



ANNUAL REPORT 2018



ALLEGHENY COUNTY SANITARY AUTHORITY ANNUAL REPORT

AS OF DECEMBER 31, 2018



Operations training specialist Mike Priore introduces a young guest to the Future Plumbers interactive feature at ALCOSAN's 2018 Open House.

CONTENTS

A MESSAGE FROM THE EXECUTIVE DIRECTOR	2
BOARD OF DIRECTORS	3
FINANCE AND ADMINISTRATION	4
ENVIRONMENTAL COMPLIANCE	6
ENGINEERING AND CONSTRUCTION	8
OPERATIONS AND MAINTENANCE	10
REGIONAL CONVEYANCE	12
COMMUNICATIONS & GOVERNMENTAL AFFAIRS	14
PROCUREMENT	16
FINANCIAL STATEMENTS	17
SERVICE AREA	20

ALCOSAN is one of the region's premier environmental and public health organizations, treating wastewater for 83 Allegheny County communities, including the city of Pittsburgh. The authority enhances the community's quality of life and safety. ALCOSAN's 59-acre treatment plant processes up to 250 million gallons of wastewater daily and is one of the largest such facilities in the Ohio River Valley.

This report was prepared by ALCOSAN staff and produced by the authority's Communications Department.

Editor: Susan Mannella
Designer: Michael Anthony



A MESSAGE FROM THE EXECUTIVE DIRECTOR



Arletta Scott Williams
Executive Director
ALCOSAN

Most of us can remember our high school graduation ceremony, a celebration that recognized years of hard work and growth. It wasn't just an ending, though. The event also sent us forward on a path, whether toward a job or additional studies, that would require more diligence, more attention and increasing levels of responsibility and expertise.

That's how those of us at ALCOSAN feel with the advancement of a revised federal Consent Decree and Clean Water Plan. We have accomplished so much to reach this point and, once it is finalized, we will take on the far-reaching and long-term tasks that will ensure cleaner rivers and a healthier environment for our region for generations to come.

Every division at ALCOSAN has played a role in preparing the Clean Water Plan, and they all have a part in bringing it to fruition. In addition, we have created a new division, Governmental Affairs, to ensure good relations between ALCOSAN and its state and federal elected representatives and the agencies whose work intersects with ours. Also, ALCOSAN's Procurement Department has created a process for thoroughly vetting all contracts and negotiating the best prices for projects both large and small.

Our plant is expanding, our responsibility for sewer lines and related structures is increasing and our staff is growing to meet those challenges. Our ratepayers, who are funding this work, deserve the best that technology, research and training can provide, and that is what drives ALCOSAN's efforts.

I hope you can sense our excitement for the future as you read through this annual, department-by-department summary of what occurred during 2018, as we look forward to implementing plans that will run through 2036. If you are seeking more information, you can find details and updates at alcosan.org.

A handwritten signature in blue ink, which appears to read "Arletta Scott Williams".

BOARD OF DIRECTORS

2018 BOARD OF DIRECTORS

Incorporated under the Pennsylvania Municipal Authorities Act in 1946, ALCOSAN is governed by a seven-member board of directors - three appointed by the mayor of Pittsburgh, three appointed by the county executive, and one joint city-county appointee - with each serving a five-year term.



Chair: Sylvia C. Wilson
*Board Member
Pittsburgh Board of Education*



Vice-Chair: Gregory Jones
*Executive Director
Economic Development South*



Secretary: Harry Readshaw
*PA House of Representatives
District 36*



Treasurer: Jack Shea
*President Emeritus
Allegheny-Fayette Labor Council*

**VICE-CHAIR
GREGORY JONES**
RESIGNED FROM THE ALCOSAN
BOARD OF DIRECTORS ON OCTOBER 25.
GREG WAS APPOINTED IN MAY 2014 AND
WAS INSTRUMENTAL IN DEVELOPING
ALCOSAN'S CLEAN WATER ASSISTANCE
FUND, LAUNCHED IN 2017 TO HELP
LOW-INCOME FAMILIES PAY
THEIR SEWAGE BILLS.



Corey O'Connor
*Council Member
City of Pittsburgh*



Brenda Smith
*Executive Director
Nine Mile Run Watershed Assn.*



John K. Weinstein
*Treasurer
Allegheny County*





FINANCE AND ADMINISTRATION



ALCOSAN continues to expand its employee wellness program, encouraging healthy lifestyle choices and recognizing the achievements of its participants.

The mission of the Finance and Administration Division is the implementation and maintenance of sound fiscal policies, competent customer service and safeguarding of the assets of the authority including funds, personnel and the physical plant.

This division includes responsibility for management information systems, customer service and billing, purchasing, accounting, human resources, safety and security.

ALCOSAN is ideally positioned for the challenges that lie ahead because of the preparation undertaken by the division.

First and foremost, ALCOSAN is in excellent fiscal health. During 2018, the division saw continued improvement in the authority's bond ratings. Standard and Poor's registered an upgrade for ALCOSAN from A to A+, a move that drew in more institutional investors. Our rating with the other major agency, Moody's, also went up.

Bond funds pay for capital expenditures including the major components of the Clean Water Plan. ALCOSAN's strong financial position allowed it to eliminate the need for bond insurance on the 2018 Sewer Revenue Bond Series resulting in savings of over \$500,000.

