Meeting Minutes by BPC

Chartiers Creek Basin

ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Chartiers Creek
Meeting Purpose: Basin Planning Committee Kick-Off Meeting
Date / Time: 31 July 2008, 9:00 a.m.
Location: Green Tree Borough Building, Green Tree, PA

Attendees: Please see attached attendance list.

1. Discussion / Decision / Agreement Summary:

Welcome

Herb Higginbotham (Tetra Tech) introduced the project and the project team. Dan Lockard (ALCOSAN) discussed cooperation between ALCOSAN and the municipalities.

Chartiers Creek Basin Planning Committee Introductions

Room-wide introductions were conducted.

Review of Meeting Agenda, Purpose, and Objectives

Carol Hufnagel (Tetra Tech) presented the purpose and objectives of this meeting and the basin planning process. A primary goal of this initial meeting was to encourage collaborative efforts, both between the municipalities themselves, and between the Municipalities and ALCOSAN. This forum is presented as an opportunity for all interested parties to have the opportunity to voice their expectations and concerns and to stimulate discussion as to how this plan will impact the Chartiers Creek region.

Background and Basin Planning Process Overview

Carol Hufnagel (Tetra Tech) presented background information and a review of the basin planning process accompanied with slides (included as an attachment to the minutes.)

Facilitated Municipal Exchange on Basin Planning Process

Kellie DuBay (Tetra Tech) facilitated a discussion that allowed those present to voice their concerns. The concerns were logged on display boards. The results were summarized in the Kick-Off Meeting Discussion Notes that are included as an attachment to these minutes.

Highlights of this discussion include the following.

- The municipalities asked for a very clear schedule with dates and deliverables so that an appropriate response could be established. ALCOSAN project manager, Dan Lockard responded that the plan does have schedules in place.

- A recurring concern emanating of the municipal community was the eventual cost of the project. It was felt to be critical that each municipality should know the ultimate cost that their community would have to bear and how this would be paid for.

- The opinion was expressed that the public response would be to question the cost effectiveness of such a large-scale project. The tangible benefits would have to be clearly articulated to the populations involved, to demonstrate that such a costly investment would be sufficiently beneficial to justify the financial outlay.

- Some engineers expressed concern with how they were to up-grade and improve their current facilities in the near term, when these changes might prove to be redundant by the time the ALCOSAN plan was ready to be implemented. There was concern about how far and how fast to proceed with any changes in the current infrastructure when these might be compromised by major shifts in policy by the end of the planning period.

- Concern was expressed about the over-lapping responsibilities of the various municipalities. Who would be responsible for guaranteeing that each community cooperated with the proposals in a timely fashion and did not compromise the overall efficiency of the project? The need for communication between the municipalities was stressed.

- Dan Lockard (ALCOSAN) emphasized that the flow monitoring data should be available in early 2009. ALCOSAN will proceed with the evaluation and modeling of the data, which would allow them to share solutions with the communities. He emphasized that it will be essential that municipal solutions agree with ALCOSAN solutions. This early sharing of information with municipal engineers will allow for discussion of technical solutions and cost analysis.

- It was suggested that borough boundaries and regional boundaries would have to be clearly defined. The issue of uneven flow distribution was raised. Some communities contribute more flow than others. And some communities have to manage large flows that are not of their making. They should not be penalized for this. Communities will need to provide flow information to planners. Feasibility studies will determine flow and accompanying costs. Mr. Lockard also stated that ALCOSAN will most likely take whatever flow is delivered.

- It was suggested that larger sewer lines could curtail some of the over-flow problem. If the infrastructure were to include larger lines to move the flow out faster then the need for bigger storage facilities would be reduced.

- Concerns were raised about how ALCOSAN would keep the communities appraised as the process moves along. Who would be responsible for getting this information to the elected officials?

Because so many questions/issues were raised, it was suggested to keep a running tab of questions asked and their responses.

<u>Information Exchange and Municipal Profiles Overview</u>

It was reiterated that one of the purposes of this meeting was to encourage the dissemination of information to all interested parties. Carol (Tetra Tech) emphasized the importance of today's participants taking this message to the elected officials. Dan (ALCOSAN) stated ALCOSAN's intention of attending Basin Planning

Committee meetings to up-date representatives of on-going developments. Additionally, there would be public meetings in the future and ALCOSAN would be willing to schedule meetings to address officials directly. It was also suggested that a regular newsletter could be published and an internet site set up.

Expectations and Action Items

The problem of up-stream water management was introduced. Lower Chartiers Watershed Council is meeting with state representatives to look at source reduction throughout the region. If this can't be reduced, it was suggested that an upstream wet weather warning system should be implemented to help downstream communities manage the flow.

To help municipalities with budgeting, it was suggested that the 2009 deliverables be given during the next municipal meeting. Budgets have to be planned well in advance and these additional expenses will have serious consequences for these communities. Again it was emphasized that cost is critical, for some communities more than others. Communities need to have time to decide how they are going to react.

Dan Lockard (ALCOSAN) stated that the municipalities will have to work some of these things out and solve some of these issues themselves.

Concern was voiced over the siting of the facilities. It was felt that there would be much sensitivity over the perceived or actual negative impact that could result. This could encompass an impact on property values as well as objections to unsightly and inconvenient placement. Early input from residents would be essential to prevent a widespread backlash against the proposal.

Questions were raised about what the group process involved. When would the group's task be complete? What are the deliverables? Carol (Tetra Tech) listed the five main deliverables for this project.

Five deliverables:
Documentation of existing information and conditions.
Hydraulic Modeling
Feasibility Reports. (Looking at potential siting and technologies.)
Draft Plan
Final Plan

It was suggested that ALCOSAN use the Three Rivers Forum to meet with elected officials. This was seen as essential as some communities are not fully committed to this plan.

The role of the City of Pittsburgh and its commitment was raised. Dan Lockard (ALCOSAN) stated that the city is very aware of the process and has attended other basin meetings.

It was felt that there still remains a need to define ALCOSAN's responsibilities as opposed to those of the municipalities.

ALCOSAN stressed the need for community profiles to be established and the meeting concluded with Tetra Tech representatives encouraging the participants to schedule one-on-one meetings to collect and confirm information about each municipality.

Dan Lockard (ALCOSAN) asked for a volunteer for the regional group. Each basin will provide one representative. Bob Grimm (North Fayette) volunteered for this role.

Tetra Tech representatives passed out Meeting Evaluation Forms to be completed prior to leaving the Basin Planning Meeting.

2. Items Distributed:

The following items were distributed at the Basin Planning Committee Meeting.

- Agenda
- Evaluation Forms
- Presentation Slides

These items can be found as attachments to these meeting minutes.

3. Action Items:

The following list of action items were generated as part of a facilitated discussion between the municipal representatives, ALCOSAN, and Tetra Tech.

- **Listing of Municipal Consent Order and ALCOSAN Consent Decree deliverable dates** to allow municipalities to coordinate with ALCOSAN and each other as they prepare their feasibility studies and their annual budgets. **Responsible Party**: ALCOSAN. **Due Date**: next Basin Planning Meeting.
- **Provide Municipal Status Reports relative to ACO/COAs**. **Responsible Party**: Tetra Tech will seek information from municipalities/ DEP or ACHD. **Due Date**: preliminary by next Basin Planning Meeting.
- **Provide a Definition of ALCOSAN vs. Municipal responsibilities**. **Responsible Party**: ALCOSAN. **Due Date**: next Basin Planning Meeting.
- **Provide Design Criteria for storms and wet weather**. **Responsible Party**: ALCOSAN is working on this issue with regulators. **Due Date**: TBD.
- **Provide a map showing the ALCOSAN interceptor with average daily flows, projected peak flows, and base flows**. **Responsible Party**: Tetra Tech. **Due Date**: TBD.
- **Provide a Deliverable Table** to show what Tetra Tech will be doing with due dates and information required from the municipalities (a one page "cheat sheet"). **Responsible Party**: Tetra Tech. **Due Date**: next Basin Planning Meeting.
- **Provide an update on the Flow Monitoring Data**. **Responsible Party**: Tetra Tech will address at next basin planning meeting. Municipal flow data coordination is be performed by 3RWW. **Due Date**: next Basin Planning Meeting.

- **Provide informational materials** to bring back to the elected officials throughout this process. **Responsible Party**: Tetra Tech. **Due Date**: on-going.
- **Available capacity**. Growing municipalities are concerned that future sewage capacity will limit development in their municipalities. **Responsible Party**: ALCOSAN **Due Date**: TBD.
- **Verify the Chartiers' SSO date** (2017 or 2019?). **Responsible Party**: Tetra Tech. **Due Date**: next Basin Planning Meeting.
- **Define flows of direct ALCOSAN customers and undefined flows** that are contributing to the system. **Responsible Party**: ALCOSAN, Tetra Tech. **Due Date**: on-going.
- **Develop a running list of questions from the community throughout the process**. **Responsible Party**: Tetra Tech. **Due Date**: next Basin Planning Meeting and on-going
- **Use 3RWW forum to reach out to elected officials**. **Responsible Party**: ALCOSAN. **Due Date**: on-going.

4. Next Meeting:

The meetings are to be held quarterly, but no date has been set for the second basin planning meeting.

5. **Attachments:**

- Kick-Off Meeting Agenda
- Evaluation Form
- Evaluation Summary
- Presentation Slides
- Kick-Off Meeting Discussion Notes
- Attendance List

ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Chartiers Creek
Meeting Purpose: Basin Planning Committee Meeting
Date / Time: 29 October 2008, 9:00 a.m.
Location: Carnegie Municipal Building, Carnegie, Pennsylvania

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Attendees: Please see attached attendance list.

1. Discussion / Decision / Agreement Summary:

Welcome

Herb Higginbotham (Tetra Tech) opened the meeting and introduced the basin planning project team.

Dave Borneman (ALCOSAN) introduced Ebony Development and Dolat Naik, who represent the basin coordination team.

Current Status

Carol Hufnagel (Tetra Tech) thanked all of the participants for the one-on-one meetings held in each municipality. She discussed a preliminary review of the system capacity which provides approximately 300 gallons per person per day.

Flow Monitoring Data

Carol Hufnagel (Tetra Tech) stated that the data set for February – June 2008 has been received and is currently being reviewed. There were three major storm events during this period. The largest storm was on March 4, 2008, which generated 1000-2000 gallons per person per day. The capacity of tributary sewers to the interceptor is significantly larger than the interceptor capacity. For example, the capacity of the sanitary pipes is approximately 10 times what ALCOSAN can take.

Facility Planning

Carol Hufnagel (Tetra Tech) led the presentation.

Highlights of this presentation include the following.

- Responsibilities of ALCOSAN and the municipalities
- Planning to the year 2046
- Need to remove hydraulic restrictions
- Discussion of the critical sewers with an explanation that critical sewers in the municipal orders are not necessarily the same as the critical sewers in the Consent Decree
- Discussion of the hydraulic model extents map. The intended extent of the hydraulic model that will be developed as part of the Chartiers Creek Facility Plan effort includes all ALCOSAN and municipal sewers up to the point of an existing overflow, which may

be either structural or operational (e.g. “dancing manhole”). Dan Lockard (ALCOSAN) reinforced that communities need to inform ALCOSAN about all overflows so that these overflows can be included in the model. This will allow all communities to use the data for their own feasibility studies.

- Overflows that are located in the municipal systems upstream of connection to ALCOSAN must be addressed by the municipalities. A number of options can be considered. Even those communities that do not have upstream overflows should evaluate potential flow reduction due to the overloading of the system as a whole. Discussed suggestions of actions that the municipalities should and could do to reduce or “handle” their flow.
- Dan Lockard (ALCOSAN) discussed the schedule. Although the municipal orders may say that municipal Feasibility Studies are not due until six months after ALCOSAN’s submittal date, this is primarily to allow for completion of the documents. The municipalities need to work concurrently on feasibility study activities and other activities, such as evaluating their systems, planning for current and future flows, and eliminating their overflows. ALCOSAN will have to coordinate the alternatives analysis from all the different planning basins and address its impact on the WWTP. Mr. Lockard would like to see the municipalities starting their feasibility study process. Mr. Lockard would like schedules from the municipalities stating their proposed tasks. Mr. Lockard stressed that everyone needs to work together. Carol Hufnagel (Tetra Tech) stated that responsibilities of the municipalities are not over when the televising, pipe repairs, and downspout removals are complete. Now is the time that the planning process has to start.
- Dan Lockard (ALCOSAN) discussed the Regional Stakeholder Committee. This committee is being formed to expand involvement into the greater community such as academics, environmental groups, development groups, regulatory agencies, etc. This committee will meet quarterly beginning in 2009. Each basin needs two representatives. Bob Grimm (North Fayette Township) has volunteered for the Chartiers Creek Basin and one more person is needed.
- Dan Lockard (ALCOSAN) discussed the Customer Municipal Advisory Committee.
- Dan Lockard (ALCOSAN) requested that all present at this meeting take the information back to their municipality and share it with the elected officials and other responsible parties. Mr. Lockard stated that if the interceptor goes through your community, you will be impacted. He also stated that, if requested, a representative from ALCOSAN will go to any municipal meeting. During 2009, ALCOSAN is hoping to additionally engage the general public.

<u>Information Exchange and Municipal Profiles Overview</u>

Dan Lockard (ALCOSAN) discussed attendance at 3RWW meetings in response to an action item from the prior meeting regarding coordination between ALCOSAN and 3RWW. ALCOSAN attends flow monitoring meetings and has a regular slot on agenda at managers and elected officials meetings. He also reminded everyone that their O&M Manuals are due next year to be in compliance with their municipal Consent Order.

Carol Hufnagel (Tetra Tech) asked for everyone to indicate their preferred time and location for future meetings on the Meeting Evaluation Forms.

Tetra Tech representatives passed out Meeting Evaluation Forms to be completed prior to leaving the Basin Planning Meeting.

2. Items Distributed:

The following items were distributed at the Basin Planning Committee Meeting.

- Agenda
- Evaluation Forms
- Presentation Slides
- Basin Map showing proposed critical sewers
- Consent Decree/Consent Order Schedule (working draft)
- Action Items Listing

These items can be found as attachments to these meeting minutes.

3. Action Items: See attached listing

4. Next Meeting: The next meeting is expected to be in January. Date to be determined.

5. Attachments:

- Meeting Agenda
- Evaluation Form
- Evaluation Summary
- Presentation Slides
- Attendance List
- Action Items

ALCOSAN Basin Facilities Planning Meeting #3 Minutes

Basin: Chartiers Creek
Meeting Purpose: Basin Planning Committee Meeting #3
Date / Time: 5 March 2009, 9:00 a.m.
Location: Scott Township Municipal Building, Scott Township, Pennsylvania

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Attendees: Please see attached attendance list.

1. Discussion / Decision / Agreement Summary:

Welcome

Herb Higginbotham (Tetra Tech) opened the meeting and introduced the basin planning project team. All attendees then introduced themselves.

Programmatic Updates and Information Exchange

Janai Williams (Ebony Development) provided an update on the status of public outreach items. The Customer Municipality Advisory Committee (CMAC) consists of 15 members, and includes a representative from each of the seven ALCOSAN Planning Basins. The members are appointed by the County Executive and ALCOSAN. Their first meeting was held on February 18, 2009 and he noted that their purpose is to develop a consensus-based process. Mr. John Ciangiarulo, Council President of the Borough of McKees Rocks and Ms. Dorothy Kelly, Council person of the Borough of Carnegie are the representatives in CMAC for the Chartiers Creek Basin Planning Basin.

The Regional Stakeholders Group is a much larger group, with 50 or more members. This group has two representatives from each basin, and representatives from other organizations such as civic, academic, government, etc. Their first meeting was held on March 11, 2009. The intention is for this RSG Committee to be a grass-roots group who will engage the regional municipal governments and the general public in the wet weather planning process. ALCOSAN will provide a list of RSG members when it has been finalized. The membership is very fluid and may increase or decrease. Mr. Bob Grimm, Manager of North Fayette and Ms. Lori Collins, Manager of Borough of Bridgeville are the representatives in RSG Committee for the Chartiers Creek Planning Basin.

The annual public meetings that ALCOSAN conducted provided the public with an overview of the Consent Decree, what's been done, and what's upcoming. They are looking at ways that information can be shared between the public and ALCOSAN.

The Customer Municipality Advisory Committee and the Regional Stakeholders Group will meet again during the first week of May, and these will be followed by next round of BPC meetings.

Dan Lockard (ALCOSAN) discussed ALCOSAN's website and what type of information is available on it. He indicated that deliverables to ALCOSAN from each of the basin planners can be found on the website. It is accessible to municipalities on an individual basis and password protected. Also, he added that one purpose of the regional stakeholder group was to aid in getting the municipalities and officials involved in the wet weather planning process.

Financial Data Collection

Tom Schevtchuk (CDM) and Kaye Bealer (K Bealer Consulting) led this presentation on behalf of the ALCOSAN.

