# Appendix A-2:

# Newsletters

# Municipal Connections

ALCOSAN.
Regional Wet Weather Plan

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Bi-Monthly Municipal Update
Nov/Dec 2009 Issue #1

# Municipal connections

## BASIN News

### MUNICIPAL PARTICIPATION IS KEY

ALCOSAN has embarked on a number of efforts designed to incorporate the diverse expertise and feedback received through its municipal outreach efforts into the development of the Regional Wet Weather Plan (WWP). This plan will outline the most cost effective solutions for improving the region's water quality.

Seven teams of highly qualified, experienced national and local consultants were selected by ALCOSAN to serve as Basin Planners. They are responsible for guiding the development of facilities plans that will incorporate municipal needs and comprehensive solutions into the regional WWP. Additional detail about ALCOSAN's Basin Planners, the seven planning basins, and Basin Coordinators will be covered in future issues.

Coordination with the customer municipalities, as well as support from municipal and elected officials, is critical. Accordingly, ALCOSAN established three distinct working groups to actively engage municipal and elected officials, and to encourage participation, feedback and input: **Basin Planning Committees** (BPC), the **Customer Municipality Advisory Committee** (CMAC), and the **Regional Stakeholder Group** (RSG).

**Basin Planning Committees** were established to foster coordination and cooperation between ALCOSAN and its customer municipalities. There is a BPC in each of the seven basins, and they focus on discussions of technical and institutional issues related to the development of facility plans. They meet quarterly and their participants include a Basin Planner, Program Manager, Basin Coordinator (ALCOSAN), municipal and elected officials, municipal and authority managers, public works directors and municipal engineers.

**The Customer Municipality Advisory Committee** is comprised of 14 managers and elected officials representing the seven planning basins and a broad cross section of the 83 municipalities. The members of the CMAC were appointed by the Allegheny County Chief Executive. In a leadership role, CMAC members are the municipal advocates assisting ALCOSAN with municipal coordination and development of the WWP. The CMAC provides guidance and feedback from their representative populations. Meetings are held quarterly.

**The Regional Stakeholder Group** provides expertise, input and feedback for the development of the WWP. A critical success factor of the stakeholder process is to develop regional consensus. This 35 member group represents municipal and elected officials, residents, taxpayers, non-profit and for-profit organizations, academic, construction, industrial, environmental and business professionals. The RSG is characteristic of the diversity and vested interests that exist throughout ALCOSAN's service area.

### *Welcome. . .*

*Arletta Scott Williams, Executive Director*
*ALCOSAN*

Welcome to the first edition of the newsletter, ***Municipal Connections***, designed for elected officials and municipal staff throughout the 83 ALCOSAN service communities. We are pleased to provide you with this communications tool recommended by our Customer Municipality Advisory Committee.

This newsletter will be issued bi-monthly and more frequently when key information is time sensitive. A variety of ALCOSAN operational information and consent decree related topics will be covered in each issue. Your feedback, including story ideas, is welcomed and can be sent to Nancy Barylak at ALCOSAN at nancy.barylak@alcosan.org or by calling (412) 734-8353.

## BUILDING A REGIONAL SOLUTION

To date, ALCOSAN, in cooperation with its 83 customer municipalities is in compliance with the Consent Decree and continues to make progress on several critical components of a regional solution, including the following:

***Municipal Coordination.*** ALCOSAN's technical consultants and staff continue to assist in the integration and coordination of the myriad types and volumes of information and data exchange. Through these planning efforts, completed key activities include: a Regional Flow Monitoring and Planning Program, an Existing Information and Current Conditions Report, and a Regional Water Quality Assessment Program.

***Public Participation.*** This program affects the entire region. ALCOSAN continues to solicit regional and local participation from its diverse audience of stakeholders who are critical to the decision-making and implementation process.

As the planning process continues, municipal and elected officials may participate in a number of ways:

**Be informed.** As key decision makers, it is important to be educated about the planning process in order to guide and inform constituents on the importance of improving water quality throughout the region.

**Attend the BPC meeting for your municipality.** As indicated previously, Basin Planning Committee meetings are generally held quarterly in each of the seven planning basins, and your participation, input and feedback are encouraged. Please check the municipal secure site on the ALCOSAN website to see when the next meeting is scheduled. You may also contact ALCOSAN, your Township Manager or Secretary to receive information on future meetings.

**Continue the open dialogue with fellow municipal and elected officials.** Municipal and elected officials are encouraged to communicate feedback and input through the designated CMAC or RSG member. If you do not know who the designated CMAC or RSG member is for your municipality, please contact ALCOSAN.

