



ANNUAL REPORT 2019



ALLEGHENY COUNTY SANITARY AUTHORITY ANNUAL REPORT

AS OF DECEMBER 31, 2019



Students of ALCOSAN's annual Summer Science camp use a double-ring infiltrometer to measure the infiltration rate of soil in a planned rain garden.

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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 by working to protect drinking water, rivers and streams, and making the Pittsburgh region a great place to live, work and play. 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.



A MESSAGE FROM THE EXECUTIVE DIRECTOR



Arletta Scott Williams
Executive Director
ALCOSAN

Every new beginning comes from some other beginning's end. – Seneca

The Allegheny County Sanitary Authority was formed in 1946, during the beginning of Pittsburgh's Renaissance I. The treatment plant went into operation in 1959, treating the sewage of 71 communities, including the city of Pittsburgh. Sixty years later, ALCOSAN is serving 83 municipalities, and embarking on one of the largest infrastructure projects in Allegheny County to continue improving the quality of our rivers and streams.

In September 2019, the U.S. Department of Justice lodged a modified consent decree, following years of negotiations. It authorizes our Clean Water Plan to be implemented in a phased approach, contains the cost to \$2 billion and allows for adaptability based on results of sustainable actions. Amendments were an outcome of collaboration, cooperation, direction and support between ALCOSAN, the regulatory agencies, Allegheny County officials, and municipal and citizens groups.

Working together has proven to be instrumental to forward progress. Open communication is important, and we overhauled our website, www.alcosan.org, to better inform our customers and community about projects, resources and programs.

We welcomed Dr. Shannah Tharp Gilliam as a new member to the ALCOSAN board of directors. The Board also formed a 21-member advisory committee made up of three members from each of our seven planning basins.

After 40 years of service, we bid farewell to Art Tamilia, our deputy executive director, director of environmental compliance and friend. His retirement led to the appointment of Doug Jackson, director of operations and maintenance, as ALCOSAN's new deputy executive director. Michelle Buys assumed the role as the director of environmental compliance.

We ended 2019 with a renewed commitment to our mission: "To provide cost-effective, customer-oriented, environmentally conscious wastewater treatment that protects public health and enhances the use of our natural resources." There are many exciting changes that will be forthcoming to help us continue with our important work, so stay tuned!

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



BOARD OF DIRECTORS

2019 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.



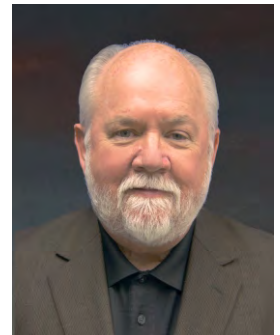
Chair: Sylvia C. Wilson
*Board Member
Pittsburgh Board of Education*



Vice Chair: Corey O'Connor
*Council Member
City of Pittsburgh*



Secretary: Harry Readshaw
*Pennsylvania House of
Representatives - District 36*



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



Dr. Shannah Tharp-Gilliam
*Director
Homewood Children's Village*



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



John K. Weinstein
*Treasurer
Allegheny County*



FINANCE AND ADMINISTRATION



ALCOSAN began implementing a new and attendance management system in October, replacing dated employee punch card time clocks with biometric fingerprint scanners.

The Finance and Administration division implements and maintains sound fiscal policies and competent customer service, and safeguards the Authority's assets, 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 continues to be ideally positioned for future challenges largely due to the preparations taken by this division. Most importantly, ALCOSAN is

in excellent fiscal standing. The authority's A+ bond rating from Standard and Poor's, and its Moody's A1 rating, remain stable. ALCOSAN is looking to improve ratings based on the positive results of the 2019 financial year.

Bond funds are used to cover the costs of capital expenditures that include 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 in 2019. A 7% rate increase went into effect in January 2019; the average residential customer who uses 12,000 gallons of water per quarter was charged \$448 by ALCOSAN. Rate increases will remain at 7% for 2020 and 2021, when the annual cost to the average customer will be \$513.

The Authority's healthy financial status enabled it to raise the Clean Water Assistance Fund to quarterly payments of \$34 for qualified homeowners. The number of households receiving assistance continues to increase. Participation leaped from 859 in 2017 to 1,828 in 2018. In 2019, there were 2,161 households, from 69 of the 83 municipalities that ALCOSAN serves.

ALCOSAN's strong financial position also permitted the authority to provide an additional \$8 million toward its Green Revitalization of Our Waterways (GROW) grant program that provides financial aid to customer municipalities.

The Human Resources department is key to recruiting, training and promoting employees who will be tasked with implementing the Clean Water Plan. ALCOSAN also continues to offer training programs for trade positions.

The Authority introduced an employee wellness program in 2019; about two-thirds of the 427 full-time employees actively participated.

ALCOSAN has labor agreements with two unions: the Utility Workers of America Local 433 and General Teamsters, Chauffeurs and Helpers Local 249. Both agreements are in place through the fourth quarter of 2023, contributing to stability in the workforce.

