ALCOSAN submitted a Wet Weather Plan to the regulatory agencies in January 2013 as required by the 2008 Consent Decree. ALCOSAN and the agencies have negotiated an amendment to the Consent Decree that will require ALCOSAN to perform additional obligations that include implementing a 2.0 billion dollar Interim Wet Weather Plan of capital improvements to the ALCOSAN system.

It will require technical and management services to ensure compliance and cost-effective procedures in implementing the proposed Interim Wet Weather Plan improvements, including coordinating the efforts of others charged with the individual programs and components of the Plan. It will require creating methodologies to support the management of municipal flows; to apply risk management principles to budgets and schedules, using adaptive management strategies; and to incorporate the results from municipal green stormwater management plans and infiltration/inflow source reduction programs. It may also require additional management responsibilities of the transfer of multi-municipal trunk sewers to ALCOSAN.

ALCOSAN developed a management strategy to administer the program support needs by hiring an Owner Representative and a Program Director. A Program Management Organization (PMO) has been formed and meets regularly to coordinate and communicate the ongoing activities necessary for completion of activities and maintaining regulatory compliance.

In 2018, ALCOSAN received information and reports from the customer municipalities that were generated by regulatory orders. ALCOSAN, with assistance and input from its consultants, will perform hydraulic analyses and flow modeling to estimate municipal flow



Consulting Engineer's 2019 Annual Report Including the Fiscal 2020 Budget - November 2019

quantities, frequencies, and durations of wet weather overflows under varying scenarios influenced by the municipal flow reduction programs and potentially identify any modifications to the negotiated Interim Wet Weather Plan Capital Program.

Over the next several years, ALCOSAN and its consultants will be performing similar reviews of municipal information, monitoring economic and environmental changes, and preparing reports to the agencies and customer municipalities. Periodic updates to existing population, estimated costs, financial burdens, and infrastructure information are also anticipated. This capital account will be used to support these tasks and activities.

Property Acquisitions—S451

The property and right-of-way acquisition services will consist of the steps necessary for the acquisition of properties and easements required for the construction, operation, and maintenance of improvements associated with the Clean Water Plan. Green Infrastructure Program and Regionalization work shall include the following activities:

- Gathering title information for properties identified by ALCOSAN and updating of titles as necessary prior to closing of any property acquisition or condemnation.
- Surveying services, as needed, ALTA surveys.
- Preparing real property legal descriptions.
- Preparing a property history report including prior uses, subsurface information, potential archaeological or historic site designations, local zoning and land use requirements, special neighborhood designations, utility easements, flood insurance map determinations, potential land development or redevelopment.
- Preparing Environmental Site Assessments, as needed.
- Determining appraisal values of properties and preparing appraisal reports to be used in the course of negotiations and condemnations.
- Preparing all acquisition documents and maintaining all property acquisition files.
- Negotiating with owners of record for the acquisition of such property.
- Coordinating with the public and municipalities.
- Calculating estimated acquisition and closing costs.
- Leading condemnation procedures and testifying as needed for such condemnations.
- Closing real property acquisitions upon receipt of ALCOSAN's approval.
- Providing such other services as may be required by ALCOSAN.

Panther Hollow DSI—S454

The Panther Hollow watershed includes parts of Squirrel Hill, Oakland, and Schenley Park. This stream conveys sediment and debris to the deep tunnel and restricts the capacity of



Consulting Engineer's 2019 Annual Report Including the Fiscal 2020 Budget - November 2019

the interceptor system. In 2010, PWSA submitted an analysis for removing stream flow from the combined sewer system. The report indicates that removing Panther Hollow Lake provides a cost-effective option to reducing combined sewer overflows from M-29.

Green Infrastructure Program Manager—S455

As part of the initiatives laid out in the "Starting at the Source" report, a program management team was procured in 2017 to advance the goals and objectives of ALCOSAN's source control initiatives such as green stormwater infrastructure and control of inflow and infiltration.

The Green Infrastructure Program Manager will assist ALCOSAN by providing assistance in implementing the S440-GROW Program through review of grant applications, by developing guidelines, by computer modeling, by evaluating the impacts that GROW projects may have on the Interim Wet Weather Plan, and by providing management of the green infrastructure on-call consultants.

A Regional Stormwater Study titled "Controlling the Source" (CTS) will identify potential municipal projects to implement source control projects, evaluate the potential impacts regional source control projects may have on the Interim Wet Weather Plan, identify third party funding for municipalities, and coordinate with planned public and private construction projects.

Originally budgeted for three years, this capital account is incorporating ALCOSAN's option to extend the Service Authorization of the Green Infrastructure Program Manager for an additional two years.

Program Management Information System (PMIS)—S456

ALCOSAN has identified the need for an electronic PMIS to support the implementation of ALCOSAN's Wet Weather Plan and associated programs. E-BUILDER, including 100 user licenses, was purchased through the Program Director in mid-2017. The software and user licenses will be transferred to ALCOSAN in the third year of implementation.

Mapping of the business processes, software configuration, training and start-up of the system components commenced in September 2017 with completion in 2018. Project management, shop drawing review, cost control and processing professional service invoices, construction pay applications and change orders will be exercised through E-BUILDER. Report generation is available for various parameters. Transfer of documents from the existing ECM to storage space in E-BUILDER has been completed.

Conveyance, Rehabilitation, and Enhancements (2018-2020)—S458

This capital project conducts various improvements and repairs to the ALCOSAN Regional Conveyance System. Rehabilitation and enhancement work will continue based upon recommendations from the Interceptor Systems and Wet Weather Programs Departments. Projects identified for 2020 include modifications to the outfalls at M-59, M-60, and A-17 to



Consulting Engineer's 2019 Annual Report Including the Fiscal 2020 Budget - November 2019

include extension of the outfall and installation of a bulkhead guide. This budget also includes safety improvements and repairs to various regulating structures and mechanical and electrical repairs to the O-7 Access Shaft. Also included are a grouping of miscellaneous projects to be bid in one contract: encasing the C-27 shallow cut interceptor, reconfiguring the T-33 regulator, reconfiguring the T-27 regulator, installing a manhole at A-78-02, repairing M-04 connector sewers, and replacing the S-39 connector sewer.

Energy Recovery Facility Improvement (2018-2020)—S459

The intent of this program is to address smaller type improvements that are identified to improve the efficient operation of the Energy Recovery Facility. An assessment of the existing equipment in the Energy Recovery Facility began in 2018. Improvements identified will be made under this capital account. Also, repairs were made to the manifold nozzles in Incinerator No 2. The compressors for the air system in the Energy Recovery Facility are being replaced. Manifolds for Incinerator No. 1 are in the process of being replaced.

Plant Facilities and Safety Upgrades (2018-2020)—S460

The intent of this program is to address smaller type improvements that are identified to improve the efficient operation of the plant and remote pump station facilities.

Replacement of handrail around final settling tanks will continue. Also, a new storage building on top of aeration tank W-4 will be built to protect ALCOSAN stored materials from the elements. This capital program has included hardware upgrade of the plant Distributed Control System (DCS), and completion of replacements of program logic controllers (PLC's) for the lime transport system, biosolids loading area and the four return activated sludge pumping stations.

North End Facilities: New Outfall, Disinfection Facility, and Secondary Clarifiers—S461

With the increase of dry weather flow capacity to 295 mgd, the plant will not have the hydraulic capacity to continue to discharge flow through the existing outfall. The hydraulics dictate that the flow must be redirected to a new outfall at the north end of the plant. The project will require a new river wall, demolition of the existing hypochlorite facility, construction of a new chlorine contact tank and outfall, as well as a sodium bisulfite facility to remove excess chlorine. New chemical buildings and storage tanks will also be part of the project. A new electrical substation will also be required. Two new Secondary Final Clarifiers will be constructed to increase secondary treatment capacity to 295 mgd. A new return sludge (RAS) pump station will be constructed to pump the RAS from the new clarifiers back to the aeration basins. The existing RAS pumps and piping will also be replaced to handle the increased flows through the existing piping. A new river wall will need to be constructed to build the western clarifier along the river. The construction package will be bid and awarded in 2020. Work will continue through 2025.



Consulting Engineer's 2019 Annual Report Including the Fiscal 2020 Budget - November 2019

A temporary hypochlorite system is being upgraded to provide disinfection for process until the new outfall and disinfection facility is brought online. The work began in 2019 and will complete this year.

The existing RAS pump stations will be upgraded, and RAS piping will be upsized to accommodate the increased flow from the new Secondary clarifiers. Flow control valves will be added to better split the RAS flows to the various aeration tanks. Design of this project began in 2019 and will be completed in 2020. Construction will last through 2021.

Wet Weather Headworks Expansion—S462

The wet weather capacity of the expanded plant will exceed the capacity of the existing headworks. Seven new grit tanks, as well as the accompanying bar screens, will be constructed. The tanks and bar screens will be in a newly constructed building. There will also need to be a new grit truck unloading station in the building. New conduits to and from the new headworks will have to be constructed to convey the increased wet weather flows. Installation of these conduits will require relocation of portions of the pipe galleys. Additionally, flow meters and diverter valves will be installed on the existing pump discharge lines for operational controls and reporting purposes. In addition, a new siphon drop box will be constructed to combine flows from the various pumps to convey flow to the new headworks. The existing odor control system will be modified to accommodate the increased air volume. Design begin 2019 and will continue in 2020. Construction will begin in 2021 and last through 2024. The flow meter installation has been bid separately and will be under construction in 2020 and completed in 2021.

Solids Thickening and Dewatering Improvements—S463

The increased wet weather flow through the primary sedimentation tanks will exceed the recommended DEP guidelines for co-setting of Waste Activated Sludge (WAS) in the tanks. The WAS will have to be thickened before being blended with the primary sludge in the dewatering process. New thickening centrifuges will be furnished and installed, including construction of a new mezzanine level for the location of the centrifuges. Ancillary pumps and a polymer feed system will be required, as well as piping and new WAS pumps. Electrical equipment in the dewatering building will need to be upgraded. In addition, the existing dewatering centrifuges are near the end of their expected life and will be replaced.

New Laboratory and Industrial Waste Facility—S464

Construction of the two new primary sedimentation tanks to increase wet weather capacity will require demolition of the existing Laboratory and Industrial Waste buildings. A new facility that will house both departments will be constructed. The new laboratory will be located on the site of the existing Union Parking lot. A new parking garage will be constructed on the site as well to replace the parking spots lost to the lab footprint. Design will begin in 2020. Garage construction will be in 2021. Lab construction will begin after garage completion and extend through 2023.



Consulting Engineer's 2019 Annual Report Including the Fiscal 2020 Budget - November 2019

Wet Weather Disinfection—S466

The increased wet weather capacity at the treatment plant will be achieved by bypassing flows that exceed secondary capacity to a wet weather outfall. The current chlorine contact tank will be modified to reverse flows through the existing tank, and a new outfall at the north end of the tank will be constructed. The project will require a new chemical feed and storage system for disinfection of the wet weather flows. Also, a flow control structure and conduit will be required to route the bypass flows. A design consultant will be procured in 2020.

New Primary Sedimentation Tanks—S467

Two new primary sedimentation tanks will be constructed to increase wet weather capacity to 600 mgd. The existing E-2 primary pump station will be reconfigured to add a new pump. The existing primary pumps will be replaced.

Plant Electrical Distribution System Upgrade —S468

The new Wet Weather Pump Station will likely be constructed in the same location as the existing 5KV substation. A new 5KV substation will be constructed to replace the existing substation. As a result, this project will re-feed and reconfigure the electrical distribution systems to re-feed existing loads currently fed from the existing 5KV substation, as well as prepare the plant for the increased electrical loads associated with the plant expansion. Design began in 2019. Construction will begin in 2020 and be completed in 2021.

Sewer Rehabilitation for Saw Mill Run and Monongahela Subaqueous Interceptors—S469

This capital project includes the design and installation of 18,000 feet of CIPP lining for the Saw Mill Run Interceptor between MH-45 and O-14W and 7,000 feet for the Monongahela Subaqueous Interceptor between M-44 and M-42A to include the M-44, M-43, and M-42 connector lines. The installation of several new access ports will be required for the Monongahela Subaqueous Interceptor lining. Two consulting firms are currently proceeding to final design. Two separate contracts will be let in 2020 and will be completed in late 2021.

Flap Gate and Miscellaneous Regulator Improvements at Various Locations (2019-2021)
 —S470

With upwards of 235 flap gates in the Regional Conveyance System, these gates require ongoing maintenance and replacement due to corrosion and deterioration. Many of the gates are leaking, allowing chronic water inflow in the treatment system. This added water translates into additional pumping and treatment costs at the ALCOSAN plant.

The ALCOSAN Manager of Interceptor Systems identifies flap gates requiring maintenance. Similar to previous contracts, a contractor will be required to dewater, assess concrete strength, verify chamber and gate dimensions, prepare shop drawings,



Consulting Engineer's 2019 Annual Report Including the Fiscal 2020 Budget - November 2019

and conduct installation of new gates and appurtenances. Gates being programmed for replacement this period include A-60, A-68, M-45, A-41, M-03, A-31, O-34, and M-52.

Remote Pump Station Improvements —S471

This capital project includes improvements to the Melanchton Ejector Station, Corliss and Ella Street Pump Stations. At the Melanchton Pump Station, a contract would include replacing the ejector with a small submersible package station. Improvements at Corliss Pump Station include replacement of internal piping and the possible installation of a permanent bypass pumping structure. At Ella Street, improvements to be investigated include installation of a flap gate, determining optimal pumping configuration to reduce pump cycling, addition of a new storm pump, backflow prevention, replacement of the mechanical bar screens, and upgrades to the sewage pumps and discharge piping.

Plant and Safety Upgrade (2020-2021) – S472

The intent of this program is to address smaller type improvements that are identified to improve the efficient operation of the plant and remote pump station facilities.

Work scheduled for 2020 includes addressing leaks in the new O&M building, roof replacement over the Screenings Area, the Power Generation Building and the Dewatering Building. Also sluice gates in the Secondary area will be purchased for replacement by ALCOSAN maintenance staff. The DCS equipment will also be upgraded. This includes a new server and upgrading the existing work stations.

Energy Recovery Facility Improvements (2020-2021) – S473

The intent of this program is to address smaller type improvements that are identified to improve the efficient operation of the Energy Recovery Improvements. Potential projects include installing an isolation device on the afterburner and upgrading or replacing turbine generators.

New Access Shaft Manholes near A-40 and M-49 River Crossing – S474

This capital project includes construction of two new deep access shafts near A-40 and M-49 river crossing connection to the deep tunnel interceptor. During recent sonar inspection of the deep tunnel interceptor during Contract 1679, these two areas were identified as containing heavy debris. This capital project is for the installation of new access shafts to be used for the cleaning of the deep tunnel interceptor in these areas.

Tunnel Program Management – S475

This capital project includes overall program management of the upcoming Interim Clean Water Plan tunnel and conveyance system design contracts. This project will provide for management of the design consultants, participation in design workshops; management of overall project scope, budget and schedule, coordination of modeling activities, coordination of land and easement acquisition; and ongoing review of design activities and coordination with internal and external stakeholders.



Consulting Engineer's 2019 Annual Report Including the Fiscal 2020 Budget - November 2019

Precipitation Monitoring System Replacement and Upgrade – S476

ALCOSAN has been involved in precipitation monitoring in the region for over 25 years. In cooperation with Three Rivers Wet Weather (3RWW) Program, ALCOSAN personnel have maintained a network of precipitation monitors (rain gauges). In addition, ALCOSAN provides technical support for the virtual rain gauge network, which most municipal engineering firms utilize.

The current network has been operating since 2003. The program developed a communications network to telemetry the rainfall data to 3RWW headquarters in the Allegheny County Health Department (ACHD) office complex in Lawrenceville. This data is transmitted to a third-party vendor to process the virtual rain data. However, over the past several years, the communications network has not been running efficiently due to age of equipment. Over the past several years, ALCOSAN has assumed the maintenance responsibilities for the program. Planning for the equipment replacement and upgrades to the communications network has been developed for the past two years by ALCOSAN staff.

This capital project provides for the development of a study, purchase of various precipitation monitoring equipment, and an upgrade to the communication network that will transmit data to a central ALCOSAN data server.

Water Quality Monitoring Program – S477

In 2001, ALCOSAN initiated a relationship with the United States Geological Survey (USGS) to develop the water quality sampling program for bacteria levels. In 2006, in compliance with the Consent Decree and development of the Wet Weather Plan, ALCOSAN expanded this program to include the impact of CSOs on the water quality of the local rivers and streams. The sampling program ran through 2011 to assess the main rivers, water intake locations, and tributary streams.

As detailed in the Clean Water Plan, ALCOSAN proposed two cycles of water quality sampling, focusing on the primary pollutant of concern, bacteria, at selected monitoring locations to document the improvements attributed to the implementation of the Clean Water Plan. The scheduled first cycle of this proposed sampling is to begin during the 2021 recreational period (April 1 through October 15), occurs over three years (2021-2023), and will include three dry-weather and three wet-weather samples.

In general, the scope of this capital project will require similar tasks and capabilities as found in the 2006-11 receiving water quality program. This includes, but is not limited to the following:

- Providing ALCOSAN support in the development of a monitoring plan
- Receiving water sampling
- Operating stream gauges



Consulting Engineer's 2019 Annual Report Including the Fiscal 2020 Budget - November 2019

- Project management
- Proving laboratory analysis

Flow Targets – S478

Development of this capital project will be in accordance to the upcoming municipal regulatory requirements and modified Consent Decree. ALCOSAN has engaged with 3RWW and municipal engineers since 2015 in the development of flow targets. These meetings culminated in the development of the Municipal Source Reduction Studies submitted by the municipalities in December 2017. This capital program will build upon the work done in other capital programs to engage Customer Municipalities and develop the methodology for the flow targets.

In the modified Consent Decree, ALCOSAN is required to develop a Municipal Source Reduction Agreement to establish flow targets for the Customer Municipalities. ALCOSAN shall undertake good faith efforts to enter into Municipal Source Reduction Agreements by January 31, 2025.

For 2020, it has been estimated that low-cost capital improvements will total \$2,479,100 as shown in Item S000 on Table 3-1.

4. REVENUES

Table 4-1 lists the actual cash revenues of the Authority for the years 2016, 2017, and 2018 together with the 2019 budget and the actual cash revenues for the eight months ending August 31, 2019. Table 4-1 also shows projected 2019 revenues for the entire twelve months period and the year 2020 budget. As shown on Table 4-1, it is projected that Total Revenues for 2019 will amount to \$182,918,600, which is under budget by approximately \$582,300.

