

**Appendix A-2:  
Newsletters**

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**Basin Quarterly Activity Reports (BQAR) by Basin**

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**Turtle Creek/Thompson Run Basin**

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ALCOSAN. Allegheny County Sanitary Authority.

## Basin Quarterly Activity Report

Turtle Creek /  
Thompson Run

### Quarterly Key Points

This first quarterly report provides a summary of the Wet Weather Plan developments to date, then describes accomplishments particular to the Turtle Creek / Thompson Run (TT) study basin through the spring of 2009.

ALCOSAN and the many municipalities it serves are cooperating to develop plans to alleviate the wet weather overflows from the system. In the 1990s, the 3 Rivers Wet Weather (3RWW) group was formed to facilitate inter-municipal cooperation. ALCOSAN, 3RWW, and the municipalities cooperatively developed a geographic information system (GIS) to manage data on the specifics of the sewer network, a radar-rainfall network to provide site-specific quantification of the rain patterns affecting the region, and a flow monitoring program to quantify the amount of rainfall mixing with the sewage throughout the sewer network. ALCOSAN developed a mathematical model representing the flows from all contributing municipalities and the detailed hydraulics of the ALCOSAN intercepting system.

In early 2008, the negotiations with U.S. Environmental Protection Agency (EPA) and Pennsylvania Department of Environmental Protection (DEP) culminated in a series of inter-related court documents, consisting of a Consent Decree (CD) for ALCOSAN, Administrative Consent Orders (ACOs), and Consent Orders and Agreements (COAs) for the municipalities. The documents prescribed continuation of the data gathering and extension of the hydrologic and hydraulic model to better represent the details of the tributary municipal flows. These orders also prescribe ambitious schedules for development of detailed plans to control overflows system wide. The orders require plans and commitment to construct facilities needed to achieve compliance with Clean Water Act objectives.

ALCOSAN split the planning into seven distinct planning basins to accomplish the intensive engineering planning required. The TT planning basin encompasses the easternmost part of the ALCOSAN service area, covering all or parts of 29 municipal entities. The figure on the following page shows the TT Basin and the network of sewers existing within the basin.

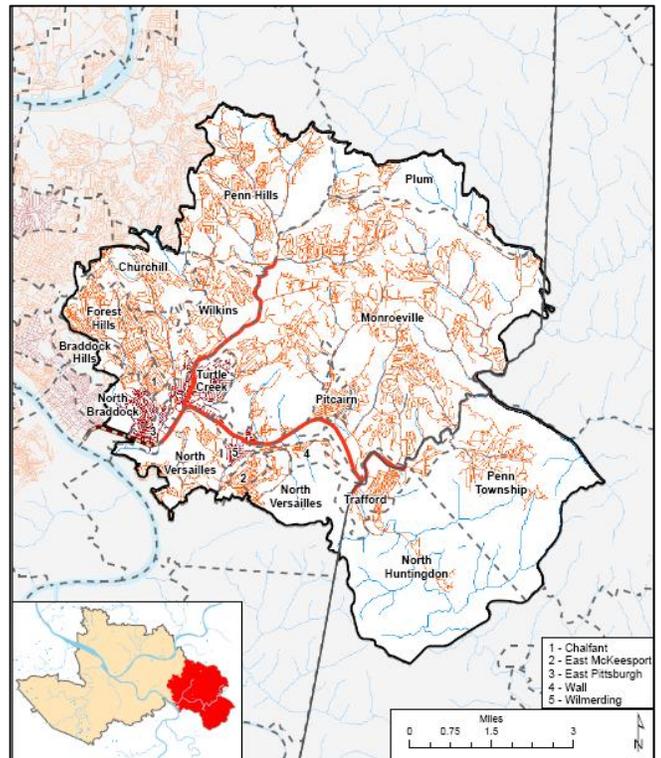


## Basin Quarterly Activity Report

Turtle Creek /  
Thompson Run

Planning specific to the TT Basin started with the compilation of the system data specific to this area. ALCOSAN staff and consultants contacted the municipal officials to arrange individual familiarization and data gathering meetings. In many cases, the municipal officials delegated the meeting and data exchange to the municipal engineers.

Introductory meetings occurred in early 2008, followed shortly with the first of an ongoing series of Basin Planning Committee (BPC) meetings. The first such meeting introduced the program, the entities cooperating in the TT Basin planning effort, and the individuals representing the various entities. The initial information gathering activities were summarized. Participants in the meeting agreed to work together through the next several years of data collection, problem definition, alternative evaluation, and plan development. The second BPC meeting was divided to address distinct but similar issues in five different areas of the basin.



Between the second and the third BPC meeting the basin planning consultant distributed and discussed municipal specific sections of a draft report summarizing the the nature and performance of the sewer systems throughout the communities. The municipal representatives updated the information, and the consultants submitted a second draft Existing Conditions Report in February 2009. Copies of the draft Existing Conditions Report, along with all published data regarding the regional wet weather program and the BPC meetings, are available through the ALCOSAN Municipal Secure website:

<http://municipalities.alcosan.org/portal/site/Municipalities>.



## Basin Quarterly Activity Report

Turtle Creek /  
Thompson Run

BPC Meeting Number 3 included a presentation of the findings of the Existing Conditions Report. The basin planning consultant presented a map showing the sections of the regional sewer system and ALCOSAN sewers plus municipal sewers that are planned to be analyzed in detail in the refined hydrologic and hydraulic model. Financial planning consultants presented a summary of the federal criteria for sewerage affordability and described how those financial data are being collected throughout the ALCOSAN service area.

Details of the recent BPC Meeting Number 4 are presented in the “Basin Planning Committee Updates” section of this Activity Report.

### Public Information & Outreach

Public input is a key element in the wet weather planning process. To date, in the early stages, the key outreach mechanism has been the TT Basin Planning Committee, convened to coordinate ALCOSAN’s wet weather planning efforts with the municipalities. Each BPC meeting agenda includes a public involvement update.

In addition, ALCOSAN recently convened the Customer Municipality Advisory Committee (CMAC) and the Regional Stakeholder Group (RSG). The CMAC meets quarterly to provide guidance and solicit feedback for ALCOSAN’s Long-Term Wet Weather Control Plan. The County Executive appointed the 14 members of the CMAC to represent the seven planning basins and to act as the Steering Committee for the Regional Stakeholder Group. The Regional Stakeholder Group, which also meets quarterly, is comprised of 50 representatives of academia, municipal government, regional government, land use entities, and special interest groups. The purpose of this group is to assist with public participation.

In the future, the outreach activities will be expanded to include public forums, distribution of printed materials, such as this Basin Quarterly Report, electronic communication, and targeted outreach efforts to ensure the participation of TT Basin stakeholders. In addition, at critical points in the planning process, such as discussion of potential facility sites, BPC meeting participation will be expanded to include basin-specific environmental groups, governmental officials, and other local stakeholders.



## Basin Quarterly Activity Report

Turtle Creek /  
Thompson Run

### On The Horizon...Your Participation

For details on upcoming BPC discussions and milestones, please refer to the minutes of BPC Meeting Number 4, available on the ALCOSAN Municipal Secure website. The TT Basin Team will discuss expanded outreach initiatives with the TT Basin Planning Committee at the next quarterly meeting, scheduled for the fall of 2009. Beginning in early 2010, the first of a minimum of two public forums will be held in the TT Basin. These meetings will be open to all interested members of the public. These public forums will provide a framework to discuss and explain wet weather issues, the planning process, potential solutions, and regional integration.

### Program Updates

The TT Basin planning is following the wet weather program guidance consistent throughout the ALCOSAN service area. Unique features of the program implementation in the TT Basin include the following:

The TT Basin has an unusually large potential for growth, both through development of currently abandoned or open area and possibly through extension of service to adjacent communities that naturally drain through the TT basin. Discussions to date indicate most of the stakeholders agree that development of currently open or abandoned land will occur in land uses similar to those currently predominant throughout the basin.