2019 CLEAN WATER ASSISTANCE BY MUNICIPALITY

MUNICIPALITY	FUND RECIPIENTS	MUNICIPALITY	FUND RECIPIENTS	MUNICIPALITY	FUND RECIPIENTS
Aspinwall Borough	1	Green Tree Borough	9	Pleasant Hills Borough	0
Avalon Borough	11	Heidelberg Borough	4	Plum Borough	0
Baldwin Borough	14	Homestead Borough	7	Rankin Borough	1
Baldwin Township	2	Indiana Township	0	Reserve Township	13
Bellevue Borough	22	Ingram Borough	2	Robinson Township	0
Ben Avon Borough	0	Kennedy Township	3	Ross Township	17
Ben Avon Heights Borough	0	Kilbuck Township	0	Rosslyn Farms Borough	0
Bethel Park	6	McCandless Township	2	Scott Township	21
Blawnox Borough	10	McDonald Borough	2	Shaler Township	22
Braddock Borough	10	McKees Rocks Borough	23	Sharpsburg Borough	11
Braddock Hills Borough	7	Millvale Borough	27	South Fayette Township	21
Brentwood Borough	13	Monroeville	16	Stowe Township	16
Bridgeville Borough	10	Mt. Lebanon	10	Swissvale Borough	26
Carnegie Borough	16	Mt. Oliver Borough	10	Thornburg Borough	0
Castle Shannon Borough	12	Munhall Borough	22	Trafford Borough	11
Chalfant Borough	0	Neville Township	5	Turtle Creek Borough	6
Churchill Borough	4	North Braddock Borough	13	Upper St. Clair Township	8
Collier Township	2	North Fayette Township	0	Verona Borough	5
Crafton Borough	9	North Huntingdon Township	0	Wall Borough	5
Dormont Borough	9	North Versailles Township	4	West Homestead Borough	4
East McKeesport Borough	6	O'Hara Township	4	West Mifflin Borough	1
East Pittsburgh Borough	3	Oakdale Borough	4	West View Borough	22
Edgewood Borough	2	Ohio Township	0	Whitaker Borough	1
Emsworth Borough	8	Penn Hills	93	Whitehall Borough	13
Etna Borough	11	Penn Township	4	Wilkins Township	4
Forest Hills Borough	1	Peters Township	0	Wilkesburg Borough	21
Fox Chapel Borough	0	Pitcairn Borough	7	Wilmerding Borough	3
Franklin Park Borough	0	Pittsburgh (City)	1,449		
					2019 TOTAL: 1,828



ENVIRONMENTAL COMPLIANCE

The Authority complies with federal, state and local environmental laws from the U.S. Environmental Protection Agency (EPA), Pennsylvania Department of Environmental Protection (DEP) and the Allegheny County Health Department (ACHD). The Environmental Compliance division is the main contact with these agencies, and maintains primary oversight for ALCOSAN's National Pollutant Discharge Elimination System (NPDES) permits for water quality.

NPDES permits allow ALCOSAN to discharge treated water into the Ohio River, and authorizes the discharges of combined sewer overflows. There are limits on what can be discharged, and continual monitoring and reporting is required.

Some of the changes in ALCOSAN's renewed 2018 NPDES permit included additional parameters to analyze and report. The renewed permit also included continued compliance with the combined sewer overflows by adding lengthy details on the continued implementation, monitoring and reporting of the technology-based nine minimum controls.

One of the compliance goals in our Consent Decree is to reduce the amount of combined sewer overflow discharges to be consistent with EPA's Combined Sewer Overflow Policy. The modification of the Consent Decree was under negotiations from



More than 8,600 dry tons of ALCOSOIL was applied to 2,200 acres of agricultural fields in 2019.

2013-2018 which included approving the Clean Water Plan and providing a schedule for implementation. The U.S. Department of Justice lodged the modified consent decree on September 19, 2019. A 60-day public comment period followed, while ALCOSAN awaited final approval.



ALCOSAN's in-house laboratory conducts process monitoring seven days a week, ensuring permit compliance, responsive process control and assessment capabilities for wet weather control.

A key element of the Clean Water Plan is expanding the wastewater treatment plant to provide additional treatment capacity during wet weather. During 2019, the Environmental Compliance and Engineering divisions collaborated to obtain the necessary permits for plant expansion. The addition of two primary sedimentation tanks requires the Environmental Compliance laboratory and administration offices to relocate, and a new facility to be designed.

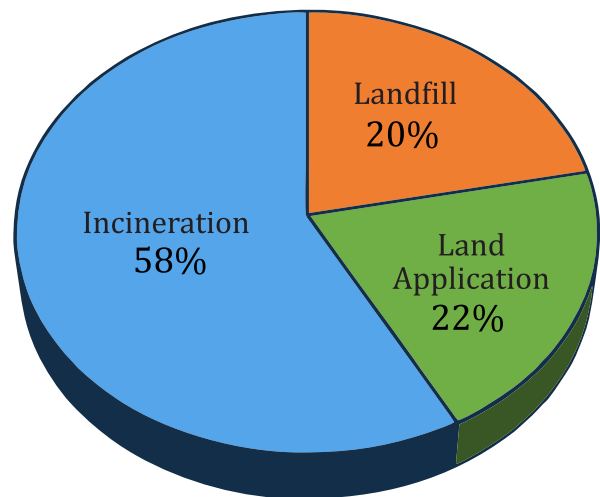
Laboratory chemists conduct an average of 20,000 analysis each year on wastewater, industrial waste, biosolids and surface water. Every three years, the DEP audits the laboratory to ensure that its Chapter 252 regulations are being followed, and to re-certify accreditation.

