

Allegheny County, Pennsylvania

## Consulting Engineer's 2018 Annual Report Including the Fiscal 2019 Budget

November 2018





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#### **Table of Contents**

EX	ECUTIVE	SUMMARY	ii
1.	PURPOS	SE AND SCOPE	1
2.	SYSTEM	/I REVIEW	1
	-	perations	
	2.2 Ma	aintenance and Repairs	3
3.	CAPITA	L IMPROVEMENTS PROGRAM	3
4.	REVENU	JES	16
5.	OPERA <sup>T</sup>	TING EXPENSES	18
6.	DEBT S	ERVICE COVERAGE CALCULATION	24
7.	INSURA	NCE	25
		List of Appendices	
Αp	pendix A	: 2017 – 2018 Monthly Loading and Performance Summary	
Ap	pendix B	: Proposed Authorized Positions	
		List of Tables	
		apital Improvements Program	
		ummary of Revenues	
		ummary of Operating Expenses	
Tak	) e 5-2: D	etailed Summary of Operating Expenses ummary of Authorized Positions (as proposed in 2019 Budget)	21 23
		chedule of Insurance Policies	
		List of Schedules	
	nedule I:	Administration and Engineering	
	nedule II:	, , , , , , , , , , , , , , , , , , ,	
	nedule III		
	nedule IV		
	nedule V: nedule VI	•	
	nedule Vi	·	
	nedule V		
	nedule IX		



Consulting Engineer's 2018 Annual Report Including the Fiscal 2019 Budget - November 2018

#### **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 2018. Additionally, this report outlines ALCOSAN's Capital Improvements Program and associated year 2019 Budget and includes the proposed year 2019 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 final issuance of the permit is pending. During the period of October 2017 through September 2018, the monthly average daily flow was calculated at 205.9 mgd, with a maximum day flow of 250.1 mgd recorded in April 2018. Maximum day flows of 250 mgd were recorded in November 2017, January 2018, February 2018, March 2018, June 2018, July 2018, and September 2018. The minimum monthly average flow of 173.1 mgd occurred in December 2017.
- 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 2019 consists of the implementation or completion of 30 active projects. These projects plus the \$3,562,800 allocated for low-cost capital improvements total \$680,552,200. It is anticipated that approximately \$76,573,600 will be expended on the 30 active capital projects during 2019.
- The proposed year 2019 budget anticipates revenues of \$183,500,900, operating expenses of \$94,576,800, transfer to capital facilities fund for cash funding of green infrastructure and other capital projects of \$6,000,000, and net operating income available for debt service of \$82,924,100. Net income, combined with the January 1, 2018 beginning Revenue Fund balance in excess of the minimum required fund balance, results in a debt service coverage of 3.01.
- 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, 2019. 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 2019.
- ALCOSAN's insurance policies are updated annually and satisfy the requirements of the Trust Indenture.



Consulting Engineer's 2018 Annual Report Including the Fiscal 2019 Budget - November 2018

#### 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 2018 Annual Report Including the Fiscal 2019 Budget - November 2018

All of 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 2017 to September 2018 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. An notice of the draft permit was published in the Pennsylvania Bulletin in September 2018. Final issuance of the permit is pending. In the interim, the existing limits and permit requirements have been administratively extended.

During the period of October 2017 through September 2018, the monthly average daily flow was calculated at 205.9 million gallons per day (mgd), with a maximum day flow of 250.1 mgd recorded in April 2018. Maximum day flows of 250 mgd were recorded in November 2017, January 2018, February 2018, March 2018, June 2018, July 2018, and September 2018. The minimum monthly average flow of 173.1 mgd occurred in December 2017. Appendix A provides a summary of all plant loadings and operating performance for the period of October 2017 through September 2018.

Under normal operating conditions, two to three of the six raw sewage pumps are in operation. All work on the 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 repair maintenance on the headworks and primary sedimentation tanks was carried out when 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. All ancillary systems such as feed pumps, sludge grinders, and the polymer feed system have performed well and are routinely maintained.

Various repairs were made to the fluidized bed incinerators over the past year. Repair work has been completed on the economizer and bed.



Consulting Engineer's 2018 Annual Report Including the Fiscal 2019 Budget - November 2018

A total of approximately 27,100 dry tons of sludge and ash were disposed during the period of October 2017 through September 2018. Of this total, approximately 7,100 dry tons were disposed in landfills, and 9,100 dry tons were land applied. During this same period, approximately 21,400 dry tons of sludge were incinerated in the fluidized bed incinerators, producing approximately 10,900 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 Degree.

Currently, there are 30 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 \$680,552,200, which includes \$3,562,800 in low-cost capital improvements.

The 30 active projects, minus the low-cost capital improvements, amount to \$676,989,400, with some \$627,905,270 remaining to be expended. It is anticipated that \$76,573,580 will be spent on the following active capital projects during 2019.

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 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



Table 3-1 Capital Improvements Program

Proi		Current	Total Expended To	2018 Estimated	Remaining	2019 Capital
No.	Description	Cost	12/31/17	Expenditure	Expended	Budget
	ACTIVE PROJECTS					
S408	Biosolids Strategic Plan	\$1,525,600	\$4,371	\$0	\$1,521,229	\$507,200
S419	Mobile Equipment 2019	1,607,100	0	0	1,607,100	1,607,100
S420	Grit Chambers	2,026,100	473,200	732,000	820,900	820,900
S423	Plant Energy Efficiency Upgrades	2,319,000	1,050,164	40,000	1,228,836	750,000
S430	Wet Weather Plant Expansion ( Program Costs)	49,000,000	4,104,478	2,900,000	41,995,522	4,200,000
S432	Preliminary Planning	18,350,000	2,686,510	5,500,000	10,163,490	5,000,000
S437	Ravine Street Stream Removal and Sewer Separation	4,129,900	28,345	13,600	4,087,955	4,009,600
S438	Four Mile Run Regulator (M29) & Outfall Improvements	2,045,500	122,334	10,000	1,913,166	1,500,000
S440	Green Revitalization of Our Waterways Program	009'665'89	726,620	138,500	67,734,480	11,750,000
S446	Regionalization	44,505,000	14,955,156	3,795,000	25,754,844	5,235,000
S447	Municipal Source Control Evaluation Program	11,637,000	1,638,961	711,000	9,287,039	1,409,300
S448	Interim Wet Weather Planning Compliance	22,850,000	5,042,541	2,100,000	15,707,459	2,000,000
S449	Demolition of Old Operations & Maintenance Facility	000,000	36,888	553,112	10,000	10,000
S451	Property Acquisitions	41,029,000	6,270	200,000	40,822,730	12,000,000
S454	Panther Hollow DSI	5,006,600	0	0	5,006,600	1,298,000
S455	Green Infrastructure Program Manager	3,692,000	83,357	1,026,300	2,582,343	1,583,000
S456	Program Management Information System (PMIS)	4,000,000	664,303	850,000	2,485,697	550,000
8458	Conveyance, Rehabilitation & Enhancements (2018-2019)	3,644,000	0	200,000	3,444,000	3,444,000
S459	Energy Recovery Facility Improvements (2018-2019)	2,500,000	519	000'009	1,899,481	1,899,481
S460	Plant and Safety Upgrade (2018-2019)	4,100,000	0	1,400,000	2,700,000	2,700,000
S461	New Outfall and Disinfection Facility	121,500,000	0	100,000	121,400,000	6,500,000
S462	Wet Weather Headworks Expansion	84,000,000	0	3,400	83,996,600	4,000,000
S463	Solids Thickening and Dewatering Improvements	33,000,000	0	0	33,000,000	0
S464	New Lab and Industrial Waste Facility	26,500,000	0	150,000	26,350,000	1,400,000



Table 3-1 Capital Improvements Program (Continued)

Proj.	Description	Current Estimated	Total Expended To	2018 Estimated	Remaining To Be	2019 Capital
	ACTIVE PROJECTS (Continued)		11/10/71	Expellation	napiladya	nagnng
S466	Wet Weather Disinfection	\$40,000,000	0\$	0\$	\$40,000,000	0\$
S467	New Primary Tanks	38,000,000	0	0	38,000,000	. 0
S468	Electrial Distribution System Upgrade	13,000,000	0	0	13,000,000	000,006
8469	CIPP Lining of the Mon-Sub-Aquesous Interceptor & SMR Inter.	19,630,000	0	0	19,630,000	200,000
S470	Flap Gate & Misc Regulator Improvements at Various Locations	4,272,000	0	0	4,272,000	200,000
S471	Remote Pump Station Improvements	3,921,000	0	0	3,921,000	200,000
2000	2018 Low Cost Capital Improvements	3,562,800	0	0	3,562,800	3,562,800
	Subtotal	\$680,552,200	\$31,624,017	\$21,022,912	\$627,905,271	\$80,136,381
	2018 COMPLETED PROJECTS					
S404	Sheraden Park WRDA Sec 206	\$740,300	\$739,846	\$454	\$0	\$0
S427	Squaw Run FM Replacement & Bypass Pumping Connections	1,613,900	329,981	1,283,919	0	0
S429	Sewer Rehabilitation (Library Road & Verona PS)	7,703,000	417,173	7,285,827	0	0
S444	Flap Gates at Various Locations (2017-2018)	263,500	78,149	185,351	0	0
S450	Sewer Improvements (2017-2018)	584,000	218,218	365,782	0	0
S452	Sonar Investigations	2,364,500	43,807	2,320,693	0	0
S457	Borough of East Pittsburgh Grandview GSI Demo Project	27,800	24,743	3,057	0	0
S465	New Secondary Clarifiers	0	0	0	0	0
	Subtotal	13,297,000	1,851,917	11,445,083	0	0
	TOTALS	\$693,849,200	\$33,475,934	\$32,467,995	\$627,905,271	\$80,136,381



Consulting Engineer's 2018 Annual Report Including the Fiscal 2019 Budget - November 2018

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 the 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 (2019)—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.

#### Grit Chambers at Various Locations—S420

Points of connection to ALCOSAN have been identified as sources of debris and sediment due to the presence of natural streams entering the municipal sewers. The debris enters the ALCOSAN interceptors and reduces the tunnel capacity.

This capital program provided for the evaluation and design of grit control facilities to capture the material at a shallow elevation before it flows into the ALCOSAN deep tunnel interceptor. In 2014, ALCOSAN bid the Tassey Hollow contract, but the bids came in well over the engineer's estimate of probable costs. After determining the original site was still best, ALCOSAN will rebid for construction at the original site in Rankin while incorporating measures ensuring the structural stability of the Rankin trunk sewer.

Further investigations will also take place to identify if potential locations of future grit chambers are feasible.

#### 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. Some of the previously completed projects include installation of a fine pore aeration system, installation of variable frequency drives, and a complete fuel conversion on the plant incineration process. 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 installation of a solar panel Operation and Maintenance Building rooftop array and participation in the Pennsylvania Department of Environmental



Consulting Engineer's 2018 Annual Report Including the Fiscal 2019 Budget - November 2018

Protection (DEP) Alternative Fuel Technical Assistance program for fleet fueling is planned for 2019. 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 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.

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.



Consulting Engineer's 2018 Annual Report Including the Fiscal 2019 Budget - November 2018

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 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 2019.

#### Preliminary Planning—S432

The ultimate goal of the 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.

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; analyzing air entrainment and surge; 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 firm 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 are in the process of committing funds to the construction of the project. State Senators and State Representatives are also committing state funds to this very important local project.



Consulting Engineer's 2018 Annual Report Including the Fiscal 2019 Budget - November 2018

#### 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 immediate value. This project includes the design and construction of improvements to the outfall pipe, installation of a flap gate, and lowering of the weir. 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 planned.

#### Green Revitalization of Our Waterways Program—S440

This program will provide funding assistance for municipal source control projects for the next several years. Municipalities and/or municipal sewer authorities would be eligible for participation. Other 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 per funding cycle is capped at \$2 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.



Consulting Engineer's 2018 Annual Report Including the Fiscal 2019 Budget - November 2018

#### 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 be meeting with municipal officials and engineers in 2019 to implement the transfer of these sewers and facilities.

#### Municipal Source Control Program—S447

The Municipal Source Control 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 Wet Weather Plan, municipal Consent Order Agreements, 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 are negotiating an amendment to the Consent Decree that will require ALCOSAN to perform additional obligations that may 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



Consulting Engineer's 2018 Annual Report Including the Fiscal 2019 Budget - November 2018

adaptive management strategies; and to incorporating 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 maintain 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 quantities, frequencies, and durations of wet weather overflows under varying scenarios 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.

Demolition of Old Operations and Maintenance Facility—S449

As part of the Wet Weather Plant Expansion, new headworks will be constructed on the space now occupied by the old Operations and Maintenance building. This project will remove the existing building, including concrete foundations. Utilities will be capped as appropriate. This work will be completed in 2018, and the project will be closed out in 2019.

#### 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 designation, local zoning and land use



Consulting Engineer's 2018 Annual Report Including the Fiscal 2019 Budget - November 2018

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 the interceptor system. In 2010, the 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 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.



Consulting Engineer's 2018 Annual Report Including the Fiscal 2019 Budget - November 2018

#### 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 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 anticipated in late 2018. The 2018 Capital Budget projects have been downloaded into the E-BUILDER system. Project management, shop drawing review, cost control and processing professional service invoices, and 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 (2018-2019)—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 2019 include modifications to the outfalls at M-59 and A-17 to include extension of the outfall and installation of a bulkhead guide.

#### Energy Recovery Facilities Improvement (2018-2019)—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 Facilities will be replaced in 2019.

#### Plant Facilities and Safety Upgrades (2018-2019)—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. Work in 2018 included rehabilitating the existing ALCOSAN chimney by tuck pointing the joints and sealing the surface. In addition, replacement of handrail around secondary tanks will continue.

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.



Consulting Engineer's 2018 Annual Report Including the Fiscal 2019 Budget - November 2018

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.

#### 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 odor volume.

#### 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 constructing 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. A suitable site proximate to the plant will need to be located and acquired. A consultant was selected to perform an



Consulting Engineer's 2018 Annual Report Including the Fiscal 2019 Budget - November 2018

assessment and to recommend a site. A site will be selected, and a design architect will be procured in 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.

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.

Flap Gate and Miscellaneous Regulator Improvements at Various Locations (2019-2021)
 —S469

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

The ALCOSAN Manager of Interceptor Systems has also identified the following miscellaneous projects to be added to the contract: encasing the C-27 shallow cut interceptor, reconfiguration of T-27 and T-33 regulators, installation of a manhole at A-78-02, and replacement of the S-39 connector sewer.



Consulting Engineer's 2018 Annual Report Including the Fiscal 2019 Budget - November 2018

Sewer Rehabilitation for Saw Mill Run and Monongahela Subaqueous Interceptors—S470
 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 Interceptor between M-44 and M-42A to include the M-44, M-43, and M-42 connector lines.

The contract will be completed in late 2021.

Remote Pump Station Improvements —S471

This capital project includes improvements to the Melanchton ejector station and Corliss and Ella Street pump stations. At the Melanchton ejector station, a contract would include replacing the ejector with a small package station. The Corliss pump station requires replacement of internal piping similar to what was done previously at Verona pump station. At Ella Street, improvements to be investigated include installation of a flap gate, determining optimal pumping configuration to reduce pump cycling, installation of a new storm pump on a VFD, backflow prevention, replacement of the mechanical bar screens, and upgrades to the sewage pumps and discharge piping.

For 2019, it has been estimated that low-cost capital improvements will total \$3,562,800 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 2015, 2016, and 2017 together with the 2018 budget and the actual cash revenues for the eight months ending August 31, 2018. Table 4-1 also shows projected 2018 revenues for the entire twelve months period and the year 2019 budget. As shown on Table 4-1, it is projected that Total Revenues for 2018 will amount to \$171,326,400, which is under budget by approximately \$5,325,000.

