

Allegheny County Sanitary Authority

Allegheny County, Pennsylvania

Consulting Engineer's 2017 Annual Report Including the Fiscal 2018 Budget

November 2017





Allegheny County Sanitary Authority Allegheny County, Pennsylvania

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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 2017. Additionally, this report outlines ALCOSAN's Capital Improvements Program and associated year 2018 Budget and includes the proposed year 2018 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 2016 through September 2017, the monthly average daily flow was calculated at 201.7 mgd, with a monthly high reported at 250 mgd in December 2016, January 2017, April 2017, May 2017, June 2017, and July 2017. A monthly low of 144.9 mgd was recorded in September 2017.
- The quarterly facility reviews conducted by Hatch Chester 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 2018 consists of the implementation or completion of 34 active projects. These projects plus the \$3,477,700 allocated for low-cost capital improvements total \$654,632,800. It is anticipated that approximately \$72,971,700 will be expended on the 34 active capital projects during 2018.
- The proposed year 2018 budget anticipates revenues of \$176,651,200, operating expenses of \$92,728,300, transfer to capital facilities fund for cash funding of green infrastructure and other capital projects of \$12,000,000, and net operating income available for debt service of \$71,922,900. Net income, combined with the January 1, 2017 beginning Revenue Fund balance in excess of the minimum required fund balance, results in a debt service coverage of 2.37.
- In accordance with the Four-Year Rate Resolution (2018-2021) adopted in 2017, the Authority Board has approved an 7.5 percent increase in rates effective January 1, 2018. 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 2018.
- ALCOSAN's insurance policies are updated annually and satisfy the requirements of the Trust Indenture.



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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 as of September 1, 2011, an Eighth Supplemental Trust Indenture dated December 1, 2013, a Ninth Supplemental Trust Indenture dated September 1, 2015, and a Tenth Supplemental Trust Indenture dated September 1, 2016 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;
- 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.



SYSTEM REVIEW

Operations

The quarterly facility process evaluations conducted by Hatch Chester 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.

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 2016 to September 2017 were in compliance except for a Monthly Average Total Residual Chlorine reading of 0.59 milligrams per liter (mg/l) for the May 2017, which was above the 0.50 mg/l Final Effluent Limit. No additional excursions of the permit limits were reported during the period under review.

ALCOSAN completed a renewal application for its NPDES permit for the treatment plant in 2013. A draft of the permit was issued and comments were submitted. 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 2016 through September 2017, the monthly average daily flow was calculated at 201.7 million gallons per day (mgd), with a monthly high reported at 250 mgd in December 2016, January 2017, March 2017, April 2017, May 2017, June 2017, and July 2017 and a monthly low reported at 144.9 mgd in September 2017. Appendix A provides a summary of all plant loadings and operating performance for the period of October 2016 through September 2017.

Under normal operating conditions, two to three of the six raw sewage pumps are in operation. Pump No. 4 was being evaluated/repaired in the fall of 2017, Pump No. 2 is isolated from the wet well, and Pump No. 6 was repaired. The new 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. The motor actuators on the primary clarifier influent gates have been replaced. 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. The super heater was replaced on No. 2. Repair work is being done on the economizer and bed.

A total of approximately 37,200 dry tons of sludge and ash were disposed during the period of October 2016 through September 2017. Of this total, approximately 9,700 dry tons were disposed in landfills, and 6,600 dry tons were land applied. During this same period, approximately 21,000 dry tons of sludge was incinerated in the fluidized bed incinerators, producing approximately 10,700 tons of ash for disposal.

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.

CAPITAL IMPROVEMENTS PROGRAM

ALCOSAN's Capital Improvements Program (CIP) is presented in Table 1. The CIP is financed through disbursement of Construction Fund moneys made available for certain projects as part of the 2015 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.



Table 1
Capital Improvements Program

Proj.		Current Estimated	Total Expended To	2017 Estimated	Remaining To Be	2018 Capital
No.	Description	Cost	12/31/16	Expenditure	Expended	Budget
	ACTIVE PROJECTS					
S404	Sheraden Park WRDA Section 206	\$806,200	\$737,550	\$3,400	\$65.250	\$65.250
S408	Biosolids Strategic Plan	1,525,600	4,371	0	1,521,229	507.200
S419	Mobile Equipmemt 2018	698,900	0	0	006'869	006'869
S420	Grit Chambers	2,026,100	401,223	70,100	1,554,777	823,000
S423	Plant Energy Efficiency Upgrades	2,319,000	1,015,423	40,000	1,263,577	750,000
S427	Squaw Run FM Replacement & Bypass Pumping Connections	1,710,400	263,886	224,000	1,222,514	1,222,514
S429	Sewer Rehabilitation (Library Road & Verona PS)	8,392,000	255,624	150,000	7,986,376	7,000,000
2430	Wet Weather Plant Expansion (Program Costs)	49,000,000	635,474	3,700,000	44,664,526	3,700,000
S432	Preliminary Planning	19,585,000	453,634	2,000,000	17,131,366	5,000,000
S437	Ravine Street Stream Removal and Sewer Separation	3,622,000	14,240	75,000	3,532,760	2,250,000
S438	Four Mile Run Regulator (M29) & Outfall Improvements	3,829,000	115,128	75,000	3,638,872	2,250,000
S440	Green Revitalization of Our Waterways Program	92,533,600	396,180	1,590,500	90,546,920	7,936,000
S444	Flap Gates at Various Locations (2017-2018)	2,384,000	43,183	350,000	1,990,817	1,990,817
S446	Regionalization	44,505,000	7,809,355	8,000,000	28,695,645	8,000,000
S447	Municipal Source Control Evaluation Program	11,637,000	151,169	1,552,000	9,933,831	008,609
S448	Interim Wet Weather Planning Compliance	22,850,000	2,327,359	2,300,000	18,222,641	3,500,000
S449	Demolition of Old Operations & Maintenance Facility	2,500,000	0	20,000	2,480,000	2,480,000
S450	Sewer Improvements (2017-2018)	671,500	0	300,000	371,500	371,500
S451	Property Acquisitions	34,759,000	0	5,000	34,754,000	10,000,000
S452	Sonar Investigations	2,800,000	0	200,000	2,600,000	2,300,000
S454	Panther Hollow DSI	5,006,600	0	0	5,006,600	1,298,000
S455	Green Infrastructure Program Manager	3,687,000	0	260,400	3,426,600	1,521,000
S456	Program Management Information System (PMIS)	2,135,000	0	800,000	1,335,000	1,035,000
S457	Borough of East Pittsburgh Grandview GSI Demo Project	35,000	0	0	35,000	35,000



Table 1
Capital Improvements Program (Continued)

		Current	Total	2000		
Proj.	Description	Estimated	Expended To	Estimated	To Be	2018 Capital
	ACTIVE PROJECTS (Continued)		07/10/21	Expellatine	panuadya	pnager
S458	Conveyance, Rehabilitation & Enhancements (2018-2019)	\$2,637,200	\$0	\$0	\$2,637,200	\$700,000
S459	Energy Recovery Facility Improvements (2018-2019)	2,500,000	0	0	2,500,000	400,000
S460	Plant and Safety Upgrade (2018-2019)	4,500,000	0	0	4,500,000	1,500,000
S461	New Outfall and Disinfection Facility	58,500,000	0	0	58,500,000	200,000
S462	Wet Weather Headworks Expansion	82,500,000	0	0	82,500,000	1,000,000
S463	Solids Thickening and Dewatering Improvements	33,000,000	0	0	33,000,000	0
S464	New Lab and Industrial Waste Facility	26,000,000	0	0	26,000,000	50,000
S465	New Secondary Clarifiers	47,000,000	0	0	47,000,000	0
S466	Wet Weather Disinfection	26,000,000	0	0	26,000,000	0
S467	New Primary Tanks	49,500,000	0	0	49,500,000	0
2000	2018 Low Cost Capital Improvements	3,477,700	0	0	3,477,700	3,477,700
	Subtotal	\$654,632,800	\$14,623,799	\$21,715,400	\$618,293,601	\$72,971,681
	2017 COMPLETED PROJECTS					
S421	New Vehicle Maintenance Facility	11,200,000	9,706,624	1,493,376	0	0
S424	PennDOT Bridge and Highway Improvements	1,372,749	1,372,749	0	0	0
S439	Source Control-Municipal Inflow & Infiltration/Regionalization	79,300	73,507	5,793	0	0
S441	ERF Demineralization System Replacement	3,200,000	267,382	2,932,618	0	0
S442	Energy Recovery Facility Improvements (2016-2017)	2,200,000	34,742	2,165,258	0	0
S443	Plant and Safety Upgrade (2016-2017)	2,500,000	1,595,412	904,588	0	0
S445	Conveyance, Rehabilitation and Enhancements (2016-2017)	1,394,200	251,117	1,143,083	0	0
S453	Delafield Storm Separation	0	0	0	0	0
	Subtotal	21,946,249	13,301,533	8,644,716	0	0
	TOTALS	\$676,579,049	\$27,925,332	\$30,360,116	\$618,293,601	\$72,971,681



Currently, there are 34 active capital projects and a low-cost capital improvements item, which are listed in Table 1. The current estimated cost of projects to be completed under the CIP is \$654,632,800, which includes \$3,477,700 in low-cost capital improvements.

The 34 active projects, minus the low-cost capital improvements, amount to \$651,155,100, with some \$618,293,601 remaining to be expended. It is anticipated that \$72,971,681 will be spent on the following active capital projects during 2018.

Sheraden Park Water Resources Development Act (WRDA) Section 206—S404

This is a continuation of a stream removal project in the City of Pittsburgh that has received partial funding from the federal government under WRDA Section 219 to construct a parallel sewer to separately convey the stream flows to Chartiers Creek. Under Phase II of the Section 219 component of the project, a filtration system was installed on the new storm sewer to provide treatment of the stormwater prior to discharge. This phase was completed in 2011. Most recent activities included the continuation of the habitat restoration portion of the project, which is being partially funded by the federal government under the WRDA Section 206 Program. Per the project agreement with the federal government, remaining capital funds are required to cover ALCOSAN's share of the cost.

Biosolids Strategic Plan—S408

ALCOSAN produces approximately 350 wet tons (or 100 dry tons) per day of biosolids. For the past 16 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 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 into 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 (2018)—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 as part of Capital Project S455 will 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 More recent and ongoing projects include incineration process. 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 (O&M) rooftop array and participation in the Pennsylvania Department of Environmental Protection (DEP) Alternative Fuel Technical Assistance program for fleet fueling is planned for 2018. Other study components will be further considered as part of the Wet Weather Plant Expansion Program.



 Squaw Run Force Main Replacement and Bypass Pumping Connections at Squaw Run, Montrose, and Sandy Creek Pump Stations—S427

The 18-inch Squaw Run force main was constructed in 1954 using asbestos cement pipe. Over the years, the line has been subject to repeated breaks and repairs. The interceptor systems crew has identified this line as a good candidate for replacement. The scope of the project would be to replace approximately 1,900 feet of the Squaw Run force main with new, lined, ductile iron pipe. ALCOSAN will line the first 300 to 400 feet of asbestos cement pipe to prevent environmental impacts to the property owner adjacent to the pump station.

Sewer Rehabilitation at Various Locations—S429

This capital project includes the design and installation of 16,200 feet of Cured-in-Place-Pipe (CIPP) lining for the Saw Mill Run interceptor between Manhole (MH) 103 and MH 45 and for the Upper Allegheny Interceptor between A-45 and A-44. The contract will be completed in late 2018.

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 initially perform many tasks over a five-year period. The PM will assess, verify, and further evaluate the components of the plant expansion contained in the Plan, as well as update the estimated project costs. This will include developing an operating sequence for initiating and exiting wet weather operations treatment modes. This will



include coordinating the proposed plant work with the preliminary planning for improvements upstream of the plant under Capital Project No. S432 described hereafter. The PM will evaluate components of the recent energy management study for potential incorporation into the plant expansion improvements. The PM will also devise a plan to package and sequence the design and construction projects. In addition, the PM will assist ALCOSAN staff in preparing engineering design Requests for Proposals.

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

In 2017, the PM completed performance modeling and hydraulic modeling to validate the proposed plant expansion. In 2018, a Construction Manager will be procured to assist in the packaging and review of design products. In addition, permitting and the procurement of design firms will occur.

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 aboveground 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 and alternate operational schemes, passive versus active; evaluating and



optimizing flow to the existing interceptor system; evaluating preliminary sizing criteria; evaluating micro-tunneling and surface consolidation routes; surveying; optimizing the use of green leave-behind 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 Representatives are also committing state funds to this very important local project.

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

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

Concurrently with the field inspections and survey, Chester Engineers conducted hydraulic modeling, alternatives analysis, and costing comparisons of five alternatives. As a result of the alternatives analysis, the engineering consultant and stakeholders agreed that an effort to repair the outfall pipe, lower the weir, and add a flap gate provided the best 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. It is anticipated that the project will be bid in late 2018.



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. Capitalized 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.

Flap Gate Improvements at Various Locations—S444

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 thus allowing chronic water inflow in the treatment system. This additional 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 programed for replacement this period include A-45, O-35, M-53, T-27, C-06, C-07, and A-37.

Regionalization—S446

ALCOSAN is working with 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 multi-municipal; 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 November 2017, approximately 269 miles of trunk sewers which meet the criteria are being considered for transfer. Also included are 78 diversion chambers, four pump stations, and four equalization tanks that have been proposed as part of the asset transfer.

Approximately 194 miles of sewers and five proposed regionalization facilities have been inspected to date. ALCOSAN will be meeting with municipal officials and engineers in 2018 to plan for the repair of critical and significant defects. The repair of these defects will be the last step prior to the transfer of these sewer 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 1.5 billion dollar Interim Wet Weather Plan of capital improvements to the ALCOSAN system.



It will require technical and management services to ensure compliance and cost-effective procedures in implementing the proposed Interim Wet Weather Plan improvements including coordinating the efforts of others charged with the individual programs and components of the Plan. It will require creating methodologies to support the management of municipal flows; to apply risk management principles to budgets and schedules, using adaptive management strategies; and to 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.

In 2015 and 2016, 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 will be receiving information and reports from the customer municipalities that were generated by regulatory orders. ALCOSAN will be required to review this information. 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.

Sewer Improvement Contract—S450

This capital project will provide for having a contractor on-call and available to conduct repairs to the Regional Conveyance system as the need arises.



For example, if a manhole is needed to facilitate sewer cleaning or a CCTV inspection reveals a repair need beyond the capital-planning horizon, the contractor would be notified and provided a scope of work. In addition, should an urgent repair need arise, the contract could conceivably be considered depending on the anticipated scope.

This project is being undertaken to ensure and require (1) a rapid mobilization time [24 hours or less], (2) proper bonding and insurance requirements for any "immediate needs" contractor, and (3) competitively bid pricing. The contractor will be procured through a competitive bid process.

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 (CWP). 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 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.

Sonar Investigations—S452

This program will focus on the sonar inspection of the deep tunnel system and river crossings in an effort to update sediment accumulation data. ALCOSAN has previously performed inspection programs dating back to 1996. The most recent sonar data collected as part of an inspection program is from 2011. Several cleaning contracts have been performed from 2009 through 2015.

Only limited sonar data was provided as part of the deep tunnel system cleaning contracts. The goal is to create an updated baseline of sediment profiles throughout the system in areas previously inspected and/or cleaned. The scope will also include attempting to inspect six drop shafts of the deep tunnel system that were previously deemed inaccessible for inspection. The sonar inspections will provide an assessment of whether any change in sediment accumulation or distribution has occurred over time in conjunction with changes in plant operations. Through 2018 roughly 30 miles will be inspected under this program.

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 Pittsburgh Water and Sewer Authority 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, development of guidelines, computer modeling, evaluation of the impacts GROW projects may have on the Interim Wet



Weather Plan, and providing management of the green infrastructure oncall 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.

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.