Total Revenues consist of four primary sources: commodity charges, service charges, industrial charges, and non-operating income. The commodity charge is based on the amount of billed thousand-gallon water usage by each residence, business, or public building. The service charge is a fixed rate assessed quarterly on every user account, and industrial charges consist of high strength sewage charges and garbage grinder fees.

Basic and Special Charges, which include the commodity, special, and industrial charges, comprise over 98 percent of annual operating income. It is anticipated that these charges will amount to \$177,706,400 in 2019, approximately \$2,691,500 or 1.5 percent less than the 2019 budget. However, the 2019 projected results are about 4.5 percent greater than the year 2018 actual results, 9.2 percent greater than the 2017 results, and 18.2 percent above 2016 actuals. The increase in Basic and Special Charges reflects the results of the four-year rate increase program. However, as the cost per customer increases, consumers tend to use less water. Billed water consumption and the number of retail customers have been trending downward over the past ten years. ALCOSAN anticipates that this downward trend in water usage may be slowing or reversing.



Table 4-1 Summary of Revenues

Revenue Category	2016 Actual	2017 Actual	2018 Actual	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
Basic and Special Charges	\$150,320,493	\$162,719,670	\$169,978,913	\$180,397,900	\$114,392,131	\$177,706,400	\$189,661,500
Grants	0	0	0	0	0	0	0
Interest Income	273,807	1,094,977	3,127,445	2,842,000	3,211,254	4,806,200	3,210,000
Other	398,178	380,273	314,177	261,000	376,047	406,000	286,000
Total Revenues	\$150,992,478	\$164,194,920	\$173,420,535	\$183,500,900	\$117,979,432	\$182,918,600	\$193,157,500



Consulting Engineer's 2019 Annual Report Including the Fiscal 2020 Budget - November 2019

In 2017, the ALCOSAN Board of Directors voted to adopt a new rate study proposal, which became effective in the year 2018 and will remain in effect through the year 2021. This study recommended a 7.5 percent increase in rates for 2018 and a rate increase of 7 percent for each of the following three years.

ALCOSAN has two methods of billing its customers—direct bill or lump sum. Currently the majority, 80 communities, is billed lump sum, while the customers in three communities are still billed directly.

Non-operating income consists of three main categories: interest income, grants, and other miscellaneous income. In recent years, no grant monies have been received, and funds generated from interest income have been a very nominal part of the Revenue Budget. However, increased balances in both the capital facilities and revenue funds, combined with increasing bank rates, have resulted in interest income of approximately \$4.8 million, \$1,964,200 more than budget projections and 1.54 times greater than last year's actual interest income. Other Revenues are expected to be nearly 56 percent above budget. In 2019, Other Revenues consisted of septic tank disposal fees, pretreatment fees, closing letter fees, and miscellaneous income.

The year 2020 budget is based on:

- A full year's revenue generated by the 7 percent rate increase that became effective on January 1, 2019 and another 7 percent increase in rates for 2020, effective January 1, 2020. This coming year's 7 percent increase is the third in the latest four-year rate increase program. It is anticipated that this 7 percent increase will generate approximately \$12.4 million dollars a year. However, due to billing cycles, 2020 Basic and Special Charge revenues reflect only six months impact from the January 1, 2020 rate increase. The current user rate of \$7.94 per 1,000 gallons of water used will increase to \$8.50 per 1,000 gallons. The quarterly customer service charge will increase from \$16.69 per quarter to \$17.86. Based on a quarterly usage of 12,000 gallons of water, the average cost per household will be \$479.44 per year, which is a \$2.63 per month increase over 2019 rates.
- No grant funds are anticipated during 2020.
- Interest earnings in 2020 are anticipated to be approximately \$1.5 million less than 2019 projected results.
- Other revenues are expected to be slightly lower in 2020.

The total 2020 revenue budget of \$193,157,500 is approximately \$10.24 million more than 2019 projected results and nearly 5.3 percent more than the 2019 budget.

5. OPERATING EXPENSES

Table 5-1 is a summary listing of the actual operating expenses for the years 2016, 2017, and 2018, the 2019 budget, and the actual expenses for the eight months ended August 31, 2019,



Table 5-1 Summary of Operating Expenses

Expense Category	2016 Actual	2017 Actual	2018 Actual	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
Administration & Engineering	\$8,727,560	\$9,739,753	\$10,625,520	\$14,475,500	\$7,674,624	\$12,296,550	\$14,710,800
Management Info. Systems	2,479,898	2,657,598	2,579,345	3,069,700	1,643,928	2,723,400	3,024,000
Customer Service and Billing	2,424,616	3,466,796	2,586,870	3,833,900	2,569,909	3,199,100	3,502,600
Environmental Compliance	3,463,100	3,585,800	3,710,757	4,882,200	2,770,909	4,266,950	5,163,000
Interceptor System	4,205,317	5,167,159	6,607,286	10,482,600	4,628,706	7,612,900	13,976,900
	21,996,233	20,858,835	22,470,837	23,475,800	14,859,210	23,908,800	25,302,800
Professional Services	590,774	749,441	637,822	865,000	449,424	740,000	880,000
Plant Maintenance	8,147,476	8,661,679	9,435,359	10,042,600	6,085,471	9,536,000	10,344,300
Employee Benefits	18,842,283	19,852,268	21,606,713	23,449,500	13,917,446	22,164,400	24,708,700
	\$70,877,257	\$74,739,329	\$80,260,509	\$94,576,800	\$54,599,627	\$86,448,100	\$101,613,100
				59,293,100		59,293,100	59,297,194
Total Requirements				\$153,869,900		\$145,741,200	\$160,910,294



Consulting Engineer's 2019 Annual Report Including the Fiscal 2020 Budget - November 2019

together with the projected full year 2019 operating expenses and the year 2020 budget. A detailed summary of operating expenses is shown on Table 5-2, and the detailed lists of operating expenses by line item are provided in Schedules I through IX.

As shown on Table 5-1, it is anticipated that projected expenses will come in under budget by approximately \$8,128,700. All departments except Plant Operations are expected to come in under budget this year with departmental savings ranging from 5.8 percent to over 70 percent. Plant Operations was just slightly over budget.

The year 2020 budget has been prepared in conjunction with the ALCOSAN staff and reflects expected activity for the coming year. The 2020 budget anticipates operating expenses of \$101,613,100, an approximate \$7.04 million increase over the 2019 budget. The 2020 budget shows an increase of approximately 17.5 percent over 2019 projected results.

The 2020 budget projections are based on the following assumptions:

- An increase in authorized staff of 28 persons. At this time, there are 91 vacancies. Many
 of the staffing vacancies are associated with anticipated needs for fulfilling the Consent
 Decree compliance and regionalization requirements. Provisions have been made in the
 budget for a 3 percent increase in salaries and wages.
- Due to the continual increases in rates necessary to comply with the Consent Decree Implementation and Compliance, \$580,000 in funding for the Customer Assistance Program has been included this year.
- An increase of \$2.54 million in the cost of employee benefits, nearly 11.5 percent greater than 2019 projections, is due primarily to the increased number of employees. Medical shows a 2.2 percent increase; however, ALCOSAN is receiving a full month's premium credit in 2020, which nets a 5.7 percent decrease in the total cost. Increased pension plan costs are actual costs provided by the actuary. Allowances in all premiums and costs have been included for the filling of 91 vacancies.
- The 2020 budget provides increased costs for the Federal Consent Decree implementation requirements. For example, the Interceptor System budget is projected to be over 83 percent higher than 2019 projected results. It is anticipated that \$6 million will be expended on cleaning and inspection and another \$943,400 for regionalization facilities alone.
- Utility costs are again varied for the coming year. For example, electricity and natural gas costs will remain fairly constant, while water is expected to increase by 13 percent.
- The impacts on chemical costs are varied for the coming year. The cost of caustic soda is
 projected to be 9.9 percent higher in 2020, but costs for other chemicals are expected to
 be similar to last year.
- Land application disposal costs are expected to increase by \$300,000 in 2020 relative to the 2019 budget figure. Costs for disposing of grit and trash have been projected at \$32,500 in 2020. Tipping fees for sludge disposal are expected to increase by 7.1 percent in the coming year.



Table 5-2: Detailed Summary of Operating Expenses

Expense Category	2019 Actual to 8/31	2019 Projected	2020 Budget
Adminstration and Engineering			
Executive Adminstration	\$1,745,084	\$2,944,300	\$3,154,500
Public Relations	2,021,281	3,239,650	2,927,10
Municipal Outreach	274,654	467,400	734,50
Scholastic Outreach	741,756	1,162,200	2,193,40
Human Resources	374,364	572,800	744,40
Training Administration	163,271	281,900	348,50
Accounting/Finance	507,894	765,200	905,30
Purchasing	347,782	549,000	569,40
Engineering Adminstration	265,191	396,200	584,30
OR/CD Administration	34,311	52,800	92,90
Capital Projects	352,383	547,300	739,10
Contract Administration	204,350	314,300	496,80
CSO Program Management	563,066	879,000	977,50
ECM/Environmental Reporting	79,237	124,500	243,10
Total Adminstration and Engineering	7,674,624	12,296,550	14,710,80
Management Information Systems	1,643,928	2,723,400	3,024,00
Customer Service and Billing	2,569,909	3,199,100	3,502,60
Environmental Compliance			
Environmental Compliance	330,357	516,600	496,10
Laboratory	1,311,783	2,005,100	2,300,30
Industrial Waste	945,992	1,465,950	2,022,30
Diverse Residuals Management	182,777	279,300	344,30
Total Environmental Compliance	2,770,909	4,266,950	5,163,00
nterceptor System		- 11	
Regional Conveyance Administration	399,556	619,700	977,50
General-Upper Allegheny System	38,759	60,600	90,40
Verona Pump Station	40,990	63,900	83,10
Squaw Run Pump Station	34,795	58,800	80,00
Montrose Ejector Station	19,800	37,000	63,20
Saw Mill Run	45,634	71,400	105,70
Regionalized Facilities	315	500	943,40
General-Except Upper Allegheny	3,835,048	6,356,200	11,184,30
Corliss Pump Station	61,394	95,400	130,90
Malancthon Ejector Station	21,818	35,100	47,50
Ella Street Pump Station	58,301	86,500	114,60
Sandy Creek Pump Station	72,296	127,800	156,30
U5 Ejector Station	0	0	
Total Interceptor System	4,628,706	7,612,900	13,976,90



Table 5-2: Detailed Summary of Operating Expenses (Continued)

Expense Category	2019 Actual to 8/31	2019 Projected	2020 Budget
Plant Operations			
Safety	\$840,638	\$1,310,800	\$1,682,200
Operations and Maintenance Adminstration	237,439	361,200	382,400
Main Pump Station	879,852	1,502,400	1,605,00
Rack and Grit	525,185	721,700	744,20
Mobile Equipment for Treatment	568,835	881,100	1,132,60
Primary Sedimentation	1,929,749	2,975,300	3,146,30
Disposal of Sludge, Ash, and Grit	1,150,886	2,010,000	2,032,50
Boilers	147,081	282,000	283,00
Energy Recovery	2,303,573	3,792,400	3,923,70
Sludge Dewatering	2,423,792	3,897,900	3,986,70
Lime Stabilization	519,145	912,000	917,80
Secondary Treatment and Post Chlorination	1,299,063	2,130,000	2,125,00
General Plant Treatment	2,033,972	3,132,000	3,341,40
Total Plant Operations	14,859,210	23,908,800	25,302,80
Professional Services	449,424	740,000	880,00
Plant Maintenance			
Executive Adminstration	36,224	54,700	64,20
Safety	18,640	26,600	28,50
Accounting/Finance	5	200	-
Purchasing	1,367	2,100	2,40
Management Information Systems	13,326	16,800	23,80
Customer Service and Billing	36,111	49,600	50,80
Engineering Administration	353	500	60
Laboratory	53,249	82,000	106,70
Industrial Waste	3,951	6,200	7,30
Operations & Maintenance Administration	1,082	1,200	
Main Pump Station	180,678	525,700	442,20
Rack and Grit	283,790	491,500	408,80
Mobile Equipment for Treatment	74,992	114,900	94,30
Primary Sedimentation	224,324	354,900	429,300
Boilers	1,586	2,900	7,20
Energy Recovery	794,560	1,189,100	1,250,70
Sludge Dewatering	644,451	973,500	954,400
Lime Stabilizaiton Dewatering	172,823	259,800	294,400
Secondary Treatment and Post Chlorination	469,496	700,600	770,400
General Plant Treatment	3,074,463	4,683,200	5,408,300
Total Plant Maintenance	6,085,471	9,536,000	10,344,300
Employee Benefits	13,917,446	22,164,400	24,708,700
TOTAL OPERATING EXPENSES	\$54,599,627	\$86,448,100	\$101,613,100



Consulting Engineer's 2019 Annual Report Including the Fiscal 2020 Budget - November 2019

• The 2020 budget provides an additional \$8.8 million in funding for municipal green infrastructure and source reduction "GROW" program financing.

A summary of authorized positions as proposed in the year 2020 budget is presented in Table 5-3. The table includes both management and union employees by department. Appendix B provides a listing of Authorized Positions (Proposed) by office, department, management staff, and union positions.

Table 5-3: Summary of Authorized Positions (as proposed in 2020 Budget)

	Management Authorized	Employees Actual	Union Em Authorized	ployees Actual
	714111011204	710101	710111011200	71010101
Executive Director	5*	1*		
Contract Administration	7	5		
Public Relations	9*	7	2	2
Scholastic Programs	12	6*	19*	13*
Municipal Outreach	7*	4		
Finance & Administration				
Director's Office	2	2		
Accounting	3	2	4	4
Customer Service & Billing	3	3	21	20
Human Resources	5	5*		
Training and Development	2	2		
Loss Control	6*	6*	15	14
MIS	2	2	18	18
Purchasing	3	3	8	6*
Operations & Maintenance				
Director's Office	3	3		
Operations	12*	11	65*	64*
Mechanical Maintenance	10	7*	70	61*
Electrical Maintenance	5*	5	22	21*
Environmental Affairs				
Director's Office	3	2*		
Residuals	4*	3*	1	1
Industrial Waste	3	2*	18	13*
Laboratory	3	3	15	15
ECM Systems	4	2		
Engineering & Construction				
Director's Office				
Capital Projects	4	3	5	6*
OR/CD Administration	11*	9	2	1
	1	1		
Regional Conveyance				
Director's Office	15*	10*		
Wet Weather Programs	8*	5	9*	7
Interceptor Systems	10	8	55*	39*
Regionalization Facilities	2	0	5	0
TOTAL	164	122	354	305

^{*} Numbers Designate Change



Consulting Engineer's 2019 Annual Report Including the Fiscal 2020 Budget - November 2019

6. DEBT SERVICE COVERAGE CALCULATION

The year 2020 budget revenue expectation less the 2020 budget of operating expenses produces a net income available for debt service as shown by the following calculation.

2020 Projected Revenues	\$193,157,500
2020 Budgeted Operating Expenses	101,613,100
Transfer to Capital Facilities/GROW Fund	8,800,000
Net Operating Income	\$ 82,744,400
2020 Debt Service	\$ 59,297,194
Less Capitalized Interest	0
Net 2020 Debt Service	\$ 59,297,194

In accordance with the 1997 Trust, there are two tests that must be met to satisfy the debt service coverage requirements. The first test requires that Net Operating Income, which is current Revenues minus current Operating Expenses, cover Debt Service by 100 percent. This requirement will be met in 2020. In addition, \$8,800,000 has been allocated for potential cash funding of municipal green infrastructure and source reduction GROW program projects during 2020.

The second test requires minimum debt service coverage of 1.10. This requirement will also be met in 2020 as the Net Operating Income plus the January 1, 2019 Revenue Fund balance after deduction of the required fund balance (25 percent of the Operating Expense budget for 2019) provides Debt Service coverage of 3.37. The January 1, 2019 Revenue Fund balance was \$142,482,220, and the minimum balance, which must be maintained in the Revenue Fund is \$25,403,275. This leaves a beginning Revenue Fund balance of \$117,078,945 in excess of the 25 percent required minimum.

The ALCOSAN system continues to reflect good and improving coverage levels and also strong financial management practices and policies. As a result, Standard and Poor's rated ALCOSAN's \$157 million Series 2018 Bonds as "A+," and Moody's rated it "A1." At the same time, ALCOSAN's "A" rating was affirmed on its entire outstanding debt.

7. INSURANCE

The schedule of insurance policies presently in effect is shown on Table 7-1. These policies and coverages are in conformance with general practice of other authorities and meet the requirements of Section 6.12 of the Trust Indenture.