Mr. Tom Schevtchuck of CDM and Ms. Kaye Bealer of K Bealer Consulting, LLC provided an overview of the goals and activities of the Financial Data Collection process. The main goal of Financial Data Collection is to get a comprehensive understanding of the costs of the Wet Weather Plan. Two important components are affordability (what rate payers are able to pay) and financial capability (what ALCOSAN and the Municipalities will be able to finance).

Total Current Costs are comprised of ALCOSAN's current costs and Municipal current costs. Total Future Costs are comprised of ALCOSAN's future costs and Municipal near and long term O & M costs. Money will be needed over the next several years for items such as sewer budgets (spot repairs) and expansions. ALCOSAN will need to know targeted improvements for bigger capital improvements.

ALCOSAN is using 2000 census data on median household income to determine affordability ranges. 1997 EPA guidance will guide the process to look at residential income versus wastewater costs. Mr. Schevtchuk distributed a draft Information Request Prototype with various categories of EPA Indicators, and an Affordability Calculation Information List. He noted that for 2009, the typical resident in ALCOSAN service area pays $560 for annual wastewater treatment.

Ms. Bealer presented information from the EPA program "CSO Guidance for Financial Capability Assessment and Schedule Development." This is a planning tool that assists with cooperatively defining control strategies. Financial Rate Information has two phases. Phase 1 consists of a Resident Indicator, including Median Household Income. Phase 2 consists of the Permittee Financial Indicator. This includes debt indicators, socioeconomic indicators, and financial management indicators.

The preliminary analysis using 2009 as the base case shows the median household income in Allegheny County to be $48,700, with a range of $18,000 to $192,000. Current Affordability Indicators are also being developed. The Data and Model Development also includes Base Case Analysis.

The handout titled "ALCOSAN Financial Capability Assessment, Municipal Data Needs – February 2009" lists the information ALCOSAN will need to acquire from the municipalities. There is currently a gap in the available data.

Mr. Schevtchuk stated that public documents will be provided to DCED and others. 3RWW is currently working toward building a comprehensive database on financial assets and liability. This will be the third leg of the Municipal Data Support website. He clarified that ALCOSAN is looking at the financial data from the aspect of potential affordability of required initiatives, while 3RWW is collecting the data from the perspective of the type of data needed to evaluate the consolidation of municipal wastewater services.

The analysis has integrated some municipal data into the cost of service and affordability model. CDM utilized information that is available from municipal websites to start filling in the data template. ALCOSAN will send a draft of the template to the municipalities for review and to make sure that the data is accurate. ALCOSAN will also need municipalities to provide some additional information. In March or April, ALCOSAN will send a letter to the municipalities with information on what they are doing for financial data collection, and the information they are requesting from the municipalities. The data that ALCOSAN will need the municipalities to supply includes, for example:

- Current municipal wastewater costs
- Near term costs (i.e. 5 year),
- Major capital improvements,
- A brief description of the financial setup of the municipal sewer system,
- Capital project financing,
- Municipal sewer rates, and
- Institutional information.

Mr. Schevtchuck distributed a summary of the activities related to Financial Capability Assessment by category and by year for the next five years. The three categories are Financial and Institutional Assessment, Basin Planning, and Key Related Wet Weather Development. He highlighted the major activities of each.

Mr. Schevtchuck outlined the roles of the various entities involved in the wet weather planning process vis-à-vis Financial Data Collection. Municipalities will be asked to provide information on current and projected costs. 3RWW is implementing a financial asset and liability database, and facilitating data sharing and coordination. 3RWW is gathering municipal asset and financial information that would be useful for

a municipality if they are considering consolidation of their municipal wastewater services. The Basin Planners' roles will be to determine asset and data acquisition and to develop basin alternatives and costs. Finally, the Wet Weather Program Management Team will be responsible for data compilation and management, developing the financial model, and putting the formal paperwork together.

- Rick Minsterman (Gateway Engineers) said that there is no way to give projected costs until the Feasibility Studies are complete since no real numbers are available until then. Tom responded that for near term costs, if it is known that there is a need for repairs, than they should be included in the costs. For larger items, the cost process will be iterative. The plan does not require 20 year estimated costs; a five year plan is more likely that can be periodically updated. For Operations and Maintenance costs, those plans are due in March 2010 and there will be no projections until then. This process will also be iterative and more realistic costs will be inserted as they become available. Carol Hufnagel (Tetra Tech) said that it is important to remember that the amount provided for the cost of needed repairs/ upgrades should be based on the true total costs based on what needs to be done, not based on the municipalities' willingness to spend funds.
- Doug Evans (NIRA) asked how EPA regulations impact municipalities located in more than one sewage district if only one of the districts is in the ALCOSAN service area. Tom answered that each district must be looked at separately. Doug then asked if income data for an entire township will be used for the portion that drains to ALCOSAN. Tom explained that they will try to reflect the most accurate data possible.
- Ned Mitrovich (Lennon, Smith, Souleret) asked if ALCOSAN is looking at imposing variable rates. Tom answered no, they are looking at affordability. Ned then indicated that he needs rates now to prepare the municipal feasibility study. It will be difficult for the municipalities to select alternatives if they do not know what the cost will be to send the waste to ALCOSAN. Dan Lockard reminded attendees that the financial capability analysis and alternative analysis (feasibility studies) are independent efforts.
- Susan Prevoznak (Borough of Rosslyn Farms) said that small municipalities with high tax rates have a very small pool of money to draw from. It is unrealistic to have a budget that includes everything. Kaye Bealer said that CMAC will address some of these issues. Susan stated that ALCOSAN is passing the buck since they will not have to be the ones accountable to raise taxes to pay for the sewer improvements. Carol Hufnagel added the Financial Capability and Municipal Affordability Analyses are intended to inform the EPA what a municipality can afford to pay for wet weather compliance.

<u>Basin Planning Activities</u>

Carol Hufnagel led the presentation. She indicated that much data has been collected over the last year. A draft of the municipal portions of the existing conditions report was sent to every municipality and approximately half of the communities have

responded. She encouraged all the municipalities to review those reports and send comments to Tetra Tech.

There was some discussion requesting that ALCOSAN share information more than they have been. Dan Lockard said that if Tetra Tech is doing analyses or writing a report that will help municipalities, they will share that information, but the municipalities need to look at and understand their own systems. Rick Minsterman said that it is a good idea to share information, and it saves the municipalities money. Paul Eiswerth (PADEP) said that the municipal Consent Orders were drafted requiring each municipality to develop their own wet weather plan and coordinate it with ALCOSAN. Even though the Orders have a due date for feasibility reports of six months after the submission of the wet weather plan, the date is a formality to tie up loose ends. The municipalities cannot wait that long to give projected flow to ALCOSAN. Efforts should begin to address the feasibility/ wet weather plan questions.

Highlights from the Tetra Tech presentation are summarized in the following paragraph.

- Flow rates were reviewed for the Chartiers Interceptor during wet and dry weather events.
- Overflow activity that occurred during the flow monitoring was reviewed.
- The capacity of the Chartiers Interceptor was discussed. The estimated current capacity of the interceptor is approximately 25 to 30 MGD. The flow monitoring data confirms that there is a need for an additional interceptor, or additional capacity, in the future. It may be a parallel interceptor or it may follow a different path. Tetra Tech currently anticipates a storage component to the chosen alternative. This will be part of Tetra Tech's evaluation.
- Municipalities are encouraged to contribute input and ideas during alternatives analysis process. Rick Minsterman added that this approach would help municipalities save money.
- ALCOSAN is looking for potential sites such as vacant sites, brownfields, or economically distressed areas that can be used for storage or conveyance. Tetra Tech will be looking at the land that is available and the functionality of the site. This will also include potential areas for storage tunnels.
- Dan Lockard encouraged looking at sites as opportunities. Donna Davis (PADEP) reminded everyone that ALCOSAN may also be looking at sites for potential treatment plants. Dan stated that it is still an internal decision at ALCOSAN at the basin level or at the regional level.
- Tetra Tech presented the basin planning objectives for 2009, which are summarized below:

    - Determine reasonable assessment of flows,
    - Consider options for addressing municipal overflows,
    - Consider resultant flows to ALCOSAN interceptor – Do Municipalities agree with Tetra Tech's flow projections,

    - Identify potential control options, and
    - Consider potential sites

- Carol Hufnagel indicated that the model should be calibrated by September or October, 2009. Jason Stanton (Lennon, Smith, Souleret) expressed his concern regarding information from municipalities when they need flow data to answer Tetra Tech questions. Carol indicated that Tetra Tech will provide data to municipalities as soon as they get it. Dan Lockard said that data will be refined as we go along. Where multiple municipalities are involved, they will need to work together to develop a plan. Paul Eiswerth stressed municipalities need to be proactive in their own analysis and work instead of relying on ALCOSAN.
- Carol Hufnagel indicated that Tetra Tech is seeking to develop prototype models of a municipality with a separate system and a municipality with a combined system. Any municipality that is interested in volunteering to be a prototype should see Carol.
- Ned Mitrovich asked that since it is unknown at this time what the model will show, how can a system be sized? Paul Eiswerth indicated that the law states that there can be no SSO's in separate communities and only 15% discharge (annual volume) of CSO's in combined communities. Dan Lockard suggested considering a range of storm events. Paul Eiswerth said that SSO's are illegal but at the same time, designing for the 100 year storm is likely not feasible. He emphasized that it is important for municipalities and ALCOSAN to know their flow and to carefully review their flow data.
- Carol Hufnagel reviewed the 2009 timeline. Municipalities need to be prepared to critically examine ideas/recommendations from the basin planner from the municipal perspective. Susan Prevoznak suggested that it is important to look at neighboring communities during the siting phase. Paul Eiswerth commented municipalities need to start examining flow data ASAP, and then discuss with ALCOSAN. Jason Stanton asked that since the orders are vague on what needs to be included in the municipal feasibility study, will there be an outline developed? Donna Davis said that she is currently working on that and it should be available for review by ALCOSAN, 3RWW, and ACHD by next week. It should be available to municipalities within the next month.
- Janie French (3RWW) announced that 3RWW will facilitate a Feasibility Study group the second and fourth Thursday of each month at 9:30 at the Green Tree Municipal Building. This group will replace the Flow Monitoring Implementation Team.
- Herb Higginbotham discussed potential stakeholders groups located in the Chartiers Creek Basin. He opened the floor for suggestions for additions to the list. Chartiers Creek Flood Control Authority, the United States Army Corps of Engineers, and railway companies were suggested.
- Dan Lockard said that things are getting more interesting and detailed. He indicated that ALCOSAN will do their best to work together with municipalities and maintain open communication. 3RWW is available to aid municipalities and ALCOSAN is working more closely with 3RWW. He added that ALCOSAN has asked for Feasibility Study schedules from the municipalities.

- Jerry Brown (South Fayette Township Municipal Authority) said that he supports the comment that it is hard to do a Feasibility Study without having rates. He feels that ALCOSAN needs to develop their rate setting system now, not later. He would also like to know if there will be incentives for reducing flows. Dave Montz (Borough of Green Tree) said that this issue has already been brought up at CMAC.
- John Shannon (Baker Engineers) asked if 3RWW will be invited to the regional stakeholders group meeting scheduled for March 11. Janai Williams said yes.

2. Items Distributed:

The following items were distributed at the Basin Planning Committee Meeting.

- Agenda
- Evaluation Forms
- Presentation Slides
- Basin Map showing selected tributary areas in Chartiers Creek Basin
- Listing of potential stakeholders in Chartiers Creek Basin

These items can be found as attachments to these meeting minutes

3. Next Meeting: The next meeting is expected to be in summer. Date to be determined.

4. Attachments:

- Meeting Agenda
- Evaluation Form
- Presentation Slides
- Attendance List
- List of Stakeholders

ALCOSAN Basin Facilities Planning
Meeting # 4 Minutes

Basin: Chartiers Creek
Meeting Purpose: Basin Planning Committee Meeting
Date / Time: 17 June 2009, 9:00 a.m.
Location: Collier Township Community Room, Collier Township, Pennsylvania

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Attendees: Please see attached attendance list.

1. Discussion / Decision / Agreement Summary:

Welcome

Herb Higginbotham (Tetra Tech) opened the meeting and introduced the basin planning project team. All attendees then introduced themselves. Mr. Higginbotham provided a brief summary of the Basin Planning Process and discussed the stakeholders that had been invited to the Basin Planning process.

Programmatic Updates and Information Exchange

Dan Lockard (ALCOSAN) discussed ALCOSAN's website and what type of information is available from this website. He indicated that deliverables to ALCOSAN from each of the basin planners will be posted on the website. He presented slides describing the log-in procedure and some of the specific available information for the Chartiers Creek Basin. The website is available to municipalities with secure logins at this time. Mr. Lockard discussed financial capability and said that ALCOSAN is trying to determine affordability for rate payers. At the same time 3RWW is looking at financial data. 3RWW and Alcosan will be working together to develop the needed financial information Mr. Lockard also discussed Act 537 Planning and that municipalities may be eligible for Pennsylvania Department of Environmental Protection (PADEP) funding.

Janai Williams (Ebony Development) presented an overview of public outreach and discussed the Customer Municipal Advisory Committee (CMAC). The meetings were productive, but the group was not able to finish their agenda. The next meeting is June 23, 2009. She also discussed the Regional Stakeholder Group. They met on May 14, 2009 and tentatively plan to meet again on July 9, 2009 to complete the discussions that were on their original agenda.

Kellie Dubay (Tetra Tech) discussed the local Public Outreach Program. It has been developed using the same template as the other ALCOSAN basins but tailored to Chartiers Creek. As part of local community outreach, Tetra Tech has developed a Basin Quarterly Activity Report that will be distributed to all municipalities. An outline of the Basin Quarterly Report was provided to all attendees for feedback. Ms. Dubay

also distributed and discussed the Meeting Evaluation Sheet. Ms. Dubay also stated that the Basin Planning Team is available for focus groups and to get the new attendees up to speed in the planning process, if requested.

Flow Monitoring and Modeling

Carol Hufnagel (Tetra Tech) led this presentation.

Highlights of this presentation include the following:

- Flow monitoring ended February 2009.
- Flow data will be evaluated and a summary will be presented.
- John Shannon (Baker Engineers) asked if the flow analysis will include deconstructing hydrographs and what will ALCOSAN make available to the municipalities. Ms. Hufnagel replied by discussing the RTK data and some graphs that had been generated, but that she needs to talk with the technical flow monitoring team to be able to answer this question completely. She suggested that Mr. Shannon stay after the meeting to further the discussion. Rick Minsterman (Gateway Engineers) asked that she respond to this question in the meeting minutes and slides to be sent out to the group. (Post Meeting Comment: Tetra Tech is currently preparing summaries of the flow monitoring data analysis and H&H model analysis for select major municipal trunk sewers. The summaries will be available in July.)
- Ms. Hufnagel stated that the design storm events to be used in separate sewer areas are the 1, 2, 5 and 10 year storms with emphasis on the 2 year and 10 year events. For combined sewers, Normalized year 2003 was used as the typical year.
- Dan Lockard explained that the year 2003 data appears to be the most average with some modifications to make it more uniform to account for variances in rainfall across the region.
- The extent of modeling and the definition of critical sewers were described.
- Paul Eiswerth (PADEP) clarified that ALCOSAN is continuing to monitor new overflows, so any municipality with information regarding new overflows should inform PADEP/ALCOSAN at this time.
- Jason Stanton (LSSE) asked if the extent of modeling and critical sewers had changed since the last Basin Planning Committee Meeting. Ms. Hufnagel answered no.
- Don Waldorf (PWSA) stated that modeling for PWSA was completed using data from year 2005. Ms. Hufnagel stated that PWSA's data had been received and was being incorporated into the model.
- Model calibration was discussed.
- Jason Stanton asked if the table showed only synoptic flow monitoring. Ms. Hufnagel said that the historic data had already been received and incorporated into the model.
- Rick Minsterman stated that areas not being calibrated into the model but are in the model would be helpful to municipalities. How can it be determined where ALCOSAN's model stops and how are we to retrieve the data from ALCOSAN?

Ms. Hufnagel stated that the model will be shared in the next few months, before November. Mr. Minsterman indicated that the sooner data is received the better.

- Jason Stanton said that since the municipalities need to provide preliminary flow numbers, will ALCOSAN be providing a guidance document to municipalities regarding the information that ALCOSAN needs. Mr. Lockard stated that a document will be available in less than two months. Paul Eisewerth, PADEP, asked if the document will apply to all basins or only Chartiers Creek. Mr. Lockard said that decision is up to the basin planners. Paul emphasized the importance of having the guidance document.
- Michelle Buys (ACHD) asked what type of letter will be sent out from ALCOSAN regarding the requirements from the municipalities. Mr. Lockard stated that ALCOSAN recognizes that the municipalities need to know what they will be required to submit and that they will be producing guidance for the municipalities in the next few months.

