

**Appendix A-2:
Newsletters**

Basin Quarterly Activity Reports (BQAR) by Basin

Saw Mill Run Basin

Basin Quarterly Activity Report

Saw Mill Run
Planning Basin

Quarterly Key Points

To date, the following three main areas of planning activities have been occurring in the Saw Mill Run (SMR) planning basin: system characterization, basin planning and alternative development (technology and site screening). A summary of each of these planning activities is provided below:

➔ System Characterization

Since the fall of 2008, the Basin Planner has been conducting one-on-one meetings with customer municipalities which contain a significant contributing source of wastewater to the SMR planning basin. To date, meetings have been conducted with the customer municipalities to exchange information and help facilitate the gathering of records and data necessary for the wet-weather planning process. The following is a summary of the customer municipalities and dates of the one-on-one meetings that have occurred:

List of Municipal Coordination/Information Exchange (MC/IE) Meetings for the Saw Mill Run Planning Basin

Municipality/Authority	MC/IE Meetings Completed
Baldwin Borough	(1)
Baldwin Township	1/22/09
Bethel Park, Municipality of	1/9/09
Brentwood Borough	11/10/08
Castle Shannon Borough	11/20/08
Crafton Borough	(1)
Dormont Borough	11/17/08
Green Tree Borough	3/30/09
Mt. Lebanon, Municipality of	11/11/08
Mt. Oliver Borough	(1)
Pittsburgh Water & Sewer Authority	12/12/08
Scott Township	4/8/09
Whitehall Borough	11/11/08

⁽¹⁾ Due to the small land area contributory to the SMR planning basin, a municipal coordination/information exchange meeting was not conducted.

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Quarterly Key Points (Cont'd)

As a result of the data gathering and one-on-one meeting efforts, the Basin Planner developed and distributed a Draft Current Information and Conditions Report. This Report was distributed to the customer municipalities on May 11, 2009 for review and comments.

Another major effort of the system characterization activity has been the development of the hydrologic and hydraulic (H&H) model which will be used as a planning tool to estimate sewer flow volumes and rates for the facilities planning effort. The H&H model has been developed to represent the SMR planning basin and is currently being calibrated with recently gathered flow monitoring data.

➔ Basin Planning

The Basin Planning Committee (BPC) for the SMR planning basin has met four times since July 2008, the latest meeting being conducted on June 16, 2009 at the Whitehall Borough Complex. The BPC meetings are held quarterly to provide members a current project update and to engage members in the planning process as ALCOSAN's Wet Weather Plan (WWP) is being developed. The BPC membership is comprised of customer municipality managers, council members, public works and utilities directors and municipality consulting engineers.

To facilitate the development of the municipal feasibility studies required pursuant to the municipal consent orders (i.e., COA – Consent Order and Agreement or ACO – Administrative Consent Order), 3 Rivers Wet Weather (3RWW) began hosting in March 2009 a Feasibility Study Working Group (FSWG) comprised of representatives from the various customer municipalities within the ALCOSAN service area, ALCOSAN, the Pennsylvania Department of Environmental Protection and the Allegheny County Health Department. The FSWG meets every two weeks and is focused on establishing a Municipal Feasibility Studies Process that will help the customer municipalities develop their feasibility studies and provide meaningful data to the Basin Planners. To participate in the FSWG, or learn more about the feasibility study planning process, contact 3RWW at www.3riverswetweather.org.

As part of the basin planning activities, ALCOSAN is encouraging customer municipalities to identify Early Action projects that may be eligible for PennVest, Rural Utilities Service (RUS) or Stimulus Funds. ALCOSAN will assist the customer municipalities in the funding application process for these Early Action projects. Early Action projects may include multi-municipal projects, rehabilitation projects, or readily identifiable projects that may be easily implemented with minimal permitting.

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Quarterly Key Points (Cont'd)

⇒ Alternative Development (Technology and Site Screening)

The Basin Planner is beginning to assess significant SMR planning basin overflows and identify applicable treatment technologies and available sites for overflow control or treatment. The Basin Planner is also developing and implementing appropriate screening processes that will be used to identify the most viable overflow control alternatives and sites for the SMR planning basin. A Preliminary Screening of Control Technologies and Sites Report will be prepared and is due to be completed in the third quarter of 2009.

On The Horizon...Your Participation

Keeping abreast of all the important ongoing activities in a municipality is very challenging. While various forums are open to all, you may find it more efficient to stay informed through managers, engineers and other municipal representatives who have an active role in this project. Beginning in late 2009 and early 2010, there will be important decision points where your input and active participation will be needed. These opportunities will be conveyed through the quarterly activity



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Public Information & Outreach

ALCOSAN recently convened the Customer Municipal Advisory Committee (CMAC) and the Regional Stakeholder Group (RSG). The CMAC will meet quarterly to provide guidance and solicit feedback for ALCOSAN's Long Term Wet Weather Control Plan. The fourteen members of the CMAC were appointed by the County Executive and ALCOSAN to represent the seven planning basins and to act as the steering committee for the Regional Stakeholder Group.

The Regional Stakeholder Group is comprised of approximately thirty-five members representing academia, municipal government, regional government, environmental groups, land use entities, and special interest groups. This group will meet quarterly at minimum to assist with public participation, education, and outreach. As the Long Term Wet Weather Control Plan moves forward, the RSG will be engaging the SMR Planning Basin communities to share insights, concerns, etc. Membership lists and summaries of the CMAC and RSG meetings will be posted on the ALCOSAN public website, www.alcosan.org, in the near future.

The SMR Planning Basin specific public participation plan was presented at the June 16, 2009 SMR Planning Basin Committee meeting. The purpose of the plan is to keep public officials and the general public informed on WWP progress; to solicit their input on the alternatives analysis; and to build consensus on the final plan. The first public officials and general public meetings will be held in the SMR Planning Basin communities in third quarter 2009 to introduce the facilities planning process and report on existing conditions. The SMR Team will work closely with SMR Basin communities to schedule these meetings and look for more details in the next issue of the SMR Basin Quarterly Activity Report.

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Basin Planning Committee Updates

During the last BPC meeting conducted on June 16, 2009, the following items were discussed:

- Technology Screening
- Site Screening
- Control Alternatives and Development
- Public Participation Plan
- ACT 537 Funding
- Coordinated Schedule – Basin Planning and Municipality Feasibility Studies
- Financial Information Update
- ALCOSAN Municipal Secure Website

During the meeting, the following upcoming coordination activities were identified between the Basin Planner and customer municipalities:

- Flow monitoring data confirmation with customer municipalities for H&H model calibration/validation
- Preferred technology screening including source control planning within the customer municipalities
- Preferred siting for CSO/SSO abatement facilities and transmission controls

All customer municipalities are encouraged to participate in this critical planning process as all of these coordination activities will result in the most cost-effective and environmentally beneficial wet weather abatement alternatives for the SMR planning basin.



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Future Actions

As the technical work continues, the primary focus will be on finalizing the H&H model, and the screening of technologies and sites for the development of preliminary abatement alternatives. In particular, the Basin Planner will be completing the Final SMR Hydrologic and Hydraulic (H&H) Model Validation and Characterization Report in September/October 2009. Also, the Basin Planner will be completing the Preliminary Screening of Technology Controls and Sites Report in October/November 2009.

The BPC meetings will be the primary vehicle used for information exchange during this facility planning process. The next quarterly BPC meeting will be scheduled for September 2009 where it is expected that the technology and site screening process will be sufficiently advanced for meaningful discussion.

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Any questions or requests for additional information may be directed to:

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Or visit the ALCOSAN Wet Weather Plan web site at www.alcosan.org

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Quarterly Key Points

The Saw Mill Run (SMR) basin planning team continues to progress its facilities planning for development of a Regional Wet Weather Control Plan for the SMR basin. For reference purposes, the customer municipalities (or portions thereof) located within the SMR basin are as follows:

SMR Basin Customer Municipalities

Baldwin Borough	Green Tree Borough
Baldwin Township	Municipality of Mt. Lebanon
Municipality of Bethel Park	Mt. Oliver Borough
Brentwood Borough	City of Pittsburgh (Pittsburgh Water & Sewer Authority)
Castle Shannon Borough	
Crafton Borough	Scott Township
Dormont Borough	Whitehall Borough

Recent planning developments for the SMR basin have included the following:

➤ System Characterization

As reported in the Summer 2009 Basin Quarterly Activity Report (BQAR), a Draft Current Information and Conditions Report was distributed to the SMR customer municipalities in May 2009 for review and comment. The Basin Planner received comments from the majority of the customer municipalities. Based upon the information provided, a Final Current Information and Conditions Report was prepared and distributed to the customer municipalities in late August 2009.

The Basin Planner is also constructing a hydraulic and hydrologic (H&H) computer model of the critical sewers within the SMR basin to be used as a planning tool to estimate sewer flow volumes and rates for the planned long term wet weather overflow control facilities. Using flow monitoring data provided by ALCOSAN, the Basin Planner has developed a calibrated and validated H&H model for the SMR basin and its critical sewers. The H&H model was recently submitted to ALCOSAN's Wet Weather Program Manager for quality assurance/quality control (QA/QC) assessment. It is expected that the H&H model will be made available to the SMR customer municipalities by the end of 2009.

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Quarterly Key Points (Cont'd)

➤ Basin Planning

3 Rivers Wet Weather (3RWW) continues to host bi-weekly Feasibility Study Working Group (FSWG) sessions for the ALCOSAN service area customer municipalities. The purpose of the FSWG is to provide guidance to the customer municipalities in regard to completing their municipal feasibility studies in accordance with their Consent Order and Agreement (COA) or Administrative Consent Order (ACO). The FSWG is also used to facilitate the transfer of data between ALCOSAN and the customer municipalities, including the coordination of schedules for data transfers. The FSWG will continue to meet bi-weekly, as planning needs dictate, and less frequently thereafter until the completion of the municipal feasibility studies. Further information regarding the FSWG may be obtained from the ALCOSAN Project Manager listed at the end of this quarterly activity report.