Table 7-1: Schedule of Insurance Policies

Туре	Amount	Estimated Premium
PROPERTY (Deductible \$100,000)		
Blanket Building & Personal Property	\$796,272,218	\$398,136
Boiler and Machinery	100,000,000	,
Extra Expense	10,000,000	
Owned Equipment		
Contractors' Equipment		
Earthquake (\$100,000 deductible)	25,000,000	
Flood (\$500,000 deductible)	25,000,000	
Named Storm	768,963,996	
Willis of Pennsylvania		
American Home Assurance Co.		
Policy No. 060506430		
May 16, 2019 to May 16, 2020		
CRIME (\$10,000 Deductible)		
Employee Dishonesty (\$15,000 Deductible)	\$2,500,000	\$3,643
ERISA Fidelity (No Deductible)	1,000,000	
On Premises (\$5,000 Deductible)	25,000	
In Transit (\$5,000 Deductible)	25,000	
Forgery and Alteration (\$10,000 Deductible)	250,000	
Computer Crime (\$10,000 Deductible)	1,000,000	
Funds Transfer Fraud (\$10,000 Deductible)	1,000,000	
Seubert & Associates		
Travelers Casualty and Surety Co.		
Policy No. 106289675		
May 16, 2019 to May 16, 2020		
GENERAL LIABILITY		
Each Occurrence	\$1,000,000	\$181,590
General Aggregate Limit	2,000,000	
Seubert & Associates		
The Charter Oak Fire Insurance Co.		
Policy No. ZLP-21N44668-19		
May 16, 2019 to May 16, 2020		
SECURITY & PROFESSIONAL		
Each Occurrence Limit	\$1,000,000	Included in
General Aggregate Limit	2,000,000	General
Seubert & Associates		Liability
The Charter Oak Fire Insurance Co.		
Policy No. ZLP-21N44668-19		
May 16, 2019 to May 16, 2020		
PUBLIC OFFICIALS (\$50,000 Deductible)		
Including Employment Practice Liability		
Occurrence Limit	\$1,000,000	Included in
Annual Aggregate	1,000,000	General
Seubert & Associates		Liability
The Charter Oak Fire Insurance Co.		
Policy No. ZLP-21N44668-19		
May 16, 2019 to May 16, 2020		



Table 7-1: Schedule of Insurance Policies (Continued)

Type	Amount	Estimated Premium
AUTOMOBILE (\$1,000 Deductible)		
Auto Liability	\$1,000,000	\$100,640
Uninsured/Underinsured Motorist	500,000	
Medical Expenses	5,000	
Seubert & Associates	·	
Travelers Indemnity Company		
Policy No. H-810-4F267715		
May 16, 2019 to May 16, 2020		
UMBRELLA (\$10,000 Retained Limit)		
Each Occurrence	\$15,000,000	\$45,346
General Aggregate	15,000,000	Ţ - 7,
Seubert & Associates		
The Travelers Indemnity Company		
Policy No. ZUP-61M3095A-19		
May 16, 2019 to May 16, 2020		
FIDUCIARY LIABILITY For all Claims	\$1,000,000	\$8,821
Settlement Program Limit of Liability	250,000	ψο,σ= :
HIPPA Limit of Liability	250,000	
502(c) Penalties Limit of Liability	100,000	
Seubert & Associates		
Travelers Casualty & Surety Co. of America		
Policy No. 106098489		
May 16, 2019 to May 16, 2020		
POLLUTION (\$50,000 Each Event Deductible)		
ENVIRONMENTAL SITE LIABILITY		
(3 Year Term*)		\$50,000*
Liability Limit Each Incident	\$5,000,000	\$33,333
Aggregate Limit	5,000,000	
Rogers Insurance Group	0,000,000	
Zurich – Steadfast Insurance Co.		
Policy No. EPC 9485417 02		
May 16, 2017 to May 16, 2020		
HULL (Deductible See Below) and		
PROTECTION & INDEMNITY		\$67,855
(\$5,000/\$10,000 Deductible)		ψο. ,σσσ
Total Insured Value	\$4,140,779	
Combined Single Limit	1,000,000	
Hul - Barge-ACSA (\$5,000 Deductible)	105,000	
Hull - Deck Barge with Crane (\$20,000	1,999,697	
Deductible)	.,555,557	
Hull - Aluminum Jon Boat & Trailer (\$5,000	18,667	
Deductible)	. 5,55.	
Hull - Tug/Pushboat (\$20,000 Deductible)	2,017,415	
P&I on each vessel above	1,000,000	
All Risks, Ltd.	.,555,555	
AGCS Marine Insurance Co.		
Policy No. OHL 92012920		
May 16, 2019 to May 16, 2020		



Table 7-1: Schedule of Insurance Policies (continued)

Туре	Amount	Estimated Premium
GROUP TRAVEL (3-Year Term)*		
Hartford Life Insurance Co.	\$2,500,000	\$2,700*
Policy No. ETB-200335		
November 9, 2019 to November 9, 2022		
WORKERS' COMPENSATION		
Bodily Injury Each Accident	\$1,000,000	\$698,556
Bodily Injury by Disease Policy Limit	1,000,000	
Bodily Injury by Disease per Employee	1,000,000	
Seubert & Associates		
HARIE (Housing and Redevelopment		
Insurance Exchange)		
Policy No. HWC40756161219		
May 16, 2019 to May 16, 2020		
ARCHITECTS AND ENGINEERS		\$10,919
PROFESSIONAL LIABILILITY		
\$15,000 Each Claim Deductible		
\$45,000 Aggregate Deductible		
Each Wrongful Act	\$1,000,000	
Aggregate	\$1,000,000	
Rogers Insurance Group		
Lloyds of London		
Policy No.10143L180372		
May 16, 2019 to May 16, 2020		



Consulting Engineer's 2019 Annual Report Including the Fiscal 2020 Budget - November 2019

Schedule I Administration and Engineering

Schedule I.1 Administration and Engineering

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
110	EXECUTIVE ADMINISTRATION				
	Salaries and Wages				
6011 6300	Management Salary Vehicle Maintenance Labor	\$349,300 0	\$194,232 0	\$297,100 0	\$402,400 0
	Total Salaries and Wages	349,300	194,232	297,100	402,400
	Other Expenditures				
1560 6425 6716 6725 6811 7304 7307 7310 7313 7316 7391 7420 7429 7438 7441 7457 7511 7531 7711	Prepaid Insurance Training and Seminars Telephone Other Communication Travel & Expense Computer Paper Copier Paper Advertising Publications Board of Directors Expenses Miscellaneous Office Supplies and Materials Equipment Repairs and Maintenance Registration Fees/Conferences Printing Charges (Forms, Copies) Professional Association Fees Special Projects Gas and Oil-Vehicles and Equipment Maintenance/Repair-Vehicle and Equipment EDP Hardware EDP Software Total Other Expenditures	1,045,000 20,000 40,000 5,000 2,500 300 1,000 400 2,000 18,000 18,000 20,000 100 60,000 1,500,000 900 500 15,000 2,754,000	934,629 7,095 27,141 1,570 558 0 100 325 0 1,154 4,800 13,850 390 0 5,950 551,439 732 1,119 0 0 1,550,852	1,050,000 10,600 40,700 2,400 800 0 200 500 0 1,700 7,200 20,800 600 0 8,900 1,500,000 1,100 1,700 0 0 2,647,200	1,100,000 10,900 41,900 2,500 800 0 200 500 0 3,000 7,400 21,400 600 0 60,000 1,500,000 1,100 1,800 0 0 2,752,100
	Total Executive Administration	\$3,103,300	\$1,745,084	\$2,944,300	\$3,154,500

Schedule I.2 Administration and Engineering

Acct.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
NO.	Account Description	Budget	10 0/31	Frojecteu	Buugei
115	PUBLIC RELATIONS				
	Salaries and Wages				
6011	Management Salary	\$692,500	\$340,019	\$520,000	\$658,200
6100	Union Wages-Except Plant Maintenance	167,300	106,904	164,800	169,500
	Total Salaries and Wages	859,800	446,923	684,800	827,700
	Other Expenditures				
6425	Training and Seminars	2.500	0	0	2,500
6725	Other Communication	50,000	14,934	23,000	40,000
6811	Travel and Expense	10,000	4,927	7,400	10,000
7307	Copier Paper	300	0	200	300
7310	Advertising	25,000	8,155	16,000	25,000
7313	Publications	1,500	433	650	1,500
7319	Promotional Materials	60,000	19,175	30,000	200,000
7323	Open House Expenses	225,000	20,531	110,000	200,000
7391	Miscellaneous Office Supplies and Materials	30,000	6,679	12,000	25,000
7423	Equipment Rental	600	0	0	600
7429	Registration Fees/Conferences	10,000	710	1,200	10,000
7438	Printing Charges (Forms, Copies)	50,000	4,553	45,000	75,000
7441	Professional Association Fees	1,500	315	500	1,500
7457	Special Projects	2,300,000	1,488,106	2,300,000	1,500,000
7511	Gas and Oil-Vehicles and Equipment	1,000	102	200	1,000
7531	Maintenance/Repair-Vehicle and Equipment	1,000	582	900	1,000
7711	EDP Hardware	5,000	0	0	3,000
7721	EDP Software	3,000	5,156	7,800	3,000
	Total Other Expenditures	2,776,400	1,574,358	2,554,850	2,099,400
	Total Public Relations	\$3,636,200	\$2,021,281	\$3,239,650	\$2,927,100

Schedule I.3 Administration and Engineering

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
116	MUNICIPAL OUTREACH				
	Salaries and Wages				
6011	Management Salary	\$430,200	\$223,769	\$342,200	\$516,600
	Total Salaries and Wages	430,200	223,769	342,200	516,600
	Other Expenditures				
6425 6725 6811 7307 7313 7319 7391 7423 7429 7438 7441 7457 7511 7531 7711	Training and Seminars Other Communication Travel and Expense Copier Paper Publications Promotional Mtaerials Miscellaneous Office Supplies and Materials Equipment Rental Registration Fees/Conferences Printing Charges (Forms, Copies) Professional Association Fees Special Projects Gas and Oil-Vehicles and Equipment Maintenance/Repair-Vehicle and Equipment EDP Hardware EDP Software	1,000 5,000 8,000 1,000 500 1,000 5,000 42,500 10,000 1,200 50,000 3,000 800 3,000 400	0 2,294 1,195 0 0 5,255 2,850 0 960 87 1,405 36,406 402 31 0	5,000 10,000 100 300 15,000 3,000 0 5,000 500 1,800 80,000 800 1,800 1,500 400	500 6,000 12,000 1,000 500 5,000 200 42,500 5,000 2,000 130,000 1,000 800 6,000 400
	Total Other Expenditures Total Municipal Outreach	132,900 \$563,100	50,885 \$274,654	125,200 \$467,400	<u>217,900</u> \$734,500

Schedule I.4 Administration and Engineering

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
117	SCHOLASTIC OUTREACH				
	Salaries and Wages				
6011 6100	Management Salary	\$669,500	\$258,600	\$395,500	\$744,900
6100	Union Wages-Except Plant Maintenance	1,051,500	427,179	658,600	1,225,400
	Total Salaries and Wages	1,721,000	685,779	1,054,100	1,970,300
	Other Expenditures				
6425	Training and Seminars	1,000	1,167	1,800	17,000
6711	Postage	100	0	0	100
6725	Other Communication	12,500	5,744	9,600	12,500
6811	Travel and Expense	10,000	4,749	7,100	10,000
7307	Copier Paper	1,000	134	300	1,000
7310	Advertising	5,000	0	0	5,000
7313	Publications	500	99	100	500
7319	Promotional Materials	15,000	745	11,400	15,000
7323	Open House Expenses	5,000	947	1,400	2,500
7391	Miscellaneous Office Supplies and Materials	15,000	8,163	12,500	4,000
7423	Equipment Rental	2,000	0	0	5,000
7429	Registration Fees/Conferences	3,500	9,300	9,300	4,000
7438	Printing Charges (Forms, Copies)	5,000	0	0	5,000
7441	Professional Association Fees	1,500	503	1,000	1,500
7457	Special Projects	100,000	22,696	50,000	120,000
7511	Gas and Oil-Vehicles and Equipment	1,500	1,209	1,800	2,000
7531	Maintenance/Repair-Vehicle and Equipment	2,000	521	800	2,000
7711	EDP Hardware	10,000	0	1,000	10,000
7721	EDP Software	4,000	0	0	6,000
	Total Other Expenditures	194,600	55,977	108,100	223,100
	Total Scholastic Outreach	\$1,915,600	\$741,756	\$1,162,200	\$2,193,400

Schedule I.5
Administration and Engineering

Acct.		2019	2019 Actual	2019	2020
No.	Account Description	Budget	to 8/31	Projected	Budget
120	HUMAN RESOURCES				
	Salaries and Wages				
6011	Management Salary	\$400,000	\$247,608	\$378,700	\$425,200
	Total Salaries and Wages	400,000	247,608	378,700	425,200
	Other Expenditures				
6811	Travel and Expense	1,000	63	100	1,000
7307	Copier Paper	600	201	400	600
7310	Advertising	15,000	2,739	5,000	15,000
7313	Publications	11,500	0	0	10,000
7391	Miscellaneous Office Supplies and Materials	15,000	6,556	10,000	15,000
7420	Equipment Repairs and Maintenance	1,000	631	1,000	1,000
7429	Registration Fees/Conferences	5,500	398	600	5,500
7438	Printing Charges (Forms, Copies)	8,500	0	2,500	8,500
7441	Professional Association Fees	400	809	1,300	800
7457	Special Projects	79,000	18,289	27,500	75,000
7711	EDP Hardware	5,000	8,180	12,300	5,000
7721	EDP Software	181,800	0	0	0
7751	Software Support Services	0	88,890	133,400	181,800
	Total Other Expenditures	324,300	126,756	194,100	319,200
	Total Human Resources	\$724,300	\$374,364	\$572,800	\$744,400

Schedule I.6 Administration and Engineering

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
122	TRAINING ADMINISTRATION				
	Salaries and Wages				
6011	Management Salary	\$163,600	\$108,777	\$166,400	\$173,300
	Total Salaries and Wages	163,600	108,777	166,400	173,300
	Other Expenditures				
6425	Training and Seminars	44,000	52,550	80,500	50,000
6711	Postage	200	0	0	100
6725	Other Communication	0	89	200	200
6811	Travel and Expense	2,000	0	0	500
7391	Miscellaneous Office Supplies and Materials	1,000	132	300	500
7429	Registration Fees/Conferences	4,800	0	1,000	1,000
7438	Printing Charges (Forms, Copies)	7,500	0	1,500	1,500
7441	Professional Association Fees	700	399	400	400
7457	Special Projects	10,000	0	0	0
7711	EDP Hardware	0	39	100	0
7721	EDP Software	22,000	1,285	1,500	1,000
7751	Software Support Services	105,000	0	30,000	120,000
	Total Other Expenditures	197,200	54,494	115,500	175,200
	Total Training Administration	\$360,800	\$163,271	\$281,900	\$348,500

Schedule I.7 Administration and Engineering

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
130	ACCOUNTING/FINANCE				
	Salaries and Wages				
6011 6100	Management Salary Union Wages-Except Plant Maintenance	\$452,400 281,600	\$259,761 188,549	\$397,300 290,700	\$488,900 300,300
	Total Salaries and Wages Other Expenditures	734,000	448,310	688,000	789,200
6425 6811 7304 7304 7310 7313 7391 7420 7429 7438 7441 7511 7531 7711	Training and Seminars Travel and Expense Computer Paper Copier Paper Advertising Publications Miscellaneous Office Supplies and Materials Equipment Repairs and Maintenance Registration Fes/Conferences Printing Charges (Forms, Copies) Professional Association Fees Gas and Oil-Vehicle and Equipment Maintenance/Repair-Vehicle and Equipment EDP Hardware EDP Software	2,200 4,000 3,000 400 500 5,700 41,000 5,000 1,500 6,600 3,200 1,400 1,100 5,000 800	0 935 0 33 243 3,845 23,438 1,163 1,200 1,753 1,955 538 206 0	0 1,000 0 100 300 5,500 30,000 1,200 1,500 4,500 2,300 900 300 0	0 8,100 0 200 500 6,100 45,500 5,000 4,000 6,700 3,000 900 1,100 8,000 800
7751	Software Support Services Total Other Expenditures	24,400 105,800	24,275 59,584	29,600 77,200	<u>26,200</u> 116,100
	Total Accounting/Finance	\$839,800	\$507,894	\$765,200	\$905,300

Schedule I.8 Administration and Engineering

Acct.		2019	2019 Actual	2019	2020
No.	Account Description	Budget	to 8/31	Projected	Budget
140	PURCHASING				
	Salaries and Wages				
6011 6100	Management Salary Union Wages-Except Plant Maintenance	\$232,000 221,700	\$157,516 155,923	\$240,900 240,400	\$247,700 226,200
	Total Salaries and Wages	453,700	313,439	481,300	473,900
	Other Expenditures				
6425 6711	Training and Seminars Postage	3,000 50,000	29 17,887	1,200 35,000	2,000 50,000
6725	Other Communication	200	0	200	200
6811	Travel and Expense	1,000	0	200	1,000
7307	Copier Paper	500	134	300	500
7310	Advertising	200	9	100	200
7321	MBE/WBE Administration Expense	8,000	3,972	7,000	8,000
7391	Miscellaneous Office Supplies and Materials	15,000	4,208	7,000	12,000
7420	Equipment Repairs and Maintenance	6,500	5,554	7,000	6,500
7423	Equipment Rental	500	0	0	500
7432	Freight Charges	1,500	0	200	1,000
7441	Professional Association Fees	600	240	600	600
7511	Gas and Oil-Vehicles and Equipment	1,000	433	700	1,000
7531	Maintenance/Repair-Vehicles and Equipment	5,000	133	5,000	5,000
7711	EDP Hardware	6,000	1,744	3,000	6,000
7721	EDP Software	1,000	0	200	1,000
	Total Other Expenditures	100,000	34,343	67,700	95,500
	Total Purchasing	\$553,700	\$347,782	\$549,000	\$569,400

Schedule I.9 Administration and Engineering

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
405	ENGINEERING ADMINISTRATION				
	Salaries and Wages				
6011 6100	Management Salary Union Wages-Except Plant Maintenance	\$180,800 223,500	\$152,522 62,325	\$233,300 96,100	\$199,900 304,500
	Total Salaries and Wages	404,300	214,847	329,400	504,400
	Other Expenditures				
6425	Training and Seminars	1,500	2,698	2,700	1,500
6725	Other Communication	3,200	1,724	2,900	3,200
6811	Travel and Expense	2,000	330	1,300	2,000
7307	Copier Paper	200	225	300	200
7310	Advertising	15,000	5,083	8,600	15,000
7313	Publications	100	1,387	1,400	100
7391	Miscellaneous Office Supplies and Materials	25,000	12,357	18,000	25,000
7420	Equipment Repairs and Maintenance	10,000	3,247	5,000	10,000
7429	Registration Fees/Conferences	1,500	195	200	2,000
7438	Printing Charges (Forms, Copies)	600	1,638	1,700	10,000
7441	Professional Association Fees	500	350	400	500
7511	Gas and Oil-Vehicles and Equipment	600	351	500	600
7531	Maintenance/Repair-Vehicles and Equipment	300	182	200	300
7711	EDP Hardware	5,000	20,577	20,600	5,000
7721	EDP Software	500	0	0	500
7751	Software Support Services	4,000	0	3,000	4,000
	Total Other Expenditures	70,000	50,344	66,800	79,900
	Total Engineering Administration	\$474,300	<u>\$265,191</u>	\$396,200	\$584,300

Schedule I.10 Administration and Engineering

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
410	OR/CD ADMINISTRATION				
	Salaries and Wages				
6011	Management Salary	\$49,500	\$33,294	\$50,900	\$52,200
	Total Salaries and Wages	49,500	33,294	50,900	52,200
	Other Expenditures				
6811	Travel and Expense	0	6	100	0
7391	Miscellaneous Office Supplies and Materials	200	47	100	200
7420	Equipment Repairs and Maintenance	500	0	0	500
7457	Special Projects (Consulting Contractor)	40,000	964	1,700	40,000
	Total Other Expenditures	40,700	1,017	1,900	40,700
	Total OR/CD Administration	\$90,200	\$34,311	\$52,800	\$92,900