The four-year rate structure that was set in 2017 remains sufficient to cover ALCOSAN operations and debt service payments, so no additional increases were necessary. Beginning in January 2018, the average residential customer who uses 12,000 gallons of water per quarter was charged \$419 by

ALCOSAN. That 7.5 percent increase will be followed by increases of seven percent each in 2019, 2020 and 2021, when the cost to the average customer will be \$513. Going forward, ALCOSAN estimates that single-digit rate increases should be sufficient for the next two decades.

Interest in ALCOSAN's Clean Water Assistance Fund, established in 2017, continues to increase, and the authority's healthy financial picture allowed it to increase the quarterly payments to homeowners to \$32. More than twice as many households took advantage of the fund to help pay their bills in 2018 – 1,828 individuals from 67 of the 83 municipalities in the service area. In 2017, 859 homeowners participated in the program.

ALCOSAN's strong financial position also allowed the authority to provide \$6 million more for its Green Revitalization of Our Waterways program that aids municipalities.

The division's Human Resources Department is key to recruiting, training and promoting employees who will be tasked with implementing the Clean Water Plan.

The authority's payroll increased to 416 full-time employees by the end of 2018. The authority continues to offer training programs for trade positions and to expand its employee wellness program.

A new labor agreement with the Utility Workers of America Local 433 was reached that is retroactive to 2018, which contributes to stability in the workforce.

CLEAN WATER ASSISTANCE BY MUNICIPALITY

MUNICIPALITY	FUND RECIPIENTS	MUNICIPALITY	FUND RECIPIENTS	MUNICIPALITY	FUND RECIPIENTS
Aspinwall Borough	2	Green Tree Borough	10	Pleasant Hills Borough	0
Avalon Borough	14	Heidelberg Borough	4	Plum Borough	1
Baldwin Borough	16	Homestead Borough	13	Rankin Borough	3
Baldwin Township	1	Indiana Township	0	Reserve Township	22
Bellevue Borough	23	Ingram Borough	3	Robinson Township	0
Ben Avon Borough	0	Kennedy Township	5	Ross Township	28
Ben Avon Heights Borough	0	Kilbuck Township	0	Rosslyn Farms Borough	0
Bethel Park	6	McCandless Township	1	Scott Township	13
Blawnox Borough	12	McDonald Borough	2	Shaler Township	39
Braddock Borough	11	McKees Rocks Borough	17	Sharpsburg Borough	13
Braddock Hills Borough	4	Millvale Borough	20	South Fayette Township	20
Brentwood Borough	15	Monroeville	14	Stowe Township	18
Bridgeville Borough	12	Mt. Lebanon	14	Swissvale Borough	33
Carnegie Borough	10	Mt. Oliver Borough	8	Thornburg Borough	0
Castle Shannon Borough	9	Munhall Borough	30	Trafford Borough	12
Chalfant Borough	0	Neville Township	9	Turtle Creek Borough	12
Churchill Borough	3	North Braddock Borough	25	Upper St. Clair Township	9
Collier Township	1	North Fayette Township	0	Verona Borough	6
Crafton Borough	9	North Huntingdon Township	0	Wall Borough	7
Dormont Borough	10	North Versailles Township	6	West Homestead Borough	4
East McKeesport Borough	6	O'Hara Township	4	West Mifflin Borough	0
East Pittsburgh Borough	6	Oakdale Borough	5	West View Borough	22
Edgewood Borough	2	Ohio Township	0	Whitaker Borough	2
Emsworth Borough	7	Penn Hills	110	Whitehall Borough	15
Etna Borough	19	Penn Township	8	Wilkins Township	13
Forest Hills Borough	0	Peters Township	0	Wilkesburg Borough	30
Fox Chapel Borough	0	Pitcairn Borough	7	Wilmerding Borough	4
Franklin Park Borough	1	Pittsburgh (City)	988		
				2018 TOTAL: 1,828	



ENVIRONMENTAL COMPLIANCE

ALCOSAN operates under federal, state and local regulations, and it is the responsibility of the Environmental Compliance Division to ensure that permit requirements are met, the byproducts of wastewater treatment are either reused or disposed of properly, and industries under its jurisdiction are inspected.

Significant advances were made in 2018. First and foremost, division leaders were key participants in negotiating toward an updated Consent Decree and Clean Water Plan. The division provided technical and legal oversight in those talks so that the agreements will meet the needs of ALCOSAN, its municipal customers and the larger population of Allegheny County and Western Pennsylvania.

At year's end, the 20-year improvement and expansion plan was before federal regulators, having cleared numerous hurdles to reach that point. A signed agreement is anticipated in 2019. ALCOSAN operates under many permits that regulate land application of byproducts of wastewater treatment, landfill use and discharges to the air and to the Ohio River. These include a National Pollutant Discharge Elimination System (NPDES) permit.

ALCOSAN had been operating under an expired NPDES permit. The Clean Water Act prohibits



Approximately 9,500 dry tons of Alcosoil was applied to 2,200 acres of agricultural fields in 2018.

anyone from discharging pollutants into a water source unless they have an NPDES permit. The permit limits what can be discharged, monitoring and reporting requirements, and other provisions to maintain the quality of the water; in ALCOSAN's case, the Ohio River to which it discharges treated wastewater.