➤ Alternatives Development (Technology and Site Screening)

The Basin Planner submitted the Draft Screening of Controls and Sites Report to ALCOSAN on September 18, 2009. The purpose of this report is to identify viable control technologies and feasible sites for reducing combined sewer overflows (CSOs) and eliminating sanitary sewer overflows (SSOs) in the SMR planning basin.

CSO/SSO control technologies have been screened to eliminate from further consideration those technologies that will not permit compliance with the water quality requirements established pursuant to ALCOSAN's Consent Decree (CD).

Technologies reviewed included:

- **Source Control** (i.e., prevent wet weather flow from entering the sewer system)
- **Storage** (i.e., store wet weather flows for subsequent treatment)
- **Transmission** (i.e., provide consolidation pipelines to transport wet weather flows for storage/treatment)
- **Treatment** (i.e., where applicable, provide high-rate treatment for wet weather flows)

Due to recently enacted regulations for Saw Mill Run, discharge of treated wet weather flows to Saw Mill Run are not permitted.

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Quarterly Key Points (Cont'd)

Potential CSO/SSO control sites have also been evaluated as part of the SMR site screening process. Due to the physical location of the existing CSOs and SSOs, potential control sites have been identified in the following SMR customer municipalities:

- Baldwin Township
- Municipality of Bethel Park
- Castle Shannon Borough
- City of Pittsburgh

Using a series of non-cost screening criteria, multiple potentially feasible sites were identified in each municipality. The potentially feasible sites were discussed in separate workshops with the respective municipalities in August and September 2009 to further assess the possible use of these sites. Other potentially feasible sites were presented to the Basin Planner by these municipalities in these site screening workshops.

It is expected that the Final Screening of Controls and Sites Report will be made available to the customer municipalities at the end of 2009.

On The Horizon...Your Participation

It is important for the citizens of the metropolitan Pittsburgh area to become actively engaged in the planning process for ALCOSAN's Regional Wet Weather Plan (RWWP). Multiple planning groups and committees have been formed to serve as conduits for the public to provide suggestions, present concerns, and most importantly assist in consensus-building for the final RWWP. These principally include the Customer Municipal Advisory Committee (CMAC), the Regional Stakeholders Group (RSG) and the SMR Basin Planning Committee (BPC), which are discussed further in the Public Information and Outreach section of this quarterly activity report.

There will be a series of public meetings on the RWWP in November 2009. These are described more fully on the Public Information and Outreach section of this quarterly activity report.

Be Informed and Be Included!

The future water quality of the Region depends upon your input and involvement.

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Public Information & Outreach

As advocates for ALCOSAN's customer municipalities, the Customer Municipal Advisory Committee (CMAC) members have addressed several key topics which include: municipal feasibility studies, multi-municipal funding and collaboration, coordination of ALCOSAN's planning process and its impacts on its customer municipalities, effective methods to educate elected officials, and Early Action Projects. The CMAC remains a forum to collaboratively examine municipal concerns, questions and experiences. The most recent CMAC meeting was held on October 14, 2009. CMAC meetings are held quarterly.

The Regional Stakeholder Group (RSG) members continue to examine and prioritize important topics that the public needs to know regarding the wet weather pollution control problems facing our region. Understanding that collaborative efforts will be the driving force in development of a RWWP, the RSG is actively engaged in defining effective avenues of communication and identifying critical topics and issues. The most recent RSG meeting was held on October 15, 2009. RSG meetings are held quarterly.

An update to the SMR basin specific public participation plan was presented at the September 23, 2009 SMR Basin Planning Committee (BPC) meeting. The purpose of the plan is to keep public officials and the general public informed on the WWP progress, solicit their input on the alternatives analysis, and build consensus on the final plan.

There will be general public meetings conducted throughout the ALCOSAN service area during November 2009. The purpose of these meetings is to educate and engage the public in the RWWP planning process. The SMR basin specific meetings will be held as follows:

Tuesday, November 10, 2009	Monday, November 16, 2009	Tuesday, November 17, 2009
<p>Public Officials Meeting 6:00 – 7:00 p.m.</p> <p>General Public Meeting 7:00 – 9:00 p.m. (Presentation at 7:30 pm)</p> <p>Location: Whitehall Borough Building 100 Borough Park Drive Pittsburgh, PA 15236</p>	<p>Public Officials Meeting 6:00 – 7:00 p.m.</p> <p>General Public Meeting 7:00 – 9:00 p.m. (Presentation at 7:30 pm)</p> <p>Location: Mt. Lebanon Recreation Center 900 Cedar Boulevard Pittsburgh, PA 15228</p>	<p>Public Officials Meeting 6:00 – 7:00 p.m.</p> <p>General Public Meeting 7:00 – 9:00 p.m. (Presentation at 7:30 p.m.)</p> <p>Location: Hill Top United Methodist Church 631 E. Warrington Avenue Pittsburgh, PA 15210</p>

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Program Updates

An important aspect of ALCOSAN's wet weather planning is the development of technical standards and protocols to ensure a seamlessly integrated RWWP that considers the local priorities identified in each of the seven planning basins. These documents define the "rules of the road" with which the wet weather planning team must comply to ensure consistency, resulting in a cohesive RWWP. ALCOSAN's Program Management team is responsible for such coordination.

The effectiveness of this approach was demonstrated during the implementation of the flow monitoring program and is expected again when the H&H models from each of the seven planning basins are integrated into a unified system-wide H&H model. The flow monitoring carried out by four separate firms produced consistent, quality information that can be used by the Basin Planning teams or customer municipalities. Basin planning teams extended the H&H models to include critical portions of the municipal collections systems utilizing data provided by the flow monitoring program. These models will be used to review existing baseline conditions and to assess a range of alternatives to control wet weather flow and improve water quality. Through documents, workshops and periodic status meetings, the standardization established for the models will once again maximize the value of the investment made by the ratepayers.

Over the coming months, guidance will be provided to the Basin Planning teams and customer municipalities for the collaborative development of an integrated RWWP that addresses local and regional challenges.

Basin Planning Committee (BPC) Updates

The following topics were discussed at the September 23, 2009 BPC Meeting:

- Technical Data Update
- Financial Information Update
- Municipal/ALCOSAN Coordination
- Preliminary Sites Screening Evaluation
- Consolidation Pipeline Route Screening
- Results of Site Screening Workshops with Customer Municipalities

All BPC meeting minutes and presentation materials are provided to the municipal BPC representatives and meeting attendees. BPC Meetings are conducted quarterly, with the next meeting scheduled to be held in January 2010.

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Future Actions

As the facilities planning process continues, the primary focus of the Basin Planner will be on finalizing the H&H model, further evaluating the combined site and technology alternatives, and conducting the public participation meetings. The Basin Planner will be completing the SMR Hydrologic and Hydraulic (H&H) Model Validation and Characterization Report in October/November 2009, with the intention of making the H&H model available to the customer municipalities by the end of the year. Additionally, the Basin Planner will be completing the Screening of Controls and Sites Report in October/November 2009. As stated in the Public Information & Outreach section above, public participation meetings are scheduled to begin in November 2009.

The BPC meetings will be the primary vehicle used for information exchange during this facility planning process. The next quarterly BPC meeting will be scheduled for January 2010.

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Quarterly Key Points

This third edition of the **Basin Quarterly Activity Report** (BQAR) summarizes the status of activities associated with Allegheny County Sanitary Authority's (ALCOSAN's) Saw Mill Run (SMR) Basin Facilities Planning Study. This report is provided to municipal representatives and local stakeholders to assist in building a body of knowledge that will form the basis for decision-making on capital improvements of a scale that is unprecedented in Allegheny County.

Major phases of ALCOSAN's wet weather planning program include the following:

- 1) Flow Monitoring
- 2) Review and analysis of existing data and information (Current Information and Conditions Report);
- 3) Development of a Screenings of Controls and Sites Report
- 4) Hydrologic and Hydraulic (H&H) modeling and Report development
- 5) Alternatives development and analyses (Feasibility Report and Present Worth Analysis)
- 6) Development of a basin facilities plan (Facilities Plan Report).

The first four phases of the effort are either complete or nearing completion, and the alternatives development and analyses work is about to begin.

ALCOSAN has divided its service area into seven planning basins, each with an assigned Basin Planner (BP). Each BP submitted a Current Information and Conditions Report detailing the components of the sewer systems within their respective planning basins. The BPs also submitted draft Screening of Controls and Sites Reports in which potential wet weather overflow control technologies were evaluated. Viable sites and routes for locating the potential control technologies were also evaluated. This report is expected to be completed in spring 2010. Reports will be posted on the municipal secure web site for use by ALCOSAN's customer municipalities as they are completed. In addition to these reports, the BPs have been developing an H&H Model that simulates conditions within the sewer systems during both dry and wet weather periods. The BPs drafted an accompanying report (H&H Model Validation and Characterization Report) which details the modeling methodology and modeling results. These models will be "rolled out" through the Feasibility Study Working Group (FSWG) facilitated by 3 Rivers Wet Weather (3RWW).

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Throughout most of 2010, ALCOSAN's basin planning teams will be developing and evaluating alternatives to control wet weather flows and pollution. The goal is to develop a basin-specific facilities plan. To help achieve this goal, it is critical that ALCOSAN's customer municipalities provide flow estimates to the basin facility planning teams. These flow estimates consist of an approximate quantity of flow that ALCOSAN can expect to receive from each community and will be integral to the development of control alternatives. These flow estimates will be reviewed and compared along with BP estimates of proposed facility sizes. Seven basin facilities plans will then be integrated into an overall Wet Weather Plan (WWP) for the entire region.