Schedule I.11
Administration and Engineering

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
420	CAPITAL PROJECTS				
	Salaries and Wages				
6011	Management Salary	\$403,500	\$187,629	\$287,000	\$466,900
6100	Union Wages-Except Plant Maintenance	219,000	160,806	247,900	248,200
	Total Salaries and Wages	622,500	348,435	534,900	715,100
	Other Expenditures				
6425	Training and Seminars	4.000	1,770	2,500	4,000
6725	Other Communications	800	0	1,200	1,200
6811	Travel and Expense	3,200	527	600	3,200
7391	Miscellaneous Office Supplies and Materials	1,200	133	600	1,200
7420	Equipment Repairs and Maintenance	500	0	500	500
7429	Registration Fees/Conferences	3,000	0	1,000	3,000
7432	Freight Charges	100	0	0	0
7438	Printing Charges (Forms, Copies)	0	0	100	100
7441	Professional Association Fees	2,400	200	900	2,400
7511	Gas and Oil-Vehicles and Equipment	600	268	500	600
7531	Maintenance/Repair-Vehicles and Equipment	1,500	1,050	1,500	1,800
7711	EDP Hardware	6,000	0	3,000	6,000
7721	EDP Software	1,000	0	0	0
	Total Other Expenditures	24,300	3,948	12,400	24,000
	Total Capital Projects	\$646,800	\$352,383	\$547,300	\$739,100

Schedule I.12 Administration and Engineering

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
430	CONTRACT ADMINISTRATION				
	Salaries and Wages				
6011	Management Salary	\$429,100	\$195,316	\$298,700	\$462,600
	Total Salaries and Wages	429,100	195,316	298,700	462,600
	Other Expenditures				
6425 6725 6811 7307 7191 7420 7429 7438 7441 7711	Training amd Seminars Other Communication Travel and Expense Copier Paper Miscellaneous Office Supplies and Materials Equipment Repairs and Maintenance Registration Fees/Conferences Printing Charges (Forms, Copies) Professional Association Fees EDP Hardware Total Other Expenditures	2,000 1,300 7,000 600 12,000 0 1,000 900 900 4,000	448 772 1,140 66 3,292 0 585 44 0 2,687	600 1,300 1,200 400 3,800 0 1,000 100 1,200 6,000	4,000 1,300 7,000 600 12,000 0 1,200 600 900 6,600
	Total Contract Administration	\$458,800	\$204,350	\$314,300	\$496,800

Schedule I.13
Administration and Engineering

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
440	CSO PROGRAM MANAGEMENT				
	Salaries and Wages				
6011 6100	Management Salary Union Wages-Except Plant Maintenance	\$269,600 505,200	\$196,143 329,959	\$300,000 508,700	\$321,300 535,900
	Total Salaries and Wages	774,800	526,102	808,700	857,200
	Other Expenditures				
6425	Training and Seminars	2,000	648	1,000	2,300
6811	Travel and Expense	5,000	2,062	3,100	5,500
7191	Miscellaneous Maint. Supplies and Materials	50,100	25,660	40,000	61,500
7313	Publications	1,000	0	0	1,000
7391	Miscellaneous Office Supplies and Materials	5,000	1,764	3,000	5,000
7429	Registration Fees/Conferences	6,700	0	0	5,500
7438	Printing Charges (Forms, Copies)	500	0	0	500
7441	Professional Association Fees	900	380	900	900
7511	Gas and Oil-Vehicles and Equipment	6,000	4,471	6,700	7,500
7531	Maintenance/Repair-Vehicles and Equipment	5,000	971	1,500	7,000
7711	EDP Hardware	16,100	895	13,900	23,100
7721	EDP Software	500	113	200	500
	Total Other Expenditures	98,800	36,964	70,300	120,300
	Total CSO Program Management	\$873,600	\$563,066	\$879,000	\$977,500

Schedule I.14
Administration and Engineering

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
540	ECM/ENVIRONMENTAL REPORTING				
	Salaries and Wages				
6011	Management Salary	\$197,000	\$78,206	\$119,600	\$206,100
	Total Salaries and Wages	197,000	78,206	119,600	206,100
	Other Expenditures				
6425	Training and Seminars	10,000	0	0	10,000
6725	Other Communication	0	0	0	0
6811	Travel and Expense	10,000	0	0	10,000
7391	Miscellaneous Office Supplies and Materials	1,500	681	1,100	1,500
7429	Registration Fees/Conferences	5,000	0	200	5,000
7438	Printing Charges (Forms, Copies)	3,000	0	0	3,000
7441	Professional Association Fees	1,000	0	0	1,000
7711	EDP Hardware	6,000	0	3,000	5,000
7721	EDP Software	1,500	350	600	1,500
	Total Other Expenditures	38,000	1,031	4,900	37,000
	Total ECM/Environmental Reporting	\$235,000	\$79,237	\$124,500	\$243,100



Allegheny County Sanitary Authority -

Consulting Engineer's 2019 Annual Report Including the Fiscal 2020 Budget - November 2019

Schedule II Management Information Systems

Schedule II Management Information Systems

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
200	MANAGEMENT INFORMATION SYSTEMS				
	Salaries and Wages				
6011	Management Salary	\$277,800	\$154,851	\$236,800	\$244,800
6100	Union Wages-Except Plant Maintenance	1,580,300	978,599	1,508,800	1,567,200
	Total Salaries and Wages	1,858,100	1,133,450	1,745,600	1,812,000
	Other Expenditures				
6425	Training and Seminars	20,000	0	7,000	20,000
6,725	Other Communications	0	7,439	11,700	139,000
6811	Travel and Expense	200	0	200	200
6921	Electricity	6,300	3,342	5,900	6,300
7307	Copier Paper	1,600	134	200	1,600
7313	Publications	500	0	100	500
7391	Miscellaneous Office Supplies and Materials	25,000	13,195	17,200	17,500
7420	Equipment Repairs and Maintenance	20,000	2,911	6,300	20,000
7423	Equipment Rental	100	0	100	100
7429	Registration Fees/Conferences	300	0	100	300
7432	Freight Charges	100	0	100	100
7438	Printing Charges (Forms, Copies)	100	0	100	100
7441	Professional Association Fees	700	0	600	800
7511	Gas and Oil-Vehicles and Equipment	700	396	600	700
7531	Maintenance/Repair-Vehicles and Equipment	700	133	200	700
7711	EDP Hardware	200,000	110,571	123,600	145,000
7721	EDP Software	60,000	4,679	16,700	325,000
7731	EDP Maintenance Service	299,200	134,338	255,500	48,200
7751	Software Supportive Service	576,100	233,340	531,600	485,900
	Total Other Expenditures	1,211,600	510,478	977,800	1,212,000
	Total Management Information Systems	\$3,069,700	\$1,643,928	\$2,723,400	\$3,024,000



Allegheny County Sanitary Authority -

Consulting Engineer's 2019 Annual Report Including the Fiscal 2020 Budget - November 2019

Schedule III Customer Service and Billing

Schedule III Customer Service and Billing

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
300	CUSTOMER SERVICE AND BILLING				
	Salaries and Wages				
6011 6100	Management Salary Union Wages-Except Plant Maintenance	\$241,000 1,243,200	\$162,923 749,343	\$249,200 1,155,300	\$255,700 1,291,200
0100	Total Salaries and Wages	1,484,200	912,266	1,404,500	1,546,900
	Other Expenditures				
6425	Training and Seminars	2,500	0	300	2,500
6711	Postage	6,600	4,564	6,800	7,000
6725	Other Communication	1,500	717	1,500	1,500
6811	Travel and Expense	100	26	100	100
6921	Electricity	50,000	21,024	40,000	50,000
6931	Natural Gas	15,000	6,211	11,000	15,000
6941	Water	5,000	2,899	4,500	5,000
7307	Copier Paper	3,000	1,003	1,500	3,000
7313	Publications	1,000	0	400	1,000
7391	Miscellaneous Office Supplies and Materials	6,000	10,145	12,600	7,000
7420	Equipment Repairs and Materials	10,000	2,652	6,700	10,000
7423	Equipment Rental	1,000	0	200	1,000
7429	Registration Fees/Conferences	1,000	0	300	1,000
7438	Printing Charges (Forms, Copies)	2,000	162	500	2,000
7441	Professional Association Fees	600	0	200	600
7462	Service Charge-Billing	195,000	121,810	208,000	215,000
7465	Service Charge-Collection	12,400	1,919	12,000	12,000
7468	Refunds to Municipalities/Bulk	1,007,000	954,208	954,300	1,012,000
7470	Customer Assistance Program	1,000,000	529,640	530,000	580,000
7511	Gas and Oil-Vehicles and Equipment	3,000	247	500	3,000
7531	Maintenance/Repair-Vehicles and Equipment	3,000	416	700	3,000
7711	EDP Hardware	24,000	0	2,500	24,000
	Total Other Expenditures	2,349,700	1,657,643	1,794,600	1,955,700
	Total Customer Service and Billing	\$3,833,900	\$2,569,909	\$3,199,100	\$3,502,600



Allegheny County Sanitary Authority -

Consulting Engineer's 2019 Annual Report Including the Fiscal 2020 Budget - November 2019

Schedule IV Environmental Compliance

Schedule IV.1 Environmental Compliance

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
505	ENVIRONMENTAL COMPLIANCE				
	Salaries and Wages				
6011	Management Salary	\$410,400	\$305,700	\$467,500	\$261,000
	Total Salaries and Wages	410,400	305,700	467,500	261,000
	Other Expenditures				
6425	Training and Seminars	1,000	100	500	3,000
6811	Travel and Expense	1,000	12	500	1,000
7313	Publications	1,000	0	500	1,000
7391	Miscellaneous Office Supplies and Materials	5,500	5,888	6,000	5,500
7420	Equipment Repairs and Maintenance	5,500	1,633	1,700	5,500
7429	Registration Fees/Conferences	1,000	0	1,000	1,000
7438	Printing Charges (Forms, Copies)	500	87	300	500
7441	Professional Association Fees	1,000	50	500	1,000
7442	Hazardous Materials Disposal	30,000	9,980	20,000	30,000
7457	Special Projects	10,000	808	3,000	10,000
7471	Permits and Equipment Registration	173,500	4,473	10,000	173,500
7511	Gas and Oil-Vehicles and Equipment	600	435	500	600
7531	Maintenance/Repair-Vehicles and Equipment	500	962	1,000	500
7711	EDP Hardware	2,000	0	3,300	2,000
7721	EDP Software	0	229	300	0
	Total Other Expenditures	233,100	24,657	49,100	235,100
	Total Environmental Compliance	\$643,500	\$330,357	\$516,600	\$496,100

Schedule IV.2 Environmental Compliance

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
510	LABORATORY				
	Salaries and Wages				
6011 6100	Management Salary Union Wages-Except Plant Maintenance	\$249,500 1,199,000	\$108,769 814,223	\$166,400 1,255,300	\$263,600 1,344,200
	Total Salaries and Wages	1,448,500	922,992	1,421,700	1,607,800
	Other Expenditures				
6425 7251 7291 7307 7313 7391 7420 7435 7441 7444 7511 7531 7711	Training and Seminars Pretreatment Supplies and Expenses Miscellaneous Lab Supplies and Glass Copier Paper Publications Miscellaneous Office Supplies and Materials Equipment Repairs and Maintenance Demurrage Charges Professional Association Fees Outside Laboratory Services Gas and Oil-Vehicle and Equipment Maintenance/Repair-Vehicles and Equipment EDP Hardware EDP Software	15,000 500 150,000 1,000 500 10,000 70,000 45,000 0 170,000 500 500 3,000 0	190 59 144,548 868 0 4,784 42,849 24,799 350 93,495 269 133 1,297 700	300 100 216,800 1,300 0 7,200 64,300 37,200 500 140,300 400 200 2,000 1,100	20,000 500 200,000 1,500 500 10,000 75,000 50,000 500 180,000 500 500 3,000 500
7900	Laboratory Chemicals	150,000	74,450	111,700	150,000
	Total Other Expenditures	616,000	388,791	583,400	692,500
	Total Laboratory	\$2,064,500	\$1,311,783	\$2,005,100	\$2,300,300

Schedule IV.3 Environmental Compliance

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
520	INDUSTRIAL WASTE				
	Salaries and Wages				
6011	Management Salary	\$255,900	\$98,023	\$149,900	\$242,000
6100	Union Wages-Except Plant Maintenance	1,220,200	721,252	1,112,000	1,339,200
6300	Vehicle Maintenance Labor	2,900	245	400	700
	Total Salaries and Wages	1,479,000	819,520	1,262,300	1,581,900
	Other Expenditures				
6425	Training and Seminars	5,500	544	2,200	6,000
6725	Other Communication	8,000	4,842	8,000	8,200
6811	Travel and Expense	7,500	759	1,300	8,000
7251	Pretreatment Supplies and Expenses	42,400	24,636	38,000	45,000
7255	Pollution Prevention Program Expense	1,000	0	0	1,000
7307	Copier Paper	900	0	0	700
7391	Miscellaneous Office Supplies and Materials	7,200	3,049	5,000	7,500
7420	Equipment Repairs and Maintenance	3,000	817	1,300	3,100
7429	Registration Fees/Conferences	500	0	250	700
7438	Prining Charges (Forms, Copies)	1,000	39	100	1,000
7441	Professional Association Fees	100	0	0	1,200
7457	Special Projects	228,000	19,212	30,000	228,000
7511	Gas and Oil-Vehicles and Equipment	9,300	7,164	12,500	15,000
7531	Maintenance/Repair-Vehicles and Equipment	8,700	6,163	10,000	10,000
7711	EDP Hardware	23,000	15,677	25,000	25,000
7721	EDP Software	59,000	43,570	70,000	80,000
	Total Other Expenditures	405,100	126,472	203,650	440,400
	Total Industrial Waste	\$1,884,100	\$945,992	\$1,465,950	\$2,022,300

Schedule IV.4 Environmental Compliance

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
530	DIVERSE RESIDUALS MANAGEMENT				
	Salaries and Wages				
6011	Management Salary	\$187,600	\$117,936	\$180,400	\$192,400
6100	Union Wages-Except Plant Maintenance	48,200	28,205	43,100	45,300
6300	Vehicle Maintenance Labor	2,800	1,516	2,300	4,600
	Total Salaries and Wages	238,600	147,657	225,800	242,300
	Other Expenditures				
6425	Training and Seminars	2,000	869	2,000	3,000
6811	Travel and Expense	3,000	0	1,000	3,000
7313	Publications	1,000	0	500	1,000
7391	Miscellaneous Office Supplies and Materials	2,500	1,277	2,000	5,000
7429	Registration Fees/Conferences	2,000	289	1,000	2,000
7438	Printing Charges (Forms, Copies)	2,000	0	0	5,000
7441	Professional Association Fees	3,000	24,442	25,000	3,000
7444	Outside Laboratory Service	5,000	275	500	5,000
7457	Special Projects	25,000	5,260	18,000	25,000
7511	Gas and Oil-Vehicles and Equipment	2,000	296	600	3,000
7531	Maintenance/Repair-Vehicles and Equipment	1,000	133	500	1,000
7711	EDP Hardware	3,000	2,104	2,200	6,000
7721	EDP Software	0	175	200	40,000
	Total Other Expenditures	51,500	35,120	53,500	102,000
		\$290,100	\$182,777	\$279,300	\$344,300



Allegheny County Sanitary Authority -

Consulting Engineer's 2019 Annual Report Including the Fiscal 2020 Budget - November 2019

Schedule V Interceptor System

Schedule V.1 Interceptor System

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
605	REGIONAL CONVEYANCE ADMINISTRATION				
	Salaries and Wages				
6011	Management Salary	\$683,700	\$347,064	\$530,800	\$864,500
	Total Salaries and Wages	683,700	347,064	530,800	864,500
	Other Expenditures				
6425	Training and Seminars	8,000	2,107	2,500	10,000
6725	Other Communcation	25,000	11,285	22,200	25,000
6811	Travel and Expense	10,000	4,095	10,000	10,000
7313	Publications	200	541	600	600
7391	Miscellaneous Office Supplies and Materials	15,000	10,424	15,000	15,000
7429	Registration Fees/Conferences	5,000	435	1,500	5,000
7438	Printing Charges (Forms, Copies)	200	73	100	200
7441	Professional Association Fees	800	605	700	800
7457	Special Projects	200	0	0	200
7511	Gas and Oil-Vehicles and Equipment	200	507	800	800
7531	Maintenance/Repair-Vehicles & Equipment	2,400	766	1,000	2,400
7711	EDP Hardware	7,500	8,819	9,000	15,000
7721	EDP Software	7,500	2,335	2,500	5,000
7731	EDP Maintenance Service	18,000	10,500	23,000	23,000
	Total Other Expenditures	100,000	52,492	88,900	113,000
	Total Regional Conveyance Administration	\$783,700	\$399,556	\$619,700	\$977,500

Schedule V.2 Interceptor System

Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
GENERAL-UPPER ALLEGHENY SYSTEM				
Salaries and Wages				
Outside Maintenance Labor Inside Maintenance Labor Vehicle Maintenance Labor	\$99,900 3,200 2,000	\$35,655 0 2,524	\$55,000 0 3,900	\$78,300 800
Total Salaries and Wages Other Expenditures	105,100	38,179	58,900	86,700
Expendable Parts and Tools Intrumentation Repair & Maintenance Miscellaneous Maintenance Supplies & Expenses Equipment Repairs aand Maintenance	2,000 200 500 1,000	580 0 0	1,000 100 100 500	2,000 200 500 1,000
Total Other Expenditures Total General-Upper Allegheny System	3,700 \$108,800	\$38,759	1,700 \$60,600	3,700 \$90,400
	GENERAL-UPPER ALLEGHENY SYSTEM Salaries and Wages Outside Maintenance Labor Inside Maintenance Labor Vehicle Maintenance Labor Total Salaries and Wages Other Expenditures Expendable Parts and Tools Intrumentation Repair & Maintenance Miscellaneous Maintenance Supplies & Expenses Equipment Repairs aand Maintenance Total Other Expenditures	Account Description GENERAL-UPPER ALLEGHENY SYSTEM Salaries and Wages Outside Maintenance Labor \$99,900 Inside Maintenance Labor 3,200 Vehicle Maintenance Labor 2,000 Total Salaries and Wages 105,100 Other Expenditures Expendable Parts and Tools Intrumentation Repair & Maintenance 200 Miscellaneous Maintenance Supplies & Expenses 500 Equipment Repairs aand Maintenance 1,000 Total Other Expenditures 3,700	Account Description 2019 Budget Actual to 8/31 GENERAL-UPPER ALLEGHENY SYSTEM Salaries and Wages \$99,900 \$35,655 Inside Maintenance Labor 3,200 0 Vehicle Maintenance Labor 2,000 2,524 Total Salaries and Wages 105,100 38,179 Other Expenditures Expendable Parts and Tools 2,000 580 Intrumentation Repair & Maintenance 200 0 Miscellaneous Maintenance Supplies & Expenses 500 0 Equipment Repairs aand Maintenance 1,000 0 Total Other Expenditures 3,700 580	Account Description 2019 Budget Actual to 8/31 2019 Projected GENERAL-UPPER ALLEGHENY SYSTEM Salaries and Wages \$99,900 \$35,655 \$55,000 Inside Maintenance Labor Inside Maintenance Inside Ma