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 \$168,215,200 in 2018, approximately \$7,215,400 or 4 percent less than the 2018 budget. However, the 2018 projected results are about 3.4 percent greater than the year 2017 actual results, 12 percent greater than the 2016 results, and 22 percent above 2015 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	2015 Actual	2016 Actual	2017 Actual	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
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Basic and Special Charges	\$137,678,383	\$150,320,493	\$162,719,670	\$175,430,600	\$110,176,260	\$168,215,200	\$180,397,900
Grants	0	0	0	0	0	0	0
Interest Income	62,389	273,807	1,094,977	980,100	1,796,553	2,842,000	2,842,000
Other	361,584	398,178	380,273	240,500	241,760	269,200	261,000
Total Revenues	\$138,102,356	\$150,992,478	\$164,194,920	\$176,651,200	\$112,214,573	\$171,326,400	\$183,500,900



Consulting Engineer's 2018 Annual Report Including the Fiscal 2019 Budget - November 2018

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 \$2.8 million, over \$1,861,900 more than budget projections and nearly three times greater than last year's actual interest income. Other Revenues are expected to be nearly 12 percent above budget. In 2018, Other Revenues consisted of septic tank disposal fees, pretreatment fees, closing letter fees, and miscellaneous income.

The year 2019 budget is based on:

- A full year's revenue generated by the 7.5 percent rate increase that became effective on January 1, 2018 and another 7 percent increase in rates for 2019, effective January 1, 2019. This coming year's 7 percent increase is the second in the latest four-year rate increase program. It is anticipated that this 7 percent increase will generate approximately \$12.1 million dollars a year. However, due to billing cycles, 2019 Basic and Special Charge revenues reflect only six months impact from the January 1, 2019 rate increase. The current user rate of \$7.42 per 1,000 gallons of water used will increase to \$7.94 per 1,000 gallons. The quarterly customer service charge will increase from \$15.60 per quarter to \$16.69. Based on a quarterly usage of 12,000 gallons of water, the average cost per household will be \$447.88 per year, which is a \$2.45 per month increase over 2018 rates.
- No grant funds are anticipated during 2019
- Interest earnings are anticipated to remain the same in 2019.
- Other revenues are expected to be slightly lower in 2019.

The total 2019 revenue budget of \$183,500,900 is approximately \$12.2 million more than 2018 projected results and nearly 4 percent more than the 2018 budget.

#### 5. OPERATING EXPENSES

Table 5-1 is a summary listing of the actual operating expenses for the years 2015, 2016, and 2017, the 2018 budget, and the actual expenses for the eight months ended August 31, 2018, together with the projected full year 2018 operating expenses and the year 2019 budget.



Table 5-1 Summary of Operating Expenses

No.	Expense Category	2015 Actual	2016 Actual	2017 Actual	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
_	Administration & Engineering	\$5,820,820	\$8,727,560	\$9,739,753	\$15,552,600	\$7,074,500	\$10,866,000	\$14,475,500
=	Management Info. Systems	2,217,830	2,479,898	2,657,598	3,238,100	1,750,008	2,652,200	3,069,700
=	Customer Service and Billing	2,414,558	2,424,616	3,466,796	3,676,800	2,026,611	2,803,300	3,833,900
≥	Environmental Compliance	3,390,437	3,463,100	3,585,800	4,570,700	2,404,407	3,777,300	4,882,200
>	Interceptor System	3,998,186	4,205,317	5,167,159	9,270,600	3,793,257	7,439,400	10,482,600
5	Plant Operations	20,799,839	21,996,233	20,858,835	22,700,800	13,841,247	21,875,500	23,475,800
=	Professional Services	649,903	590,774	749,441	879,000	379,562	819,000	865,000
=	Plant Maintenance	8,191,851	8,147,476	8,661,679	9,749,000	6,164,388	9,628,000	10,042,600
×	Employee Benefits	16,436,059	18,842,283	19,852,268	23,090,700	14,558,067	21,457,100	23,449,500
	Total Expenses	\$63,919,483	\$70,877,257	\$74,739,329	\$92,728,300	\$51,992,047	\$81,317,800	\$94,576,800
	Debt Service				59,248,000		59,248,000	59,293,100
	Total Requirements				\$151,976,300		\$140,565,800	\$153,869,900



Consulting Engineer's 2018 Annual Report Including the Fiscal 2019 Budget - November 2018

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 \$11,410,500. All departments are expected to come in under budget this year with departmental savings ranging from less than one percent to over 30 percent.

The year 2019 budget has been prepared in conjunction with the ALCOSAN staff and reflects expected activity for the coming year. The 2019 budget anticipates operating expenses of \$94,576,800, an approximate \$1.85 million increase over the 2018 budget. The 2019 budget shows an increase of approximately 16 percent over 2018 projected results.

The 2019 budget projections are based on the following assumptions:

- An increase in authorized staff of 21 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, \$1,000,000 in funding for the Customer Assistance Program has been included again this year.
- An increase of nearly \$2 million in the cost of employee benefits, or over 9 percent greater than 2018 projections is due primarily to the increased number of employees. In fact in 2019, the cost for medical insurance reflects a zero percent increase, and a rate cap of 12 percent is in place for 2020. ALCOSAN is receiving a half month's premium credit in 2019 and a full month's credit in 2020. 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 2019 budget provides increased costs for the Federal Consent Decree implementation requirements. For example, the Interceptor System budget is projected to be over 140 percent higher than 2018 projected results. It is anticipated that \$3.5 million will be expended on cleaning and inspection and another \$460,000 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 10 percent.
- The impacts on chemical costs are also varied for the coming year. The cost of lime is projected to be 5 percent higher in 2019, and all other chemicals are expected to increase by 20 percent.
- Land application disposal costs are expected to increase by \$100,000 in 2019. In addition, there will be costs for disposing of grit and trash, which have been projected at \$40,000 in 2019. Tipping fees are expected to be overall down in the coming year.



Table 5-2: Detailed Summary of Operating Expenses

Expense Category	2018 Actual to 8/31	2018 Projected	2019 Budget
Adminstration and Engineering			
Executive Adminstration	\$1,601,744	\$2,161,100	\$3,103,300
Public Relations	1,810,286	3,026,600	3,636,200
Municipal Outreach	188,813	307,500	563,100
Scholastic Outreach	646,908	1,005,400	1,915,600
Human Resources	303,936	463,600	724,300
Training Administration	79,643	129,300	360,800
Accounting/Finance	461,835	716,900	839,800
Purchasing	322,166	510,600	553,700
Engineering Adminstration	362,455	555,600	474,300
OR/CD Administration	51,229	84,400	90,200
Capital Projects	396,118	615,500	646,800
Contract Administraion	202,169	311,100	
CSO Program Management			458,800
ECM/Environmental Reporting	581,887	875,500	873,600
	65,311	102,900	235,000
Total Adminstration and Engineering	7,074,500	10,866,000	14,475,500
Management Information Systems	1,750,008	2,652,200	3,069,700
Customer Service and Billing	2,026,611	2,803,300	3,833,900
Environmental Compliance			
Environmental Compliance	255,950	404,600	643,500
Laboratory	1,180,546	1,851,600	2,064,500
Industrial Waste	851,498	1,329,200	1,884,100
Diverse Residuals Management	116,413	191,900	290,100
Total Environmental Compliance	2,404,407	3,777,300	4,882,200
Interceptor System			
Regional Conveyance Administration	252,389	392,700	783,700
General-Upper Allegheny System	55,718	86,400	108,800
Verona Pump Station	126,344	164,500	139,900
Squaw Run Pump Station	77,295	117,700	129,000
Montrose Ejector Station	38,358	58,700	87,100
Saw Mill Run	47,225	74,100	92,900
Regionalized Facilities	0	74,100	460,000
General-Except Upper Allegheny	2,896,918	6,090,800	
Corliss Pump Station	63,257	99,000	8,161,800
Malancthon Ejector Station	1		140,200
Ella Street Pump Station	19,193	32,000	44,400
	57,848	90,000	110,100
Sandy Creek Pump Station	158,475	233,200	224,500
U5 Ejector Station	237	300	200



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

	2018 Actual	2018	2019
Expense Category	to 8/31	Projected	Budget
Plant Operations			
Safety	\$823,466	\$1,286,300	\$1,557,900
Operations and Maintenance Adminstration	229,709	350,600	377,100
Main Pump Station	826,872	1,504,000	1,605,000
Rack and Grit	360,729	547,700	641,900
Mobile Equipment for Treatment	609,565	910,000	1,002,000
Primary Sedimentation	1,747,567	2,700,700	2,906,000
Disposal of Sludge, Ash, and Grit	1,042,416	1,620,000	1,725,000
Boilers	177,821	278,500	287,000
Energy Recovery	2,306,585	3,635,400	3,642,000
Sludge Dewatering	2,100,859	3,329,800	3,599,200
Lime Stabilization	533,452	839,400	902,800
Secondary Treatment and Post Chlorination	1,270,586	2,108,600	2,010,000
General Plant Treatment	1,811,620	2,764,500	3,219,900
Total Plant Operations	13,841,247	21,875,500	23,475,800
Professional Services	379,562	819,000	865,000
Plant Maintenance			
Executive Adminstration	47,132	70,000	74,300
Safety	16,354	24,800	27,000
Accounting/Finance	66	100	100
Purchasing	2,519	3,900	4,000
Management Information Systems	23,244	29,300	29,600
Customer Service and Billing	28,036	43,000	66,700
Engineering Administration	468	700	70
Laboratory	56,833	87,400	97,400
Industrial Waste	2,465	4,400	8,700
Operations & Maintenance Administration	1,318	2,000	0,700
Main Pump Station	135,700	222,200	400,000
Rack and Grit	332,589	505,900	474,400
Mobile Equipment for Treatment	79,112	119,500	105,200
Primary Sedimentation	335,774	486,900	466,100
Boilers	4,038	6,100	8,100
Energy Recovery	733,414	1,155,100	1,242,900
Sludge Dewatering	629,257	1,107,500	1,073,500
Lime Stabilizaiton Dewatering	125,601	198,600	215,500
Secondary Treatment and Post Chlorination	481,243	700,700	707,500
General Plant Treatment	3,129,225	4,859,900	5,040,900
Total Plant Maintenance	6,164,388	9,628,000	10,042,600
Employee Benefits	14,558,067	21,457,100	23,449,500
TOTAL OPERATING EXPENSES	\$51,992,047	\$81,317,800	\$94,576,800



Consulting Engineer's 2018 Annual Report Including the Fiscal 2019 Budget - November 2018

• The 2019 budget provides an additional \$6 million in funding for municipal green infrastructure and source reduction "GROW" program financing.

A summary of authorized positions as proposed in the year 2019 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 2019 Budget)

	Management	Employees	Union Em	ployees
	Authorized	Actual	Authorized	Actual
Executive Director	7*	2		
Contract Administration	7*	5		
Public Relations	10*	7*	2	2
Scholastic Programs	12*	5*	17*	10*
Municipal Outreach	6*	4*		
Finance & Administration				
Director's Office	2	2		
Accounting	3	2	4	4
Customer Service & Billing	3	3	21	20
Human Resources	5*	4*		
Training and Development	2	2*		
Loss Control	5 2*	4	15	14
MIS	2*	2*	18	18*
Purchasing	3	3	8	7*
Operations & Maintenance				
Director's Office	3	3		
Operations	13*	11*	64	63*
Mechanical Maintenance	10	8*	70	58*
Electrical Maintenance	6*	5	22	19*
Environmental Affairs				
Director's Office	3	3		
Residuals	3*	2	1	1
Industrial Waste	3* 3 3	1*	18	15*
Laboratory	3	3	15	15*
ECM Systems	4	2		
Engineering &				
Construction				
Director's Office	4*	3	5	6*
Capital Projects	10*	9*	2	1
OR/CD Administration	1	1		

Consulting Engineer's 2018 Annual Report Including the Fiscal 2019 Budget - November 2018

Table5-3: Summary of Authorized Positions (as proposed in 2019 Budget) (Continued)

	Management	Employees	Union Em	ployees
	Authorized	Actual	Authorized	Actual
Regional Conveyance				
Director's Office	13*	9*		
Wet Weather Programs	6*	5*	7	7*
Interceptor Systems	10	8	56*	35*
TOTAL	159	118	345	295

<sup>\*</sup> Numbers Designate Change

#### 6. DEBT SERVICE COVERAGE CALCULATION

The year 2019 budget revenue expectation less the 2019 budget of operating expenses produces a net income available for debt service as shown by the following calculation.

2019 Projected Revenues	\$183,500,900
2019 Budgeted Operating Expenses	94,576,800
Transfer to Capital Facilities/GROW Fund	6,000,000
Net Operating Income	\$ 82,924,100
2019 Debt Service	\$ 59,293,100
Less Capitalized Interest	0
Net 2019 Debt Service	\$ 59,293,100

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 2019. In addition, \$6,00,000 has been allocated for potential cash funding of municipal green infrastructure and source reduction GROW program projects during 2019.

The second test requires minimum debt service coverage of 1.10. This requirement will also be met in 2019 as the Net Operating Income plus the January 1, 2018 Revenue Fund balance after deduction of the required fund balance (25 percent of the Operating Expense budget for 2018) provides Debt Service coverage of 3.01. The January 1, 2018 Revenue Fund balance was \$119,248,255, and the minimum balance, which must be maintained in the Revenue Fund is \$23,644,200. This leaves a beginning Revenue Fund balance of \$95,604,055 in excess of the 25 percent required minimum.



Consulting Engineer's 2018 Annual Report Including the Fiscal 2019 Budget - November 2018

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	\$768,963,996	\$384,481
Property	100,000,000	
Boiler and Machinery	10,500,000	
Business Income		
Owned Equipment		
Contractors' Equipment	05.000.000	
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, 2018 to May 16, 2019		
CRIME (\$10,000 Deductible)		
Employee Dishonesty (\$15,000	\$2,500,000	\$3,524
Deductible)		
ERISA Fidelity (No Deductible)	1,000,000	
On Premises (\$5,000 Deductible)	25,000	
In Transit (\$5,000 Deductible)	20,000	
Forgery and Alteration (\$10,000	250,000	
Deductible)		
Computer Crime (\$10,000	1,000,000	
Deductible)		
Funds Transfer Fraud (\$10,000	1,000,000	
Deductible)		
Seubert & Associates		
Travelers Casualty and Surety Co.		
Policy No. 106289675		
May 16, 2018 to May 16, 2019		



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

Туре	Amount	Estimated Premium
GENERAL LIABILITY Each Occurrence General Aggregate Limit Seubert & Associates	\$1,000,000 2,000,000	\$176,503
The Charter Oak Fire Insurance Co. Policy No. ZLP-21N44668-18 May 16, 2018 to May 16, 2019		
SECURITY & PROFESSIONAL Each Occurrence Limit General Aggregate Limit Seubert & Associates The Charter Oak Fire Insurance Co. Policy No. ZLP-21N44668-18 May 16, 2018 to May 16, 2019	\$1,000,000 2,000,000	Included in General Liability
PUBLIC OFFICIALS (\$50,000 Deductible) Including Employment Practice Liability Occurrence Limit Aggregate Limit Seubert & Associates The Charter Oak Fire Insurance Co. Policy No. ZLP-21N44668-18 May 16, 2018 to May 16, 2019	\$1,000,000 1,000,000	Included in General Liability
AUTOMOBILE (\$1,000 Deductible) Auto Liability Uninsured/Underinsured Motorist Medical Expenses Seubert & Associates The Travelers Indemnity Company Policy No. H-810-4F267715 May 16, 2018 to May 16, 2019	\$1,000,000 500,000 5,000	\$95,344
UMBRELLA (\$10,000 Retained Limit) Each Occurrence General Aggregate Seubert & Associates The Travelers Indemnity Company Policy No. ZUP-61M3095A May 16, 2018 to May 16, 2019	\$15,000,000 15,000,000	\$42,416