The DEP assessors requested reports and data packages for a pre-audit assessment prior to their visit in July. In-depth assessments of the testing, quality control, records and documentation were performed, and passing results were received in December.

The Residuals department ensures that permits and regulations are met to handle and transport biosolid byproduct. The biosolids management services contract requires a minimum of 70% beneficial use of resulting ALCOSOIL, which is our biosolid fertilizer. Beneficial use was 81%, making the May 2018-May 2019 contract year the highest in biosolid land application. Improved contract performance resulted in significant savings.

The yearly NPDES inspection by the ACHD passed, there were no violations on NPDES effluent limits, no permit discharge violations, and the authority received no odor complaints in 2019.

Biosolids Management - Disposal by Method - 2019



- 22,954.56 dry tons
- 8,637.61 dry tons
- 8,021.57 dry tons



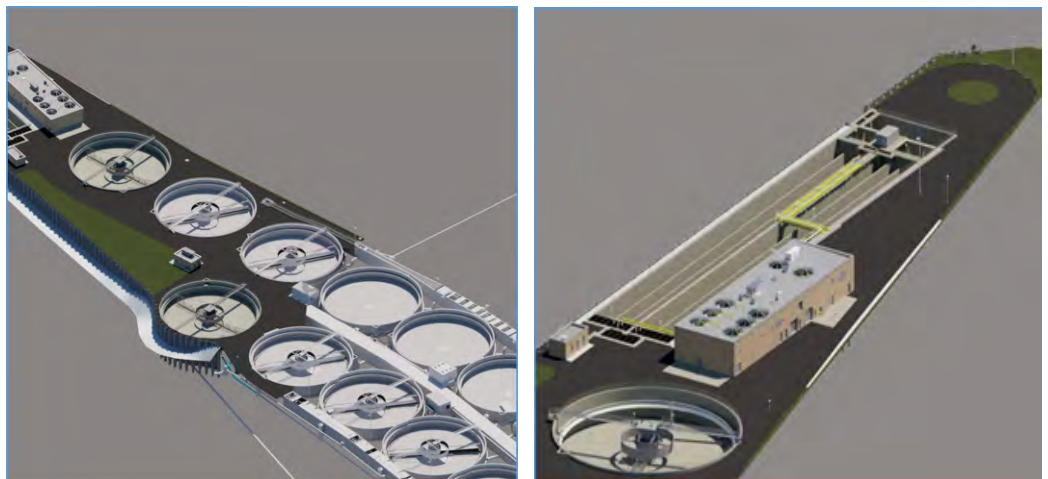
ENGINEERING AND CONSTRUCTION

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

A large focus has been the plant expansion associated with implementation of the Clean Water Plan. Construction began on two of the smaller expansion projects: a temporary disinfection system that will be used while the north end facilities are under construction, and flow meters that will be used to measure total plant flow for the expanded plant.

Final design was completed for the north end plant expansion project with bidding expected in early 2020. Work includes two new final settling tanks, a new chlorine contact tank, a new return activated (RAS) sludge pump station, and a chemical storage building for the disinfection processes. Design also continued for the electrical distribution plan to upgrade critical electrical components and conduits.

Projects in the early design phase include the new east headworks facility to handle 360 million gallons per day; the RAS pipe and pump replacement to handle larger recycle flows within the treatment process; and a new laboratory/industrial



Artist renderings show the final design of the pending north end plant expansion project.

waste facility and parking garage that require relocation to open space for additional primary settling tanks.

The construction management (CM) firm moved on-site to assist with design and construction packages associated with plant expansion. The CM held value engineering sessions of the 30% design submissions for the north end plant expansion and east headworks packages. Independent industry experts reviewed project concepts, and identified options for potential cost savings, constructability and efficiencies. Many concepts were accepted and incorporated into the designs.

ALCOSAN furthered designs for facilities proposed for transfer under the regionalization program. The Engineering and Construction division assisted with the Girty's Run upper and lower watershed equalization facilities evaluation.

Additionally, ALCOSAN engineers oversaw various projects to improve operations efficiency, maintenance and safety within the plant and in the regional collection system. One such project was the full rehabilitation to the campus' signature chimneystack.

Employees continued training on the e-Builder software program to manage work under the Clean Water Plan. This program offers an efficient way to obtain and track necessary approvals, organize information and provide effective workflow monitoring.