Schedule V.3 Interceptor System

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
620	VERONA PUMP STATION				
	Salaries and Wages				
6200	Outside Maintenance Labor	\$96,300	\$20,064	\$30,900	\$44,100
6250	Inside Maintenance Labor	3,100	0	0	500
	Total Salaries and Wages	99,400	20,064	30,900	44,600
	Other Expenditures				
6921	Electricity	14,000	8,399	12,600	14,000
6941	Water	3,000	10,960	13,000	4,000
7106	Expendable Parts and Tools	10,000	535	4,000	10,000
7110	Instrumentation Repair/Maintenance	10,000	896	2,000	7,000
7191	Miscellaneous Maintenance Supplies and Expenses	3,000	136	1,000	3,000
7511	Gas and Oil-Vehicles and Equipment	500	0	400	500
	Total Other Expenditures	40,500	20,926	33,000	38,500
	Total Verona Pump Station	\$139,900	\$40,990	\$63,900	\$83,100

Schedule V.4 Interceptor System

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
630	SQUAW RUN PUMP STATION				
	Salaries and Wages				
6200 6250	Outside Maintenance Labor Inside Maintenance Labor Total Salaries and Wages	\$77,900 2,500 80,400	\$15,499 0 15,499	\$23,900 0 23,900	\$34,100 400 34,500
	Other Expenditures				
6921 6941 7106 7110 7191 7458 7511	Electricity Water Expendable Parts and Tools Instrumentation Repair/Maintenance Miscellaneous Maintenance Supplies and Expenses Vacuum/Jet Services Gas and Oil-Vehicles and Equipment Total Other Expenditures	18,000 5,000 10,000 10,000 5,000 600 0 48,600	10,589 3,698 0 716 4,293 0 0	18,000 6,400 3,000 2,000 5,000 0 500 34,900	18,000 5,000 10,000 7,000 5,000 0 500 45,500
	Total Squaw Run Pump Station	\$129,000	\$34,795	\$58,800	\$80,000

Schedule V.5 Interceptor System

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
640	MONTROSE EJECTOR STATION				
	Salaries and Wages				
6200 6250	Outside Maintenance Labor Inside Maintenance Labor	\$50,100 1,600	\$14,730 0	\$22,700 0	\$32,400 400
	Total Salaries and Wages	51,700	14,730	22,700	32,800
	Other Expenditures				
6921	Electricity	8,000	4,110	7,000	8,000
7106	Expendable Parts and Tools	10,000	0	5,000	10,000
7110	Instrumentation Repair/Maintenance	10,000	639	1,000	7,000
7191	Miscellaneous Maintenance Supplies and Expenses	2,000	321	1,000	2,000
7420	Equipment Repairs and Maintenance	5,000	0	0	3,000
7511	Gas and Oil-Vehicles and Equipment	400	0	300	400
	Total Other Expenditures	35,400	5,070	14,300	30,400
	Total Montrose Ejector Station	\$87,100	\$19,800	\$37,000	\$63,200

Schedule V.6 Interceptor System

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
650	SAW MILL RUN				
	Salaries and Wages				
6200 6250 6300	Outside Maintenance Labor Inside Maintenance Labor Vehicle Maintenance Labor	\$85,600 2,800 0	\$44,320 0 1,297	\$68,300 0 2,000	\$97,300 1,000 3,900
	Total Salaries and Wages	88,400	45,617	70,300	102,200
	Other Expenditures				
7106 7191 7531	Expendable Parts and Tools Miscellaneous Maintenance Supplies and Expenses Maintenance/Repair-Vehicles and Equipment	3,000 500 1,000	0 17 0	1,000 100 0	3,000 500 0
	Total Other Expenditures	4,500	17	1,100	3,500
	Total Saw Mill Run	\$92,900	\$45,634	\$71,400	\$105,700

Schedule V.7 Interceptor System

Acct.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
660	REGIONALIZED FACILITIES				
	Salaries and Wages				
6011 6100	Management Salary UnionWages - Except Pit	\$0 0	\$0 0	\$0 0	\$80,000 303,400
	Total Salaries and Wages	0	0	0	383,400
	Other Expenditures				
7106	Expendable Parts and Tools	0	315	500	50,000
7110	Instrumentation Repair and Maintenance	0	0	0	10,000
7191	Miscellaneous Maintenance Supplies and Expenses	10,000	0	0	500,000
7420	Equipment Repairs and Maintenance	450,000	0	0	0
	Total Other Expenditures	460,000	315	500	560,000
	Total Regionalized Facilities	\$460,000	\$315	\$500	\$943,400

Schedule V.8 Interceptor System

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
690	GENERAL-EXCEPT UPPER ALLEGHENY				
	Salaries and Wages				
6200	Outside Maintenance Labor	\$4,055,000	\$2,136,835	\$3,294,500	\$4,689,800
6250	Inside Maintenance Labor	128,900	0	0	45,400
6300	Vehicle Maintenance Labor	53,600	12,934	19,900	39,100
	Total Salaries and Wages	4,237,500	2,149,769	3,314,400	4,774,300
	Other Expenditures				
6425	Training and Seminars	15,000	4,426	10,000	15,000
6725	Other Communcation	0	2,113	3,300	4,000
6921	Electricity	6,300	1,465	2,500	4,000
6931	Natural Gas	7,000	0	0	5,000
6941	Water	1,000	0	0	1,000
7106	Expendable Parts and Tools	60,000	17,684	36,000	50,000
7110	Instrumentation Repair and Maintenance	10,000	3,393	4,000	6,000
7191	Miscellaneous Maintenance Supplies and Expenses	60,000	38,827	50,000	60,000
7420	Equipment Repairs and Maintenance	30,000	20,791	25,000	30,000
7473	Interceptor Cleaning & Inspection	3,500,000	1,449,248	2,700,000	6,000,000
7475	Disaster Recovery Services	5,000	0	0	5,000
7511	Gas and Oil-Vehicles and Equipment	60,000	37,992	57,000	60,000
7521	Gas and Oil-Watercraft	20,000	13,036	20,000	20,000
7531	Maintenance/Repair-Vehicles and Equipment	130,000	72,820	110,000	130,000
7541	Maintenance/Repair-Watercraft	20,000	23,484	24,000	20,000
	Total Other Expenditures	3,924,300	1,685,279	3,041,800	6,410,000
	Total General-Except Upper Allegheny System	\$8,161,800	\$3,835,048	\$6,356,200	\$11,184,300

Schedule V.9 Interceptor System

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
691	CORLISS PUMP STATION				
	Salaries and Wages				
6200 6250	Outside Maintenance Labor Inside Maintenance Labor	\$59,900 2,000	\$28,856 0	\$44,500 0	\$63,400
	Total Salaries and Wages	61,900	28,856	44,500	64,100
	Other Expenditures				
6921 6941 7106 7110 7191 7420	Electricity Water Expendable Parts and Tools Instrumentation Repair/Maintenance Miscellaneous Maintenance Supplies and Expenses Equipment Repairs and Maintenance Total Other Expenditures Total Corliss Pump Station	42,000 300 15,000 7,000 4,000 10,000 78,300	27,864 0 1,907 698 2,069 0 32,538	41,800 100 4,000 2,000 3,000 0 50,900	42,000 300 15,000 5,000 4,000 500 66,800 \$130,900

Schedule V.10 Interceptor System

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
692	MELANCTHON EJECTOR STATION				
	Salaries and Wages				
6200 6250	Outside Maintenance Labor Inside Maintenance Labor Total Salaries and Wages	\$29,100 1,000 30,100	\$14,873 0 14,873	\$22,900 0 22,900	\$32,700 400 33,100
	Other Expenditures				
6921 6941 7106 7110 7191	Electricity Water Expendable Parts and Tools Instrumentation Repair/Maintenance Miscellaneous Maintenance Supplies and Expenses	6,000 300 5,000 2,000 1,000	4,898 273 1,506 0 268	7,300 400 3,000 1,000 500	7,000 400 5,000 1,000 1,000
	Total Other Expenditures Total Melancthon Ejector Station	14,300 \$44,400	6,945 \$21,818	\$35,100	14,400 \$47,500

Schedule V.11 Interceptor System

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
694	ELLA STREET PUMP STATION				
	Salaries and Wages				
6200	Outside Maintenance Labor	\$56,900	\$27,648	\$42,600	\$60,700
6250	Inside Maintenance Labor	1,900	0	0	600
	Total Salaries and Wages	58,800	27,648	42,600	61,300
	Other Expenditures				
6921	Electricity	25,000	20,638	30,000	27,000
6931	Natural Gas	6,000	3,354	5,000	6,000
6941	Water	300	229	400	300
7106	Expendable Parts and Tools	5,000	164	1,000	5,000
7110	Instrumentation Repair/Maintenance	6,000	4,747	5,000	6,000
7191	Miscellaneous Maintenance Supplies and Expenses	3,000	1,332	2,000	3,000
7420	Equipment Repairs and Maintenance	5,000	0	0	5,000
7511	Gas and Oil-Vehicle and Equipment	1,000	189	500	1,000
	Total Other Expenditures	51,300	30,653	43,900	53,300
	Total Ella Street Pump Station	\$110,100	\$58,301	\$86,500	\$114,600

Schedule V.12 Interceptor System

Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
SANDY CREEK PUMP STATION				
Salaries and Wages				
Outside Maintenance Labor Inside Maintenance Labor	\$111,900 3,600	\$19,941 0	\$30,700 0	\$43,800 500
Total Salaries and Wages	115,500	19,941	30,700	44,300
Other Expenditures				
Electricity Natural Gas Water Expendable Parts and Tools Instrumentation Repair/Maintenance Miscellaneous Maintenance Supplies and Expenses Gas and Oil-Vehicles and Equipment	65,000 6,000 2,000 20,000 10,000 5,000 1,000	41,025 1,866 2,350 4,469 1,030 1,420 195	70,500 2,000 3,500 15,000 3,000 2,500 600	70,000 4,000 2,000 20,000 10,000 5,000 1,000
Total Other Expenditures Total Sandy Creek Pump Station	109,000 \$224,500	<u>52,355</u> \$72,296	<u>97,100</u> \$127,800	112,000 \$156,300
	SANDY CREEK PUMP STATION Salaries and Wages Outside Maintenance Labor Inside Maintenance Labor Total Salaries and Wages Other Expenditures Electricity Natural Gas Water Expendable Parts and Tools Instrumentation Repair/Maintenance Miscellaneous Maintenance Supplies and Expenses Gas and Oil-Vehicles and Equipment Total Other Expenditures	Account Description SANDY CREEK PUMP STATION Salaries and Wages Outside Maintenance Labor \$111,900 Inside Maintenance Labor 3,600 Total Salaries and Wages 115,500 Other Expenditures Electricity 65,000 Natural Gas 6,000 Water 2,000 Expendable Parts and Tools Instrumentation Repair/Maintenance 10,000 Miscellaneous Maintenance Supplies and Expenses 5,000 Gas and Oil-Vehicles and Equipment 1,000 Total Other Expenditures 109,000	Account Description 2019 Budget Actual to 8/31 SANDY CREEK PUMP STATION \$111,900 \$19,941 Salaries and Wages \$111,900 \$19,941 Outside Maintenance Labor 3,600 0 Total Salaries and Wages 115,500 19,941 Other Expenditures Electricity 65,000 41,025 Natural Gas 6,000 1,866 Water 2,000 2,350 Expendable Parts and Tools 20,000 4,469 Instrumentation Repair/Maintenance 10,000 1,030 Miscellaneous Maintenance Supplies and Expenses 5,000 1,420 Gas and Oil-Vehicles and Equipment 1,000 195 Total Other Expenditures 109,000 52,355	Account Description 2019 Budget Actual to 8/31 2019 Projected SANDY CREEK PUMP STATION Salaries and Wages \$111,900 \$19,941 \$30,700 Inside Maintenance Labor 3,600 0 0 0 Inside Maintenance Labor 3,600 0 0 0 Total Salaries and Wages 115,500 19,941 30,700 Other Expenditures Electricity 65,000 41,025 70,500 Natural Gas 6,000 1,866 2,000 Water 2,000 2,350 3,500 Expendable Parts and Tools 20,000 4,469 15,000 Instrumentation Repair/Maintenance 10,000 1,030 3,000 Miscellaneous Maintenance Supplies and Expenses 5,000 1,420 2,500 Gas and Oil-Vehicles and Equipment 1,000 195 600 Total Other Expenditures 109,000 52,355 97,100

Schedule V.13 Interceptor System

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
697	U5 Ejector Station				
	Salaries and Wages				
6200 6250	Outside Maintenance Labor Inside Maintenance Labor	\$0 0	\$0 0	\$0 0	\$0 <u>0</u>
	Total Salaries and Wages	0	0	0	0
	Other Expenditures				
7106 7110	Expendable Parts and Tools Instrumentation Repair/Maintenance	100 100	0 	0	0
	Total Other Expenditures	200	0	0	0
	Total U5 Ejector Station	\$200	\$0	\$0	\$0



Allegheny County Sanitary Authority -

Consulting Engineer's 2019 Annual Report Including the Fiscal 2020 Budget - November 2019

Schedule VI Plant Operations

Schedule VI.1 Plant Operations

Acct.	Account Description	2019	2019 Actual	2019	2020
No.	Account Description	Budget	to 8/31	Projected	Budget
125	SAFETY				
	Salaries and Wages				
6011 6100	Management Salary Union Wages-Except Plant	\$365,000 908,600	\$204,318 521,983	\$312,500 804,800	\$445,800 954,100
	Total Salaries and Wages	1,273,600	726,301	1,117,300	1,399,900
	Other Expenditures				
6425 6517	Training and Seminars Physical Examinations	45,000 7,000	13,916 4,604	30,000 6,000	48,000 9,000
6811	Travel and Expense	8,000	1,344	3,000	8,000
7011	Plant Security	34,000	12,717	19,000	34,000
7313 7391	Publications Missellaneous Office Supplies and Meterials	12,000 20,000	399	7,000	15,000
7420	Miscellaneous Office Supplies and Materials Equipment Repairs and Maintenance	20,000	9,967 15,909	15,000 20,000	20,000 18,000
7441	Professional Association Fees	2,300	435	1,500	2,300
7457	Special Projects	10,000	0	5,000	10,000
7511	Gas & Oil-Vehicle & Equipment	6,000	1,941	4,000	6,000
7531	Maintenance/Repair-Vehicles and Equipment	7,000	5,259	7,000	8,000
7711	EDP Hardware	6,000	2,290	3,000	6,000
7762	Prescription Safety Glass Program	8,000	4,575	8,000	8,000
7764	Safety Shoe Program	12,000	9,591	12,000	12,000
7766	Industrial Hygiene	5,000	842	5,000	5,000
7770	Safety Equipment	46,000	11,129	18,000	39,000
7776	Fire Extinguishing Inspection and Recharging	34,000	19,419	30,000	34,000
	Total Other Expenditures	284,300	114,337	193,500	282,300
	Total Safety	\$1,557,900	\$840,638	\$1,310,800	\$1,682,200

Schedule VI.2 Plant Operations

Acct.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
705	OPERATIONS AND MAINTENANCE ADMINISTRATION				
	Salaries and Wages				
6011 6300	Management Salary Vehicle Maintenance Labor	\$306,600 26,300	\$206,934 325	\$316,500 500	\$333,700 1,000
	Total Salaries and Wages	332,900	207,259	317,000	334,700
	Other Expenditures				
6425 6725 6811 7391 7429 7441 7511 7531 7711	Training and Seminars Other Communications Travel and Expense Miscellaneous Office Supplies and Materials Registration Fees/Conferences Professional Association Fees Gas and Oil-Vehicles and Equipment Maintenance/Repair-Vehicles and Equipment EDP Hardware	3,000 15,000 3,000 15,000 2,000 2,000 1,200 500 2,500	175 16,821 960 10,750 0 695 779 0	1,000 23,000 1,500 16,000 0 1,000 1,200 500 0	2,000 19,000 3,000 16,000 2,000 2,000 1,200 500 2,000
	Total Other Expenditures Total Operations and Maintenance Administration	\$377,100	30,180 \$237,439	\$361,200	\$382,400
			· · · · · · · · · · · · · · · · · · ·		

Schedule VI.3 Plant Operations

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
710	MAIN PUMP STATION				
	Salaries and Wages				
6100	Union Wages-Except Plant Maintenance	\$0	\$0	\$0	\$0
	Total Salaries and Wages	0	0	0	0
	Other Expenditures				
6921	Electricity	1,600,000	878,562	1,500,000	1,600,000
7091	Miscellaneous Operating Supplies and Materials	1,000	340	400	1,000
7420	Equipment Repairs and Maintenance	4,000	950	2,000	4,000
	Total Other Expenditures	1,605,000	879,852	1,502,400	1,605,000
	Total Main Pump Station	\$1,605,000	\$879,852	\$1,502,400	\$1,605,000

Schedule VI.4 Plant Operations

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
720	RACK AND GRIT				
	Salaries and Wages				
6100	Union Wages-Except Plant Maintenance	\$0	\$0	\$0	\$0
	Total Salaries and Wages	0	0	0	0
	Other Expenditures				
6941	Water	192,500	141,616	200,000	222,000
7091	Miscellaneous Operating Supplies and Materials	3,000	552	1,000	1,000
7821	Caustic Soda	24,000	13,363	20,000	20,000
7828	Sodium Hypochlorite	420,000	369,654	500,000	500,000
7845	Hydrochloric Acid	2,400	0	700	1,200
	Total Other Expenditures	641,900	525,185	721,700	744,200
	Total Rack and Grit	\$641,900	\$525,185	<u>\$721,700</u>	<u>\$744,200</u>