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

Туре	Amount	Estimated Premium
FIDUCIARY LIABILITY For all Claims Settlement Program Limit of Liability HIPPA Limit of Liability 502(c) Penalties Limit of Liability Seubert & Associates Travelers Casualty & Surety Co. of America Policy No. 106098489 May 16, 2018 to May 16, 2019	\$1,000,000 250,000 250,000 100,000	\$8,648
POLLUTION (\$50,000 Each Event Deductible) ENVIRONMENTAL SITE LIABILITY (3 Year Term*) Liability Limit Each Incident Aggregate Limit Rogers Insurance Group Zurich – Steadfast Insurance Co. Policy No. EPC 9485417 02 May 16, 2017 to May 16, 2020	\$5,000,000 5,000,000	\$50,000*
HULL PROTECTION & INDEMNITY (\$5,000/ \$10,000 Deductible) Total Insured Value	\$4,140,779	\$66,124
Combined Single Limit Hull - Barge-ACSA (\$5,000	1,000,000	
Deductible) Hull - Deck Barge with Crane	105,000	
(\$20,000 Deductible)  Hull - Aluminum Jon Boat & Trailer	1,999,697	
(\$5,000 Deductible) Hull - Tug/Pushboat (\$20,000	18,667	
Deductible) P&I on each vessel above	2,017,415 1,000,000	
All Risks, Ltd.	1,000,000	
AGCS Marine Insurance Co. Policy No. OHL 92012030		
May 16, 2018 to May 16, 2019		



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

Туре	Amount	Estimated Premium
GROUP TRAVEL (3-Year Term)* Hartford Life Insurance Co. Policy No. ETB-200335 November 9, 2016 to November 9, 2019	\$2,500,000	\$2,700*
WORKERS' COMPENSATION Bodily Injury Each Accident Bodily Injury by Disease Policy Limit Bodily Injury by Disease per Employee Seubert & Associates HARIE (Housing and Redevelopment Insurance Exchange) Policy No. HWC40756161218 May 16, 2018 to May 16, 2019	\$1,000,000 1,000,000 1,000,000	\$760,077
ARCHITECTS AND ENGINEERS PROFESSIONAL LIABILILITY \$15,000 Each Claim Deductible \$45,000 Aggregate Deductible Each Wrongful Act Aggregate Rogers Insurance Group Lloyds of London Policy No.10424L180156 May 16, 2018 to May 16, 2019	\$1,000,000 \$1,000,000	\$10,919



Consulting Engineer's 2018 Annual Report Including the Fiscal 2019 Budget - November 2018

# Schedule I Administration and Engineering

Schedule I.1 Administration and Engineering

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
110	EXECUTIVE ADMINISTRATION				
	Salaries and Wages				
6011 6300	Management Salary Vehicle Maintenance Labor	331,700 1,900	161,500 0	247,000	349,300 0
	Total Salaries and Wages	333,600	161,500	247,000	349,300
	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	1,009,000 0 53,600 2,800 300 300 600 700 0 900 14,000 14,800 0 14,900 2,575,000 600 700 4,000	907,240 0 29,725 2,078 865 0 95 302 243 477 11,820 11,937 12,526 38 4,450 456,436 616 1,396	950,000 500 44,600 3,100 1,500 0 100 500 400 900 17,700 18,800 100 55,000 800,000 900 2,100	1,045,000 20,000 40,000 5,000 2,500 300 300 1,000 400 2,000 18,000 18,000 20,000 100 60,000 1,500,000 900 500 15,000
	Total Other Expenditures	3,692,200	1,440,244	0 1,914,100	<u>5,000</u> 2,754,000
	Total Executive Administration	\$4,025,800	\$1,601,744	\$2,161,100	\$3,103,300

# Schedule I.2 Administration and Engineering

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
115	PUBLIC RELATIONS				
	Salaries and Wages				
6011	Management Salary	\$615,700	\$325,247	\$497,400	\$692,500
6100	Union Wages-Except Plant Maintenance	164,400	126,281	195,000	167,300
	Total Salaries and Wages	780,100	451,528	692,400	859,800
	Other Expenditures				
6425	Training and Seminars	2,500	0	0	2,500
6725	Other Communication	75,000	12,878	24,000	50,000
6811	Travel and Expense	10,000	4,547	8,500	10,000
7307	Copier Paper	300	189	300	300
7310	Advertising	1,830,000	15,844	28,000	25,000
7313	Publications	2,000	491	700	1,500
7319	Promotional Materials	40,000	12,800	19,200	60,000
7323	Open House Expenses	175,000	24,874	125,000	225,000
7391	Miscellaneous Office Supplies and Materials	40,000	10,767	16,200	30,000
7423	Equipment Rental	500	0	0	600
7429	Registration Fees/Conferences	7,000	5,355	8,000	10,000
7438	Printing Charges (Forms, Copies)	75,000	1,027	1,500	50,000
7441	Professional Association Fees	2,000	850	1,300	1,500
7457	Special Projects	1,750,000	1,268,087	2,100,000	2,300,000
7511	Gas and Oil-Vehicles and Equipment	1,000	148	200	1,000
7531	Maintenance/Repair-Vehicle and Equipment	1,000	280	400	1,000
7711	EDP Hardware	10,000	472	700	5,000
7721	EDP Software	7,500	149	200	3,000
	Total Other Expenditures	4,028,800	1,358,758	2,334,200	2,776,400
	Total Public Relations	\$4,808,900	\$1,810,286	\$3,026,600	\$3,636,200

Schedule I.3
Administration and Engineering

Acct.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
116	MUNICIPAL OUTREACH				
	Salaries and Wages				
6011	Management Salary	\$204,100	\$162,754	\$248,900	\$430,200
	Total Salaries and Wages	204,100	162,754	248,900	430,200
	Other Expenditures				
6425 6725 6811 7307 7313 7319 7391 7423 7429 7438 7441 7457 7511 7531 7711 7721 7751	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 Software Support Services	5,000 5,500 4,000 4,000 0 12,000 4,000 4,000 4,000 1,200 1,000 3,500 5,000 125,000	0 2,424 1,769 0 0 0 1,844 0 195 162 55 19,457 21 132 0 0	0 4,000 5,000 100 300 100 3,000 0 2,000 10,000 300 30,000 1,600 300 1,500 400	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
	Total Other Expenditures	226,000	26,059	58,600	132,900
	Total Municipal Outreach	\$430,100	<u>\$188,813</u>	\$307,500	\$563,100

### Schedule I.4 Administration and Engineering

Acct.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
117	SCHOLASTIC OUTREACH				
	Salaries and Wages				
6011	Management Salary	\$543,500	\$247,860	\$379,100	\$669,500
6100	Union Wages-Except Plant Maintenance	769,500	354,028	546,600	1,051,500
	Total Salaries and Wages	1,313,000	601,888	925,700	1,721,000
	Other Expenditures				
6425	Training and Seminars	1,000	108	200	1,000
6711	Postage	100	0	0	100
6725	Other Communication	10,000	7,679	11,600	12,500
6811	Travel and Expense	2,000	260	1,800	10,000
7307	Copier Paper	1,500	381	600	1,000
7310	Advertising	5,000	0	0	5,000
7313	Publications	500	0	0	500
7319	Promotional Materials	5,000	3,338	5,000	15,000
7323	Open House Expenses	5,000	800	1,400	5,000
7391	Miscellaneous Office Supplies and Materials	15,000	8,063	13,000	15,000
7423	Equipment Rental	2,000	1,875	1,900	2,000
7429	Registration Fees/Conferences	2,000	0	0	3,500
7438	Printing Charges (Forms, Copies)	5,000	44	100	5,000
7441	Professional Association Fees	1,000	505	800	1,500
7457	Special Projects	80,000	19,411	40,000	100,000
7511	Gas and Oil-Vehicles and Equipment	1,500	936	1,500	1,500
7531	Maintenance/Repair-Vehicle and Equipment	1,500	1,620	1,800	2,000
7711	EDP Hardware	10,000	0	0	10,000
7721	EDP Software	5,000	0	0	4,000
	Total Other Expenditures	153,100	45,020	79,700	194,600
	Total Scholastic Outreach	\$1,466,100	\$646,908	\$1,005,400	\$1,915,600

Schedule I.5
Administration and Engineering

Acct.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
120	HUMAN RESOURCES				
	Salaries and Wages				
6011	Management Salary	\$459,800	\$235,455	\$360,100	\$400,000
	Total Salaries and Wages	459,800	235,455	360,100	400,000
	Other Expenditures				
6811	Travel and Expense	1.000	74	200	1,000
7307	Copier Paper	700	189	300	600
7310	Advertising	20,000	494	800	15,000
7313	Publications	11,500	2,638	4,000	11,500
7391	Miscellaneous Office Supplies and Materials	15,000	3,954	6,000	15,000
7420	Equipment Repairs and Maintenance	800	1,271	2,000	1,000
7429	Registration Fees/Conferences	5,500	1,621	2,500	5,500
7438	Printing Charges (Forms, Copies)	8,500	188	300	8,500
7441	Professional Association Fees	700	679	1,100	400
7457	Special Projects	4,000	50,350	75,600	79,000
7711	EDP Hardware	5,000	1,800	2,700	5,000
7721	EDP Software	0	5,223	8,000	181,800
7751	Software Support Services	55,000	0	0	0
	Total Other Expenditures	127,700	68,481	103,500	324,300
	Total Human Resources	\$587,500	\$303,936	\$463,600	<u>\$724,300</u>

Schedule I.6 Administration and Engineering

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
122	TRAINING ADMINISTRATION				
	Salaries and Wages				
6011	Management Salary	\$153,900	\$69,884	\$106,900	\$163,600
	Total Salaries and Wages	153,900	69,884	106,900	163,600
	Other Expenditures				
6425	Training and Seminars	65,500	3,202	10,000	44,000
6711	Postage	0	223	300	200
6811	Travel and Expense	2,000	0	400	2,000
7391	Miscellaneous Office Supplies and Materials	1,000	714	800	1,000
7429	Registration Fees/Conferences	3,200	399	1,500	4,800
7438	Printing Charges (Forms, Copies)	4,000	718	2,000	7,500
7441	Professional Association Fees	600	0	400	700
7457	Special Projects	10,000	0	2,100	10,000
7711	EDP Hardware	0	2,102	2,400	0
7721	EDP Software	5,200	2,401	2,500	22,000
7751	Software Support Services	5,600	0	0	105,000
	Total Other Expenditures	97,100	9,759	22,400	197,200
	Total Training Administration	\$251,000	\$79,643	\$129,300	\$360,800

### Schedule I.7 Administration and Engineering

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
130	ACCOUNTING/FINANCE				
	Salaries and Wages				
6011 6100	Management Salary Union Wages-Except Plant Maintenance	\$457,400 258,400	\$255,134 176,162	\$390,200 272,000	\$452,400 281,600
	Total Salaries and Wages	715,800	431,296	662,200	734,000
	Other Expenditures				
6425	Training and Seminars	2,200	0	0	2,200
6811	Travel and Expense	4,000	20	300	4,000
7304	Computer Paper	2,800	0	3,000	3,000
7304	Copier Paper	300	126	300	400
7310	Advertising	400	816	1,200	500
7313	Publications	5,700	4,745	4,800	5,700
7391	Miscellaneous Office Supplies and Materials	42,500	16,193	30,000	41,000
7420	Equipment Repairs and Maintenance	5,000	2,515	4,600	5,000
7429	Registration Fes/Conferences	1,000	1,379	1,400	1,500
7438	Printing Charges (Forms, Copies)	6,600	0	3,500	6,600
7441	Professional Association Fees	3,100	1,585	1,600	3,200
7511	Gas and Oil-Vehicle and Equipment	1,200	535	1,000	1,400
7531	Maintenance/Repair-Vehicle and Equipment EDP Hardware	1,000	624	1,000	1,100
7711 7721	EDP Hardware EDP Software	2,000 700	2,001	2,000	5,000 800
7751		700	0	0	
1131	Software Support Services				24,400
	Total Other Expenditures	78,500	30,539	54,700	105,800
	Total Accounting/Finance	\$794,300	\$461,835	\$716,900	\$839,800

#### Schedule I.8 Administration and Engineering

Acct.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
140	PURCHASING				
	Salaries and Wages				
6011 6100	Management Salary Union Wages-Except Plant Maintenance	\$227,000 212,400	\$146,669 138,690	\$224,300 214,100	\$232,000 221,700
	Total Salaries and Wages	439,400	285,359	438,400	453,700
	Other Expenditures				
6425 6711 6725 6811 7307 7310 7321 7391 7420 7423 7432 7441 7511	Training and Seminars Postage Other Communication Travel and Expense Copier Paper Advertising MBE/WBE Administration Expense Miscellaneous Office Supplies and Materials Equipment Repairs and Maintenance Equipment Rental Freight Charges Professional Association Fees Gas and Oil-Vehicles and Equipment	2,000 50,000 300 1,000 500 100 8,000 20,000 4,000 500 1,500 500 1,000	3,021 16,834 15 0 219 9 3,561 8,211 3,571 0 0 250 431 685	4,500 35,000 100 100 400 100 6,000 15,000 5,600 0 200 500 700	3,000 50,000 200 1,000 500 200 8,000 15,000 6,500 500 1,500 600 1,000
7531 7711	Maintenance/Repair-Vehicles and Equipment EDP Hardware	4,000 6,000	685	2,000 2,000	5,000 6,000
7721	EDP Software	1,000	0	0	1,000
	Total Other Expenditures	100,400	36,807	72,200	100,000
	Total Purchasing	\$539,800	\$322,166	\$510,600	\$553,700

## Schedule I.9 Administration and Engineering

Acct.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
405	ENGINEERING ADMINISTRATION				
	Salaries and Wages				
6011 6100 6300	Management Salary Union Wages-Except Plant Maintenance Vehicle Labor Maintenance Total Salaries and Wages	\$141,500 208,100 1,600 351,200	\$221,264 107,523 0 328,787	\$338,400 166,000 0 504,400	\$180,800 223,500 0 404,300
	Other Expenditures	331,200	320,707	304,400	404,300
6425 6725 6811 7307 7310 7313 7391 7420 7429 7438 7441 7511 7531 7711 7721 7751	Training and Seminars Other Communication Travel and Expense Copier Paper Advertising Publications Miscellaneous Office Supplies and Materials Equipment Repairs and Maintenance Registration Fees/Conferences Printing Charges (Forms, Copies) Professional Association Fees Gas and Oil-Vehicles and Equipment Maintenance/Repair-Vehicles and Equipment EDP Hardware EDP Software Software Support Services Total Other Expenditures	2,000 3,200 2,000 800 5,000 100 39,000 10,000 1,500 600 0 600 300 2,500 500 4,500 72,600	1,039 1,726 340 136 9,594 0 6,453 5,799 50 262 195 422 190 4,492 0 2,970 33,668	1,300 2,600 1,400 200 14,400 0 9,700 8,700 100 400 300 600 300 6,700 0 4,500	1,500 3,200 2,000 200 15,000 10,000 1,500 600 500 600 300 5,000 500 4,000
	Total Engineering Administration	\$423,800	\$362,455	\$555,600	\$474,300

Schedule I.10 Administration and Engineering

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
410	OR/CD ADMINISTRATION				
	Salaries and Wages				
6011	Management Salary	\$48,700	\$31,315	\$47,900	\$49,500
	Total Salaries and Wages	48,700	31,315	47,900	49,500
	Other Expenditures				
7391 7420	Miscellaneous Office Supplies and Materials Equipment Repairs and Maintenance	500 500	10 0	200 200	200 500
7457 7511	Special Projects (Consulting Contractor) Gas and Oil-Vehicles and Equipment	85,000 0	19,868 36	36,000 100	40,000 0
	Total Other Expenditures	86,000	19,914	36,500	40,700
	Total OR/CD Administration	\$134,700	\$51,229	\$84,400	\$90,200