The TT Basin Planning Committee has identified five distinct sub-basins with common interests that occasionally meet separately to allow more in-depth discussion of concerns or projects of more focused interest.



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## Basin Quarterly Activity Report

Turtle Creek /  
Thompson Run

### Basin Planning Committee Updates

The Basin Planning Committee is convened quarterly to assist with coordination between ALCOSAN and the municipalities. The meetings are attended by ALCOSAN, CH2M HILL (the basin planner) and municipal managers and engineers from the Turtle Creek/Thompson Run Basin. The TT Basin Planning Committee met for the fourth time on June 2, 2009, at the North Versailles Library Community Room.

The TT Basin Team announced that the year-long flow monitoring program is sufficiently complete to support the planning analysis. The municipalities and 3RWW have refocused on developing guidelines and approaches of the municipal-specific facility planning. In the meantime, the basin planner has nearly completed the development of the TT hydrologic and hydraulic model and, at the meeting, demonstrated how it can be used to facilitate the evaluation of overflow relief technologies. Criteria for screening and evaluation of both technologies and potential facility siting were presented for consideration and refinement. ALCOSAN announced that the data gathering for the financial planning is being coordinated with the ongoing 3RWW financial data gathering. ALCOSAN also summarized some potential funding sources and initiated discussion of early action projects that could result in early reduction of sewer overflows and potentially capture stimulus funding.

The next TT Basin Planning Committee Meeting will be held in September 2009, and will focus on presenting technological solutions under consideration along with potential sites for facility locations.



## Basin Quarterly Activity Report

Turtle Creek /  
Thompson Run

### Future Actions

During the second half of 2009, the TT Basin team will be working to finalize the technical foundation for wet weather planning for the TT Basin. This work includes the following:

- Completion of the Hydraulic Model and Calibration Report;
- Completion of the Screenings of Controls and Sites Report;
- Report on knee-of-the-curve and non-monetary analysis of the potential conveyance/storage and treatment technologies for wet weather mitigation;
- Establishment of CSO and SSO goals and criteria;
- Identification of potential sites for location technologies; and
- Continued TT Basin/municipal information exchanges.

While the Basin Planning Committee continues to be the main forum for sustained public involvement, discussion of potential siting and other issues will dictate inviting key stakeholders to participate in these discussions at the BPC level. In addition, the public participation process will be expanded during the next six months to include basin-wide public forums and targeted outreach to key stakeholder organizations. The next TT Basin Planning Committee meeting is tentatively scheduled for September 2009.

### Contact Information

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

Tim Prevost, Project Manager, 412-734-8731, [timothy.prevost@alcosan.org](mailto:timothy.prevost@alcosan.org)

Nancy Schultz, TT Team Project Manager, 412-249-6646 x41218,  
[Nancy.Schultz@ch2m.com](mailto:Nancy.Schultz@ch2m.com)



ALCOSAN. Allegheny County Sanitary Authority.

## Basin Quarterly Activity Report

Turtle Creek /  
Thompson Run

### Quarterly Key Points

This second quarterly report provides a summary of the Wet Weather Plan developments to date, then describes accomplishments particular to the Turtle Creek / Thompson Run (TT) study basin through the fall of 2009.

ALCOSAN and the many municipalities it serves are cooperating to develop plans to alleviate the wet weather overflows from the sewer system. This cooperative effort developed over many years is in response to evolving U.S. Environmental Protection Agency (EPA) guidance and subsequent court actions. In early 2008, the negotiations with U.S. Environmental Protection Agency (EPA) and Pennsylvania Department of Environmental Protection (DEP) culminated in a series of inter-related court documents, consisting of a Consent Decree (CD) for ALCOSAN, Administrative Consent Orders (ACOs), and Consent Orders and Agreements (COAs) for the municipalities. These orders prescribe ambitious schedules for development of detailed plans to control overflows system wide.

ALCOSAN split the planning into seven distinct planning basins to accomplish the intensive engineering planning required. The TT planning basin encompasses the easternmost part of the ALCOSAN service area, covering all or parts of 29 municipal entities. The figure on the following page shows the TT Basin and the network of sewers existing within the basin.

The first TT Basin Quarterly Activity Report (ALCOSAN, July 2009) summarized extensive data collection and clarification activities involving ALCOSAN, the TT Basin Planning consultants, and the numerous municipal agencies in the TT Basin. Those data collection efforts, and the information gathered, are summarized in meeting minutes from a series of Basin Planning Committee meetings between ALCOSAN and municipalities, and in the draft Existing Conditions Report (ALCOSAN, February 2009). The meeting minutes and the report are available through the ALCOSAN Municipal Secure website:

<http://municipalities.alcosan.org/portal/site/Municipalities>.

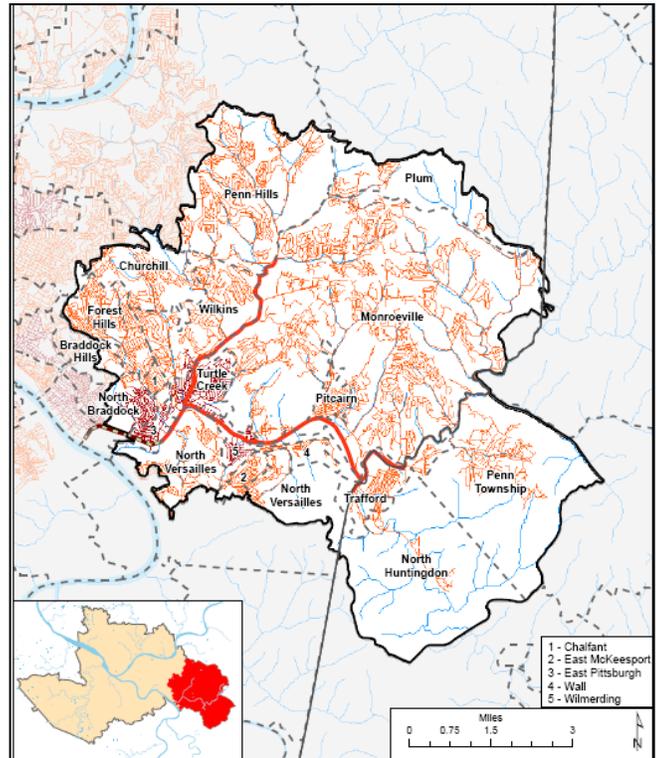


# Basin Quarterly Activity Report

## Turtle Creek / Thompson Run

During the summer and fall of 2009, the extensive data were consolidated into an updated computer model that performs mathematical calculations that allow the engineers to better understand the sewer systems' response to wet weather. The models, after calibration and verification against the extensive flow monitoring data, were applied to calculate the location, volume and frequency of sewage overflow during a typical year condition and during hypothetical 1-year, 2-year, 5-year and 10-year storm conditions.

TT Basin planners have identified and screened technologies applicable to control wet weather overflows in the TT basin. Map and field reconnaissance has identified several potential sites for constructing appropriate wet weather control facilities. Applying screening criteria applicable to facility planning, the planners narrowed the potential major control facility sites to eight initially preferred major sites..





## Basin Quarterly Activity Report

Turtle Creek /  
Thompson Run

### Public Information & Outreach

Public input continues to be a key element of the basin planning process. The TT Basin Team has been informing and educating the public by way of the Basin Planning Committee (BPC) meetings, through meetings of the Customer Municipality Advisory Committee (CMAC) and the Regional Stakeholder Group (RSG), and through distribution of quarterly reports such as this one.

The TT Basin Planning Committee last met on Tuesday, September 22, 2009, in Turtle Creek. The TT team provided an overview of the basin sites and technologies screening evaluation. In addition, attendees received technical data, financial, and public involvement updates.