On The Horizon ... Your Participation

Ongoing municipal participation is needed in developing the WWP, which will incorporate ALCOSAN improvements as well as identified municipal improvements. Basin planning requires a high level of coordination between municipal managers, public works staff, municipal engineers, planning commissions, ALCOSAN, and the BPs. These planning efforts are necessary to identify alternatives to achieve the most practicable, cost-effective WWP for the entire region.

Municipalities are encouraged to incorporate an agenda item in their official public meetings to present this *BQAR* and for reporting on municipal, basin, and regional planning efforts. The SMR Team is willing to attend municipal or public meetings to address planning issues and/or address any questions municipalities might have on the planning process. If you would like a representative of the SMR Team to attend your borough council or township supervisors meeting to discuss the SMR Basin Facilities Planning, please contact Glenda Larson at 412.224.4316.

Public Information & Stakeholder Outreach

Extensive communication about regional facilities planning has continued through several forums, and highlights are presented as follows.

The Customer Municipality Advisory Committee (CMAC) Meeting No. 5 was held on March 2, 2010 while the Regional Stakeholder Group (RSG) met for the fifth time on March 16, 2010. 2010 goals for the RSG and CMAC include providing feedback on preliminary flow estimates, the availability of sites, and integrating feedback on site alternative screening and evaluation criteria into the alternative site review process. CMAC and RSG members have also been tasked with actively engaging elected

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officials and managers to participate in this critically important planning process. With a full agenda for 2010, the CMAC and RSG will begin exploring implementation factors that will affect the public. They will also discuss relevant combined and sanitary sewer overflow (CSO and SSO) control technologies. Throughout the year, RSG members will also use their organization's network to help build public consensus for the development of a regional solution.

ALCOSAN greatly appreciates the continued support, participation, and dedication of time and resources by RSG and CMAC members relative to the development of the long-term regional WWP.

ALCOSAN hosted 13 Public Meetings throughout its service area in November 2009. The meetings were a forum to educate the public about the Wet Weather Program and the needed improvements to the wastewater conveyance and treatment infrastructure.

Three Public Meetings were conducted in and around the SMR planning basin during November 2009. The meetings were conducted in Whitehall Borough, the Municipality of Mt. Lebanon and the Hill Top Section of the City of Pittsburgh. The general public's attendance at these meetings was modest, but attendance by the elected officials was good. In addition to an educational slide presentation, there was ample time for the public to examine informational display boards and to pose inquiries during a question-and-answer session. Interaction and engagement with the public and elected officials was high. ALCOSAN and the BP would like to thank the municipalities that permitted use of their facilities.

The next round of Public Meetings is scheduled to be conducted in the fall of 2010 with an emphasis on the preliminary alternatives and site evaluations.

To encourage consideration and implementation of green infrastructure for wet weather flow reductions, ALCOSAN is inviting municipalities to attend a half-day, introductory workshop for stormwater management using green infrastructure. Workshops will be offered on Wednesday, May 12, 2010 from 9:00 a.m. – Noon and 6:00 p.m. – 9:00 p.m. Registration will be accepted by email at Kirsten.pastrick@alsocan.org.

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Basin Planning Committee Update

Basin Planning Committee Meeting No. 6 was conducted on February 24, 2010 in Whitehall. Key elements of the H&H modeling, the screening of controls and sites, and the feasibility report and present worth analysis were discussed. During the meeting, attendees were provided with a blank site alternatives criteria weighting form. Attendees were asked to weight specific criteria (cost, public impact, water quality, operations and implementation) related to the construction of control alternatives. The weighting gages the relative importance of each criterion to the attendee. The input gathered from the attendees will be combined with input provided at other BPC meetings, along with input from the CMAC, RSG and ALCOSAN staff. Weighting factors will be used in the evaluation and development of viable control alternatives. The factors will provide a basis for recommending one alternative solution over another based upon numerous factors, and not completely on the economic aspect of the proposed alternative.

The next SMR BPC Meeting No. 7 is tentatively scheduled for June 2010 at the Whitehall Borough Municipal Building. This meeting will include a program update and highlight some of the initial findings from the feasibility of alternatives evaluation.

Future Actions

As we move through the planning process, municipalities are encouraged to evaluate the operation and performance of existing infrastructure, and then assess the suitability of current operating budgets and inter-municipal agreements and ultimately assess the potential need for planned improvements

While ALCOSAN does not plan to participate in all these evaluations, it will provide municipalities with pertinent technical information related to the ALCOSAN conveyance and treatment system that will assist the municipalities in making key decisions regarding conveyance of flows to the ALCOSAN system.

Moving forward, we are entering an exciting and critical phase of the WWP development and it is critical that municipalities work closely with the BPs and ALCOSAN in a meaningful, efficient and collaborative manner to develop the best practicable and cost-effective solution for the region.



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To receive *Basin Quarterly Activity Reports* via email, please send a request to jfreeman@olszak.com.

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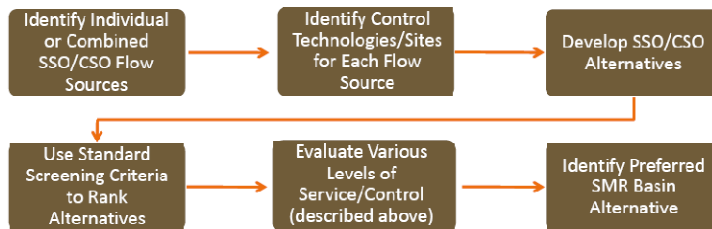
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Development of Wet Weather Control Alternatives

The Saw Mill Run (SMR) Hydrologic and Hydraulic (H&H) model was calibrated and validated in April 2010. The Basin Planner (BP) is using the model to evaluate various flow scenarios for sanitary sewer overflow (SSO) and combined sewer overflow (CSO) control alternatives for the planning basin. The purpose of the alternatives development is to identify the most feasible and cost-effective SSO and CSO control facilities for the SMR planning basin.

Various levels of service or control are being evaluated for both the SSOs and CSOs as part of this alternatives development. For SSOs, control alternatives are being evaluated for the 2-year, 5-year, and 10-year design storm conditions. For CSOs, control alternatives that result in 0, 1-3, 4-6, 7-12 and 20 untreated CSO discharges per year will be evaluated. In conjunction with a water quality evaluation, optimization analyses will be conducted to permit the BP and ALCOSAN to select the most cost efficient and regulatory compliant SSO and CSO control for the planning basin.

The alternatives development process for the SMR planning basin is being implemented as follows:



As part of the alternatives development process, all BPs will use a standard set of screening criteria, developed by ALCOSAN and its Wet Weather Plan (WWP) Program Manager (PM), to rank the SSO/CSO control alternatives. These criteria weigh the relative importance of certain factors that have a substantial impact on the construction of control facilities. The screening criteria are:

- Economic Factors
- Public Factors
- Water Quality, Public Health and Environmental Impacts
- Operation Impacts
- Implementation Impacts

The results of the SMR alternatives development will be included in the SMR Feasibility Report and Present Worth Analysis that is to be submitted to ALCOSAN by September 30, 2010.



Example Aboveground /Below Ground Storage Tank for Possible SSO/CSO Control Onondaga County, NY

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In the Saw Mill Run Communities

The next SMR Basin Planning Committee (BPC) Meeting (BPC Meeting No. 7) will be held at the Whitehall Borough Complex on June 30, 2010 at 9:00 a.m. Meeting topics will include the following:

- Program Update
- H&H Modeling and Preliminary Flow Estimates
- Site/Basin Alternatives Development Progress and Evaluation Strategies
- Financial Data Collection and Affordability Analysis

SMR customer municipalities are required to provide ALCOSAN with preliminary flow estimates (PFEs). PFEs are the estimated flow quantity that the municipality is expected to deliver to their respective connection(s) to the ALCOSAN conveyance system. PFEs will be developed to account for future (year 2046) conditions. SMR customer municipalities are currently using the ALCOSAN/BP developed H&H model, in conjunction with other methods, to determine these estimated future flows. The BP will be meeting with the customer municipalities individually over the next several months to review these flow estimates and establish an agreed upon future municipal flow contribution from the municipalities to ALCOSAN.

In the Region... ALCOSAN Updates

Program Status

Now that existing conditions have been defined and the H&H model has been developed and calibrated, the SMR Basin planning effort has shifted to alternatives development and evaluation. Throughout most of 2010, ALCOSAN's basin planning teams will be developing and evaluating alternatives to control wet weather flows and associated pollution. The goal is to develop a basin specific facilities plan. Coordination during this process will allow ALCOSAN to begin its regional alternatives evaluation process as the basin planning process is being completed. Regional alternatives evaluation will take the best components of each basin-wide plan and integrate them into a series of regional alternatives. Regional alternatives will then be evaluated and costs developed to select a system-wide WWP.

ALCOSAN Outreach

Reaching Elected Officials and Municipal Managers. The Customer Municipality Advisory Committee (CMAC) has launched a correspondence campaign to encourage their peers to work closely with ALCOSAN. Like their fellow community and municipal leaders, CMAC members have a vested interest in the successful outcome of the regional wet weather plan. Over 1,000 municipal managers and elected officials throughout the ALCOSAN service area will receive the letter. The CMAC met on May 11 for the sixth time. Members advocated the integration of green infrastructure into the WWP and gained an understanding of the variables of the financial capability assessment.

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In the Region... ALCOSAN Updates (continued)

Comparing WW Programs: The Regional Stakeholder Group (RSG) members wanted to know how other cities are planning and implementing their wet weather plans – what is working and what is not. At RSG Meeting #6 (May 13th) a presentation was given comparing the major components of four similar wet weather programs including, impact on water quality, source reduction/green infrastructure, multi-municipal regional plans and cost. RSG members heard information on the variables of the financial capability assessment which generated a dynamic dialogue on affordability and the income disparity throughout the region.