Schedule I.11 Administration and Engineering

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
420	CAPITAL PROJECTS				
	Salaries and Wages				
6011 6100	Management Salary Union Wages-Except Plant Maintenance Total Salaries and Wages	\$385,000 224,300 609,300	\$247,596 142,525 390,121	\$378,700 220,000 598,700	\$403,500 219,000 622,500
6425 6725 6811 7391 7420 7429 7432 7441 7511 7531 7711 7721	Other Expenditures  Training and Seminars Other Communications Travel and Expense Miscellaneous Office Supplies and Materials Equipment Repairs and Maintenance Registration Fees/Conferences Freight Charges Professional Association Fees Gas and Oil-Vehicles and Equipment Maintenance/Repair-Vehicles and Equipment EDP Hardware EDP Software Total Other Expenditures	4,000 800 3,200 1,200 500 3,000 100 2,400 600 1,000 10,000 1,000	0 0 5 100 0 0 0 155 299 624 4,814 0	1,000 0 1,200 800 500 1,000 100 1,600 600 1,000 9,000 0	4,000 800 3,200 1,200 500 3,000 100 2,400 600 1,500 6,000 1,000
	Total Capital Projects	\$637,100	\$396,118	\$615,500	\$646,800

Schedule I.12 Administration and Engineering

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
430	CONTRACT ADMINISTRATION				
	Salaries and Wages				
6011	Management Salary	\$371,900	\$184,094	\$281,600	\$429,100
	Total Salaries and Wages	371,900	184,094	281,600	429,100
	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	5,500 1,500 7,100 600 6,500 1,000 2,500 200 600 2,500	15,297 879 200 157 1,086 0 329 38 89 0	20,300 1,300 3,000 300 1,500 0 600 200 500 1,800	2,000 1,300 7,000 600 12,000 0 1,000 900 900 4,000
	Total Other Expenditures  Total Contract Administration	28,000	18,075	29,500	29,700
	Total Contract Administration	<u>\$399,900</u>	<u>\$202,169</u>	\$311,100	<u>\$458,800</u>

Schedule I.13
Administration and Engineering

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
440	CSO PROGRAM MANAGEMENT				
	Salaries and Wages				
6011 6100	Management Salary Union Wages-Except Plant Maintenance	\$321,800 399,800	\$221,362 299,077	\$338,600 461,700	\$269,600 505,200
	Total Salaries and Wages	721,600	520,439	800,300	774,800
	Other Expenditures				
6425	Training and Seminars	2,000	30	100	2,000
6811	Travel and Expense	4,900	757	1,100	5,000
7191	Miscellaneous Maint. Supplies and Materials	63,200	44,642	50,000	50,100
7313	Publications	1,000	487	700	1,000
7391	Miscellaneous Office Supplies and Materials	5,000	2,899	4,300	5,000
7429	Registration Fees/Conferences	6,700	0	0	6,700
7438	Printing Charges (Forms, Copies)	500	0	0	500
7441	Professional Association Fees	800	280	400	900
7511	Gas and Oil-Vehicles and Equipment	5,000	4,108	6,200	6,000
7531	Maintenance/Repair-Vehicles and Equipment	5,000	2,372	3,600	5,000
7711	EDP Hardware	8,700	5,168	7,800	16,100
7721	EDP Software	0	480	700	500
7731	EDP Maintenance Service	0	225	300	0
	Total Other Expenditures	102,800	61,448	75,200	98,800
	Total CSO Program Management	\$824,400	\$581,887	\$875,500	\$873,600

Schedule I.14
Administration and Engineering

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
540	ECM/ENVIRONMENTAL REPORTING				
	Salaries and Wages				
6011	Management Salary	\$196,100	\$59,994	\$91,800	\$197,000
	Total Salaries and Wages	196,100	59,994	91,800	197,000
	Other Expenditures				
6425	Training and Seminars	10,000	2,500	3,800	10,000
6725	Other Communication	1,100	0	100	0
6811	Travel and Expense	10,000	315	3,500	10,000
7391	Miscellaneous Office Supplies and Materials	1,000	553	800	1,500
7429	Registration Fees/Conferences	3,000	1,690	2,500	5,000
7438	Printing Charges (Forms, Copies)	0	0	0	3,000
7441	Professional Association Fees	1,000	0	0	1,000
7711	EDP Hardware	6,000	259	400	6,000
7721	EDP Software	1,000	0	0	1,500
	Total Other Expenditures	33,100	5,317	11,100	38,000
	Total ECM/Environmental Reporting	\$229,200	\$65,311	\$102,900	\$235,000



Allegheny County Sanitary Authority -

Consulting Engineer's 2018 Annual Report Including the Fiscal 2019 Budget - November 2018

# Schedule II Management Information Systems

### Schedule II Management Information Systems

Acct.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
200	MANAGEMENT INFORMATION SYSTEMS				
	Salaries and Wages				
6011	Management Salary	\$311,400	\$203,622	\$311,400	\$277,800
6100	Union Wages-Except Plant Maintenance	1,556,200	991,138	1,530,100	1,580,300
	Total Salaries and Wages	1,867,600	1,194,760	1,841,500	1,858,100
	Other Expenditures				
6425	Training and Seminars	18,000	6,309	13,400	20,000
6811	Travel and Expense	200	40	200	200
6921	Electricity	6,300	3,374	5,900	6,300
7307	Copier Paper	1,700	1,250	1,500	1,600
7313	Publications	300	147	200	500
7391	Miscellaneous Office Supplies and Materials	20,000	22,938	27,000	25,000
7420	Equipment Repairs and Maintenance	22,400	2,022	5,400	20,000
7423	Equipment Rental	100	0	0	100
7429	Registration Fees/Conferences	300	0	0	300
7432	Freight Charges	100	0	100	100
7438	Printing Charges (Forms, Copies)	100	44	100	100
7441	Professional Association Fees	500	0	500	700
7511	Gas and Oil-Vehicles and Equipment	300	437	700	700
7531	Maintenance/Repair-Vehicles and Equipment	700	278	400	700
7711	EDP Hardware	70,000	75,647	88,700	200,000
7721	EDP Software	30,000	19,228	31,300	60,000
7731	EDP Maintenance Service	463,600	165,920	248,900	299,200
7751	Software Supportive Service	735,900	257,614	386,400	576,100
	Total Other Expenditures	1,370,500	555,248	810,700	1,211,600
	Total Management Information Systems	\$3,238,100	\$1,750,008	\$2,652,200	\$3,069,700



Allegheny County Sanitary Authority -

Consulting Engineer's 2018 Annual Report Including the Fiscal 2019 Budget - November 2018

# Schedule III Customer Service and Billing

## Schedule III Customer Service and Billing

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
300	CUSTOMER SERVICE AND BILLING				
	Salaries and Wages				
6011	Management Salary	\$239,200	\$152,283	\$232,900	\$241,000
6100	Union Wages-Except Plant Maintenance	1,185,900	749,148	1,156,600	1,243,200
	Total Salaries and Wages	1,425,100	901,431	1,389,500	1,484,200
	Other Expenditures				
6425	Training and Seminars	2,500	0	300	2,500
6711	Postage	6,000	1,711	6,000	6,600
6725	Other Communication	1,500	879	1,500	1,500
6811	Travel and Expense	100	228	300	100
6921	Electricity	50,000	24,099	40,000	50,000
6931	Natural Gas	15,000	7,040	11,000	15,000
6941	Water	5,000	2,619	3,900	5,000
7307	Copier Paper	3,000	1,064	1,600	3,000
7313	Publications	1,000	0	400	1,000
7391	Miscellaneous Office Supplies and Materials	6,000	3,046	4,600	6,000
7420	Equipment Repairs and Materials	10,000	5,271	7,900	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	0	500	2,000
7441	Professional Association Fees	600	0	200	600
7462	Service Charge-Billing	195,000	134,344	195,000	195,000
7465	Service Charge-Collection	12,000	0	12,000	12,400
7468	Refunds to Municipalities/Bulk	910,000	943,378	943,400	1,007,000
7470	Customer Assistance Program	1,000,000	0	180,000	1,000,000
7511	Gas and Oil-Vehicles and Equipment	3,000	358	500	3,000
7531	Maintenance/Repair-Vehicles and Equipment	3,000	1,143	1,700	3,000
7711	EDP Hardware	24,000	0	2,500	24,000
	Total Other Expenditures	2,251,700	1,125,180	1,413,800	2,349,700
	Total Customer Service and Billing	\$3,676,800	\$2,026,611	\$2,803,300	\$3,833,900



Allegheny County Sanitary Authority -

Consulting Engineer's 2018 Annual Report Including the Fiscal 2019 Budget - November 2018

# Schedule IV Environmental Compliance

## Schedule IV.1 Environmental Compliance

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
505	ENVIRONMENTAL COMPLIANCE				
	Salaries and Wages				
6011	Management Salary	\$329,900	\$211,142	\$322,900	\$410,400
	Total Salaries and Wages	329,900	211,142	322,900	410,400
	Other Expenditures				
6425	Training and Seminars	1,000	0	500	1,000
6811	Travel and Expense	1,000	15	500	1,000
7313	Publications	2,000	197	500	1,000
7391	Miscellaneous Office Supplies and Materials	7,000	3,140	5,500	5,500
7420	Equipment Repairs and Maintenance	500	3,581	5,400	5,500
7429	Registration Fees/Conferences	1,000	0	500	1,000
7438	Printing Charges (Forms, Copies)	500	0	500	500
7441	Professional Association Fees	1,000	278	400	1,000
7442	Hazardous Materials Disposal	30,000	11,417	23,000	30,000
7457	Special Projects	10,000	1,306	3,000	10,000
7471	Permits and Equipment Registration	40,000	24,322	41,000	173,500
7511	Gas and Oil-Vehicles and Equipment	500	371	600	600
7531	Maintenance/Repair-Vehicles and Equipment	500	181	300	500
7711	EDP Hardware	2,000	0	0	2,000
	Total Other Expenditures	97,000	44,808	81,700	233,100
	Total Environmental Compliance	\$426,900	\$255,950	\$404,600	\$643,500

#### Schedule IV.2 Environmental Compliance

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
510	LABORATORY				
	Salaries and Wages				
6011	Management Salary	\$250,400	\$112,646	\$172,300	\$249,500
6100	Union Wages-Except Plant Maintenance	1,141,700	747,047	1,153,300	1,199,000
6300	Vehicle Maintenance Labor	900	0	0	0
	Total Salaries and Wages	1,393,000	859,693	1,325,600	1,448,500
	Other Expenditures				
6425	Training and Seminars	25,000	0	1,000	15,000
7251	Pretreatment Supplies and Expenses	200	259	400	500
7291	Miscellaneous Lab Supplies and Glass	165,000	79,740	140,000	150,000
7307	Copier Paper	1,500	534	800	1,000
7313	Publications	1,000	0	200	500
7391	Miscellaneous Office Supplies and Materials	12,000	3,269	5,000	10,000
7420	Equipment Repairs and Maintenance	70,000	28,879	60,000	70,000
7435	Demurrage Charges	45,000	24,017	36,000	45,000
7444	Outside Laboratory Services	260,000	89,043	140,000	170,000
7511	Gas and Oil-Vehicle and Equipment	1,000	224	300	500
7531	Maintenance/Repair-Vehicles and Equipment	3,000	199	300	500
7711	EDP Hardware	15,000	8,724	13,100	3,000
7900	Laboratory Chemicals	150,000	85,965	128,900	150,000
	Total Other Expenditures	748,700	320,853	526,000	616,000
	Total Laboratory	\$2,141,700	\$1,180,546	\$1,851,600	\$2,064,500

# Schedule IV.3 Environmental Compliance

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
520	INDUSTRIAL WASTE				
	Salaries and Wages				
6011	Management Salary	\$249,600	\$103,103	\$157,700	\$255,900
6100	Union Wages-Except Plant Maintenance	1,198,100	647,147	999,100	1,220,200
6300	Vehicle Maintenance Labor	3,300	912	1,400	2,900
	Total Salaries and Wages	1,451,000	751,162	1,158,200	1,479,000
	Other Expenditures				
6425	Training and Seminars	3,000	1,794	2,700	5,500
6725	Other Communication	7,700	4,541	6,900	8,000
6811	Travel and Expense	2,000	0	0	7,500
7251	Pretreatment Supplies and Expenses	33,900	30,816	46,200	42,400
7255	Pollution Prevention Program Expense	1,000	0	0	1,000
7307	Copier Paper	800	563	900	900
7391	Miscellaneous Office Supplies and Materials	7,200	2,625	4,000	7,200
7420	Equipment Repairs and Maintenance	200	1,871	2,800	3,000
7429	Registration Fees/Conferences	300	0	0	500
7438	Prining Charges (Forms, Copies)	1,100	90	200	1,000
7441	Professional Association Fees	100	20	100	100
7457	Special Projects	200,100	0	20,000	228,000
7511	Gas and Oil-Vehicles and Equipment	6,400	6,183	9,300	9,300
7531	Maintenance/Repair-Vehicles and Equipment	9,900	5,747	8,700	8,700
7711	EDP Hardware	11,000	7,056	10,600	23,000
7721	EDP Software	58,200	39,030	58,600	59,000
	Total Other Expenditures	342,900	100,336	171,000	405,100
	Total Industrial Waste	\$1,793,900	\$851,498	\$1,329,200	\$1,884,100

### Schedule IV.4 Environmental Compliance

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
530	DIVERSE RESIDUALS MANAGEMENT				
	Salaries and Wages				
6011 6100 6300	Management Salary Union Wages-Except Plant Maintenance Vehicle Maintenance Labor Total Salaries and Wages	\$124,700 35,000 0 159,700	\$80,491 29,051 872 110,414	\$123,100 44,400 1,300 168,800	\$187,600 48,200 2,800 238,600
	Other Expenditures				
6425 6811 7313 7391 7429 7438 7441 7457 7511 7531 7711	Training and Seminars Travel and Expense Publications Miscellaneous Office Supplies and Materials Registration Fees/Conferences Printing Charges (Forms, Copies) Professional Association Fees Outside Laboratory Service Special Projects Gas and Oil-Vehicles and Equipment Maintenance/Repair-Vehicles and Equipment EDP Hardware Total Other Expenditures	2,000 3,000 1,000 2,000 2,000 2,500 5,000 25,000 1,000 500 2,500 48,500	15 0 143 671 0 0 450 0 4,519 24 177 0 5,999	500 1,000 800 1,500 500 1,500 2,500 5,000 7,000 300 500 2,000 23,100	2,000 3,000 1,000 2,500 2,000 3,000 5,000 25,000 2,000 1,000 3,000 51,500



Allegheny County Sanitary Authority -

Consulting Engineer's 2018 Annual Report Including the Fiscal 2019 Budget - November 2018

### Schedule V Interceptor System

### Schedule V.1 Interceptor System

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
605	REGIONAL CONVEYANCE ADMINISTRATION				
	Salaries and Wages				
6011 6200	Management Salary Outside Maintenance Labor	\$562,700 0	\$204,994 109	\$313,500 200	\$683,700 0
	Total Salaries and Wages	562,700	205,103	313,700	683,700
	Other Expenditures				
6425 6725 6811 7313 7391 7429 7438 7441 7457 7511 7531 7711	Training and Seminars Other Communcation Travel and Expense Publications Miscellaneous Office Supplies and Materials Registration Fees/Conferences Printing Charges (Forms, Copies) Professional Association Fees Special Projects Gas and Oil-Vehicles and Equipment Maintenance/Repair-Vehicles & Equipment EDP Hardware EDP Software	8,000 22,000 10,000 200 30,000 5,000 300 500 200 200 1,700 10,000 15,000	2,652 18,094 3,027 0 7,283 0 61 480 0 133 1,600 4,949	4,500 25,000 4,500 0 15,000 1,000 100 700 200 200 2,400 7,400	8,000 25,000 10,000 200 15,000 5,000 200 800 200 200 2,400 7,500 7,500
7731	EDP Maintenance Service	0	9,007	18,000	18,000
	Total Other Expenditures  Total Regional Conveyance Administration	103,100 \$665,800	\$252,389	79,000 \$392,700	<u>100,000</u> <u>\$783,700</u>