As advocates for ALCOSAN's customer municipalities, the 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 CMAC met recently on Wednesday, October 14, 2009.

The RSG members continue to examine and prioritize important topics that the public needs to know regarding the wet weather pollution control program facing our region. Understanding that collaborative efforts will be the driving force in development of a comprehensive wet weather plan, the RSG is actively engaged in defining effective avenues of communication and identifying critical topics and issues. The RSG last met on Thursday, October 15, 2009.

For more information about the Turtle Creek/Thompson Run Basin Planning Committee, the Customer Municipal Advisory Committee and the Regional Stakeholder Group, please visit the ALCOSAN Municipal website, at <http://municipalities.Alcosan.org>.



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## Basin Quarterly Activity Report

Turtle Creek /  
Thompson Run

### On The Horizon...Your Participation

**Please join us this fall, as the TT Basin Team launches two public meetings** to allow citizens and community stakeholders an opportunity to learn about sewage overflows and the development of ALCOSAN's Regional Wet Weather Plan.

We will convene two public meetings, conducted as open houses:

**November 9, 2009 (in collaboration with the Upper Allegheny Planning Basin)**

Penn Hills Senior Center  
147 Jefferson Road  
Penn Hills, PA 15235

**November 16, 2009**

North Versailles Library Community Room  
1401 Greensburg Avenue  
North Versailles, PA 15137

The public meetings will be convened from 7:00 to 9:00 PM. At 7:30 PM, there will be an informational presentation about the wet weather issue, ALCOSAN's Wet Weather Program, and the special conditions of the TT Basin. There will be informational kiosks open to the public providing information about wet weather issues, Consent Decree requirements, source control, and wet weather technologies.

The public meetings are free and open to all. Refreshments will be served and there will be children's activities available. Whether you are new to the wet weather issue or you are already informed, please join us to learn about this important issue, important to your community and to the region.

If you know of an organization in your community that should be informed, please contact Nancy Schultz, TT Team Project Manager (contact information on page 6 of this newsletter).



## Basin Quarterly Activity Report

Turtle Creek /  
Thompson Run

### Program Updates

#### Regional Integration through Technical Standards

An important aspect of ALCOSAN's wet weather planning is the development of technical standards and protocols which will ensure a seamlessly integrated Wet Weather Plan that considers the local priorities identified in each of the seven basins. ALCOSAN's Program Management team is responsible for such coordination.

The flow monitoring program is one example which was carried out by four separate firms, and produced quality information that has been and will continue to be used by the Basin Planning teams and customer municipalities.

The effectiveness of this standardization should again be demonstrated when the models from each of the seven basins are integrated into a system-wide model. Basin Planning teams are extending the hydraulic models to include critical portions (identified by ALCOSAN's Consent Decree) of the municipal collections systems. These models, together with the data from the flow monitoring program will be used to assess a range of alternatives to control wet weather flow and improve water quality. Through documents, regular 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 Wet Weather Plan that addresses local and regional challenges.



## Basin Quarterly Activity Report

Turtle Creek /  
Thompson Run

### Future Actions

During the winter quarter of 2009, the basin planners will:

- Further refine the site selection, targeting particularly effective wet weather control technologies, and refine the site selection through meetings with representatives of the affected municipalities.
- Apply the sewer system models to evaluate the wet weather overflow control effectiveness of alternative combinations of technologies and sites

While the Basin Planning Committee continues to be the main forum for sustained public involvement, the public participation process is being expanded this fall to include basin-wide public forums. The next Basin Planning Committee meeting is tentatively scheduled for January 2009.

### Contact Information

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

Tim Prevost, Project Manager, 412-734-8731, [timothy.prevost@alcosan.org](mailto:timothy.prevost@alcosan.org)

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[Nancy.Schultz@ch2m.com](mailto:Nancy.Schultz@ch2m.com)



## Basin Quarterly Activity Report

Turtle Creek /  
Thompson Run

### Quarterly Key Points

This quarterly report provides a summary of the Wet Weather Plan developments to date, then describes accomplishments particular to the Turtle Creek / Thompson Run (TT) study basin through the winter of 2009/2010.

ALCOSAN, and the many municipalities it serves, are cooperating to develop plans to alleviate the wet weather overflows from the sewer system. This cooperative effort developed over many years is in response to evolving U.S. Environmental Protection Agency (EPA) guidance and subsequent court actions. In early 2008, the negotiations with U.S. Environmental Protection Agency (EPA), Pennsylvania Department of Environmental Protection (DEP), and Allegheny County Health Department (ACHD) culminated in a series of inter-related court documents, consisting of a Consent Decree (CD) for ALCOSAN and Administrative Consent Orders (ACOs) and Consent Orders and Agreements (COAs) for the municipalities. These orders prescribe ambitious schedules for development of detailed plans to control overflows system wide.

ALCOSAN split the planning into seven distinct planning basins to accomplish the intensive engineering planning required. The TT planning basin encompasses the easternmost part of the ALCOSAN service area, covering all or parts of 29 municipal entities. The figure on the following page shows the TT Basin and the network of sewers existing within the basin.

The previous TT Basin Quarterly Activity Reports summarized extensive data collection and analysis activities involving ALCOSAN, the TT Basin Planning consultants, and the numerous municipal agencies in the TT Basin. Those are summarized in meeting minutes from a series of Basin Planning Committee meetings between ALCOSAN and municipalities, and in the draft Existing Conditions Report (ALCOSAN, February 2009). The meeting minutes and the report are available through the ALCOSAN Municipal Secure website:

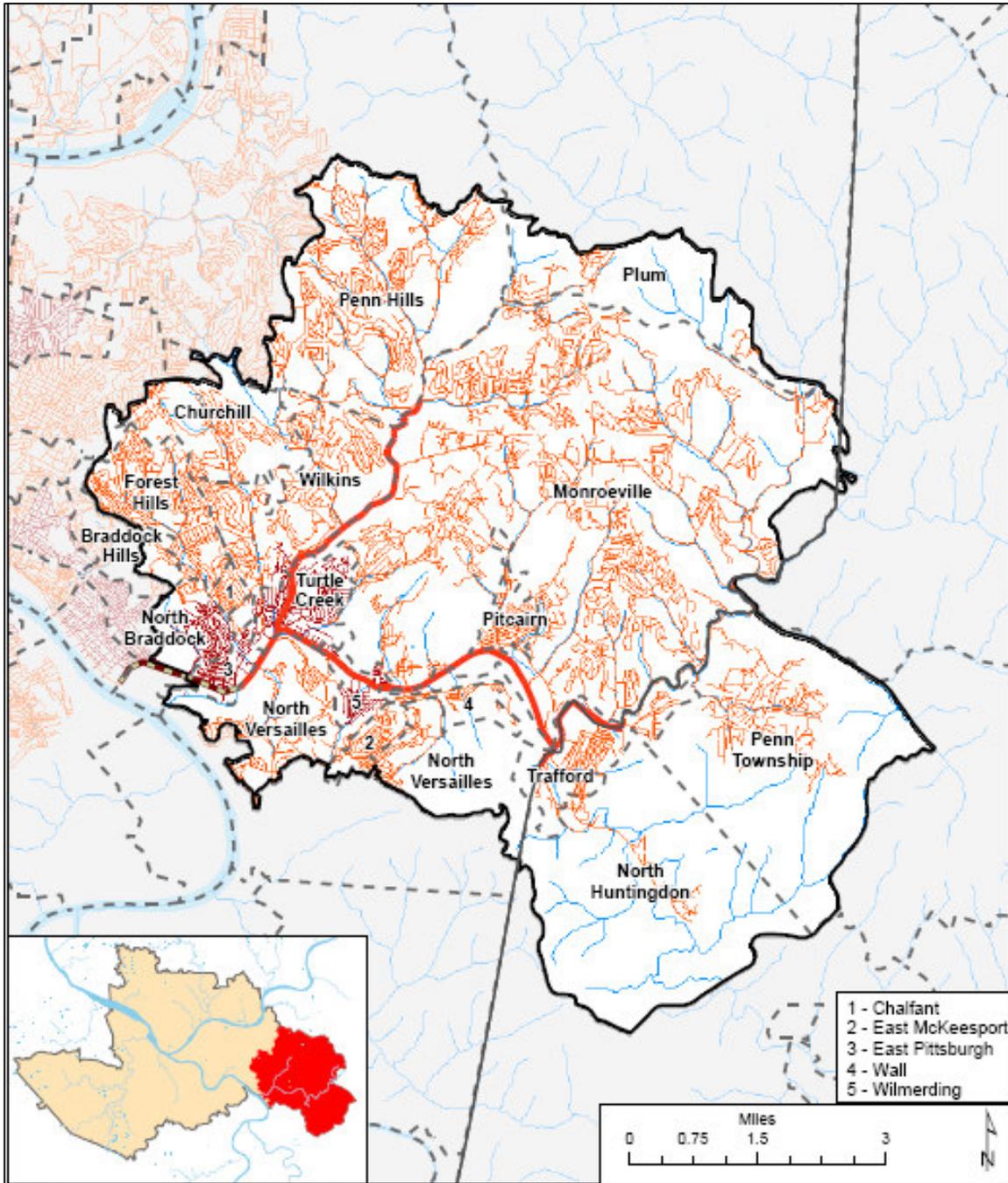
<http://municipalities.alcosan.org/portal/site/Municipalities>.