2018 ALCOSAN PLANT-WIDE RECYCLING	TONS
Scrap Metal	39.4
Paper / Cans / Plastic / Cardboard	24.4
Plastic Film	0.10
Confidential Papers	1.2
Printer Cartridges	0.52
E-Waste	2.2
Compostables / Christmas Trees	0.33
Wood Pallets	0.74
Trash / Landfilled	148.9

In 2018, ALCOSAN received a renewed NPDES permit to replace one that had expired in 2012. The lack of a permit did not mean ALCOSAN operated illegally. Quite the contrary. It operated under terms of its previous permit, but that meant ALCOSAN's ability to apply for future plant upgrade permits was delayed.

Delays in permitting are not uncommon, but it is rare for the Environmental Protection Agency and the Pennsylvania Department of Environmental Protection to issue a permit while agencies are engaged in negotiations on a

federal Consent Decree. That is why the Environmental Compliance Division is so pleased to have the new NPDES permit in place and in effect.

The third significant development for the division was the decision to undertake an assessment of the facilities that house ALCOSAN's Laboratory and its Industrial Waste departments. These operations, part of the Environmental Compliance Division, are in need of updating and, because of the expansion of other portions of the treatment plant, it is anticipated that a new structure outside of the plant will be needed.

In addition to aggressive in-plant recycling and beneficial reuse programs, the division coordinates the authority's participation in the Green Workplace Challenge and is recognized annually by the Pennsylvania Resource Council for outstanding waste diversion rates at the ALCOSAN Open House.

OPEN HOUSE WASTE CATEGORY	DESCRIPTION OF WASTE ITEMS	TOTAL WEIGHT	PERCENT COMPOSITION
Mixed Recycling	Small and large plastic bottles, metal trays, ALCOSAN promotional bottles	71 lbs.	6.4%
Cardboard	Boxes from food and promotional items	200 lbs.	17.9%
Plastic Film	Visquine from food area, film from water bottles, table cloths, ice bags, candy wrappers	102.75 lbs.	9.2%
Nitrile Gloves	Green nitrile gloves	12.5 lbs.	1.1%
Compostables	Food waste, paper towels, compostable serviceware	608.9 lbs.	54.5%
Trash	Lids and ties, table covering for Mad Scientist, broken bucket, sterno cans, candy/fruit bags, dirty film, rags, duct tape, empty concrete bag, plastic face mask packs, #6 planter trays	121.5 lbs.	10.9%
		1,116 lbs.	100%

ENGINEERING AND CONSTRUCTION



The Engineering and Construction Division is responsible for engineering planning, design and project management, administering public bidding procedures, maintaining all engineering and construction-related records, and providing technical assistance for compliance with local regulations. The work of the division involves the use of consulting engineering firms for projects within the ALCOSAN system.

ALCOSAN cleared a major hurdle in planning for the plant expansion plan in 2018. All of the necessary permits were filed, an enormous undertaking that fills hundreds of pages of documentation and takes thousands of work hours to produce.

The Sewage Facilities Act 537 plan, which spells out all of the details of the plant expansion, was unanimously approved by Pittsburgh City Council and signed by Mayor Bill Peduto in June and approved by the Pennsylvania Department of Environmental Protection in December. A joint permit with the state Department of Environmental Protection and the Army Corps of Engineers was submitted for building a new outfall for treated water into the Ohio River as well as a new river wall where the plant abuts the Ohio.

In November, engineering design packages were secured for projects at the north end of the plant, under and beyond the McKees Rocks Bridge. That work includes two new clarification tanks, a new chlorine contact tank, a new return activated sludge pump station and a chemical storage building for our disinfection processes. In December, notices to proceed were issued for the design of an electrical distribution plan to upgrade electrical



Demolition of the old Operations & Maintenance facility will provide the footprint for expansion of the plant's pumping, headworks and primary treatment capacity.

components and conduits necessary for the plant expansion and a temporary disinfection system design that will be used for approximately four years while the north end facilities are under construction.

With 2018, the period of planning for the plant expansion gave way to a period of the detailed design phase with construction anticipated to take place from 2019 to 2027.

A construction management firm was retained to assist with all of the design and construction packages associated with the plant expansion.

Engineers from the division continue to oversee major projects including the restoration of ALCOSAN's incinerator chimney, demolition of the former operations building and garage, diversion structures in the regional collection system, installation of flow meters and an access platform at the main pump station, repairs to the Operations and Maintenance building, and plans for a new Laboratory and Industrial Waste Department building.

All relevant employees were trained on the use of the E-Builder software program, necessary for managing the work under the Clean Water Plan. It is more efficient than using paper forms, speeds up the process of obtaining necessary approvals and provides effective workflow monitoring.