Basin Planning Activities

Carol Hufnagel led the presentation regarding technologies, routes and sites. She indicated that there is a need to minimize facilities because they require operations and maintenance and it is not cost effective to have many facilities. She showed slides of examples of facilities in other cities.

Dan Lockard stated that if there is enough flow, there could be an alternative for satellite treatment (full secondary treatment) at a facility, not just storage. At this time, ALCOSAN is looking at the regional level for potential additional WWTP locations.

Jason Stanton asked how capacity requirements have impacted the siting decisions. Ms. Hufnagel stated that they are looking at routes for a "relief interceptor" for the length of the existing interceptor. They are also looking for sites (based on space and inflow points and requirements, storage in parallel), and reviewing technologies. All of the factors will be combined by October to have comprehensive alternatives by spring 2010.

Rick Minsterman asked how flow reduction will work into the options. What is the plan for separation, stream elimination and infiltration? Some of this has already been done by the municipalities. Ms. Hufnagel stated that the municipalities will have to decide how aggressive they will be in their flow reduction efforts. There will be no sizing at this time. In October, 2009 only viable alternatives will be presented. Dan Lockard stated that as much as ALCOSAN wants inflow to be removed from the system, it will probably not affect siting and locations.

Ms. Hufnagel described the screening options, flow configurations, and route/site selection. Tunnels tend to be more expensive per gallon of volume than storage basins. Using pump stations to transport flow may have lower construction costs (due to shallow pipes and more flexibility in routing) but high operation and maintenance costs. For parallel relief routes, options are being considered based on segments rather than trying to define the full length of the sewer. Sites will consider a

number of factors, but the proximity of the site to where large overflows are located is very important in the site evaluation activities.

Ms. Hufnagel explained that the Basin will be divided into two working teams: upstream and downstream. Carnegie will act as the dividing community. Dan Lockard discussed Early Action Projects. These are projects that can address known issues in the basin immediately. Mr. Lockard stated that the municipalities will be asked to provide ideas for projects to ALCOSAN and ALCOSAN will assist the municipalities in their efforts to obtain grant funding. These projects will involve much working together with municipalities, ALCOSAN and 3 Rivers Wet Weather. Mr. Lockard also stated that some deliverable dates may slide by a few months but the general schedule for ALCOSAN's Wet Weather Program development is still intact.

Questions and Answers

- Fred Bigham (Chartiers Valley Flood Control Authority) asked about the sanitary system in Robinson (having a treatment plant on Chartiers Creek, similar to the plant Robinson has on Campbells Run) and possibly using existing deep mines as storage. Since Fish Run was removed from the mines, there may be storage available. Mr. Bigham said that along Campbell's Creek there are mines available for storage.
- Concerning the municipal feasibility study/ alternatives analysis process, Jason Stanton (LSSE) asked if there will be an example or test basin or is the workshop group now the course. Ms. Hufnagel stated that they have not finished enough of the modeling to fully develop a test basin. She hopes to flesh this out with the working teams. Mr. Lockard stated that this may be done through the 3Rivers Wet Weather working group rather than the next Basin Planning Meeting.
- Doug Evans (NIRA) would like to see a satellite treatment plant along Chartiers Creek seriously considered. He feels that there is a need to have this formally investigated. Fred Bigham supports this idea due to water quality issues – ability to increase base flow in the stream.
- Dan Lockard said that ALCOSAN will need to assimilate the results of planning in the seven basins into a comprehensive plan by 2013. This will require multiple iterations. There is currently a need for Tetra Tech to assume transport of flows from the municipalities to the interceptor system. Municipalities need to get their best estimate regarding flows to the basin planners. It will also be important for municipalities to work with adjoining municipalities to figure out what is in their best interest and most cost effective.
- John Shannon (Baker Engineers) said that each municipality should calculate their worst case flow for the 1, 2, 5, and 10 year storms for separate systems and the year 2003 rainfall data for combined systems by the end of March 2010.
- Paul Eiswerth said that PADEP is sending out a letter requesting cooperation with ALCOSAN and their needs for information. For information regarding areas in each municipality not included in the ALCOSAN models, municipalities can ask ALCOSAN for help and use them as a resource as much as possible. John

Shannon added that only approximately 15% of systems are included in the modeling, the other 85% must be accounted for by the municipalities.

- Barry Piacenza (Chartiers Creek Watershed Association) asked if land use will come into consideration regarding the process i.e. sites, laws, regulations, aesthetics, etc? Has a global approach been used? There should be a regional financial model and technical website available. Mr. Lockard said that there is a stakeholders group that encompasses this. The financial aspect is a separate and on-going activity. The use of green technologies is in the hands of the municipalities. ALCOSAN will act as a cheerleader and technical clearing house for the municipalities.
- Paul Eiswerth said that communities need to start looking at ordinances and adopt green technology.
- John Schombert mentioned that the 3 Rivers Wet Weather Conference has provided some green technology information. He also encouraged municipalities to attend the working group meetings.
- Barry Piacenza (Chartiers Creek Watershed Association) said that the Chartiers Creek Watershed Association website has model ordinances for information.
- Dan Lockard said that the long term regional wet weather control plan has to be good through 2046 and if a municipality's system continues to deteriorate, after five years it may be out of compliance. If green infrastructure is implemented, it could protect a municipality's compliance status in the future. Dan encouraged establishing ordinances now to help avoid more infrastructure issues 10-15 years from now.
- Bernadette Kazmarski (Lower Chartiers Watershed Council) suggested that since many people use Chartiers Creek recreationally, there may be more funding available. She also asked how many households are in the Chartiers Creek Basin. Based on available Allegheny County information, approximately 75,000 households lie in the Chartiers Creek Basin, with a population of roughly 153,000. If unsewered or "non-contributing" areas are not included, the number of households falls to roughly 68,000 and the population to 140,000.
- Ruthann Omer (Gateway Engineers) said that there are examples of green technology in the basin. The Upper St. Clair Community Center, a green site, is opening this weekend.
- A gentleman inquired how this year's reduced precipitation levels affected the model's accuracy. Ms. Hufnagel replied that the flow monitoring period (2008-2009) was wetter than average and that requirements for the number and sizes of events were met during the monitoring period. The model uses flow monitoring data and extrapolates for other conditions including precipitation, ground saturation, snow melt, etc. The model is then used to examine other sewer configuration alternatives under different storm events.
- Don Waldorf (PWSA) emphasized that this is a regional issue. Infiltration and inflow must be addressed. He feels that large tanks will not be well received by the "City Fathers". The city will not welcome a facility to deal with flow from the upper end communities and that PWSA is not opposed to annexing territory.

- Jerry Brown (South Fayette Township Municipal Authority) said that O & M plans are due soon for communities and hopefully this will encourage the municipalities to run their systems better.

2. Items Distributed:

The following items were distributed at the Basin Planning Committee Meeting.

- Agenda
- Evaluation Forms/Basin Quarterly Report Outline
- Chartiers Creek Planning Basin Service Area with Sewersheds
- Chartiers Creek Planning Basin – North map
- Chartiers Creek Planning Basin – South map

3. Next Meeting: The next meeting is scheduled for September 17, 2009 at the Upper St. Clair community building. Time is 9:00 to 12:00.

4. Attachments:

- Meeting Agenda
- Evaluation Form
- Evaluation Summary
- Presentation Slides
- Attendance List
- Chartiers Creek Planning Basin Model Extents

ALCOSAN Basin Facilities Planning
Meeting # 5 Minutes

Basin: Chartiers Creek
Meeting Purpose: Basin Planning Committee Meeting
Date / Time: 17 September 2009, 9:00 a.m.
Location: Upper St. Clair Community Recreation Center, Township of Upper St. Clair, Pennsylvania

Attendees: Please see attached attendance list.

1. Discussion / Decision / Agreement Summary:

Welcome

Herb Higginbotham (Tetra Tech) opened the meeting and introduced the basin planning project team. All attendees then introduced themselves. Mr. Higginbotham informed the group that the next basin planning committee meeting will be in January and anyone who would like to offer a location to be considered should see him after the meeting. He then introduced Carol Hufnagel of Tetra Tech to discuss the meeting objectives. She explained that over the summer, workshops were conducted for the communities located along the creek in the upstream and downstream portions of Chartiers Creek. Sites for storage and/or treatment facilities and possible routes were presented and feedback regarding these sites and routes was received from the municipalities and stakeholders. This allowed Tetra Tech to refine the list of locations and routes under consideration.

Status Update and Information Availability

Dan Lockard (ALCOSAN) said that the Hydrology and Hydraulic (H&H) model will be released to the municipalities 30-60 days after Tetra Tech's submittal to ALCOSAN which is expected to be at the end of September. He discussed the design storm and the typical year of rainfall. John Shannon (Michael Baker Corporation) asked when the design storm and typical year rainfall information will be available. Mr. Lockard said that the date for that information to be available will be posted on the municipal website by the end of the month and before the H&H model release.

Mr. Lockard also discussed the ALCOSAN municipal website. Carol Hufnagel explained that some of the files, especially mapping, are so large they cannot be emailed so the municipal website is a good place to view them.

Ms. Hufnagel then discussed the major sewer summaries, individual reports that will be prepared to document the understanding of various multi-municipal trunk sewers, and which will provide this information in an easy to access manner for municipal use. These summaries will include a summary of physical systems (tributary areas/pipe schematic), overview summary of the flow monitoring data, hydrologic

response of the tributary areas, and information on the model for that branch. These summaries will be prepared for most major shared municipal trunk sewers. Samples of the data in the summaries were presented. Clarification regarding the dry weather flow values was given in response to a question from Jan Oliver (ALCOSAN). Examples of figures showing the relative rainfall capture in sanitary areas were displayed. The presentation on these figures was clarified based on a question from Jason Stanton (LSSE)

Mr. Lockard then explained that there is a costing tool available on the ALCOSAN municipal website but it may be less reliable for small projects. For small projects, municipalities may be better off using their historical costs. He then discussed the availability of funding sources for municipalities. Jan Oliver (ALCOSAN) stated that there will be a workshop regarding this before the end of the year. She added that PennVest, RUS and the Army Corps of Engineers were major funding sources for early action projects. ALCOSAN can assist in gaining funding but the municipalities must be the main player.

Jerry Brown (South Fayette Municipal Authority) asked if there are any priority projects and any type of projects in particular that should be submitted. Ms. Hufnagel said that stream inflow or renewal projects may be good choices. Jan Oliver said that problem areas or multi-municipal projects are also good choices.

Ms. Hufnagel then discussed early action projects including storm flow removal from C-51 and C-22.

- A 48-inch sewer connected to regulator C-51 is predominately stormwater but also conveys AMD and appears to have one or more sanitary connections. Randy Lubin (Township of Scott) asked if the location(s) of the sanitary connection(s) had been confirmed. Ms. Hufnagel answered that evidence of sanitary flow was seen only at the most downstream end of the 48-inch sewer, however no investigation was performed to confirm if any buildings in the industrial area off Montgomery Avenue are sources.
- C-22 is a separation project identified by Gateway Engineers/Crafton.

Janai Williams (Ebony Development) presented an overview of public outreach and discussed the Customer Municipal Advisory Committee (CMAC). The most recent meeting was June 23, 2009. Multi-municipal funding and cooperation and coordination with ALCOSAN were discussed at this meeting. The next meeting is scheduled for October 14, 2009. She also discussed the Regional Stakeholder Group. They will meet again on October 15, 2009.

Dan Lockard and John Shannon expressed there is a significant amount of work that municipalities will have over the next year. The new costing spreadsheet is expected to be available within the next two weeks for municipal managers to get an idea of funding available. Jan Oliver mentioned FSWG (Feasibility Study Working Group) to get details on important aspects of cost estimating. Jerry Brown mentioned that

another tool to use for budgeting is available from 3 Rivers Wet Weather. John Shannon said that Allegheny County Health Department will be looking for a separate operation and maintenance budget for each municipality's sanitary sewer system.

Sites and Technologies Screening and Evaluation

Carol Hufnagel introduced Joe McCay (Tetra Tech) who led this presentation. He described the locations under consideration for a storage or treatment site. He emphasized that no property owners have been contacted to date. Jerry Brown mentioned that the Burgunder Dodge location may no longer be a possibility since he just received a plan review for construction of a warehouse on that property.

Jan Oliver asked if there is any comparison between overflows and number of sites needed. Carol Hufnagel answered that Tetra Tech is looking at both the location of where overflows are occurring and where sites are available. Ms. Oliver then asked if there is a way to consolidate overflows. Ms. Hufnagel answered that economies of scale need to be considered with consolidation.

Jason Stanton asked if the site screening report in October will address areas along branches to the creek. Ms. Hufnagel said that only areas along the interceptor will be included.

Ned Mitrovich (LSSE) asked why the size under consideration is three acres. Ms. Hufnagel answered that this is based on other jobs completed by Tetra Tech for storage and treatment facilities. There may be smaller sites needed for drop shafts or major junction chambers.

Rick Minsterman (Gateway Engineers) asked if any consideration was given to sites further upstream. Ms Hufnagel answered that, at this time, sites further upstream is assumed to be an activity that municipalities would undergo in conjunction with the municipal feasibility studies. It may be a consideration for a multi-municipal project at some time in the future.

Ms. Hufnagel then introduced John Killips (Tetra Tech) who explained the routes under consideration.

Alternatives

Carol Hufnagel explained that in separate areas, the focus is on storage, transport and flow reduction. In combined areas, the focus is on storage transport and treatment. A key consideration in siting and sizing of storage and transport is the time that excess flow would be stored and the ability to dewater those facilities.

Jan Oliver asked why it is important to drain storage facilities. Ms. Hufnagel answered that draining prevents odors from forming. It is desirable to drain a storage facility within 24 to 48 hours of filling, and adequate capacity would need to be available.

A general discussion regarding cost of service for wastewater conveyance and treatment as provided by ALCOSAN occurred. Municipal representatives asked if the information is forthcoming as it would be helpful for alternatives evaluation for municipal CSOs and SSOs. Discussions regarding cost of service are under consideration at the regional level. Municipalities should be able to proceed with the identification and evaluation of alternatives required to address municipal overflows and municipal system capacity inadequacies prior to this being fully defined.

Questions and Answers

- Jerry Brown asked if a full treatment plant technology option is being considered for Chartiers Creek basin and are there sites available. Carol Hufnagel answered that this issue is being considered more at a program level rather than on a basin level. Dan Lockard said that the EPA regulations could require ALCOSAN to have more treatment plants but not five or six of them. There is a need to balance the number of potential satellite plants so as not to starve the main plant. Ms. Hufnagel said that some of the sites under consideration are large enough to accommodate a treatment facility. Mr. Borneman said that the Consent Decree requires that they must evaluate secondary treatment capacity and this will be done once all basin reports are in.
- Michelle Buys (Allegheny County Health Department) asked about the status of the Hydrology and Hydraulics model. Ms. Hufnagel answered that it is due around the end of September to ALCOSAN for their review and it should be available to the municipalities by the end of the year.
- Larry Lennon (LSSE) asked how much of the model will the municipalities receive? Mr. Lockard answered that they will receive the whole model. Mr. Lennon added that it may be better for municipalities to only have a portion of the model. Susan Prevoznak (Borough of Rosslyn Farms) said that it may also cut the municipal costs if they only receive applicable portions. Ms. Hufnagel said that it takes about 24 hours to complete a 1-year run and it may be simpler to send the model in pieces if it can be broken up to send out. Mr. Lockard said that he would bring this matter up at a working group meeting. Ms. Buys said that it would be easier for the basin planners to have it parceled up.

Since there were no more questions, Herb Higginbotham (Tetra Tech) closed the meeting and reminded everyone that the next meeting is scheduled for January 2010 and if anyone has a suggestion for a location to please see him. He also requested that the municipal representatives bring their neighbors to the next meeting.

2. Items Distributed:

The following items were distributed at the Basin Planning Committee Meeting.

- Agenda
- Presentation Slides

These items can be found as attachments to these meeting minutes

3. **Next Meeting:** The next basin committee meeting is scheduled for January 2010 exact date, time and location to be determined.

4. **Attachments:**

    - Meeting Agenda
    - Presentation Slides
    - Attendance List

ALCOSAN Basin Facilities Planning
Meeting #6 Minutes

Basin: Chartiers Creek
Meeting Purpose: Basin Planning Committee Meeting
Date / Time: 17 February 2010, 9:00 a.m.
Location: Mt. Lebanon Recreation Center, Municipality of Mt. Lebanon, Pennsylvania

Attendees: Please see attached attendance list.

1. Discussion / Decision / Agreement Summary:

Welcome Herb Higginbotham (Tetra Tech) opened the meeting and introduced the basin planning project team. All attendees then introduced themselves. Mr. Higginbotham thanked Steve Feller (Mt. Lebanon) for hosting the group and asked that if anyone wishes to host future meetings to please see him after the meeting. He then introduced Carol Hufnagel (Tetra Tech) to discuss the meeting objectives. She explained that the meeting would include a review of the status of the model, a discussion on Alternative Development, a discussion on flow data from municipalities and municipal project identification, and a discussion of interface between basin planners and municipalities for alternative development process.