During the winter of 2009/2010, the planning efforts involved finalizing a computer model of the flows into and through the extensive sewer network, evaluating technologies that may be applicable for solving wet weather problems, and identifying sites where those technologies may be constructed.



# Basin Quarterly Activity Report

Turtle Creek /  
Thompson Run





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## Basin Quarterly Activity Report

Turtle Creek /  
Thompson Run

### Public Information & Outreach

Public input continues to be a key element of the basin planning process. The TT Basin Team has been informing and educating stakeholders and the public by way of the Basin Planning Committee (BPC) meetings, through basin and regional public meetings, and through distribution of quarterly reports such as this one.

#### CMAC and RSG Updates

ALCOSAN would like to acknowledge RSG members Ron Borczyk (Sharpsburg Borough Manager) and Harry Dilmore (Avalon Borough & Kilbuck Township Manager) for co-hosting a basin public outreach meeting in November 2009. We greatly appreciate the continued support, participation and dedication of time and resources by RSG and CMAC members relative to development of the long-term, regional Wet Weather Plan.

The first quarterly meeting of 2010 for the CMAC (meeting #5) was held on Tuesday, March 2<sup>nd</sup>. Informative discussions with CMAC members have provided ALCOSAN with valuable insight when coordinating with its customer municipalities. Goals for the CMAC in 2010 include integrating feedback on site alternative screening and evaluation criteria into the alternative site review process, as well as actively engaging elected officials and managers to participate in this critically important planning process.

The RSG's first quarterly meeting of 2010 (meeting #5) was held on Tuesday, March 16<sup>th</sup>. With a full 2010 agenda, the RSG will begin evaluating implementation factors that will affect the public and discussing relevant CSO control technologies. Throughout the year, RSG members also will use their organization's network to help build public consensus for the development of a regional Wet Weather Plan.

For more information about the Customer Municipal Advisory Committee and the Regional Stakeholder Group, please visit the ALCOSAN Municipal website, at <http://municipalities.alcosan.org>.



## Basin Quarterly Activity Report

Turtle Creek /  
Thompson Run

### Public Information and Outreach

#### **Public Forums in the Turtle Creek/Thompson Run (TT) Basin**

The Turtle Creek/Thompson Run Basin convened two public forums to educate and engage Basin Planning Committee members, elected municipal officials, local stakeholder organizations, and the general public residing in the Turtle Creek/Thompson Run Basin. The TT Basin team led the meeting in North Versailles on November 16, 2009. A representative from the TT team also participated in the Penn Hills meeting convened by the Upper Allegheny/Pine Creek Basin team on November 9, 2009.

The public forums were conducted as open houses to allow people with varying degrees of knowledge, educational background, and interest the opportunity to learn more about the wet weather issue in their community and the ALCOSAN Wet Weather Program. Stations were set up around the room for attendees to visit and learn more about the wet weather problem, the basin planning process, and possible solutions. Representatives of the TT team were positioned around the room to engage visitors in conversation and to answer questions about the displays.

At each public forum, a formal presentation was given, including an overview of the Wet Weather issues and planning currently taking place, along with specific issues of the Turtle Creek/Thompson Run Basin. Following the presentation, there was an opportunity for questions and comments.

#### **Regional Public Information Meetings**

ALCOSAN convened a series of public informational meetings at the end of January and beginning of February 2010. The meetings, convened in the north, east, west, and south sectors of the ALCOSAN area and in the City of Pittsburgh, provided updates on ALCOSAN's progress toward meeting the federal requirements to address sewer overflows in this region.



## Basin Quarterly Activity Report

Turtle Creek /  
Thompson Run

### Basin Planning Committee Updates

The Sixth TT Basin Planning Committee meeting was held on Tuesday, February 23, 2010, at the Monroeville Volunteer Fire Company #4. The agenda items included:

- Program update;
- H&H modeling;
- Screening of controls and sites;
- Municipal preliminary flow estimates;
- Feasibility Report and PW analysis;
- Public outreach; and
- Municipal outreach and financial data collection.

The Next Basin Planning Committee meeting will be scheduled for late May or early June.

### Program Updates

Major phases of ALCOSAN's wet weather planning program include: 1) review and analysis of existing data and information; 2) hydrologic and hydraulic (H&H) modeling; 3) alternatives development and analyses; and 4) development of basin facilities plan. The first two phases of the effort are now nearing completion, and the alternatives development and evaluation work is underway.

A report on existing conditions has been prepared, along with a report on potential sites and routes for wet weather control technologies. These reports will be posted on the municipal secure web sites for use by ALCOSAN's customer municipalities. The hydrologic and hydraulic models will be "rolled out" through the Feasibility Study Working Group (FSWG) facilitated by 3 Rivers Wet Weather. There will be two calibration models that could be further refined to reflect specific municipal details and five design storm models to be used for alternatives evaluation.

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 for each basin planner to develop a basin-specific facilities plan. These facilities plans will then be integrated into an overall Wet Weather Plan (WWP) for the region.



## Basin Quarterly Activity Report

Turtle Creek /  
Thompson Run

### Future Actions

During the spring quarter of 2010, the TT basin planning team will:

- Further refine the site selection, targeting particularly effective wet weather control technologies, and refine the site selection through meetings with representatives of the affected municipalities.
- Apply the sewer system models to project future flows, then evaluate the wet weather overflow control effectiveness of alternative combinations of technologies and sites.

While the Basin Planning Committee continues to be the main forum for sustained stakeholder involvement in the TT Basin, the public participation process was expanded last fall to include basin-wide public forums. The next Basin Planning Committee meeting will take place in late May or early June.

### On The Horizon ... Your Participation

Ongoing municipal participation is needed in developing the Wet Weather Plan, which will incorporate ALCOSAN improvements as well as identified municipal improvements. Municipalities are encouraged to incorporate an agenda item in their official public meetings to present this *QAR* and for reporting on municipal, basin, and regional planning efforts. The TT Team is willing to attend municipal or public meetings to address planning issues.