EXISTING PLANT PROJECTS	2018 EXPENDITURES	TOTAL ESTIMATED PROJECT COST
Biosolids Strategic Plan	\$0	\$1,525,600
Plant Energy Efficient Upgrades	\$45,406	\$2,319,000
Energy Recovery Facility Improvements (2018/2019)	\$942,472	\$2,500,000
Plant Facilities and Safety Upgrades (2018/2019)	\$998,689	\$4,500,000
New Lab and Industrial Waste Facility	\$6,642	\$26,000,000
Subtotal Existing Plant Projects	\$1,993,210	\$36,844,600
EXISTING INTERCEPTOR SYSTEM PROJECTS	2018	TOTAL
Grit Chambers	\$388,343	\$2,026,100
Squaw Run FM Replacement	\$824,802	\$1,710,400
Sewer Rehabilitation (Various Locations)	\$3,664,694	\$8,392,000
Flap Gates (Various Locations - 2017/2018)	\$145,048	\$2,384,000
Sewer Improvement Contract (2017/2018)	\$156,822	\$671,500
Sonar Investigations	\$1,771,588	\$2,800,000
Conveyance Rehab and Enhancements (2018/2019)	\$2,637,200	\$3,330,000
Subtotal Existing Interceptor System Projects	\$9,958,961	\$20,621,200
GREEN INFRASTRUCTURE PROJECTS	2018	TOTAL
Sheraden Park WRDA Sec. 206	\$136	\$806,200
Ravine St. Stream Removal and Sewer Separation	\$17,184	\$3,622,000
Four Mile Run DSI Removal and System Improvements	\$14,205	\$3,829,000
Green Revitalization of Our Waterways (GROW) Program	\$17,818	\$92,533,600
Green Infrastructure Program Manager	\$807,690	\$3,687,000
East Pittsburgh Borough Grandview GSI Demo Project	\$27,717	\$35,000
Subtotal Green Infrastructure Projects	\$884,750	104,512,800
MUNICIPAL I&I REDUCTION PROJECTS	2018	TOTAL
Municipal Source Control Program	\$998,125	\$11,637,000
Panther Hollow DSI	\$816	\$5,006,600
Subtotal I&I Reduction Projects	\$998,941	\$16,643,600
WET WEATHER - PLANT EXPANSION PROJECTS	2018	TOTAL
Wet Weather Plant Expansion Program	\$3,113,528	\$49,000,000
Demolition of old Operations and Maintenance Facility	\$420,870	\$2,500,000
New Outfall and Disinfection Facility	\$7,355	\$58,500,000
Wet Weather Headworks Expansion	13,093	\$82,500,000
Subtotal Wet Weather - Plant Expansion Projects	\$3,554,846	\$192,500,000
WET WEATHER PLAN - REGIONAL PROJECTS	2018	TOTAL
Preliminary Planning	\$4,856,166	\$19,585,000
Regionalization	\$4,276,825	\$44,505,000
Interim Wet Weather Planning Compliance	\$1,909,391	\$22,850,000
Property Acquisitions	\$61,172	\$34,759,000
Program Management Information System (PMIS)	\$703,158	\$2,135,000
Subtotal Wet Weather Plan - Regional Projects	\$11,806,712	\$123,834,000
OTHER CAPITAL PROJECTS	2018	TOTAL
Mobile Equipment (2018)	\$516,735	\$698,900
2018 Low Cost Capital Improvements	\$3,477,700	\$1,384,612
Subtotal Other Capital Projects	\$1,901,347	\$4,176,600
TOTAL 2018 CAPITAL PROGRAM	\$31,098,768	\$499,132,800



OPERATIONS AND MAINTENANCE

The work of ALCOSAN's Operations and Maintenance Division is a 24/7 responsibility. The employees of the division ensure that the ongoing process of treating wastewater runs smoothly through full compliance with all permits. They maintain all of the buildings, structures, machinery, equipment and vehicle fleet of the 59-acre plant, regional conveyance system and auxiliary buildings.



Contractors work from a suspended scaffold platform while completing restoration work on ALCOSAN's 300-foot incinerator chimney.

Two very visible projects were undertaken inside the plant gates during 2018 that affected operations and maintenance.

As part of the broader Clean Water Plan, the space where ALCOSAN's original operations and maintenance building and garage sat is needed for plant expansion, so that facility had to come down, and come down it did. In just 10 days in the fall, the structure was torn down, salvageable pieces were carted away and what remained was crushed and removed. The space was dormant at year's end, but it will be site of a new headworks facility and operator control room.

Another project inside the plant was refurbishing of ALCOSAN's 300-foot incinerator chimney. The work included glazing all of the brick on the 60-year-old structure, replacing 56,000 linear feet of mortar and applying a waterproof coating.

Operationally, the biggest impact came in the form of record rainfall in the region. The treatment plant processed 78.8 billion gallons of wastewater and stormwater in 2018, approximately 5.5 billion gallons more than a year earlier and 8 billion gallons more than the past five-year average.

The heavy rains forced the collection system into overflow condition 1,870 hours during the year, while the treatment

PLANT OPERATIONS BY THE NUMBERS

TREATMENT PLANT PERFORMANCE	2018
TOTAL Volume of Wastewater Treated	78.8 billion gallons
Average Daily Flow	216 million gallons/day
Solid Waste Removed	77.7 million pounds
Dewatered Sludge Incinerated	21,385 dry tons
Dewatered Sludge Land-Applied	9,509 dry tons
Dewatered Sludge Landfilled	7,634 dry tons
Effluent Water Recycled for Internal Use	2.73 billion gallons
RESOURCES CONSUMED	2018
Pebble Lime	3,132 tons
Polymer	791,080 pounds
Sodium Hypochlorite	1,366,455 gallons
Caustic Soda	421,280 pounds
Sulfuric Acid	84,140 pounds
Hydrochloric Acid	27,000 pounds
Sodium Bisulfate	26,018 gallons
#2 Heating Oil	159,618 gallons
UTILITY COSTS	2018
Electricity	\$5.2 million
Natural Gas	\$711,030
Public Water	\$1,302,499

plant was treating at full capacity. This was 2.3 times as many hours as 2017. In all, system overflows occurred in part or all of 154 days.