Schedule VI.5 Plant Operations

Acct.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
730	MOBILE EQUIPMENT FOR TREATMENT				
	Salaries and Wages				
6100 6300	Union Wages-Except Plant Maintenance Vehicle Maintenance Labor	\$300,300 479,500	\$255,586 167,024	\$394,100 257,500	\$390,400 504,400
	Total Salaries and Wages	779,800	422,610	651,600	894,800
	Other Expenditures				
6921 6931 6941 7511 7531 7532 7541	Electricity Natural Gas Water Gas and Oil-Vehicles and Equipment Maintenance/Repairs-Vehicles and Equipment Maintenance/Repairs-Hauling Trucks Maintenance/Repairs-Watercraft Total Other Expenditures	40,000 20,000 2,200 40,000 50,000 60,000 10,000 222,200	22,473 9,953 1,725 30,811 24,412 52,144 4,707	40,000 20,000 2,500 45,000 40,000 75,000 7,000	40,000 20,000 2,800 50,000 45,000 70,000 10,000 237,800
	Total Mobile Equipment for Treatment	\$1,002,000	\$568,835	\$881,100	\$1,132,600

Schedule VI.6 Plant Operations

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
740	PRIMARY SEDIMENTATION				
	Salaries and Wages				
6100	Union Wages-Except Plant Maintenance	\$2,792,000	\$1,850,667	\$2,853,300	\$3,015,100
	Total Salaries and Wages	2,792,000	1,850,667	2,853,300	3,015,100
	Other Expenditures				
6941	Water	44,000	32,315	50,000	55,500
7091	Miscellaneous Operating Supplies and Materials	5,000	137	1,000	2,500
7420	Equipment Repairs and Maintenance	1,000	0	500	1,000
7821	Caustic Soda	21,600	12,274	20,000	20,000
7828	Sodium Hypochlorite	39,000	34,356	50,000	50,000
7845	Hydrochloric Acid	2,400	0	500	1,200
7856	Miscellaneous Plant Chemicals	1,000	0	0	1,000
	Total Other Expenditures	114,000	79,082	122,000	131,200
	Total Primary Sedimentation	\$2,906,000	\$1,929,749	\$2,975,300	\$3,146,300

Schedule VI.7 Plant Operations

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
750	DISPOSAL OF SLUDGE, ASH, AND GRIT				
	Salaries and Wages	\$0	\$0	\$0	\$0
	Total Salaries and Wages	0	0	0	0
	Other Expenditures				
7447 7450 7453 7455 7459	Tipping Fees-Sludge Tipping Fees-Ash Tipping Fees-Grit Tipping Fees-Trash Land Application Disposal Total Other Expenditures Total Disposal of Sludge, Ash, and Grit	210,000 275,000 35,000 5,000 1,200,000 1,725,000 \$1,725,000	135,856 159,735 11,018 1,870 842,407 1,150,886 \$1,150,886	210,000 275,000 20,000 5,000 1,500,000 2,010,000 \$2,010,000	225,000 275,000 27,000 5,500 1,500,000 2,032,500 \$2,032,500

Schedule VI.8 Plant Operations

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
760	BOILERS				
	Salaries and Wages	\$0	\$0	\$0	\$0
	Total Salaries and Wages	0	0	0	0
	Other Expenditures				
6931 7091 7420	Natural Gas Miscellaneous Operating Supplies and Materials Equipment Repairs and Maintenance Total Other Expenditures Total Boilers	250,000 30,000 7,000 287,000 \$287,000	132,318 14,763 0 147,081 \$147,081	250,000 25,000 7,000 282,000 \$282,000	250,000 25,000 8,000 283,000 \$283,000

Schedule VI.9 Plant Operations

Acct.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
770	ENERGY RECOVERY				
	Salaries and Wages				
6100	Union Wages-Except Plant Maintenance	\$1,728,000	\$1,270,209	\$1,958,400	\$2,033,700
	Total Salaries and Wages	1,728,000	1,270,209	1,958,400	2,033,700
	Other Expenditures				
6425	Training and Seminars	10,000	975	2,000	5,000
6911	No. 2 Fuel Oil/Diesel	250,000	90,904	200,000	250,000
6921	Electricity	1,100,000	645,603	1,100,000	1,100,000
6931	Natural Gas	400,000	226,463	400,000	400,000
7091	Miscellaneous Operating Supplies and Materials	30,000	33,542	40,000	25,000
7420	Equipment Repairs and Maintenance	15,000	1,271	2,000	15,000
7821	Caustic Soda	54,000	21,840	35,000	40,000
7854	Incinerator Sand	55,000	12,766	55,000	55,000
	Total Other Expenditures	1,914,000	1,033,364	1,834,000	1,890,000
	Total Energy Recovery	\$3,642,000	\$2,303,573	\$3,792,400	\$3,923,700

Schedule VI.10 Plant Operations

Acct.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
780	SLUDGE DEWATERING				
	Salaries and Wages				
6100	Union Wages-Except Plant Maintenance	\$1,823,800	\$1,194,610	\$1,841,800	\$1,916,300
	Total Salaries and Wages	1,823,800	1,194,610	1,841,800	1,916,300
	Other Expenditures				
6921	Electricity	750,000	418,939	750,000	750,000
6941	Water	165,000	121,657	180,000	200,000
7091	Miscellaneous Operating Supplies and Materials	15,000	15,421	25,000	20,000
7420	Equipment Repairs and Maintenance	7,000	1,080	2,000	5,000
7816	High PH Polymers	715,000	575,597	950,000	950,000
7821	Caustic Soda	36,000	20,205	36,000	42,000
7828	Sodium Hypochlorite	84,000	73,202	110,000	100,000
7845	Hyfrochloric Acid	2,400	3,081	3,100	2,400
7856	Miscellaneous Plant Chemicals	1,000	0	0	1,000
	Total Other Expenditures	1,775,400	1,229,182	2,056,100	2,070,400
	Total Sludge Dewatering	\$3,599,200	\$2,423,792	\$3,897,900	\$3,986,700

Schedule VI.11 Plant Operations

Acct.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
785	LIME STABILIZATION	Duagot			Juagor
	Salaries and Wages				
6100	Union Wages-Except Plant Maintenance	\$167,100	\$114,151	\$176,000	\$180,800
	Total Salaries and Wages	167,100	114,151	176,000	180,800
	Other Expenditures				
6921	Electricity	195,000	109,437	195,000	195,000
6941	Water	7,700	5,703	10,000	10,000
7091	Miscellaneous Operating Supplies and Materials	3,000	224	1,000	2,000
7420	Equipment Repairs and Maintenance	5,000	2,088	5,000	5,000
7836	Lime	525,000	287,542	525,000	525,000
	Total Other Expenditures	735,700	404,994	736,000	737,000
	Total Lime Stabilizaton	\$902,800	\$519,145	\$912,000	\$917,800

Schedule VI.12 Plant Operations

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
790	SECONDARY TREATMENT AND POST CHLORINATION				
	Salaries and Wages				
6100	Union Wages-Except Plant Maintenance	\$0	\$0	\$0	\$0
	Total Salaries and Wages	0	0	0	0
	Other Expenditures				
6921	Electricity	1,490,000	837,314	1,490,000	1,490,000
7091	Miscellaneous Operating Supplies and Materials	15,000	12,942	20,000	15,000
7828	Sodium Hypochlorite	400,000	352,908	475,000	475,000
7829	Sodium Bisulfite	90,000	89,189	130,000	130,000
7831	Defoamer	15,000	6,710	15,000	15,000
	Total Other Expenditures	2,010,000	1,299,063	2,130,000	2,125,000
	Total Secondary Treatment and Post Chlorination	\$2,010,000	\$1,299,063	\$2,130,000	\$2,125,000

Schedule VI.13 Plant Operations

Acct.		2019	2019 Actual	2019	2020
No.	Account Description	Budget	to 8/31	Projected	Budget
799	GENERAL PLANT TREATMENT				
	Salaries and Wages				
6011	Management Salary	\$1,347,200	\$796,839	\$1,218,700	\$1,250,600
6100	Union Wages-Except Plant Maintenance	314,700	202,852	312,800	312,800
	Total Salaries and Wages	1,661,900	999,691	1,531,500	1,563,400
	Other Expenditures				
6425	Training and Seminars	70,000	33,925	60,000	65,000
6725	Other Communications	0	274	1,000	0
6921	Electricity	400,000	226,264	400,000	400,000
6931	Natural Gas	75,000	51,444	75,000	75,000
6941	Water	880,000	649,366	950,000	1,100,000
7091	Miscellaneous Operating Supplies and Materials	15,000	10,910	15,000	15,000
7391	Miscellaneous Office Supplies and Materials	10,000	2,727	5,000	10,000
7420	Equipment Repairs and Maintenance	10,000	495	1,000	10,000
7423	Equipment Rental	10,000	0	0	10,000
7432	Freight Charges	75,000	57,687	86,500	85,000
7435	Demurrage Charges	7,000	0	4,000	5,000
7441	Professional Association Fees	1,000	715	1,000	1,000
7511	Gas & Oil-Vehicle & Equipment	2,000	54	1,000	1,000
7711	EDP Hardware	3,000	420	1,000	1,000
	Total Other Expenditures	1,558,000	1,034,281	1,600,500	1,778,000
	Total General Plant Treatment	\$3,219,900	\$2,033,972	\$3,132,000	\$3,341,400



Allegheny County Sanitary Authority -

Consulting Engineer's 2019 Annual Report Including the Fiscal 2020 Budget - November 2019

Schedule VII Professional Services

Schedule VII Professional Services

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
800	PROFESSIONAL SERVICES				
	Salaries and Wages	\$0	\$0	\$0	\$0
	Total Salaries and Wages	0	0	0	0
	Other Expenditures				
6611 6614 6617 6620 6623	Audit Fees Consulting Engineers Legal Expenses Trustee Fees Financial Advisory Fees Total Other Expenditures	75,000 75,000 600,000 85,000 30,000 865,000	60,954 39,978 327,742 4,750 16,000 449,424	85,000 75,000 500,000 50,000 30,000 740,000	90,000 75,000 600,000 85,000 30,000 880,000
	Total Professional Services	\$865,000	\$449,424	\$740,000	\$880,000



Allegheny County Sanitary Authority -

Consulting Engineer's 2019 Annual Report Including the Fiscal 2020 Budget - November 2019

Schedule VIII Plant Maintenance

Schedule VIII.1 Plant Maintenance

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
110	EXECUTIVE ADMINISTRATION				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$62,800	\$29,819	\$46,000	\$52,700
	Total Salaries and Wages	62,800	29,819	46,000	52,700
	Other Expenditures				
7106	Expendable Parts and Tools	1,500	494	1,000	1,500
7110	Instrumentation Repair and Maintenance	10,000	5,781	7,500	10,000
7191	Miscellaneous Maintenance Supplies and Expenses	0	130	200	0
	Total Other Expenditures	11,500	6,405	8,700	11,500
	Total Executive Administration	\$74,300	\$36,224	\$54,700	\$64,200

Schedule VIII.2 Plant Maintenance

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
125	SAFETY				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$6,000	\$4,280	\$6,600	\$7,500
	Total Salaries and Wages	6,000	4,280	6,600	7,500
	Other Expenditures				
7106	Expendable Parts and Tools	1,000	0	0	1,000
7110	Instrumentation Repair and Maintenance	20,000	14,360	20,000	20,000
	Total Other Expenditures	21,000	14,360	20,000	21,000
	Total Executive Administration	\$27,000	<u>\$18,640</u>	\$26,600	\$28,500

Schedule VIII.3 Plant Maintenance

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
130	ACCOUNTING/FINANCE				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$0	\$0	\$0	<u>\$0</u>
	Total Salaries and Wages	0	0	0	0
	Other Expenditures				
7106	Expendable Parts and Tools	0	0	100	0
7191	Miscellaneous Maintenance Supplies and Expenses	100	5	100	0
	Total Other Expenditures	100	5	200	0
	Total Executive Administration	<u>*100</u>	<u>\$5</u>	\$200	<u>\$0</u>

Schedule VIII.4 Plant Maintenance

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
140	PURCHASING				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$3,900	\$1,367	\$2,100	\$2,400
	Total Salaries and Wages	3,900	1,367	2,100	2,400
	Other Expenditures				
7191	Miscellaneous Maintenance Supplies and Expenses	100	0	0	0
	Total Other Expenditures	100	0	0	0
	Total Purchasing	\$4,000	\$1,367	\$2,100	\$2,400

Schedule VIII.5 Plant Maintenance

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
200	MANAGEMENT INFORMATION SYSTEMS				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$9,600	\$2,169	\$3,300	\$3,800
	Total Salaries and Wages	9,600	2,169	3,300	3,800
	Other Expenditures				
7110	Instrumentation Repair and Maintenance	20,000	11,157	13,500	20,000
	Total Other Expenditures	20,000	11,157	13,500	20,000
	Total Management Information Systems	\$29,600	\$13,326	\$16,800	\$23,800

Schedule VIII.6 Plant Maintenance

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
300	CUSTOMER SERVICE AND BILLING				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$34,700	\$18,577	\$28,600	\$32,800
	Total Salaries and Wages	34,700	18,577	28,600	32,800
	Other Expenditures				
7106	Expendable Parts and Tools	2,000	711	1,000	2,000
7110	Instrumentation Repair and Maintenance	30,000	16,823	20,000	16,000
	Total Other Expenditures	32,000	17,534	21,000	18,000
	Total Billing and Collecting	\$66,700	\$36,111	\$49,600	\$50,800

Schedule VIII.7 Plant Maintenance

Acct.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
405	ENGINEERING ADMINISTRATION				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$700	\$353	\$500	\$600
	Total Salaries and Wages	700	353	500	600
	Other Expenditures				
7106	Expendable Parts and Tools	0	0	0	0
7110	Instrumentation Repair and Maintenance	0	0	0	0
7191	Miscellaneous Maintenance Supplies and Expenses	0	0	0	0
	Total Other Expenditures	0	0	0	0
	Total Engineering Administration	<u>\$700</u>	\$353	\$500	\$600

Schedule VIII.8 Plant Maintenance

Acct.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
510	LABORATORY				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$72,400	\$46,314	\$71,400	\$81,700
	Total Salaries and Wages	72,400	46,314	71,400	81,700
	Other Expenditures				
7106	Expendable Parts and Tools	5,000	782	1,500	5,000
7110	Instrumentation Repair and Maintenance	20,000	6,059	9,000	20,000
7191	Miscellaneous Maintenance Supplies and Expenses	0	94	100	0
	Total Other Expenditures	25,000	6,935	10,600	25,000
	Total Laboratory	\$97,400	\$53,249	\$82,000	<u>\$106,700</u>

Schedule VIII.9 Plant Maintenance

Acct.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
520	INDUSTRIAL WASTE				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$2,700	\$759	\$1,200	\$1,300
	Total Salaries and Wages	2,700	759	1,200	1,300
	Other Expenditures				
7106	Expendable Parts and Tools	1,000	179	300	1,000
7110	Instrumentation Repair and Maintenance	5,000	1,993	3,500	5,000
7191	Miscellaneous Maintenance Supplies and Expenses	0	1,020	1,200	0
	Total Other Expenditures	6,000	3,192	5,000	6,000
	Total Industrial Waste	\$8,700	\$3,951	\$6,200	\$7,300

Schedule VIII.10 Plant Maintenance

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
705	OPERATIONS & MAINTENANCE ADMINISTRATION				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$0	<u>\$0</u>	\$0	<u>\$0</u>
	Total Salaries and Wages	0	0	0	0
	Other Expenditures				
7191	Miscellaneous Maintenance Supplies and Expenses	0	1,082	1,200	0
	Total Other Expenditures	0	1,082	1,200	0
	Total Operations & Maintenance Administration	\$0	\$1,082	\$1,200	<u>\$0</u>

Schedule VIII.11 Plant Maintenance

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
710	MAIN PUMP STATION				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$125,000	\$123,064	\$189,700	\$217,200
	Total Salaries and Wages	125,000	123,064	189,700	217,200
	Other Expenditures				
7106	Expendable Parts and Tools	125,000	40,860	225,000	150,000
7110	Instrumentation Repair/Maintenance	150,000	16,185	110,000	75,000
7191	Miscellaneous Maintenance Supplies and Expenses	0	569	1,000	0
	Total Other Expenditures	275,000	57,614	336,000	225,000
	Total Main Pump Station	\$400,000	\$180,678	\$525,700	\$442,200

Schedule VIII.12 Plant Maintenance

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
720	RACK AND GRIT				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$254,400	\$146,608	\$226,000	\$258,800
	Total Salaries and Wages	254,400	146,608	226,000	258,800
	Other Expenditures				
7106	Expendable Parts and Tools	200,000	123,635	240,000	120,000
7110	Instrumentation Repair/Maintenance	20,000	13,183	25,000	30,000
7191	Miscellaneous Maintenance Supplies and Expenses	0	364	500	0
	Total Other Expenditures	220,000	137,182	265,500	150,000
	Total Rack and Grit	\$474,400	\$283,790	\$491,500	\$408,800

Schedule VIII.13 Plant Maintenance

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
730	MOBILE EQUIPMENT FOR TREATMENT				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$55,200	\$19,425	\$29,900	\$34,300
	Total Salaries and Wages	55,200	19,425	29,900	34,300
	Other Expenditures				
7106	Expendable Parts and Tools	50,000	51,881	80,000	60,000
7191	Miscellaneous Maintenance Supplies and Expenses	0	3,686	5,000	0
	Total Other Expenditures	50,000	55,567	85,000	60,000
	Total Mobile Equipment for Treatment	\$105,200	<u>\$74,992</u>	\$114,900	\$94,300

Schedule VIII.14 Plant Maintenance

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
740	PRIMARY SEDIMENTATION				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$273,500	\$127,378	\$196,400	\$224,700
	Total Salaries and Wages	273,500	127,378	196,400	224,700
	Other Expenditures				
7106	Expendable Parts & Tools	160,000	83,457	130,000	160,000
7110	Instrumentation Repair/Maintenance	32,600	13,125	28,000	44,600
7191	Miscellaneous Maintenance Supplies & Expenses	0	364	500	0
	Total Other Expenditures	192,600	96,946	158,500	204,600
	Total Primary Sedimentation	\$466,100	\$224,324	\$354,900	\$429,300

Schedule VIII.15 Plant Maintenance

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
760	BOILERS				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$4,100	\$1,830	\$2,800	\$3,200
	Total Salaries and Wages	4,100	1,830	2,800	3,200
	Other Expenditures				
7106	Expendable Parts and Tools	3,500	(244)	0	3,500
7110	Instrumentation Repair/Maintenance	500	0	100	500
	Total Other Expenditures	4,000	-244	100	4,000
	Total Boilers	\$8,100	<u>\$1,586</u>	\$2,900	\$7,200