ALCOSAN's Technology Outreach: Green Buildings. Green Communities. Green Actions. The word 'Green' is used to denote various means for environmental improvements that control or reduce flows (rainfall, groundwater, etc.) into the collection system. On May 12 ALCOSAN hosted a free workshop designed for elected officials, managers, community planners and engineers. The workshop presentation covered green infrastructure techniques and how other communities are utilizing these techniques for wet weather benefits. All attendees received complimentary reference materials.

On the Horizon - Future Actions

ALCOSAN's Technology Outreach. ALCOSAN will continue to host its NAWCA (National Association of Clean Water Agencies) Flow series webinars. The next webinar titled "Green Infrastructure: What's Legal" will be on **September 8, 2010**. The seminars are **FREE** and are held in the ALCOSAN Customer Service and Training Building, 3101 Preble Avenue, Pittsburgh, PA 15233. Call (412) 732-8052 or (412) 732-8035 to register and for more information.

Saw Mill Run Basin Planning Committee Meeting #7. ALCOSAN's Basin Planning Committees will hold the 7th series of meetings throughout **June and July 2010**. The Saw Mill Run Basin Planning Committee Meeting is scheduled for **June 30 at 9:00 AM at the Whitehall Borough Complex**.

CMAC Meeting #7. Scheduled for Tuesday, **August 3, 2010**.
RSG Meeting #7. Scheduled for Thursday, **August 12, 2010**.

Contact Information

Any questions or requests for additional information may be directed to:

Michael Lichte, ALCOSAN Manager of Planning, (412) 732-8004, michael.lichte@alcosan.org
Or

Don Geisser, ARCADIS, Basin Planner, Saw Mill Run Basin, (412) 231-0490, donald.geisser@arcadis-us.com
Or

Visit ALCOSAN's website at: www.alcosan.org

Saw Mill Run Planning Basin

Basin Quarterly Activity Report

Closing in on Potential Solutions

As the combined sewer overflow (CSO) and sanitary sewer overflow (SSO) alternatives development process for the Saw Mill Run (SMR) planning basin has advanced, the Basin Planner (BP) has identified the following CSO control technologies to further evaluate their continued viability and applicability for the SMR CSOs.

- Retention Treatment Basin (RTB) with High-Rate Disinfection (HRD)
- Vortex Separation with HRD
- Fine Screening with HRD
- In-Line Storage
- Off-Line Storage
- Sewer Separation
- Conveyance Improvements
- Rain Gardens
- Green Roofs
- Permeable/Porous Pavements and Concretes
- Rain Barrels and Cisterns
- Bioswales

Similarly, the following SSO control technologies have been identified for further evaluation.

- In-Line Storage
- Off-Line Storage
- Removal of Infiltration and Inflow (Extraneous Flow)
- Conveyance Improvements

A comprehensive review of potential sites for the most feasible CSO/SSO control technologies within the planning basin has also been completed by the BP. Using the following site screening criteria; 48 potential sites were identified for further consideration.

Preliminary Site Screening Criteria

- Areas within 2,000 feet radius of the most significant overflows – PREFERRED
- Areas that contain critical infrastructure – NOT PREFERRED
- Areas of steep topography - NOT PREFERRED
- Areas on National Register of Historic Places - NOT PREFERRED
- Areas within Allegheny County Land Trust Greenways - NOT PREFERRED

Following supplemental screening of the 48 potential sites, 9 sites in the SMR planning basin were identified as being the most viable for further consideration.

Preliminary site plans showing the location of the various CSO/SSO control technologies and most viable potential sites are being developed by the BP. These plans will be used to assess the continued viability of the technologies on a particular site as well as the preliminary costs to implement the technologies on the site. The preliminary site plans will be reviewed with the respective host communities, as appropriate, to establish the overall implementation requirements for the various control technologies and sites.



Attend an ALCOSAN Community Meeting in your community's basin...

Wednesday, October 27, 2010
St. Mark's Evangelical Lutheran Church, 933 Brookline Boulevard
Pittsburgh, PA 15226

Your community's meeting will be held from 5:30 PM to 8:00 PM with a presentation given at 6:30 PM. This meeting will focus on the community-based potential solutions for Saw Mill Run as well as provide ALCOSAN's Annual Customer Information update. See page 3 for more information and details.

More inside...

- In the Saw Mill Run Communities – Page 2
- In the Region...ALCOSAN Updates – Page 2
- On the Horizon – Upcoming Community Meetings – Page 3

Saw Mill Run Planning Basin

Basin Quarterly Activity Report

In the Saw Mill Run Communities

The most recent SMR Basin Planning Committee (BPC) Meeting (BPC Meeting No. 8) was held at the Whitehall Borough Complex on September 29, 2010. Meeting topics included the following:

- Program Update
- Municipal Preliminary Flow Estimates (PFEs)
- Basin Alternatives Development
- Preliminary Control Facility Site Plans
- ALCOSAN Community Meetings
- Regional Plan Integration

All SMR municipal PFEs have been received by ALCOSAN. The BP is currently reviewing these PFEs and will be scheduling and attending follow-up meetings with the Point of Connection (POC) municipalities to obtain concurrence on all expected future (Year 2046) flows to ALCOSAN. To date, initial PFE review meetings have been conducted with the City of Pittsburgh (Pittsburgh Water and Sewer Authority - PWSA) on August 4, 2010 and with the Municipality of Bethel Park on July 9, 2010.

ALCOSAN and the BP recently conducted one-on-one meetings with Councilwoman Theresa Kail-Smith (District 2) on September 20, 2010 and Councilwoman Natalia Rudiak (District 4) on September 30, 2010. The purpose of these meetings was to further engage the City of Pittsburgh in providing the local support necessary to implement the ALCOSAN Regional Wet Weather Plan (RWWP) which has significant impact to the City. At these meetings, the BPs provided an overview of the RWWP, the control alternatives development process and potential control sites within each Councilwoman's respective District. Additional information exchange sessions will continue to be held with City and other customer municipality officials as deemed appropriate or as may be requested by the officials.

In the Region... ALCOSAN Updates

Program Status.

Similar to the SMR Team, all of ALCOSAN's Basin Planners (BPs) are reviewing the municipal Preliminary Flow Estimates (PFEs) they've been receiving from their tributary municipalities. If, for a given POC, they find the municipal flow estimate differs significantly from their own modeled flow estimate, they will closely coordinate with the municipality to identify the reason or reasons for the discrepancy. In this manner, ALCOSAN hopes to ensure that their H&H model accurately reflects real-world conditions and incorporates the most up to date municipal information. The municipalities will also have the opportunity to use this process to update and finalize their own flow estimates with the knowledge that they will be accurately integrated into the BP's planning basin H&H model.

As the seven BPs approach the final stages of their model development, they are simultaneously beginning to use their models to select, size and evaluate CSO and SSO control alternatives for their basins. ALCOSAN's Program Manager is also heavily involved in the process, combining all seven H&H models into a single Regional Balance Model (RBM). The RBM will be used during the Regional Optimization phase of the project, and will allow ALCOSAN to determine the overall best arrangement of control alternatives sizes and locations throughout ALCOSAN's entire service area.

Saw Mill Run Planning Basin

Basin Quarterly Activity Report

In the Region... ALCOSAN Updates (continued)

ALCOSAN Technology Outreach. ALCOSAN continues to promote the use of Green Technologies as a wet weather flow management strategy whenever and wherever feasible. In support of this effort, ALCOSAN recently hosted a series of Technology Outreach seminars that focused on Climate Change, Stormwater Runoff and Green Infrastructure. Future seminars will be planned; please visit ALCOSAN's website for more information.

ALCOSAN Community Outreach. At CMAC meeting #7, held August 3rd, the discussion focused on the issue of whether ALCOSAN could and should take over portions of municipal sewer collection systems, especially the municipal interceptors. This dynamic topic was a key concern, worthy of additional discussion with ALCOSAN, and required a follow-up meeting via conference call. During the call, CMAC members provided feedback on the critical items ALCOSAN should consider in its potential response to an RFP from 3RWW focused on regionalization (for further information on the RFP contact 3RWW). Contact your CMAC representative to share your thoughts and insight on this issue. CMAC meeting #8 is scheduled for November 9th.

RSG meeting #7 was held on August 12th. RSG members discussed updated information regarding ALCOSAN's Affordability Analysis Process. The most notable issue was the question of which affordability factors were included in other cities' plans, and their potential impact on the development of ALCOSAN's regional WWP. RSG meeting #8 is scheduled for November 16th.

On the Horizon – Upcoming Community Meetings

Sewer overflows impact everyone, and each of us can contribute to the resolution of this critical problem. By attending an upcoming meeting, you can learn about what is being considered in your community to address the public health, environmental and economic impacts of untreated sewer overflows into our region's rivers and streams.

Each community meeting will be held from 5:30 PM to 8:00 PM. A region-wide meeting will be held on Thursday, November 4th at the Senator John Heinz History Center from 10:00 AM to 4:00 PM. This meeting will provide a collective look at the community-based solutions for the entire ALCOSAN service area.

Plan to attend a meeting most convenient for you, bring a friend, and provide your input.