## FUTURE RATE STRUCTURE

The number one question ALCOSAN hears from officials within its service area is what will our future rate structure look like? In order to answer that question, it is important to first understand how rates are established. The yearly rate is for water consumption used after January first. So, if a customer receives a bill for the months of December, January and February, the December charges are at the old rate and the other two months are at the new rate. Again, ALCOSAN bills for water consumption from records obtained from no less than 13 individual water companies within the service area.

ALCOSAN's rates are effective for a calendar year January through December. ALCOSAN bills five communities directly with the rest being sent directly to the service community or its designated third party who in turn bills the customer. ALCOSAN issues its bills quarterly no matter where the bill is sent.

The seven member ALCOSAN Board of Directors approves rate increases at a publicly advertised Board meeting held at the end of October or early November. The rate is established by a number of factors. The first factor is the budget process overseen by the Director of Finance and Administration. The second factor is the amount of money needed for planned and emergency capital improvement projects. Finally, and most importantly, ALCOSAN must legally ensure enough money is on hand to meet the requirements of the Authority's trust indenture.

Some officials have expressed a belief that if ALCOSAN only needs five percent in the coming year, why not raise rates 10 percent and bank the money. The answer is simple – ALCOSAN is a non-profit entity, and while it has been prudent in having sufficient savings, regulations prevent it from stockpiling large sums of money.

Upcoming articles will cover the efficacy of various charges, how future rates are shaping up, and final decisions related to rates to pay for consent decree related projects.

## CONTACT INFORMATION

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Issue #2 - First Quarter 2010

# Municipal connections

## BASIN News

### DEVELOPMENT AND ANALYSIS OF CONTROL ALTERNATIVES

To date, the ALCOSAN wet weather planning effort has involved the collection of data on our existing system and parts of critical municipal systems, development of a computer model to simulate flow conditions in the sewers, identification of potential technologies for controlling flows and the search for suitable sites for new facilities.

Our basin planning teams are using this information to develop viable wet weather control alternatives for their respective basins. Alternatives will be evaluated to identify the most feasible solutions to control wet weather flows. The process for evaluating alternatives will consider current and long-term costs as well as non-economic impacts associated with the construction, operation and maintenance of wet weather facilities.

Each alternative consists of three major components - a site, a technology, and a flow parameter. Over 100 prospective sites were identified across the ALCOSAN service area and 12 potential control technologies were determined to be practical. Flows to be treated at the facilities would vary with the intensity of precipitation and the number of untreated flows permitted at each location.

Basin planners initially identified hundreds of alternatives based on the combination of sites, technologies and flows. Many were eliminated from consideration because they would not be cost-effective, the site was not large enough to accommodate the facility or the technology was deemed to be unworkable under certain flow conditions. The remaining alternatives will be more closely scrutinized relative to economic and non-economic considerations.

The quantity of flows from ALCOSAN's 83 customer municipalities will have a significant impact on the viability and sizing of the control alternatives. Municipalities must analyze their systems, including future upgrades and anticipated changes in population, to determine the future volume of flow they most likely will send to the ALCOSAN system.

Many municipalities will utilize a computer model of their respective conveyance systems to estimate future flows to ALCOSAN. Municipalities may also choose to undertake control measures as a means of reducing total flows to ALCOSAN.

### New ALCOSAN Board Member

In January, Judge Jim Motznik resigned his position on the ALCOSAN Board of Directors to focus on his duties as the new District Magistrate in Brookline. He was a dedicated member of the Board for 10 years and understood and supported the massive undertaking needed for the region to comply with federal wet weather mandates.


*Theresa Kail-Smith*

In February, we welcomed new Board member as well as new Pittsburgh City Councilwoman Theresa Kail-Smith. Ms. Smith is already familiarizing herself with the organization and the sewer overflow issue. As a community organizer, she brings a fresh perspective as we implement the region's largest public works project ever.

*-Arletta Scott Williams*
*Executive Director*

# ALCOSAN News

## ATTEND UPCOMING GREEN INFRASTRUCTURE WORKSHOP

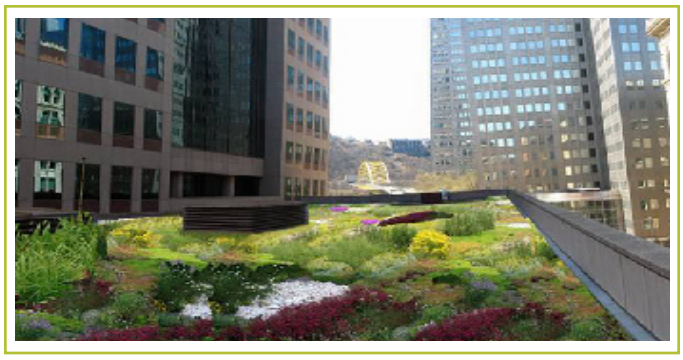
**Green** Buildings. **Green** Communities. **Green** Actions. The word '**Green**' is used everywhere these days to denote environmental activities.