Schedule VIII.16 Plant Maintenance

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
770	ENERGY RECOVERY				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$732,900	\$419,696	\$647,100	\$740,700
	Total Salaries and Wages	732,900	419,696	647,100	740,700
	Other Expenditures				
7106	Expendable Parts and Tools	400,000	279,885	400,000	400,000
7110	Instrumentation Repair/Maintenance	110,000	93,344	140,000	110,000
7191	Miscellaneous Maintenance Supplies and Expenses	0	1,635	2,000	0
	Total Other Expenditures	510,000	374,864	542,000	510,000
	Total Energy Recovery	\$1,242,900	<u>\$794,560</u>	\$1,189,100	\$1,250,700

Schedule VIII.17 Plant Maintenance

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
780	SLUDGE DEWATERING				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$478,500	\$280,166	\$432,000	\$494,400
	Total Salaries and Wages	478,500	280,166	432,000	494,400
	Other Expenditures				
7106	Expendable Parts and Tools	550,000	321,675	480,000	400,000
7110	Instrumentation Repair/Maintenance	45,000	41,290	60,000	60,000
7191	Miscellaneous Maintenance Supplies and Expenses	0	1,320	1,500	0
	Total Other Expenditures	595,000	364,285	541,500	460,000
	Total Sludge Dewatering	\$1,073,500	<u>\$644,451</u>	\$973,500	\$954,400

Schedule VIII.18 Plant Maintenance

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
785	LIME STABILIZATION DEWATERING				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$155,500	\$132,792	\$151,300	\$234,400
	Total Salaries and Wages	155,500	132,792	204,700	234,400
	Other Expenditures				
7106	Expendable Parts and Tools	30,000	26,978	35,000	30,000
7110	Instrumentation Repair/Maintenance	30,000	13,010	20,000	30,000
7191	Miscellaneous Maintenance Supplies and Expenses	0	43	100	0
	Total Other Expenditures	60,000	40,031	55,100	60,000
	Total Lime Stabilization Dewatering	\$215,500	\$172,823	\$259,800	\$294,400

Schedule VIII.19 Plant Maintenance

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
790	SECONDARY TREATMENT AND POST CHLORINATION				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$467,500	\$272,181	\$419,600	\$480,400
	Total Salaries and Wages	467,500	272,181	419,600	480,400
	Other Expenditures				
7106	Expendable Parts and Tools	150,000	118,731	180,000	200,000
7110	Instrumentation Repair/Maintenance	90,000	77,814	100,000	90,000
7191	Miscellaneous Maintenance Supplies and Expenses	0	770	1,000	0
	Total Other Expenditures	240,000	197,315	281,000	290,000
	Total Secondary Treatment and Post Chlorination	\$707,500	<u>\$469,496</u>	\$700,600	<u>\$770,400</u>

Schedule VIII.20 Plant Maintenance

Acct.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
799	GENERAL PLANT TREATMENT				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$4,510,900	\$2,735,972	\$4,218,200	\$4,828,300
	Total Salaries and Wages	4,510,900	2,735,972	4,218,200	4,828,300
	Other Expenditures				
6426	Maintenance Training	100,000	2,362	5,000	150,000
7093	Stores Physical Adjustment	0	(591,229)	0	0
7094	Stores Average Price Adjustment	0	617,034	0	0
7106	Expendable Parts and Tools	100,000	65,075	100,000	100,000
7110	Instrumentation Repair and Maintenance	100,000	73,312	100,000	100,000
7191	Miscellaneous Maintenance Supplies and Expenses	120,000	93,979	140,000	120,000
7411	Pest Control	5,000	3,763	5,000	5,000
7414	Janitorial	80,000	63,927	90,000	80,000
7417	Grounds Keeping	25,000	10,268	25,000	25,000
	Total Other Expenditures	530,000	338,491	465,000	580,000
	Total General Plant Treatment	\$5,040,900	\$3,074,463	\$4,683,200	\$5,408,300



Allegheny County Sanitary Authority -

Consulting Engineer's 2019 Annual Report Including the Fiscal 2020 Budget - November 2019

Schedule IX Employee Benefits

Schedule IX Employee Benefits

Acct. No.	Account Description	2019 Budget	2019 Actual to 8/31	2019 Projected	2020 Budget
120	EMPLOYEE BENEFITS				
	Salaries and Wages	\$0	\$0	<u>\$0</u>	\$0
	Total Salaries and Wages	0	0	0	0
	Other Expenditures				
6404	Hospitalization-Authority	11,424,200	6,355,061	11,100,000	11,678,300
6405	Hospitalization-Opt Out	53,000	30,696	53,000	54,100
6410	Eye Care Plan	52,700	27,931	51,000	52,000
6413	Dental Plan	340,600	215,306	340,000	342,400
6415	Employee HC Contribution	0	(100,213)	(200,000)	(300,000)
6416	Life Insurance and Weekly Income Projection	792,800	495,670	790,000	833,600
6419	Employee Assistance Program	10,500	790	1,200	10,700
6422	Tuition Reimbursement	40,000	15,244	23,000	40,000
6425	Training and Seminars	3,000	405	700	3,000
6428	Pension-Union Plan	3,252,300	2,168,136	3,252,300	3,839,000
6431	Pension-Management Plan	2,376,200	1,584,127	2,376,200	2,822,300
6432	Post Employee Benefits (GASB 45)	800,000	533,333	800,000	824,000
6434	Actuarial Costs-Pension	149,500	43,675	70,000	127,500
6436	Other Benefits Consulting	60,000	33,523	50,300	60,000
6505	FICA-Authority Share	2,995,500	1,742,975	2,614,500	3,248,300
6508	Workers Compensation	900,000	698,556	733,500	900,000
6511	Unemployment Compensation-Self Insured	25,000	0	0	25,000
6514	Background Investigations	8,000	4,645	7,000	8,000
6517	Physical Examinations	26,200	13,623	20,500	26,200
6520	Uniform Rental	65,000	22,557	34,000	39,300
6523	Miscellaneous Human Resource Services	75,000	31,406	47,200	75,000
	Total Other Expenditures	23,449,500	13,917,446	22,164,400	24,708,700
	Total Employee Benefits	\$23,449,500	\$13,917,446	\$22,164,400	\$24,708,700



Allegheny County Sanitary Authority -

Consulting Engineer's 2019 Annual Report Including the Fiscal 2020 Budget - November 2019

Appendix A 2018 – 2019 Monthly Loading and Performance Summary

ALLEGHENY COUNTY SANITARY AUTHORITY ALCOSAN WASTEWATER TREATMENT PLANT 2018 - 2019 MONTHLY LOADING AND PERFORMANCE SUMMARY

				INFL	UENT					30-0	DAY AVER	AGE			7 DAY	/ MAX. AVE	RAGE		FINAL	
	ŀ		FLOW	BOD5	TSS	INF. LO	ADING	CBOD5	TSS	NH3-N	EF	F. LOADIN	1G	FECAL	CBOD5	TSS	NH3-N		EFFLUEN1	Г
		FLOW	MAX	INF.	INF.	BOD5	TSS	EFF.	EFF	EFF.	CBOD5	TSS	NH3-N	COL.	mg/l	mg/l	mg/l	DO	CL2	рН
	ľ	MGD	MGD	mg/l	mg/l	LB/D	LB/D	mg/l	mg/l	mg/l	LB/D	LB/D	LB/D	#/100 ml	LB/D	LB/D	LB/D	mg/l	mg/l	S.U.
NPDES														200 *	<u>30</u>		<u>22.5</u>			6.0
PERMIT		250	****					20	30	15	41,700	62,550	31,275		62,550	<u>45</u>	46,913	MIN	0.5	MIN
NO.								25		25.0	52,125		52,125	2,000	<u>37.5</u>	93825	<u>37.5</u>	4.0		9.0
PA0025984															78,188		78,188			MAX
OCTOBER															9.0	<u>13.0</u>	1.0			<u>6.9</u>
2	2018	218.5	250.0	62	93	108,656	165,986	6.7	10.0	1.1	11,895	18,315	2,012	24	14,906	23,352	2,174	5.9	0.39	7.3
NOVEMBER															9.0	<u>12.0</u>	<u>1.0</u>			6.9
_	2018	237.0	250.0	54	94	106,476	184,784	7.2	12.0	1.0	14,224	23,535	2,045	40	17,452	24,733	2,137	6.1	0.45	7.2
DECEMBER															<u>7</u>	<u>12</u>	<u>1</u>			6.6
	2018	232.0	250.0	48	69	92,243	130,827	5.8	9.0	1.2	11,110	17,751	2,280	21	13,488	23,184	2,795	6.2	0.45	7.3
JANUARY															<u>10.0</u>	<u>17.0</u>	<u>2.0</u>			<u>6.9</u>
_	2019	229.2	250.0	52	85	99,700	160,559	6.0	11.0	1.4	11,513	20,907	2,727	36	19,180	32,844	4,605	5.8	0.42	7.2
FEBRUARY															<u>10.0</u>	<u>110.0</u>	<u>2.0</u>			<u>6.8</u>
	2019	232.1	250.0	48	79	92,868	154,571	7.4	10.0	1.4	14,311	19,980	2,763	30	19,327	19,858	3,299	5.5	0.42	7.2
MARCH															<u>7.0</u>	<u>8.0</u>	<u>2.0</u>			<u>6.6</u>
	2019	206.7	249.9	71	110	120,755	184,740	6.9	8.0	1.9	12,129	13,726	3,202	28	12,074	16,393	3,883	6.6	0.40	7.0
APRIL															<u>7.0</u>	<u>9.0</u>	<u>2.0</u>			<u>6.7</u>
	2019	207.8	250.0	66	101	112,431	171,580	6.4	8.0	1.2	11,088	13,531	2,116	31	13,060	16,885	2,790	6.7	0.30	7.2
MAY															<u>6.0</u>	9.0	<u>1.0</u>			<u>6.7</u>
	2019	219.9	250.0	59	89	105,357	158,357	5.0	7.0	1.0	8,981	13,113	1,834	6	12,344	17,796	2,017	7.4	0.42	7.1
JUNE															<u>6.0</u>	<u>13.0</u>	<u>1.1</u>			<u>6.7</u>
_	2019	216.5	250.0	54	119	97,264	214,489	6.0	10.0	1.0	10,308	18,458	1,863	12	,	24,565	1,995	7.0	0.44	7.2
JULY	2040		250.0									40.400	4.050		<u>5.2</u>	8.0	<u>1.1</u>			<u>6.8</u>
	2019	227.1	250.0	41	88	75,549	162,017	4.6	7.0	1.0	8,619	13,193	1,952	11	15,487	15,487	2,040	7.1	0.44	7.2
AUGUST	2040	400.0	000 =		400	00.767	470 510				0.404	40.745	4.005		4.2	8.0	1.2		0.07	6.8
SEPTEMBER	2019	189.8	223.5	63	108	98,765	170,548	4.1	7.0	1.1	6,431	10,715	1,685	10	6,608	13,283	1,887	7.4	0.35	7.1
_	2019	172.9	249.4	70	122	98.924	174,422	4.1	7.0	1.0	6.030	9,495	1,442	9	<u>5.4</u> 9.244	<u>7.0</u> 10.206	<u>1.0</u> 1,701	7.4	0.37	6.8 7.1
ANNUAL	-019	172.9	243.4	70	122	30,324	114,422	4.1	7.0	1.0	0,030	3,433	1,442	9	3,244	10,200	1,701	7.4	0.37	7.1
AVERAGE		215.8	250.0	57	96	100,749	169,407	6	0	1.2	10,553	16,060	2,160	22	13.684	19.882	2,610	5.5	0.40	7.2
AVERAGE		210.8	250.0	57	96	100,749	109,407	6	9	1.2	10,553	10,000	2,160	22	13,084	19,062	2,010	5.5	0.40	1.2

BOD5	- FIVE DAY BIOCHEMICAL OXYGEN DEMAND

CBOD5 - FIVE DAY CARBONACEOUS BIOCHEMICAL OXYGEN DEMAND

rss - Total Suspended Solids

DO - DISSOLVED OXYGEN

FECAL COL. - FECAL COLIFORM * Permit limit for period of May 1 to October 31

NH3-N - AMMONIA-NITROGEN

Shading represents permit exceptions

New NPDES Permit effluent limitations effective January 1, 2019.



Allegheny County Sanitary Authority -

Consulting Engineer's 2019 Annual Report Including the Fiscal 2020 Budget - November 2019

Appendix B Proposed Authorized Positions

ALCOSAN SUMMARY OF AUTHORIZED POSITIONS (as Proposed in 2020 Budget)

Managemen Employees			Unior Employe	
	Budgeted	<u>Actual</u>	Budgeted	<u>Actual</u>
Executive Director's Office	5	1		
Contract Administration	7	5		
Public Relations	9	7	2	2
Scholastic Programs	12	6	19	13
Municipal Outreach	7	4		
Finance & Administration				
Director's Office	2	2		
Accounting	3	2	4	4
Customer Service & Billing	3	3	21	20
Human Resources	5	5		
Training & Development	2	2		
Loss Control	6	6	15	14
MIS	2	2	18	18
Purchasing	3	3	8	6
Operations & Maintenance				
Director's Office	3	3		
Operations	12	11	65	64
Mechanical Maintenance	10	7	70	61
Electrical Maintenance	5	5	22	21
Environmental Affairs				
Director's Office	3	2		
Residuals	4	3	1	1
Industrial Waste	3	2	18	13
Laboratory	3	3	15	15
ECM Systems	4	2		
Engineering & Construction				
Director's Office	4	3	5	6
Capital Projects	11	9	2	1
OR/CD Administartion	1	1		
Regional Conveyance				
Director's Office	15	10		
Wet Weather Programs	8	5	9	7
Interceptor Systems	10	8	55	39
Interceptor - Outside Municipalities	2	0	5	0
TOTAL	164	122	354	305

	ALCOSAN AUTHORIZED POSITIONS								
Cost Center	Department	Position Title	Actual	Budget					
110	Executive Director's Office								
	A datta M/III.a aaa	Function Director							
	Arletta Williams Vacant	Executive Director Executive Assistant	1 0						
	Vacant	Administrative Specialist							
	Vacant	Administrative Specialist	0						
	Vacant	Director	0						
		Total FTES	1						
430	Contract Administration								
	Suzanne Thomas	Procurement Officer	1						
	Elizabeth Bowers	Contract Administrator	1						
	Beth Mellinger	Records and Documents Manager	1						
	Vacant	Administrative Secretary	0						
	Vacant	Contract Administrator	0						
	Candace Coston	Administrative Specialist II	1						
	Marye Zoe Young	Administrative Assistant - Procurement Total FTES	1 5						
115	Public Relations								
	1 1 1 1 1 1 1	D: 1 (0 : : :							
	Joseph Vallarian	Director of Communications	1 0						
	Vacant Sean Biagi	Manager of Communications Web Administrator/Designer	1						
	Stephanie Conley	Administrative Secretary	1						
	Vacant	Public Relations Specialist	0						
	Derek Evan	Public Relations Specialist	1						
	Peggy Croom	Sr. Adm Specialist II	1						
	Mary Kay Meanor	Admin Specialist II	1						
	Lisa George	Internal Events	1 7						
		Total FTES	/	' '					
	Graphic Clerk		2						
		Total FTES	2	:					
116	Municipal Outreach								
	Jaanna Clark	Director of Governmental Affairs	1						
	Jeanne Clark Vacant	Administrative Assistant/Government Relations	1						
	Kimberly Slater Wood	Manager Municipal Relations	1						
	Jillian Sanchioli	Municipal Relations & Outreach Admin Assistant	1						
	Joseph Day	Municipal Relations Coordinator	1						
	Vacant	Administrative Support Specialist	0						
	Vacant	Administrative Specialist	0						
		Total FTES	4	,					
117	Scholastic Programs								
	Erica LaMar	Manager of Scholastic Programs & Ed Services	1						
	Vacant	Administrative Supervisor I	C						
	Vacant	Administrative Supervisor I	0						
	Tiffany Davis	Administrative Supervisor I	1						
	Denee Cabbagestalk	Scholastic Outreach Supervisor	1						
	Vacant DeShelle Taylor	Adminstrative Specialist I Scholastic Support Specialist	0						
	Vacant Vacant	Scholastic Support Specialist Scholastic Support Specialist	0						
	Vacant	Scholastic Support Specialist	0						
	Vacant	Scholastic Outreach Program Administrator	0						
	Sherry Greb	Scheduling Assistant	1						
	Roneice Freeman	Scholastic Outreach Coordinator	1						
		Total FTES	6	1					
	Scholastic Outreach Representatives Scholastic Outreach Clerk		12						

Page 1 of 6 11/24/2019

		AUTHORIZED POSITIONS		
130	Finance and Administration	AUTHORIZED FOSITIONS		
	William Inks	Director of Finance and Administration	1	1
	Vicki Crowe	Administrative Assistant	1	
		Total FTES	2	2
	Associating Deportment			
	Accounting Department			
	Karen Fantoni	Manager of Accounting	1	1
	Lori McKay	Accounting Supervisor	1	1
	Vacant	Payroll Supervisor	0	1
		Total FTES	2	3
	Chief Accounting Clerk		1	1
	Payroll Clerk Accounts Payable Clerk		1 2	1 2
	Accounts Payable Clerk	Total FTES	4	4
		Total i i Lo	7	7
300	Customer Service and Billing			
	Daniel Thornton	Manager of CS & B	1	1
	Leslie Sanford	Administrative Supervisor II	1	
<u> </u>	Dawn Havrilla	Administrative Supervisor II	1	1
 		Total FTES	3	3
<u> </u>	Secretary to Manager	+	1	1
	Clerk Receptionist/Switchboard Oper.		1	1
	S.G. C. Cooptionion of Monibourd Oper.		'	'
	Billing and Investigations			
	Field Inspector		2	2
	<u>Data Entry</u>			
	Group Leader Data Entry		1	1
	Data Entry Processor		8	
	Bala Entry (1000000)			
	Cashiering			
	Group Leader Cashiering		1	1
	Cashier & Controls Clerk		0	1
	Dragoning			
	<u>Processing</u>			
	Group Leader Processing		1	1
	Account Adjustor		2	
	Lump Sum Coordinator		1	1
	Systems Control Coordinator		1	
	Customer Service Representative		1	1
		Total FTES	20	21
100	Harris Barrier Barrier			
120	Human Resources Department			
 	Donna Skundrich	Manager of Human Resources	1	1
	Shelly King	Administrative Specialist (Benefits)	1	
	Sue Martire	Administrative Assistant	1	
	Hannah Martorelli	Health & Wellness Advisor	1	
	Raymond Mroch	Compensation Analyst	1	1
		Total FTES	5	5
100	B. L. (20)			
122	Robert Stimmler Matthew Griener	Sr. Training & Development Specialist	1	
 	iviaunew Griener	E-Learning Developer Total FTES	1 2	
 		Total FILO		
125	Loss Control			
	Lisa Cortazzo	Manager of Loss Control (Safety)	1	
	Bernard Spada	Administrative Specialist I Safety	1	
<u> </u>	Stacy DeMasi	Manager of Security	1	
<u> </u>	Darryl Adams	Administrative Supervisor I Security	1	
 	Lou Mellinger Dylan Thomas	Assistant Supervisor Security Safety Specialist	1	
1	Dylaii Hillias	Total FTES	6	