In 2015, ALCOSAN began an informal process of inviting various interested software companies to provide presentations of their respective products and services to the ALCOSAN staff. In 2016, ALCOSAN directed the PM to lead an evaluation of a PMIS as part of their contracted services in close collaboration with the Owner Representative. The scope of the work to develop and implement the PMIS may impact all of ALCOSAN's divisions and requires a larger perspective when examining the information system needs.

Subsequently, the PM and Owner Representative conducted interviews of 26 ALCOSAN management staff to identify existing needs, practices, systems used, and any desired improvements. Four goals were initially identified for the PMIS: (1) establish a system that will support the Wet Weather Plan implementation, general program/project management, and asset management; (2) migrate the existing database from the existing Enterprise Content Management (ECM) system that supported the Consent Decree and wet weather planning over the last several years; (3) transition into electronic procurement of professional services and contracts; and (4) identify the potential integration of the growing uses of GIS database programs to the PMIS or as a separate supplement.

In 2017, the interview information collected in 2016 from ALCOSAN staff was sorted out to identify which ALCOSAN departmental needs will be incorporated into the PMIS, which may go a parallel path through a separate effort, or which will require the submission of proposals. E-BUILDER was selected through an evaluation process that included ALCOSAN staff, the Program Director, and the Owner Representative. The software, including 100 user licenses, was purchased through the Program Director in mid-year 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 2017 or early 2018. The 2018 Capital Budget projects will be 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 will be available for various parameters in 2018. Transfer of documents from the existing ECM to storage space in E-BUILDER is scheduled for 2018.

Borough of East Pittsburgh Grandview GSI Demo Project—S457

The East Pittsburgh Borough green infrastructure project is intended to redevelop vacant land for reuse as a green infrastructure site that could also serve as a community-gathering place or future amenity such as a park let. This project is intended to reduce the volume of stormwater runoff that enters the combined sewer system and to decrease the potential for combined sewer overflows into Turtle Creek.

This green infrastructure project would collect stormwater runoff from Grandview Avenue and several blocks perpendicular to Grandview in the surrounding residential neighborhood. This project consists of the construction of an underground stone retention cell with an above-ground rain garden. The runoff would flow from the existing roads into a reconfigured stormwater collection system that discharge into the green infrastructure installation. A total of six catch basins and storm inlets have been modified allowing stormwater to be directed to a cross drain with discharge into the rain garden and stone retention cell. The installation will optimize the use of vegetation and green technologies to infiltrate stormwater into the groundwater but will be designed to slowly release stormwater when capacity is reached. The slow release outlet discharges into a PennDOT structure that is connected to an existing separated storm sewer.

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 2018 include the modifications to the outfalls at M-59 and A-17 to include extension of the outfall and installation of a bulkhead guide, removal of Regulating Structure T-33, and installation of an access road at C-21.

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 will be undertaken in 2018. Improvements identified will be made under this capital account.

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 anticipated in 2018 includes rehabilitating the existing ALCOSAN chimney by tuck pointing the joints and sealing the surface. In addition, replacement of handrail around secondary tanks will continue.

In 2018, this capital program will continue to include hardware upgrade of the plant Distributed Control System (DCS) begun in 2016 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.

New Outfall and Disinfection Facility—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.

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 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 Lab 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.

New Secondary Clarifiers—S465

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 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 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.

For 2018, it has been estimated that low-cost capital improvements will total \$3,477,700 as shown in Item S000 on Table 1.



REVENUES

Table 2 lists the actual cash revenues of the Authority for the years 2014, 2015, and 2016 together with the 2017 budget and the actual cash revenues for the eight months ending August 31, 2017. Table 2 also shows projected 2017 revenues for the entire twelve-month period and the year 2018 budget. As shown on Table 2, it is projected that Total Revenues for 2017 will amount to \$164,455,800, which is over budget by approximately \$1,526,000. 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 99 percent of annual operating income. It is anticipated that these charges will amount to \$163,290,200 in 2017, or approximately \$853,000 more than the 2017 budget projection. The 2017 projected results are about 9 percent greater than the year 2016 actual results, 19 percent greater than the 2015 results, and 38 percent above 2014 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, which is probably the primary reason for the lowering effect of each year's constant rate increase of 11 percent per year. The year 2017 was the last year of the adopted four-year rate increase proposal.

However, the ALCOSAN Board of Directors have voted to adopt a new rate study proposal, which will become effective in the year 2018 and will remain in effect through the year 2021. The study has recommended a 7.5 percent increase in rates in 2018 and a 7 percent increase in 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. Increased balances in both the capital facilities and revenue funds, combined with increasing bank rates, resulted in interest income of approximately \$891,200, or over \$650,000 more than budget projections and over three times greater than last year's actual interest income. Other Revenues are expected to be nearly 6 percent above budget. In 2017, Other Revenues consisted of septic tank disposal fees, closing letter fees, pretreatment fees, and miscellaneous income.



Table 2 Summary of Revenues

Revenue Category	2014 Actual	2015 Actual	2016 Actual	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
Basic and Special Charges	\$118,516,876	\$137,678,383	\$150,320,493	\$162,437,400	\$105,770,916	\$163,290,200	\$175,430,600
Grants	0	0	0	0	0	0	0
Interest Income	41,002	62,389	273,807	233,200	605,408	891,200	980,100
Other	354,279	361,584	398,178	259,500	93,520	274,400	240,500
Total Revenues	\$118,912,157	\$138,102,356	\$150,992,478	\$162,930,100	\$106,469,844	\$164,455,800	\$176,651,200

The year 2018 budget is based on:

- A full year's revenue generated by the 11 percent rate increase that became effective on January 1, 2017 and another 7.5 percent increase in rates for 2018, effective January 1, 2018. This coming year's 7.5 percent increase is the first in a new four-year rate increase program. It is anticipated that this 7.5 percent increase will generate approximately \$6.4 million dollars a year. However, due to billing cycles, 2018 Basic and Special Charge revenues reflect only six months impact from the January 1, 2018 rate increase. The current user rate of \$6.91 per 1,000 gallons of water used will increase to \$7.42 per 1,000 gallons. The quarterly customer service charge will increase from \$14.51 per quarter to \$15.60. Based on a quarterly usage of 12,000 gallons of water, the average cost per household will be \$418.56 per year, which is a \$2.41 per month increase over 2017 rates.
- No grant funds are anticipated during 2018.
- Interest earnings are anticipated to show an increase of approximately \$100,000 in 2018.
- Other revenues are expected to be slightly lower in 2018

The total 2018 revenue budget of \$176,651,200 is approximately \$12.2 million more than 2017 projected results and 8 percent more than the 2017 budget.

OPERATING EXPENSES

Table 3 is a summary listing of the actual operating expenses for the years 2014, 2015, and 2016, the 2017 budget, and the actual expenses for the eight months ended August 31, 2017, together with the projected full year 2017 operating expenses and the year 2018 budget. A detailed summary of operating expenses is shown on Table 3A, and the detailed lists of operating expenses by line item are provided in Schedules I through IX.

As shown on Table 3, it is anticipated that projected expenses will come in under budget by approximately \$8,470,000. All departments are expected to come in under budget this year with departmental savings ranging from less than 1 percent to over 30 percent.

The year 2018 budget has been prepared in conjunction with the ALCOSAN staff and reflects expected activity for the coming year. The 2018 budget anticipates operating expenses of \$92,728,300, an approximate \$4.7 million increase over the 2017 budget. The 2018 budget shows an increase of approximately 17 percent over 2017 projected results.



Table 3 Summary of Operating Expenses

No.	Expense Category	2014 Actual	2015 Actual	2016 Actual	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
-	Administration and Engineering	\$4,934,119	\$5,820,820	\$8,727,560	\$14,161,100	\$6,314,537	\$12,753,200	\$15,552,600
=	Management Info. Systems	2,108,952	2,217,830	2,479,898	2,797,600	1,713,021	2,786,300	3,238,100
=	Customer Service and Billing	2,273,106	2,414,558	2,424,616	3,404,800	2,820,979	3,401,500	3,676,800
≥	Environmental Compliance	3,341,420	3,390,437	3,463,100	4,522,800	2,315,632	3,580,500	4,570,700
>	Interceptor System	4,193,656	3,998,186	4,205,317	9,100,700	2,855,249	6,114,300	9,270,600
5	Plant Operations	21,816,814	20,799,839	21,996,233	22,495,400	12,987,415	21,307,800	22,700,800
5	Professional Services	831,065	649,903	590,774	926,000	436,575	897,000	879,000
=	Plant Maintenance	7,052,217	8,191,851	8,147,476	9,064,400	5,738,597	8,826,500	9,749,000
×	Employee Benefits	15,422,889	16,436,059	18,842,283	21,513,200	13,405,063	19,852,300	23,090,700
	Total Expenses	\$61,974,238	\$63,919,483	\$70,877,257	\$87,986,000	\$48,587,068	\$79,519,400	\$92,728,300
	Debt Service				52,240,300		52,240,300	59,248,000
	Total Requirements				\$140,226,300		\$131,759,700	\$151,976,300



Table 3ADetailed Summary of Operating Expenses

	2017	T	Τ
	Actual	2017	2018
Expense Category	to 8/31	Projected	Budget
Adminstration and Engineering			
Executive Adminstration	\$1,854,276	\$3,818,000	\$4,025,800
Public Relations	1,083,712	3,644,600	4,808,900
Municipal Outreach	163,558	270,400	430,100
Scholastic Outreach	582,671	913,100	1,466,100
Human Resources	342,549	537,800	587,500
Training Administration	62,715	110,100	251,000
Accounting/Finance	452,027	695,200	794,300
Purchasing	302,688	483,200	539,800
Engineering Adminstration	267,065	390,900	423,800
OR/CD Administration	90,745	150,600	134,700
Capital Projects	324,248	503,200	637,100
Contract Administraion	214,321	329,900	399,900
CSO Program Management	495,085	781,500	824,400
ECM/Environmental Reporting	78,877	124,700	229,200
Total Adminstration and Engineering	6,314,537	12,753,200	15,552,600
Management Information Systems	1,713,021	2,786,300	3,238,100
Customer Service and Billing	2,820,979	3,401,500	3,676,800
Environmental Compliance			
Environmental Compliance	292,375	435,000	426,900
Laboratory	1,157,209	1,770,000	2,141,700
Industrial Waste	765,677	1,216,200	1,793,900
Diverse Residuals Management	100,371	159,300	208,200
Total Environmental Compliance	2,315,632	3,580,500	4,570,700
Interceptor System			
Regional Conveyance Administration	248,465	382,200	665,800
General-Upper Allegheny System	79,681	123,400	174,200
Verona Pump Station	43,076	79,100	94,300
Squaw Run Pump Station	54,049	89,900	115,000
Montrose Ejector Station	28,967	55,200	77,700
Saw Mill Run	58,208	91,200	117,200
Regionalized Facilities	26	150,100	460,000
General-Except Upper Allegheny	2,129,286	4,807,900	7,150,000
Corliss Pump Station	46,346	76,200	120,500
Malancthon Ejector Station	22,854	34,900	39,300
Ella Street Pump Station	44,230	72,000	94,900
Sandy Creek Pump Station	100,061	152,200	161,700
Total Interceptor System	2,855,249	6,114,300	9,270,600



Table 3A Detailed Summary of Operating Expenses (Continued)

	2017		
	Actual	2017	2018
Expense Category	to 8/31	Projected	Budget
Plant Operations			
Safety	\$726,100	\$1,140,500	\$1,580,000
Operations and Maintenance Adminstration	217,835	334,800	418,900
Main Pump Station	910,535	1,705,000	1,705,500
Rack and Grit	326,154	522,900	561,000
Mobile Equipment for Treatment	497,423	789,100	1,039,000
Primary Sedimentation	1,542,044	2,384,400	2,352,000
Disposal of Sludge, Ash, and Grit	934,293	1,745,000	1,895,000
Boilers	168,878	280,000	265,000
Energy Recovery	2,123,634	3,501,400	3,628,800
Sludge Dewatering	2,028,465	3,205,800	3,291,200
Lime Stabilization	509,141	811,900	872,800
Secondary Treatment and Post Chlorination	1,374,206	2,261,500	2,302,800
General Plant Treatment	1,628,707	2,625,500	2,788,800
Total Plant Operations	12,987,415	21,307,800	22,700,800
Professional Services	436,575	897,000	879,000
Plant Maintenance			
Executive Adminstration	52,122	80,500	91,100
Safety	20,716	39,300	36,200
Accounting/Finance	133	200	0
Purchasing	260	400	400
Management Information Systems	3,035	14,800	18,700
Customer Service and Billing	55,109	85,900	73,500
Engineering Administration	1,855	2,900	3,100
Laboratory	44,285	67,900	85,300
Industrial Waste	8,174	12,600	18,500
Operations & Maintenance Administration	499	700	0
Main Pump Station	249,731	362,400	449,800
Rack and Grit	192,952	294,600	309,600
Mobile Equipment for Treatment	39,819	62,400	64,900
Primary Sedimentation	273,586	418,800	535,500
Boilers	6,183	9,400	13,500
Energy Recovery	678,339	1,034,200	1,188,400
Sludge Dewatering	604,551	917,300	1,073,700
Lime Stabilizaiton Dewatering	112,247	171,300	179,000
Secondary Treatment and Post Chlorination	495,978	756,000	693,800
General Plant Treatment	2,899,023	4,494,900	4,914,000
Total Plant Maintenance	5,738,597	8,826,500	9,749,000
Employee Benefits	13,405,063	19,852,300	23,090,700
TOTAL OPERATING EXPENSES	\$48,587,068	\$79,519,400	\$92,728,300



The 2018 budget projections are based on the following assumptions:

- An increase in staff of 32 persons. At this time, there are 76 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 established.
- An increase of over \$3.2 million in the cost of employee benefits, or over 16 percent greater than 2017 projections. In 2018, the cost for medical insurance includes a 12.4 percent increase. Medical insurance incudes a prescription drug plan. Increased pension plan costs are actual costs provided by the actuary. Allowances in premiums and costs have been included for the filling of 76 vacancies.
- The 2018 budget provides increased costs for the Federal Consent Decree implementation requirements. For example, the Interceptor System budget is projected to be over 150 percent higher than 2017 projected results. It is anticipated that \$5 million will be expended on cleaning and inspection and another \$450,000 for regionalization facilities alone.
- Utility costs are again varied for the coming year. For example, electricity costs will remain fairly constant; natural gas basic fee costs are expected to down around 10 percent, and water is expected to increase by 8 percent.
- The impacts on chemical costs are also varied for the coming year: Caustic soda, sodium hypochlorite, and hydrochloric acid are expected to increase by 5 percent. Polymer costs should remain the same as last year. Land application disposal costs are expected to increase only slightly in 2018 while tipping fees are expected to be overall down in 2018.
- The 2018 budget provides an additional \$12 million in funding for municipal green infrastructure and source reduction "GROW" program financing.

A summary of authorized positions as proposed in the year 2018 budget is presented in Table 4. 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 4
Summary of Authorized Positions (as proposed in 2018 Budget)

	Management	Employees	Union Em	ployees
	Authorized	Actual	Authorized	Actual
Executive Director	3	2		
Contract Administration	6*	5		
Public Relations	8*	5	2	2*
Scholastic Programs	11*	7*	15*	7*
Municipal Outreach	4*	3*		
Finance & Administration				
Director's Office	2	2		
Accounting	3	2	4	4
Customer Service & Billing	3	3	21	20
Human Resources	6	6		
Training and Development	2	1		
Loss Control	5	4	15	14
MIS	3	3*	18	16*
Purchasing	3	3	8	8
Operations & Maintenance				
Director's Office	3	3		
Operations	12*	9	64	64*
Mechanical Maintenance	10*	9*	70*	59*
Electrical Maintenance	5	5	22	21*
Environmental Affairs				
Director's Office	3	3		
Residuals	2	2	1	1*
Industrial Waste	3	2	18	14*
Laboratory	3	3	15	12*
ECM Systems	4*	2		
Engineering & Construction				
Director's Office	3	3	5	5
Capital Projects	11*	8*	2	1
OR/CD Administration	1*	1*		
Regional Conveyance				
Director's Office	10*	5*		
Wet Weather Programs	7	6*	7*	6*
Interceptor Systems	10*	8	50*	36*
TOTAL	146	117	337	290

^{*} Numbers Designate Change



DEBT SERVICE COVERAGE CALCULATION

The year 2018 budget revenue expectation less the 2018 budget of operating expenses produces a net income available for debt service as shown by the following calculation.