Hydrology and Hydraulic Model Status and Schedule

Ms. Hufnagel explained that the model is essentially done. It will be resubmitted to Program Manager by the end of February after addressing ALCOSAN's comments. Preliminary flow estimates are in progress. The model should then be sent to municipalities in mid-March following ALCOSAN's review. Dan Lockard (ALCOSAN) stated that ALCOSAN is looking for consistency across the basins with respect to technologies and sites and that the model and report will be posted on the ALCOSAN municipal website.

Paul Eiswerth (PADEP) asked if the model will be out before the model report. Mr. Lockard indicated that it would. John Shannon (Michael Baker Corporation) asked if every municipality will be sent a copy of the model on a disk and Mr. Lockard replied that each municipality would receive a copy of the model on a disk.

Preliminary Flow Estimates

Ms. Hufnagel discussed the model and some of the model information that would be provided. She explained that modelling results would be presented for the group of sites that are associated with an inter-municipal major trunk sewer. The information includes some observations from flow monitoring data, as well as data analysis and model calibration comparisons. For separate sewer locations, RTK analysis has been performed. Design flows have been determined for summer wet weather events. The

winter design storm flows will be generated following completion of the standards for this analysis.

Alternative Scoring Criteria Exercise

Ms. Hufnagel then discussed the development of alternatives process that is underway. She introduced a group participation exercise, to help to determine what the audience felt were the most important aspects to be considered for alternative and site selection. She presented five categories for consideration: public factors; economic factors; water quality, public health and environmental impacts; operation impacts, and implementation factors. These categories were displayed on poster boards hung on the walls of the room. She gave each member of the group 10 dots, nine yellow and one green. She asked that each person vote for the categories that they feel strongest about by using their dots. The yellow dots were to be used for those factors that the voter considered important and the green dot was to be used for the factor that the voter considered to be most important. Those attending were told that more than one yellow dot could be used in a category to express that person's opinion of that specific category's importance.

Jason Stanton (LSSE) asked if the dots were to represent the voter's thoughts regarding an ALCOSAN facility or a municipal facility. Dan Lockard (ALCOSAN) answered that the voters should consider that they would be ALCOSAN facilities. Mike Smith (Bethel Park) asked if the voters should consider these facilities to be operated by ALCOSAN. Ms. Hufnagel answered yes.

The group was advised to keep in mind that the facility may be in a different municipality or may be located in their own municipality.

The group then completed the exercise and the poster boards containing the categories and dots were removed for tally.

Alternatives Development

Ms. Hufnagel discussed alternative development process. In combined areas, the preliminary sizing analysis has been based on the total flow to the point of connection (POC), with a presumed portion of that flow being directed to the interceptor. This type of analysis provides for an estimation of future flows to the interceptor and doesn't rely on current conditions. In areas with separate sanitary systems, 2008 flow data, not model data was used as model development is not completed. Facility sizing has considered potential improvements to the municipal systems that would allow for 100% of wet weather flow to be conveyed to the ALCOSAN interceptor.

John Shannon (Michael Baker) asked if this is based on POC monitor data or overflow data. Ms. Hufnagel answered that it is POC monitor flow with upstream overflow volumes added back in. John Maslanik (Chester Engineers) asked why the model data was not used for this analysis. Ms. Hufnagel replied that the model data

was not available when this analysis was completed. At this time, she is waiting for direction to deal with winter conditions and then the data will be updated using the model. Ms. Hufnagel stated that the locations where flows from municipalities are intercepted would affect the need for large volume of pumping and influence the depth of facilities. As a result, the future “pick-up point” for municipal flows may be upstream from the current POC. Evaluations of the various clustering options are being developed, based on identified sites for potential facilities and the proximity of various POCs. For site based alternatives, either storage or treatment facilities could be considered. A tunnel alternative option will also be developed. In general, as fewer facilities are included, the economies of scale drive to lower costs.

In early reviews of alternative layouts, it has been identified that the municipal alternatives and the ALCOSAN alternatives will require interface and discussion. Ms. Hufnagel presented a hypothetical example using Bells Run showing how municipal flow conveyance and ALCOSAN facility siting choices could interface. The example included several potential configurations. Rick Minsterman (Gateway Engineers) stated that there is a large variation of what municipalities will do, based on cost. If there is no incentive to reduce flows then nobody will do it. Ms. Hufnagel explained that from what she has seen, main municipal shared trunk sewers cannot get flow to ALCOSAN. Mr. Minsterman said that municipalities will upgrade pipes and still send all of their flow to ALCOSAN, rather than incur a cost of a treatment or storage facility. Ms. Hufnagel stated that, for the model, it is assumed that municipalities are sending all of their flow to ALCOSAN. Mr. Minsterman then asked (referring to the example) if the need for a pump station is eliminated due to municipal flow reduction, how this will play into the alternatives evaluation? Ms. Hufnagel replied that separation and green infrastructure are being considered as an integral part of alternatives.

John Shannon asked for a description of what is expected for the municipalities in the next three months. Ms. Hufnagel said that Tetra Tech wants to meet with individual groups of municipalities contributing to a specific POC together to exchange ideas. Mr. Shannon asked when these meetings will occur. Ms. Hufnagel answered that they should be before the next basin planning meeting. Dan Lockard (ALCOSAN) added that they have already asked for some flow estimates from municipalities and are hoping for effort on the part of the municipalities regarding upstream storage and other municipal alternatives. John Maslanik (Chester Engineers) said that the municipalities need to start talking among themselves. Ruthann Omer (Gateway Engineers) added that some have already had discussions. Don Waldorf (PWSA) said that not to expect downstream communities to manage the flow from upstream communities. He also stated that green solutions are permanent and grey solutions are temporary. Mr. Lockard said that the grey may well be the best solution in some instances. Paul Eiswerth (PADEP) said that stormwater management regulations are forthcoming that may influence the selection of alternatives due to future expectations for the storm water quality. He further stated that he is concerned that there is sufficient on-going communication between the municipalities and ALCOSAN. When he is reviewing options, he wants to know that everyone was talking and that the

needs of the municipalities were considered. Ms. Omer stated that there is a need to get more people involved especially after preliminary flow estimates are determined. Mr. Lockard said that he is much more optimistic regarding the project and on-going cooperation now than one year ago. He extended an invitation to call him anytime. He additionally said that 3 Rivers Wet Weather has done a great job getting the municipalities to work together.

Alternative Scoring Criteria Exercise (Results Tabulation)

Coreen Casadei (Collective Efforts) reported the results for the exercise. The category with the most votes was economic factors, followed by public factors; water quality public health and environmental impacts; operation impacts; and, lastly, implementation impacts. (Results are included as an attachment to these minutes).

Updates

Janette Campbell (Ebony Development) presented a brief overview of public outreach and discussed the Customer Municipal Advisory Committee (CMAC). She also discussed the Regional Stakeholder Group.

Questions/Discussion

Rick Minsterman (Gateway Engineers) mentioned that the November election created changes to municipal elected officials. He recommended checking with municipalities to confirm these changes. Herb Higginbotham (Tetra Tech) indicated that the Basin Planning Team has completed an exhaustive exercise to update all municipal contacts.

Since there were no further questions or discussion, Herb Higginbotham closed the meeting. He requested that the municipal representatives bring their neighbors to the next BPC meeting.

2. Items Distributed:

The following items were distributed at the Basin Planning Committee Meeting.

- Agenda
- Presentation Slides

These items can be found as attachments to these meeting minutes

3. Next Meeting: For The next Basin Planning Committee (BPC) meeting # 7 exact date, time and location to be determined.

4. Attachments:

- Meeting Agenda

- Presentation Slides
- Attendance List
- Results from Alternatives Scoring Criteria Exercise

ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Chartiers Creek
Meeting Purpose: Basin Planning Committee Meeting #7
Date / Time: 1 July 2010, 9:00 a.m.
Location: Carnegie Municipal Building, Borough of Carnegie, Pennsylvania

Attendees: Please see attached attendance list.

1. Discussion / Decision / Agreement Summary:

Welcome

Herb Higginbotham (Tetra Tech) opened the meeting and introduced the basin planning project team. All attendees then introduced themselves. Mr. Higginbotham thanked Whitney Brady, the Carnegie Borough manager, for hosting the group. He then introduced Carol Hufnagel (Tetra Tech) to begin the presentation.

Hydrology and Hydraulic Model and Report Distribution

As a recap of the prior meeting, Ms. Hufnagel discussed the weighting factor applied to evaluation criteria as a result of the input of several groups, status of the modelling work and changes/clarifications that were made to the model. Preliminary Flow Estimates (PFEs) are due from the municipalities at this time. Tetra Tech has received a "handful" of PFEs from the municipalities. She asked that if any municipalities have concerns, she requested to share them with the group. Ruthann Omer (Gateway Engineers) stated that the municipalities that Gateway Engineers represents will submit their PFEs on or before July 13, 2010. Tetra Tech will review PFEs and comparing them with their model estimates to see how they compare to each other.

Ms. Hufnagel discussed alternative development. There will be a mix of conveyance, treatment and storage facilities. The goal is to optimize the mix of solutions to provide controls in the most effective manner. A number of major and minor decisions/variables affect the selection of alternatives.

Several questions were raised on the alternatives presentation:

- Jason Stanton (LSSE) asked what the RTC concept is that was referred to on a slide. RTC is "Real Time Control" of the sewer system. It can be applied as a sophisticated system that controls flows within the system and optimizes performance. At its extreme, it may have many control points equipped with variable elements such as moving gates. Due to its complex nature, there are risks as well as benefits with its application. The system would need to be kept

operational at all times. RTC works well in systems with oversized pipes that can be used for storage during small events. This is not the case with the Chartiers Creek system. While RTC has limited application to the Chartiers Creek system due to existing limitations, some aspects of RTC are being considered in alternatives development.

- Paul Eiswerth (PADEP) asked what was meant by totally integrated conveyance and storage. Is it a tunnel or a tunnel alternative? Ms. Hufnagel replied that it would be a tunnel, but didn't have details as the tunnel alternative is in very preliminary development for this basin.

Ms. Hufnagel discussed the alternative selection process. She stated that there are thousands of alternatives that could be considered; ranging from a control applied individually to each overflow point to larger controls that serve more area. The more any facilities used are consolidated, the more economies of scale naturally result. The approach being used is to get the fewest facilities at centrally located and available sites. It is anticipated that new pipes will be required for relief and conveyance.

Ms. Hufnagel explained that Tetra Tech has divided the Chartiers Creek Basin into several focus areas for the evaluation of alternatives, one of which is the separate sewer area that extends from the upstream end of the basin to the Robinson Run municipal sewer (C45B-04). As the PFEs come in, they will be incorporating PFEs into the model. For the sanitary-only portion of the basin, several factors have been considered including total volume, peak rate of flow delivering, and transport versus storage.

Sanitary control alternatives will generally optimize between conveyance and storage. The existing outlet capacity of the system is approximately 75 MGD. A chart was presented that showed how storage and conveyance relate for separate sanitary areas. There was a discussion regarding how much storage might be needed for a 2-year typical winter storm.

- In response to questions from John Shannon (Michael Baker Corp.), Jason Stanton (LSSE), and Emile Ketterer (NIRA Consulting Engineers), Ms. Hufnagel clarified that the figure shows the relative input of the upstream sanitary area only, as well as the overall sanitary flows so that they can be related to available flow to treatment capacity.
- Ruthann Omer (Gateway Engineers) asked what is included in the Robinson Run area. Ms. Hufnagel answered that it includes everything upstream and including the Robinson Run municipal sewer (C45B-04). The model as shown assumes increased conveyance to transport flow that currently leaves the system through municipal SSO's, as well as increased capacity to address surcharges in municipal trunk sewers included in the model.

Ms. Hufnagel indicated that for sanitary-only portions of the system, they have primarily looked at a mix of relief interceptor capacity and storage. The expectation is

that storage will be required at one to three locations and could include storage basins, tunnels, or both. She then discussed the Option H figure and Option C.

- Paul Eiswerth (PADEP) commented that the discussion demonstrates that municipal upgrades will impact what ALCOSAN does, with greater impacts resulting from upstream as opposed to downstream municipalities. He then asked for clarification on the figure legend terminology "critical per consent decree". Ms. Hufnagel answered that those sewers are what the Consent Decree stated had to be modelled.
- For combined systems, alternatives assume consolidation of outfalls. Tetra Tech has identified four groupings of outfalls for consolidation sewers and facility options. These areas have been evaluated individually in preliminary concepts and are currently being integrated to assess how the system will react as a whole. Lou Casadei (Green Tree) asked if any preliminary sizing has been done. Ms. Hufnagel answered that there has been some preliminary sizing done in the individual areas, which will change as the model is integrated. Sizing information will be available at a later date.
- Rick Minsterman (Gateway Engineers) asked if the figures depicted different or combined alternatives. Ms. Hufnagel answered that where multiple routes are shown on the figures, they typically reflect routing options. For example, K and L are individual options and Route J has components of both. Then Mr. Minsterman asked if any property in Crafton has been considered. Ms. Hufnagel answered that a parcel identified by the Borough has been included in alternatives. Mr. Minsterman then said that she should check with the manager since there are some nuances regarding the property. He then asked if old connections to the interceptor stay "intact" after the relief sewers (which in concept would capture flows from a majority of the area tributary to an existing POC) are constructed. Ms. Hufnagel answered that that a plan would need to be developed for any system remnants. Mr. Minsterman added that municipalities would be concerned about what would happen to old pipe and how well it would operate.

Ms. Hufnagel then noted locations which were currently being considered for access shafts, consolidation sewers or other use that had not previously been discussed at the BPC meetings.

<u>Financial Data Collection Status and Affordability Analyses</u>

Kaye Bealer (K Bealer Associates) and Tom Schevtchuk (CDM) presented information regarding the financial capability of ALCOSAN customers based on costs of system capital, operation and debt service by ALCOSAN and the municipalities and the annual household income of the customer. The analysis looked at current and future conditions (with the implementation of the wet weather program) and considered what size of program could be financially achievable.
In summary:

- Currently the cost for sewage treatment per typical household is $450 annually, which reflects approximately 1.04% of median household income (MHI).
- Total costs of $881/household/year are equivalent to 2% of MHI for the region. Dependent on borrowing costs, timeframes and other factors, this can support approximately $2 billion in capital improvements, ranging from about $1.6-$2.3 billion. This would include both ALCOSAN and municipal improvements.

Comments from attendees:

- Ruthann Omer (Gateway Engineers) stated that she believes the current municipal costs used in the analysis are low. Jerry Brown (3 Rivers Wet Weather) agreed and said that he is working on rate structures now to make sure that CDM has the best information available. Ms. Bealer said that the presentation includes 2009 numbers with some 2006 numbers for those municipalities that did not respond to information requests. It was noted that the costs used in the analysis are supposed to reflect the expenditures by the municipalities which may not be fully funded by rates. There were also questions related to MHI. Mr. Schevtchuk noted that the 2010 census will help provide more accurate numbers for the analysis.
- Ruthann Omer (Gateway Engineers) said that for some of the rate payers, the costs reflect 5% of their income. Tom Schevtchuk said that the 5% is for a low-income census block. They will be looking at all of the income groups to determine how costs affect each group. Jan Oliver (ALCOSAN) said that this is based on EPA affordability criteria and that some cities have used "affordability" as a method to set their levels of control. The calculations that were done for this have essentially been worked backward. Dave Borneman (ALCOSAN) said that this could also help to decide which projects get completed first and that it is very critical to get the costs correct and that information from municipalities must be as accurate as possible.
- Paul Eiswerth (PADEP) emphasized that every municipality needs to work with ALCOSAN.
- Dave Borneman (ALCOSAN) reminded everyone that "economic factors" was the overall highest priority from the exercise completed by the group in the previous basin meeting.
- John Shannon (Michael Baker Corp.) said that since the municipalities do not have an implementation order yet, this 2% could also apply in a municipal alternatives/affordability evaluation. Lower income municipalities may be in the same situation. It is imperative for municipalities to know their sewage costs (i.e., track all costs associated with the sewer system including materials, equipment and personnel) and to work closely with ALCOSAN.

General Discussion

- Dan Lockard (ALCOSAN) said that he is encouraged by the turnout at this meeting. He agreed that the municipalities need to work closely with ALCOSAN to reach solutions. He also provided information on Alternative Costing tool (ACT) Update and Municipal Web Site Update. He said that the

revised version 2.0 has been posted on the municipal web site. Municipal construction cost data for small–scale projects is being collected now and will be reviewed and will be added in the next update of ACT if found useful. He added that the Chartiers Creek basin H&H model report has been posted on the municipal web site and the Chartiers Creek basin Screening of Controls and Sites Report (SCSR) and Existing Information & Conditions Report are being finalized and will be posted on the municipal web site in the near future. Any required updates to any posted reports will be made by short technical memo addendum.