#### ALCOSAN Green Infrastructure Workshop

To encourage consideration and implementation of green infrastructure, 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](mailto:Kirsten.pastrick@alsocan.org)

### Contact Information

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

Tim Prevost, Manager of Wet Weather Programs, 412-734-8731, [timothy.prevost@alcosan.org](mailto:timothy.prevost@alcosan.org)

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# Turtle Creek/Thompson Run Planning Basin

## Basin Quarterly Activity Report

### Developing Wet Weather Control Alternatives

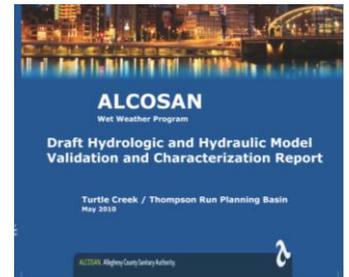
During the Spring of this year, the TT basin planning team continued to develop the first round of basin wet weather control alternatives by evaluating different types of control technologies and identifying sites for potential control facilities within the basin. In order to evaluate the alternatives, the team completed the Hydrologic and Hydraulic (H&H) computer model identifying the flow into and through the basin sewer network. The model is the key tool for projecting future flows in order to evaluate the wet weather overflow control effectiveness of alternative combinations of technologies and sites.

The TT basin planning team looked at viable sites within a boundary created around the ALCOSAN interceptor. Then, utilizing the County-wide geographic information system (GIS), all sites that met the following criteria were identified:

- Area of ¼ acre or greater;
- Topography favorable for construction;
- Compatible adjacent land uses;
- Minimal apparent utility conflicts;
- Availability of construction access; and
- Proximity to significant overflows and sewers requiring relief.

The TT basin planning team evaluated the resultant set of potential sites through a series of screenings, site reconnaissance, and meetings with municipalities. The team has been performing the detailed alternatives analysis on the resultant set of potential sites while targeting particularly effective wet weather control technologies. Utilizing cost-benefit curves, the team will be comparing the level of control versus the cost, to determine the alternatives that give the most value for the most control. This analysis is expected to be completed this fall.

Following the completion of the Alternatives Analysis, the results from the seven ALCOSAN planning basins will be merged. The merged Wet Weather Plan is expected to be ready in the fall of 2011. The TT Basin Planning Committee (BPC) will be able to review and comment on the merged Wet Weather Plan in 2012.



The TT Hydrologic and Hydraulic (H&H) Model Report is available on ALCOSAN's secure municipal web site, accessed through [www.alcosan.org](http://www.alcosan.org). Municipalities can access the secured site with their password/code assigned by ALCOSAN.

The secured site contains mapping, water quality data, flow monitoring data, regional and basin planning announcements and meeting minutes, public advisories, and CSO/SSO discharge reporting.

#### More inside...

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

# Turtle Creek/Thompson Run Planning Basin

## Basin Quarterly Activity Report

### In the Turtle Creek/Thompson Run Communities

The TT BPC last met on February 23, 2010. In order to aid the TT basin planning team in evaluating the wet weather control alternatives, each participant was asked to assign a percentage reflecting the priority that each of the categories of criteria should be given when alternatives are reviewed. The results of the prioritizing exercise were:

Category of Criteria	Minimum Score	Maximum Score	Overall Average
Economic factors	10%	60%	38%
Public factors	5%	31%	17%
Water quality, public health and environmental impacts	9%	45%	25%
Operation impacts	0%	25%	10%
Implementation factors	9%	25%	10%

The results of the prioritizing exercised across all seven ALCOSAN basins will be shared at the next TT BPC meeting, to be held on June 29, 2010. The next Basin public forums are anticipated to be held in October. Please help us get the word out in the TT communities. If you have ideas for reaching out to citizens and stakeholders to encourage meeting attendance please contact Mike Harvey, TT Team Project Manager.

### In the Region... ALCOSAN Updates

#### Program Status

Now that existing conditions have been defined and the hydrologic and hydraulic model has been developed and calibrated, the 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 cost to select a system-wide Wet Weather Plan (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.

## Turtle Creek/Thompson Run Planning Basin

Basin Quarterly  
Activity Report

### 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 working. At RSG meeting #6 (May 13<sup>th</sup>) a presentation was given comparing the major components of four similar wet weather programs system characteristics, 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 meanings for environmental improvements that control or reduce flows (rainfall; groundwater) into the collection system. On May 12th 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

*Basin Planning Committee meetings, series #7.* ALCOSAN's BPCs will hold the 7th series of meetings throughout **June and July 2010**. The TT BPC meeting is scheduled for:

- June 29, 2010, 1:00 PM refreshments, 1:30 – 3:00 PM meeting, Gateway Hall-Monroeville Volunteer Fire Company (VFC) #4, 4370 Northern Pike, Monroeville, PA 15146.

CMAC meeting #7 is scheduled for Tuesday, **August 3, 2010**.

RSG meeting #7 is scheduled for Thursday, **August 12, 2010**.

*ALCOSAN's Technology Outreach.* ALCOSAN will continue to host its series of 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**. It will examine the potential legal and regulatory hurdles to using green infrastructure. 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 or to get more information.

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

Tim Prevost, ALCOSAN Manager of Wet Weather Programs, 412-734-8731, [timothy.prevost@alcosan.org](mailto:timothy.prevost@alcosan.org)

or

Mike Harvey, TT Team Project Manager, 412-497-6210, [mike.harvey@hdrinc.com](mailto:mike.harvey@hdrinc.com)

or

Visit ALCOSAN's website at: [www.alcosan.org](http://www.alcosan.org)

# Turtle Creek/Thompson Run Planning Basin

## Basin Quarterly Activity Report #5

### Closing in on Potential Basin Solutions

This Quarterly Activity Report provides an overview of the progress made in the development and evaluation of the Turtle Creek/Thompson Run (TT) Basin alternatives. Last Spring, the TT basin planning team developed the first round of basin wet weather control alternatives by evaluating different types of control technologies and identifying sites for potential control facilities within the basin. In order to evaluate the alternatives, the team completed the Hydrologic and Hydraulic (H&H) computer model, the key tool for projecting future flows in order to evaluate the wet weather overflow control effectiveness of alternative combinations of technologies and sites.

The TT basin planning team looked at several viable sites within a boundary created around the ALCOSAN interceptor. Then, utilizing the County-wide geographic information system (GIS), the basin planning team identified the sites that met an established set of criteria ranging from site size to availability of construction access.

The TT basin planning team evaluated the resultant set of potential sites through a series of screenings, site reconnaissance, and meetings with municipalities. The team performed the detailed alternatives analysis on the resultant set of potential sites while targeting particularly effective wet weather control technologies. Utilizing cost-benefit curves, the team has been comparing the level of control versus the cost, to determine the alternatives that give the most value for the most control.

For Separated Sewer Overflow (SSO) control, the analysis is based on four design storms – one, two, five, and ten-year storms. For Combined Sewer Overflow (CSO) control, the analysis is based on a range of zero to twenty overflows per year. The alternatives under consideration in the TT basin typically utilize a combination of storage and increased conveyance.

The TT basin planning team has also looked at opportunities for green infrastructure/source reduction. Believing that these measures are more effectively addressed by the municipalities rather than on the regional level, the TT basin team welcomes the opportunity to discuss these strategies with municipal representatives and their consulting engineers.



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

**Tuesday, October 26, 2010  
William Anderson Library  
of Penn Hills  
1037 Stotler Road, Pgh, PA 15223**

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 the Turtle Creek/Thompson Run Basin as well as provide ALCOSAN's Annual Customer Information update. See page 3 for more information and details.

#### More inside...

- In the Turtle Creek/Thompson Run Communities – Page 2
- In the Region...ALCOSAN Updates – Page 2
- On the Horizon – Upcoming Community Meetings – Page 3

# Turtle Creek/Thompson Run Planning Basin

Basin Quarterly  
Activity Report #5

## In the Turtle Creek/Thompson Run Communities

TT Basin Planning Committee Meeting Number 7 was convened on June 29, 2010, at Gateway Hall in Monroeville. The TT Basin Planning team presented a project status report, noting that the team had completed the Existing Conditions Report, the Screening of Controls and Sites Report, and the H&H Modeling Report. The Basin Planning team also presented a summary of the status of Preliminary Flow Estimate (PFE) information for the municipalities in the TT basin. Basin Planning Committee members participated in a discussion of their progress on providing the PFEs.