The record rain wasn't all bad news. It slightly reduced overall treatment plant electricity consumption because the increased oxygen in the water reduced the need for adding oxygen by mechanical means to sustain the population of secondary treatment micro-organisms.

The higher flows did result in a 10 percent increase in disinfectant chemicals needed to treat the increased flows prior to discharge into the Ohio River.

There were eight minor to moderate river flooding events during 2018, which was more than occurred in any single year in the past decade. Those conditions affected not only the Monongahela Parking Wharf and some underpasses in the city of Pittsburgh, they also adversely affected the collection system and treatment plant with an infusion of mud, silt and other debris that had to be removed. The increased stormwater runoff contributed to an increase in sediment deposits collected and removed in the plant -- 2.7 million pounds of material, 20 percent more than in previous years.



Yielding to plant expansion, the last wall of ALCOSAN's original Operations and Maintenance facility fell on October 8, 2018.





REGIONAL CONVEYANCE

The fundamental mission of ALCOSAN's Regional Conveyance Division is the management, operation and maintenance of the interceptor systems and sewer service provided to its 83 municipal customers and development of plans and policies for compliance with regulations related to combined sewer overflows and sanitary sewer overflows.

That work will expand significantly under the Clean Water Plan.

In 2011, a regional panel recommended that ALCOSAN add to the 90 miles of sewers it owns and maintains by taking ownership and responsibility for others that are at least 10 inches in diameter and carry flow from more than one municipality. In 2015, ALCOSAN undertook a detailed, closed-circuit television examination of the system. During 2018, the authority held dozens of meetings with its member communities to review defects that were identified in those inspections and to discuss the administrative process for moving forward.

In 2019, ALCOSAN will make its best effort with municipalities to take ownership of 200 miles of sewers as well as four pump stations, four equalization basins to regulate the flow of water, and 80 diversion structures to redirect the flow as necessary.

In addition to that major undertaking, the Regional Conveyance Division has continued its Green Revitalization of Our Waterways (GROW) program that started in 2016. In 2018, ALCOSAN offered



Completed June 2018 by the Pittsburgh Water and Sewer Authority, this stormwater infrastructure project at Centre and Herron in the Hill District was partially funded by ALCOSAN's GROW program and will manage approximately one million gallons of runoff annually.



On February 17, 2018, ALCOSAN Manager of Wet Weather Programs Tim Prevost was named 2017 Civil Engineer of the Year by the Pittsburgh Chapter of the American Society of Civil Engineers.

17 municipalities and authorities 18 matching grants worth a total of more than \$4 million. That figure is in addition to \$18 million offered for 62 projects during 2017.

One project already completed includes a 585-foot bioswale along Centre Avenue in the Hill District, which became fully operational in June. Another example is a sewer separation project in Green Tree that was nearing completion in 2018 and is expected to keep 23 million gallons of stormwater per year out of the treatment system.

As the year came to an end, ALCOSAN began meeting with municipalities to offer assistance in developing projects for more robust GROW projects.

The division also continued technical core sampling as part of the planning effort that is expected to include underground storage tunnels to control sewer overflows.

All of those initiatives moved forward while the division continued to its regular work of inspecting, maintaining and repairing the ALCOSAN system outside its plant gates. In the process of doing so, crews discovered a severe emergency with a regulator on the Allegheny River below 55th Street in Lawrenceville.

The facility was gradually sinking, evidence of a foundation failure and susceptible to river water intrusion. ALCOSAN started bypass pumping and engaged a construction firm to demolish the old regulator and install a new one. The river water management project was extensive and involved driving a 10-foot diameter casing 40 feet deep to bedrock to create a new drop shaft.



Emergency repairs to the A34 regulator in Lawrenceville were hampered by weather conditions and high river levels.



COMMUNICATIONS & GOVERNMENTAL AFFAIRS

The mission of the Communications Division is to educate and inform the public about the work that ALCOSAN performs in its 83 member municipalities. As ALCOSAN's Clean Water Plan moves forward, the public must be up to date on what we are doing and why. To that end, ALCOSAN ramped up its outreach to the community in multiple ways in 2018.

Our most visible effort continued to be the Three Rivers Proud campaign, which included billboards, radio, newspaper and online advertising. A website, 3riversproud.com, contains information about ALCOSAN in general and the Clean Water Plan in particular.

Division employees staffed more than 90 community events, carrying our message to events both large – the Three Rivers Regatta, for example – to smaller community festivals and fairs. Frequently, our mascot, Frankie the Fish, joined in.

ALCOSAN's annual Open House, held each September, drew 2,032 people to our North Side plant, where they took tours, joined in activities, watched demonstrations and enjoyed lunch – 1,150 hamburgers, 520 veggie burgers and 1,680 hotdogs, to be precise.

Staff from the Scholastic Outreach and Education Department visit schools throughout the service area all year long. These certified teachers taught classroom lessons designed for students from pre-kindergarten through high school, reaching more than 20,000 students in nearly 400 sites. In addition, they led plant tours and held workshops for high school students interested in trade careers and for educators seeking certification credits. They also conduct ALCOSAN's popular Summer Science and Clean Water Academy programs as well as mentoring, internship and job shadowing opportunities.