- Doug Evans (NIRA Engineers) asked if the study being performed by ALCOSAN will identify work that the communities are responsible for implementing and at what point the municipalities will be able to comment on the plan. Ms. Hufnagel answered that the basin planners are looking for the best solutions for the area but it is important for the municipalities to consider their own options before anything is finalized. Dave Borneman (ALCOSAN) said that the material the basin planner is generating has been delivered while it is under development to provide opportunities for feedback along the way. There will be formal public meetings in October of this year. Feedback at any time is welcome. Mr. Evans said that this is getting to the point where this is really affecting municipalities. Mr. Borneman stated that ALCOSAN has presented “snap shots” to date and that reports will be posted on ALCOSAN’s website.

<u>Updates</u>

Janette Campbell (Ebony Holdings) presented a brief overview of public outreach and discussed the Customer Municipal Advisory Committee (CMAC). She also discussed the Regional Stakeholder Group.

Since there were no further questions or discussion, Herb Higginbotham closed the meeting.

2. Items Distributed:

The following items were distributed at the Basin Planning Committee Meeting.

- Agenda
- Presentation Slides and larger scale maps illustrating alternatives being considered
- Financial Capability Presentation Slides

These items can be found as attachments to these meeting minutes.

3. **Next Meeting:** The next basin committee meeting exact date, time and location to be determined, most likely in September, 2010 or early October.

4. **Attachments:**

- Meeting Agenda
- Presentation Slides/Maps depicting alternatives
- Financial Capability Presentation Slides
- Attendance List
- Meeting Evaluation Form – Please return this form to either ALCOSAN or Tetra Tech with your comments about the meeting, information presented, and information you would like to see in the future.

ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Chartiers Creek
Meeting Purpose: Basin Planning Committee Meeting #8
Date / Time: 30 September 2010, 9:00 a.m.
Location: Scott Township Community Room, Township of Scott, Pennsylvania

Attendees: Please see attached attendance list.

1. Discussion / Decision / Agreement Summary:

Welcome

Herb Higginbotham (Tetra Tech) opened the meeting. All attendees then introduced themselves. Mr. Higginbotham thanked Randy Lubin, the Scott Township Director of Public Services, for hosting the group. He then introduced Carol Hufnagel (Tetra Tech) project manager to begin the presentation.

Status Review

Ms. Hufnagel discussed the status of the project. She indicated that data collection is ongoing as is the screening of sites and routes. She spoke of the municipal meetings that are currently being held with the municipalities likely to have a primary facility site. The next series of meetings will be with those communities with overflows in their systems (requiring actions in the municipal systems) and communities with systems with inadequate sewer capacity to convey their projected municipal flow to the ALCOSAN interceptor system. These meetings will be held after the Draft Feasibility Report.

Ms. Hufnagel reviewed upcoming schedule items. Final flow estimates were due from the communities on September 30, 2010 (the date of the meeting). Rick Minsterman (Gateway Engineers) stated that the flow estimates for their communities will be mailed today. Dan Lockard (ALCOSAN) asked if everyone had received a letter regarding this. Jason Stanton (LSSE) said that communities that do not have a POC did not receive a letter. Mr. Lockard said that it is important that the municipal flows be sent to ALCOSAN so that they can move forward on their report. He warned that a municipality could be at a disadvantage if ALCOSAN does not have their flows. Ms. Hufnagel suggested that if a municipality is considering several options for flow management, they should submit them all or meet with Tetra Tech or ALCOSAN to refine the choices. Dave Borneman (ALCOSAN) said that schedule and budget do not allow ALCOSAN to wait much longer for these flows; ALCOSAN is at a critical point in wet weather planning program.

The Basin Planning Team is currently working on the Draft Feasibility Report which is due to ALCOSAN on November 1, 2010. The report will focus on alternatives identification and development work performed to date.

Model Development

Ms. Hufnagel discussed model development. She indicated that the model has been distributed to the municipalities. The version that was distributed to the municipalities reflected existing conditions prior to population growth and stream removal projects. The version of the model that the Basin Planner is working with has been updated to include population growth projections (which are being compared to the municipal PFE submittals) and stream removal projects which are in progress. Rick Minsterman (Gateway Engineers) said that if there are changes to be made to the model, it is important that the municipalities are informed of the changes so that everyone is using the same model.

The ALCOSAN program manager (CDM) has been reviewing the SSO condition design storm as it relates to probability of occurrence, recognizing that variables that influence the flow projections from separate sanitary areas do not necessarily coincide (variables such as RDII generation rates, storm size, storm distribution, etc.). The object of this review is to refine the SSO design condition as it relates to basin level and regional sizing. Larry Lennon (LSSE) asked if the design condition memo will be shared. Dan Lockard (ALCOSAN) answered that it will. Mr. Lennon said that a unified approach should be considered. Mr. Lockard said that some communities should use a different approach, as the critical condition at a local scale may be different than at the regional scale, and that the critical condition for conveyance sizing may be different than the critical condition for storage sizing. Dave Borneman (ALCOSAN) agreed, saying that uniformity can be good but each municipality should consider what is best for them. He reminded all that this is the planning level of the wet weather program projects.

Draft Feasibility Report (Alternatives Identification and Development)

Ms. Hufnagel indicated that Tetra Tech has based all primary alternatives on an assumption of full conveyance of municipal flow. One exception is the Robinson Run system, where some alternatives assume a limited discharge flow rate from the Oakdale Pump Station, which may require municipal storage. Municipal flow estimates and flow management plans will help to refine these alternatives. Separate sanitary area sizing was primarily based on the

2-year level of control at this point in time. Several facility locations (please refer to the attached presentation slides) were identified. Dave Borneman (ALCOSAN) added that for the Heidelberg and Universal Stainless facilities, they will be for storage only and will operate multiple times per year but will not be in continuous operation. John Shannon (Michael Baker Corp.) asked if flows greater than the 2-year storm will flow to Chartiers Creek or will there be some relief to eliminate overflow. Mr. Borneman answered that the 2-year storm is being evaluated now; at some time in the future, the 10-year storm will be considered. Larry Lennon (LSSE) asked if the process of evaluating the 10-year storm will include comparing the flows

estimated by the municipalities and the flows estimated by the BP model. The answer to this was affirmative.

Michael Finnerty (Allegheny County Council) asked if the Chartiers Creek interceptor is at capacity now. Ms. Hufnagel answered yes. Ms. Hufnagel further explained that the interceptor from Bridgeville to Heidelberg collects all separated system tributary areas and cannot handle the current flow. There is consideration for storage at the Hickman property, a relief sewer, an additional storage facility at the Universal Stainless property, an additional relief sewer and another storage facility in Heidelberg. As an alternative, a tunnel is being considered on a direct line from Bridgeville to the Universal Stainless property. This will require much cooperation between the municipalities and ALCOSAN, and will require a tunnel of approximately 26-30 feet in diameter.

Randy Lubin (Scott Township) asked how deep the tunnel will have to be. Carol Hufnagel answered that it is intended to operate by gravity. The alignment depicted crosses a number of hills and valleys. Adequate cover is needed for such a tunnel and is being evaluated further. Dave Borneman (ALCOSAN) added that such concerns as mines in the area will also have to be considered.

Rick Minsterman (Gateway Engineers) asked if municipalities were considered that do not have room for a storage facility. Ms. Hufnagel answered that only areas with space for development (either vacant parcels or distressed parcels) were considered.

Ms. Hufnagel said that in combined areas conveyance and consolidation sewers are being used to minimize the number of facilities. One of the primary alternatives under consideration consolidates flow to a facility located at the Duncan property in Crafton and storage or treatment at a facility in McKees Rocks.

Rick Minsterman (Gateway Engineers) asked if consolidation of sewers that was mentioned at the last BPC meeting is still under consideration. Ms. Hufnagel answered that alignment and extent of relief and consolidation sewers is similar to what was presented at BPC meeting #7, although these routes were not emphasized; the figures are included in the current meeting presentation/ handouts.

Ms. Hufnagel spoke about green infrastructure. She indicated that it is primarily being evaluated in combined sewer areas where inflow reduction may allow for the elimination of some of the infrastructure needed to convey flows. Areas of particular note include: along Carson Street (Pittsburgh/ Corliss area) or in portions of McKees Rocks, Stowe, and Carnegie. ALCOSAN is looking regionally at the Bell's Run area as a possibility for Green Infrastructure. Green infrastructure applied broadly would help to reduce overall flow generation rates. As a land based alternative, this would need to be adopted by the local municipalities. Michael Finnerty (Allegheny County Council) asked for a definition of Green Infrastructure. Ms. Hufnagel answered that it includes a variety of measures taken to control the volume and rate of storm water at the source, on site, or in the street right-of-way. It may include such options as planting a vegetated swale, use of detention ponds, and use of permeable pavement.

Alternatives Costing Tool (ACT) and Municipal Website Updates

Dan Lockard, (ALCOSAN), provided an update on the Alternatives Costing Tool (ACT). He noted that a revised ACT is being posted on the ALCOSAN Municipal Website that incorporates cost data supplied by the municipalities regarding local projects. The Feasibility Study Working Group has endorsed the newer version 2.1 as a tool for conducting alternative analyses for the municipal feasibility studies. Mr. Lockard also updated the group on the ALCOSAN Municipal Website. He reported that the Chartiers Creek Basin Hydrologic and Hydraulic (H&H) Model and Report and the Chartiers Creek Basin Existing Information and Conditions Report have been posted on the site. In addition, the Chartiers Creek Basin Screening of Controls and Sites Report will be available on the website within the next month. ALSOCAN will eventually post all deliverable reports on the Municipal Website as they are finalized. As new information becomes available it is posted on the website and ALCOSAN will use a technical memo to inform website users of the updates.

Updates

Janette Campbell (Ebony Holdings) presented a brief overview of public outreach and discussed the recent Customer Municipal Advisory Committee (CMAC) meeting. She acknowledged Dave Montz of Green Tree and John Ciangiarulo of McKees Rocks as members. She also discussed the Regional Stakeholder Group and their recent meeting and acknowledged Barbara Rosensteel as a member. She also distributed a schedule for the upcoming public meetings that ALCOSAN will be hosting.

Next Steps

Carol Hufnagel stated that the Feasibility Report is due by November 1, 2010 in draft form. The final version is due in June, 2011. Larry Lennon (LSSE) asked when the municipalities will be able to see the draft report. Dan Lockard (ALCOSAN) answered that he does not know at this time because the report needs to be integrated regionally and will require many iterations. By the next BPC meeting, this should be firmed up. Dave Borneman (ALCOSAN) reminded the group that this is a first draft and it should be used as a tool. If it is necessary for a municipality to meet with ALCOSAN one-on-one, that can be arranged. Mr. Lennon indicated that his municipalities could benefit from input from ALCOSAN. Rick Minsterman (Gateway Engineers) said that it would help the municipalities to have more information since they are currently only looking at the least cost alternatives. It would be helpful to have other options. Dave Montz (Green Tree) reminded everyone that the money comes from the same source, the rate payers in the municipalities. There is no separate source of money.

Since there were no further questions or discussion, Herb Higginbotham closed the meeting.

2. Items Distributed:

The following items were distributed at the Basin Planning Committee Meeting.

- Agenda
- Presentation Slides and Blow-Ups
- ALCOSAN Community Meetings Flyer

These items can be found as attachments to these meeting minutes.

3. **Next Meeting:** The next basin committee meeting exact date, time and location to be determined, most likely in January, 2011.

4. **Action Items:**

    - Identify action plan for distributing model updates
    - Share sanitary design condition evaluation with municipalities
    - Schedule meetings with municipalities to review municipal flow control plans and flow estimates.

5. **Attachments:**

    - Meeting Agenda
    - Presentation Slides
    - ALCOSAN Community Meetings Flyer
    - Attendance List
    - Meeting Evaluation Form
    - Summary of Questions asked by the participants during the meeting

ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Chartiers Creek
Meeting Purpose: Basin Planning Committee Meeting #9
Date / Time: 10 February 2011, 9:00 a.m.
Location: Scott Township Community Room, Township of Scott, Pennsylvania

Attendees: Please see attached attendance list.

1. Discussion / Decision / Agreement Summary:

Welcome

Herb Higginbotham (Tetra Tech) opened the meeting. All attendees then introduced themselves. Jan Oliver (ALCOSAN) reported that Dan Lockard (ALCOSAN) was unable to attend this meeting since he was attending a funeral. Mr. Higginbotham thanked Randy Lubin, the Scott Township Director of Public Services, for hosting the group. He then introduced Carol Hufnagel, Project Manager (Tetra Tech) to begin the presentation.

Basin Feasibility Report

Ms. Hufnagel said that the Feasibility Report has been submitted to ALCOSAN. The feasibility study identified several key alternatives that were being evaluated for CSO and SSO control. Alternatives include a series of facilities as well as an additional conveyance sewer. Two primary alternatives were prepared. These included "basin based" and "regional based" alternatives. “Basin based” is based on the current capacity to the wastewater treatment plant and “regional based” allows for more flow capacity to the wastewater treatment plant. The alternatives were evaluated for different levels of CSO control and focused on the two-year design storm SSO control level. The next step in the process, BP will be looking for input from the municipalities on their flow estimates and proposed flow management alternatives in order to refine the alternatives further. In addition, alternatives will continue to be refined as sites and routes are better defined.

Rick Minsterman (Gateway Engineers) asked what was the reason for separating “basin based” and “regional based” solutions. Ms. Hufnagel stated that there was an expectation that there will be more treatment plant capacity available in the future, but the evaluation of flows to the treatment plant was not yet complete, therefore a range of flows was used in the alternatives.

Ms. Hufnagel reviewed how the modelling was done. The modelling used to support the alternatives evaluation in the Feasibility Report included several key assumptions including population growth, stream flow removals and sewer separation. Municipal

flows as given by the basin planner model were compared to the flows provided by the municipalities. All municipal flows were assumed to be piped to the interceptor without attenuation. Winter was used as the season that governed the sizing of facilities and sewers.

William An (KLH) asked why Tetra Tech used February storm data when the municipalities were using March data (referring to slide #8 of the presentation). The goal of the Chartiers Creek modelling was to define the controlling storm condition for the ALCOSAN system. This condition may be a different event than what controls sizing of municipal sewers. As such, the design storm condition in conjunction with the ALCOSAN system; which also had a reasonable probability of occurring at the identified frequency, was determined to be the February event. John Shannon (Michael Baker Corp.) asked what frequency storm was used for SSO control. Ms. Hufnagel answered the 2-year storm was the primary storm event used in the analysis, although other recurrence storm frequencies were also reviewed.

Ms. Hufnagel then spoke about the sites and routes under consideration. The alternatives include additional capacity, storage and treatment. In Bridgeville, the Hickman Street North property is under consideration for a storage facility of approximately 8-13 million gallons. In Collier, at the Universal Stainless property, a storage facility of approximately 12-30 million gallon capacity with equalization and attenuation of flow peaks is under consideration. In Heidelberg, a storage facility of approximately 5-6 million gallons is being considered. In Crafton, along Chartiers Creek, either a storage facility or a retention treatment basin is included in alternatives. In McKees Rocks, a combined flow treatment facility of 50-800 million gallon per day is being considered. Since the existing Chartiers Creek interceptor capacity is inadequate, there are also relief interceptor routes parallel to Chartiers Creek being considered.

Larry Lennon (LSSE) asked why there was a range of 8 to 13 MGD for the Hickman Street North site. Ms. Hufnagel stated that it has to do with the amount of conveyance capacity available in the system and the release rate allowed to the wastewater treatment plant. In addition, the size of the Universal Stainless facility would change if a tunnel was built from Upper St. Clair (USC) to Painters Run that would also provide some storage capacity. Mr. Lennon asked Ms. Hufnagel about the tunnel originally shown upstream of the Universal Stainless site, since it was not included in the preferred alternative. The tunnel at USC has not been eliminated from consideration, but it is not included as the preferred alternative. There are technical concerns with the construction of a tunnel from the Brush Run system to the McLaughlin Run system, as the tunnel would need to cross under residential homes and may not have adequate cover. The section of tunnel from McLaughlin Run to Painters Run, also referred to as the Bednar tunnel, may be more feasible due to routing and depth considerations.

Mark Brooks (South Fayette Township Municipal Authority) asked if some of the proposed consolidated sewers were located upstream of the Hickman Street site. Ms. Hufnagel answered that since the Hickman property is located at the extreme upstream end of the system, additional capacity for municipal flows was not included as part of the ALCOSAN alternatives.

Carol Hufnagel then presented the cost performance curves and explained that they are based on 2-year level of control for SSOs and varying levels of control for CSOs. The curves only represents ALCOSAN costs for conveyance not the municipal conveyance or the cost of upgrading the existing wastewater treatment plant. The costs have been designated as either SSO or CSO control costs, but realistically these include shared costs and shared facilities. Mr. Shannon asked if the basin planner had evaluated any storms larger than the 2-year. Ms. Hufnagel stated that they had looked at other storms. The facilities get larger, but the relief pipe stays the same. The basin planner is still looking at other events, but they are focusing on the 2-year design storm. The focus on the two year storm is based on the costs of the program at this level of control, which is beyond the affordability capacity of the region. The costs shown are total present worth costs.