2018 Projected Revenues	\$176,651,200
2018 Budgeted Operating Expenses	92,728,300
Transfer to Capital Facilities/GROW	
Fund	<u>12,000,000</u>
Net Operating Income	\$ 71,922,900
2018 Debt Service	\$ 59,248,000
Less Capitalized Interest	0
Net 2018 Debt Service	\$ 59,248,000

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 2018. In addition, \$12,00,000 has been allocated for potential cash funding of municipal green infrastructure and source reduction GROW program projects during 2018.

The second test requires minimum debt service coverage of 1.10. This requirement will also be met in 2018 as the Net Operating Income plus the January 1, 2017 Revenue Fund balance after deduction of the required fund balance (25 percent of the Operating Expense budget for 2017) provides Debt Service coverage of 2.37. The January 1, 2017 Revenue Fund balance was \$91,684,772, and the minimum balance, which must be maintained in the Revenue Fund, is \$23,182,075. This leaves a beginning Revenue Fund balance of \$68,502,697 in excess of the 25 percent required minimum.

The ALCOSAN system continues to reflect good and improving coverage levels and also strong financial management practices and policies. As a result, Standard and Poor's rated ALCOSAN's \$102 million Series 2016 Bonds as "A," and Moody's rated it "A1." At the same time, ALCOSAN's "A" rating was affirmed on its entire outstanding debt.

INSURANCE

The schedule of insurance policies presently in effect is shown on Table 5. 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 5
Schedule of Insurance Policies

Туре	Amount	Estimated Premium
PROPERTY (Deductible \$100,000) Blanket Building & Personal Property	\$739,796,696	\$369,898
Boiler and Machinery	100,000,000	
Business Income	10,500,000	
Owned Equipment		
Contractors' Equipment		
Earthquake (\$100,000 deductible)	25,000,000	
Flood (\$500,000 deductible)	25,000,000	
Willis of Pennsylvania		
American Home Assurance Company Policy No. 060506430		
May 16, 2017 to May 16, 2018		
CRIME (\$10,000 Deductible)		
Employee Dishonesty (\$15,000	\$2,500,000	\$3,388
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	250,000	
Computer Crime	1,000,000	
Funds Transfer Fraud	1,000,000	
Seubert & Associates.		
Travelers Casualty and Surety		
Company		
Policy No. 106289675		
May 16, 2017 to May 16, 2018		
GENERAL LIABILITY		
Each Occurrence	\$1,000,000	\$162,276
General Aggregate Limit	2,000,000	, , , , , , , , , , , , , , , , , , ,
Seubert & Associates		
The Charter Oak Fire Insurance Co.		
Policy No. ZLP-21N44668-17		
May 16, 2017 to May 16, 2018		
SECURITY & PROFESSIONAL		
Each Occurrence Limit	\$1,000,000	Included in General
General Aggregate Limit	2,000,000	Liability
Seubert & Associates		Liability
The Charter Oak Fire Insurance Co.		
Policy No. ZLP-21N44668-17		
May 16, 2017 to May 16, 2018		



Table 5
Schedule of Insurance Policies (Continued)

Туре	Amount	Estimated Premium
PUBLIC OFFICIALS (\$50,000 Deductible) Including Employment Practice Liability Occurrence Limit Aggregate Limit Seubert & Associates The Charter Oak Fire Insurance Co. Policy No. ZLP-21N44668-17 May 16, 2017 to May 16, 2018	\$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 Group Policy No. H-810-4F267715 May 16, 2017 to May 16, 2018	\$1,000,000 500,000 5,000	\$72,417
UMBRELLA (\$10,000 Retained Limit) Each Occurrence General Aggregate Seubert & Associates The Travelers Indemnity Company Policy No. ZUP-61M3095A May 16, 20176 to May 16, 2018	\$15,000,000 15,000,000	\$38,420
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 Company Policy No. 106098489 May 16, 2017 to May 16, 2018	\$1,000,000 100,000 250,000 100,000	\$8,460



Table 5
Schedule of Insurance Policies (Continued)

Туре	Amount	Estimated Premium
POLLUTION (\$50,000 Each Event Deductible) ENVIRONMENTAL SITE LIABILITY (3 Year Term*) Liability Limit Each Incident Aggregate Limit	\$5,000,000	\$50,000*
Rogers Insurance Group Zurich – Steadfast Insurance Company Policy No. EPC 9485417 02 May 16, 2017 to May 16, 2020	5,000,000	
HULL (\$5,000 Deductible) and PROTECTION & INDEMNITY (\$5,000/ \$10,000 Deductible) * Total Insured Value ** Combined Single Limit Hull-M/V ALCOSAN Hull-Barge-ACSA Hull-Deck Barge with Crane Hull-Aluminum Jon Boat & Trailer with Motor & Accessories P&I on each vessel above W. N. Tuscano Agency, Inc. AGCS Marine Insurance Company Policy No. OHL 92011034	\$2,434,082* 1,000,000** 133,000 105,000 160,000 18,667	\$61,120
May 16, 2017 to May 16, 2018 GROUP TRAVEL (3-Year Term)* Hartford Life Insurance Co. Policy No. ETB-200335 November 9, 2016 to November 9, 2019 Renews November 9, 2017 to November 9, 2020	\$2,500,000	\$2,700*
WORKERS' COMPENSATION Bodily Injury Each Accident Disease Policy Limit Disease per Employee Seubert & Associates HARIE (Housing and Redevelopment Insurance Exchange) Policy No. HWC40756161217 May 16, 2017 to May 16, 2018	\$1,000,000 1,000,000 1,000,000	\$784,094

Table 5
Schedule of Insurance Policies (Continued)

Туре	Amount	Estimated Premium
ARCHITECTS AND ENGINEERS		\$18,342
PROFESSIONAL LIABILILITY		
Each Wrongful Act	\$1,000,000	
Aggregate	\$1,000,000	
Rogers Insurance Group		
Lloyds of London		
Policy No.10424L170052		
May 16, 2017 to May 16, 2018		

SCHEDULE I ADMINISTRATION AND ENGINEERING

Schedule I.1
Administration and Engineering

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
110	EXECUTIVE ADMINISTRATION				
	Salaries and Wages				
6011	Management Salary	354,100	171,203	261,800	331,700
6300	Vehicle Maintenance Labor	0	616	900	1,900
	Total Salaries and Wages	354,100	171,819	262,700	333,600
	Other Expenditures				
1560	Prepaid Insurance	990,000	917,240	950,000	1,009,000
6425	Training and Seminars	3,500	0	0	0
6711	Postage	100	0	0	0
6716	Telephone	61,700	34,677	52,000	53,600
6725	Other Communication	2,400	1,830	2,700	2,800
6811	Travel & Expense	5,500	211	300	300
7304	Computer Paper	0	232	300	300
7307	Copier Paper	300	412	600	600
7310	Advertising	1,000	470	700	700
7316	Board of Directors Expenses	10,000	572	900	900
7391	Miscellaneous Office Supplies and Materials	22,600	9,047	13,600	14,000
7420	Equipment Repairs and Maintenance	17,700	9,630	14,400	14,800
7429	Registration Fees/Conferences	7,000	0	0	0
7441	Professional Association Fees	60,000	9,650	14,500	14,900
7457	Special Projects	2,500,000	697,634	2,500,000	2,575,000
7511	Gas and Oil-Vehicles and Equipment	400	396	600	600
7531	Maintenance/Repair-Vehicle and Equipment	2,100	456	700	700
7711	EDP Hardware	10,000	0	4,000	4,000
	Total Other Expenditures	3,694,300	1,682,457	3,555,300	3,692,200
	Total Executive Administration	\$4,048,400	\$1,854,276	\$3,818,000	\$4,025,800

Schedule I.2
Administration and Engineering

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
115	PUBLIC RELATIONS				
	Salaries and Wages				
6011	Management Salary	\$654,600	\$253,632	\$387,900	\$615,700
6100	Union Wages-Except Plant Maintenance	158,300	104,205	160,700	164,400
	Total Salaries and Wages	812,900	357,837	548,600	780,100
	Other Expenditures				
6425	Training and Seminars	2,500	0	200	2,500
6725	Other Communication	60,000	19,385	40,000	75,000
6811	Travel and Expense	15,000	1,888	3,500	10,000
7307	Copier Paper	500	109	200	300
7310	Advertising	1,830,000	9,705	1,200,000	1,830,000
7313	Publications	3,400	650	2,000	2,000
7319	Promotional Materials	25,000	8,996	20,000	40,000
7323	Open House Expenses	175,000	18,132	175,000	175,000
7391	Miscellaneous Office Supplies and Materials	35,000	11,248	20,000	40,000
7423	Equipment Rental	500	0	0	500
7429	Registration Fees/Conferences	7,000	2,450	6,500	7,000
7438	Printing Charges (Forms, Copies)	40,000	5,557	15,000	75,000
7441	Professional Association Fees	1,000	600	1,000	2,000
7457	Special Projects	1,135,500	640,144	1,600,000	1,750,000
7511	Gas and Oil-Vehicles and Equipment	1,500	82	300	1,000
7531	Maintenance/Repair-Vehicle and Equipment	1,000	181	300	1,000
7711	EDP Hardware	20,000	3,458	7,000	10,000
7721	EDP Software	7,500	3,290	5,000	7,500
	Total Other Expenditures	3,360,400	725,875	3,096,000	4,028,800
	Total Public Relations	\$4,173,300	\$1,083,712	\$3,644,600	\$4,808,900

Schedule I.3
Administration and Engineering

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
116	MUNICIPAL OUTREACH				
	Salaries and Wages				
6011	Management Salary	\$194,000	\$89,945	\$137,600	\$204,100
	Total Salaries and Wages	194,000	89,945	137,600	204,100
	Other Expenditures				
6425	Training and Seminars	5,000	0	1,000	5,000
6725	Other Communication	5,500	806	2,000	5,500
6811	Travel and Expense	4,000	839	2,000	4,000
7307	Copier Paper	4,000	0	1,500	4,000
7391	Miscellaneous Office Supplies and Materials	10,000	3,484	8,000	12,000
7423	Equipment Rental	1,000	0	0	1,000
7429	Registration Fees/Conferences	3,600	195	1,500	4,000
7438	Printing Charges (Forms, Copies)	1,200	0	1,100	4,000
7441	Professional Association Fees	700	55	100	800
7457	Special Projects	90,000	67,900	115,000	50,000
7511	Gas and Oil-Vehicles and Equipment	1,200	151	300	1,200
7531	Maintenance/Repair-Vehicle and Equipment EDP Hardware	1,000	183	300	1,000
7711 7721	EDP Hardware EDP Software	3,500	0	0	3,500
7751	Software Support Services	5,000 200	0	0	5,000 125,000
1131	Software Support Services				123,000
	Total Other Expenditures	135,900	73,613	132,800	226,000
	Total Municipal Outreach	\$329,900	\$163,558	\$270,400	\$430,100

Schedule I.4
Administration and Engineering

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
117	SCHOLASTIC OUTREACH				
	Salaries and Wages				
6011	Management Salary	\$311,100	\$250,339	\$382,900	\$543,500
6100	Union Wages-Except Plant Maintenance	707,700	289,452	446,300	769,500
	Total Salaries and Wages	1,018,800	539,791	829,200	1,313,000
	Other Expenditures				
6425	Training and Seminars	500	0	0	1,000
6711	Postage	100	0	0	100
6725	Other Communication	6,500	5,297	8,000	10,000
6811	Travel and Expense	2,000	149	300	2,000
7307	Copier Paper	1,000	266	400	1,500
7310	Advertising	5,000	0	0	5,000
7313	Publications	200	100	200	500
7319	Promotional Materials	5,000	0	0	5,000
7323	Open House Expenses	5,000	217	700	5,000
7391	Miscellaneous Office Supplies and Materials	15,000	10,369	15,600	15,000
7423	Equipment Rental	3,000	1,680	1,700	2,000
7429	Registration Fees/Conferences	1,500	0	0	2,000
7438	Printing Charges (Forms, Copies)	3,000	2,702	4,100	5,000
7441	Professional Association Fees	1,000	635	1,000	1,000
7457	Special Projects	80,000	16,097	43,800	80,000
7511	Gas and Oil-Vehicles and Equipment	1,500	681	1,000	1,500
7531	Maintenance/Repair-Vehicle and Equipment	1,500	439	700	1,500
7711	EDP Hardware	10,000	4,248	6,400	10,000
7721	EDP Software	5,000	0	0	5,000
	Total Other Expenditures	146,800	42,880	83,900	153,100
	Total Scholastic Outreach	\$1,165,600	\$582,671	\$913,100	\$1,466,100

Schedule I.5
Administration and Engineering

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
120	HUMAN RESOURCES				
	Salaries and Wages				
6011	Management Salary	\$433,600	\$290,175	\$443,800	\$459,800
	Total Salaries and Wages	433,600	290,175	443,800	459,800
	Other Expenditures				
6811	Travel and Expense	1,000	215	400	1,000
7307	Copier Paper	500	435	700	700
7310	Advertising	8,000	12,941	19,400	20,000
7313	Publications	12,100	0	5,000	11,500
7391	Miscellaneous Office Supplies and Materials	15,000	7,289	11,000	15,000
7420	Equipment Repairs and Maintenance	800	352	600	800
7429	Registration Fees/Conferences	5,500	870	1,300	5,500
7438	Printing Charges (Forms, Copies)	8,500	568	900	8,500
7441	Professional Association Fees	1,000	199	300	700
7457	Special Projects	54,000	27,356	41,100	4,000
7711	EDP Hardware	5,000	2,149	3,300	5,000
7751	Software Support Services	0	0	10,000	55,000
	Total Other Expenditures	111,400	52,374	94,000	127,700
	Total Human Resources	\$545,000	\$342,549	\$537,800	\$587,500

Schedule I.6
Administration and Engineering

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
122	TRAINING ADMINISTRATION				
	Salaries and Wages				
6011	Management Salary	\$151,200	\$56,249	\$86,000	\$153,900
	Total Salaries and Wages	151,200	56,249	86,000	153,900
	Other Expenditures				
6425	Training and Seminars	20,000	5,859	13,000	65,500
6811	Travel and Expense	2,000	0	0	2,000
7391	Miscellaneous Office Supplies and Materials	1,000	8	800	1,000
7429	Registration Fees/Conferences	3,200	0	1,500	3,200
7438	Printing Charges (Forms, Copies)	7,000	370	3,500	4,000
7441	Professional Association Fees	600	229	300	600
7457	Special Projects	20,000	0	0	10,000
7721	EDP Software	5,200	0	2,500	5,200
7751	Software Support Services	5,600	0	2,500	5,600
	Total Other Expenditures	64,600	6,466	24,100	97,100
	Total Training Administration	\$215,800	\$62,715	\$110,100	\$251,000

