

Allegheny County Sewer-Related Facts & Figures

Fact:

All 83 municipalities participate in the 3 Rivers Wet Weather Eastern, Northern and Southern Basin Groups

Allegheny County and the service area of ALCOSAN

- ALCOSAN serves nearly 900,000 people in 83 communities, which cover 300 square miles.
- 48 communities in Allegheny County are outside the ALCOSAN service area. The population of these 48 communities totals 450,000 over 431 square miles.
- Within the ALCOSAN service area, the region has 265 CSO structures and 52 SSO structures. (Total: 317 overflow structures)
- Municipal sewer collection system pipes in the alcosan service area total 4,000 miles--the distance from Pittsburgh to Phoenix, AZ and back.
- Approximately 90% of Allegheny County residents get their drinking water from the four rivers--the Monongahela, Allegheny, Ohio and Youghiogheny rivers.
- Correcting the sewer infrastructure problems in the Pittsburgh region could potentially cost a total of \$3 billion.

Addressing the municipal sewer infrastructure problem

- To help municipalities address the problem, ALCOSAN and the Allegheny County Health Department (ACHD) created 3 Rivers Wet Weather Demonstration Program (3RWWDP) in 1998.
- 3RWWDP uses federal, state and local funds to award grants for innovative inter-municipal demonstration projects. 3RWW will continue to use its funding to help communities comply with a recent EPA Administrative Consent Order, which will require municipalities to begin cleaning and assessing their sewer systems.
- In January 2001, 3RWW created three Basin Groups of elected officials to collaboratively address the sewage overflow issue through education, shared resources and inter-municipal cooperation.
- The Basin Groups collaborated on a project to map 4,000 miles of sewers throughout 83 communities using a Geographic Information System (GIS). The GIS map provides a foundation for integrating and sharing additional data, such as sewer size and condition, which will help communities develop cost-effective long-term solutions.

Fact:

Since 1999, 3 Rivers Wet Weather has awarded \$7 million in demonstration grants
Total cost for these projects is over \$14.8 million.

Fact:

As little as one-tenth inch of rain can cause raw sewage to overflow into our waterways. An average rainfall in Allegheny County is one-quarter inch.

3 Rivers
Wet Weather
Demonstration Program

Improving our region's water quality

Wet Weather and Water-Related Facts

- Annually, CSOs affect Pittsburgh's three rivers between 40-70 days during the boating season (May 15-Oct. 1) making the water quality unacceptable for recreational contact. On those days, participating marinas, locks & dams, treatment plants, etc. fly large orange CSO flags to warn recreational boaters.
- The average daily wastewater flow in the sewer system is 100 gallons per person per day. During wet weather, so much additional water gets into the sewer system through infiltration and inflow that the 100 gallon per person average can rise to 200-3,000 gallons per person, which overloads the sewer system's carrying capacity.
- As much as 50%-60% of inflow and infiltration comes from leaking household laterals and illegally connected roof and foundation drains.
- During dry weather, about 40% or more of all flow reaching the alcosan treatment plant is from inflow and infiltration of stormwater and groundwater.
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Municipal Projects

3RWWDP grants cover 55% of eligible project costs.

Representative project scopes include:

- Development of inter-municipal agreements to address the costs of wet weather flow management
- Removal of streams discharging into the municipal sewer system
- Elimination of basement flooding through a neighborhood pressure sewer system
- Rehabilitation of house laterals (nationally, the source representing about 50% of inflow/infiltration)
- Development of an inter-municipal watershed-based wet weather flow management and sewer management program intended to foster compliance with the CSO and SSO regulations
- Manhole rehabilitation using various technologies
- Comparisons of various trenchless sewer rehabilitation technologies
- Installation of inspection ports on house laterals



Improving our region's water quality

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