Families from around the service area lent their support and presence to ALCOSAN's 3 Rivers Proud campaign.

The Communication Division publishes a weekly employee newsletter, a newsletter for students who participate in after-school programs and a host of internal and external fact sheets, flyers and documents about ALCOSAN's progress. Additionally, division employees led a variety of internal fund-raising efforts, collecting thousands of dollars for the United Way, Cribs for Kids, Tickets for Kids, the KDKA Turkey Fund and more.

The Governmental Affairs Division was created in May of 2018 to meet a long-time need of the authority to expand communications and provide dedicated and professional support to ALCOSAN's partners in government on the municipal, county, state and federal levels. The division also works with foundations and business and community groups.

Governmental Affairs staff works with a wide variety of officials. On the federal level, this includes local congressional representatives and senators, the Army Corps of Engineers and other agencies. On the state and county levels, it includes representatives from the governor's office, legislature and numerous state departments, the Allegheny County Executive and other appointed and elected countywide officers as well as those from ALCOSAN's 83 customer municipalities.

During 2018, members of the team attended and provided input during a dozen meetings on ALCOSAN's regionalization process and its Green Revitalization of Our Waterways program, which

involved more than 50 municipalities. The staff is also involved on a regular basis with Three Rivers Wet Weather, CONNECT, the Allegheny County Boroughs Association, the Allegheny League of Municipalities, Councils of Governments and numerous foundations and advocacy groups.

In addition, the division gives presentations to individual municipalities and serves as their key contact at ALCOSAN. In particular, the division's Municipal Relations and Outreach Department produces a quarterly newsletter for them, arranges for promotional material for ALCOSAN's Clean Water Assistance Fund for homeowners and provides pet waste stations in municipal parks to reduce contamination of area waterways.

As more work on the Clean Water Plan is undertaken outside ALCOSAN's plant gates, this division's role as a liaison to the municipalities will become even more robust.



Acting as a liaison between the authority and its municipal partners, Governmental Affairs staff help schedule meetings like this regionalization update for Forest Hills officials.





PROCUREMENT

The mission of ALCOSAN's Procurement Office is to oversee the procurement of professional services and ensure the integrity of the services necessary to implement the Clean Water Plan and maintain plant operations. The office also documents all supporting paperwork, provides electronic and hard copy of data, and assists project managers with contractual concerns.

ALCOSAN's procurement staff has established a detailed procedure for acquiring services and documenting the process. It starts with a request for qualifications, prepared and advertised by ALCOSAN procurement and technical staff. A team of staff technical experts analyzes the responses to an advertised request, and a short list of qualified candidates is invited to submit proposals. The team then evaluates submitted proposals and gives final recommendations to ALCOSAN's Board of Directors.

After the board has approved a given proposer, the procurement office assists the technical staff in negotiating a contract value. If it exceeds what ALCOSAN had anticipated, a firm must justify the difference. If it cannot and a price cannot be agreed upon, negotiations are undertaken with the next ranked company. Procurement staff goes over every negotiated professional service contract with a fine-toothed comb to ensure that ALCOSAN, on behalf of its ratepayers and municipal customers, will get what it needs, when it needs it and how it needs it.

After a contract is awarded, a file is developed of all relevant documentation and the data is entered into the ALCOSAN Project Management Information System. Procurement staff trains the project staff on the uses of the system and responds to any questions a project manager may have. The procurement staff also provides post-award support such as managing invoices, modifications and claims.

In 2018, 18 highly technical contracts were awarded, many of them worth millions of dollars each. The process is a public one, with all requests for qualifications and advertisements for contract submissions appearing under the "Business Opportunities" section of alcosan.org. The website also contains information about ALCOSAN's commitment to hiring firms that are owned and led by racial minorities, women and service-disabled veterans.



ALCOSAN Procurement Officer Suzanne Thomas discusses government procurement at a March 2018 women-owned business enterprise event at Carlow University.



Independent Auditor's Report

Board of Directors Allegheny County Sanitary Authority

The accompanying summary financial statements of the Allegheny County Sanitary Authority (Authority), as of and for the years ended December 31, 2018 and 2017, and the related notes, are derived from the audited financial statements of the Authority, as of and for the years ended December 31, 2018 and 2017, and the related notes. We expressed an unmodified audit opinion on those audited financial statements in our report dated March 25, 2019.

The summary financial statements do not contain all the disclosures required by accounting principles generally accepted in the United States of America. Reading the summary financial statements, therefore, is not a substitute for reading the audited financial statements of the Authority.

Management's Responsibility for the Summary Financial Statements

Management is responsible for the preparation of the summary financial statements on the accrual basis of accounting.

Auditor's Responsibility

Our responsibility is to express an opinion about whether the summary financial statements are consistent, in all material respects, with the audited financial statements based on our procedures, which were conducted in accordance with auditing standards generally accepted in the United States of America. The procedures consisted principally of comparing the summary financial statements with the related information in the audited financial statements from which the summary financial statements have been derived, and evaluating whether the summary financial statements are prepared in accordance with the accrual basis of accounting.

Opinion

In our opinion, the summary financial statements of the Authority as of and for the years ended December 31, 2018 and 2017 referred to above are consistent, in all material respects, with the audited financial statements from which they have been derived, on the accrual basis of accounting.