Schedule I.7
Administration and Engineering

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
130	ACCOUNTING/FINANCE				
	Salaries and Wages				
6011 6100	Management Salary Union Wages-Except Plant Maintenance	\$443,700 273,700	\$247,643 167,974	\$378,700 259,000	\$457,400 258,400
	Total Salaries and Wages	717,400	415,617	637,700	715,800
	Other Expenditures				
6425	Training and Seminars	2,000	1,436	2,200	2,200
6811	Travel and Expense	4,000	432	600	4,000
7304	Computer Paper	1,800	1,721	2,600	2,800
7304	Copier Paper	300	0	0	300
7310	Advertising	400	243	400	400
7313	Publications	3,900	3,800	5,700	5,700
7391	Miscellaneous Office Supplies and Materials	35,000	21,399	35,000	42,500
7420	Equipment Repairs and Maintenance	500	3,027	4,500	5,000
7429	Registration Fes/Conferences	1,000	0	0	1,000
7438	Printing Charges (Forms, Copies)	3,600	1,541	2,300	6,600
7441	Professional Association Fees	2,500	1,680	2,500	3,100
7457	Special Projects	10,000	0	0	0
7511	Gas and Oil-Vehicle and Equipment	1,500	460	700	1,200
7531	Maintenance/Repair-Vehicle and Equipment	500	671	1,000	1,000
7711	EDP Hardware	4,200	0	0	2,000
7721	EDP Software	700	0	0	700
	Total Other Expenditures	71,900	36,410	57,500	78,500
	Total Accounting/Finance	\$789,300	\$452,027	\$695,200	\$794,300

Schedule I.8
Administration and Engineering

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
140	PURCHASING				
	Salaries and Wages				
6011	Management Salary	\$220,400	\$144,319	\$220,700	\$227,000
6100	Union Wages-Except Plant Maintenance	201,300	124,782	192,400	212,400
	Total Salaries and Wages	421,700	269,101	413,100	439,400
	Other Expenditures				
6425	Training and Seminars	2,000	0	300	2,000
6711	Postage	50,000	19,519	40,000	50,000
6725	Other Communication	200	0	0	300
6811	Travel and Expense	1,000	13	100	1,000
7307	Copier Paper	500	243	400	500
7310	Advertising	100	250	400	100
7321	MBE/WBE Administration Expense	8,000	2,344	5,000	8,000
7391	Miscellaneous Office Supplies and Materials	24,000	7,545	16,000	20,000
7420	Equipment Repairs and Maintenance	4,000	1,156	2,500	4,000
7423	Equipment Rental	500	0	0	500
7432	Freight Charges	1,500	0	0	1,500
7441	Professional Association Fees	500	215	400	500
7511	Gas and Oil-Vehicles and Equipment	1,000	377	400	1,000
7531	Maintenance/Repair-Vehicles and Equipment	3,000	477	1,600	4,000
7711	EDP Hardware	5,000	1,448	3,000	6,000
7721	EDP Software	500	0	0	1,000
	Total Other Expenditures	101,800	33,587	70,100	100,400
	Total Purchasing	\$523,500	\$302,688	\$483,200	\$539,800

Schedule I.9
Administration and Engineering

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
405	ENGINEERING ADMINISTRATION				
	Salaries and Wages				
6011 6100 6300	Management Salary Union Wages-Except Plant Maintenance Vehicle Labor Maintenance	\$134,500 199,600 1,200	\$136,858 68,644 539	\$209,300 105,800 800	\$141,500 208,100 1,600
	Total Salaries and Wages	335,300	206,041	315,900	351,200
	Other Expenditures				
6425	Training and Seminars	2,000	571	600	2,000
6725	Other Communication	1,900	2,685	4,000	3,200
6811	Travel and Expense	2,000	778	1,200	2,000
7307	Copier Paper	500	533	800	800
7310	Advertising	6,000	2,641	4,000	5,000
7313	Publications	100	0	0	100
7391	Miscellaneous Office Supplies and Materials	21,000	37,652	44,000	39,000
7420	Equipment Repairs and Maintenance	6,000	7,105	10,700	10,000
7429	Registration Fees/Conferences	1,500	86	100	1,500
7432	Freight Charges	500	0	0	0
7438	Printing Charges (Forms, Copies)	500	378	600	600
7441	Professional Association Fees	300	50	100	0
7511	Gas and Oil-Vehicles and Equipment	1,000	380	600	600
7531	Maintenance/Repair-Vehicles and Equipment	600	152	200	300
7711	EDP Hardware	2,500	0	0	2,500
7721	EDP Software	500	0	0	500
7751	Software Support Services	6,200	8,013	8,100	4,500
	Total Other Expenditures	53,100	61,024	75,000	72,600
	Total Engineering Administration	\$388,400	\$267,065	\$390,900	\$423,800

Schedule I.10
Administration and Engineering

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
410	OR/CD ADMINISTRATION				
	Salaries and Wages				
6011 6,300	Management Salary Vehicle Maintenance Labor Total Salaries and Wages	\$97,600 0 97,600	\$54,203 1,126 55,329	\$82,900 1,700 84,600	\$48,700 0 48,700
	Other Expenditures				
7307 7391 7420 7457 7531	Copier Paper Miscellaneous Office Supplies and Materials Equipment Repairs and Maintenance Special Projects (Consulting Contractor) Maintenance/Repair-Vehicles and Equipment	100 1,000 1,000 90,000	0 127 0 35,289	100 200 200 65,000 500	0 500 500 85,000 0
	Total Other Expenditures	92,100	35,416	66,000	86,000
	Total OR/CD Administration	\$189,700	\$90,745	\$150,600	\$134,700

Schedule I.11
Administration and Engineering

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
420	CAPITAL PROJECTS				
	Salaries and Wages				
6011	Management Salary	\$354,800	\$172,872	\$264,400	\$385,000
6100	Union Wages-Except Plant Maintenance	219,300	143,720	221,600	224,300
	Total Salaries and Wages	574,100	316,592	486,000	609,300
	Other Expenditures				
6425	Training and Seminars	4,000	1,669	2,500	4,000
6725	Other Communications	800	0	0	800
6811	Travel and Expense	3,200	325	1,500	3,200
7391	Miscellaneous Office Supplies and Materials	1,200	844	1,200	1,200
7420	Equipment Repairs and Maintenance	500	0	500	500
7429	Registration Fees/Conferences	3,000	0	1,500	3,000
7432	Freight Charges	100	0	100	100
7438	Printing Charges (Forms, Copies)	0	508	600	0
7441	Professional Association Fees	2,400	195	1,500	2,400
7511	Gas and Oil-Vehicles and Equipment	600	1,699	2,000	600
7531	Maintenance/Repair-Vehicles and Equipment	1,000	177	300	1,000
7711	EDP Hardware	6,500	2,239	5,500	10,000
7721	EDP Software	1,000	0	0	1,000
	Total Other Expenditures	24,300	7,656	17,200	27,800
	Total Capital Projects	\$598,400	\$324,248	\$503,200	\$637,100

Schedule I.12
Administration and Engineering

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
430	CONTRACT ADMINISTRATION				
	Salaries and Wages				
6011	Management Salary	\$311,500	\$205,091	\$313,700	\$371,900
	Total Salaries and Wages	311,500	205,091	313,700	371,900
	Other Expenditures				
6425	Training amd Seminars	5,500	1,424	2,000	5,500
6725	Other Communication	1,500	495	1,000	1,500
6811	Travel and Expense	10,000	725	3,500	7,100
7307	Copier Paper	600	248	400	600
7310	Advertising	800	0	0	0
7191	Miscellaneous Office Supplies and Materials	15,000	2,112	3,200	6,500
7420	Equipment Repairs and Maintenance	1,000	211	400	1,000
7429	Registration Fees/Conferences	2,000	1,738	2,000	2,500
7438	Printing Charges (Forms, Copies)	800	35	100	200
7441	Professional Association Fees	600	0	300	600
7711	EDP Hardware	3,500	2,242	3,300	2,500
	Total Other Expenditures	41,300	9,230	16,200	28,000
	Total Contract Administration	\$352,800	\$214,321	\$329,900	\$399,900

Schedule I.13
Administration and Engineering

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
440	CSO PROGRAM MANAGEMENT				
	Salaries and Wages				
6011	Management Salary	\$311,400	\$246,238	\$376,600	\$321,800
6100	Union Wages-Except Plant Maintenance	306,600	225,996	348,400	399,800
	Total Salaries and Wages	618,000	472,234	725,000	721,600
	Other Expenditures				
6425	Training and Seminars	2,000	1,135	2,300	2,000
6811	Travel and Expense	5,300	131	2,000	4,900
7191	Miscellaneous Maint. Supplies and Materials	44,700	10,242	25,000	63,200
7313	Publications	1,000	0	1,000	1,000
7391	Miscellaneous Office Supplies and Materials	5,000	6,349	8,000	5,000
7429	Registration Fees/Conferences	5,900	518	2,000	6,700
7438	Printing Charges (Forms, Copies)	0	264	300	500
7441	Professional Association Fees	1,000	275	600	800
7511	Gas and Oil-Vehicles and Equipment	5,000	2,163	3,300	5,000
7531	Maintenance/Repair-Vehicles and Equipment	5,000	352	2,000	5,000
7711	EDP Hardware	13,800	1,422	10,000	8,700
7,721	EDP Software	6,000	0	0	0
	Total Other Expenditures	94,700	22,851	56,500	102,800
	Total CSO Program Management	\$712,700	\$495,085	\$781,500	\$824,400

Schedule I.14
Administration and Engineering

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
540	ECM/ENVIRONMENTAL REPORTING				
	Salaries and Wages				
6011	Management Salary	\$110,200	\$73,814	\$112,900	\$196,100
	Total Salaries and Wages	110,200	73,814	112,900	196,100
	Other Expenditures				
6425	Training and Seminars	3,000	2,750	4,100	10,000
6725	Other Communication	1,100	0	1,100	1,100
6811	Travel and Expense	5,000	0	3,100	10,000
7391	Miscellaneous Office Supplies and Materials	1,000	301	500	1,000
7429	Registration Fees/Conferences	3,000	1,890	2,800	3,000
7441	Professional Association Fees	500	0	0	1,000
7711	EDP Hardware	3,000	122	200	6,000
7721	EDP Software	1,500	0	0	1,000
	Total Other Expenditures	18,100	5,063	11,800	33,100
	Total ECM/Environmental Reporting	\$128,300	\$78,877	\$124,700	\$229,200

SCHEDULE II MANAGEMENT INFORMATION SYSTEMS

Schedule II Management Information Systems

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
200	MANAGEMENT INFORMATION SYSTEMS				
	Salaries and Wages				
6011	Management Salary	\$165,600	\$131,052	\$200,400	\$311,400
6100	Union Wages-Except Plant Maintenance	1,548,300	1,032,025	1,591,100	1,556,200
	Total Salaries and Wages	1,713,900	1,163,077	1,791,500	1,867,600
	Other Expenditures				
6425	Training and Seminars	12,000	1,655	8,700	18,000
6811	Travel and Expense	200	48	200	200
6921	Electricity	6,300	3,361	5,900	6,300
7307	Copier Paper	1,700	0	100	1,700
7313	Publications	300	52	200	300
7391	Miscellaneous Office Supplies and Materials	11,500	17,872	20,400	20,000
7420	Equipment Repairs and Maintenance	8,000	7,572	10,900	22,400
7423	Equipment Rental	100	0	0	100
7429	Registration Fees/Conferences	300	72	100	300
7432	Freight Charges	100	0	100	100
7438	Printing Charges (Forms, Copies)	100	0	100	100
7441	Professional Association Fees	500	175	500	500
7511	Gas and Oil-Vehicles and Equipment	300	79	200	300
7531	Maintenance/Repair-Vehicles and Equipment	300	471	600	700
7711	EDP Hardware	42,100	43,754	56,800	70,000
7721	EDP Software	21,000	5,369	17,400	30,000
7731	EDP Maintenance Service	71,000	86,838	168,700	463,600
7751	Software Supportive Service	907,900	382,626	703,900	735,900
	Total Other Expenditures	1,083,700	549,944	994,800	1,370,500
	Total Management Information Systems	\$2,797,600	\$1,713,021	\$2,786,300	\$3,238,100

SCHEDULE III CUSTOMER SERVICE AND BILLING

Schedule III Customer Service and Billing

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
300	CUSTOMER SERVICE AND BILLING				
	Salaries and Wages				
6011	Management Salary	\$230,500	\$152,109	\$232,600	\$239,200
6100	Union Wages-Except Plant Maintenance	1,178,600	703,349	1,084,400	1,185,900
6300	Vehicle Maintenance Labor	0	0	0	0
	Total Salaries and Wages	1,409,100	855,458	1,317,000	1,425,100
	Other Expenditures				
6425	Training and Seminars	2,500	0	300	2,500
6711	Postage	6,000	3,407	5,800	6,000
6725	Other Communication	1,500	1,162	1,800	1,500
6811	Travel and Expense	100	30	100	100
6921	Electricity	50,000	22,724	37,000	50,000
6931	Natural Gas	15,000	10,400	15,000	15,000
6941	Water	5,000	2,011	3,500	5,000
7307	Copier Paper	3,000	1,203	1,900	3,000
7313	Publications	1,000	0	400	1,000
7391	Miscellaneous Office Supplies and Materials	6,000	2,935	4,500	6,000
7420	Equipment Repairs and Materials	4,000	5,523	8,500	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	115,211	190,000	195,000
7465	Service Charge-Collection	12,000	0	12,000	12,000
7468	Refunds to Municipalities/Bulk	860,000	861,208	861,300	910,000
7470	Customer Assistance Program	800,000	939,000	939,000	1,000,000
7511	Gas and Oil-Vehicles and Equipment	3,000	279	500	3,000
7531	Maintenance/Repair-Vehicles and Equipment	3,000	428	700	3,000
7711	EDP Hardware	24,000	0	1,000	24,000
	Total Other Expenditures	1,995,700	1,965,521	2,084,500	2,251,700
	Total Customer Service and Billing	\$3,404,800	\$2,820,979	\$3,401,500	\$3,676,800

SCHEDULE IV ENVIRONMENTAL COMPLIANCE

Schedule IV.1 Environmental Compliance

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
505	ENVIRONMENTAL COMPLIANCE				
	Salaries and Wages				
6011	Management Salary	\$310,200	\$233,091	\$356,500	\$329,900
	Total Salaries and Wages	310,200	233,091	356,500	329,900
	Other Expenditures				
6425	Training and Seminars	0	463	700	1,000
6811	Travel and Expense	2,000	103	500	1,000
7313	Publications	3,000	357	1,000	2,000
7391	Miscellaneous Office Supplies and Materials	7,000	8,151	10,000	7,000
7420	Equipment Repairs and Maintenance	500	31	200	500
7429	Registration Fees/Conferences	2,000	726	1,000	1,000
7438	Printing Charges (Forms, Copies)	500	0	100	500
7441	Professional Association Fees	1,000	896	1,000	1,000
7442	Hazardous Materials Disposal	30,000	11,796	23,000	30,000
7457	Special Projects	5,000	7,600	10,000	10,000
7471	Permits and Equipment Registration	40,000	28,713	30,000	40,000
7511	Gas and Oil-Vehicles and Equipment	500	267	500	500
7531	Maintenance/Repair-Vehicles and Equipment	500	181	500	500
7711	EDP Hardware	2,000	0	0	2,000
	Total Other Expenditures	94,000	59,284	78,500	97,000
	Total Environmental Compliance	\$404,200	\$292,375	\$435,000	\$426,900

Schedule IV.2 Environmental Compliance

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
510	LABORATORY				
	Salaries and Wages				
6011 6100 6300	Management Salary Union Wages-Except Plant Maintenance Vehicle Maintenance Labor Total Salaries and Wages	\$253,200 1,112,900 1,700 1,367,800	\$158,957 664,323 308 823,588	\$243,100 1,024,200 500 1,267,800	\$250,400 1,141,700 900 1,393,000
	Other Expenditures				
6425 7251 7291 7307 7313 7391 7420 7435 7441 7444 7511 7531 7711	Training and Seminars Pretreatment Supplies and Expenses Miscellaneous Lab Supplies and Glass Copier Paper Publications Miscellaneous Office Supplies and Materials Equipment Repairs and Maintenance Demurrage Charges Professional Association Fees Outside Laboratory Services Gas and Oil-Vehicle and Equipment Maintenance/Repair-Vehicles and Equipment EDP Hardware	10,000 500 150,000 1,200 0 6,000 45,000 34,000 400 260,000 600 3,000 10,500	5,400 208 94,802 563 130 9,487 39,861 24,893 0 82,953 194 152	10,000 300 142,200 800 200 14,200 59,800 37,300 0 124,400 300 200 16,800	25,000 200 165,000 1,500 1,000 12,000 70,000 45,000 0 260,000 1,000 3,000 15,000
7900	Laboratory Chemicals Total Other Expenditures	150,000 671,200	63,799 333,621	95,700 502,200	150,000 748,700
	Total Laboratory	\$2,039,000	\$1,157,209	\$1,770,000	\$2,141,700