Now you can add **Green** Infrastructure to the list. More importantly, your community can implement a variety of green strategies that will save money on wet weather controls while beautifying the area.

Want to learn more? ALCOSAN is hosting a **FREE** workshop designed for elected officials, managers, community planners and engineers. The workshop will be held twice on **Wednesday, April 28** to accommodate different schedules. A daytime session will be held from 9:00 am - noon and an evening session will be conducted from 6:00 pm to 9:00 pm. Both sessions will take place at ALCOSAN's Customer Service and Training Building.

The workshop presentation will cover green infrastructure techniques and how other communities are utilizing these techniques for wet weather benefits. The program also will demonstrate quantifiable results and provide introductory training on how to start your own programs. All attendees will receive complimentary reference materials.

For more information, visit the ALCOSAN Municipal Intranet site or call (412) 734-8351.



## OVERFLOW INFO ONLY A CLICK AWAY

Whether you are a newly elected official or a seasoned public servant, ALCOSAN has created a one-stop shop for you to obtain information regarding sewer overflows.

The **ALCOSAN Municipal Intranet** is housed within ALCOSAN's web site at www.alcosan.org. The Municipal Intranet site is accessible by password, provided by ALCOSAN. The site is designed to provide a central location for municipal officials, engineers, and regulatory agency representatives to view the latest reports and updates associated with sewer overflows.

The site was recently re-designed and offers easy navigation to various types of information. Currently, it hosts such items as an Alternatives Costing Tool, Basin Planning information, newsletters, meeting schedules, and Consent Decree requirements. Visitors can view data, plans, reports, and maps to enhance coordination and cooperation between ALCOSAN and service municipalities.

The site also offers users the opportunity to ask questions or to request information for a specific municipality.

Visiting the Municipal Intranet enables you to have an in-depth dialogue with your municipal engineer as well as assists you in responding to questions from your constituents, and provides guidance as you weigh key task and financial decisions.

Each municipality has been assigned its own password. If you have any questions about the site contents, or if you need the password, please contact the Enterprise Content Management (ECM) Manager at (412) 732-8036, or send an e-mail to ecmmgr@alcosan.org.

## CONTACT INFORMATION

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Issue #3 - September/October 2010

# Municipal connections

## BASIN News

### ANALYZING THE OPTIONS

The many technology options available to address problems with combined sewer overflows (CSOs) and sanitary sewer overflows (SSOs) fall into four categories. "Move It, Remove It, Hold It, Treat It" describe solutions that ultimately will become the foundation of the long-term Wet Weather Control Plan. The goal is to eliminate SSOs and significantly reduce CSOs.


Conveyance System

**Move It** refers to enhanced conveyance of both sanitary and combined flows to a treatment or storage facility. This means increasing capacity of the existing conveyance system so additional flow can be conveyed more efficiently through the network of piping. The most common means of adding capacity is to construct additional pipelines or add pumping facilities.

**Remove It** involves removing extraneous flows, generally classified as either "inflow" or "infiltration," from the existing collection system. Inflow is water that enters the system via constructed or modified connections to the sewers. Examples are roof leaders, sump pumps and street drains. Infiltration is water that enters the sewers through defects within the system itself. Groundwater leaking through pipe joints or structural defects is the primary source of infiltration.


Green Technology

**Hold It** means capturing wet weather flows before they overload the sewage treatment system so that untreated flows are not discharged to waterways. The most common storage facilities are tanks and tunnels. Excess flows are held until the rain-induced flows subside to create more capacity. The stored water is then pumped back into the conveyance system so it can be channeled for treatment and discharged at a more preferable pace.


Underground Storage Tank

**Treat It** means processing wet weather flows at a wastewater treatment operation other than ALCOSAN's primary facility on the Ohio River. "Satellite" treatment facilities are being considered at new sites to process flows that cannot get to the existing plant. New facilities would include some type of initial screening followed by treatment. The process would provide a means of disinfecting the treated effluent prior to discharge.


Wastewater Treatment Plant

Increased capacity for conveyance would reduce the hydraulic burden on the existing pipeline network and allow more flow to be processed through the system. This will reduce or even eliminate the volume of overflows that may occur at designated locations (outfalls). There are four primary means of increasing conveyance capacity - interceptor consolidation sewers, relief sewers, pump stations and conveyance tunnels.