Contact Information

Any questions or requests for information may be directed to:

Michael Lichte, ALCOSAN Manager of Planning, (412) 732-8004,
michael.lichte@alcosan.org

Or

Don Geisser, ARCADIS, Basin Planner, Saw Mill Run Basin, (412) 231-0490,
donald.geisser@arcadis-us.com

Visit ALCOSAN's website at: www.alcosan.org

ALCOSAN Community Meeting Schedule

Monday, Oct 18 - Heidelberg VFD
456 1st Street, Carnegie, PA 15106

Tuesday, Oct 19 - East Liberty Presbyterian Church
116 S. Highland Avenue, Pittsburgh, PA 15206

Wednesday, Oct 20 - Bellevue Christian Church
680 Lincoln Avenue, Bellevue, PA 15202

Thursday, Oct 21 - Carnegie Library of Homestead
510 E. 10th Avenue, Munhall, PA 15120

Monday, Oct 25 - Clarence Fugh Memorial Hall – Etna
437 Butler Street, Pittsburgh, PA 15223

Tuesday, Oct 26 - Wm. Anderson Library of Penn Hills
1037 Stotler Road, Pittsburgh, PA 15235

Wednesday, Oct 27 - St. Mark's Evangelical Lutheran Church
933 Brookline Boulevard, Pittsburgh, PA 15226

Thursday, Nov 4 (REGION-WIDE) - Senator John Heinz History Center
1212 Smallman Street, Pittsburgh, PA 15222

Tuesday, Nov 9 - Upper St. Clair Community & Rec. Center
1551 Mayview Road, Upper St. Clair, PA 15241

Wednesday, Nov 10 - Boyd Community Center
1220 Powers Run Road, Pittsburgh, PA 15238

Visit ALCOSAN's website at: www.alcosan.org



Saw Mill Run Planning Basin

Basin Quarterly Activity Report

From Feasibility Report to Basin Facilities Plan

On November 1, 2010, the Basin Planner (BP) submitted to ALCOSAN a Draft Feasibility Report for the Saw Mill Run (SMR) planning basin. The Draft Feasibility Report included the following information:

- Combined Sewer Overflow (CSO) and Sanitary Sewer Overflow (SSO) regulatory control requirements for the SMR basin
- Overview of existing collection system conditions within the SMR basin
- Future population projections for the SMR basin communities
- Future conditions Hydrologic and Hydraulic (H&H) model development information
- Site alternative evaluations for CSO/SSO control
- Basin-wide alternative evaluations for CSO/SSO control
- Preliminary cost estimates for site and basin-wide alternatives
- 1st and 2nd preferred basin alternatives identification

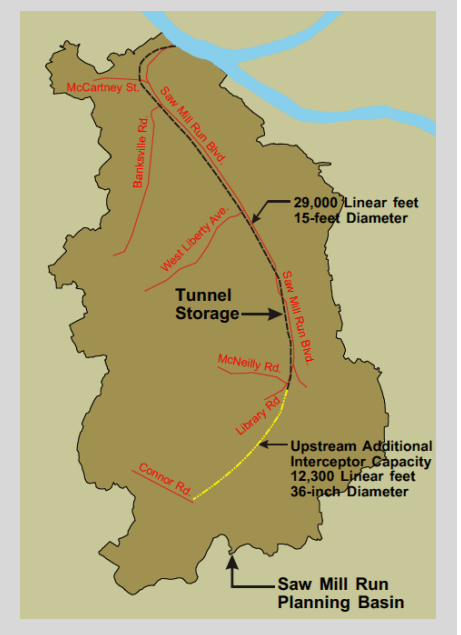
Since the submittal of the Draft Feasibility Report on November 1, 2010, the BP has continued to evaluate the available CSO/SSO control sites within the basin and progress the preliminary identified 1st and 2nd preferred basin alternatives.

Because of the unusual flow characteristics associated with the basin mixed sewersheds (i.e., includes both combined and separate sanitary sewers), revised future basin flows have been developed by the BP. These revised flows have resulted in new 1st and 2nd preferred basin alternatives for the SMR basin which the BP is continuing to progress detail on.

Based upon the BP evaluations completed to date, the 1st preferred basin alternative for the SMR basin is expected to be composed of tunnel storage and new conveyance pipelines for controlling the future basin flows. Large diameter pipelines will be required to convey the basin CSOs and SSOs sufficient to meet expected regulatory controls for the basin. Therefore, using these large diameter pipelines to provide tunnel storage provides the most cost-effective CSO/SSO basin-wide control solution for the basin.

Preferred basin-level alternatives must now be integrated into a set of regional alternatives through a process called Regional Optimization. ALCOSAN will utilize the most promising basin alternative(s) and sites to assemble a set of regional control alternatives for controlling overflows across the entire ALCOSAN service area. The resulting set of regional alternatives must then be evaluated based on the suitability of sites and locations, the level of improvement they provide over the basin alternatives, and the relative increase in operational performance across the seven basins.

It is anticipated that the regional combining of basin flows and volumes will result in the need for fewer, but larger control facilities. Therefore, a regional overflow storage tunnel will likely become an important component of many of the regional alternatives. These tunnel-based regional alternatives must then be closely evaluated using both monetary (cost) and non-monetary (construction impact, etc.) criteria in an effort to determine the most beneficial regional alternative.



Possible Tunnel Storage CSO/SSO Control Alternative for Saw Mill Run Basin

- More inside...**
- In the Saw Mill Run Communities – Page 2
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Saw Mill Run Planning Basin

Basin Quarterly Activity Report

In the Saw Mill Run Communities

To progress the development of the Draft Feasibility Report for ALCOSAN, the BP developed future population projections for the thirteen communities that fall entirely or partially within the SMR basin. For those communities only partially located within the basin, population projections were only developed for that area of the community that resides within the SMR basin. The population projections were used to estimate the projected future base sanitary flow in the basin.

Community population projections were calculated using the population projections developed by the Southwestern Pennsylvania Commission (SPC). Pursuant to the requirements of ALCOSAN's Consent Decree (CD) for its weather planning period, the population projections were estimated through the year 2046. The individual community population projections were used to develop a basin-wide population projection for the planning year 2046.

Each of the community population projections were reviewed with the individual communities to obtain concurrence on the developed future populations. Each community provided concurrence to the BP on the population projections developed for their respective community.

The BP continued to meet, as appropriate, with the communities required to provide point of connection (POC) future flow estimates to ALCOSAN. These municipalities include: The City of Pittsburgh (Pittsburgh Water and Sewer Authority - PWSA), Municipality of Bethel Park, and Castle Shannon Borough. All three municipalities had previously provided their preliminary flow estimates (PFEs) to ALCOSAN in the Fall of 2010. Follow-up PFE review meetings were conducted with the PWSA on November 8, 2010, and Castle Shannon in January 6, 2011. No follow-up PFE review meeting was determined to be required for Bethel Park.

ALCOSAN is currently waiting to receive the final flow estimates (FFE) from each of these municipalities.

In the Region...ALCOSAN Updates

Advancing Green Solutions. Implementing successful pilot projects is important for promoting green solutions. ALCOSAN is aware of two local communities that are currently pursuing funding for green pilot projects. The first community's concept plans include using a commercial area to capture runoff, then store and discharge that runoff at a controlled rate. Another concept considers using vegetated swales in a residential community and rain gardens in an apartment complex.

The second community's projects include a concept plan that shows how a commercial area can use porous pavement and a bio-retention basin to capture, store and discharge runoff. Their additional concept plans include porous pavement, rain gardens and a vegetated swale along a residential street. Additionally, approximately 78% of the community's 2,800 residential properties are potential candidates for downspout disconnections.

Both communities are interested in implementing their concept plans. When implemented, these projects will help to develop the local standards needed for widespread implementation.

Affordability. United States Environmental Protection Agency (USEPA) guidelines suggest that if the ratio of total wastewater costs, when compared to an area's median household income, exceeds 2%, the costs are considered a "high burden" to the ratepayers. This ratio is called the Residential Indicator; under the Combined Sewer Overflow (CSO) Policy, a ratio of greater than 2% may open up some flexibility in the construction schedule that can be used to mitigate the burden on the ratepayer.

Last spring, ALCOSAN estimated additional wastewater infrastructure costs that, when added to current ALCOSAN and municipal sewer rates, could cause the Residential Indicator to exceed 2%. Though it was a simple snapshot that assumed all costs would be incurred simultaneously and inflation rates were negligible, it now provides a means to identify those infrastructure components whose costs may contribute most toward the 2% threshold. It will also serve as a benchmark to gauge the impacts of various levels wastewater spending.

Saw Mill Run Planning Basin

Basin Quarterly Activity Report

In the Region...ALCOSAN Updates (continued)

Currently, ALCOSAN is expanding its financial capability model so that it can take into account potential construction scheduling, program phasing and a wide range of potential economic and financial conditions. Examples include: inflation of construction and operating costs; changes in residential incomes, populations and households; changes to interest rates and terms; and municipal and ALCOSAN equipment renewal and replacement costs. The resultant predictions of current and future annual operation and maintenance (O&M) costs, borrowing requirements, annual available regional "affordability" and typical household costs (i.e. the Residential Indicator) can be used to evaluate and prioritize the many wet weather control strategies being considered.

ALCOSAN Outreach. The Feasibility Study Process and Regional Sewer System Management were key topics at the 8th CMAC meeting held on November 9th 2010. ALCOSAN presented their response to the 3RWW Regionalization request for proposal (RFP) to CMAC members. It included an outline of scope and potential regionalization options. Suggestions, such as using a steering committee to lead the study, were discussed and well received by ALCOSAN. In addition, CMAC members reviewed a memo from the 3RWW Feasibility Study Working Group (FSWG) addressing rates, planning schedule, basis of design, and planning issues. As follow-up, CMAC sent a representative to the December FSWG meeting.

Green Technologies and Stormwater Management continue to be points of emphasis for the RSG. At RSG meeting #8, held on November 16th 2010, CMAC member Michael Kenney, then Executive Director of PWSA, discussed the PWSA's plans to issue an RFP to determine the feasibility of developing a stormwater utility. Also, the plans being made to implement pilot studies of green technologies in two local communities were discussed and supported by the RSG.