Schedule IV.3 Environmental Compliance

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
520	INDUSTRIAL WASTE				
	Salaries and Wages				
6011	Management Salary	\$245,200	\$102,062	\$156,100	\$249,600
6100	Union Wages-Except Plant Maintenance	1,205,900	587,816	906,300	1,198,100
6300	Vehicle Maintenance Labor	4,500	1,095	1,700	3,300
	Total Salaries and Wages	1,455,600	690,973	1,064,100	1,451,000
	Other Expenditures				
6425	Training and Seminars	8,300	2,574	3,900	3,000
6725	Other Communication	9,500	4,764	7,300	7,700
6811	Travel and Expense	1,000	1,231	1,800	2,000
7251	Pretreatment Supplies and Expenses	33,000	23,207	34,900	33,900
7255	Pollution Prevention Program Expense	1,000	0	1,000	1,000
7307	Copier Paper	500	514	800	800
7391	Miscellaneous Office Supplies and Materials	4,800	5,590	8,400	7,200
7420	Equipment Repairs and Maintenance	500	113	200	200
7429	Registration Fees/Conferences	200	100	300	300
7438	Prining Charges (Forms, Copies)	0	48	100	1,100
7441	Professional Association Fees	100	20	100	100
7457	Special Projects	200,100	0	0	200,100
7511	Gas and Oil-Vehicles and Equipment	6,300	4,248	6,400	6,400
7531	Maintenance/Repair-Vehicles and Equipment	11,300	6,599	9,900	9,900
7711	EDP Hardware	6,000	4,296	8,300	11,000
7721	EDP Software	122,000	21,400	68,700	58,200
	Total Other Expenditures	404,600	74,704	152,100	342,900
	Total Industrial Waste	\$1,860,200	\$765,677	\$1,216,200	\$1,793,900

Schedule IV.4 Environmental Compliance

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 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	\$126,600 41,500 4,300 172,400	\$79,123 12,344 0 91,467	\$121,000 18,900 0 139,900	\$124,700 35,000 0 159,700
	Other Expenditures				
6425 6811 7313 7391 7429 7438 7441 7444 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 3,000 500 1,500 2,000 1,000 1,500 5,000 25,000 1,000 2,000 2,500 47,000	60 21 658 838 0 257 450 0 6,383 36 201 0	500 500 800 1,300 500 500 1,500 4,000 9,000 300 500 0	2,000 3,000 1,000 2,000 2,000 2,000 2,500 5,000 25,000 1,000 500
	Total Other Expenditures	\$219,400	\$100,371	\$159,300	\$205,700

SCHEDULE V INTERCEPTOR SYSTEM

Schedule V.1
Interceptor System

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
605	REGIONAL CONVEYANCE ADMINISTRATION				
	Salaries and Wages				
6011	Management Salary	\$451,300	\$194,330	\$297,200	\$562,700
6200	Outside Maintenance Labor	0	371	600	0
	Total Salaries and Wages	451,300	194,701	297,800	562,700
	Other Expenditures				
6425	Training and Seminars	1,400	5,101	7,700	8,000
6725	Other Communcation	22,000	13,227	20,000	22,000
6811	Travel and Expense	8,500	1,647	5,000	10,000
7313	Publications	2,400	74	100	200
7391	Miscellaneous Office Supplies and Materials	55,000	16,561	25,000	30,000
7429	Registration Fees/Conferences	3,500	1,419	3,000	5,000
7438	Printing Charges (Forms, Copies)	700	126	200	300
7441	Professional Association Fees	500	630	900	500
7457	Special Projects	400	40	100	200
7511	Gas and Oil-Vehicles and Equipment	2,500	62	100	200
7531	Maintenance/Repair-Vehicles & Equipment	1,500	1,136	1,700	1,700
7711	EDP Hardware	4,000	12,586	18,900	10,000
7721	EDP Software	0	1,155	1,700	15,000
	Total Other Expenditures	102,400	53,764	84,400	103,100
	Total Regional Conveyance Administration	\$553,700	\$248,465	\$382,200	\$665,800

Schedule V.2 Interceptor System

Acct.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
610	GENERAL-UPPER ALLEGHENY SYSTEM				
	Salaries and Wages				
6200	Outside Maintenance Labor	\$125,100	\$65,208	\$100,500	\$122,200
6250	Inside Maintenance Labor	4,600	0	0	4,500
6300	Vehicle Maintenance Labor	13,800	14,381	22,200	43,800
	Total Salaries and Wages	143,500	79,589	122,700	170,500
	Other Expenditures				
7106	Expendable Parts and Tools	2,000	92	500	2,000
7110	Intrumentation Repair & Maintenance	200	0	0	200
7191	Miscellaneous Maintenance Supplies & Expenses	500	0	200	500
7420	Equipment Repairs aand Maintenance	1,000	0	0	1,000
	Total Other Expenditures	3,700	92	700	3,700
	Total General-Upper Allegheny System	\$147,200	\$79,681	\$123,400	\$174,200

Schedule V.3 Interceptor System

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
620	VERONA PUMP STATION				
	Salaries and Wages				
6200	Outside Maintenance Labor	\$70,900	\$30,213	\$46,600	\$56,700
6250	Inside Maintenance Labor	2,600	0	0	2,100
	Total Salaries and Wages	73,500	30,213	46,600	58,800
	Other Expenditures				
6921	Electricity	12,000	9,388	13,300	14,000
6941	Water	3,000	1,472	2,200	3,000
7106	Expendable Parts and Tools	10,000	179	10,000	5,000
7110	Instrumentation Repair/Maintenance	10,000	1,389	2,000	10,000
7191	Miscellaneous Maintenance Supplies and Expenses	3,000	435	2,000	3,000
7511	Gas and Oil-Vehicles and Equipment	0	0	3,000	500
	Total Other Expenditures	38,000	12,863	32,500	35,500
	Total Verona Pump Station	\$111,500	\$43,076	\$79,100	\$94,300

Schedule V.4
Interceptor System

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
630	SQUAW RUN PUMP STATION				
	Salaries and Wages				
6200	Outside Maintenance Labor	\$54,200	\$34,637	\$53,400	\$65,000
6250	Inside Maintenance Labor	2,000	0	0	2,400
	Total Salaries and Wages	56,200	34,637	53,400	67,400
	Other Expenditures				
6921	Electricity	13,000	8,041	17,000	17,000
6941	Water	5,000	4,882	6,000	5,000
7106	Expendable Parts and Tools	10,000	728	5,000	10,000
7110	Instrumentation Repair/Maintenance	10,000	1,719	3,000	10,000
7191	Miscellaneous Maintenance Supplies and Expenses	4,000	4,042	5,000	5,000
7511	Gas and Oil-Vehicles and Equipment	500	0	500	600
	Total Other Expenditures	42,500	19,412	36,500	47,600
	Total Squaw Run Pump Station	\$98,700	\$54,049	\$89,900	\$115,000

Schedule V.5 Interceptor System

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
640	MONTROSE EJECTOR STATION				
	Salaries and Wages				
6200	Outside Maintenance Labor	\$38,200	\$21,726	\$33,500	\$40,800
6250	Inside Maintenance Labor	1,400	0	0	1,500
	Total Salaries and Wages	39,600	21,726	33,500	42,300
	Other Expenditures				
6921	Electricity	8,000	3,760	7,000	8,000
7106	Expendable Parts and Tools	10,000	0	5,000	10,000
7110	Instrumentation Repair/Maintenance	10,000	3,479	6,000	10,000
7191	Miscellaneous Maintenance Supplies and Expenses	2,000	2	500	2,000
7420	Equipment Repairs and Maintenance	5,000	0	3,000	5,000
7511	Gas and Oil-Vehicles and Equipment	400	0	200	400
	Total Other Expenditures	35,400	7,241	21,700	35,400
	Total Montrose Ejector Station	\$75,000	\$28,967	\$55,200	\$77,700

Schedule V.6
Interceptor System

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
650	SAW MILL RUN				
	Salaries and Wages				
6200	Outside Maintenance Labor	\$57,400	\$57,626	\$88,800	\$108,000
6250	Inside Maintenance Labor	2,200	0	0	4,000
6300	Vehicle Maintenance Labor	0	231	400	700
	Total Salaries and Wages	59,600	57,857	89,200	112,700
	Other Expenditures				
7106	Expendable Parts and Tools	3,000	0	1,000	3,000
7191	Miscellaneous Maintenance Supplies and Expenses	500	332	500	500
7473	Interceptor Cleaning and Inspection	1,000	0	0	0
7531	Maintenance/Repair-Vehicles and Equipment	1,000	19	500	1,000
	Total Other Expenditures	5,500	351	2,000	4,500
	Total Saw Mill Run	\$65,100	\$58,208	\$91,200	\$117,200

Schedule V.7 Interceptor System

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
660	REGIONALIZED FACILITIES				
	Salaries and Wages				
6200	Outside Maintenance Labor	0	0	0	0
	Total Salaries and Wages	0	0	0	0
	Other Expenditures				
7191	Miscellaneous Maintenance Supplies and Expenses	0	26	100	10,000
7420	Equipment Repairs and Maintenance	424,000	0	150,000	450,000
	Total Other Expenditures	424,000	26	150,100	460,000
	Total Regionalized Facilities	\$424,000	\$26	\$150,100	\$460,000

Schedule V.8 Interceptor System

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
690	GENERAL-EXCEPT UPPER ALLEGHENY				
	Salaries and Wages				
6200	Outside Maintenance Labor	\$3,574,700	\$1,906,935	\$2,940,000	\$3,573,200
6250	Inside Maintenance Labor	131,100	0	0	129,900
6300	Vehicle Maintenance Labor	108,400	13,919	21,500	42,400
	Total Salaries and Wages	3,814,200	1,920,854	2,961,500	3,745,500
	Other Expenditures				
6425	Training and Seminars	15,000	6,558	14,000	15,000
6921	Electricity	3,500	2,793	4,200	4,500
7106	Expendable Parts and Tools	60,000	16,018	50,000	60,000
7110	Instrumentation Repair and Maintenance	5,000	13	1,000	10,000
7191	Miscellaneous Maintenance Supplies and Expenses	40,000	38,256	60,000	60,000
7420	Equipment Repairs and Maintenance	40,000	4,400	16,000	30,000
7473	Interceptor Cleaning & Inspection	3,000,000	736	1,500,000	3,000,000
7475	Disaster Recovery Services	0	(1,715)	(1,800)	5,000
7511	Gas and Oil-Vehicles and Equipment	60,000	26,697	40,000	60,000
7521	Gas and Oil-Watercraft	20,000	1,882	5,000	20,000
7531	Maintenance/Repair-Vehicles and Equipment	130,000	105,855	150,000	130,000
7541	Maintenance/Repair-Watercraft	10,000	6,939	8,000	10,000
	Total Other Expenditures	3,383,500	208,432	1,846,400	3,404,500
	Total General-Except Upper Allegheny System	\$7,197,700	\$2,129,286	\$4,807,900	\$7,150,000

Schedule V.9
Interceptor System

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
691	CORLISS PUMP STATION				
	Salaries and Wages				
6200	Outside Maintenance Labor	\$44,100	\$21,696	\$33,500	\$40,700
6250	Inside Maintenance Labor	1,700	0	0	1,500
	Total Salaries and Wages	45,800	21,696	33,500	42,200
	Other Expenditures				
6921	Electricity	45,000	20,984	31,000	42,000
6941	Water	300	134	200	300
7106	Expendable Parts and Tools	15,000	983	2,000	15,000
7110	Instrumentation Repair/Maintenance	7,000	1,058	2,000	7,000
7191	Miscellaneous Maintenance Supplies and Expenses	4,000	1,491	2,500	4,000
7420	Equipment Repairs and Maintenance	10,000	0	5,000	10,000
	Total Other Expenditures	81,300	24,650	42,700	78,300
	Total Corliss Pump Station	\$127,100	\$46,346	\$76,200	\$120,500

Schedule V.10
Interceptor System

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
692	MELANCTHON EJECTOR STATION				
	Salaries and Wages				
6200	Outside Maintenance Labor	\$25,800	\$12,845	\$19,800	\$24,100
6250	Inside Maintenance Labor	1,000	0	0	900
	Total Salaries and Wages	26,800	12,845	19,800	25,000
	Other Expenditures				
6921	Electricity	6,000	3,990	6,000	6,000
6941	Water	300	195	300	300
7106	Expendable Parts and Tools	4,000	5,774	8,700	5,000
7110	Instrumentation Repair/Maintenance	2,000	0	0	2,000
7191	Miscellaneous Maintenance Supplies and Expenses	1,000	50	100	1,000
	Total Other Expenditures	13,300	10,009	15,100	14,300
	Total Melancthon Ejector Station	\$40,100	\$22,854	\$34,900	\$39,300

Schedule V.11 Interceptor System

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
694	ELLA STREET PUMP STATION				
	Salaries and Wages				
6200	Outside Maintenance Labor	\$43,700	\$22,930	\$35,400	\$43,000
6250	Inside Maintenance Labor	1,700	0	0	1,600
	Total Salaries and Wages	45,400	22,930	35,400	44,600
	Other Expenditures				
6921	Electricity	25,000	13,311	23,000	25,000
6931	Natural Gas	5,000	3,885	5,800	5,000
6941	Water	300	162	200	300
7106	Expendable Parts and Tools	5,000	6	1,000	5,000
7110	Instrumentation Repair/Maintenance	6,000	665	1,000	6,000
7191	Miscellaneous Maintenance Supplies and Expenses	3,000	3,271	4,900	3,000
7420	Equipment Repairs and Maintenance	5,000	0	0	5,000
7426	Building Rental	0	0	0	0
7511	Gas and Oil-Vehicle and Equipment	1,000	0	700	1,000
	Total Other Expenditures	50,300	21,300	36,600	50,300
	Total Ella Street Pump Station	\$95,700	\$44,230	\$72,000	\$94,900

Schedule V.12 Interceptor System

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
695	SANDY CREEK PUMP STATION				
	Salaries and Wages				
6200 6250	Outside Maintenance Labor Inside Maintenance Labor Total Salaries and Wages	\$57,700 2,200 59,900	\$29,161 0 29,161	\$45,000 0 45,000	\$54,700 2,000 56,700
	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	55,000 10,000 4,000 20,000 10,000 5,000 1,000	36,325 7,835 684 5,233 17,004 3,819 0	55,000 10,000 1,000 10,000 25,500 5,700 0	56,000 10,000 3,000 20,000 10,000 5,000 1,000
	Total Sandy Creek Pump Station	\$164,900	\$100,061	\$152,200	\$161,700

