



ALCOSAN 101:

An Introduction to the
Allegheny County Sanitary Authority

WHO ARE WE?

Not many of us think about what happens to the water used to flush our toilets or wash dishes. Out of sight and out of mind, and as long as things work like they are supposed to, we don't give it another thought.

But that water and where it goes is very important to the health of our local waterways and the residents of Allegheny County. It's also important to us here at the Allegheny County Sanitary Authority, or ALCOSAN, as we are commonly known. We treat all the wastewater from 83 communities in the county, including the city of Pittsburgh.

WHAT DO WE DO?

Located on 59 acres in Pittsburgh's North Side, ALCOSAN and its wastewater treatment plant treats up to 250 million gallons a day of wastewater from your homes and businesses. And the water we release into the Ohio River after treatment? It is cleaner than the water in the river.

Wastewater (and many times stormwater) travels through municipal or authority-owned sewer systems to ALCOSAN's interceptor sewers that then convey the untreated sewage to our treatment plant. From there, that water passes through many processes to remove anything harmful before it is discharged into the Ohio River.





CLEAN WATER FOR A NEW GENERATION

While wastewater conveyance and treatment are our primary jobs at ALCOSAN, and ones that we are very proud to do, the Authority also is active in educating the next generation on environmental subjects. Our Scholastic Outreach and Education Department offers many educational activities and opportunities for students, teachers & communities, all within ALCOSAN's 83-municipality service area. All of our Scholastic Outreach representatives are Pennsylvania-certified teachers with focus areas in early childhood, elementary education, middle and high school math, science and English.

Our website, www.alcosan.org, provides much greater detail on how we clean wastewater, as well as a great resource for all things ALCOSAN.



CLEAN WATER FOR THE REGION

ALCOSAN was created in 1946 and the treatment plant went into service in 1959; prior to that, all but two percent of sewage was dumped straight into our local rivers and streams! Since 1959, ALCOSAN has continued to improve the valuable service it provides to our customers. And things are changing yet again.

Many of our municipal customers have what is known as a combined sewer system, where stormwater and sewage flow in the same pipe. And when we receive heavy rains or snowmelt, ALCOSAN cannot move or treat all the water, so it now flows into our waterways as a combined sewer overflow, or CSO, to the tune of approximately nine billion gallons a year.

To solve this problem, ALCOSAN and its regulators – U.S. Department of Justice, the U.S. Environmental Protection Agency, the PA Department of Environmental Protection and the Allegheny County Health Department – have negotiated and

entered into a consent decree. Out of this process is ALCOSAN's Clean Water Plan, the \$2 billion, 20-year roadmap towards reducing or eliminating overflows by seven billion gallons. The plan includes four methods for meeting the mandated goal:

- **Preventing excess water from entering the sewer system**

This involves use of the latest technology including green infrastructure such as bioswales and rain gardens; lining and repairing pipes to prevent groundwater from seeping into the system; diverting clean streams so they don't flow directly into sewers; and sewer separation projects. To advance this effort, ALCOSAN established Green Revitalization of Our Waterways (GROW), a multimillion-dollar grant program that funds projects that municipalities and sewer authorities might not be able to afford otherwise.

- **Increasing conveyance capacity and adaptive management**

ALCOSAN will expand its conveyance system by adding tunnels, pipes and diversion structures. ALCOSAN will also use adaptive management and base long-term planning on data from green infrastructure, flow-reduction projects, and the latest technology. This is a deviation from typical consent decrees in that the parties to the order are willing to consider additional stages with more green infrastructure, provided that it can be shown to be impactful in reducing overflows.

- **Regionalizing multi-municipal sewers**

ALCOSAN is working with its partner municipalities to assume ownership of existing multi-municipal trunk sewers and related facilities. With the anticipated addition of more than 200 miles of sewer infrastructure as ALCOSAN's responsibility, the system will be more efficient and seamless and it will reduce some of the burden on municipalities.

- **Expanding the wastewater treatment plant**

The current capacity of 250 million gallons per day (mgd) makes ALCOSAN the largest wastewater treatment system in the region, but greater capacity is needed. ALCOSAN will expand wet weather treatment capacity of the plant from 250 mgd to 480 mgd and wet weather headworks and disinfection capacity to 600 mgd.



To follow our progress, please visit alcosan.org and sign up for updates, attend a Board of Directors meeting, or visit us at one of the many community events we attend each year. We are proud of the important work we do at ALCOSAN and love to share that pride with you.