2019 CAPITAL PROGRAM EXISTING PLANT PROJECTS	2019 EXPENDITURES	TOTAL ESTIMATED PROJECT COST
Biosolids Strategic Plan	\$0	\$1,525,600
Plant Energy Efficient Upgrades	\$21,988	\$2,319,000
Energy Recovery Facility Improvements (2018/2019)	\$793,709	\$2,500,000
Plant Facilities and Safety Upgrades (2018/2019)	\$1,467,249	\$4,100,000
New Lab and Industrial Waste Facility	\$246,710	\$26,500,000
Subtotal Existing Plant Projects	\$2,529,656	\$36,944,600
EXISTING INTERCEPTOR SYSTEM PROJECTS	2019	TOTAL
Grit Chambers	\$223,607	\$2,026,100
Conveyance Rehab and Enhancements (2018/2019)	\$2,401,298	\$3,644,400
CIPP Lining of Mon Sub-Aqueous Inter. & SMR Inter.	\$82,534	\$19,630,000
Flap Gate & Misc. Regulator Improvements (Var. Loc.)	\$97,304	\$4,272,000
Remote Pump Station Improvements	\$9,587	\$3,921,000
Subtotal Existing Interceptor System Projects	\$2,814,330	\$33,493,100
MUNICIPAL SOURCE CONTROL PROJECTS	2019	TOTAL
Ravine St. Stream Removal and Sewer Separation	\$51,521	\$4,129,900
Four Mile Run Regulator (M29) & Overall Improvements	\$8,384	\$2,045,500
Green Infrastructure Program Manager	\$974,027	\$3,692,000
Municipal Source Control Program	\$1,577,244	\$11,637,000
Panther Hollow DSI	\$471	\$5,006,600
Subtotal Municipal Source Control Projects	\$2,611,647	\$26,511,000
WET WEATHER PLANT EXPANSION PROJECTS	2019	TOTAL
Wet Weather Plant Expansion Program	\$1,558,949	\$49,000,000
Demolition of Old Operations and Maintenance Facility	\$27,938	\$600,000
North End Facilities	\$4,353,831	\$121,500,000
New East Headworks	\$1,815,740	\$84,000,000
Wet Weather Disinfection	\$476	\$40,000,000
Electrical Distribution System Upgrade	\$233,028	\$13,000,000
Subtotal Wet Weather Plant Expansion Projects	\$7,989,963	\$308,100,000
INTERIM WW PLAN REGIONAL PROJECTS	2019	TOTAL
Preliminary Planning	\$4,113,201	\$19,585,000
Regionalization	\$4,400,213	\$44,505,000
Interim Wet Weather Planning Compliance	\$1,105,754	\$22,850,000
Property Acquisitions	\$92,309	\$41,029,000
Program Management Information System (PMIS)	\$344,402	\$4,000,000
Subtotal Interim Wet Weather Plan Regional Projects	\$10,055,878	\$130,734,000
OTHER CAPITAL IMPROVEMENTS	2019	TOTAL
Mobile Equipment (2019)	\$1,568,228	\$1,607,100
2018 Low-cost Capital Improvements	\$1,153,587	\$3,562,800
Subtotal Other Capital Projects	\$2,721,815	\$5,169,900
TOTAL 2019 CAPITAL PROGRAM	\$31,098,768	\$499,132,800

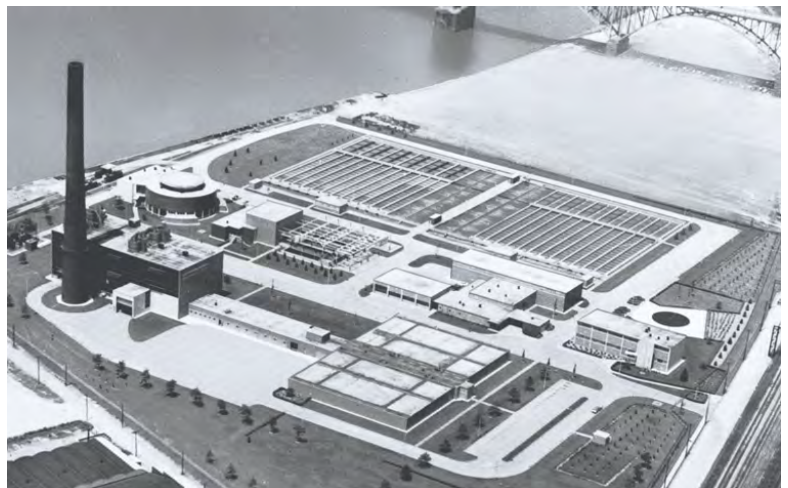


OPERATIONS AND MAINTENANCE

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

The Authority has provided environmental service to customer communities for 60 years. The plant went into operation in 1959, meeting the day's standards for primary sewage treatment and disinfection. As new regulations went into effect, the plant underwent changes to meet compliance. The secondary treatment process was added in the 1970s, and odor control in the 1990s.

Looking to the future, ALCOSAN's Clean Water Plan includes a major plant expansion to treat wet weather flows, and will dramatically change overall treatment plant operation and maintenance. The plant has been, and will continue to be, modernized for optimal performance and prepared for increased treatment capacity. Equipment is being replaced as necessary and upgraded to current technologies.



Aerial photographs show the 60-year evolution of ALCOSAN's wastewater treatment plant from 1959 (top) to today.

PLANT OPERATIONS BY THE NUMBERS

While some original plant equipment still is in operation, maintenance has become increasingly challenging, as replacement parts are no longer being manufactured. One of the original pieces of equipment replaced in August 2019 was the 1959 model overhead circular crane in the main pump station. The cost to refurbish the original equipment would have exceeded the cost of replacement. The new crane allows for safer and more efficient operation and complies with modern electrical standards.

TREATMENT PLANT PERFORMANCE	2019
TOTAL Volume of Wastewater Treated	76.4 billion gallons
Average Daily Flow	209 million gallons/day
Solid Waste Removed	81.7 million pounds
Dewatered Sludge Incinerated	22,955 dry tons
Dewatered Sludge Land-Applied	8,638 dry tons
Dewatered Sludge Landfilled	8,022 dry tons
Effluent Water Recycled for Internal Use	2.62 billion gallons
RESOURCES CONSUMED	2019
Pebble Lime	2,932 tons
Polymer	990,200 pounds
Sodium Hypochlorite	1,671,845 gallons
Caustic Soda	365,426 pounds
Sulfuric Acid	92,554 pounds
Hydrochloric Acid	23,208 pounds
Sodium Bisulfate	1,242,059 gallons
#2 Heating Oil	43,444 gallons
UTILITY COSTS	2019
Electricity	\$5,472,760
Natural Gas	\$668,490
Public Water	\$1,302,499



Installation work for the new centralized instrument air system was completed by ALCOSAN's in-house maintenance personnel.