SCHEDULE VI PLANT OPERATIONS

Schedule VI.1 Plant Operations

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
125	SAFETY				
	Salaries and Wages				
6011	Management Salary	\$277,400	\$159,310	\$243,700	\$368,800
6100	Union Wages-Except Plant	904,700	454,214	700,300	953,200
	Total Salaries and Wages	1,182,100	613,524	944,000	1,322,000
	Other Expenditures				
6425	Training and Seminars	44,000	30,604	44,000	44,000
6517	Physical Examinations	6,000	2,661	4,000	6,000
6811	Travel and Expense	8,000	401	600	8,000
7011	Plant Security	34,000	17,860	30,000	34,000
7313	Publications	11,500	2,099	10,000	12,000
7391	Miscellaneous Office Supplies and Materials	20,000	15,277	22,900	20,000
7420	Equipment Repairs and Maintenance	8,500	5,839	10,000	9,000
7441	Professional Association Fees	2,000	588	2,000	2,000
7457	Special Projects	10,000	0	5,000	10,000
7511	Gas & Oil-Vehicle & Equipment	6,000	506	2,000	6,000
7531	Maintenance/Repair-Vehicles and Equipment	6,500	8,247	12,400	7,000
7711	EDP Hardware	6,000	0	0	6,000
7762	Prescription Safety Glass Program	5,000	4,237	6,400	6,000
7764	Safety Shoe Program	10,000	6,924	10,400	10,000
7766	Industrial Hygiene	5,000	4,523	6,800	5,000
7770	Safety Equipment	40,000	2,490	10,000	40,000
7776	Fire Extinguishing Inspection and Recharging	38,000	10,320	20,000	33,000
	Total Other Expenditures	260,500	112,576	196,500	258,000
	Total Safety	\$1,442,600	\$726,100	\$1,140,500	\$1,580,000

Schedule VI.2 Plant Operations

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
705	OPERATIONS AND MAINTENANCE ADMINISTRATION				
	Salaries and Wages				
6011	Management Salary	\$362,500	\$193,649	\$296,200	\$374,400
6300	Vehicle Maintenance Labor	6,800	0	0	0
	Total Salaries and Wages	369,300	193,649	296,200	374,400
	Other Expenditures				
6425	Training and Seminars	5,000	220	2,000	4,000
6725	Other Communications	15,000	7,685	12,000	15,000
6811	Travel and Expense	3,000	2,388	2,500	3,000
7391	Miscellaneous Office Supplies and Materials	10,000	9,850	15,000	15,000
7429	Registration Fees/Conferences	3,000	1,637	2,500	3,000
7441	Professional Association Fees	2,000	1,200	1,800	2,000
7511	Gas and Oil-Vehicles and Equipment	1,000	332	500	1,000
7531	Maintenance/Repair-Vehicles and Equipment	500	874	1,300	500
7711	EDP Hardware	5,000	0	1,000	1,000
	Total Other Expenditures	44,500	24,186	38,600	44,500
	Total Operations and Maintenance Administration	\$413,800	\$217,835	\$334,800	\$418,900

Schedule VI.3 Plant Operations

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
710	MAIN PUMP STATION				
	Salaries and Wages				
6100	Union Wages-Except Plant Maintenance	\$0	\$0	\$0	\$0
	Total Salaries and Wages	0	0	0	0
	Other Expenditures				
6921	Electricity	1,700,000	909,015	1,700,000	1,700,000
7091	Miscellaneous Operating Supplies and Materials	2,000	0	2,000	2,000
7420	Equipment Repairs and Maintenance	3,000	1,520	3,000	3,500
	Total Other Expenditures	1,705,000	910,535	1,705,000	1,705,500
	Total Main Pump Station	\$1,705,000	\$910,535	\$1,705,000	\$1,705,500

Schedule VI.4 Plant Operations

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 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				
6,921	Electricity	0	5,999	9,000	0
6941	Water	175,000	82,179	150,000	175,000
7091	Miscellaneous Operating Supplies and Materials	3,000	249	3,000	3,000
7821	Caustic Soda	23,000	12,436	20,000	21,000
7828	Sodium Hypochlorite	360,000	224,705	340,000	360,000
7845	Hydrochloric Acid	2,000	586	900	2,000
	Total Other Expenditures	563,000	326,154	522,900	561,000
	Total Rack and Grit	\$563,000	\$326,154	\$522,900	\$561,000

Schedule VI.5 Plant Operations

Acct.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
730	MOBILE EQUIPMENT FOR TREATMENT				
	Salaries and Wages				
6100	Union Wages-Except Plant Maintenance	\$330,700	\$239,299	\$368,900	\$362,300
6300	Vehicle Maintenance Labor	342,100	151,640	233,800	461,700
	Total Salaries and Wages	672,800	390,939	602,700	824,000
	Other Expenditures				
6921	Electricity	0	9,773	17,000	20,000
6931	Natural Gas	0	10,934	16,400	20,000
6941	Water	0	687	1,000	5,000
7511	Gas and Oil-Vehicles and Equipment	25,000	6,955	12,000	25,000
7512	Gas and Oil-Hauling Trucks	25,000	12,823	20,000	25,000
7531	Maintenance/Repairs-Vehicles and Equipment	50,000	33,769	60,000	60,000
7532	Maintenance/Repairs-Hauling Trucks	60,000	31,543	60,000	60,000
	Total Other Expenditures	160,000	106,484	186,400	215,000
	Total Mobile Equipment for Treatment	\$832,800	\$497,423	\$789,100	\$1,039,000

Schedule VI.6 Plant Operations

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
740	PRIMARY SEDIMENTATION				
	Salaries and Wages				
6100	Union Wages-Except Plant Maintenance	\$2,235,300	\$1,488,474	\$2,294,900	\$2,247,000
	Total Salaries and Wages	2,235,300	1,488,474	2,294,900	2,247,000
	Other Expenditures				
6941	Water	40,000	20,121	35,000	40,000
7091	Miscellaneous Operating Supplies and Materials	3,000	14	1,000	7,000
7420	Equipment Repairs and Maintenance	1,000	0	1,000	1,000
7821	Caustic Soda	23,000	12,504	20,000	21,000
7828	Sodium Hypochlorite	33,000	20,345	31,000	33,000
7845	Hydrochloric Acid	2,000	586	1,000	2,000
7856	Miscellaneous Plant Chemicals	2,000	0	500	1,000
	Total Other Expenditures	104,000	53,570	89,500	105,000
	Total Primary Sedimentation	\$2,339,300	\$1,542,044	\$2,384,400	\$2,352,000

Schedule VI.7 Plant Operations

Acct.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 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	Tipping Fees-Sludge	350,000	145,097	275,000	325,000
7450	Tipping Fees-Ash	250,000	186,286	270,000	270,000
7459	Land Application Disposal	1,330,000	602,910	1,200,000	1,300,000
	Total Other Expenditures	1,930,000	934,293	1,745,000	1,895,000
	Total Disposal of Sludge, Ash, and Grit	\$1,930,000	\$934,293	\$1,745,000	\$1,895,000

Schedule VI.8 Plant Operations

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 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	300,000 30,000 10,000 340,000	156,228 12,650 0 168,878	250,000 20,000 10,000 280,000	225,000 30,000 10,000 265,000
	Total Boilers	\$340,000	\$168,878	\$280,000	\$265,000

Schedule VI.9 Plant Operations

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
770	ENERGY RECOVERY				
	Salaries and Wages				
6100	Union Wages-Except Plant Maintenance	\$1,785,700	\$1,118,113	\$1,723,900	\$1,883,800
	Total Salaries and Wages	1,785,700	1,118,113	1,723,900	1,883,800
	Other Expenditures				
6425	Training and Seminars	10,000	1,475	5,000	10,000
6911	No. 2 Fuel Oil/Diesel	50,000	33,532	50,000	50,000
6921	Electricity	1,150,000	689,031	1,200,000	1,200,000
6931	Natural Gas	450,000	256,700	425,000	380,000
7091	Miscellaneous Operating Supplies and Materials	30,000	23,022	34,500	30,000
7420	Equipment Repairs and Maintenance	20,000	1,761	10,000	10,000
7821	Caustic Soda	20,000	0	3,000	15,000
7854	Incinerator Sand	50,000	0	50,000	50,000
	Total Other Expenditures	1,780,000	1,005,521	1,777,500	1,745,000
	Total Energy Recovery	\$3,565,700	\$2,123,634	\$3,501,400	\$3,628,800

Schedule VI.10 Plant Operations

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
780	SLUDGE DEWATERING				
	Salaries and Wages				
6100	Union Wages-Except Plant Maintenance	\$1,717,600	\$1,051,917	\$1,621,800	\$1,687,200
	Total Salaries and Wages	1,717,600	1,051,917	1,621,800	1,687,200
	Other Expenditures				
6921	Electricity	725,000	433,584	740,000	740,000
6941	Water	150,000	75,750	130,000	140,000
7091	Miscellaneous Operating Supplies and Materials	5,000	5,557	8,000	8,000
7420	Equipment Repairs and Maintenance	10,000	1,585	5,000	7,000
7816	High PH Polymers	700,000	395,814	600,000	600,000
7821	Caustic Soda	38,000	20,588	30,000	32,000
7828	Sodium Hypochlorite	70,000	43,066	70,000	74,000
7845	Hyfrochloric Acid	2,000	604	1,000	2,000
7856	Miscellaneous Plant Chemicals	1,000	0	0	1,000
	Total Other Expenditures	1,701,000	976,548	1,584,000	1,604,000
	Total Sludge Dewatering	\$3,418,600	\$2,028,465	\$3,205,800	\$3,291,200

Schedule VI.11 Plant Operations

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
785	LIME STABILIZATION				
	Salaries and Wages				
6100	Union Wages-Except Plant Maintenance	\$146,700	\$102,099	\$157,400	\$161,300
	Total Salaries and Wages	146,700	102,099	157,400	161,300
	Other Expenditures				
6921	Electricity	190,000	114,277	195,000	195,000
6941	Water	6,000	3,551	6,000	6,500
7091	Miscellaneous Operating Supplies and Materials	5,000	332	500	3,000
7420	Equipment Repairs and Maintenance	10,000	1,885	3,000	7,000
7836	Lime	500,000	286,997	450,000	500,000
	Total Other Expenditures	711,000	407,042	654,500	711,500
	Total Lime Stabilizaton	\$857,700	\$509,141	\$811,900	\$872,800

Schedule VI.12 Plant Operations

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
790	SECONDARY TREATMENT AND POST CHLORINATION				
	Salaries and Wages				
6100	Union Wages-Except Plant Maintenance	\$347,900	\$222,790	\$343,500	\$354,800
	Total Salaries and Wages	347,900	222,790	343,500	354,800
	Other Expenditures				
6921	Electricity	1,450,000	867,168	1,486,000	1,486,000
7091	Miscellaneous Operating Supplies and Materials	15,000	11,814	15,000	17,000
7828	Sodium Hypochlorite	345,000	212,453	320,000	340,000
7829	Sodium Bisulfite	100,000	53,931	85,000	90,000
7831	Defoamer	17,000	6,050	12,000	15,000
	Total Other Expenditures	1,927,000	1,151,416	1,918,000	1,948,000
	Total Secondary Treatment and Post Chlorination	\$2,274,900	\$1,374,206	\$2,261,500	\$2,302,800

Schedule VI.13 Plant Operations

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
799	GENERAL PLANT TREATMENT				
	Salaries and Wages				
6011 6100	Management Salary Union Wages-Except Plant Maintenance	\$1,086,200 338,600	\$619,735 193,596	\$947,800 298,500	\$1,125,100 278,600
1	Total Salaries and Wages	1,424,800	813,331	1,246,300	1,403,700
	Other Expenditures				
6425	Training and Seminars	10,000	67,441	100,000	50,000
6725	Other Communications	0	484	700	0
6811	Travel and Expense	100	0	0	0
6921	Electricity	395,000	237,149	400,000	400,000
6931	Natural Gas	60,000	46,664	80,000	72,000
6941	Water	800,000	404,332	700,000	750,000
7091	Miscellaneous Operating Supplies and Materials	10,000	7,988	12,000	10,000
7391	Miscellaneous Office Supplies and Materials	20,000	3,005	7,000	10,000
7420	Equipment Repairs and Maintenance	10,000	159	1,000	10,000
7423	Equipment Rental	10,000	0	5,000	10,000
7432	Freight Charges	65,000	44,964	67,400	65,000
7435	Demurrage Charges	6,000	3,043	5,000	7,000
7441	Professional Association Fees	1,000	135	1,000	1,000
7511	Gas & Oil-Vehicle & Equipment	100	12	100	100
	Total Other Expenditures	1,387,200	815,376	1,379,200	1,385,100
	Total General Plant Treatment	\$2,812,000	\$1,628,707	\$2,625,500	\$2,788,800

SCHEDULE VII PROFESSIONAL SERVICES

Schedule VII Professional Services

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
800	PROFESSIONAL SERVICES				
	Salaries and Wages	\$0	\$0	\$0	\$0
	Total Salaries and Wages	0	0	0	0
	Other Expenditures				
6611	Audit Fees	72,000	53,819	73,000	73,000
6614	Consulting Engineers	60,000	32,334	60,000	70,000
6617	Legal Expenses	650,000	334,422	650,000	600,000
6620	Trustee Fees	120,000	0	90,000	100,000
6623	Financial Advisory Fees	24,000	16,000	24,000	36,000
	Total Other Expenditures	926,000	436,575	897,000	879,000
	Total Professional Services	\$926,000	\$436,575	\$897,000	\$879,000

SCHEDULE VIII PLANT MAINTENANCE

Schedule VIII.1 Plant Maintenance

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
110	EXECUTIVE ADMINISTRATION				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$113,200	\$46,604	\$71,900	\$79,600
	Total Salaries and Wages	113,200	46,604	71,900	79,600
	Other Expenditures				
7106	Expendable Parts and Tools	1,500	443	1,000	1,500
7110	Instrumentation Repair and Maintenance	10,000	5,030	7,500	10,000
7191	Miscellaneous Maintenance Supplies and Expenses	0	45	100	0
	Total Other Expenditures	11,500	5,518	8,600	11,500
	Total Executive Administration	\$124,700	\$52,122	\$80,500	\$91,100

Schedule VIII.2 Plant Maintenance

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
125	SAFETY				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$12,500	\$8,902	\$13,700	\$15,200
	Total Salaries and Wages	12,500	8,902	13,700	15,200
	Other Expenditures				
7106	Expendable Parts and Tools	1,000	9	100	1,000
7110	Instrumentation Repair and Maintenance	15,000	11,805	25,500	20,000
	Total Other Expenditures	16,000	11,814	25,600	21,000
	Total Executive Administration	\$28,500	\$20,716	\$39,300	\$36,200

Schedule VIII.3 Plant Maintenance

Acct.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 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	133	200	0
	Total Other Expenditures	0	133	200	0
	Total Executive Administration	\$0	\$133	\$200	<u>\$0</u>

Schedule VIII.4 Plant Maintenance

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
140	PURCHASING				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$1,500	\$260	\$400	\$400
	Total Salaries and Wages	1,500	260	400	400
	Other Expenditures				
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 Purchasing	\$1,500	\$260	\$400	\$400

Schedule VIII.5 Plant Maintenance

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
200	MANAGEMENT INFORMATION SYSTEMS				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$3,000	\$2,170	\$3,300	\$3,700
	Total Salaries and Wages	3,000	2,170	3,300	3,700
	Other Expenditures				
7106	Expendable Parts and Tools	100	0	0	0
7110	Instrumentation Repair and Maintenance	15,000	865	11,500	15,000
7191	Miscellaneous Maintenance Supplies and Expenses	100	0	0	0
	Total Other Expenditures	15,200	865	11,500	15,000
	Total Management Information Systems	\$18,200	\$3,035	\$14,800	\$18,700

Schedule VIII.6 Plant Maintenance

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
300	CUSTOMER SERVICE AND BILLING				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$68,400	\$32,446	\$50,000	\$55,500
	Total Salaries and Wages	68,400	32,446	50,000	55,500
	Other Expenditures				
7106	Expendable Parts and Tools	2,000	169	2,200	2,000
7110	Instrumentation Repair and Maintenance	16,000	22,494	33,700	16,000
	Total Other Expenditures	18,000	22,663	35,900	18,000
	Total Billing and Collecting	\$86,400	\$55,109	\$85,900	\$73,500

Schedule VIII.7 Plant Maintenance

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
405	ENGINEERING ADMINISTRATION				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$15,000	\$1,855	\$2,900	\$3,100
	Total Salaries and Wages	15,000	1,855	2,900	3,100
	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	\$15,000	\$1,855	\$2,900	\$3,100