### Schedule V.2 Interceptor System

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
610	GENERAL-UPPER ALLEGHENY SYSTEM				
	Salaries and Wages				
6200 6250 6300	Outside Maintenance Labor Inside Maintenance Labor Vehicle Maintenance Labor	\$122,200 4,500 43,800	\$51,444 0 634	\$79,400 0 1,000	\$99,900 3,200 2,000
	Total Salaries and Wages  Other Expenditures	170,500	52,078	80,400	105,100
7106 7110 7191 7420	Expendable Parts and Tools Intrumentation Repair & Maintenance Miscellaneous Maintenance Supplies & Expenses Equipment Repairs aand Maintenance	2,000 200 500 1,000	0 0 3,140 500	2,000 0 3,200 800	2,000 200 500 1,000
	Total Other Expenditures	3,700	3,640	6,000	3,700
	Total General-Upper Allegheny System	<u>\$174,200</u>	\$55,718	\$86,400	\$108,800

### Schedule V.3 Interceptor System

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
620	VERONA PUMP STATION				
	Salaries and Wages				
6200	Outside Maintenance Labor	\$56,700	\$49,609	\$76,600	\$96,300
6250	Inside Maintenance Labor	2,100	0	0	3,100
	Total Salaries and Wages	58,800	49,609	76,600	99,400
	Other Expenditures				
6921	Electricity	14,000	8,961	13,400	14,000
6941	Water	3,000	8,682	10,000	3,000
7106	Expendable Parts and Tools	5,000	49,391	50,000	10,000
7110	Instrumentation Repair/Maintenance	10,000	4,365	6,500	10,000
7191	Miscellaneous Maintenance Supplies and Expenses	3,000	4,200	6,300	3,000
7511	Gas and Oil-Vehicles and Equipment	500	1,136	1,700	500
	Total Other Expenditures	35,500	76,735	87,900	40,500
	Total Verona Pump Station	\$94,300	\$126,344	\$164,500	\$139,900

### Schedule V.4 Interceptor System

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
630	SQUAW RUN PUMP STATION				
	Salaries and Wages				
6200 6250	Outside Maintenance Labor Inside Maintenance Labor Total Salaries and Wages	\$65,000 2,400 67,400	\$40,119 0 40,119	\$61,900 0 61,900	\$77,900 2,500 80,400
	Other Expenditures	07,400	40,110	01,900	00,400
6921 6941	Electricity Water	17,000 5,000	10,715 2,748	16,100 4,100	18,000 5,000
7106 7110	Expendable Parts and Tools Instrumentation Repair/Maintenance	10,000 10,000	2,039 5,332	3,100 8,000	10,000 10,000
7110 7191 7458	Miscellaneous Maintenance Supplies and Expenses Vacuum/Jet Services	5,000	16,144 198	24,200 300	5,000 600
7511	Gas and Oil-Vehicles and Equipment	600	0	0	0
	Total Other Expenditures	47,600	37,176	55,800	48,600
	Total Squaw Run Pump Station	\$115,000	\$77,295	\$117,700	\$129,000

### Schedule V.5 Interceptor System

Acct.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
640	MONTROSE EJECTOR STATION				
	Salaries and Wages				
6200	Outside Maintenance Labor	\$40,800	\$25,773	\$39,800	\$50,100
6250	Inside Maintenance Labor	1,500	0	0	1,600
	Total Salaries and Wages	42,300	25,773	39,800	51,700
	Other Expenditures				
6921	Electricity	8,000	4,358	6,500	8,000
7106	Expendable Parts and Tools	10,000	0	0	10,000
7110	Instrumentation Repair/Maintenance	10,000	8,174	12,300	10,000
7191	Miscellaneous Maintenance Supplies and Expenses	2,000	0	0	2,000
7420	Equipment Repairs and Maintenance	5,000	53	100	5,000
7511	Gas and Oil-Vehicles and Equipment	400	0	0	400
	Total Other Expenditures	35,400	12,585	18,900	35,400
	Total Montrose Ejector Station	\$77,700	\$38,358	\$58,700	\$87,100

#### Schedule V.6 Interceptor System

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
650	SAW MILL RUN				
	Salaries and Wages				
6200 6250 6300	Outside Maintenance Labor Inside Maintenance Labor Vehicle Maintenance Labor Total Salaries and Wages	\$108,000 4,000 700 112,700	\$44,075 0 0 44,075	\$68,000 0 0 68,000	\$85,600 2,800 0 88,400
	Other Expenditures	112,700	44,070		00,400
7106 7191 7473 7531	Expendable Parts and Tools Miscellaneous Maintenance Supplies and Expenses Interceptor Cleaning and Inspection Maintenance/Repair-Vehicles and Equipment	3,000 500 0 1,000	0 0 3,150 0	2,000 100 3,500 500	3,000 500 0 1,000
	Total Other Expenditures  Total Saw Mill Run	4,500 \$117,200	3,150 \$47,225	6,100 \$74,100	<u>4,500</u> \$92,900

# Schedule V.7 Interceptor System

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
660	REGIONALIZED FACILITIES				
	Salaries and Wages				
6200	Outside Maintenance Labor	\$0	\$0	\$0	<u>\$0</u>
	Total Salaries and Wages	0	0	0	0
	Other Expenditures				
7191	Miscellaneous Maintenance Supplies and Expenses	10,000	0	0	10,000
7420	Equipment Repairs and Maintenance	450,000	0	0	450,000
	Total Other Expenditures	460,000	0	0	460,000
	Total Regionalized Facilities	\$460,000	<u>\$0</u>	<u>\$0</u>	\$460,000

# Schedule V.8 Interceptor System

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
690	GENERAL-EXCEPT UPPER ALLEGHENY				
	Salaries and Wages				
6200	Outside Maintenance Labor	\$3,573,200	\$2,089,232	\$3,225,400	\$4,055,000
6250	Inside Maintenance Labor	129,900	0	0	128,900
6300	Vehicle Maintenance Labor	42,400	16,945	26,200	53,600
	Total Salaries and Wages	3,745,500	2,106,177	3,251,600	4,237,500
	Other Expenditures				
6425	Training and Seminars	15,000	3,792	5,700	15,000
6921	Electricity	4,500	1,695	2,500	6,300
6931	Natural Gas	0	0	0	7,000
6941	Water	0	0	0	1,000
7106	Expendable Parts and Tools	60,000	20,978	31,500	60,000
7110	Instrumentation Repair and Maintenance	10,000	792	1,200	10,000
7191	Miscellaneous Maintenance Supplies and Expenses	60,000	37,411	56,100	60,000
7420	Equipment Repairs and Maintenance	30,000	2,273	3,400	30,000
7473	Interceptor Cleaning & Inspection	3,000,000	564,569	2,500,000	3,500,000
7475	Disaster Recovery Services	5,000	810	1,200	5,000
7511	Gas and Oil-Vehicles and Equipment	60,000	39,497	59,200	60,000
7521	Gas and Oil-Watercraft	20,000	11,638	17,500	20,000
7531	Maintenance/Repair-Vehicles and Equipment	130,000	93,339	140,000	130,000
7541	Maintenance/Repair-Watercraft	10,000	13,947	20,900	20,000
	Total Other Expenditures	3,404,500	790,741	2,839,200	3,924,300
	Total General-Except Upper Allegheny System	\$7,150,000	\$2,896,918	\$6,090,800	\$8,161,800

### Schedule V.9 Interceptor System

Acct.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
691	CORLISS PUMP STATION				
	Salaries and Wages				
6200 6250	Outside Maintenance Labor Inside Maintenance Labor	\$40,700 1,500	\$30,862 0	\$47,600 0	\$59,900 2,000
	Total Salaries and Wages	42,200	30,862	47,600	61,900
	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 \$120,500	24,727 230 513 1,692 5,233 0 32,395	40,000 300 800 2,500 7,800 0 51,400	42,000 300 15,000 7,000 4,000 10,000 78,300 \$140,200

#### Schedule V.10 Interceptor System

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
692	MELANCTHON EJECTOR STATION				
	Salaries and Wages				
6200 6250	Outside Maintenance Labor Inside Maintenance Labor Total Solories and Wagne	\$24,100 900	\$14,980 0	\$23,100 0	\$29,100 1,000
	Total Salaries and Wages  Other Expenditures	25,000	14,980	23,100	30,100
6921 6941	Electricity Water	6,000 300	3,969 244	6,000 400	6,000 300
7106 7110 7191	Expendable Parts and Tools Instrumentation Repair/Maintenance Miscellaneous Maintenance Supplies and Expenses	5,000 2,000 1,000	0 0 0	2,000 0 500	5,000 2,000 1,000
	Total Other Expenditures	14,300	4,213	8,900	14,300
	Total Melancthon Ejector Station	\$39,300	\$19,193	\$32,000	\$44,400

# Schedule V.11 Interceptor System

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
694	ELLA STREET PUMP STATION				
	Salaries and Wages				
6200	Outside Maintenance Labor	\$43,000	\$29,266	\$45,200	\$56,900
6250	Inside Maintenance Labor	1,600	0	0	1,900
	Total Salaries and Wages	44,600	29,266	45,200	58,800
	Other Expenditures				
6921	Electricity	25,000	15,937	24,000	25,000
6931	Natural Gas	5,000	4,283	5,000	6,000
6941	Water	300	182	300	300
7106	Expendable Parts and Tools	5,000	0	5,000	5,000
7110	Instrumentation Repair/Maintenance	6,000	6,002	7,000	6,000
7191	Miscellaneous Maintenance Supplies and Expenses	3,000	1,548	2,000	3,000
7420	Equipment Repairs and Maintenance	5,000	630	1,000	5,000
7511	Gas and Oil-Vehicle and Equipment	1,000	0	500	1,000
	Total Other Expenditures	50,300	28,582	44,800	51,300
	Total Ella Street Pump Station	\$94,900	\$57,848	\$90,000	\$110,100

## Schedule V.12 Interceptor System

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
695	SANDY CREEK PUMP STATION				
	Salaries and Wages				
6200 6250	Outside Maintenance Labor Inside Maintenance Labor	\$54,700 2,000	\$57,645 0	\$89,000 0	\$111,900 3,600
	Total Salaries and Wages	56,700	57,645	89,000	115,500
	Other Expenditures				
6921 6931 6941 7106 7110 7191 7511	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	56,000 10,000 3,000 20,000 10,000 5,000 1,000	41,649 2,497 475 25,036 24,651 6,522 0 100,830	62,500 3,700 700 30,000 37,000 9,800 500 144,200	65,000 6,000 2,000 20,000 10,000 5,000 1,000 109,000
	Total Sandy Creek Pump Station	\$161,700	\$158,475	\$233,200	\$224,500

#### Schedule V.13 Interceptor System

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
697	U5 Ejector Station				
	Salaries and Wages				
6200 6250	Outside Maintenance Labor Inside Maintenance Labor	\$0 0	\$66 	\$100 0	\$0 0
	Total Salaries and Wages	0	66	100	0
	Other Expenditures				
7106 7110	Expendable Parts and Tools Instrumentation Repair/Maintenance Total Other Expenditures	0 0 0	98 73 171	100 100 200	100 100 200
	Total U5 Ejector Station	\$0 	\$237	\$300 	\$200 



Allegheny County Sanitary Authority -

Consulting Engineer's 2018 Annual Report Including the Fiscal 2019 Budget - November 2018

# Schedule VI Plant Operations

### Schedule VI.1 Plant Operations

Acct.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
125	SAFETY				
	Salaries and Wages				
6011 6100	Management Salary Union Wages-Except Plant	\$368,800 953,200	\$191,760 512,635	\$293,300 791,400	\$365,000 908,600
	Total Salaries and Wages	1,322,000	704,395	1,084,700	1,273,600
	Other Expenditures				
6425 6517 6811 7011 7313 7391 7420 7441 7457 7511 7531 7711	Training and Seminars Physical Examinations Travel and Expense Plant Security Publications Miscellaneous Office Supplies and Materials Equipment Repairs and Maintenance Professional Association Fees Special Projects Gas & Oil-Vehicle & Equipment Maintenance/Repair-Vehicles and Equipment EDP Hardware	44,000 6,000 8,000 34,000 12,000 20,000 9,000 2,000 10,000 6,000 7,000 6,000	8,804 4,996 1,422 14,540 937 13,141 15,455 620 0 2,078 3,731	20,000 6,000 2,100 26,000 8,000 17,000 20,000 2,000 5,000 4,000 5,000 2,000	45,000 7,000 8,000 34,000 12,000 20,000 22,000 2,300 10,000 6,000 7,000 6,000
7762 7764 7766 7770 7776	Prescription Safety Glass Program Safety Shoe Program Industrial Hygiene Safety Equipment Fire Extinguishing Inspection and Recharging	6,000 10,000 5,000 40,000 33,000	6,333 8,276 0 23,915 14,823	7,000 10,000 2,500 35,000 30,000	8,000 12,000 5,000 46,000 34,000
	Total Other Expenditures	258,000	119,071	201,600	284,300
	Total Safety	\$1,580,000	\$823,466	\$1,286,300	\$1,557,900

#### Schedule VI.2 Plant Operations

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
705	OPERATIONS AND MAINTENANCE ADMINISTRATION				
	Salaries and Wages				
6011 6300	Management Salary Vehicle Maintenance Labor	\$374,400 0	\$193,649 8,314	\$296,200 12,800	\$306,600 26,300
	Total Salaries and Wages	374,400	201,963	309,000	332,900
	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 Total Other Expenditures	4,000 15,000 3,000 15,000 3,000 2,000 1,000 500 1,000 44,500	50 11,357 1,245 10,026 0 995 805 313 2,955	100 17,000 1,900 15,000 0 1,500 1,200 500 4,400 41,600	3,000 15,000 3,000 15,000 2,000 2,000 1,200 500 2,500 44,200
	Total Operations and Maintenance Administration	\$418,900	\$229,709	\$350,600	\$377,100

## Schedule VI.3 Plant Operations

Acct.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
710	MAIN PUMP STATION				
	Salaries and Wages				
6100	Union Wages-Except Plant Maintenance	\$0	\$0	<u>\$0</u>	<u>\$0</u>
	Total Salaries and Wages	0	0	0	0
	Other Expenditures				
6921	Electricity	1,700,000	825,333	1,500,000	1,600,000
7091	Miscellaneous Operating Supplies and Materials	2,000	19	500	1,000
7420	Equipment Repairs and Maintenance	3,500	1,520	3,500	4,000
	Total Other Expenditures	1,705,500	826,872	1,504,000	1,605,000
	Total Main Pump Station	\$1,705,500	\$826,872	\$1,504,000	\$1,605,000

## Schedule VI.4 Plant Operations

Acct.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 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	175,000	116,936	175,400	192,500
7091	Miscellaneous Operating Supplies and Materials	3,000	492	1,000	3,000
7821	Caustic Soda	21,000	11,829	20,000	24,000
7828	Sodium Hypochlorite	360,000	230,593	350,000	420,000
7845	Hydrochloric Acid	2,000	879	1,300	2,400
	Total Other Expenditures	561,000	360,729	547,700	641,900
	Total Rack and Grit	\$561,000	\$360,729	\$547,700	\$641,900