Representatives of K. Bealer Consulting and CDM introduced the Financial Capability Assessment, which includes the residential indicator (the rate payers' ability to pay) and the financial management indicator (the permittee's ability to finance). Finally, the AECOM public relations team presented an update on municipal and public outreach efforts.

The TT Basin Planning team has been continuing to receive PFEs from each of the municipalities. The TT team has met with the Western Westmoreland Municipal Authority and has meetings scheduled with the Monroeville Municipal Authority and with Glenn Engineering, representing a number of municipalities in the TT Basin. They will continue to meet with municipalities until all of the PFEs are received to ensure that all parties are comfortable with the future flow projections that will be included in the Regional Wet Weather Plan.

**The next Basin Planning Committee meeting is scheduled for Tuesday, October 12, 2010, at 1:00 PM, at Monroeville VFC #4, Gateway Hall, 4370 Northern Pike, Monroeville, PA 15146.**

## In the Region... ALCOSAN Updates

**Program Status.** As described above, in the update on the TT Basin communities, ALCOSAN's Basin Planners (BP) have been busy of late reviewing the numerous municipal Preliminary Flow Estimates (PFEs) they've been receiving from their tributary municipalities. If, for a given location, 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 Basin Planners 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 Project Manager is also heavily involved in the process, combining all seven H&H models into a single regional model. This regional model 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.



# Turtle Creek/Thompson Run Planning Basin

Basin Quarterly Activity Report #5

## 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 **Customer Municipality Advisory Committee (CMAC)** meeting #7, held August 3<sup>rd</sup>, 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 key topic required further discussion with ALCOSAN via conference call. During the call, CMAC members provided feedback on the critical items ALCOSAN should consider in its potential response to the 3RWW Regionalization Request for Proposals. Contact your CMAC representative to share your thoughts and insight on this issue. The next meeting is scheduled for November 9<sup>th</sup>. **The Regional Stakeholder Group (RSG)** meeting #7 was held on August 12<sup>th</sup>. RSG members discussed ALCOSAN’s Affordability Analysis Process. They were particularly interested in the affordability factors included in other cities’ plans and their potential impact on the development of ALCOSAN’s regional WWP. RSG meeting #8 is scheduled for November 16<sup>th</sup>.

## On the Horizon - Future Actions

***Sewer overflows impact everyone, and each of us can contribute to the resolution of this critical problem.*** By participating in 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.

Community meetings will be held from 5:30 PM to 8:00 PM. A region-wide meeting will be held on Thursday, November 4<sup>th</sup> 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:**

Tim Prevost, ALCOSAN Manager of Wet Weather Programs,  
(412) 734-8731, [timothy.prevost@alcosan.org](mailto:timothy.prevost@alcosan.org)

Or

Mike Harvey, Project Manager, Turtle Creek/Thompson Run Basin,  
(412) 497-6210, [mike.harvey@hdrinc.com](mailto:mike.harvey@hdrinc.com)

## 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](http://www.alcosan.org)



# Turtle Creek/Thompson Run Planning Basin

## From Feasibility Report to Basin Facilities Plan

On November 1, 2010, the Turtle Creek/Thompson Run (TT) basin planning team submitted the *Draft Feasibility Report* for the TT basin. The *Draft Feasibility Report* presents projections of future wet weather flows from each sewershed in the basin, including projections provided by many of the basin municipalities; details how the TT basin planning team evaluated wet weather control alternatives to identify those best-suited to the TT basin; and describes the elements and costs of a suite of preferred alternatives for various levels of CSO and SSO control in the TT basin.

The TT basin is characterized by sanitary sewersheds upstream and mostly combined sewersheds downstream, wet weather flows that exceed municipal and ALCOSAN sewer capacity in both combined and sanitary sewer areas, and a limited number of sites for wet weather control facilities. Considering these factors, the TT basin planning team determined that a distributed control approach – consolidating and conveying flows from multiple outfalls to a number of control sites – is more practical and less costly than either building control facilities at every outfall or conveying flows to a single centralized facility. The TT basin planning team also determined storage to be the most cost-effective control for both CSOs and SSOs, followed by high-rate treatment and disinfection for CSOs using retention treatment basins. The TT basin planning team crafted a set of preferred alternatives, comprising consolidation sewers and six storage tanks, for five levels of CSO control and SSO control at the 2-year design storm. Alternatives replacing CSO storage in the TT Basin with retention treatment basins or diversions to a regional deep-tunnel system may also be considered in the process of developing an integrated, region-wide wet weather plan.

Basin-level alternatives must now be integrated into a set of regional alternatives in a process called Regional Optimization. ALCOSAN will utilize the most promising basin solution(s) and sites to assemble a set of regional control alternatives. 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 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.

## Basin Quarterly Activity Report #6



**This six million gallon underground storage tank, located in King County, Washington, illustrates the opportunities for green space at ground level. Similar below ground storage facilities have been proposed in the Draft Feasibility Report for the Turtle Creek/Thompson Run basin.**

### More inside...

- In the Turtle Creek/Thompson Run Communities – Page 2
- In the Region...ALCOSAN Updates – Page 2
- On the Horizon – Future Actions – Page 3



## Turtle Creek/Thompson Run Planning Basin

Basin Quarterly  
Activity Report #6

### In the Turtle Creek/Thompson Run Planning Basin Communities

The Turtle Creek/Thompson Run Basin Planning Committee (BPC) held their most recent meeting, their 8<sup>th</sup>, on October 12, 2010, at Gateway Hall in Monroeville. Topics discussed included Preliminary Flow Estimates, the Feasibility Report and Present Worth Analysis, Municipal Feasibility Study Work, and Program updates. **The next Basin Planning Committee is scheduled for Tuesday, February 22, 2011, 1:30 PM at Gateway Hall.** Agenda items will include Basin Alternatives and their integration into the Regional Plan, Municipal Feasibility Studies, Program updates, and the 2011 Basin Planning schedule. Other recent municipal meetings included the public forum on October 19, 2010, meetings with the municipalities of Monroeville and Pitcairn and with representatives from Glenn Engineering.

### In the Region...ALCOSAN Updates

**Advancing Green Solutions.** Implementing successful pilot projects is important for promoting green solutions. Two communities, Bells Run (in the City of Pittsburgh) and West View Borough, are currently pursuing funding for green pilot projects. Bells Run plans include: a commercial area will be designed to capture runoff, store and discharge flow at controlled rate, vegetated swales in a residential community and rain gardens in an apartment complex. In West View Borough a commercial area will include both porous pavement and a bio-retention basin to capture and discharge flow. Porous pavement, rain gardens and a vegetated swale are also planned for a residential street. Approximately 78% of the 2,800 West View residential properties appear suitable for downspout disconnections. The communities are interested in these early action projects that will help to develop the local standards needed for widespread implementation.

**Affordability.** United States Environmental Protection Agency (U.S. EPA) guidelines suggest that if the ratio of total wastewater costs, when compared to an area's median household income, exceeds 2%, the costs are likely 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%. The estimate came to roughly \$2.0 billion (in 2010 dollars). 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 the most toward the 2% threshold. It will also serve as a benchmark to gauge the impact that various levels of wastewater spending may have.

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.



# Turtle Creek/Thompson Run Planning Basin

Basin Quarterly Activity Report #6

## In the Region...ALCOSAN Updates (continued)

**ALCOSAN Outreach.** The Feasibility Study Process and Regional Sewer System Management were key topics at the Customer Municipality Advisory Committee (CMAC) meeting No. 8 held on November 9, 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 FSWG meeting in December to engage meeting attendees in further discussion regarding key topics.