What follows is a more detailed description of "Move It" solutions. The remaining control options will be detailed in future newsletters.

# ALCOSAN News

## "MOVE IT" SOLUTIONS EXPLAINED

**Consolidation sewers** are large-diameter pipelines constructed immediately upstream a group of outfalls. They intercept flows that normally would be discharged to a local receiving waterway through individual outfalls. Consolidation sewers effectively capture multiple sewer overflows and combine them in a single conduit. These pipelines are very large so that they can provide sufficient capacity to convey wet weather flows to a temporary storage or treatment facility.

**Relief sewers** are new pipelines usually built parallel to existing sewers. They serve as a means of relieving hydraulic burden on the existing system. Typically, the relief sewer is interconnected with the existing interceptor (large diameter sewer). These interconnections allow excess wet-weather flows to drop into the relief sewer, thereby reducing the volume of water within the existing interceptor. This reduction in flow decreases and may eliminate the likelihood of an overflow occurring as a result of hydraulic overload.

**Pump stations** and associated force main piping are utilized in two distinct ways relating to wet-weather impacts on a sanitary sewer system. The first is to increase conveyance from one area to another. A pump station can convey flows from an area sensitive to overloads to an area having more capacity. The overloaded area can effectively be "drained" by the pump station. A pump station also can be used to route flows around an area sensitive to overload during wet weather to an area with more flow capacity.

**Conveyance tunnels** are very large conduits that allow excess flows to be collected and quickly channeled to a storage or treatment facility. Typically, these tunnels are constructed well below existing infrastructure to provide a direct route to a facility. Excessive flows are directed to the tunnels by means of multiple consolidation sewers and associated shafts to drop flow down to the tunnel deep underground. Conveyance tunnels allow maximum capture and conveyance of wet-weather flows.

## POTENTIAL OVERFLOW SOLUTIONS TO BE PREVIEWED AT FALL COMMUNITY MEETINGS

ALCOSAN will hold a series of community meetings this Fall to update the public on its progress with the Wet Weather Control Plan. These meetings will include ALCOSAN's Annual Customer Information Update for 2010. All meetings will be similar in format and content and will be conducted between 5:30 PM and 8 PM with a formal presentation at 6:30 PM. Dates and locations are:

- **Monday, Oct. 18** at Heidelberg Vol. Fire Dept.
- **Tuesday, Oct. 19** at East Liberty Presbyterian Church
- **Wednesday, Oct. 20** at Bellevue Christian Church
- **Thursday, Oct. 21** at Carnegie Library of Homestead
- **Monday, Oct. 25** at Clarence Fugh Memorial Hall in Etna
- **Tuesday, Oct. 26** at William E. Anderson Library in Penn Hills
- **Wednesday, Oct. 27** at St. Mark Evangelical Lutheran Church in Brookline
- **Tuesday, Nov. 9** at Upper St. Clair Community & Recreation Center
- **Wednesday, Nov. 10** at Boyd Community Center in O'Hara Township

In addition, there will be a region-wide meeting from 10 AM to 4 PM on Thursday, Nov. 4 at the Senator John Heinz History Center in Pittsburgh. Formal presentations will be given at 11:30 AM, 12:30 PM and 2 PM.

These meetings will be the first where citizens can learn about the variety of sewer overflow controls being considered for their localities and where the controls and/or facilities might be located.

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# Municipal connections

## BASIN News

### "REMOVE IT" SOLUTIONS EXPLAINED

"Remove It" pertains to reducing or eliminating extraneous flows from the existing sewer collection system. These external sources are often classified as either "inflow" or "infiltration." Inflow consists of water that enters the system during wet weather, by means of constructed or modified connections to the sewers. Water entering the sewer system through roof leaders, sump pump connections, foundation drains, manhole lids, and street drains are examples of inflow sources. Infiltration consists of water that enters the sewer network through defects within the sewer. Ground water leaking through sewer pipe joints or structural defects is the primary source of infiltration.

**Sewer Separation.** The two main types of sewer systems constructed to convey storm water and sanitary flows are combined and separate. A combined system conveys both sanitary and storm water flows in a single piping system. Combined sewers are designed to carry dry weather flow plus a portion of wet weather flow. Excess flows are discharged to local waterways as combined sewer overflows (CSOs). A separate sewer system uses two completely segregated pipe networks, one for storm runoff and one for sanitary flows.