## Schedule VI.5 Plant Operations

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
730	MOBILE EQUIPMENT FOR TREATMENT				
	Salaries and Wages				
6100 6300	Union Wages-Except Plant Maintenance Vehicle Maintenance Labor	\$362,300 461,700	\$267,094 151,665	\$412,300 234,100	\$300,300 479,500
	Total Salaries and Wages	824,000	418,759	646,400	779,800
	Other Expenditures				
6921 6931 6941 7511 7512 7531 7532 7541	Electricity Natural Gas Water Gas and Oil-Vehicles and Equipment Gas and Oil-Hauling Trucks Maintenance/Repairs-Vehicles and Equipment Maintenance/Repairs-Hauling Trucks Maintenance/Repairs-Watercraft Total Other Expenditures	20,000 20,000 5,000 25,000 25,000 60,000 0 215,000	44,599 12,819 1,385 32,431 0 30,565 55,931 13,076	66,900 19,200 2,100 40,000 0 45,800 70,000 19,600 263,600	40,000 20,000 2,200 40,000 0 50,000 60,000 10,000 222,200
	Total Mobile Equipment for Treatment	\$1,039,000	\$609,565	\$910,000	\$1,002,000

#### Schedule VI.6 Plant Operations

Acct.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
740	PRIMARY SEDIMENTATION				
	Salaries and Wages				
6100	Union Wages-Except Plant Maintenance	\$2,247,000	\$1,687,495	\$2,605,200	\$2,792,000
	Total Salaries and Wages	2,247,000	1,687,495	2,605,200	2,792,000
	Other Expenditures				
6941	Water	40,000	26,683	40,000	44,000
7091	Miscellaneous Operating Supplies and Materials	7,000	0	1,000	5,000
7420	Equipment Repairs and Maintenance	1,000	0	1,000	1,000
7821	Caustic Soda	21,000	11,829	18,000	21,600
7828	Sodium Hypochlorite	33,000	20,681	33,000	39,000
7845	Hydrochloric Acid	2,000	879	2,000	2,400
7856	Miscellaneous Plant Chemicals	1,000	0	500	1,000
	Total Other Expenditures	105,000	60,072	95,500	114,000
	Total Primary Sedimentation	\$2,352,000	\$1,747,567	\$2,700,700	\$2,906,000

#### Schedule VI.7 Plant Operations

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 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	325,000 270,000 0 0 1,300,000 1,895,000 \$1,895,000	175,028 183,674 0 0 683,714 1,042,416 \$1,042,416	250,000 270,000 0 0 1,100,000 1,620,000 \$1,620,000	210,000 275,000 35,000 5,000 1,200,000 1,725,000 \$1,725,000

## Schedule VI.8 Plant Operations

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 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	225,000 30,000 10,000 265,000 \$265,000	164,699 13,122 0 177,821 \$177,821	250,000 25,000 3,500 278,500 \$278,500	250,000 30,000 7,000 287,000 \$287,000

#### Schedule VI.9 Plant Operations

Acct.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
770	ENERGY RECOVERY				
	Salaries and Wages				
6100	Union Wages-Except Plant Maintenance	\$1,883,800	\$1,065,815	\$1,645,400	\$1,728,000
	Total Salaries and Wages	1,883,800	1,065,815	1,645,400	1,728,000
	Other Expenditures				
6425 6911 6921 6931 7091 7420 7821 7854	Training and Seminars No. 2 Fuel Oil/Diesel Electricity Natural Gas Miscellaneous Operating Supplies and Materials Equipment Repairs and Maintenance Caustic Soda Incinerator Sand Total Other Expenditures	10,000 50,000 1,200,000 380,000 30,000 10,000 50,000 1,745,000	1,565 207,807 691,732 280,151 16,812 12,336 30,367 0 1,240,770	5,000 325,000 1,100,000 420,000 25,000 20,000 45,000 50,000	10,000 250,000 1,100,000 400,000 30,000 15,000 54,000 55,000 1,914,000
	Total Energy Recovery	\$3,628,800	\$2,306,585	\$3,635,400	\$3,642,000

#### Schedule VI.10 Plant Operations

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
780	SLUDGE DEWATERING				
	Salaries and Wages				
6100	Union Wages-Except Plant Maintenance	\$1,687,200	\$1,138,967	\$1,758,400	\$1,823,800
	Total Salaries and Wages	1,687,200	1,138,967	1,758,400	1,823,800
	Other Expenditures				
6921	Electricity	740,000	435,285	750,000	750,000
6941	Water	140,000	100,455	150,700	165,000
7091	Miscellaneous Operating Supplies and Materials	8,000	8,618	15,000	15,000
7420	Equipment Repairs and Maintenance	7,000	1,664	2,500	7,000
7816	High PH Polymers	600,000	350,469	555,000	715,000
7821	Caustic Soda	32,000	19,514	29,300	36,000
7828	Sodium Hypochlorite	74,000	44,981	67,500	84,000
7845	Hyfrochloric Acid	2,000	906	1,400	2,400
7856	Miscellaneous Plant Chemicals	1,000	0	0	1,000
	Total Other Expenditures	1,604,000	961,892	1,571,400	1,775,400
	Total Sludge Dewatering	\$3,291,200	\$2,100,859	\$3,329,800	\$3,599,200

#### Schedule VI.11 Plant Operations

Acct.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
785	LIME STABILIZATION				
	Salaries and Wages				
6100	Union Wages-Except Plant Maintenance	\$161,300	\$84,059	\$129,800	\$167,100
	Total Salaries and Wages	161,300	84,059	129,800	167,100
	Other Expenditures				
6921	Electricity	195,000	114,726	195,000	195,000
6941	Water	6,500	4,709	7,100	7,700
7091	Miscellaneous Operating Supplies and Materials	3,000	887	2,500	3,000
7420	Equipment Repairs and Maintenance	7,000	1,585	5,000	5,000
7836	Lime	500,000	327,486	500,000	525,000
	Total Other Expenditures	711,500	449,393	709,600	735,700
	Total Lime Stabilizaton	\$872,800	\$533,452	\$839,400	\$902,800

## Schedule VI.12 Plant Operations

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
790	SECONDARY TREATMENT AND POST CHLORINATION				
	Salaries and Wages				
6100	Union Wages-Except Plant Maintenance	\$354,800	\$120,795	\$186,500	\$0
	Total Salaries and Wages	354,800	120,795	186,500	0
	Other Expenditures				
6921	Electricity	1,486,000	870,570	1,490,000	1,490,000
7091	Miscellaneous Operating Supplies and Materials	17,000	7,039	15,000	15,000
7828	Sodium Hypochlorite	340,000	220,770	340,000	400,000
7829	Sodium Bisulfite	90,000	45,252	67,900	90,000
7831	Defoamer	15,000	6,160	9,200	15,000
	Total Other Expenditures	1,948,000	1,149,791	1,922,100	2,010,000
	Total Secondary Treatment and Post Chlorination	\$2,302,800	\$1,270,586	\$2,108,600	\$2,010,000

#### Schedule VI.13 Plant Operations

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
799	GENERAL PLANT TREATMENT				
	Salaries and Wages				
6011 6100	Management Salary Union Wages-Except Plant Maintenance	\$1,125,100 278,600	\$648,465 203,307	\$991,800 313,900	\$1,347,200 314,700
	Total Salaries and Wages	1,403,700	851,772	1,305,700	1,661,900
	Other Expenditures				
6425	Training and Seminars	50,000	47,364	70,000	70,000
6725	Other Communications	0	532	800	0
6921	Electricity	400,000	236,201	370,000	400,000
6931	Natural Gas	72,000	54,665	90,000	75,000
6941	Water	750,000	536,211	804,300	880,000
7011	Plant Security	0	81	100	0
7091	Miscellaneous Operating Supplies and Materials	10,000	14,363	15,000	15,000
7391	Miscellaneous Office Supplies and Materials	10,000	3,733	5,600	10,000
7420	Equipment Repairs and Maintenance	10,000	3,332	5,000	10,000
7423	Equipment Rental	10,000	0	5,000	10,000
7432	Freight Charges	65,000	56,142	80,000	75,000
7435	Demurrage Charges	7,000	3,376	7,000	7,000
7441	Professional Association Fees	1,000	320	1,000	1,000
7511	Gas & Oil-Vehicle & Equipment	100	1,279	2,000	2,000
7711	EDP Hardware	0	2,249	3,000	3,000
	Total Other Expenditures	1,385,100	959,848	1,458,800	1,558,000
	Total General Plant Treatment	\$2,788,800	\$1,811,620	\$2,764,500	\$3,219,900



Allegheny County Sanitary Authority -

Consulting Engineer's 2018 Annual Report Including the Fiscal 2019 Budget - November 2018

# Schedule VII Professional Services

#### Schedule VII Professional Services

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 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  Total Professional Services	73,000 70,000 600,000 100,000 36,000 879,000	55,362 29,658 278,542 0 16,000 379,562 \$379,562	75,000 70,000 580,000 70,000 24,000 819,000	75,000 75,000 600,000 85,000 30,000 865,000



Allegheny County Sanitary Authority -

Consulting Engineer's 2018 Annual Report Including the Fiscal 2019 Budget - November 2018

# Schedule VIII Plant Maintenance

#### Schedule VIII.1 Plant Maintenance

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
110	EXECUTIVE ADMINISTRATION				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$79,600	\$39,576	\$61,100	\$62,800
	Total Salaries and Wages	79,600	39,576	61,100	62,800
	Other Expenditures				
7106	Expendable Parts and Tools	1,500	150	200	1,500
7110	Instrumentation Repair and Maintenance	10,000	7,262	8,500	10,000
7191	Miscellaneous Maintenance Supplies and Expenses	0	144	200	0
	Total Other Expenditures	11,500	7,556	8,900	11,500
	Total Executive Administration	\$91,100	\$47,132	\$70,000	\$74,300

#### Schedule VIII.2 Plant Maintenance

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
125	SAFETY				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$15,200	\$3,799	\$5,900	\$6,000
	Total Salaries and Wages	15,200	3,799	5,900	6,000
	Other Expenditures				
7106	Expendable Parts and Tools	1,000	0	100	1,000
7110	Instrumentation Repair and Maintenance	20,000	9,957	14,900	20,000
7191	Miscellaneous Maintenance Supplies and Expenses	0	2,598	3,900	0
	Total Other Expenditures	21,000	12,555	18,900	21,000
	Total Executive Administration	\$36,200	\$16,354	\$24,800	\$27,000

#### Schedule VIII.3 Plant Maintenance

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
130	ACCOUNTING/FINANCE				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$0	\$0	\$0	\$0
	Total Salaries and Wages	0	0	0	0
	Other Expenditures				
7191	Miscellaneous Maintenance Supplies and Expenses	0	66	100	100
	Total Other Expenditures	0	66	100	100
	Total Executive Administration	\$0	\$66	\$100	\$100

#### Schedule VIII.4 Plant Maintenance

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
140	PURCHASING				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$400	\$2,464	\$3,800	\$3,900
	Total Salaries and Wages	400	2,464	3,800	3,900
	Other Expenditures				
7110	Instrumentation Repair and Maintenance	0	0	0	0
7191	Miscellaneous Maintenance Supplies and Expenses	0	55	100	100
	Total Other Expenditures	0	55	100	100
	Total Purchasing	\$400	\$2,519	\$3,900	\$4,000

#### Schedule VIII.5 Plant Maintenance

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
200	MANAGEMENT INFORMATION SYSTEMS				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$3,700	\$6,044	\$9,300	\$9,600
	Total Salaries and Wages	3,700	6,044	9,300	9,600
	Other Expenditures				
7110	Instrumentation Repair and Maintenance	15,000	17,200	20,000	20,000
7191	Miscellaneous Maintenance Supplies and Expenses	0	0	0	0
	Total Other Expenditures	15,000	17,200	20,000	20,000
	Total Management Information Systems	\$18,700	\$23,244	\$29,300	\$29,600

#### Schedule VIII.6 Plant Maintenance

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
300	CUSTOMER SERVICE AND BILLING				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$55,500	\$21,831	\$33,700	\$34,700
	Total Salaries and Wages	55,500	21,831	33,700	34,700
	Other Expenditures				
7106	Expendable Parts and Tools	2,000	782	1,200	2,000
7110	Instrumentation Repair and Maintenance	16,000	5,423	8,100	30,000
	Total Other Expenditures	18,000	6,205	9,300	32,000
	Total Billing and Collecting	\$73,500	\$28,036	\$43,000	\$66,700

#### Schedule VIII.7 Plant Maintenance

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
405	ENGINEERING ADMINISTRATION				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$3,100	\$468	\$700	\$700
	Total Salaries and Wages	3,100	468	700	700
	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	\$3,100	\$468	\$700	\$700

#### Schedule VIII.8 Plant Maintenance

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
510	LABORATORY				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$60,300	\$45,582	\$70,400	\$72,400
	Total Salaries and Wages	60,300	45,582	70,400	72,400
	Other Expenditures				
7106	Expendable Parts and Tools	5,000	1,244	2,000	5,000
7110	Instrumentation Repair and Maintenance	20,000	9,422	14,000	20,000
7191	Miscellaneous Maintenance Supplies and Expenses	0	585	1,000	0
	Total Other Expenditures	25,000	11,251	17,000	25,000
	Total Laboratory	\$85,300	\$56,833	\$87,400	\$97,400

#### Schedule VIII.9 Plant Maintenance

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
520	INDUSTRIAL WASTE				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$12,500	\$1,734	\$2,700	\$2,700
	Total Salaries and Wages	12,500	1,734	2,700	2,700
	Other Expenditures				
7106	Expendable Parts and Tools	1,000	10	100	1,000
7110	Instrumentation Repair and Maintenance	5,000	209	1,000	5,000
7191	Miscellaneous Maintenance Supplies and Expenses	0	512	600	0
	Total Other Expenditures	6,000	731	1,700	6,000
	Total Industrial Waste	\$18,500	\$2,465	\$4,400	\$8,700

#### Schedule VIII.10 Plant Maintenance

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
705	OPERATIONS & MAINTENANCE ADMINISTRATION				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$0	\$0	\$0	\$0
	Total Salaries and Wages	0	0	0	0
	Other Expenditures				
7191	Miscellaneous Maintenance Supplies and Expenses	0	1,318	2,000	0
	Total Other Expenditures	0	1,318	2,000	0
	Total Operations & Maintenance Administration	\$0	\$1,318	\$2,000	\$0

#### Schedule VIII.11 Plant Maintenance

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
710	MAIN PUMP STATION				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$174,800	\$78,789	\$121,600	\$125,000
	Total Salaries and Wages	174,800	78,789	121,600	125,000
	Other Expenditures				
7106	Expendable Parts and Tools	125,000	12,906	30,000	125,000
7110	Instrumentation Repair/Maintenance	150,000	43,504	70,000	150,000
7191	Miscellaneous Maintenance Supplies and Expenses	0	501	600	0
	Total Other Expenditures	275,000	56,911	100,600	275,000
	Total Main Pump Station	\$449,800	\$135,700	\$222,200	\$400,000

#### Schedule VIII.12 Plant Maintenance

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
720	RACK AND GRIT				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$209,600	\$160,285	\$247,500	\$254,400
	Total Salaries and Wages	209,600	160,285	247,500	254,400
	Other Expenditures				
7106	Expendable Parts and Tools	80,000	151,027	226,500	200,000
7110	Instrumentation Repair/Maintenance	20,000	20,613	30,900	20,000
7191	Miscellaneous Maintenance Supplies and Expenses	0	664	1,000	0
	Total Other Expenditures	100,000	172,304	258,400	220,000
	Total Rack and Grit	\$309,600	\$332,589	\$505,900	\$474,400

#### Schedule VIII.13 Plant Maintenance

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
730	MOBILE EQUIPMENT FOR TREATMENT				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$19,900	\$34,835	\$53,800	\$55,200
	Total Salaries and Wages	19,900	34,835	53,800	55,200
	Other Expenditures				
7106	Expendable Parts and Tools	45,000	40,493	60,700	50,000
7191	Miscellaneous Maintenance Supplies and Expenses	0	3,784	5,000	0
	Total Other Expenditures	45,000	44,277	65,700	50,000
	Total Mobile Equipment for Treatment	\$64,900	\$79,112	\$119,500	\$105,200