Green Technologies and Stormwater Management continue to be points of emphasis for the Regional Stakeholder Group (RSG). At RSG meeting No. 8 held on November 16, 2010, CMAC member Michael Kenney, then Executive Director of PWSA, discussed the City of Pittsburgh’s plans to issue an RFP to develop a plan for a stormwater utility. Also the plans being made to implement pilot studies of green technologies in two communities – Bells Run and West View Borough – were discussed and supported by the RSG. A handout was distributed containing information on green technologies implemented in other cities throughout the country.

During October and November 2010, community meetings were held within the ALCOSAN service area. There was one meeting in each of the following basins: Saw Mill Run, Main Rivers, Turtle Thompson, Upper Monongahela, and Lower Ohio/Girty’s Run. Two meetings were held in the Chartiers Creek and Upper Allegheny basins, and a region-wide 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, representatives from environmental and development groups, and general citizens. The meetings served to meet the Consent Decree requirements for an annual meeting as well as present information on potential solutions in each basin. Those who attended found the information beneficial and indicated they better understood the need to address wet weather overflows. ALCOSAN also hosted a booth to inform the public about the Sewer Overflow Advisory Key (SOAK) program at the Pittsburgh Boat Show, January 27 through 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 Wet Weather Plan and the SOAK program. We encourage you to attend and to tell your constituents. 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:**

Tim Prevost,  
ALCOSAN Manager of Wet Weather Programs,  
(412) 734-8731, [timothy.prevost@alcosan.org](mailto:timothy.prevost@alcosan.org)  
or  
Mike Harvey,  
Basin Planner, Turtle Creek/Thompson Run Basin,  
(412) 497-6210, [mike.harvey@hdrinc.com](mailto:mike.harvey@hdrinc.com)

Visit ALCOSAN’s website at: [www.alcosan.org](http://www.alcosan.org)



# Turtle Creek Planning Basin

## Basin Quarterly Activity Report #7

### Update on Basin Feasibility Study

This Basin Quarterly Activity Report (BQAR) summarizes the activities of the Turtle Creek (TC) Basin Planning team since winter 2011. As previously reported, the TC Basin Planning team submitted the Draft Basin Feasibility Study Report to ALCOSAN in November, 2010. The Report outlines projections of future wet weather flows from each sewershed in the basin, details the TC Basin Planning team's evaluation of wet weather control alternatives to identify the best controls for the TC Basin, and describes the elements and costs of a set of preferred alternatives for various levels of CSO and SSO control in the TC Basin. Preferred alternatives are based on a distributed control scheme using new consolidation sewers to convey wet weather flow to a number of storage facilities at selected sites.

Current TC Basin planning efforts include integration of municipal wet weather planning into the Basin alternatives and integration of the seven Basin plans into regional, system-wide control alternatives.

ALCOSAN requested Municipal Planning Information by the end of April to allow time to review and coordinate any issues prior to the July 1<sup>st</sup> milestone for incorporating municipal planning into the Basin Feasibility Report. Information requested includes final flow estimates, descriptions and capital and O&M costs for municipal CSO and SSO controls, and renewal and replacement costs for existing sewer systems. ALCOSAN staff discussed Municipal Planning Information needs and the importance of receiving information for all sewersheds with each of the basin municipalities prior to the April submission milestone. Most TC Basin municipalities have provided some of the requested information, but cost estimates are lacking. ALCOSAN and the Basin planning team continue to review and coordinate with the municipalities on municipal planning. For sewersheds where information is not received for the July 1<sup>st</sup> milestone, the Basin Planning team will assume that all municipal flow will be delivered to ALCOSAN and will develop municipal cost estimates using best engineering judgment.

Basin alternatives are now being refined for two system-wide alternatives: basin-based storage with no additional regional conveyance, and reduced basin-based storage with a regional tunnel system for additional conveyance and storage. The regional tunnel alternative has little impact on the TC Basin because the tunnel as currently configured would not extend to the TC Basin. Therefore, distributed storage as described in the Draft Feasibility Plan is likely to remain the preferred alternative for the TC Basin.



**Site B is located along the east bank of Turtle Creek and straddles the border of East Pittsburgh and North Versailles.**

**Site B is one of the wet weather control sites in the preferred basin alternatives for the TC Basin. A buried storage tank here would control overflows from outfalls T-08 through T-01 in the downstream reaches of Turtle Creek.**

#### More inside...

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## Turtle Creek Planning Basin

Basin Quarterly  
Activity Report #7

### In the Turtle Creek Planning Basin Communities

The Turtle Creek Basin Planning Committee (BPC) held the most recent meeting, their 9<sup>th</sup>, on February 22, 2011, at Gateway Hall in Monroeville. Topics discussed included the TC Basin Feasibility Study Report, Municipal Feasibility Studies, Wet Weather Program updates, summary of municipal and agency coordination meetings, and next steps for the TC Basin planning team. **The next Basin Planning Committee is scheduled for Tuesday, May 24, 2011, from 1:30 to 3:00 PM, at Gateway Hall.** Agenda items will include the TC Basin Facilities Plan, Municipal Planning, Wet Weather Program updates, Regionalization, and upcoming activities and schedule.

Since the last Basin Quarterly Activity Report, a number of municipal and agency meetings were convened. ALCOSAN met with the Allegheny County Health Department, Pennsylvania Department of Environmental Protection, and many of the municipal managers.

### 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](http://www.achd.net).

In addition, ALCOSAN complements the CSO Flag Program with its Sewer Overflow Advisory Key (SOAK) Program. 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](http://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.

Communicating and coordinating with elected officials and municipal managers was a key topic of discussion at the 9<sup>th</sup> CMAC meeting held on March 1, 2011. ALCOSAN also presented information on the progress of the Wet Weather Plan through December 2011. 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.



# Turtle Creek Planning Basin

Basin Quarterly  
Activity Report #7

## In the Region... ALCOSAN Updates (continued)

The 9<sup>th</sup> 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.

**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:**

Tim Prevost,  
ALCOSAN Manager of Wet Weather Programs,  
(412) 734-8731, [timothy.prevost@alcosan.org](mailto:timothy.prevost@alcosan.org)  
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Visit ALCOSAN's website at: [www.alcosan.org](http://www.alcosan.org)



# Turtle Creek Planning Basin

## Basin Quarterly Activity Report #8

### Basin Facilities Plan Development

This Basin Quarterly Activity Report (BQAR) summarizes the activities of the Turtle Creek (TC) Basin Planning team since Spring 2011. The TC Basin Planning team prepared an August update to the Draft Feasibility Study and Present Worth Analysis Report. For the August update, the team incorporated municipal planning information into the analysis of additional basin alternatives for integration with other basins and overall system-wide alternatives. The team's effort has concentrated on basin alternatives that would be part of System-Wide alternative 3f (described in more detail in the "In the Region – ALCOSAN Updates" portion of this BQAR), which controls SSOs for the 2-year storm and CSOs to meet water quality standards. TC basin alternatives for Alternative 3f maintain the preferred basin-based approach of distributed control, with consolidation sewers conveying wet weather flows to four buried storage tanks at four sites along Turtle Creek. The team will continue to refine the preferred basin alternative as municipal plans are developed further and the system-wide alternatives converge to the ultimate Wet Weather Plan.

Details of the preferred basin-based approach of distributed control, with consolidation sewers conveying wet weather flows to four buried storage tanks at four sites along Turtle Creek are as follows:

- Overflows would be conveyed to a storage site on Site B using consolidation sewers CF01 and CF02. CF01 would convey overflows from T-01 through T-04, CF02 would convey flow from T-08 and T-07.
- Overflows from T-25 through T-10 along Turtle Creek would be conveyed to a storage tank at Site 5 using consolidation sewer CF03, which would run mostly parallel to the Turtle Creek Interceptor. The storage tank at Site 5 would also receive conveyed wet weather flows from a municipal Thompson Run consolidation sewer from TR-06 to T-09.
- Site A would store wet weather flows received from consolidation sewer CF04, conveying overflows from CSO T-26 and SSOs T-26B and T-26A.
- Consolidation sewers CF05 (T-33 through T-27) and CF06 (T-29A-10 and T-29A-00) would convey wet weather flow to a storage tank on Site 36.