During October and November of 2010 community meetings were held within the ALCOSAN service area. There was one meeting in each of the seven basins, except for Chartiers Creek and Upper Allegheny that held two meetings. A regional meeting was held in downtown Pittsburgh. The total attendance at the ten meetings was approximately 170 people. Attendees included elected officials, municipal staff, stakeholder group members, and general citizens. The meetings served to present information on potential solutions in each basin and meet the CO requirements for an annual meeting.

ALCOSAN also hosted a booth to inform the public about the S.O.A.K. program at the Pittsburgh Boat Show (Monroeville Convention Center) Thursday, January 27 through Sunday, January 30, 2011.

On the Horizon - Future Actions

This winter ALCOSAN will participate in several regional events to provide information to the public about the development of the WWP and the S.O.A.K. program. We encourage you tell your constituents and attend. Please spread the word!

- **Monroeville Home Show** (Monroeville Convention Center) – Thursday, February 24 through Sunday, February 27.
- **Pittsburgh Home & Garden Show** (Pittsburgh Convention Center) – Friday, March 4 through Sunday, March 13.

Contact Information

Any questions or requests for information may be directed to:

Michael Lichte, ALCOSAN Manager of Planning, (412) 732-8004,
michael.lichte@alcosan.org

Or

Don Geisser, ARCADIS, Basin Planner, Saw Mill Run Basin,
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Saw Mill Run Planning Basin

Basin Quarterly Activity Report #7

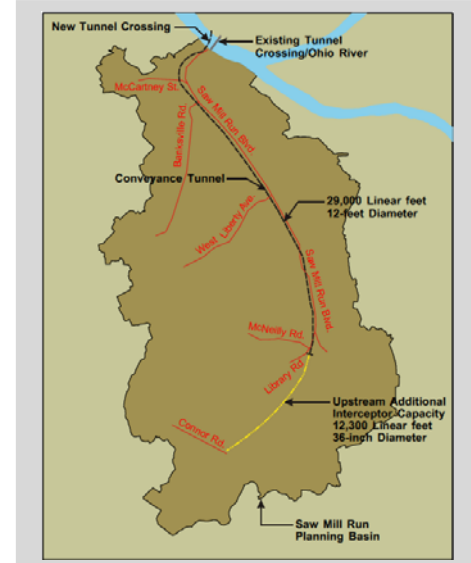
Developing the *Basin Facility Plan*

This *Basin Quarterly Activity Report (BQAR)* summarizes the planning activities completed by the Saw Mill Run (SMR) Basin Planning Team since February 2011. Much of the work completed over the past three months has involved coordinating with the ALCOSAN Program Manager (PM) to evaluate various alternatives for a regional or system-wide Wet Weather Plan (WWP) for the seven ALCOSAN planning basins. Each of the seven planning basins has developed a preferred Basin-based alternative for CSO/SSO control considering no additional flow accommodation downstream of the Basin by ALCOSAN. For the System-Wide WWP, ALCOSAN and the PM are evaluating various combinations of additional downstream conveyance and expanded capacity at the ALCOSAN wastewater treatment plan (WWTP) to provide the required CSO/SSO control, while limiting CSO/SSO control facilities in the upstream planning basins. It is believed that providing a consolidated System-Wide WWP will be less costly to implement and minimize the operational complexities associated with multiple Basin-based CSO/SSO control facilities.

In the SMR Basin, the current preferred Basin-based alternative (for a 4 overflows/year CSO level of control) includes a 29,000 linear feet, 15-foot diameter downstream storage tunnel plus approximately 12,300 linear feet of 36-inch diameter additional upstream interceptor conveyance capacity to transport upstream SSOs and CSOs to the downstream storage tunnel. A graphical depiction of this possible Basin-based solution was presented in BQAR No. 6. The current preferred System-Wide alternative for the SMR Basin includes a 29,000 linear feet, 12-foot diameter conveyance tunnel with a new Ohio River crossing to discharge into a new ALCOSAN regional tunnel system and expanded WWTP. The System-Wide alternative would also include approximately 12,300 linear feet of 36-inch diameter additional upstream interceptor conveyance similar to the current preferred Basin-based alternative. A graphical depiction of the current preferred System-Wide alternative is presented in the right-side panel of this page.

The SMR Basin Planning Team continues to coordinate with the customer municipalities within the SMR Basin to understand how each of these municipalities plan to control their flows to ALCOSAN upon final implementation of the ALCOSAN WWP. Customer municipalities provided their most current municipal planning information to ALCOSAN on April 29, 2011. The SMR Basin Planning Team is currently reviewing this information and will be setting up meetings with the municipalities to ensure the accuracy and completeness of the information being incorporated in the final feasibility study.

The results and conclusions of the ongoing SMR planning efforts will be presented in a Feasibility Report Update that will be provided to ALCOSAN in Summer 2011. The Feasibility Report Update will then be transitioned through additional planning refinement with ALCOSAN and the PM to develop the SMR Basin Facility Plan which is scheduled to be delivered to ALCOSAN by the end of 2011.



Possible Saw Mill Run System-wide Solution

Conveyance Tunnel and New Ohio River Crossing to New ALCOSAN Regional Tunnel/Expanded WWTP Capacity

More inside...

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Saw Mill Run Planning Basin

Basin Quarterly
Activity Report #7

In the Saw Mill Run Communities

Basin Planning Committee (BPC) Meeting No. 10 was held at the Whitehall Borough Complex on May 25, 2011. Agenda items included the following:

- Discussion on the development and contents of the SMR Feasibility Report Update due to ALCOSAN Summer 2011;
- Discussion of the SMR Basin Planning Team preliminary review of municipal planning information provided to ALCOSAN by customer municipalities on April 29, 2011;
- Overview of most recent Customer Municipal Advisory Committee (CMAC) and Regional Stakeholders Group (RSG) meetings and activities;
- Status update concerning ALCOSAN's System-Wide Regionalization Study (to be conducted 6/2011 to 12/2012); and
- Overview of the Current Wet Weather Program Schedule including ALCOSAN, Basin Planner (BP) and customer municipality expected deliverables and information exchange requirements.

The next BPC Meeting No. 11 is expected to be conducted in September 2011.

In the Region... ALCOSAN Updates

CSO Flag Program. The CSO Flag Program, managed by the Allegheny County Health Department (ACHD), provides an advisory when a combined sewer overflow (CSO) alert has been issued. Alerts are issued when significant rainfall causes sewers carrying a combination of sewage and storm water to overflow into rivers and streams. There are CSO flag locations along the Allegheny, Ohio, and Monongahela Rivers. The 2011 CSO Flag Program's public notification period is May 15 through September 30. For more information, visit www.achd.net.

In addition, ALCOSAN complements the CSO Flag Program with its SOAK Program. The Sewer Overflow Advisory Key (SOAK) provides up-to-the-minute plant operation related to CSOs. It also spells out what activities are advisable during the red-yellow-green stages. Visit www.alcosan.org and click on the SOAK program on right hand side of the home page.

ALCOSAN Community Outreach. ALCOSAN hosted a booth at the 2011 Allegheny League of Municipalities (ALOM) Spring Conference. Over 200 attendees visited ALCOSAN's booth and received information about wet weather control technologies and ALCOSAN's regional wet weather control planning efforts. In addition, an informational booklet was made available that provided a comprehensive update on the overall ALCOSAN Wet Weather Program. Over one hundred people attended a presentation by ALCOSAN Executive Director Arletta Scott Williams entitled "16 Months Left to Speak Out – Don't Miss Your Opportunity". Extra booklets are available by calling (412) 734-8733.

Saw Mill Run Planning Basin

Basin Quarterly
Activity Report #7

In the Region... ALCOSAN Updates (continued)

Communicating and coordinating with elected officials and municipal managers was a key topic of discussion at the 9th CMAC meeting held on March 1, 2011 and the 10th CMAC meeting held on May 10, 2011. ALCOSAN also presented information on the progress of the Wet Weather Plan. This update provided insight on the development of regional alternatives, as well as the status of ALCOSAN's requests for municipal planning information required by the Municipal Consent Orders. Finally, it was documented that the CMAC is supportive of ALCOSAN's proposed regionalization study to be undertaken by the Allegheny Conference on Community Development.

The 9th RSG meeting, held on March 17, 2011, included a presentation of Etna Borough's downspout disconnection program; a discussion on municipal wet weather controls; and the development of regional wet weather controls. Green technologies and storm water management continue to be points of emphasis for the RSG. The 10th RSG meeting held on May 17, 2011, included a discussion of ALCOSAN's stream removal projects and critical wet weather plan sites deemed necessary for the WWP implementation.

Meetings. Your constituents reach you at home, by phone, at council meetings, and in the supermarket. Will you be ready? Please make the effort to attend, participate in and promote any and all wet weather planning meetings. The clock is winding down until the Regional Wet Weather Plan is complete, and it is too comprehensive to digest AFTER it is completed. Take advantage of ALCOSAN's offer to meet with you or your council to discuss. If you have a particular group that will benefit from a presentation, contact ALCOSAN at (412) 734-8353.

On the Horizon - Future Actions

Save the date... ALCOSAN's annual Open House will be held on September 17, 2011. The Open House is fun, educational and includes activities for all ages.

Get ready... This fall, ALCOSAN will again host a series of informational community meetings to provide updates on basin planning activities. Meeting dates and locations will be published in the next Basin Quarterly Activity Report.

Upcoming Meetings

CMAC Meeting #11 – Tuesday, August 2, 2011
RSG Meeting #11 – Thursday, August 18, 2011

Contact Information

Any questions or requests for information may be directed to:

Michael Lichte, ALCOSAN Manager of Planning, (412) 732-8004, michael.lichte@alcosan.org

Or

Don Geisser, ARCADIS, Basin Planner, Saw Mill Run Basin, (412) 231-0490, donald.geisser@arcadis-us.com

Visit ALCOSAN's website at: www.alcosan.org

Saw Mill Run Planning Basin

Basin Quarterly Activity Report #8

Basin Facilities Plan Development

This *Basin Quarterly Activity Report (BQAR)* summarizes the activities of the Saw Mill Run (SMR) Basin Planning team since Spring 2011.