Page 2 of 6 11/24/2019

		AUTHORIZED POSITIONS		
		AUTHORIZED POSITIONS		
	Safety and Training Technician		1	1
	Security Clerk		1	 1
	Group Leader Guards		1	1
	Guards		11	12
		Total FTES	14	15
200	MIS Department			
	Jack Tallon	Manager of MIS	1	1
	Robert Hoffman	MIS supervisor	1	1
		Total FTES	2	2
	Constant		-	
	Secretary Analyst Programmer		1 9	9
	Computer & Peripheral Operator		2	2
	Microcomputer Specialists		4	
	Telecommunications Specialist		2	2 4 2
	Tolecommunications openialist	Total FTES	18	18
		Total 1120	10	
140	Purchasing Department			
	Raymond Meyer	Manager of Purchasing	1	1
	Rita Stone	Administrative Supervisor (Storeroom)	1	1
	Ben Heilman	Administrative Supervisor (Contracts)	1	1
		Total FTES	3	3
	Clerk/Messenger		1	1
	Purchasing Clerk		1	2
	File Clerk/Typist Purchasing		1	1
	Storekeeper		1	1
	Assistant Storekeeper	Total ETEC	2	3
		Total FTES	Ь	8
705	Operations and Maintenance			
703	Operations and Maintenance			
	Director's Office		+	
	Birector's Office			
	Douglas Jackson	Director of Operations and Maintenance & Deputy Exec. Director	1	1
	David Brown	Manager of Operations Training	1	1
	Pamela Arthur	Administrative Assistant	1	1
	2. 2. 2	Total FTES	3	3
799	Operations Department			
	John Regan	Manager of Operations	1	1
	Peter Guggenheimer	Solid Process Superintendent	1	1
	Shana Marcinik	Liquid Process Superintendent	1	1
	Michael Gavulic	Shift Superintendent	1	1
	Justin Burrell	Shift Superintendent	1	1
	Scott Wolfe	Shift Superintendent	1	1
	Keith Brown	Shift Superintendent	1	1
	Jason Stritmatter	Shift Supervisor	1	1
-	Vacant Robb Merry	Shift Supervisor Shift Supervisor	0	<u> </u>
-	Megan Green	Shift Supervisor Shift Supervisor	1 1	1 1
	Michael Priore	Operations Training Specialist	1	1
	WIGHAGE FROIC	Total FTES	11	12
		TOWN TEO	'	12
	Liquid Process			
	<u>=:qa:a : .30000</u>		+ -	
	Liquid Proc. Control Rm/Field Operators		20	20
	Liquid Process Utility Operators		4	5
	, , , , , , , , , , , , , , , , , , , ,			
	<u>Dewatering</u>			
	Dewatering Control Rm/Field Operators		12	12
			4	4
	Dewatering Utility Operators			
			<u> </u>	
	Dewatering Utility Operators Energy Recovery			
	Energy Recovery			
	Energy Recovery ERF Control Rm/Field Operators		12	12
	Energy Recovery			12 4

Page 3 of 6 11/24/2019

r				
	Non Chift Doronnol	AUTHORIZED POSITIONS		
	Non-Shift Personnel	 		
	Operations Clark		1	
	Operations Clerk		1	1
	Mobile Equipment Operators		3 2	3
	Dispatchers Operator Tri-axle Truck		2	2
	Operator III-axie ITuck	Total FTES	64	65
		Total F1E3	04	00
799	Mechanical Maintenance Department			
133	меспаніса манценансе рерактен			
	John Laird	Manager of Mechanical Maintenance	1	1
	Wayne Dubel	Maintenance Supervisor	1	1
	Anthony Cihal	Expeditor/Planner	1	1
	Eric Jenkins	Maintenance Supervisor	1	1
	Vacant	Maintenance Supervisor	0	1
	Vacant	Maintenance Supervisor	0	1
	Roseann Berg	Maintenance Supervisor	1	1
	Petrosky, William	Maintenance Supervisor I Interceptor Systems	1	1
	Vacant	Maintenance Labor Supervisor	0	1
	LaTanya Brown	Maintenance Labor Supervisor	1	1
	La l'allya Blowii	Total FTES	7	10
-		TOTAL FILO		10
	Auto Mechanics/Apprentices		5	6
 	Maintenance Clerk		1	1
 	Mechanics/Apprentices		18	25
 	Welders/Apprentices Welders/Apprentices		4	4
—	Lubrication Mechanics		4	3
 	Group Leader Lubrication		1	<u> </u>
—	Building/Construction Mechanic/Apprentice		8	9
<u> </u>	General Maintenance Laborers		10	10
<u> </u>	Maintenance Utility		0	10
	Custodians	+	10	10
—	Oudionidia	Total FTES	61	70
			01	10
799	Electrical Maintenance Department			
	Mark Shaffer	Manager of Electrical Maintenance	1	1
	Bill Martin	Control Systems Superintendent	1	<u>.</u> 1
	Joshua Florentine	Instrument Repair Supervisor	1	<u>.</u> 1
	Andrew Devite	Electrical Maintenance Supervisor	1	1
	Dave Rich	HVAC Supervisor	1	1
		Total FTES	5	5
	Electricians/Apprentices		10	10
	Instrument Repair Technicians/Apprentices		7	8
	HVAC Mechanic/Apprentices		4	4
		Total FTES	21	22
				_
505	Environmental Compliance			
	Director's Office			
	Michelle Buys	Director of Environmental Compliance	1	1
	Kimberly Marunczak	Environmental Audit Specialist	1	<u>.</u> 1
	Vacant	Administrative Assistant	0	<u>.</u> 1
		Total FTES	2	3
530	Residuals Department		+	
	Transita 2 apartment		+	
	Robert Martire	Residuals Program Manager	1	1
	Megan Cieslak-Mazza	Residuals Specialist	1	1
	Vacant	Residuals Specialist	0	<u>.</u> 1
	Lorna Shea	Agronomist	1	 1
		Total FTES	3	4
			 	
	Residuals Clerk		1	1
	II/Coluudio Oldik			1
	INCOLUCIO CICIN	Total FTES	1 1	
	Ivesiuuais Oidik	Total FTES	1	
520		Total FTES	1	
520	Industrial Waste Department	Total FTES	1	'
520	Industrial Waste Department			
520	Industrial Waste Department Tina Dean	Manager of Industrial Waste	1	1
520	Industrial Waste Department Tina Dean Ronald Stevenson	Manager of Industrial Waste Sampling & Compliance Supervisor	1 1	1 1
520	Industrial Waste Department Tina Dean	Manager of Industrial Waste	1	1

Page 4 of 6 11/24/2019

		AUTHORIZED POCITIONS		
	Clerk Typist Industrial Waste	AUTHORIZED POSITIONS	1	2
	Sampler/Investigator		12	16
		Total FTES	13	18
510	Laboratory Department			
	Betty Kindle Kimberly Crisi	Manager of Laboratory	1	1
	Maureen Dobransky	Laboratory Supervisor Quality Control Officer	1	<u>1</u> 1
	Maureen Dobransky	Total FTES	3	3
		TotalFTES	3	
	Laboratory Chemist		11	9
	Laboratory Technician		2	4
	Laboratory Clerk		1	1
	General Maint. Laboratory		1	1
		Total FTES	15	15
540	ECM Systems			
		50444		
	Anne Donahue	ECM Manager	1	1
	Jacqueline Graham Vacant	Administrative Secretary Administrative Specialist I	1 0	<u>1</u> 1
	Vacant	Administrative Specialist I Administrative Specialist II	0	<u>1</u> 1
	vacant	Total FTES	2	<u>1</u>
		10001120		
405	Engineering and Construction			
	3 3			
	Director's Office			
	Kimberly Kennedy	Director of Engineering & Construction	1	1
	Angel Allen	Administrative Assistant	1	1
	Vacant	Manager Program Management	0	1
	Steve Miller	Drafting/CADD Supervisor	1	1
		Total FTES	3	4
	Decimens		2	
	Designers Contract Clerk		3	2
	Clerk Typist/Engineering		1	1
	Olerk Typist Engineering	Total FTES	6	5
		10		
420	Capital Projects			
	Daniel Lockard	Manager of Capital Projects	1	1
	Vacant	Project Engineer II	0	1
	Elizabeth Joyce	Project Engineer II	1	1
	John Findley	Project Engineer III	1	1
	Raymond Stasny	Construction Supervisor	1	1
	Jeffrey Mazza Dustin Copenhaver	Project Engineer III	1	1
	Shah Haque	Civil Engineer I Electrical Engineer	1	<u>1</u> 1
			1 11	
	Joseph Wagner	IProject Engineer II	1	
	Joseph Wagner Cody Edgell	Project Engineer II Civil Engineer	1	1
	Joseph Wagner Cody Edgell Vacant	Civil Engineer	1	1 1
	Cody Edgell		1	1 1 1
	Cody Edgell	Civil Engineer Engineer	1 1 0	1 1 1
	Cody Edgell Vacant Surveyor	Civil Engineer Engineer	1 1 0 9	1 1 1 11
	Cody Edgell Vacant	Civil Engineer Engineer Total FTES	1 1 0 9 1 1	1 1 1 11 1 1
	Cody Edgell Vacant Surveyor	Civil Engineer Engineer	1 1 0 9	1 1 1 11 1 1
	Cody Edgell Vacant Surveyor Department Clerk	Civil Engineer Engineer Total FTES	1 1 0 9 1 1	1 1 1 11 1 1
410	Cody Edgell Vacant Surveyor Department Clerk OR/CD Administraton	Civil Engineer Engineer Total FTES Total FTES	1 1 0 9 1 1 0	1 1 1 11 1 1 2
410	Cody Edgell Vacant Surveyor Department Clerk	Civil Engineer Engineer Total FTES Total FTES Administrative Assistant	1 1 0 9 1 1 0	1 1 11 11 1 1 2
410	Cody Edgell Vacant Surveyor Department Clerk OR/CD Administraton	Civil Engineer Engineer Total FTES Total FTES	1 1 0 9 1 1 0	1 1 11 11 1 1 2
	Cody Edgell Vacant Surveyor Department Clerk OR/CD Administraton Denise Macellaro	Civil Engineer Engineer Total FTES Total FTES Administrative Assistant	1 1 0 9 1 1 0	1 1 11 11 1 1 2
410	Cody Edgell Vacant Surveyor Department Clerk OR/CD Administraton	Civil Engineer Engineer Total FTES Total FTES Administrative Assistant	1 1 0 9 1 1 0	1 1 1 1 1 1 1 2 2
	Cody Edgell Vacant Surveyor Department Clerk OR/CD Administraton Denise Macellaro	Civil Engineer Engineer Total FTES Total FTES Administrative Assistant	1 1 0 9 1 1 0	1 1 11 11 1 1 2
	Cody Edgell Vacant Surveyor Department Clerk OR/CD Administraton Denise Macellaro Regional Conveyance	Civil Engineer Engineer Total FTES Total FTES Administrative Assistant	1 1 0 9 1 1 0	1 1 11 11 1 1 2
	Cody Edgell Vacant Surveyor Department Clerk OR/CD Administraton Denise Macellaro Regional Conveyance Director's Office Jan Oliver	Civil Engineer Engineer Total FTES Total FTES Administrative Assistant Total FTES Director of Regional Conveyance	1 1 0 9 1 1 0	1 1 11 11 1 1 2
	Cody Edgell Vacant Surveyor Department Clerk OR/CD Administraton Denise Macellaro Regional Conveyance Director's Office Jan Oliver Natalie Mielke	Civil Engineer Engineer Total FTES Total FTES Administrative Assistant Total FTES Director of Regional Conveyance Administrative Secretary	1 1 0 9 1 1 0 1 1 1 1 1	1 1 11 11 2 1 1 1 1
	Cody Edgell Vacant Surveyor Department Clerk OR/CD Administraton Denise Macellaro Regional Conveyance Director's Office Jan Oliver Natalie Mielke Joseph Sparbanie	Civil Engineer Engineer Total FTES Total FTES Administrative Assistant Total FTES Director of Regional Conveyance Administrative Secretary Civil Engineer - RC	1 0 9 9 1 1 1 1 1 1 1 1	1 1 1 1 1 1 2 2 1 1 1 1
	Cody Edgell Vacant Surveyor Department Clerk OR/CD Administraton Denise Macellaro Regional Conveyance Director's Office Jan Oliver Natalie Mielke Joseph Sparbanie Shawn McWilliams	Civil Engineer Engineer Total FTES Total FTES Administrative Assistant Total FTES Director of Regional Conveyance Administrative Secretary Civil Engineer - RC Civil Engineer	1 0 9 9 1 1 0 1 1 1 1 1 1	1 1 11 11 1 1 2 1 1 1 1 1 1
	Cody Edgell Vacant Surveyor Department Clerk OR/CD Administraton Denise Macellaro Regional Conveyance Director's Office Jan Oliver Natalie Mielke Joseph Sparbanie Shawn McWilliams Geraldine Walker	Civil Engineer Engineer Total FTES Total FTES Administrative Assistant Total FTES Director of Regional Conveyance Administrative Secretary Civil Engineer - RC Civil Engineer GIS Specialist	1 0 9 9 1 1 0 1 1 1 1 1 1 1 1	1 1 1 1 1 1 2 2 1 1 1 1 1 1 1 1 1 1 1 1
	Cody Edgell Vacant Surveyor Department Clerk OR/CD Administraton Denise Macellaro Regional Conveyance Director's Office Jan Oliver Natalie Mielke Joseph Sparbanie Shawn McWilliams Geraldine Walker Benjamin Reynolds	Civil Engineer Engineer Total FTES Total FTES Administrative Assistant Total FTES Director of Regional Conveyance Administrative Secretary Civil Engineer - RC Civil Engineer GIS Specialist GIS Specialist	1 0 9 1 1 0 1 1 1 1 1 1 1 1 1 1	1 1 11 11 1 1 2 1 1 1 1
	Cody Edgell Vacant Surveyor Department Clerk OR/CD Administraton Denise Macellaro Regional Conveyance Director's Office Jan Oliver Natalie Mielke Joseph Sparbanie Shawn McWilliams Geraldine Walker	Civil Engineer Engineer Total FTES Total FTES Administrative Assistant Total FTES Director of Regional Conveyance Administrative Secretary Civil Engineer - RC Civil Engineer GIS Specialist	1 0 9 9 1 1 0 1 1 1 1 1 1 1 1	1

Page 5 of 6 11/24/2019

		LUTUADUTED DAOITIANA		
		AUTHORIZED POSITIONS Environmental Construction Supervisor	1 41	1
	Jeffrey Livezey Adam Kidane	GIS Asset Management Specialist	1	<u></u> 1
	Uzair (Sam) Shamsi	Hydraulic Hydrologist Analyst	1	1
	Vacant	Manager Regionization	0	1
	Vacant	Property Acquisition Specialist	0	1
	Vacant	Engineer	0	1
	Vacant	Civil Engineer	0	<u>.</u> 1
		Total FTES	10	15
440	Wet Weather Programs (CSO)			
	Timothy Prevost	Manager of Wet Weather Programs	1	1
	Vacant	Engineer II	0	1
	Joseph Fedor	Environmental Scientist II	1	1
	Milton Lenhart	Civil Engineer II	1	1
	Brandon Anderson	Supervisor Environmental Monitoring	1	1
	Vacant	Supervisor Environmental Monitoring	0	1
	Vacant	Grants Administrative Assistant	0	1
	Julia Spicher	Civil Engineer	1	1
		Total FTES	5	8
	Clerk Wet Weather Program		1	1
	Environmental Monitoring Technician		6	8
		Total FTES	7	9
690	Interceptor Systems			
<u> </u>	John Garofalo	Manager of Interceptor Systems	1	1
	Dennis Banks	Interceptor Systems Superintendent	1	1
	Mike Altimore	Supervisor I Interceptor Systems	1	1
	Vacant	Supervisor I Interceptor Systems	0	1
	Charles Simone	Supervisor I Interceptor Systems	1	1
	Mark Argenas	Supervisor I Interceptor Systems	1	1
	Lawrence Waibel	Supervisor I Interceptor Systems	1	1
	Stanton, Brian	Supervisor I Interceptor Systems	1	1
	Jakubowski, Matthew	Supervisor I Interceptor Systems	1	1
	Vacant	Supervisor I Interceptor Systems Video Crew	0	1
		Total FTES	8	10
	5 10 1			
	Boat Operator		2	2
	Assistant Boat Operator		1	1
	Crew Leader Interceptor Maint. Pump Station		1	2
	Crew Leader Interceptor Video Inspection		3	3
	Pump Station Driver/Assistant Operator		1	2
	Laborer Operator Maint. Truck Driver		4	5 6
	Laborer Interceptor Structures		4	5
	Interceptor Systems Inspector/Spotter		3	
	Regional Conveyance Clerk		1	1
	Hi-Velocity Combo Unit Driver		5	<u>6</u> 5
	Crew Leader Interceptor Maint. Structures		4	5
	Video Inspection Driver/Assistant		3	3 2
-	Laborer Interceptor Pump Stations Laborer Interceptor Video Truck		3	3
-	IS Welder		0	<u>3</u> 1
-	Building & Construction Mechanic - IS		0	1
-	Laborer (Construction)		0	1
-	Interceptor Systems Helper		3	6
	interceptor systems neiper	Total FTES	39	<u>6</u> 55
		TOTALL I LO	39	55
660	Regionalized Facilities		+	
550	regionalized i acilides			
	Vacant	Supervisor I Interceptor Systems	0	1
	Vacant	Municipal Coordinator	0	1
	Yudun	Total FTES	0	2
			1	
	Crew Leader Interceptor Maint. Structures		0	1
	Laborer Operator Maint. Truck Driver		0	1
	Laborer Interceptor Structures		0	1
	Laborer Interceptor Structures Laborer Interceptor Pump Stations		0	1
	Hi-Velocity Combo Unit Driver		0	1
		Total FTES	0	5
				J

Page 6 of 6 11/24/2019