Ms. Hufnagel then described the next three things that need to be done. First, municipal flow estimates and municipal flow management strategies need to be identified. Second, control alternatives need to be refined as it relates to the number of facilities and an alternative needs to be defined which is based on controlling a certain total volume flow rather than frequency of discharge at each CSO. Third, additional model refinement is also ongoing to incorporate regional integration of alternatives and also for developing inter-basin alternatives.

Ms. Hufnagel then asked for an update regarding major POCs.

Robinson Run C45B-04

- The report has been received by ALCOSAN.
- William An stated that in Robinson Run they plan to increase the pump station capacity and storage (from 7 to 9 MGD). There will be no change to the force main. Ms. Hufnagel asked if Rainfall Dependent Inflow and Infiltration (RDII) was addressed in their report. Mr. An replied they don't know how much RDII they have; it is a relatively new system so the numbers would be small. The communities will work on reducing I & I flow.
- Jan Oliver asked if all communities are in agreement with the alternatives. The Robinson Run group met with BP & ALCOSAN. Some communities changed engineers, so there may be some additional comments. Lennon Smith Souleret (LSSE), recently became the engineer for North Fayette, and is reviewing the report. If they have any changes they are due by February 15th. Robinson Run will have a final report by the end of February, 2011.
- They predict a cost around $10 million (which does not include municipal sewer capacity upgrades).

Millers Run

- William An reported. Their report should be complete by the end of February, 2011. They have addressed capacity issues and future growth, with pipe included in all of their options. They are looking at constructing a bypass directly to the Hickman Street North Site.

Bells Run C-25

- Lou Casadei reported. Green Tree is looking at moving their storm sewers out of PWSA's combined sewer into a storm sewer that discharges directly into Bells Run. They are waiting for PWSA/Chester to evaluate this scenario to determine if it will work.

C48 and C49

- Larry Lennon reported. They are considering conveyance primarily / equalization / source reduction potential options. They appear to have capacity for the 2 year design storm, but not the 10 year storm. They are looking at source reduction and doing some flow isolation studies.

Painters Run

- Larry Lennon said that Painters Run is lagging behind; they just started working on it.

McLaughlin Run C53-10

- Mike Smith (Bethel Park) reported. They are looking at conveyance and source reduction. They plan to be done with the analysis by the end of April, 2011. They are working with Chester and Gateway. Bethel Park is looking at the Bednar tunnel option and a property that they had set aside for storage.

Brush Run C55-02

- Rick Minsterman reported. They have an existing pump station that needs to be upsized. Gateway has completed their report on this, but they are still looking at other options. The system downstream of the pump station also has capacity limitations. There was no clearly defined approach for addressing these capacity limitations. Gateway plans to have their report complete by the end of April/ May, 2011 timeframe.

Ella Street Pump Station Tributary Area

- Doug Evans (NIRA) reported. Ms. Hufnagel asked if the system lacked the capacity to convey flow. Analysis to date is related only to McKees Rocks. RVB stated that due to pending litigation, they must check with their legal council before sharing information as it relates to Stowe Township flows. There are capacity limitations at the pump station in the McKees Rocks system per Doug Evans, and also some inadequacy in capacity upstream. McKees Rocks is considering storage as the most likely candidate. McKees Rocks anticipates completion in the April/May, 2011 time frame, but their information will only include McKees Rocks and no flow information from upstream municipalities.
- 3RWW is working with Stowe and McKees Rocks on a C-09 sewershed study associated with the Pine Hollow stream flow removal project. Ms. Oliver asked if the lawsuit is holding up Stowe's report. Mr. Meyers answered that it is not; both Stowe and McKees Rocks are looking forward to the C-09 sewershed study.

Corliss

- Andrew Maul (PWSA) had nothing to report on the Corliss area.
- There are no capacity issues or upstream overflows. Ms. Hufnagel will follow-up with Andrew Maul regarding taking advantage of separate storm sewer area.

Questions

Jason Stanton asked about an assumption made for future conditions; are the areas for separation dictated from the municipalities or the basin planners? Ms. Hufnagel answered that for McDonald and Mayview Hospital, it was from the municipality but for C51 it was a basin planner projection.

Rick Minsterman asked how the municipalities should evaluate alternatives for managing flows. (Previous and current maps have shown ALCOSAN consolidation sewers in the municipalities.) Jan Oliver said that the municipality should evaluate alternatives to convey flows to the POC. Additional alternatives that include ALCOSAN consolidation sewers may be evaluated separately.

There are ongoing efforts for evaluating regionalization of sewer systems by both 3RWW and ALCOSAN. Jerry Brown said that local fragmentation is so great that 3RWW wants to help the communities. Ms. Oliver said that the purpose of the ALCOSAN study is to evaluate multiple options and determine the best option scenario. Mike Meyer (RVE) said that it is great that ALCOSAN is evaluating regionalization options but communities should not wait or have preconceptions. Bob Grimm (North Fayette Township) said that his concern is that ALCOSAN, County Council, EPA or DEP will force a decision on the local municipalities.

Jason Stanton asked about the schedule for ALCOSAN to provide a more final version of the alternatives to the municipalities since the municipalities do not want to plan on an alternative that has been screened out by the basin planner. Ms. Hufnagel replied that the costs are affecting the alternatives selection process.

Updates

Janai Williams (Ebony Holdings) presented a brief overview of public outreach and discussed the recent Customer Municipal Advisory Committee (CMAC) meeting. She also discussed the Regional Stakeholder Group (RSG) and their recent meeting. She also discussed the public meetings that ALCOSAN hosted.

Since there were no further questions or discussion, Herb Higginbotham closed the meeting.

2. Items Distributed:

The following items were distributed at the Basin Planning Committee Meeting.

- Agenda
- Presentation Slides and Enlargements of Route Maps

These items can be found as attachments to these meeting minutes.

3. **Next Meeting:** The next basin planning committee meeting exact date, time and location to be determined. It is anticipated that the next meeting will be held in May or June.

4. **Attachments:**

    - Meeting Agenda
    - Presentation Slides
    - Attendance List

ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Chartiers Creek
Meeting Purpose: Basin Planning Committee Meeting #10
Date / Time: 2 June 2011, 1:30 p.m.
Location: Green Tree Fire Hall, Borough of Green Tree, Pennsylvania

Attendees: Please see attached attendance list.

1. Discussion / Decision / Agreement Summary:

Welcome

Herb Higginbotham (Tetra Tech) opened the meeting. All attendees introduced themselves. He reviewed several clarifications to the minutes from the previous Basin Planning Committee (BPC) meeting, and introduced Carol Hufnagel, Project Manager (Tetra Tech) to begin the formal presentation.

Basin Facilities Planning

Ms. Hufnagel summarized the basin planning process to date. She stated that Tetra Tech is currently comparing municipal flows with the results from the model.

Ms. Hufnagel indicated that the number of facilities is being reviewed to determine if fewer facilities can accomplish wet weather control objectives. Four (4) options under consideration are being evaluated. Option 1 includes storage at Hickman, Universal, Heidelberg, and Duncan and an RTB in McKees Rocks. Option 2 includes storage at Hickman and Duncan and an RTB in McKees Rocks. Option 3 includes storage at Hickman and Duncan, a tunnel at Bednar, and an RTB in McKees Rocks. Option 4 includes storage at Hickman, Heidelberg, and Duncan and an RTB in McKees Rocks.

The potential for a conveyance/ storage tunnel to connect from McLaughlin Run to Painters Run as has been shown previously has been included in the suite of alternatives. The primary benefit to the Chartiers Creek (ALCOSAN) alternatives is the potential to downsize some of the relief sewer and perhaps reduce the size of facilities. Such a tunnel would also result in less municipal relief sewer through Bridgeville for McLaughlin Run. Ruthann Omer (Gateway Engineers) discussed the Bednar site. She indicated that the municipalities are not evaluating such a tunnel crossing in their alternatives. She stated that Upper St. Clair has received a subdivision plan for this area and that ALCOSAN needs to take action quickly if there are any plans or thoughts of using this site.

Bob Gamble (The Scott Conservancy) asked if there would be a tunnel under the river at McKees Rocks. Ms. Hufnagel stated that the primary alternative being considered regionally includes a new tunnel network that would extend to McKees Rocks.

Ms. Hufnagel provided a summary of the municipal flow information that has been received to date. Municipal information has focused on flow rates for different design conditions. Volumetric information has not been provided consistently. Most complex municipal sewersheds (those with overflows, multiple communities, and inadequate capacities) are still evaluating alternatives. In absence of specific identification of municipal alternatives (e.g. relief sewer sizing, etc), the approach by the basin planner will be to route all flows to the interceptor based on the basin planner model and size ALCOSAN alternatives with this criteria.

Dan Lockard (ALCOSAN) discussed regional alternatives and cost estimates. He asked 3 Rivers Wet Weather about the municipal costs they had received. Mr. Jerry Brown (3RWW) replied that the costs are in the tens of millions of dollars. Most municipal submittals do not include cost estimates to support identification of regional costs.

Ms. Hufnagel reviewed the various figures that summarize municipal information received. These included: submittal status, capacity of municipal systems to convey the summer design storm, municipal alternatives selected (or being considered), and incorporation of source reduction in municipal alternatives.

Mr. Paul Eiswerth (PADEP) asked whether system deficiencies were identified by Tetra Tech or the municipalities, regarding design storms, and whether a separate figure was prepared for winter design storms. Ms. Hufnagel indicated that she would clarify specifically what was represented and include this information in the minutes. *(Clarification, post meeting: information on the capacity of the system was generally evaluated by Tetra Tech based upon the pipe capacity near the POC or to the extent of the model. The capacity figure consolidated results of winter and summer design storm analysis into one figure for the presentation at the BPC meeting, showing the most critical event result.)* Dave Borneman (ALCOSAN) added that it depends on the type of control as to which storm governs.

Emily Gaspich (Gateway Engineers) asked if the drawings were based on the information received in September 2010 or April 2011. Ms. Hufnagel answered that they were based on the most recent information received from the municipalities.

William An (KLH Engineers) stated that the Robinson Run alternative is storage. Ms. Hufnagel stated that she will check to ensure that Tetra Tech's figures are correct and include the proposed storage.

Ms. Hufnagel asked the audience when new information would be coming from the municipalities. She also stated that almost no one had made a commitment to I&I reduction or green infrastructure alternatives. It was noted that South Fayette is using I&I reduction to offset future growth.

Bob Grimm (North Fayette Township) asked if Tetra Tech had taken municipal storage into consideration. Ms. Hufnagel replied that with Robinson Run it had been considered because it had been identified earlier. Mr. Grimm then asked about the time frame for release of flow from storage. Ms. Hufnagel stated that the ALCOSAN guidelines define dewatering within 24 to 48 hours. Mr. Grimm asked if there is enough capacity at the treatment plant. Mr. Lockard and Mr. Borneman replied that with plant expansion there will be enough capacity at the plant.

Bob Gamble asked if there was an incentive to the municipalities to use source reduction or green solutions. Mr. Borneman replied that ALCOSAN is considering it, but there needs to be a better understanding of total flows coming to the plant prior to making incentives. In addition, ALCOSAN is looking at models from other cities. Mr. Borneman also indicated that since costs are so high, there may be very little money available to give back.

Ms. Hufnagel discussed the status of larger sewershed

Ms. Gaspich reported on C-48, C-49, and C-53 stating that they are working with Lennon, Smith, Souleret on the submittals. They plan on presenting to the appropriate municipal boards and anticipate having a submission in July. Ms. Hufnagel asked if the information that is to be submitted in July is the recommended solution. Ms. Gaspich replied that there is no room for tanks at C-53, so they plan on parallel and upsized pipes. At C-48 and C-49, there will be upgrades to the trunk line, parallel and upsized pipes, and source reduction. There is no room for tanks in these areas as well. Ms. Gaspich was concerned that source reduction would not be approved by the regulatory agencies as an alternative. Mr. Eiswerth replied that the time for source reduction has passed and it has not worked well in the past, but it can still be submitted as an alternative if it appears feasible and ALCOSAN will accept it. However, if the area is unable to obtain the source reduction anticipated, then another alternative must be provided.

Ms. Hufnagel stated that there needs to be specific information provided for the municipal alternatives so that they can be incorporated into the basin planner model. A statement that parallel lines will be used is insufficient. To include in the BP model, locations for relief/ parallel sewers should be identified and sizes of the relief/ replacement need to be indicated.

The submittal for C53-10 had not been received by the basin planner at the time of the meeting (this was resolved following the meeting). Ms. Gaspich stated that at C53-10 they have very different flow rates from the basin planner model. Ms. Hufnagel stated that Tetra Tech is looking at volumes, not peak flows.

Mr. Eiswerth asked how the Basin Planning Team is moving forward working with the municipalities for unresolved issues. Ms. Hufnagel replied that the default presumption for municipalities was that they were conveying all flows (SSO) and the

5th largest event (CSO). Municipal submittals received to date would be included in the July draft report. Later submittals would be included in the final report. Mr. Borneman stated that the basin planning level of effort is peaking now. ALCOSAN is having separate meetings with PWSA to determine potential green infrastructure solutions. Mr. Lockard stated that in the Bells Run area, PWSA will go forward with green infrastructure solutions. They are currently in the planning stage on these projects. It will not eliminate the need for relief sewers for CSO control.

Mr. Eiswerth expressed concern that the municipal information that continues to trickle in will not be incorporated into the final plans. Ms. Omer emphasized the need for communities to cooperate with each other and said that it takes time to develop joint solutions.

Updates

Joe Day (ALCOSAN) presented a brief overview of public outreach and discussed the recent Customer Municipal Advisory Committee (CMAC) meeting. He also discussed the Regional Stakeholder Group (RSG) and their recent meeting. He mentioned that the ALCOSAN Open House is scheduled for September 17, 2011.

Dave Bingham (AECOM) discussed regionalization. The goal of this is to see if money could be saved by the consolidation of services. As an example, he discussed the Allegheny Conference and ALCOSAN's taking ownership of the Saw Mill Run trunk sewer some years ago. Mr. Bingham also discussed what other areas of the country are doing with regionalization.

Questions

Mr. Ken LaSota (Borough of Heidelberg) stated that ongoing studies have tried to reduce the required infrastructure and he reviewed the options that Ms. Hufnagel presented earlier in the meeting. He asked that if the citizens don't want structures in the borough, will they still be included in the design process? He asked if it is possible for Heidelberg to be removed from consideration. Ms. Hufnagel answered that the grouping of the sites was done based on flow on a technical basis. Mr. LaSota asked why the Heidelberg site is still included. Ms. Hufnagel explained that if the Heidelberg site is removed from consideration, the remaining sites will have to be larger and those parcels may then not be large enough to house the required facilities units. Mr. Borneman explained that since ALCOSAN has not received definitive criteria from the regulatory agencies regarding the design storm, each site must remain under consideration until the process is further along.

Since there were no further questions or discussion, Herb Higginbotham closed the meeting.

2. Items Distributed:

The following items were distributed at the Basin Planning Committee Meeting.

- Agenda
- Presentation Slides
- Larger scale facility plans/maps

These items can be found as attachments to these meeting minutes.

3. **Next Meeting:** The next basin committee meeting date, time and location will be determined at a later time.

4. **Attachments:**

    - Meeting Agenda
    - Presentation Slides
    - Attendance List
    - Evaluation Summary

ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Chartiers Creek
Meeting Purpose: Basin Planning Committee Meeting #11
Date / Time: October 6, 2011, 2:00 p.m.
Location: Scott Township Community Room, Scott Township, Pennsylvania

Attendees: Please see attached attendance list

1. Discussion / Decision / Agreement Summary:

Welcome

Herb Higginbotham (Tetra Tech) opened the meeting. All attendees then introduced themselves. He then introduced Carol Hufnagel, Project Manager (Tetra Tech) to begin the presentation.

Basin Feasibilities Studies

Ms. Hufnagel summarized the overall schedule for the Basin Facilities Plan, the System-Wide Alternatives Analysis and the Wet Weather Plan.

Regarding the Basin Facilities Plan, Ms. Hufnagel explained that since the last Basin Planning Meeting, some changes have been made. The number of facilities under consideration has been reduced from five to one due to the use of a regional tunnel. Only the Duncan site is under consideration for a storage facility. The primary reason for the change in the number of facilities needed is that additional flow can be delivered to the downstream end of the system than previously anticipated. Currently, Tetra Tech is evaluating extreme conditions such as when the tunnel is full and the river water level is high.