A new centralized instrument air system was installed in 2019 that upgraded outdated compressor equipment in the energy recovery facility, and compressor equipment was added in the dewatering facility. These systems produce higher quality compressed air used in the operation and automation of equipment in the solids processing area.

Although ALCOSAN has a history of maintaining workforce longevity, inevitable retirements bring the challenge of managing and transferring institutional knowledge. ALCOSAN has an ongoing obligation and is fully committed to ensuring that proper training and education is provided to sustain compliant operation with existing and newer wastewater technological advancements. This includes preparing for the major operational changes expected in the coming years in support of Clean Water Plan initiatives.



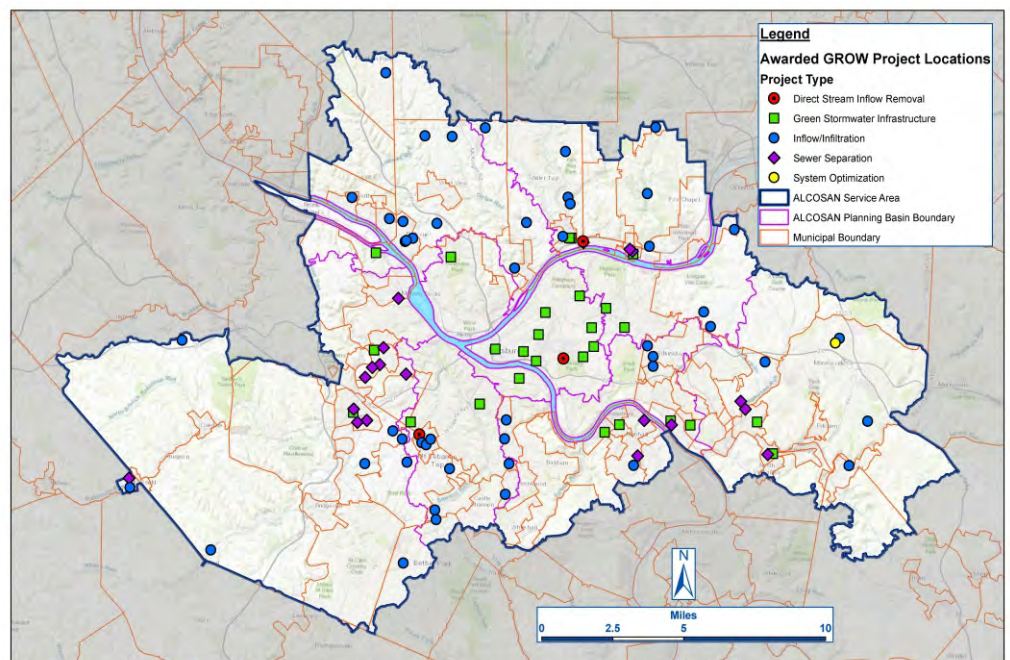
REGIONAL CONVEYANCE

The fundamental mission of ALCOSAN's Regional Conveyance division is the management, operation and maintenance of the interceptor systems and sewer service provided to our 83 municipal customers. The group also develops plans and practices to ensure compliance with regulations related to combined and sanitary sewer overflows.

Regional Conveyance oversees three of the four key elements in the Clean Water Plan: regionalization, source control/Green Revitalization of Our Waterways (GROW), and preliminary planning.

As recommended by a regional panel in 2011, ALCOSAN made best efforts to take ownership and responsibility for sewers in the regional collection system that are 10 inches in diameter and greater, and carry flow from more than one municipality. Efforts continue with customer municipalities to transfer ownership of 200 miles of sewers, four pump stations, four equalization basins and 80 diversion structures.

The GROW program was initiated in 2016 to provide financial support to municipalities for projects that reduce overflow. During the first three cycles, \$22 million in grants were offered for 80 projects that would reduce the volume of overflows into the region's waterways by nearly 127 million gallons.



Green Revitalization of Our Waterways (GROW) project locations and project type - Cycles 1-4



Partners in the Sheraden Stream Removal and Aquatic Habitat Restoration project ceremoniously turned a valve to mark completion of the project. (Photo courtesy of Councilwoman Theresa Kail-Smith.)