Change in Accounting Principle

As described in Note 2 to the financial statements, the Authority adopted Governmental Accounts Standards Board (GASB) Statement No. 75, "Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions" which requires the Authority to record its net OPEB liability and related items in the financial statements. Our opinion is not modified with respect to that matter.

Maher Duessel

Pittsburgh, Pennsylvania
March 20, 2018

FINANCIAL STATEMENT

CONDENSED STATEMENTS OF NET POSITION

DECEMBER 31, 2018 AND 2017

	<u>2018</u>	<u>2017</u>
Assets		
<u>Cash and Cash Equivalents</u> These balances represent unrestricted assets that the Allegheny County Sanitary Authority (Authority) can use at its discretion.		
Cash and cash equivalents	\$ 142,482,220	\$ 119,248,255
Accounts receivable	57,957,072	57,423,069
Restricted/designated cash and investments	251,851,090	100,289,509
Property, plant, and equipment, net	622,343,318	608,600,195
Other	16,449,810	12,904,742
Total Assets	1,091,083,510	898,465,770
Deferred Outflows of Resources		
Related to pensions	17,633,917	21,247,515
Related to other post-employment benefits	932,894	
Refunding adjustment	7,077,328	8,074,203
Total Deferred Outflows of Resources	25,644,139	29,321,718
Total Assets and Deferred Outflows of Resources	\$ 1,116,727,649	\$ 927,787,488
Liabilities		
<u>Property, Plant, & Equipment, Net</u> Property, plant, and equipment, net, such as incinerators, administrative buildings, and land are items used to provide the Authority's services.		
Accounts payable and accrued expenses	\$ 18,391,741	\$ 18,002,007
Net pension liability	16,421,705	16,421,705
Other post-employment benefits	13,297,158	6,199,726
Sewer revenue bonds	760,422,500	621,682,220
Total Liabilities	798,233,271	662,305,658
Deferred Inflows of Resources		
Related to pensions	12,389,471	2,935,957
Net Position	306,104,907	262,545,873
Total Liabilities, Deferred Inflows of Resources, and Net Position	\$ 1,116,727,649	\$ 927,787,488

Accounts Receivable

Accounts receivable represent funds owed to the Authority for fees billed and unbilled to users that have not yet been paid.

Restricted/Designated Cash and Investments

Restricted cash and investments are primarily comprised of funds provided by bond issuances that are unspent and are to be used by the Authority to implement its capital improvement plan. Designated cash and investments are to be used for specific purposes specified by management.

Property, Plant, & Equipment, Net

Property, plant, and equipment, net, such as incinerators, administrative buildings, and land are items used to provide the Authority's services.

Sewer Revenue Bonds

Sewer revenue bonds represent amounts that will be paid over future years. The proceeds of these bonds were/will be used to fund capital improvements.

Deferred Outflows of Resources

Deferred outflows of resources are comprised of the refunding adjustment on bonds issued in prior years and changes in the pension funds.

Deferred Inflows of Resources

Deferred inflows of resources are comprised of changes in the pension funds.



CONDENSED STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

YEARS ENDED DECEMBER 31, 2018 AND 2017

	<u>2018</u>	<u>2017</u>
<u>Operating Revenues</u>	\$ 169,724,327	\$ 170,182,173
<u>Operating Expenses:</u>		
Sewer treatment operations	56,687,332	52,409,889
Administrative and other	<u>21,941,716</u>	<u>21,990,218</u>
Total operating expenses before depreciation	78,629,048	74,400,107
Depreciation	<u>23,071,589</u>	<u>22,426,718</u>
Operating Income	<u>68,023,690</u>	<u>73,355,348</u>
<u>Non-Operating Revenues</u>	3,127,451	1,096,517
<u>Non-Operating Expenses</u>	<u>(22,216,741)</u>	<u>(25,434,608)</u>
Change in Net Position	48,934,400	49,017,257
<u>Net Position:</u>		
Beginning of year	<u>257,170,507</u>	<u>213,528,616</u>
End of year	<u>\$ 306,104,907</u>	<u>\$ 262,545,873</u>

Operating Revenues and Expenses

Operating revenues are primarily fees received from users to cover the total operating expenses associated with the services provided by the Authority

Non-Operating Revenues and Expenses

Non-operating revenues are primarily received from interest earned on cash and investments. Non-operating expenses are primarily interest paid on bonds and pension and other post-employment benefit adjustments.