John Shannon (Michael Baker, Jr.) asked that by eliminating the upstream facilities, has conveyance been increased to accommodate upstream flows. Ms. Hufnagel stated yes, the regional tunnel allows for delivery of essentially all flows generated in the Chartiers Creek system. Previously, flows were capped at 130 mgd. In order to deliver the flows to the downstream end of the system, some pipe sizes have been increased.

Ken LaSota (Borough of Heidelberg) asked if the Duncan facility is much larger than planned. Ms. Hufnagel answered that a wide range of sizing scenarios have been evaluated for the Duncan facility, based on a range of criteria. However, the size has changed little between the prior primary alternative and the current primary alternative.

Ms. Hufnagel explained that there are two primary design criterion applied to the sizing of facilities and sewers respectively. Overflow frequency determines the number and size of facilities. In sanitary areas, all overflows are eliminated. In combined areas, overflows can occur 4 – 6 times per year. Hydraulic design criteria used for sizing of sewers in the modelled portions of system is the elimination of manhole flooding for a 10-year design storm condition. In response to a question from Paul Eiswerth (PADEP) it was clarified that manhole flooding was essentially defined as surcharging to grade.

Ken LaSota (Borough of Heidelberg) asked if the four to six overflows were allowed only at the Duncan facility. Ms. Hufnagel answered that CSO discharges will continue to occur at many of the existing CSO outfalls – these are not being eliminated under the alternative concept. In addition, the basin itself is expected to overflow approximately 4 – 6 times per year.

The basin planner model and future flow forecasts were acknowledged to be more conservative than municipal models in many locations. As such the basin planner model includes capacity improvements in the modelled portions of the municipal systems that may be more extensive than identified by the municipalities. Reasoning behind this includes the following:

- The ALCOSAN planning efforts need to define ALCOSAN facilities / improvements necessary to manage wet weather flows generated in the municipalities. Thus the ALCOSAN representation of municipal improvements was sized to deliver peak flow rates from the municipalities to the ALCSOAN system. The impact on the defined ALCOSAN alternative is more related to pipe size than pipe location, so a conservative sizing approach doesn't dramatically impact the overall alternative concept.
- The modeling that resulted in differences in flow rates used a different approach by ALCOSAN versus the municipalities. The basin planner modeling was reviewed (QA'd) by the program manager and results submitted to regulatory agencies. The ability to modify the approach used (again, for sizing ALCOSAN facilities), cannot be changed on the basis of a different methodology used by municipalities. This does not prescribe that the municipalities must use the basin planner approach for improvements to their systems.
- The basin planner model included RDII in anticipated areas of future growth. Several municipalities assumed that there would be either no RDII in future growth areas or it would be offset by reduced I/I in other portions of the system. Dan Lockard (ALCOSAN) indicated that the annual average RDII in future growth areas is usually around 6%. Maximum value in winter conditions is approximately 9%.

Ms. Hufnagel then presented a spreadsheet listing each of the points of connection, the corresponding municipal alternative for that point of connection and the alternative to prevent manhole flooding during a 10-year storm event.

Larry Lennon (Lennon, Smith, Souleret Engineering) asked what the comment: "No alternative provided by municipality" meant on the spreadsheet. He doesn't want a regulator to read this spreadsheet and believe that the municipality did not submit any information to ALCOSAN. Ms. Hufnagel said that could mean one of two things – either a) the municipality did not identify a selected alternative – thus the basin planner had to make an assumption that the "convey all flows" option would be selected; or b) the municipality determined that no improvements were required in order to convey all flows. Ms. Hufnagel agreed that the language used on the table did not acknowledge work performed by the municipalities and provided to ALCOSAN, and that this table needed revision to avoid misunderstanding. Mr. Lennon stated that it will be a while before an alternative has been selected for some communities. Concerns that the table as presented implied a lack of effort and information by the municipalities were raised by Mr. Lennon and Ms. Omer that were acknowledged. Ms. Hufnagel agreed to make revisions and to send it to the municipalities electronically for more review and comment.

Jason Stanton (Lennon, Smith, Souleret Engineering) asked what, under the notes column, what does the word "defined" mean. Ms. Hufnagel answered that it was used in situations where the need for relief was identified by the municipality but no specific details were provided. In order for the basin planner to incorporate municipal actions into the model, specific physical alternatives needed to be represented. Thus, a general concept, such as "relief sewer" may have been "defined" as a certain size pipe of a certain length. She also indicated that in some cases the basin planner "modified" specifics that were provided by the municipality in order to transport flows as generated in the basin planner model. Mr. Stanton asked if in some cases, were the pipes upsized? Ms. Hufnagel answered yes.

Mr. Lockard explained that, with respect to the alternatives, ALCOSAN is looking to come up with the most cost-effective alternative. As alternatives are reviewed by the municipalities, ALCOSAN would like to receive information on alternatives that did not make the "final cut" – these may have potential to become cost effective when considering the collective impact to ALCOSAN and the municipalities. Thus information on the configuration, cost and resultant flows from these alternatives would help to assess potential shared implementation.

Mr. Lockard added that there will be a letter coming to some municipalities and their governing bodies, requesting that the selected alternative for specific POCs be acknowledged. In this letter ALCOSAN will be asking governing body of municipalities in complex sewersheds to confirm that they are aware of the solutions proposed that affect these sewersheds to which they contribute.

Paul Eiswerth (PADEP) asked if these letters will be regarding specific POCs. Mr. Lockard answered that this regards only the POCs of complex sewersheds.

Michelle Buys (Allegheny County Health Department) asked what is meant by "all relevant municipalities/boards" in reference to the acknowledgement that would be requested from the municipalities. Mr. Lockard explained that this column does not indicate an approval but merely an acknowledgement of the receipt of the concept alternative.

Jason Stanton (Lennon, Smith, Souleret Engineering) asked if the letters will be sent to the POC municipality only, or to all contributing municipalities upstream as well. Mr. Lockard said that the upstream municipalities will receive one as well.

Paul Eiswerth (PADEP) asked if the letter will explain the assumed alternative. Mr. Lockard answered that, no, it will formally ask what the municipality intends to do.

Ken LaSota (Borough of Heidelberg) asked that earlier answer provided regarding expanding pipes, who is responsible to pay for that expansion? Ms. Hufnagel indicated that municipal improvements are expected to be the responsibility of the municipality. However, municipal pipe sizes depicted in the model at this time have been defined for the purposes of conveying modelled flows and do not represent defined projects to be implemented without further study and evaluation.

Updates

Karen Brean (Brean Associates) presented a brief overview of public outreach and discussed the recent Customer Municipal Advisory Committee (CMAC) meeting. She explained that the program was extensive including technical details, costs, and regionalization. The Regional Stakeholder Group (RSG) had a similar presentation at their recent meeting. They also discussed their future role. Karen noted that ALCOSAN has scheduled Town Hall meetings in October and November. She asked if anyone knows of an organization that would like to host an ALCOSAN outreach program, to let her know. A Regionalization Review Panel has been convened by the Allegheny Conference on Community Development; they will be meeting monthly.

Questions

Larry Lennon (Lennon, Smith, Souleret Engineering) said that at the 3 Rivers Wet Weather Conference, it was presented that the affordability analysis suggested the Wet Weather Program to be a $2 billion program. What is the expected share that the municipalities will have to pay? This is important for the municipalities to know since they need to do future planning. Mr. Lockard responded that the municipal portion may be in the 25% range. Paul Eiswerth (PADEP) added that the regulatory agencies have not signed off on the $2 billion. Mr. Lennon said that he is hoping that

there is a plan for some dialog between ALCOSAN and the municipalities regarding this.

Michelle Buys (Allegheny County Health Department) asked if any municipalities are considering source reduction. Mr. Lockard said that a few communities are, but not many. Mr. Lennon added that he feels that source reduction is important; he feels that it is best to spend the municipalities' money in their own community. Ruthann Omer (Gateway Engineers) added that source reduction should be looked at on a case by case basis as it does not work everywhere.

Since there were no further questions or discussion, Herb Higginbotham closed the meeting.

2. Items Distributed:

The following items were distributed at the Basin Planning Committee Meeting.

- Agenda
- Presentation Slides
- Spreadsheet of Current Representation of Municipal Alternatives in Basin Planner Model

These items can be found as attachments to these meeting minutes.

3. Next Meeting: The next basin planning committee meeting exact date, time and location will be determined at a later time.

4. Attachments:

- Meeting Agenda
- Presentation Slides
- Attendance List
- Evaluation Summary

ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Chartiers Creek
Meeting Purpose: Basin Planning Committee Meeting #12
Date / Time: May 8, 2012, 10:30 a.m.
Location: Green Tree Fire Hall, Borough of Green Tree, Pennsylvania

Attendees: Please see attached attendance list.

1. Discussion / Decision / Agreement Summary:

Welcome

Dan Lockard (ALCOSAN Project Manager) opened the meeting. He then introduced Carol Hufnagel (Tetra Tech Project Manager) to begin the presentation. Ms. Hufnagel provided a brief review of the previous Basin Planning Committee (BPC) meeting #11.

Basin Facilities Plan

Ms. Hufnagel explained that Tetra Tech has developed alternatives under the assumption that municipalities will convey all flows to the ALCOSAN system. The only municipal system which is proposing attenuation of flows at this time is the Robinson Run System. There will be some sewer separation in Carnegie and McDonald. The basin facility plan includes a new relief interceptor running through the entire length of the existing interceptor. During wet weather events, the relief sewer will discharge excess flows to a regional tunnel. One storage / treatment facility is proposed in Crafton. The level of control for the facility will be 2-year SSO control and four overflows per year CSO control.

Ken LaSota (Borough of Heidelberg) asked if the new relief sewer will be in the creek bed. Ms. Hufnagel answered that it will not be located in the creek bed but in the right-of-way along the creek bed, under roads and in open areas adjacent to the creek bed.

Roy Kraynyk (Allegheny Land Trust) asked if there is a chance that the right-of-way can be used for a trail. Jan Oliver (ALCOSAN) answered that the area would have a subsurface easement, not a surface easement, but this idea can be considered.

Jim Hannan (Municipality of Bethel Park) asked about the depth of the regional tunnel. Ms. Hufnagel replied that information regarding the regional tunnel will be discussed later in the meeting by ALCOSAN's program management consultant.

Ms. Hufnagel discussed the Duncan facility. This facility is located in Crafton which will be used to house a storage facility which will be mostly below the ground surface with some above ground structures.

Mike Kaleugher (Borough of Heidelberg, Collier Township Municipal Authority) asked if the existing SSOs were going to be eliminated on the existing lines. Ms. Hufnagel answered that some will be eliminated and the remaining will be controlled. Mr. Kaleugher then asked, that for those remaining, who will own them. Mr. Dan Lockard (ALCOSAN) answered that if it is an existing SSO that the municipality is currently taking care of, it will be owned by the municipality. Mr. Tim Prevost (ALCOSAN) further explained that overflows designated as ALCOSAN-owned are identified in Appendix A and B of the Consent Decree. Other overflows are the responsibility of the municipalities.

Rick Minsterman (Gateway Engineers) asked for a copy of the shape files of the mapping from the Draft Basin Facilities Plan. Mr. Lockard answered that at this time, the plans are premature so they are not ready to give out these files. Mr. Minsterman explained that cost estimating for the municipality varies greatly depending on exactly where the lines are going so the mapping would be very helpful. ALCOSAN will further consider the request but cautioned that these are planning documents and should not be interpreted as a final alignment for the proposed sewers.

Ms. Hufnagel continued to discuss the relief sewer and explained that the sewer is approximately 30 feet deep in most places which is why so much of the relief sewer will be constructed with trenchless technologies.

John Shannon (Michael Baker, Jr. Inc.) asked about the diameter of the relief interceptor. Ms. Hufnagel answered that it varies from 3 to 10 feet with an average diameter of 8 feet. The existing interceptor is 36-42 inches in diameter.

Ms. Hufnagel summarized by saying that the Basin Facility plan has not changed significantly since the November basin planning meeting (BPC #11).

Wet Weather Plan Development Update

Mr. Ed Kluitenberg (CDM Program Manager) presented the schedule for the wet weather plan. At this time, the alternative solutions are being evaluated for regional integration and optimization. The treatment plant will be expanded to increase its existing capacity. To answer Mr. Hannan's earlier question, the depth of the regional tunnel is expected to be approximately 150 feet although this will vary. It parallels the existing deep tunnel but is 50 feet deeper and approximately 12-14 feet in diameter.

Mr. Shannon asked why the plan is titled "Preliminary". Mr. Kluitenberg explained that because the Wet Weather Plan has not gone through the public comment period and because it has not been approved by the regulatory agencies, it remains a preliminary plan.

Mr. LaSota asked about the logistics of connections to the existing tunnel, which is about 4 feet in diameter, and the new tunnel. Mr. Lockard answered that there will be cross connections to balance the flows. These cross connections will not be at the elevation of the tunnel, but rather close to the surface. Effort will be made to minimize compromising the

existing tunnel because it operates under a surcharged condition. Mr. Prevost added that maintenance is difficult on the existing tunnel since it is always operated in surcharged condition.

Mr. Kluitenberg presented slides showing preliminary alternatives based on $3.6 billion plan and 3 separate preliminary alternatives based on $2 billion plan which is ALCOSAN's calculated affordability based on EPA guidance of 2% of median household income as the threshold for sewer rates becoming a high burden. The 3 separate $2 billion plans are based on different approaches for focusing resources with one SSO Control priority, one water quality priority, and one balanced priorities. Mr. Kluitenberg reviewed the cost performance curves and affordability estimate. He explained that there are competing needs in the region including costs, water quality benefits, and recreational use and the plan includes a balanced approach to these needs. Mr. Kluitenberg requested feedback from the audience on the various approaches and received no comments.

In reference to a slide graphic, Mr. Paul Eiswerth (PADEP) asked about a shown increase in SSOs in the future baseline alternative. Mr. Kluitenberg explained that this increase is due to future population growth under a "no action" evaluation. This was used as a baseline in the Consent Decree for planning purposes. Mr. Prevost added that this is the baseline assuming a growth in population with no system improvements and that there is significant expected population growth in both the Turtle Creek and Chartiers Creek areas.

Mr. LaSota asked that considering the cost of this project is $3.6 billion, has there been any consideration to seeking funds from other sources besides user fees. Ms. Oliver answered that there may be some funds available for distressed communities from the state or federal governments but it is not likely. Mr. Prevost added that no community should anticipate receiving any state or federal funding for this. Ms. Oliver said that the $2 billion solution still provides a tremendous improvement in water quality and perhaps when the $2 billion are spent, we can refocus on green solutions or storm water management improvements.

Mr. Larry Lennon (Lennon, Smith, Souleret Engineering) asked for the numerical values of the "overflow volumes" indicated in the Overflow Volume Performance Comparison chart. Mr. Kluitenberg indicated that as those numbers are continuing to be refined, they are not being published at this time. Mr. Lennon then asked if the plan assumes that the municipalities will implement what they previously indicated, and asked if there is a list of the municipal alternatives and the design storms used. Mr. Kluitenberg answered yes; the assumptions are summarized in the Draft Wet Weather Plan. Mr. Lockard added that most of the municipalities have not confirmed their approach, which will impact the actual overflow volumes. Ms. Hufnagel added that a table will be included in the Chartiers Creek Basin Facilities Plan identifying the current understanding and assumptions for municipal flow inputs.

<u>Updates</u>

Karen Brean (Brean Associates) presented a brief overview of public outreach and discussed the recent Customer Municipal Advisory Committee (CMAC) meeting. She

explained that the program included a presentation including an update on the Wet Weather Plan and the Regionalization Study. The Regional Stakeholder Group (RSG) had a similar presentation at their recent meeting. There will be a public release of the Draft Wet Weather Plan on July 31, 2012 and the public comment period will run until October 19, 2012. There will be grassroots outreach conducted by ALCOSAN beginning in May and there will be public meetings and hearings in August and September. She asked that if anyone knows of an organization that would like to hear an ALCOSAN outreach program, let her know. A Regionalization Review Panel has been meeting monthly. This panel is comprised of 37 members representing various sectors and chaired by Dr. Jared Cohon, President of Carnegie Mellon University. The panel is managed by the Allegheny Conference on Community Development.

Ms. Oliver then spoke about the Regionalization Evaluation Categories and Criteria, which includes several categories. This committee is not expected to offer solutions but to evaluate potential alternatives.

Since there were no further questions or discussion, Ms. Hufnagel closed the meeting.

2. Items Distributed:

The following items were distributed at the Basin Planning Committee Meeting.

- Agenda
- Presentation Slides

These items can be found as attachments to these meeting minutes.