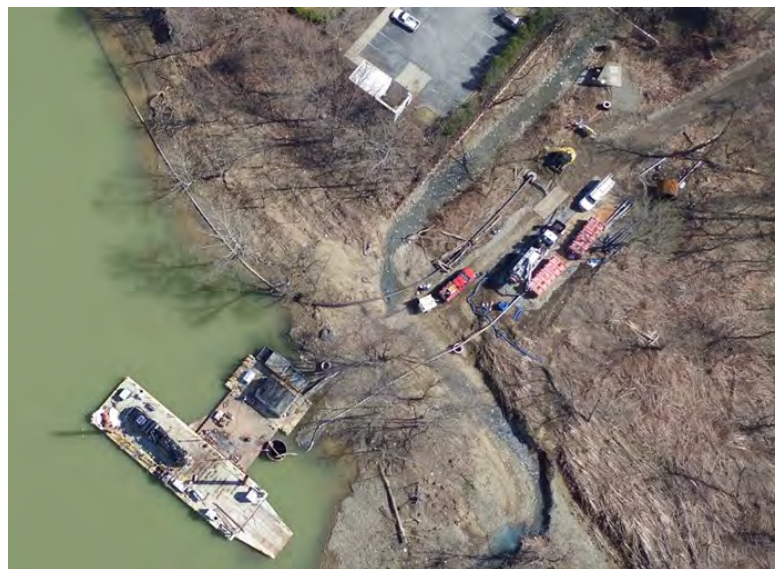
In 2019, the fourth cycle, \$9,733,836 was offered in grants to 21 municipalities. These grants cover 30 projects that are expected to remove approximately 25 million gallons of overflow volume per year.

ALCOSAN's board of directors approved modifications to the GROW program guidelines that increase the funding cap for Cycle 5 from \$2 million per project per cycle, to \$10 million per project. Nearly 85% of ALCOSAN's customer municipalities have participated in the GROW program.

Preliminary planning advises ALCOSAN of the size, location and route of new conveyance tunnels, dropshafts, regulators and shallow conveyance sewers that will be constructed. Data from plant expansion and source reduction will be integrated to determine the best use of the proposed facilities to reduce overflows.

ALCOSAN uses InfoAsset Manager (formerly InfoNet) to validate, integrate, analyze, and manage asset data. This software is designed specifically for the wastewater industry, and provides reliable, historical and spatial information of the sewers in our service area. This allows ALCOSAN to optimize capital planning, generate risk assessments analysis, prioritize maintenance needs, diagnose problem hot spots, and more.

The division continued routine inspection, maintenance and repairs of the ALCOSAN interceptor system and structures. Emergency repairs to a damaged pipeline in the Monongahela subaqueous interceptor was contracted out in September 2018 and completed in 2019. All construction work for the river manholes had to be performed by barge, using divers to locate the pipe, make external pipe repairs, and install a cofferdam around the section where manholes would be installed to keep the river water out. A total of 19.5 tons of debris was removed from the interceptor during the job.



Repairs to the damaged Monongahela subaqueous interceptor - including manhole construction and pipe relining - extended into 2019, with flow restored to the interceptor by June.



COMMUNICATIONS

The Communications division provides information and education to the public about the work ALCOSAN performs for its 83 member municipalities. As the Clean Water Plan moves forward, it will be critical that all ALCOSAN customers are aware of the plan's projects and how they will improve the quality of our local rivers and streams.

One of the most important tasks the Communications division completed in 2019 was launching a completely revamped website, www.alcosan.org, to highlight the vital work that the Authority does daily. The new website provides an easier way to navigate and engage with ALCOSAN, and it helps keep the public informed about the progress toward meeting the Clean Water Plan goals.



The "Frankie's World" video gave voice to ALCOSAN's popular mascot while promoting the Authority's mission through new media outlets.

In 2019, ALCOSAN initiated a media campaign on cable and streaming TV, social media and in movie theaters. Two videos were featured: "The Journey to Cleaner Rivers," and "Frankie's World." A third video, "What Goes in Our Rivers" was created as well, and all three videos can be viewed on the new ALCOSAN website.

The annual ALCOSAN Open House in September welcomed 2,194 visitors to the facility, providing opportunities to tour the wastewater treatment plant and participate in more than 30 environmental awareness activities. Additionally, Communications staff and our mascot, Frankie the Fish, participated in 40 community-based events, festivals and parades.

ALCOSAN's Scholastic Outreach and Education department offers a variety of programs related to science, technology, engineering and math (STEM) for students of all ages, as well as educators. Scholastic Outreach representatives are Pennsylvania certified teachers committed to providing educational programming using Pennsylvania's academic standards for environment and ecology. Over 26,000 students in approximately 800 sites took part in our educational programs during 2019. Information about classroom activities, educator workshops, summer camps, internships, tours, and parent resources is available on the ALCOSAN website.



GOVERNMENTAL AFFAIRS

The Governmental Affairs division provides communication and professional support to ALCOSAN's partners in government on the county, state and federal levels and with other authorities, foundations, businesses and community groups. Additionally, this includes those from our 83 customer municipalities and authorities.

As work on the Clean Water Plan progresses, the division's liaison role to customer municipalities and within the Authority has become more robust. In September, representatives from regulatory agencies joined ALCOSAN to present key elements of the modified consent decree and updated plan. Municipalities also learned about regulatory reporting requirements for source control.

Staff increased their involvement in two key elements of the Clean Water Plan: the Regionalization process and the GROW funding program. Additionally, the division actively pursues other funding sources to help customer municipalities with current and future projects.

At ALCOSAN's request, our Congressional delegation, led by U.S. Representatives Mike Doyle and Conor Lamb, secured the following:

- \$100 million for the U.S. Army Corps of Engineers' (USACE) Section 219 work, which is mostly for design and construction using pipes and pumps. Congress also required that criteria be developed for awards from this money.
- \$10 million for the USACE Section 206 work, for environmental restoration.
- \$28 million in first-ever funding for the Environmental Protection Agency's Sewer Overflow and Stormwater Reuse Municipal Grants.