The TC Draft Feasibility Study and Present Worth Analysis Report will become the TC Basin Facility Plan. The Facility Plan will describe in detail the facilities that could be constructed, or the actions that ALCOSAN could take, within the TC Basin as part of the regional Wet Weather Plan to address the Consent Decree requirements.



**Site B is located along the east bank of Turtle Creek and straddles the border of East Pittsburgh and North Versailles.**

**Site B is one of the wet weather control sites in the preferred basin alternatives for the TC Basin. A buried storage tank here would control overflows from outfalls T-08 through T-01 in the downstream reaches of Turtle Creek.**

#### More inside...

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## Turtle Creek Planning Basin

Basin Quarterly  
Activity Report #8

### In the Turtle Creek Communities

The Turtle Creek (TC) Basin Planning Committee (BPC) meeting No. 10 was held on May 24, 2011, at the Gateway Hall in Monroeville. Topics discussed included the ALCOSAN Feasibility Report and Basin Facilities Plan, Municipal Feasibility Studies, update on outreach initiatives, the ALCOSAN Regionalization Study, and next steps for the TC Basin team.

**BPC No. 11 is scheduled for October 3, 2011, at 1:30 PM, at Gateway Hall, Monroeville Volunteer Fire Company #4.**

The agenda will include a report on the TC Basin Facilities Plan, including Plan progress, integration of Municipal Alternatives, and schedule update. There will also be an update on Municipal Planning Information and a discussion of the status of Municipal Feasibility Studies. A report on public outreach efforts will be given with an emphasis on the upcoming public Town Hall meetings. Finally, there will be a report on the ALCOSAN Regionalization Study.

### 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
- Comingling 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 Woods Run 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 Woods Run 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 would retain their preferred basin-based overflow control alternative components.

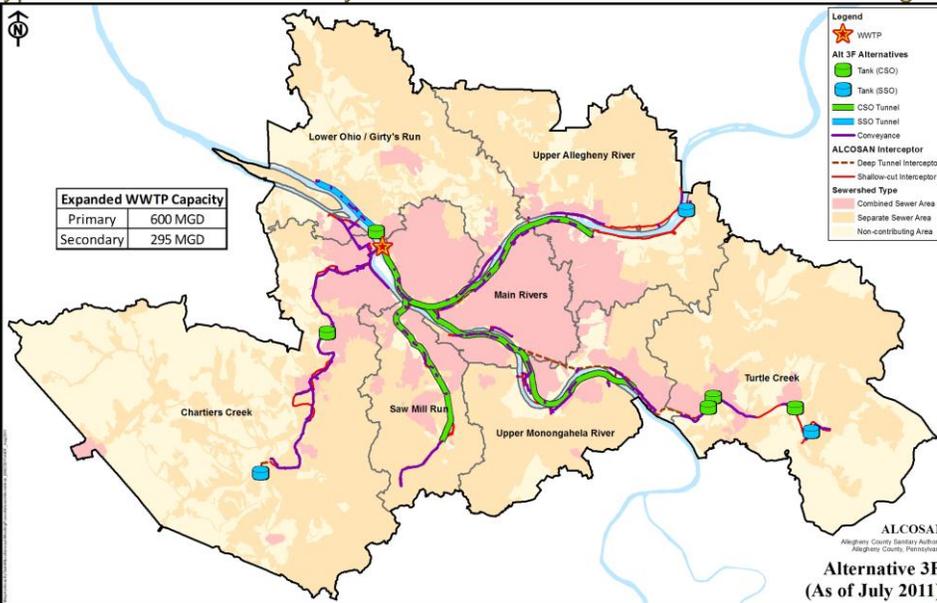


# Turtle Creek Planning Basin

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## In the Region... ALCOSAN Updates (continued)

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.



The seven BPs 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 TC Basin specific Town Hall meetings are as follows:

- Wednesday, November 2 (10:00 AM – Noon), Turtle Creek Borough Council Chambers and Community Room
- Monday, November 14 (5:30 – 7:30 PM), Gateway Hall, Monroeville

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

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

**For more information, and for a list of all of the upcoming Town Hall meetings, please go to [www.alcosan.org](http://www.alcosan.org)**

### Contact Information

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

Tim Prevost,  
ALCOSAN Manager of Wet Weather Programs,  
(412) 734-8731, [timothy.prevost@alcosan.org](mailto:timothy.prevost@alcosan.org)  
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Visit ALCOSAN's website at: [www.alcosan.org](http://www.alcosan.org)



# Turtle Creek Planning Basin

## Basin Quarterly Activity Report #9

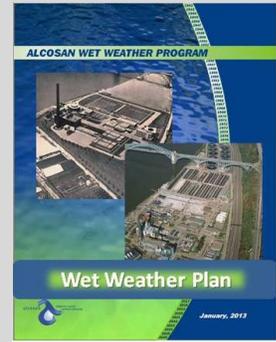
### Finalizing the Turtle Creek Facilities Plan

This Basin Quarterly Activity Report (BQAR) summarizes the activities of the Turtle Creek (TC) Basin Planning team since fall 2011. The TC 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 TC Basin Facilities Plan defines the facilities and conveyances specific to the TC 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. The TC 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 TC Basin Facilities Plan represents a basin-based control strategy that stores wet weather flows within the basin until capacity is available to convey the flow to the ALCOSAN WWTP for treatment. The TC Basin Facilities Plan comprises basin-wide regulator modifications, consolidation sewers, and underground storage facilities. The modified regulators divert excess wet weather flows that exceed the capacity of the ALCOSAN interceptors into a series of new consolidation sewers. The consolidation sewers convey the excess flow to one of four buried storage tanks ranging in size from 1 to 16 million gallons. Once wet weather conditions have ended and interceptor capacity becomes available, the stored flow is pumped out of the storage tanks and into the ALCOSAN interceptor and delivered for treatment to the ALCOSAN WWTP.

The TC 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 TC Basin Planning team collaborated with TC Basin customer municipalities to ensure that the proposed ALCOSAN and municipal control technologies and sites were reviewed and discussed.



ALCOSAN will officially release the draft Wet Weather Plan for public review and comment on July 31, 2012.

**TC Basin Planning Committee Meeting #12**  
**May 14, 2012 1:30 PM**  
Gateway Hall  
Monroeville Volunteer Fire Company #4  
4370 Northern Pike  
Monroeville, PA 15146

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# Turtle Creek Planning Basin

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## In the Turtle Creek Communities

Basin Planning Committee (BPC) Meeting No. 11 was held on October 3, 2011 at Gateway Hall, Monroeville Volunteer Fire Company #4. Discussion topics included an overview of the project to date, progress on the basin planning process, the DRAFT Basin Facilities Plan, status of municipal planning within the TC Basin, as well as updates on the progress of the ALCOSAN Wet Weather Program and the 18-month Regionalization Study.

BPC Meeting No. 12 will be held at 1:30 PM, on May 14, 2012, in Gateway Hall of the Monroeville Volunteer Fire Company #4, 4370 Northern Pike, Monroeville, PA 15146. The meeting will include a report on the Final TC 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.



# Turtle Creek Planning Basin

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## 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](http://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:**

Tim Prevost, ALCOSAN Manager of Wet Weather Programs, (412) 734-8731, [timothy.prevost@alcosan.org](mailto:timothy.prevost@alcosan.org)

or

Mike Harvey, Basin Planner, Turtle Creek Basin, (412) 497-6210, [mike.harvey@hdrinc.com](mailto:mike.harvey@hdrinc.com)

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