#### Schedule VIII.14 Plant Maintenance

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
740	PRIMARY SEDIMENTATION				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$342,900	\$172,346	\$266,100	\$273,500
	Total Salaries and Wages	342,900	172,346	266,100	273,500
	Other Expenditures				
7106	Expendable Parts & Tools	160,000	156,275	210,000	160,000
7110	Instrumentation Repair/Maintenance	32,600	6,785	10,200	32,600
7191	Miscellaneous Maintenance Supplies & Expenses	0	368	600	0
	Total Other Expenditures	192,600	163,428	220,800	192,600
	Total Primary Sedimentation	\$535,500	\$335,774	\$486,900	\$466,100

#### Schedule VIII.15 Plant Maintenance

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
760	BOILERS				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$9,500	\$2,571	\$4,000	\$4,100
	Total Salaries and Wages	9,500	2,571	4,000	4,100
	Other Expenditures				
7106	Expendable Parts and Tools	3,500	1,444	2,000	3,500
7110	Instrumentation Repair/Maintenance	500	23	100	500
	Total Other Expenditures	4,000	1,467	2,100	4,000
	Total Boilers	\$13,500	\$4,038	\$6,100	\$8,100

#### Schedule VIII.16 Plant Maintenance

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
770	ENERGY RECOVERY				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$678,400	\$461,883	\$713,100	\$732,900
	Total Salaries and Wages	678,400	461,883	713,100	732,900
	Other Expenditures				
7106	Expendable Parts and Tools	400,000	187,444	300,000	400,000
7110	Instrumentation Repair/Maintenance	110,000	82,737	140,000	110,000
7191	Miscellaneous Maintenance Supplies and Expenses	0	1,350	2,000	0
	Total Other Expenditures	510,000	271,531	442,000	510,000
	Total Energy Recovery	\$1,188,400	\$733,414	\$1,155,100	\$1,242,900

#### Schedule VIII.17 Plant Maintenance

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
780	SLUDGE DEWATERING				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$428,700	\$301,604	\$465,600	\$478,500
	Total Salaries and Wages	428,700	301,604	465,600	478,500
	Other Expenditures				
7106	Expendable Parts and Tools	600,000	291,972	600,000	550,000
7110	Instrumentation Repair/Maintenance	45,000	34,416	40,000	45,000
7191	Miscellaneous Maintenance Supplies and Expenses	0	1,265	1,900	0
	Total Other Expenditures	645,000	327,653	641,900	595,000
	Total Sludge Dewatering	\$1,073,700	\$629,257	\$1,107,500	\$1,073,500

#### Schedule VIII.18 Plant Maintenance

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
785	LIME STABILIZATION DEWATERING				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$119,000	\$98,019	\$151,300	\$155,500
	Total Salaries and Wages	119,000	98,019	151,300	155,500
	Other Expenditures				
7106	Expendable Parts and Tools	30,000	7,634	20,000	30,000
7110	Instrumentation Repair/Maintenance	30,000	15,114	20,000	30,000
7191	Miscellaneous Maintenance Supplies and Expenses	0	4,834	7,300	0
	Total Other Expenditures	60,000	27,582	47,300	60,000
	Total Lime Stabilization Dewatering	\$179,000	\$125,601	\$198,600	\$215,500

#### Schedule VIII.19 Plant Maintenance

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
790	SECONDARY TREATMENT AND POST CHLORINATION				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$493,800	\$294,643	\$454,900	\$467,500
	Total Salaries and Wages	493,800	294,643	454,900	467,500
	Other Expenditures				
7106	Expendable Parts and Tools	110,000	115,276	160,000	150,000
7110	Instrumentation Repair/Maintenance	90,000	70,793	85,000	90,000
7191	Miscellaneous Maintenance Supplies and Expenses	0	531	800	0
	Total Other Expenditures	200,000	186,600	245,800	240,000
	Total Secondary Treatment and Post Chlorination	\$693,800	\$481,243	\$700,700	\$707,500

#### Schedule VIII.20 Plant Maintenance

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
799	GENERAL PLANT TREATMENT				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$4,426,000	\$2,842,953	\$4,389,000	\$4,510,900
	Total Salaries and Wages	4,426,000	2,842,953	4,389,000	4,510,900
	Other Expenditures				
6426	Maintenance Training	100,000	24,862	75,000	100,000
7093	Stores Physical Adjustment	0	(44,519)	(44,600)	0
7094	Stores Average Price Adjustment	0	5	100	0
7106	Expendable Parts and Tools	130,000	59,013	100,000	100,000
7110	Instrumentation Repair and Maintenance	100,000	83,234	100,000	100,000
7111	Signs and Stakes	0	2,926	4,400	0
7191	Miscellaneous Maintenance Supplies and Expenses	55,000	74,912	120,000	120,000
7411	Pest Control	5,000	4,014	6,000	5,000
7414	Janitorial	80,000	65,168	85,000	80,000
7417	Grounds Keeping	18,000	16,657	25,000	25,000
	Total Other Expenditures	488,000	286,272	470,900	530,000
	Total General Plant Treatment	\$4,914,000	\$3,129,225	\$4,859,900	\$5,040,900



Allegheny County Sanitary Authority -

Consulting Engineer's 2018 Annual Report Including the Fiscal 2019 Budget - November 2018

#### Schedule IX Employee Benefits

#### Schedule IX Employee Benefits

Acct. No.	Account Description	2018 Budget	2018 Actual to 8/31	2018 Projected	2019 Budget
120	EMPLOYEE BENEFITS				
	Salaries and Wages	\$0	\$0	\$0	<u>\$0</u>
	Total Salaries and Wages	0	0	0	0
	Other Expenditures				
6404	Hospitalization-Authority	11,424,200	6,997,203	10,495,800	11,424,200
6405	Hospitalization-Opt Out	41,700	38,080	57,100	53,000
6410	Eye Care Plan	53,000	31,892	47,800	52,700
6413	Dental Plan	348,300	209,613	314,400	340,600
6416	Life Insurance and Weekly Income Projection	710,900	432,117	648,200	792,800
6419	Employee Assistance Program	10,300	5,313	8,000	10,500
6422	Tuition Reimbursement	40,000	4,446	6,700	40,000
6425	Training and Seminars	3,000	0	0	3,000
6428	Pension-Union Plan	3,085,200	2,056,739	3,085,100	3,252,300
6431	Pension-Management Plan	2,516,500	1,677,641	2,516,500	2,376,200
6432	Post Employee Benefits (GASB 45)	739,100	492,733	739,100	800,000
6434	Actuarial Costs-Pension	117,000	66,318	99,500	149,500
6436	Other Benefits Consulting	40,000	7,484	11,200	60,000
6505	FICA-Authority Share	2,809,300	1,700,369	2,550,600	2,995,500
6508	Workers Compensation	937,000	760,077	760,100	900,000
6511	Unemployment Compensation-Self Insured	75,000	0	0	25,000
6514	Background Investigations	6,000	5,194	7,800	8,000
6517	Physical Examinations	26,200	8,937	13,400	26,200
6520	Uniform Rental	40,000	23,820	35,700	65,000
6523	Miscellaneous Human Resource Services	68,000	40,091	60,100	75,000
	Total Other Expenditures	23,090,700	14,558,067	21,457,100	23,449,500
	Total Employee Benefits	\$23,090,700	\$14,558,067	\$21,457,100	\$23,449,500



Allegheny County Sanitary Authority -

Consulting Engineer's 2018 Annual Report Including the Fiscal 2019 Budget - November 2018

# Appendix A 2017 – 2018 Monthly Loading and Performance Summary

# ALLEGHENY COUNTY SANITARY AUTHORITY ALCOSAN WASTEWATER TREATMENT PLANT 2017 - 2018 MONTHLY LOADING AND PERFORMANCE SUMMARY

				INFL	UENT			30-DAY AVERAGE							7 DAY MAX. AVERAGE			FINAL		
			FLOW	BOD5	TSS	INF. LO	ADING	CBOD5	TSS	NH3-N	EF	F. LOADIN	1G	FECAL	CBOD5	TSS	NH3-N		EFFLUEN <sup>1</sup>	г
		FLOW	MAX	INF.	INF.	BOD5	TSS	EFF.	EFF	EFF.	CBOD5	TSS	NH3-N	COL.	mg/l	mg/l	mg/l	DO	CL2	рН
		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															<u>8</u>	<u>8</u>	2.0			<u>6.7</u>
	2017	179.3	249.8	85	87	124,242	127,667	7	7	1.4	10,027	11,050	2,086	30	12,719	12,854	2,926	6.5	0.44	7.1
NOVEMBER															<u>10</u>	<u>13</u>				6.5
	2017	200.3	250.0	64	80	104,208	128,700	7.5	11	1.3	12,434	19,543	2,150	37	-,	23,133	2,350	6.5	0.41	7.3
DECEMBER															<u>16</u>	<u>20</u>				6.6
	2017	173.1	228.6	93	114	132,659	164,153	12.8	15	1.9	18,783	22,129	2,751	48	23,507	28,648	3,208	4.8	0.42	7.3
JANUARY															<u>13</u>	<u>14</u>	<u>3.0</u>			<u>6.8</u>
	2018	201.1	250.0	84	102	147,055	177,699	11.6	11	2.8	20,791	19,731	4,967	86	22,750	27,574	5,207	6.9	0.40	7.2
FEBRUARY	0040														9	<u>13</u>	3.0			<u>6.7</u>
	2018	226.3	250.0	60	100	104,531	165,135	6.8	10	2.0	11,900	17,792	3,458	21	16,503	24,351	6,270	7.7	0.39	7.3
MARCH	2018	005.0	050.0	70	07	445.050	404 447	0.4	•	4.0	40.405	45.044	0.044		<u>7</u>	9	<u>2.0</u>		0.40	<u>6.6</u>
APRIL	2010	225.0	250.0	78	97	145,853	181,447	6.4	8	1.6	12,185	15,811	3,014	21	14,285	18,346 9	4,115 <u>1.0</u>	6.5	0.42	6.9 6.8
	2018	230.8	250.1	84	118	163,013	231,536	7.7	0	1	15,000	16,003	1,967	25	16,237	<u>9</u> 17,550	2,152	6.6	0.40	7.4
MAY	2010	230.0	230.1	04	110	103,013	231,330	1.1	•	•	13,000	10,003	1,307	23	10,237	17,330	1.2	0.0	0.40	6.6
	2018	211.4	249.9	71	99	123,706	174,238	7.3	7	1	13,007	12,736	2,111	19	16,085	14,749	2,345	6.7	0.42	7.0
JUNE		211.4	240.0			120,100	114,200	1.0		•	10,001	12,700	2,111		8	9	1.0	0.1	0.42	6.8
	2018	224.0	250.0	59	107	105,376	191,039	7.1	7	1	12.977	12,946	1,874	28	15,009	15,742	2,071	6.0	0.44	7.1
JULY						,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				,	,	,-		7	7	1.0			<u>6.5</u>
	2018	208.6	250.0	60	89	102,090	151,329	5.4	6	1	9,387	10,934	1,740	30	13,734	13,946	1,960	6.4	0.40	7.0
AUGUST															<u>5</u>	8	1.0			<u>6.5</u>
	2018	183.5	219.2	75	107	113,692	163,195	4.2	7	1	6,364	10,816	1,535	25	7,358	13,731	1,673	6.4	0.40	6.9
SEPTEMBER	₹														<u>6</u>	<u>7</u>	<u>1.0</u>			<u>6.7</u>
	2018	207.0	250.0	51	77	84,679	127,997	4.6	7	1	8,219	12,467	1,746	32	11,720	14,083	2,011	5.4	0.38	7.4
ANNUAL			MAX.												9	<u>10</u>	<u>1.7</u>	MIN.		<u>6.7</u>
AVERAGE		205.9	250.1	72	98	120,925	165,345	7	9	1.4	12,590	15,163	2,450	34	15,482	18,726	3,024	4.8	0.41	7.2

BOD5	- FIVE DAY BIOCHEMICAL	OXYGEN DEMAND
BUUS	- FIVE DAT BIOCHEIVICAL	OV LOCK DEMINING

CBOD5 - FIVE DAY CARBONACEOUS BIOCHEMICAL OXYGEN DEMAND

SS - 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 June 1, 2007.

Increased plant capacity (250 mgd) and effluent mass limits effective March 2009



Allegheny County Sanitary Authority -

Consulting Engineer's 2018 Annual Report Including the Fiscal 2019 Budget - November 2018

# Appendix B Proposed Authorized Positions

## ALCOSAN SUMMARY OF AUTHORIZED POSITIONS (as Proposed in 2019 Budget )

Manager Employ			Unior Employe	
. ,	Budgeted	<u>Actual</u>	Budgeted	<u>Actual</u>
Executive Director's Office	7	2		
Contract Administration	7	5		
Public Relations	10	7	2	2
Scholastic Programs	12	5	17	10
Municipal Outreach	6	4		
Finance & Administration	·	·		
Director's Office	2	2		
Accounting	3	2	4	4
Customer Service & Billing	3	3	21	20
Human Resources	5	4		
Training & Development	2	2		
Loss Control	_ 5	4	15	14
MIS	2	2	18	18
Purchasing	3	3	8	7
Operations & Maintenance	·	Č		
Director's Office	3	3		
Operations	13	11	64	63
Mechanical Maintenance	10	8	70	58
Electrical Maintenance	6	5	22	19
Environmental Affairs				
Director's Office	3	3		
Residuals	3	2	1	1
Industrial Waste	3	1	18	15
Laboratory	3	3	15	15
ECM Systems	4	2		
Engineering & Construction				
Director's Office	4	3	5	6
Capital Projects	10	9	2	1
OR/CD Administartion	1	1		
Regional Conveyance				
Director's Office	13	9		
Wet Weather Programs	6	5	7	7
Interceptor Systems	10	8	56	35
TOTAL	159	118	345	295

#### ALCOSAN AUTHORIZED POSITIONS

Cost Center		Position Title	Actual	Budget
10	Executive Director's Office			
	Arletta Williams	Executive Director	1	
	Camille Smith	Executive Assistant		
	Vacant	Administrative Specialist		
	Vacant	Administrative Specialist		
	Vacant	Administrative Specialist		
	Vacant	Administrative Specialist		
	Vacant	Director		
		Total FTES	2	
		701111111		
30	Contract Administration			
	Suzanne Thomas	Procurement Officer	1	
·	Elizabeth Bowers	Contract Administrator		
	Beth Mellinger	Records and Documents Manager		
	Harrient Shank	Administrative Secretary		
	Vacant	Contract Administrator		
	Vacant	Administrative Specialist II		
	Marye Zoe Young			
	Marye Zoe Young	Administrative Assistant - Procurement		
		Total FTES	5	
15	Public Poletions	***************************************		
15	Public Relations		The street of th	
		214 20 030		
	Joseph Vallarian	Director of Communications	1	
	Susan Mannella	Manager of Communications	1	
	Vacant	Websmaster	(	
	Stephanie Conley	Administrative Secretary		
	Vacant	Public Relations Specialist	(	
	Derek Evan	Public Relations Specialist	1	
	Peggy Croom	Sr. Adm Specialist II		
	Mary Kay Meanor	Admin Specialist II	1	
	Lisa George	Internal Events	1	
	Vacant	Social Media Specialist		
		Total FTES	7	
	Graphic Clerk		2	
		Total FTES	2	
		10001120	-	
116	Municipal Outreach			
	manopar outrouch			
	Jeanne Clark	Director of Governmental Affairs	1	
	Vacant	Administrative Assistant/Government Relations		
	Kimberly Slater Wood			
		Manager Municipal Relations	1	
	Jillian Sanchioli	Municipal Relations & Outreach Admin Assistant	1	
	Joseph Day	Municipal Relations Coordinator	1	
	Vacant	Administrative Specialist	0	
		Total FTES	4	
17	Scholastic Programs			
	Tanya Smith	Manager of Scholastic Programs & Ed Services	1	
	Vacant	Administrative Supervisor I	0	
	Erica LaMar	Administrative Supervisor I	1	
	Tiffany Davis	Administrative Supervisor I	1	
	Denee Cabbagestalk	Scholastic Outreach Supervisor	1	
	Vacant	Adminstrative Specialist I	0	
	DeShelle Taylor	Scholastic Support Specialist	1	
	Vacant	Scholastic Support Specialist Scholastic Support Specialist		
	Vacant		0	
		Scholastic Support Specialist	0	
	Vacant	Scholastic Outreach Program Administrator	0	
	Vacant	Scheduling Assistant	0	
	Vacant	Scholastic Events Coordinator	0	
		Total FTES	5	
	Scholastic Outreach Representatives		9	
	Scholastic Outreach Clerk		1	
		Total FTES	10	