Officials such as Pennsylvania Senator Pam Lovino and Col. Coby Short, Pittsburgh District Commander of the U.S. Army Corps of Engineers toured ALCOSAN's wastewater treatment plant to increase their understanding about processes, programs, plans and impacts.

Our U.S. Representatives and Senators also supported ALCOSAN's request to fund a large stream removal project in O'Hara and Fox Chapel townships and Aspinwall Borough. As a result, ALCOSAN was awarded \$3.2 million in the local USACE's 2020 work plan.



PROCUREMENT

ALCOSAN's Procurement Office acquires, and ensures the integrity of, professional services necessary to implement the Clean Water Plan and maintain plant operations. The office also documents supporting paperwork, provides electronic and hard copy of data, administers the program management information system, and assists project managers with contractual concerns.

Professional services procurement begins with the concept of an idea through the award of a contract, including negotiations. Due diligence ensures rate payers are getting the best price at the highest quality. There were 19 contracts awarded in 2019, worth over \$7.7 million.

Contract administration makes certain that our procurement process complies with the Municipal Authorities Act, and the ALCOSAN procurement manual and policy. Post-award, contract administration works with project management on contractual issues, and supports project performance, problems and concerns. Also, project and historical data is archived in a centralized records management and document control system.

In 2018, e-Builder program management software was implemented to centralize and track documents and financials through the lifecycle of ALCOSAN's Clean Water Plan. Monthly workshops continued on varied topics in 2019 for ALCOSAN staff and contractors. Now, all capital projects are transitioning to be included in the comprehensive program.

In December, ALCOSAN sponsored small business outreach related to construction projects forecasted for 2020 and beyond. Construction contracts associated with the Clean Water Plan and regional conveyance projects were resented to over 100 businesses. Large and small businesses were welcomed, including minority- and women-owned firms, and service-disabled veteran companies.

Procurement staff also assisted the Disadvantaged Business Enterprise (DBE) coordinator with outreach, meetings between consultants and staff, and preparing appropriate documents for the ALCOSAN board of directors.



ALCOSAN Procurement Officer Suzanne Thomas outlined upcoming construction projects at a December outreach event for minority, women and service-disabled veteran companies.



MaherDuessel

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, 2019 and 2018, and the related notes, are derived from the audited financial statements of the Authority, as of and for the years ended December 31, 2019 and 2018, and the related notes. We expressed an unmodified audit opinion on those audited financial statements in our report dated March 24, 2020.

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, 2019 and 2018, 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.

Maher Duessel

Pittsburgh, Pennsylvania
March 24, 2020



CONDENSED STATEMENTS OF NET POSITION DECEMBER 31, 2019 AND 2018

Cash and Cash Equivalents

These balances represent unrestricted assets that the Allegheny County Sanitary Authority (Authority) can use at its discretion.

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 and 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.

	<u>2019</u>	<u>2018</u>
Assets		
Cash and cash equivalents	\$ 175,476,686	\$ 142,482,220
Accounts receivable	60,399,617	57,957,072
Restricted/designated cash and investments	235,489,826	251,851,090
Property, plant, and equipment, net	629,097,945	622,343,318
Other	13,195,563	16,449,810
Total Assets	1,113,659,637	1,091,083,510
Deferred Outflows of Resources		
Related to pensions	35,676,281	17,633,917
Related to other post-employment benefits	853,236	932,894
Refunding adjustment	6,278,101	7,077,328
Total Deferred Outflows of Resources	42,807,618	25,644,139
Total Assets and Deferred Outflows of Resources	\$ 1,156,467,255	\$ 1,116,727,649
Liabilities		
Accounts payable and accrued expenses	\$ 19,107,374	\$ 18,391,741
Net pension liability	12,087,137	13,297,158
Other post-employment benefits	28,684,748	6,121,872
Sewer revenue bonds	728,698,732	760,422,500
Total Liabilities	788,577,991	798,233,271
Deferred Inflows of Resources		
Related to pensions	9,341,236	12,389,471
	1,904,424	
	11,245,660	12,389,471
Net Position	356,643,604	306,104,907
Total Liabilities, Deferred Inflows of Resources and Net Position	\$ 1,156,467,255	\$ 1,116,727,649



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

YEARS ENDED DECEMBER 31, 2019 AND 2018

	<u>2019</u>	<u>2018</u>
<u>Operating Revenues</u>	\$ 180,238,305	\$ 169,724,327
<u>Operating Expenses:</u>		
Sewer Treatment Operations	58,858,093	56,687,332
Administrative and other	<u>23,225,303</u>	<u>21,941,716</u>
Total operating expenses before depreciation	82,083,396	78,629,048
Depreciation	<u>22,772,539</u>	<u>23,071,589</u>
Operating Income	<u>75,382,370</u>	<u>68,023,690</u>
<u>Non-Operating Revenues</u>	8,966,272	3,127,451
<u>Non-Operating Expenses</u>	<u>(33,809,945)</u>	<u>(22,216,741)</u>
Change in Net Position	50,538,697	48,934,400
<u>Net Position:</u>		
Beginning of Year	<u>306,104,907</u>	<u>257,170,507</u>
End of year	<u>\$ 356,643,604</u>	<u>\$ 306,104,907</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