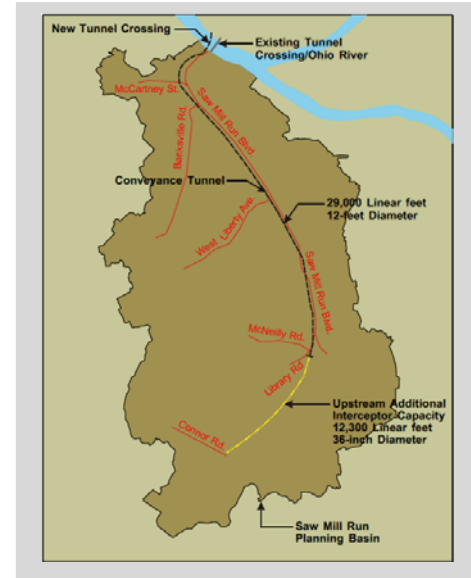
As reported in the Spring 2011 BQAR, the SMR Basin Planning Team has established a preferred Basin-Based alternative and a preferred System-Wide alternative for CSO/SSO control in the SMR Basin. In general, ALCOSAN and its Program Manager (PM) believe the System-Wide alternative will be less costly to implement and minimize the operational complexities associated with multiple Basin-Based CSO/SSO control facilities.

The current preferred System-Wide alternative includes a 29,000 linear feet, 12-foot diameter conveyance tunnel with a new Ohio River crossing that connects to a new ALCOSAN regional tunnel system. The regional tunnel conveys wet weather flow to an expanded ALCOSAN wastewater treatment plant (WWTP). The preferred System-Wide alternative also includes approximately 12,300 linear feet of 36-inch diameter interceptor sewer. This sewer provides additional upstream conveyance capacity to transport CSO and SSO flows to the downstream conveyance tunnel. A graphical description of the current preferred System-Wide alternative is presented in the right-side panel of this page.

Since publication of BQAR #7 in Spring 2011, the SMR Basin Planning Team has been coordinating with the customer municipalities to obtain and clarify requested municipal planning information. This information will serve as the basis for the customer municipality Feasibility Studies. To date, the majority of these data have been obtained from the customer municipalities, with only follow-up municipal information clarifications to be provided by the municipalities.

Using the municipal planning information, the SMR Basin Planning Team has refined the preferred System-Wide alternative to include the various levels of CSO/SSO control proposed by the customer municipalities. The current preferred SMR System-Wide alternative includes a 4 overflows/year CSO level of control and a 2-year design storm level of control for SSOs.

The SMR Basin Planning Team included the municipal planning information in a Feasibility Report and Present Worth Analysis Update that was submitted to ALCOSAN and the PM in August 2011. Using this information, the SMR Basin Planning Team will be further refining the current preferred System-Wide alternative to complete the SMR Facilities Plan by the end of 2011.



Preferred Saw Mill Run System-Wide Alternative

Conveyance Tunnel and New Ohio River Crossing to New ALCOSAN Regional Tunnel/Expanded WWTP

More inside...

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Saw Mill Run Planning Basin

Basin Quarterly
Activity Report #8

Basin Facilities Plan Development (continued)

The objective of the SMR Facilities Plan will be to describe in further detail the proposed conveyance pipelines and control facilities associated with the preferred System-Wide alternative. This additional detail is necessary to ensure that the final recommended System-Wide alternative is comprised of technically feasible and cost effective control measures. The control measures will make use of the most practical and feasible CSO/SSO control sites and conveyance routes. Principal components of the Facilities Plan will include the following:

- *Recommended Alternative* for CSO/SSO control in the SMR Basin, including level of CSO/SSO control, basis of facilities design, facilities site and conveyance route mapping, operational features, etc.
- *Environmental Impacts Assessment*, including probable property and easement acquisitions, permitting requirements, and potential impacts on land use, water quality, air quality, noise and aesthetics, vehicular and pedestrian traffic, flood plains, etc.
- *Probable Cost of Construction*, including capital and operation & maintenance (O&M) costs for new facilities and renew and replacement (R&R) costs for existing facilities.
- *Implementation*, including known construction challenges, construction sequencing, O&M requirements, feasibility of implementation, recommended additional investigations, etc.

In the Saw Mill Run Communities

SMR customer municipalities provided their most recent municipal planning information to ALCOSAN on April 29, 2011. Since that time, the SMR customer municipalities have continued to refine this information to establish their respective recommended CSO/SSO control plan for their Feasibility Studies. The SMR Basin Planning Team has maintained regular communication with the customer municipalities to ensure all up-to-date municipal planning information is incorporated into the final recommended SMR Basin Alternative for CSO/SSO control.

Basin Planning Committee (BPC) Meeting No. 11 for the SMR Basin will be held at the Whitehall Borough Complex on October 7, 2011, 9:00 a.m. – 11:00 a.m. Agenda items will include the following:

- Basin Facilities Plan Update
- Municipal Planning Information Update
- Regional Wet Weather Plan Updates
- Public Participation and Municipal Outreach Upcoming Events
- Regionalization Study Status
- Next Steps

Saw Mill Run Planning Basin

Basin Quarterly
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In the Region... ALCOSAN Updates

Development of System-Wide Alternatives ALCOSAN has integrated the preferred basin alternatives from each of the seven Planning Basins with needed accompanying regional conveyance, storage and treatment facilities. Each of the resulting System-Wide Alternatives represents a complete plan to control all ALCOSAN and municipal CSOs and SSOs to a selected level of control.

Upon evaluating the overall impacts of the System-Wide Alternatives, ALCOSAN recommended modifications to various components of the basin alternatives to enhance their benefits to water quality and/or to reduce regional implementation costs. Many technical, economic and regulatory factors were also considered, including:

- Municipal flow projections and planned overflow control improvements
- Maximizing the value of existing conveyance and treatment plant infrastructure
- The cost vs. benefit of treatment plant expansion
- Opportunities to consolidate planning basin facilities
- Mixing of sanitary and combined flow
- Water quality benefits, including increased control in or near “sensitive” areas
- Balancing financial capability limitations with regulatory compliance requirements

To identify the most cost-effective mix of basin-based and regional facilities, a number of hybrid alternatives were identified and evaluated. Six different tunnel configurations with various combinations of remote CSO and SSO facilities along the rivers were analyzed. Control variables included SSO control for three different storm intensities and two increased treatment plant capacities at the ALCOSAN facility.

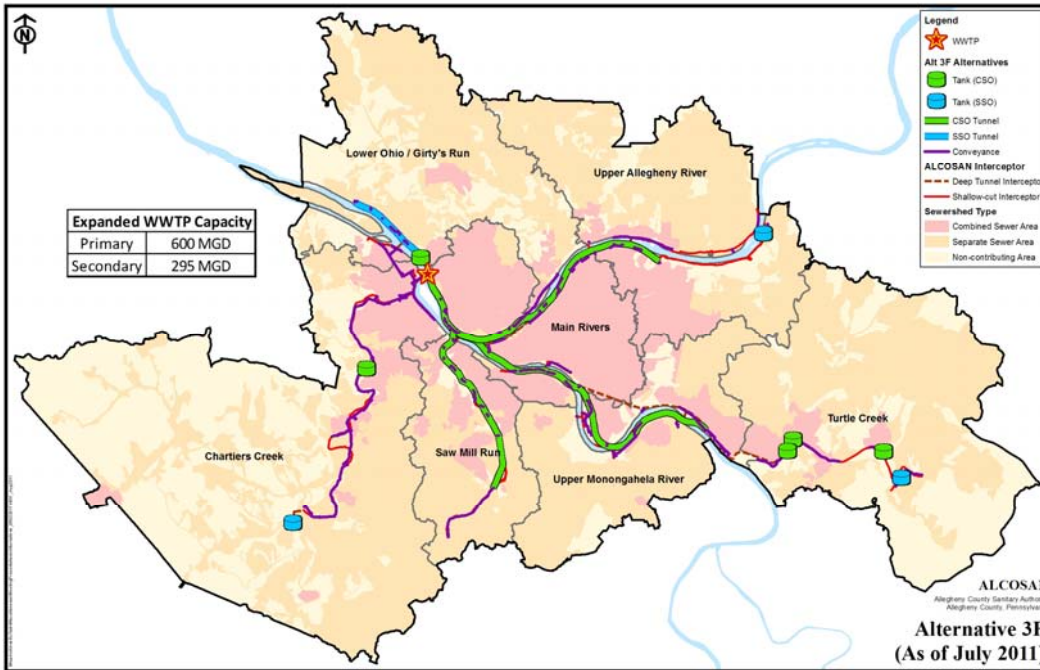
At a CSO control level of 4-6 overflows per year and an SSO control level corresponding to the 2-yr storm, one of the leading system-wide control alternatives appears to be a new regional storage / conveyance tunnel extending from the ALCOSAN WWTP up the Allegheny and Monongahela rivers to serve the MR, LOGR (Allegheny portion), UA, UM, CC and SMR planning basins. The LOGR (Ohio portion) and Turtle Creek basins are to retain their preferred basin-based overflow control alternative components.

Variations of this alternative were also analyzed at SSO control levels corresponding to the 10-yr storm and the Typical Year rainfall. This system-wide alternative is illustrated in the figure below.

Saw Mill Run Planning Basin

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In the Region... ALCOSAN Updates (continued)



The seven Basin Planners will each base their Facility Plan on the portions of the recommended system-wide alternative contained in their respective planning basin.