Schedule VIII.8 Plant Maintenance

Acct.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
510	LABORATORY				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$99,500	\$35,330	\$54,500	\$60,300
	Total Salaries and Wages	99,500	35,330	54,500	60,300
	Other Expenditures				
7106	Expendable Parts and Tools	5,000	3,456	5,200	5,000
7110	Instrumentation Repair and Maintenance	20,000	5,499	8,200	20,000
7191	Miscellaneous Maintenance Supplies and Expenses	0	0	0	0
	Total Other Expenditures	25,000	8,955	13,400	25,000
	Total Laboratory	\$124,500	\$44,285	\$67,900	\$85,300

Schedule VIII.9 Plant Maintenance

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
520	INDUSTRIAL WASTE				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$11,600	\$7,286	\$11,200	\$12,500
	Total Salaries and Wages	11,600	7,286	11,200	12,500
	Other Expenditures				
7106	Expendable Parts and Tools	1,000	76	100	1,000
7110	Instrumentation Repair and Maintenance	5,000	572	900	5,000
7191	Miscellaneous Maintenance Supplies and Expenses	0	240	400	0
	Total Other Expenditures	6,000	888	1,400	6,000
	Total Industrial Waste	\$17,600	\$8,174	\$12,600	\$18,500

Schedule VIII.10 Plant Maintenance

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 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	499	700	0
	Total Other Expenditures	0	499	700	0
	Total Operations & Maintenance Administration	\$0	\$499	\$700	<u>\$0</u>

Schedule VIII.11 Plant Maintenance

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
710	MAIN PUMP STATION				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$143,500	\$102,325	\$157,800	\$174,800
	Total Salaries and Wages	143,500	102,325	157,800	174,800
	Other Expenditures				
7106	Expendable Parts and Tools	125,000	2,741	4,100	125,000
7110	Instrumentation Repair/Maintenance	40,000	144,350	200,000	150,000
7191	Miscellaneous Maintenance Supplies and Expenses	0	315	500	0
	Total Other Expenditures	165,000	147,406	204,600	275,000
	Total Main Pump Station	\$308,500	\$249,731	\$362,400	\$449,800

Schedule VIII.12 Plant Maintenance

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
720	RACK AND GRIT				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$218,000	\$122,665	\$189,100	\$209,600
	Total Salaries and Wages	218,000	122,665	189,100	209,600
	Other Expenditures				
7106	Expendable Parts and Tools	60,000	58,718	88,100	80,000
7110	Instrumentation Repair/Maintenance	20,000	11,329	17,000	20,000
7191	Miscellaneous Maintenance Supplies and Expenses	0	240	400	0
	Total Other Expenditures	80,000	70,287	105,500	100,000
	Total Rack and Grit	\$298,000	\$192,952	\$294,600	\$309,600

Schedule VIII.13 Plant Maintenance

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
730	MOBILE EQUIPMENT FOR TREATMENT				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$15,300	\$11,693	\$18,000	\$19,900
	Total Salaries and Wages	15,300	11,693	18,000	19,900
	Other Expenditures				
7106	Expendable Parts and Tools	45,000	25,177	40,000	45,000
7191	Miscellaneous Maintenance Supplies and Expenses	0	2,949	4,400	0
	Total Other Expenditures	45,000	28,126	44,400	45,000
	Total Mobile Equipment for Treatment	\$60,300	\$39,819	\$62,400	\$64,900

Schedule VIII.14 Plant Maintenance

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
740	PRIMARY SEDIMENTATION				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$326,500	\$200,683	\$309,400	\$342,900
	Total Salaries and Wages	326,500	200,683	309,400	342,900
	Other Expenditures				
7106	Expendable Parts & Tools	160,000	57,169	85,800	160,000
7110	Instrumentation Repair/Maintenance	32,600	15,494	23,200	32,600
7191	Miscellaneous Maintenance Supplies & Expenses	0	240	400	0
	Total Other Expenditures	192,600	72,903	109,400	192,600
	Total Primary Sedimentation	\$519,100	\$273,586	\$418,800	\$535,500

Schedule VIII.15 Plant Maintenance

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
760	BOILERS				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$3,000	\$5,573	\$8,600	\$9,500
	Total Salaries and Wages	3,000	5,573	8,600	9,500
	Other Expenditures				
7106	Expendable Parts and Tools	3,500	184	300	3,500
7110	Instrumentation Repair/Maintenance	500	426	500	500
	Total Other Expenditures	4,000	610	800	4,000
	Total Boilers	\$7,000	\$6,183	\$9,400	\$13,500

Schedule VIII.16 Plant Maintenance

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
770	ENERGY RECOVERY				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$643,200	\$396,992	\$612,100	\$678,400
	Total Salaries and Wages	643,200	396,992	612,100	678,400
	Other Expenditures				
7106	Expendable Parts and Tools	400,000	201,542	302,300	400,000
7110	Instrumentation Repair/Maintenance	100,000	78,903	118,400	110,000
7191	Miscellaneous Maintenance Supplies and Expenses	0	902	1,400	0
	Total Other Expenditures	500,000	281,347	422,100	510,000
	Total Energy Recovery	\$1,143,200	\$678,339	\$1,034,200	\$1,188,400

Schedule VIII.17 Plant Maintenance

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
780	SLUDGE DEWATERING				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$345,100	\$250,814	\$386,700	\$428,700
	Total Salaries and Wages	345,100	250,814	386,700	428,700
	Other Expenditures				
7106	Expendable Parts and Tools	400,000	325,256	487,900	600,000
7110	Instrumentation Repair/Maintenance	45,000	27,517	41,300	45,000
7191	Miscellaneous Maintenance Supplies and Expenses	0	964	1,400	0
	Total Other Expenditures	445,000	353,737	530,600	645,000
	Total Sludge Dewatering	\$790,100	\$604,551	\$917,300	\$1,073,700

Schedule VIII.18 Plant Maintenance

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
785	LIME STABILIZATION DEWATERING				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$98,900	\$69,620	\$107,300	\$119,000
	Total Salaries and Wages	98,900	69,620	107,300	119,000
	Other Expenditures				
7106	Expendable Parts and Tools	30,000	22,303	33,500	30,000
7110	Instrumentation Repair/Maintenance	25,000	20,319	30,500	30,000
7191	Miscellaneous Maintenance Supplies and Expenses	0	5	0	0
	Total Other Expenditures	55,000	42,627	64,000	60,000
	Total Lime Stabilization Dewatering	\$153,900	\$112,247	\$171,300	\$179,000

Schedule VIII.19 Plant Maintenance

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
790	SECONDARY TREATMENT AND POST CHLORINATION				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$485,600	\$288,967	\$445,500	\$493,800
	Total Salaries and Wages	485,600	288,967	445,500	493,800
	Other Expenditures				
7106	Expendable Parts and Tools	110,000	137,391	206,100	110,000
7110	Instrumentation Repair/Maintenance	90,000	68,394	102,600	90,000
7191	Miscellaneous Maintenance Supplies and Expenses	0	1,226	1,800	0
	Total Other Expenditures	200,000	207,011	310,500	200,000
	Total Secondary Treatment and Post Chlorination	\$685,600	\$495,978	\$756,000	\$693,800

Schedule VIII.20 Plant Maintenance

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
799	GENERAL PLANT TREATMENT				
	Salaries and Wages				
6200	Plant Maintenance Labor	\$4,230,300	\$2,589,939	\$3,993,100	\$4,426,000
	Total Salaries and Wages	4,230,300	2,589,939	3,993,100	4,426,000
	Other Expenditures				
6426	Maintenance Training	100,000	31,156	46,700	100,000
7093	Stores Physical Adjustment	0	(25,397)	0	0
7106	Expendable Parts and Tools	45,000	67,716	101,600	130,000
7110	Instrumentation Repair and Maintenance	100,000	88,126	132,200	100,000
7111	Signs and Stakes	0	68	100	0
7191	Miscellaneous Maintenance Supplies and Expenses	120,000	69,112	103,700	55,000
7411	Pest Control	4,000	2,385	3,600	5,000
7414	Janitorial	65,000	57,472	86,200	80,000
7417	Grounds Keeping	18,000	18,446	27,700	18,000
	Total Other Expenditures	452,000	309,084	501,800	488,000
	Total General Plant Treatment	\$4,682,300	\$2,899,023	\$4,494,900	\$4,914,000

SCHEDULE IX EMPLOYEE BENEFITS

Schedule IX Employee Benefits

Acct. No.	Account Description	2017 Budget	2017 Actual to 8/31	2017 Projected	2018 Budget
120	EMPLOYEE BENEFITS				
	Salaries and Wages	\$0	\$0	\$0	\$0
	Total Salaries and Wages	0	0	0	0
	Other Expenditures				
6404	Hospitalization-Authority	10,676,700	6,372,092	9,700,200	11,424,200
6405	Hospitalization-Opt Out	29,700	26,898	40,400	41,700
6410	Eye Care Plan	53,000	30,466	46,000	53,000
6413	Dental Plan	355,700	201,699	310,000	348,300
6416	Life Insurance and Weekly Income Projection	761,200	411,029	616,500	710,900
6419	Employee Assistance Program	10,000	19,448	29,200	10,300
6422	Tuition Reimbursement	40,000	11,992	18,000	40,000
6425	Training and Seminars	3,000	369	600	3,000
6428	Pension-Union Plan	3,059,500	2,039,601	3,059,500	3,085,200
6431	Pension-Management Plan	1,916,700	1,307,242	1,916,700	2,516,500
6432	Post Employee Benefits (GASB 45)	717,600	478,400	717,600	739,100
6434	Actuarial Costs-Pension	139,500	66,458	99,700	117,000
6436	Other Benefits Consulting	40,000	5,557	8,300	40,000
6505	FICA-Authority Share	2,664,100	1,574,021	2,361,000	2,809,300
6508	Workers Compensation	900,000	784,094	815,000	937,000
6511	Unemployment Compensation-Self Insured	25,000	11,113	16,700	75,000
6514	Background Investigations	6,000	4,191	6,300	6,000
6517	Physical Examinations	22,700	10,162	15,200	26,200
6520	Uniform Rental	40,000	19,904	29,900	40,000
6523	Miscellaneous Human Resource Services	52,800	30,327	45,500	68,000
	Total Other Expenditures	21,513,200	13,405,063	19,852,300	23,090,700
	Total Employee Benefits	\$21,513,200	\$13,405,063	\$19,852,300	\$23,090,700

APPENDIX A 2016-2017 MONTHLY LOADING AND PERFORMANCE SUMMARY

ALLEGHENY COUNTY SANITARY AUTHORITY ALCOSAN WASTEWATER TREATMENT PLANT 2016 - 2017 MONTHLY LOADING AND PERFORMANCE SUMMARY

				INFL	UENT					30-0	-DAY AVERAGE			7 DAY	Y MAX. AVI	ERAGE	FINAL			
			FLOW	BOD5	TSS	INF. LO	ADING	CBOD5	TSS	NH3-N	EF	F. LOADII	NG	FECAL	CBOD5	TSS	NH3-N		EFFLUEN ¹	r
		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>7</u>	<u>20</u>	2.2			<u>6.5</u>
	2016	189.4	249.9	70	71	106,400	108,639	6	11	1.4	9895	16,103	2091	11	11052	29,421	3210	5.5	0.14	7.5
NOVEMBER	2016				400	450 400									7.7	9	1.3			6.6
DECEMBER	2016	167.7	201.8	108	128	150,420	179,164	6.3	8	1.1	8,814	11,014	1,568	10	11,330	11,970	1,768	5.9	0.17	7.4 6.6
-	2016	198.5	250.0	65	98	106,159	160,943	9.7	13	1.2	16,057	21,446	1,902	21	<u>12.7</u> 21,686	<u>17</u> 29,081	1.3 2,139	6.3	0.22	7.4
JANUARY				-	-	100,100	,	-			,		-,		14	42	2.2			6.8
	2017	221.6	250.0	59	98	107,693	178,198	8	18	1.7	14,849	33,409	3,033	30	25,299	79,871	3,785	6.0	0.19	7.1
FEBRUARY						,	,				·	,	,		<u>5</u>	11	2.0			<u>6.7</u>
	2017	211.4	248.6	52	110	89,757	199,358	6	10	1.9	10,154	17,383	3,374	19	10,441	21,590	3,626	6.4	0.18	7.1
MARCH															<u>9</u>	<u>13</u>	<u>2.1</u>			<u>6.7</u>
	2017	221.9	250.0	62	76	112,255	139,348	8	12	1.6	15,296	21,641	2,780	32	16,693	22,724	3,521	6.4	0.19	7.4
APRIL															<u>6</u>	<u>9</u>	<u>2.0</u>			<u>6.7</u>
	2017	222.2	250.0	63	73	114,079	133,616	5.4	8	1.2	10,121	14,145	2,181	20	11,973	18,329	2,795	7.4	0.40	7.2
MAY	0047														<u>6</u>	<u>8</u>	1.0			<u>6.6</u>
JUNE	2017	215.3	250.0	72	134	123,610	226,902	5	7	1.1	9,332	12,496	2,001	14	10,673	15,025	2,504	7.3	0.59	7.1
	2017	207.0	250.0	80	96	131.813	158,758	6	0	1	8.288	1,607	1,726	31	8.590	12,376	<u>1.0</u> 1,958	7.5	0.40	6.6 7.1
JULY	2017	207.0	230.0	80	30	131,013	130,730	•	0		0,200	1,007	1,720	31	10	7	1.0	7.5	0.40	6.7
	2017	211.4	250.0	78	108	134,867	185,283	6	6	1	10,493	11,460	1,829	33	16,163	12,523	1,915	7.7	0.32	7.1
AUGUST						,						,	,		7	13	2.0			<u>6.7</u>
	2017	191.0	237.7	77	83	122,135	129,704	6	9	1.2	9,731	14,100	1,846	34	11,790	20,233	2,478	7.5	0.34	7.2
SEPTEMBER															<u>8</u>	<u>17</u>	3.0			<u>6.5</u>
	2017	162.9	222.9	103	99	141,354	134,340	7	10	1.9	8,873	12,792	1,548	33	10,318	21,103	3,922	7.7	0.43	7.0
ANNUAL			MAX.										2,505		<u>8</u>	<u>15</u>	<u>1.8</u>	MIN.		<u>6.6</u>
AVERAGE		201.7	250.0	74	98	120,045	161,188	7	10	1.4	10,992	15,633	2,157	24	13,834	24,521	2,802	5.5	0.30	7.2

BOD5	- FIVE DAY BIOCHEMICAL OXYGEN DEMAN	n
BODS	- FIVE DAY BIOCHEMICAL OXYGEN DEMAN	U

CBOD5 - FIVE DAY CARBONACEOUS BIOCHEMICAL OXYGEN DEMAND

rss - Total Suspended Solids

DO - DISSOLVED OXYGEN

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

NH3-N - AMMONIA-NITROGEN

Shading represents permit exceptions

New NPDES Permit effluent limitations effective June 1, 2007.