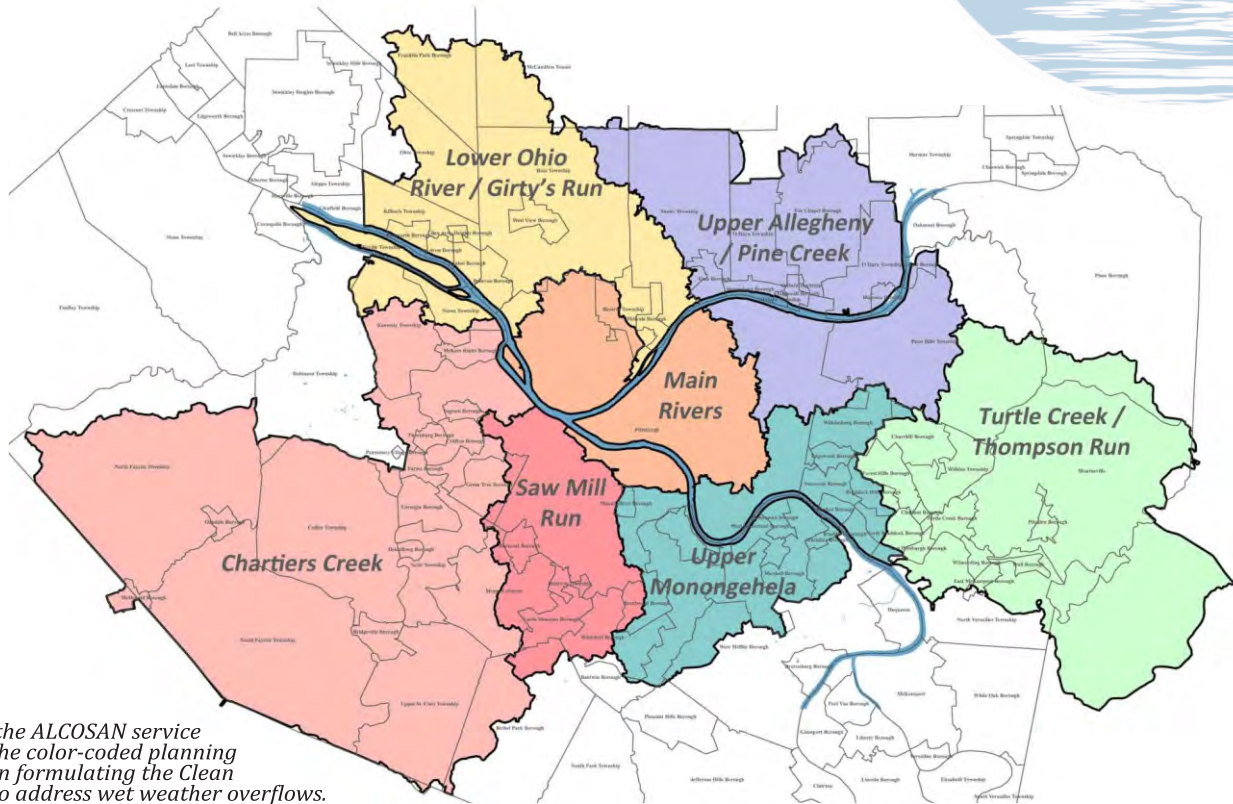
Non-operating revenues are primarily received from interest earned on cash and investments. Non-operating expenses are primarily interest paid on bonds and pension and other post-employment benefit adjustments.

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.



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
 Avalon Borough
 Baldwin Borough*
 Baldwin Township
 Bellevue Borough
 Ben Avon Borough
 Ben Avon Heights Borough
 Bethel Park*
 Blawnox Borough
 Braddock Borough
 Braddock Hills Borough
 Brentwood Borough
 Bridgeville Borough
 Carnegie Borough
 Castle Shannon Borough
 Chalfant Borough
 Churchill Borough
 Collier Township*
 Crafton Borough
 Dormont Borough
 East McKeesport Borough*
 East Pittsburgh Borough

Edgewood Borough
 Emsworth Borough
 Etna Borough
 Forest Hills Borough
 Fox Chapel Borough*
 Franklin Park Borough*
 Green Tree Borough
 Heidelberg Borough
 Homestead Borough
 Indiana Township*
 Ingram Borough
 Kennedy Township
 Kilbuck Township
 McCandless Township*
 McDonald Borough
 McKees Rocks Borough
 Millvale Borough
 Monroeville
 Mt. Lebanon
 Mt. Oliver Borough
 Munhall Borough
 Neville Township

North Braddock Borough
 North Fayette Township*
 North Huntingdon Twp.*
 North Versailles Township
 O' Hara Township
 Oakdale Borough
 Ohio Township*
 Penn Hills*
 Penn Township*
 Peters Township*
 Pitcairn Borough
 Pittsburgh, City of
 Pleasant Hills Borough*
 Plum Borough*
 Rankin Borough
 Reserve Township
 Robinson Township*
 Ross Township
 Rosslyn Farms Borough
 Scott Township
 Shaler Township
 Sharpsburg Borough

South Fayette Township
 Stowe Township
 Swissvale Borough
 Thornburg Borough
 Trafford Borough
 Turtle Creek Borough
 Upper St. Clair Township
 Verona Borough*
 Wall Borough
 West Homestead Borough
 West Mifflin Borough*
 West View Borough
 Whitaker Borough
 Whitehall Borough
 Wilkins Township
 Wilkesburg Borough
 Wilmerding Borough

**Communities not served in their entirety*