On the Horizon - Future Actions

Get ready... This fall, ALCOSAN will host a series of informational Town Hall meetings to provide updates on basin planning activities. Dates for SMR Basin specific Town Hall meetings are as follows:

Monday, October 24th (5:30 PM – 7:30 PM) – Brentwood Library
 Thursday, November 3rd (10:00 AM – 12:00 noon) Courtyard by Marriott, Waterfront

Region-wide Town Hall Meetings will also be held at the following locations:

Wednesday, November 9th (5:30 PM – 7:30 PM) – IBEW #5 Circuit Centre
 Tuesday, November 15th (10:00 AM – 4:00 PM) Heinz History Center

For more information, and for a list of all the upcoming Town Hall meetings, please go to www.alcosan.org

Other Upcoming Meetings

RSG Meeting #12 – Wednesday, November 9, 2011
 CMAC Meeting #12 – Thursday, November 10, 2011

Contact Information

Any questions or requests for information may be directed to:

Michael Lichte, ALCOSAN Manager of Planning,
 (412) 732-8004, michael.lichte@alcosan.org
 Or
 Don Geisser, ARCADIS, Basin Planner, Saw Mill Run Basin,
 (412) 231-0490, donald.geisser@arcadis-us.com

Visit ALCOSAN's website at: www.alcosan.org

Saw Mill Run Planning Basin

Basin Quarterly Activity Report #9

Finalizing the Saw Mill Run Facilities Plan

This Basin Quarterly Activity Report (BQAR) summarizes the activities of the Saw Mill Run (SMR) Basin Planning team since fall 2011. The SMR Basin Planning team is in the process of finalizing the Final Basin Facilities Plan (BFP). The Final BFP is part of the larger Wet Weather Plan (WWP) required by the United States Environmental Protection Agency to address problems associated with combined sewer overflows (CSOs) and sanitary sewer overflows (SSOs) in the ALCOSAN service area.

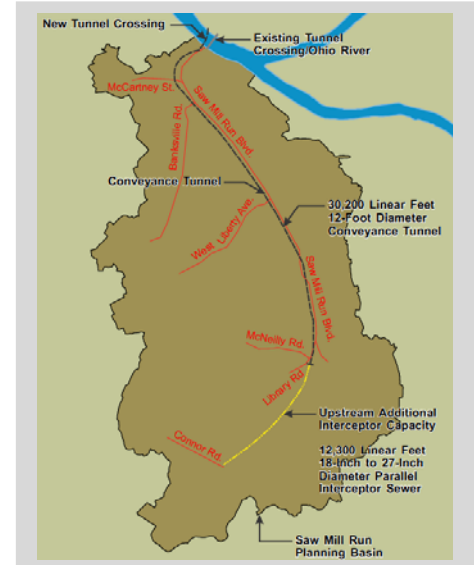
The SMR Basin Facilities Plan defines the facilities and conveyances specific to the SMR Basin which are important components of ALCOSAN's preferred System-Wide Alternative, known as Alternative 3f-modified. Alternative 3f-modified eliminates ALCOSAN SSOs for a 2-year design storm and generally controls ALCOSAN CSOs to 4-6 overflows/year, with the exception being the elimination of those CSOs near sensitive areas (Note: there are no sensitive areas associated with the SMR Basin). The SMR Basin Facilities Plan describes the proposed facilities and conveyances and demonstrates the technical feasibility and cost-effectiveness of the proposed control measures. The Plan also ensures the use of practical and feasible sites and routes.

The SMR Basin Facilities Plan represents the culmination of the Feasibility and Present Worth Analyses. The Feasibility Report and Present Worth Analysis identified, developed and evaluated Site Alternatives (site-specific control alternatives) and Basin Alternatives (Basin-wide control alternatives). The report focused on the identification of the preferred control alternative at the Planning Basin level, while discussing the general approach to identifying and evaluating control alternatives. Throughout this process, the SMR Basin Planning team collaborated with SMR Basin customer municipalities to ensure that the proposed ALCOSAN and municipal control technologies and sites were reviewed and discussed.

The SMR Basin components that are included as part of ALCOSAN's preferred System-Wide Alternative include the following:

- 30,200 linear feet of 12-foot diameter conveyance tunnel, extending downstream from the intersection of McNeilly and Library Roads to the West End Bridge, with a new tunnel crossing across the Ohio River to a connection with ALCOSAN's planned System-Wide Regional Tunnel.
- 12,300 linear feet of 18-inch to 27-inch diameter parallel interceptor sewer upstream of the 12-foot diameter conveyance tunnel to provide additional upstream conveyance capacity.

A graphical representation of these SMR Basin components is presented in the right-side panel of this page.



Preferred Saw Mill Run System-Wide Alternative Conveyance Tunnel and New Ohio River Crossing to New ALCOSAN Regional Tunnel/Expanded WWTP

SMR Basin Planning Committee Meeting #12
May 10, 2012 1:30 PM
 Whitehall Municipal Complex
 100 Borough Park Drive
 Pittsburgh, PA 15236

More inside...

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- In the Region...ALCOSAN Updates – Page 2
- On the Horizon – Future Actions – Page 3

Saw Mill Run Planning Basin

Basin Quarterly
Activity Report #9

In the Saw Mill Run Communities

Basin Planning Committee (BPC) Meeting No. 11 was held on October 7, 2011 at the Whitehall Borough Complex. Discussion topics included updates on the Basin Facilities Plan, municipal planning information, and the Regional Wet Weather Plan, an overview of future public participation and municipal outreach events, and a status report on the 18-month Regionalization Study.

BPC Meeting No. 12 will be held at 1:30 PM on May 10, 2012, at the Whitehall Municipal Complex, 100 Borough Park Drive, Pittsburgh, PA 15236. The meeting will include a report on the Final SMR Basin Facilities Plan and an update by the Program Manager on the draft WWP.

In the Region ... the Draft Wet Weather Plan

A strategic planning effort, mandated by a federal Consent Decree (CD), will achieve an important milestone when ALCOSAN officially releases its draft WWP for public review and comment on July 31, 2012. The WWP will provide a detailed strategy to eliminate existing SSO discharges and control CSO discharges in order to improve water quality in the region's rivers and streams for aquatic life, public water supply, and recreational use protection.

A comprehensive list of potential control alternatives was developed, subjected to computer simulation modeling, water quality and financial analyses, and then integrated to identify the most cost effective solution for the region. Facility improvements described in the Plan are intended to provide the needed sewer system capacity for continued population and economic growth throughout the ALCOSAN service area through 2046. The CD requires that, after review and approval by federal, state and county regulatory agencies, construction to implement the Plan would be completed by 2026.

A recommended Plan has been developed that would begin with the expansion of the ALCOSAN WWTP from its current capacity of 250 million gallons per day (mgd) to 600 mgd for primary treatment and 295 mgd for secondary treatment. The Plan also includes a new tunnel conveyance and storage system, parallel to the existing interceptor sewers, which would extend along the Allegheny, Ohio, and Monongahela Rivers and along Saw Mill Run. Additional relief sewers along Chartiers Creek and Turtle Creek would convey additional wastewater flow from municipal customers to the ALCOSAN plant. A series of storage facilities placed at strategic locations would capture peak wet weather flow to be later released for treatment. The plan would meet regulatory requirements and achieve the desired goals, but the estimated cost of \$3.6 billion is far more than the region can afford.

According to an analysis utilizing federal affordability criteria, the region's affordability guidelines establish an upper limit of \$2 billion through the 2026 construction period required by the CD. Three options that prioritize different improvements are being considered that would stay within affordability guidelines and allow for cost effective expansion for additional improvement phases in the future. One would give priority to eliminating SSOs. A second option would give priority to improving water quality. A third alternative would attempt to provide balanced priorities between CSO and SSO control, water quality improvement, and continued economic development.

Saw Mill Run Planning Basin

Basin Quarterly
Activity Report #9

In the Region... ALCOSAN Community Outreach

Customer Municipalities Advisory Committee (CMAC)

Throughout 2012, CMAC members will be engaged as partners in ALCOSAN's effort to educate municipal representatives and solicit comments on the draft Wet Weather Plan (WWP). During meeting #13, convened on March 20, 2012, CMAC members previewed the progress of the draft WWP, provided comments on the long-term recommended plan, and were presented with three options to prioritize improvements while staying in affordability guidelines.

Regional Stakeholder Group (RSG)

ALCOSAN will continue to reinforce its partnership with the Regional Stakeholder Group (RSG) by actively engaging the RSG for the citizen perspective and as ambassadors for the draft WWP. During meeting #13, held on March 28, 2012, RSG members shared their perspectives on each of the prioritized control plans that adhere to the affordability guidelines. Members expressed an interest in a flexible Plan that moves toward compliance but allows the ability to investigate green infrastructure.

New Outreach Initiative

ALCOSAN is taking the show on the road! This spring, ALCOSAN will launch a Grassroots Outreach initiative to increase awareness and inform the public about ALCOSAN and the Wet Weather Plan (WWP). ALCOSAN recognizes that there are multiple ways to inform and involve service area stakeholders. To supplement its ongoing public outreach efforts, ALCOSAN has prepared a brief presentation designed to explain the "why" and "what" of the draft WWP and how the public may review and comment on the draft. To schedule a presentation as an agenda item at your community based organization or at your municipal council meeting, contact the ALCOSAN Public Relations Department at (412) 734-8353.

On the Horizon - Future Actions

Get ready...

This fall, following the release of the draft Wet Weather Plan, ALCOSAN will host a series of public hearings to solicit public comment on the draft Plan. For hearing dates, times, and locations, please visit the ALCOSAN website at www.alcosan.org in July.

Save the date...

ALCOSAN's annual Open House will be held on Saturday, September 15, 2012. In addition to presentations about the draft WWP, this free annual event features tours of the treatment plant and laboratory, hands-on activities and exhibits, games, food, and fun for all ages.

Contact Information

Any questions or requests for information may be directed to:

Michael Lichte, ALCOSAN Manager of Planning,
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or

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