**Improved Collection System Maintenance.** A significant amount of water enters the sewer system directly through defects in the existing pipe and manholes. An effective system maintenance program can greatly reduce the volume of water that enters the system. Sewer inspections are used to identify defects and leaking segments. A means for fixing these problems can be developed based upon the severity of the observed defect. Pipe replacement, pipe lining and joint sealing are common methods for repairing pipe defects. Preventive maintenance such as root treatment and removal and routine cleaning is also an effective means for maintaining the system capacity. Rain and ground water can also enter the system through residential downspouts, sump pumps and foundation drains that are directly connected to the residential lateral or local sewer. Disconnection of these features is sometimes used to mitigate system infiltration.

**Green Technologies.** Intercepting or reducing surface runoff during wet weather is the goal of green technologies. These measures are considered "green" because they use natural means to control runoff. This approach is increasing in popularity because it reduces the quantity of storm water entering the collection system. There is a range of green technology options that utilize natural vegetation. Runoff water can be directed into bioretention/infiltration basins or rain gardens where natural vegetation facilitates removal of water by evapotranspiration. These facilities, often constructed along local streets and other public areas, not only control runoff but also enhance the aesthetics of the local community. Another green technology is the use of permeable asphalt and porous concrete road pavements. These materials are low density and allow rain water to penetrate and pass through them into the soil beneath the road.

*In the previous issue, "Move It" solutions were explained. "Hold It" and "Treat It" will be detailed in future newsletters.*

### *Analyzing the Options*


- **Find the best match of prospective locations and specific control options**
- **Develop alternatives for each drainage basin**
- **Develop feasible alternatives on suitable sites**

## PRETREATMENT PROGRAM TO REGULATE INDUSTRIAL WASTE

ALCOSAN is required by the Clean Water Act to implement a Pretreatment Program to regulate the quality and quantity of wastes discharged into the Regional Collection System by industrial customers. The Pretreatment Regulations were adopted in 1984 to regulate industries through general and specific pollution limits, permits, and penalties. They are designed to protect the treatment plant, collection system, and the environment from harmful industrial discharges. A fourth set of amendments was adopted by the ALCOSAN Board of Directors which addresses requirements in ALCOSAN's NPDES Permit, the Code of Federal Regulations, and the Clean Water Act. Changes include the following:

- Discharge limits were reviewed and revised to ensure that they address all pollutants of concern, ensure ALCOSAN permit compliance, preserve by-product re-use, and protect the treatment plant and collection system from harm.

- Several definitions were changed or added to reflect changes in US EPA (Environmental Protection Agency) requirements.

- Non-process waters (i.e. stormwater, swimming pool drainage) and medical wastes are now prohibited unless specifically authorized.

- Various pollutants were added or removed to reflect the current regulatory needs of the Authority.

- Permitting requirements were changed to clarify who must apply for a permit and when; include special permitting requirements for a new user category; and describe how and when a permit may be modified, revoked, and appealed.

- Sampling and testing requirements clarify when and how samples are to be taken and tested, and the circumstances that allow ALCOSAN to modify sampling frequency.

- New provisions clarify events that allow ALCOSAN to modify a permit, and define exception to potential enforcement actions.

Revisions have been approved by EPA, and must also be adopted by our Member Municipalities as part of a Sewer Use Ordinance. ALCOSAN will be asking Member Municipalities to take this action in the Spring of 2011 to maintain compliance with EPA requirements.

## ALLEGHENY LEAGUE OF MUNICIPALITIES 38TH ANNUAL SPRING CONFERENCE

ALOM continues to serve as an effective venue for ALCOSAN to communicate directly with representatives of its 83 customer municipalities about the Regional Wet Weather Plan.

Visitors to ALCOSAN's exhibit booth were invited to view a new display that explains the various technologies that are being evaluated as part of ALCOSAN's ongoing alternatives analysis process. These technologies are also discussed in the Basin News section of this newsletter, with "Remove It" being the focus of this issue. A binder was on display at the booth with pictures of different technologies, some of which are already in Allegheny County.

ALCOSAN's Executive Director, Arletta Scott Williams, delivered a straight-forward presentation entitled "16 Months Left - Don't Lose Your Opportunity to Speak Out" on Friday afternoon, April 8. ALCOSAN also developed an informational booklet for its ALOM audience that contains a map of ALCOSAN's 2009 Overflow Data, Planning Basin contact information, a Wet Weather Plan Process Time Line, and other pertinent project-related data.

If you are interested in receiving one or more copies of ALCOSAN's ALOM booklet, please contact ALCOSAN's Manager of Public Relations, Nancy Barylak at 412-734-8353, or send her an email message at **nancy.barylak@alcosan.org.**

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