130	Finance and Administration		T
	William Inks	Director of Finance and Administration	1
and the same	Vicki Crowe	Administrative Assistant	1
		Total FTES	2
	Accounting Department		
	K 11.0 II		
	Karen McCarthy	Manager of Accounting	1
	Lori McKay	Accounting Supervisor	1
	Vacant	Payroll Supervisor	0
		Total FTES	2
	Chief Accounting Clerk		
	Payroll Clerk		1 1
	Accounts Payable Clerk		2
The second second	Accounts I ayable Clerk	Total FTES	4
		Total TES	4
300	Customer Service and Billing		
-	Gustomer Gervice and Dining		
	Daniel Thornton	Manager of CS & B	1
7 - 1 1	Leslie Sanford	Administrative Supervisor II	1
	Dawn Havrilla	Administrative Supervisor II	1
		Total FTES	3
	Secretary to Manager		1
	Clerk Receptionist/Switchboard Oper.		1
			72
	Billing and Investigations		
	Field Inspector		2
4	Data Entry		
	Group Leader Data Entry		1
	Data Entry Processor		8
	Cashiering		
			4-1 7 7-1-
	Group Leader Cashiering		1
	Cashier & Controls Clerk		0
in the second			
	Processing		
	Group Leader Processing		1
	Account Adjustor		2
<del>/</del>	Lump Sum Coordinator		1
	Systems Control Coordinator		1
	Customer Service Representative	7.4.15750	1
		Total FTES	20 2
100	"	The latest terms of the second	111111111111111111111111111111111111111
120	Human Resources Department		
	Donna Skundrich	Manager of Human Da	
	Donna Skundrich Shelly King	Manager of Human Resources	1
	Sue Martire	Administrative Specialist (Benefits)	1
	Vacant	Administrative Assistant Wellness Advisor	1 0
	Raymond Mroch	Compensation Analyst	
	riayinona wirocii	Total FTES	1 4
		TOTAL FILE	4
122	Robert Stimmler	Sr. Training & Development Specialist	1
	Matthew Griener	E-Learning Developer	1
	HIGHER GITCHO!	Total FTES	2
		, otal i Lo	
125	Loss Control		
1, 124	Lisa Cortazzo	Manager of Loss Control (Safety)	1
	Bernard Spada	Administrative Specialist I Safety	1
	Stacy DeMasi	Manager of Security	1
	Darryl Adams	Administrative Supervisor I Security	1
	Vacant	Safety Specialist	Ö
		Total FTES	4
	Safety and Training Technician		1
	Security Clerk		1
	Group Leader Guards		1
	Guards		11 1
		Total FTES	14 1
		Total F1E3	141

200	MIS Department			
	Jack Tallon	Manager of MIS	1	1
	Robert Hoffman	MIS supervisor	1	-
		Total FTES	2	2
		10001120		
	Secretary		1	1
	Analyst Programmer		9	9
	Computer & Peripheral Operator		2	- 2
	Microcomputer Specialists		4	
	Telecommunications Specialist		2	2
	relecommunications opecialist	Total FTES	18	18
		TotalTTES	10	10
140	Purchasing Department			
	The state of the s			
	Raymond Meyer	Manager of Purchasing	1	
	Rita Stone	Administrative Supervisor (Storeroom)	1	-
-	Ben Heilman	Administrative Supervisor (Storeroom)  Administrative Supervisor (Contracts)	1	
	Dell Hellillan	Total FTES	3	3
		TOTALFIES	3	
	Clerk/Messenger			
			1	1
	Purchasing Clerk		2	2
	File Clerk/Typist Purchasing		1	1
	Storekeeper		1	
	Assistant Storekeeper		2	- 3
		Total FTES	7	
705	Operations and Maintenance			
			1 1 1 1	
	Director's Office			
	Douglas Jackson	Director of Operations and Maintenance	1	1
	David Brown	Manager of Operations Training	1	1
	Pamela Arthur	Administrative Assistant	1	1
		Total FTES	3	3
799	Operations Department			
	- many and the first of the second second	A STATE OF THE STA		
	John Regan	Manager of Operations	- 1	1
	Peter Guggenheimer	Solid Process Superintendent	1	- 1
	Shana Marcinik	Liquid Process Superintendent	1	1
	Scott Wolfe	Process Superintendent	1	1
	Michael Gavulic	Shift Superintendent	1	1
	Abigail Corrigan	Shift Superintendent	- 1 -	-
	Vacant	Shift Superintendent	Ö	-
	Keith Brown	Shift Superintendent	1	
	Jason Stritmatter	Shift Supervisor	1 1	-
	Justin Burrell	Shift Supervisor	1	1
	Robb Merry	Chiff Cupervisor		
		Shift Supervisor	1	1
	Vacant	Shift Supervisor	0	1
	Michael Priore	Operations Training Specialist	1	1
		Total FTES	11	13
	11-118			
	<u>Liquid Process</u>			
	Lie id Beer Orate 15 (5) 110			
	Liquid Proc. Control Rm/Field Operators	- 1 1 1 1	20	20
	Liquid Process Utility Operators		4	4
	Dewatering			
	V V			
	Dewatering Control Rm/Field Operators		12	
	V V		12	
	Dewatering Control Rm/Field Operators Dewatering Utility Operators			
	Dewatering Control Rm/Field Operators			
	Dewatering Control Rm/Field Operators Dewatering Utility Operators  Energy Recovery			
	Dewatering Control Rm/Field Operators Dewatering Utility Operators  Energy Recovery  ERF Control Rm/Field Operators			4
	Dewatering Control Rm/Field Operators Dewatering Utility Operators  Energy Recovery		4	12
	Dewatering Control Rm/Field Operators Dewatering Utility Operators  Energy Recovery  ERF Control Rm/Field Operators		12	12
	Dewatering Control Rm/Field Operators Dewatering Utility Operators  Energy Recovery  ERF Control Rm/Field Operators		12	12
	Dewatering Control Rm/Field Operators Dewatering Utility Operators  Energy Recovery  ERF Control Rm/Field Operators ERF Utility Operators		12	12
	Dewatering Control Rm/Field Operators Dewatering Utility Operators  Energy Recovery  ERF Control Rm/Field Operators ERF Utility Operators		12 3	12
	Dewatering Control Rm/Field Operators Dewatering Utility Operators  Energy Recovery  ERF Control Rm/Field Operators ERF Utility Operators  Non-Shift Personnel  Operations Clerk		12 3	12 4
	Dewatering Control Rm/Field Operators Dewatering Utility Operators  Energy Recovery  ERF Control Rm/Field Operators ERF Utility Operators  Non-Shift Personnel  Operations Clerk Mobile Equipment Operators		12 3 11 3	12 4
	Dewatering Control Rm/Field Operators Dewatering Utility Operators  Energy Recovery  ERF Control Rm/Field Operators ERF Utility Operators  Non-Shift Personnel  Operations Clerk Mobile Equipment Operators Dispatchers		12 3 11 3 2	12 4 12 4 1 3 2
	Dewatering Control Rm/Field Operators Dewatering Utility Operators  Energy Recovery  ERF Control Rm/Field Operators ERF Utility Operators  Non-Shift Personnel  Operations Clerk Mobile Equipment Operators	Total FTES	12 3 11 3	12 4

799	Mechanical Maintenance Department			
733	теснатиса тапленансе верантен			-
	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 Labor Supervisor	0	1
	Roseann Berg	Maintenance Supervisor	- 1	1
	Petrosky, William	Maintenance Supervisor I Interceptor Systems	1	1
	Louis Mellinger	Maintenance Labor Supervisor	1	1
	LaTanya Brown	Maintenance Labor Supervisor	1	1
		Total FTES	8	10
	Auto Mechanics/Apprentices		4	6
	Maintenance Clerk		1	1
	Mechanics/Apprentices		19	25
	Welders/Apprentices		4	4
	Lubrication Mechanics		3	3
	Group Leader Lubrication		0	1
	Building/Construction Mechanic/Apprentice		8	9
	General Maintenance Laborers	And the state of t	9	10
	Maintenance Utility		1	1
	Custodians	Total FTES	9	10 70
		Total FTES	58	70
799	Electrical Maintenance Department			-
755	Liectrical mannenance bepartment			
	Mark Shaffer	Manager of Electrical Maintenance	1	1
	Bill Martin	Control Systems Superintendent	1 1	1
	Joshua Florentine	Instrument Repair Supervisor	1	1
200	Andrew Devite	Electrical Maintenance Supervisor	i	1
	Vacant	Plant Superintendent	Ö	1
	Dave Rich	HVAC Supervisor	1	1
		Total FTES	5	6
	Electricians/Apprentices		8	10
	Instrument Repair Technicians/Apprentices		7	8
	HVAC Mechanic/Apprentices		4	4
		Total FTES	19	22
505	Environmental Compliance			
his State of	Director's Office			
	Arthur Tamilia	Director of Environmental Compliance	1	1
	Michelle Buys	Environmental Audit Administrator	1	1
	Kimberly Marunczak	Administrative Assistant	1	1
		Total FTES	3	3
E20	Pasiduala Danashwa : 1			
530	Residuals Department			
	Pohort Martina	Deciduals Drawers Manager		
	Robert Martire  Megan Cieslak-Mazza	Residuals Program Manager	1	1
	Vacant Vacant	Residuals Specialist	1	1
	Vacant	Agronomist Total FTES	0	1
		Total FTES	2	3
	Residuals Clerk		4	-
		Total FTES		1
520	Industrial Waste Department			
	Tina Dean	Manager of Industrial Waste	1	1
	Vacant	Sampling & Compliance Supervisor	0	1
1000	Vacant	Sampling & Compliance Supervisor	0	1
		Total FTES	1	3
				0
				2
	Clerk Typist Industrial Waste		21	
	Clerk Typist Industrial Waste Sampler/Investigator		2	16
		Total FTES		16

510	Laboratory Department			
310	Laboratory Department			
	Betty Kindle	Manager of Laboratory	1	
	Kimberly Crisi	Laboratory Supervisor	1	-
	Maureen Dobransky	Quality Control Officer	1	
	Madreell Doblatisky	Total FTES		
		TOTAL FIES	3	
	Laboratory Chemist			
	Laboratory Technician		11	
			2	
	Laboratory Clerk		1	
	General Maint. Laboratory		1	
		Total FTES	15	1:
540	ECM Systems			
	Anne Donahue	ECM Manager	1 1 1	
	Jacqueline Graham	Administrative Secretary	1	
	Vacant	Administrative Specialist I	0	
	Vacant	Administrative Specialist II	0	
THE STREET		Total FTES	2	
405	Engineering and Construction			
				_
	Director's Office			
	Shootol & Ollido			
	Kimborly Konnady	Director of Engineering & Operational		-
	Kimberly Kennedy Angel Allen	Director of Engineering & Construction	1	
		Administrative Assistant	1	
	Vacant	Manager Program Management	0	
	Steve Miller	Drafting/CADD Supervisor	1	
		Total FTES	3	4
	Designers		2	2
	Contract Clerk		3	- 1
	Clerk Typist/Engineering		1	
		Total FTES	6	
420	Capital Projects			
	Daniel Lockard	Manager of Capital Projects	1	
	Vacant	Project Engineer II	Ö	
	Elizabeth Joyce	Project Engineer II		
	John Findley		1	
	Raymond Stasny	Project Engineer III	1	
		Construction Supervisor	1	-
	Jeffrey Mazza	Project Engineer III	1	
	Dustin Copenhaver	Civil Engineer I	1	
	Shah Haque	Electrical Engineer	1	- 1
-	Joseph Wagner	Project Engineer II	1	
	Cody Edgell	Civil Engineer	1	- 1
		Total FTES	9	10
	Surveyor		1	
	Department Clerk		0	
		Total FTES	1	2
110	OR/CD Administraton			
	Denise Macellaro	Administrative Assistant	1	-
		Total FTES	1	- 1
		10001120		
605	Regional Conveyance			
	gional conveyance			
	Director's Office			
	Director's Chice			
	Jan Oliver	Diseases of Decisional C	- 15- 1	
		Director of Regional Conveyance	1	1
	Natalie Mielke	Administrative Secretary	1	1
	Joseph Sparbanie	Civil Engineer - RC	1	1
	Shawn McWilliams	Civil Engineer	1	1
	Geraldine Walker	GIS Specialist	1	1
				1
	Benjamin Reynolds	GIS Specialist	1	
	Benjamin Reynolds Michael Lichte	Manager of Planning	1	
	Benjamin Reynolds	Manager of Planning Environmental Construction Supervisor		
	Benjamin Reynolds Michael Lichte	Manager of Planning Environmental Construction Supervisor	1	1
	Benjamin Reynolds Michael Lichte Jeffrey Livezey	Manager of Planning Environmental Construction Supervisor GIS Asset Management Specialist	1 1 1	1
	Benjamin Reynolds Michael Lichte Jeffrey Livezey Adam Kidane Vacant	Manager of Planning Environmental Construction Supervisor GIS Asset Management Specialist Hydraulic Analyst	1 1 1 0	1
	Benjamin Reynolds Michael Lichte Jeffrey Livezey Adam Kidane Vacant Vacant	Manager of Planning Environmental Construction Supervisor GIS Asset Management Specialist Hydraulic Analyst Property Acquisition Specialist	1 1 1 0 0 0 0	1 1 1 1
	Benjamin Reynolds Michael Lichte Jeffrey Livezey Adam Kidane Vacant Vacant Vacant	Manager of Planning Environmental Construction Supervisor GIS Asset Management Specialist Hydraulic Analyst Property Acquisition Specialist Engineer	1 1 1 0 0	1 1 1
	Benjamin Reynolds Michael Lichte Jeffrey Livezey Adam Kidane Vacant Vacant	Manager of Planning Environmental Construction Supervisor GIS Asset Management Specialist Hydraulic Analyst Property Acquisition Specialist	1 1 1 0 0 0 0	1

440	Wet Weather Programs (CSO)			Τ
	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
	Julia Spicher	Civil Engineer	1	1
		Total FTES	5	6
	Clerk Wet Weather Program		1	1
	Environmental Monitoring Technician		6	6
		Total FTES	7	7
690	Interceptor Systems		4	
-	interceptor cyclemo			
	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	2 1	1
	Vacant	Supervisor I Interceptor Systems	0	
		Total FTES	8	10
	Boat Operator		2	2
	Assistant Boat Operator		1	
	Crew Leader Interceptor Maint, Pump Station		2	
	Crew Leader Interceptor Video Inspection		2	3
	Pump Station Driver/Assistant Operator		1	
	Laborer Operator Maint, Truck Driver		4	
	Laborer Interceptor Structures		3	
	Interceptor Systems Inspector/Spotter		3	
	Regional Conveyance Clerk		1	1
	Hi-Velocity Combo Unit Driver		5	6
	Crew Leader Interceptor Maint. Structures		4	5
	Video Inspection Driver/Assistant		2	5 3 3
	Laborer Interceptor Pump Stations		1	
	Laborer Interceptor Video Truck		1	3
	IS Welder	24-	0	
	Building & Construction Mechanic - IS		0	
	Laborer (Construction)		0	
	Interceptor Systems Helper		3	
		Total FTES	35	
		All FTES	413	504

11/27/2018 9:29