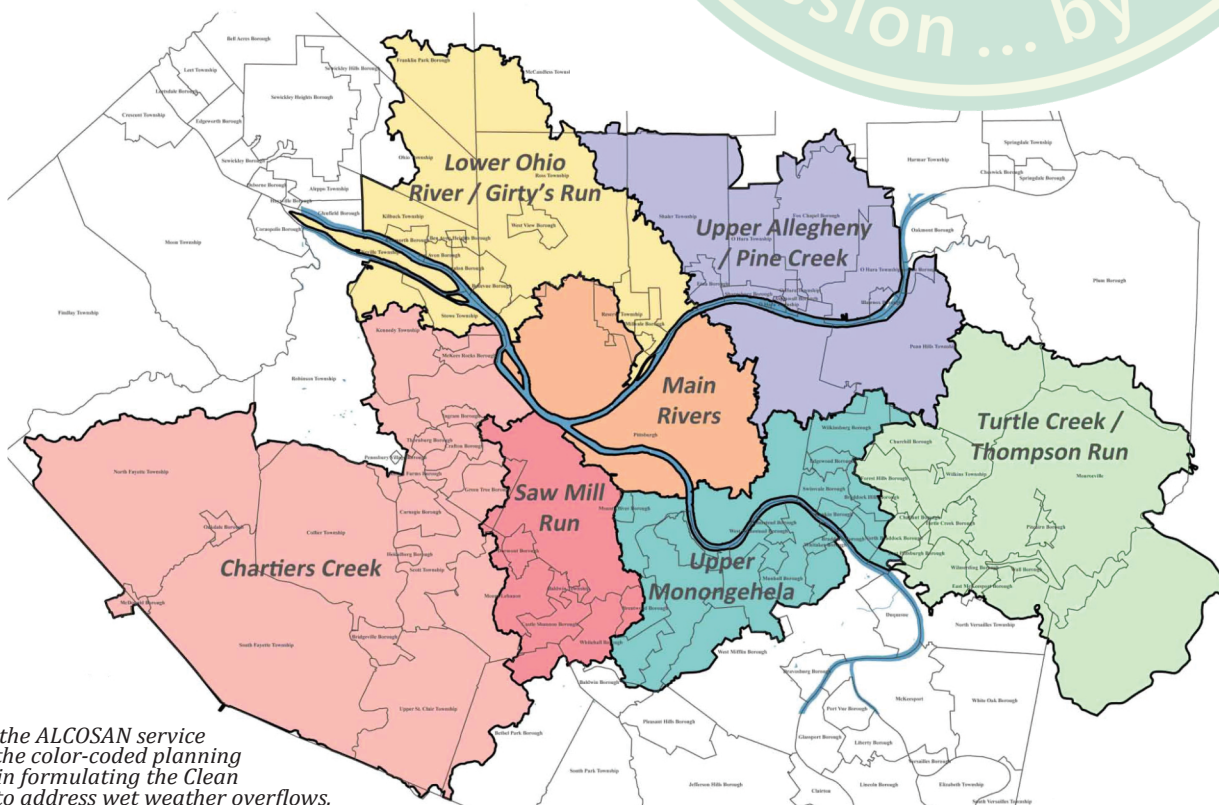
Independent Audit

Section 8 of the Municipality Authority Act of 1945 requires an annual audit by independent certified public accountants. The accounting firm of Maher Duessel, Certified Public Accountants, was selected by the Authority's Board of Directors. The audit was performed without any limitations as to scope and resulted in an unqualified opinion being rendered. A copy of the audit report is available for inspection online and at the Authority's administrative offices.

Closing Remarks

This report provides a snapshot of the financial position and activity of the Authority. Management has taken significant measures over the past several years to maintain and improve both the financial condition and operational efficiency of the Authority while maintaining competitive user rates.

ALCOSAN SERVICE AREA



This map of the ALCOSAN service area shows the color-coded planning basins used in formulating the Clean Water Plan to address wet weather overflows.

Customer Municipalities

- | | | | |
|--------------------------|------------------------|---------------------------|--------------------------|
| Aspinwall Borough | Edgewood Borough | North Braddock Borough | South Fayette Township |
| Avalon Borough | Emsworth Borough | North Fayette Township* | Stowe Township |
| Baldwin Borough* | Etna Borough | North Huntingdon Twp.* | Swissvale Borough |
| Baldwin Township | Forest Hills Borough | North Versailles Township | Thornburg Borough |
| Bellevue Borough | Fox Chapel Borough* | O' Hara Township | Trafford Borough |
| Ben Avon Borough | Franklin Park Borough* | Oakdale Borough | Turtle Creek Borough |
| Ben Avon Heights Borough | Green Tree Borough | Ohio Township* | Upper St. Clair Township |
| Bethel Park* | Heidelberg Borough | Penn Hills* | Verona Borough* |
| Blawnox Borough | Homestead Borough | Penn Township* | Wall Borough |
| Braddock Borough | Indiana Township* | Peters Township* | West Homestead Borough |
| Braddock Hills Borough | Ingram Borough | Pitcairn Borough | West Mifflin Borough* |
| Brentwood Borough | Kennedy Township | Pittsburgh, City of | West View Borough |
| Bridgeville Borough | Kilbuck Township | Pleasant Hills Borough* | Whitaker Borough |
| Carnegie Borough | McCandless Township* | Plum Borough* | Whitehall Borough |
| Castle Shannon Borough | McDonald Borough | Rankin Borough | Wilkins Township |
| Chalfant Borough | McKees Rocks Borough | Reserve Township | Wilkinsburg Borough |
| Churchill Borough | Millvale Borough | Robinson Township* | Wilmerding Borough |
| Collier Township* | Monroeville | Ross Township | |
| Crafton Borough | Mt. Lebanon | Rosslyn Farms Borough | |
| Dormont Borough | Mt. Oliver Borough | Scott Township | |
| East McKeesport Borough* | Munhall Borough | Shaler Township | |
| East Pittsburgh Borough | Neville Township | Sharpsburg Borough | |

**Communities not served in their entirety*



3 RIVERS PROUD

ALLEGHENY COUNTY SANITARY AUTHORITY
3300 PREBLE AVENUE
PITTSBURGH, PENNSYLVANIA 15233
(412) 766-4810
WWW.ALCOSAN.ORG