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

APPENDIX B PROPOSED AUTHORIZED POSITIONS

ALCOSAN SUMMARY OF AUTHORIZED POSITIONS (as Proposed in 2018 Budget)

Manage			Unior	
Employ	rees		Employ	ees
	<u>Budgeted</u>	<u>Actual</u>	<u>Budgeted</u>	<u>Actual</u>
Executive Director's Office	3	2		
Contract Administration	6	5		
Public Relations	8	5	2	2
Scholastic Programs	11	7	15	7
Municipal Outreach	4	3		
Finance & Administration				
Director's Office	2	2		
Accounting	3	2	4	4
Customer Service & Billing	3	3	21	20
Human Resources	6	6		
Training & Development	2	1		
Loss Control	5	4	15	14
MIS	3	3	18	16
Purchasing	3	3	8	8
Operations & Maintenance				
Director's Office	3	3		
Operations	12	9	64	64
Mechanical Maintenance	10	9	70	59
Electrical Maintenance	5	5	22	21
Environmental Affairs				
Director's Office	3	3		
Residuals	2	2	1	1
Industrial Waste	3	2	18	14
Laboratory	3	3	15	12
ECM Systems	4	2		
Engineering & Construction				
Director's Office	3	3	5	5
Capital Projects	11	8	2	1
OR/CD Administartion	1	1		
Regional Conveyance				
Director's Office	10	7		
Wet Weather Programs	7	6	7	6
Interceptor Systems	10	8	50	36
TOTAL	146	117	337	290

ALCOSAN AUTHORIZED POSITIONS

Cost Cente	Pr Department	Position Title	Actual	Budget
110	Executive Director's Office			
	Arletta Williams	Executive Director	1	1
	Camille Smith	Executive Assistant	1	1
	Vacant	Director	0	1
		Total FTES	2	3
430	Contract Administration			
	Suzanne Thomas	Procurement Officer	1	1
	Elizabeth Bowers	Contract Administrator	1	1
	Beth Mellinger	Records and Documents Manager	1	1
	Harrient Shank	Administrative Secretary	1	1
	Vacant	Administrative Specialist II	0	1
	Jillian Sanchioli	Administrative Assistant - Procurement	1	1
		Total FTES	5	6
445	Public Poletions			
115	Public Relations			
	Jaanna Clark	Disaster of Communications		
	Jeanne Clark	Director of Communications	1	1
	Susan Mannella	Manager of Communications	1	1
	Vacant	Public Information Officer	0	
	Stephanie Conley	Administrative Secretary	1	
	Vacant	Public Relations Specialist	0	
	Derek Evan	Public Relations Specialist	1	1
	Peggy Croom	Sr. Adm Specialist II	1	1
	Lisa George	Internal Events	1	1
	Vacant	Social Media Specialist	0	
		Total FTES	5	8
	Graphic Clerk		2	2
		Total FTES	2	2
116	Municipal Outreach			
	Kimberly Wood	Manager Municipal Relations	1	1
	Kimberly Marunczak	Municipal Relations & Outreach Admin Assistant	1	
	Joseph Day	Municipal Relations Coordinator	1	
	Vacant	Administrative Specialist	0	
		Total FTES	3	4
117	Sabalactia Bragrama			
117	Scholastic Programs			
	Vacant	Manager of Scholastic Programs & Ed Services	0	1
	Ronald Jones	Administrative Supervisor I	1	1
	Erica LaMar	Administrative Supervisor I	1	
	Tiffany Davis	Administrative Supervisor I	1	1
	Denee Cabbagestalk	Scholastic Outreach Supervisor	1	1
	Deborah Yough	Adminstrative Specialist I	1	
	DeShelle Taylor	Scholastic Support Specialist	1	1
	Larry Hailsham	Scholastic Support Specialist	1	1
	Vacant	Scholastic Support Specialist	0	
	Vacant	Scholastic Outreach Program Administrator	0	
	Vacant	Scholastic Events Coordinator	0	
		Total FTES	7	11

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Cost Center	Department	Position Title	Actual	Budget
	Scholastic Outreach Representatives		7	
	Scholastic Outreach Clerk		0	
		Total FTES	7	15
400	Planes and Administration			
130	Finance and Administration			
	William Inks	Director of Finance and Administration	1	1
	Donna Pietrzyk	Administrative Assistant	1	
	Borna i lorzyk	Total FTES	2	
	Accounting Department			
	Karen McCarthy	Manager of Accounting	1	1
	Lori McKay	Accounting Supervisor	1	1
	Vacant	Payroll Supervisor	0	1
		Total FTES	2	3
	Chief Accounting Clerk		1	1
	Payroll Clerk		1	1
	Accounts Payable Clerk		2	2
		Total FTES	4	4
300	Customer Service and Billing			
	Daniel Thornton	Manager of CS & B	1	1
	Leslie Sanford Dawn Havrilla	Administrative Supervisor II Administrative Supervisor II	1	
	Dawii Haviilla	Total FTES	3	3
		Total F1E3		3
	Secretary to Manager		1	1
	Clerk Receptionist/Switchboard Oper.		1	1
	Billing and Investigations			
	Field Inspector		2	2
	<u>Data Entry</u>			
	Group Leader Data Entry		1	1
	Data Entry Processor		8	8
	Cashiering			-
	One with a side of Oast Co.	+		
	Group Leader Cashiering	+	1	1
	Cashier & Controls Clerk	+	0	1
	Processing			
	<u>r racessing</u>	<u> </u>		
	Group Leader Processing	+	1	1
	Account Adjustor		2	
	Lump Sum Coordinator		1	1
	Systems Control Coordinator		1	
	Customer Service Representative		1	
		Total FTES	20	

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Cost Cer	nter Department	Position Title	Actual	Budget
120	Human Resources Department			
120	Tuman Resources Department			
	Donna Skundrich	Manager of Human Resources	1	
	Shelly Mitchell	Administrative Specialist (Benefits)	1	
	Sue Martire	Administrative Assistant	1	
	Mary Kay Meanor	Admin Specialist II HR	1	
	Vacant	Admin Specialist II HR	1	
	Raymond Mroch	Compensation Analyst	1	
	raymona mison	Total FTES	6	
122	Robert Stimmler	Sr. Training & Development Specialist	1	
122	Vacant	Training & Development Specialist	0	
	vacant	Total FTES	1	
		Total I I E O	<u> </u>	4
125	Loss Control			
	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	1
	Vacant	Safety Specialist	C	,
		Total FTES	4	
	Safety and Training Technician		1	1
	Security Clerk		C	1
	Group Leader Guards		1	1
	Guards		12	. 12
		Total FTES	14	. 15
200	MIC Department			
200	MIS Department			
	II-T-II	Manager of MIO		
	Jack Tallon	Manager of MIS	1	1
	William Sulanowski	Administrative Supervisor (MIS)	1	1
	Robert Hoffman	MIS supervisor	1	1
		Total FTES	3	3
	Secretary		1	1
	Analyst Programmer		7	
	Computer & Peripheral Operator		2	2
	Microcomputer Specialists		4	
	Telecommunications Specialist		2	
		Total FTES	16	18
140	Purchasing Department			
	Raymond Meyer	Manager of Purchasing	1	1
	Rita Stone	Administrative Supervisor (Storeroom)	1	1
	Ben Heilman	Administrative Supervisor (Contracts)	1	1
		Total FTES	3	3
	Clerk/Messenger		1	· ·
	Purchasing Clerk		2	2
	File Clerk/Typist Purchasing		1	
	Storekeeper		1	
	Assistant Storekeeper		3	;

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Cost Cen	nter Department	Position Title	Actual	Budget
705	Operations and Maintenance			
	Director's Office			
	Birodioi o omoc			
	Douglas Jackson	Director of Operations and Maintenance	1	1
	David Brown	Manager of Operations Training	1	1
	Pamela Arthur	Administrative Assistant	1	
		Total FTES	3	3
799	Operations Department	+		
	John Regan	Manager of Operations	1	1
	Peter Guggenheimer	Solid Process Superintendent	1	1
	Shana Marcinik	Liquid Process Superintendent	1	1
	Michael Gavulic	Shift Superintendent	1	1
	Abigail Pellow	Shift Superintendent	1	1
	Scott Wolfe	Shift Superintendent	1	1
	Keith Brown	Shift Superintendent	1	1
	Jason Stritmatter	Shift Supervisor	1	1
	Justin Burrell	Shift Supervisor	1	1
	Vacant	Shift Supervisor	0	1
	Vacant	Shift Supervisor	0	1
	Vacant	ERF Supervisor	0	1
		Total FTES	9	12
	<u>Liquid Proces</u> s			
	Liquid Proc. Control Rm/Field Operators		20	20
	Liquid Process Utility Operators		4	4
	<u>Dewatering</u>	+		
	December of the December of the Control of the Cont		40	46
	Dewatering Control Rm/Field Operators Dewatering Utility Operators		12	12
	Dewatering Office Operators		-	-
	Energy Recovery			
	ERF Control Rm/Field Operators		12	12
	ERF Utility Operators		4	4
	Non-Shift Personnel			
	Operations Clerk		1	1
	Mobile Equipment Operators		3	3
	Dispatchers		2	2
	Operator Tri-axle Truck		2	
		Total FTES	64	64
799	Mechanical Maintenance Department	 		
	Edward Rogers	Manager of Mechanical Maintenance	1	1
	John Laird	Manager of Mechanical Maintenance	1	C
	Wayne Dubel	Maintenance Supervisor	1	1
	Anthony Cihal	Expeditor/Planner	1	
	Eric Jenkins	Maintenance Supervisor	1	1
	Vacant	Maintenance Supervisor	0	
	Vacant	Maintenance Labor Supervisor	0	
	Louis Mellinger	Maintenance Labor Assistant Supervisor	1	1
	Roseann Berg	Maintenance Supervisor	1	,
	Petrosky, William	Maintenance Supervisor I Interceptor Systems	1	
	LaTanya Brown	Maintenance Labor Supervisor	1	

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Cost Center	Department	Position Title	Actual	Budget
	Auto Mechanics/Apprentices		4	6
	Maintenance Clerk		1	1
	Mechanics/Apprentices		15	25
	Welders/Apprentices		4	
	Lubrication Mechanics		3	3
	Group Leader Lubrication		1	1
	Building/Construction Mechanic/Apprentice		9	
	General Maintenance Laborers		10	10
	Maintenance Utility		1	1
	Custodians		11	
		Total FTES	59	70
799	Electrical Maintenance Department			
	·			
	Mark Shaffer	Manager of Electrical Maintenance	1	1
	Richard Yavorsky	Control Systems Superintendent	1	1
	Bill Martin	Instrument Repair Supervisor	1	1
	Andrew Devite	Electrical Maintenance Supervisor	1	1
	Dave Rich	HVAC Supervisor	1	1
		Total FTES	5	5
	Electricians/Apprentices		10	10
	Instrument Repair Technicians/Apprentices		7	8
	HVAC Mechanic/Apprentices		4	4
		Total FTES	21	22
505	Environmental Compliance			
	Director's Office			
	Arthur Tamilia	Director of Environmental Compliance	1	1
	Michelle Buys	Environmental Audit Administrator	1	1
	Mary Mannella	Administrative Assistant	1	1
		Total FTES	3	3
500	Basidanda Barrardunard			
530	Residuals Department			
	Robert Martire	Desiduale Dreamen Manager	1	1
		Residuals Program Manager Residuals Specialist	1	1
	Megan Cieslak-Mazza	Total FTES	2	
		Total FIES		
	Residuals Clerk		1	1
	TOOLGAID CIOIN	Total FTES	1	
		Total 1120	'	
520	Industrial Waste Department			
-	· · · · · · · · · · · · · · · · · · ·		1	t
	Freddie Fields	Manager of Industrial Waste	1	1
	Tina Dean	Sampling & Compliance Supervisor	1	1
	Vacant	Sampling & Compliance Supervisor	0	
		Total FTES	2	3
	Clerk Typist Industrial Waste		2	2
	Sampler/Investigator		12	
		Total FTES	14	

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Cost Center	Department	Position Title	Actual	Budget
510	Laboratory Department			
110	Laboratory Department			
	Betty Kindle	Manager of Laboratory	1	
	Kimberly Crisi	Laboratory Supervisor	1	
	Maureen Dobransky	Quality Control Officer	1	
	·	Total FTES	3	
	Laboratory Chemist		8	
	Laboratory Technician		2	
	Laboratory Clerk		1	
	General Maint. Laboratory		1	
		Total FTES	12	1
i40	ECM Systems			
40	Edw Systems			
	Anne Donahue	ECM Manager	1	
	Jacqueline Graham	Administrative Secretary	1	
	Vacant	Administrative Specialist I	0	
	Vacant	Administrative Specialist II	0	
		Total FTES	2	
105	Engineering and Construction			
	2			
	Director's Office			
	David Borneman	Director of Engineering & Construction	1	
	Angel Allen	Administrative Assistant	1	
	Steve Miller	Drafting/CADD Supervisor	1	
	CICYC IVIIICI	Total FTES	3	
	Designers		2	
	Contract Clerk		3	
	Clerk Typist/Engineering		0	
		Total FTES	5	
120	Capital Projects			<u> </u>
	Daniel Lockard	Manager of Capital Projects	1	1
	Timothy Turkowski	Manager of Capital Projects Project Engineer II	1	
	Elizabeth Joyce	Project Engineer II	1	
	John Findley	Project Engineer III	1	
	Raymond Stasny	Construction Supervisor	1	
	Jeffrey Mazza	Project Engineer III	1	
	Vacant	Civil/Mechanical Engineer	0	
	Vacant	Manager Program Management	0	
	Vacant	Electrical Engineer	0	
	Joseph Wagner	Project Engineer II	1	
	Cody Edgell	Civil Engineer	1	
		Total FTES	8	1
	Surveyer			
	Surveyor Department Clerk		0	
	Department Clerk	Total FTES	1	
410	OR/CD Administraton			
	Denise Macellaro	Administrative Assistant	1	
		Total FTES	1	

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Cost Cente	Pr Department	Position Title	Actual	Budget
605	Regional Conveyance			
	Discrete de Office			
	Director's Office		+	
	Jan Oliver	Director of Regional Conveyance	1	
	Natalie Mielke	Administrative Secretary	1	
	Joseph Sparbanie	Civil Engineer - RC	1	
	Shawn McWilliams	Civil Engineer	1	1
	Michael Lichte	Manager of Planning	1	
	Jeffrey Livezey	Environmental Construction Supervisor	1	
	Adam Kidane	GIS Asset Management Specialist	1	
	Vacant	GIS Specialist	C	1
	Vacant	Engineer	C	1
	Vacant	Civil Engineer	C	1
		Total FTES	7	10
440	Wet Weather Programs (CSO)		_	
	Timothy Prevost	Manager of Wet Weather Programs	1	1
	Vacant	Engineer II	C	t
	Joseph Fedor	Environmental Scientist II	1	1
	Geraldine Walker Milton Lenhart	GIS Specialist Civil Engineer II	1 1	1
	Brandon Anderson		1	
	Julia Spicher	Supervisor Environmental Monitoring Civil Engineer	1	1
	Julia Spicilei	Total FTES	6	
		Total 1125		
	Clerk Wet Weather Program		1	
	Environmental Monitoring Technician		5	1
		Total FTES	6	7
690	Interceptor Systems			
	John Garofalo	Manager of Interceptor Systems	1	1
<u> </u>	Dennis Banks	Interceptor Systems Superintendent	1	1
	Mike Altimore	Supervisor I Interceptor Systems	1	1
	Vacant	Supervisor I Interceptor Systems	C	
	Charles Simone	Supervisor I Interceptor Systems	1	1
	Mark Argenas	Supervisor I Interceptor Systems	1	1
	Lawrence Waibel Stanton, Brian	Supervisor I Interceptor Systems	1	1
	Jakubowski, Matthew	Supervisor I Interceptor Systems	1	t
	Vacant	Supervisor I Interceptor Systems Supervisor I Interceptor Systems	C	·
	vacant	Total FTES	8	
	Boat Operator		2	2
	Assistant Boat Operator		1	1
	Crew Leader Interceptor Maint. Pump Station		1	2
	Crew Leader Interceptor Video Inspection		2	. 2
	Pump Station Driver/Assistant Operator		1	
	Laborer Operator Maint. Truck Driver		4	
	Laborer Interceptor Structures		4	
	Interceptor Systems Inspector/Spotter		3	
	Regional Conveyance Clerk		1	
	Hi-Velocity Combo Unit Driver		5	
	Crew Leader Interceptor Maint. Structures		4	
	Video Inspection Driver/Assistant		1	.
	Laborer Interceptor Pump Stations		_	1
	Laborer Interceptor Video Truck IS Welder		2	1
	Building & Construction Mechanic - IS		0	1
	Laborer (Construction)		0	†
	Interceptor Systems Helper		3	1
		Total FTES	36	

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