3. Next Meeting: The next basin committee meeting exact date, time and location will be determined at a later time.

4. Attachments:

- Meeting Agenda
- Presentation Slides
- Attendance List

Lower Ohio/Girty's Run Basin

ALCOSAN Basin Facilities Planning
Meeting Minutes

Lower Ohio/Girty's Run Planning Basin
Municipal Coordination/Outreach Meeting
Date / Time: August 5, 2008; 1:30 P.M.
Location: Shaler Municipal Building

Attendees:

Dan Lockard, ALCOSAN
Dolat Naik, ALCOSAN/M&E
Harry Dilmore, Avalon Borough
Roger Varner, Belleview Borough/HRG
Judith Herschell, Ben Avon Borough/M&E
Ed McGee, Ben Avon Borough/DMJM
Al Grubbs, Ben Avon Heights
Michael Skinner, Ben Avon Heights/Gateway
Michael Skinner, Emsworth/Gateway
Greg Scott, Girty's Run JSA/Chester
Michael Stupy, Girty's Run Joint Sewer Auth.
Barry Davidson, Kennedy Township/RV&B
Harry Dilmore, Kilbuck Township
Greg Scott, Millvale Borough/Chester
Jim Barrick, Neville Township
Denise Moore, Neville Township
Dick Stewart, Ohio Township/OTSA/NIRA
Dennis Blakley, McCandless Township Sewer Auth.
Don Waldorf, PWSA
Kevin Creagh, Shaler Township
Tim Rogers, Shaler Township
Scott Hoffman, Stowe Township
Brad Boddy, ALCOSAN/Wade Trim
Mark Coleman, ALCOSAN/Wade Trim
Tony Igwe, ALCOSAN/Wade Trim

1. Discussion / Decision / Agreement Summary:

a. **Overview**

Wade Trim opened the meeting by going over general housekeeping items, encouraged attendees to ensure that they signed in, and provided a review of the meeting agenda. It was noted that this was a meeting, not a presentation, and that while a power point presentation will be used as a talking tool, one of the primary goals is to obtain input from the meeting participants. To facilitate this, there are points during the meeting where each attendee will be asked for their thoughts and comments on the material covered. The agenda was overviewed noting that a custom agenda packet has been prepared for each municipality. Input on the agenda from the meeting attendees was requested and with attendee concurrence the meeting started following the power point presentation (copy appended).

The Wade Trim Lower Ohio/Girty's Run (Lower Ohio/Girty's Run) team members present were introduced along with Dan Lockard (ALCOSAN Project Manager) and Dolat Naik (Basin Coordinator). The municipal representatives introduced themselves and made brief statements of their roles within their respective municipalities.

1. Wet Weather Planning Process – Overall Planning Process

The general overarching ALCOSAN goals of the overall basin planning process was reviewed. These goals included : "Develop a facilities plan to reduce wet weather flows to ALCOSAN's collection system and adequately treat overflows; Ensure that plan meets regulatory requirements; Develop a cost effective implementable plan from both a capital and operations perspective considering both ALCOSAN and municipal cost impacts; Develop plan in a collaborative manner with the input of municipalities and stakeholders." In addition to the goals, it was stated what the ALCOSAN facilities planning will not do. "The facilities plan will not: (1) resolve overflow issues in municipal collection systems directly related to municipal capacity/overload issues and (2) define methodology for cost distribution." Cost in this venue will only deal with capital and operation and maintenance costing associated with the various alternatives being evaluated. It is suspected that ALCOSAN will discuss cost allocation in other venues as the program moves forward and the meetings will be lively.

It was at this point that each attendee was asked to voice any concerns, questions, or issues that they may have on their understanding of the ALCOSAN program. While each person was individually asked to voice a concern or comment, it was noted that they could simply indicate that they had none or theirs was presented by another attendee. The point was made that voicing their concerns did not mean that all the concerns could be resolved; but knowing what they are will help the LOGR team execute their work. The following are the overall concerns mentioned during the meeting:

- The first concern mentioned was the number of consultants involved in the basin planning project. Concern was how to ensure that the work was being done in an efficient and coordinated manner so that the expenditures will not be wasted.
    - It was acknowledged there appears to be a significant number of consultants but the project needs to be completed in a finite time period and the amount of work required in the Consent Decree for that short time period necessitated the use of multiple consultants. One consultant would not have been able to meet the deadlines nor would they be able to bring to the program the breath and depth of wet weather experience offered by the various consultants doing the program work. It was pointed out that this expertise is not only available to ALCOSAN but to the communities as well during these meetings. There is a significant amount of effort required and although multiple firms will be performing it, it does not follow that in and of itself means that the effort is inefficient. It was also made clear that CDM as the Program Manager will lead the integration of the various solutions developed by the Basin planners into one, overall cost effective regional solution.
- Shaler Twp mentioned that since the part of their system that is in the LOGR basin is handled by MTSA (through Girty's Run) they felt it unnecessary to attend meetings for the LOGR. They will attend the Upper Allegheny meetings and rely on Girty's Run to keep them up to date on LOGR information.
- The question was asked - what do you hope to accomplish that is not being done by the municipalities at the local level?
    - It was noted that experience has shown that parts of the solution will rest with addressing the overflows at the interceptors, as well as, evaluating the wet weather regional capacity in terms of transport and treatment. Individual communities control their own systems and discharges into the regional system but they have little information on the magnitude and impacts of other system dischargers into the ALCOSAN interceptors in order to develop the most cost effective solution to the problem. It was reiterated that the ALCOSAN basin planners will not be looking at the local system but whatever is done locally needs to dovetail with ALCOSAN's Plan.
- Another comment was that the "bottom line is funding". Where is the money coming from given that the anticipated cost to control wet weather issues is very high?

- ALCOSAN is looking into various areas to get funding for the program but it is a very tight market out there. The communities were encouraged to support this effort in any way they deem appropriate.

- Another concern was about how far is the community's input really going to go. Is this an exercise to meet the letter of the CD requirements or is it for real. Who has final say?
  - The communities' views will be reflected in the analysis process used to arrive at the cost-effective wet weather control solution for the LOGR basin. However, not every idea will win out and it will be the LOGR team's job to explain to the communities the basis for the selected most cost effective LOGR alternative. This alternative will be integrated with the other basins most cost effective alternatives in order to develop the most cost effective overall solution. This overall solution may or may not reflect each individual basin solution elements (for example, an end of pipe treatment facility may be integrated into a larger transport tunnel). It would be very surprising if the LOGR individual solution is more cost effective than the regional solution and the basin communities desire to implement their individual approach rather than be a part of the regional solution. But we can and will address this bridge in the future if need be. ALCOSAN does have the final say but are committed to working with the communities in the development of the program.

- Cost distribution was mentioned as one of the major concerns and that this would be the "bottom line" for most municipalities. Until there is some idea on cost, it will be difficult for people to engage.
  - It was noted that this point in the program is a frustrating time for decision makers. They need to know costs and their impacts in order to properly plan and the costs simply are not known at this time. In large CSO programs, there is a need to develop a sound technical basis for the solution before discussing costs and their distribution. While one can argue later about how much a program costs and who pays for it, there should be no disagreements on the technical foundation for the solution. During the first few years of the program we are doing just that, establishing the technical base. The advice to give decision makers is to be patient and provide the support the technical staffs need to stay involved in the program in order to lend their expertise to its development and understand the technical basis for the conclusions reached.

- How many changes are coming down the line? Initially, the orders required fixing manholes and pipes, now there is the planning basin activity. How many more changes are coming? How do you get to or update municipal officials.
  - Unfortunately, no one can read the minds of the regulators and predict what they will require in the future. ALCOSAN is and has been staying closely plugged into their current thinking, keeping track on what is going on and have a sense of where they are going in terms of changes in the regulatory approach to wet weather issues. As far as updating the municipal officials, it was mentioned that we are counting on people who attend these meetings to ensure that they keep decision makers informed of what is going on. It was offered that ALCOSAN would be happy to come to elected officials meetings to provide briefings and program status updates.

- Would Ben Avon Heights get credit for tightening up their system?
  - If Ben Avon Heights has done what needs to be done, the result should positively impact their feasibility study alternatives.

- Cost is a big issue. Since ALCOSAN is not dealing with the municipal system, these are issues that need to be dealt with by the municipality. Dialogue is needed between municipalities in addressing these issues.

- It was pointed out that 3 Rivers Wet Weather has been very active in helping municipalities meet their consent order requirements and that the expectation is that 3RWW will continue these efforts in the future. The provision of a forum for open dialogue has been their mission and ALCOSAN intends to work with 3RWW to help.

- How will the municipalities handle requests for information that is not in their respective consent order? The concern is cost for items that were not included in the Consent Orders.
  - The Basin Planners job is to clearly explain the information request such that people understand why the information is being requested, that there is a valid basis for the need of the information, and that sharing it is in the best interest of all parties. The intent is not to reinvent the wheel. If the community already has a model, the basin planners would use it as a starting point. It was again pointed out that the sharing of information is a two way street and information that ALCOSAN may have that would facilitate the municipality efforts will be made available to the municipality.
- It was suggested that the municipalities collaborate in order to get funding. The communities need to band together to form the "squeaky-wheel" to get funding. Could even force the funding issue as a referendum on the next ballot.
- It was mentioned that some folks have been going to multiple meetings and there is a need for somebody to show that there is a plan and direction to get the job done in a cost-effective manner.
  - Communities in multiple basins (particularly PWSA) should assess how best to stay plugged into the program and work with ALCOSAN on ways to facilitate their involvement (such as basin meeting summary distribution, sharing information between basin planning communities, etc).
- Other concerns included a reiteration of cost as an issue. Question was asked as to how the communities could get an idea of cost so that they can start budgeting.
  - It was acknowledged that there are significant, legitimate concerns related to costing but that they simply can't effectively be answered at this time.
- What will the next consent orders for the communities be?
  - The short answer is that nobody knows. However, the recollection was that during the order negotiations with the regulatory agencies, they had expressed the idea that the selected alternative in the feasibility study along with an implementation schedule will form the basis for the next order. That order would be an implementation order.

2. Lower Ohio- Girty's Run Basin Facility Planning Project

The approach to the LOGR basin has been broken into three general areas; System Characterization, Alternatives Development including the cost effective alternative, and Municipal and Regulatory Planning. Each was overviewed with particular emphasis on the System Characterization phase since that is the phase that is currently being performed and will be the focus of the near term Basin Planning Committee meetings.

b. **Status of Current Activities**

Wade Trim provided a brief status update on flow monitoring and mapping tasks. Basically, except for a handful of monitors, most of the short term flow monitors have been pulled and the intermediate and long term ones are still in the ground. Monitoring is proceeding on schedule with adequate rains.

The one overall map has been completed and some mapping edge issues need to be resolved. The next step is to fill in the identified data gaps.

c. **Information Exchange**

Wade Trim explained the three major points for the information exchange portion; basin planner needs, municipal expectations and needs; contacts and protocols. The first item, basin planner needs, included an overview of the individual municipal system characterization summaries that have been prepared for each community. The basis for the form's elements was explained noting that the information currently on the forms is the result of the LOGR team review of existing data. The next step in completing it is to have one on one follow up meetings with each municipality to review and populate the form. The intent of the form is to have a single document that reflects the infrastructure information that is needed and available within each municipality that may be used by both ALCOSAN and the municipality. The communities were asked to review the form and provide input on additional information that may be added to assist them in their activities.

Following the presentation by the team, the attendees were again individually asked for their input on concerns on the approach of the basin planner and items to be discussed at future meetings which may provide insight in the direction taken for future meetings. Items raised for discussion include the following:

- Need to talk about the feasibility studies that the municipalities have in their current orders.
    - Clarification on what type of information is being sought.
    - Need to ensure that prior data is ok and useful for planning
    - Need to have a consistent message between basin planners and need to be delivered clearly.
    - How to convince our bosses that sharing information is a good thing.
- Shaler Twp. stated that Girty's Run Joint Sanitary Authority will represent the Twp in the LOGR basin meetings.

Relative to contacts and protocols, it was agreed that the LOGR team can contact the attendees directly to arrange the one on one meetings and during those meetings future specific contact and protocol procedures will be discussed.

d. **Process Moving Forward**

This section of the meeting covered how we will organize ourselves. Wade Trim has a contract need to meet with the communities on a regular basis including this initial kick-off meeting. How we meet in the future however, while required is not defined and it is the teams goal to develop a process that recognizes the needs of the municipalities in terms of time management. It was also pointed out that as the program develops, this group will be expanded to include other stakeholders (sample listing included in the agenda packets) whose needs and time commitments must also be considered. The LOGR team envisions three approaches that could work.

- Meet on a regular basis as one group
- Meet on a regular basis as separate groups based on similar tributary areas or systems (such as a Lowries Run team, a Girty's Run team, an Ohio River North team and an Ohio River South team) and meet occasionally as one group
- It has been pointed out that the North Hills Council of Governments has an ongoing Act 167 storm water management study that is currently ongoing and we could plug ourselves into their meetings. This seems to make a lot of sense since the municipalities' are all involved and we both are talking about storm wet weather flow management issues. This has not been discussed with the COG and would need to be should this be the direction the group would like to take.

After some discussion, the group concluded that the second approach made the most sense and suggested that we meet in the following three groups initially and see how it works out;

- Girty's Run Team
- Lowries Run Team
- Ohio River Team - the manager for Avalon and Kilbuck Boroughs mentioned that most of the communities close to the Ohio River have a very successful history of meeting as a group to address common issues and strongly encouraged this approach.

ALCOSAN also solicited volunteers from the LOGR basin to be part of the Stakeholders group.

2. Items Distributed:

a. Two agenda packets per municipality/authority within the Planning basin that included an agenda, copy of the power point presentation, ALCOSAN Wet Weather Program Public Participation & Stakeholder Involvement organizational Framework Chart, Municipal System Characterization Summary specific to the municipality and any authority that they may be in, and Appendix A from the ALCOSAN Technical Memorandum 10 that lists the constituency groups as sources of potential stakeholder group members..

b. One agenda packet including all of the characterization summaries was distributed to ALCOSAN and the Basin Coordinator.

3. Action Items:

a. Follow up with one on one meetings with municipalities (LOGR team).

b. Review Municipal System Characterization Summaries and provide comments to LOGR Team (all attendees).

c. Prepare and distribute summary to ALCOSAN and basin municipalities (LOGR team).

4. Next Meeting:

Next meeting date was not set, but there was general agreement that the next meeting would not happen for another 2 months. This gives the participants time to consolidate the system characterization information and get a better understanding of the collection systems.

5. Attachments:

As listed above

The meeting adjourned at approximately 3:15 p.m. with the distribution of a meeting evaluation form for attendees input. A summary of the feedback is attached.

These minutes are a summary of the writer's interpretation of the meeting. Should you have any comments regarding any of the items, please contact Wade Trim within five (5) calendar days of the date of these Meeting Minutes. If no comments are received by this time, it will be considered that all attendees are in agreement.

ALCOSAN Basin Facilities Planning
Meeting Minutes

Lower Ohio/Girty's Run Planning Basin (Ohio River Sub Basin)
Basin Planning Committee Meeting Number 2
Date / Time: October 20, 2008; 1:30 P.M.
Location: Avalon Borough Building

Attendees:

Dan Lockard, ALCOSAN
Dolat Naik, ALCOSAN/M&E
Kathy Chavara ALCOSAN/Collective Efforts, LLC
Harry Dilmore, Avalon Borough & Kilbuck Township
Rob Arnold, Avalon Borough & Kilbuck Twp./Chester
Roger Varner, Bellevue Borough/HR&G
Jennifer Dickson, Ben Avon Heights Borough
Al Grubbs, Ben Avon Heights Borough
Paul Gaus, Ben Avon Heights & Emsworth /Gateway
George Ross, Mayor, Emsworth Borough
Barry Davidson, Kennedy Township/RV&B
Jim Barrick, Neville Township
Don Waldorf, PWSA
Art Gazdik, Ross Township
Wayne Jones, Ross Township
Scott Hoffman, Stowe Township/ms consultants
Brad Boddy, ALCOSAN/Wade Trim
Mark Coleman, ALCOSAN/Wade Trim

1. **Discussion / Decision / Agreement Summary**:

a. Meeting Goals, Agenda Review, and August 5, 2008 Meeting Summary

Mr. Mark Coleman of Wade Trim opened the meeting by welcoming everyone and thanking them for attending. He briefly reviewed the Agenda and asked for feedback that anyone might have had from the previous meeting. He made everyone aware that if they would like a copy of the Meeting Minutes from the August 5, 2008 meeting that they were available on the table in the back of the room. He also asked the meeting attendees about logistics and asked that the attendees give consideration for future meeting topics and where the next meeting would take place.

b. Current Activities – Status

Flow Monitoring was the first topic of discussion. Brad Boddy of Wade Trim noted there are three types of flow monitoring; Long Term (which runs from Feb.1, 2008 to Feb. 1, 2009), Medium (March 15, 2008 to September 15, 2008) and Short Term Monitoring (March 15, 2008 to June 30, 2008). Monitoring data are available on the ALCOSAN and 3 Rivers Wet Weather websites.

Extensive mapping has been conducted in the past number of years by the municipalities. It was requested that each municipality keep the LOGR Team informed of any mapping updates as they are developed. This will ensure the LOGR Team is working with the most accurate information.

The LOGR Team is looking for updated information within Jacks Run and Spruce Run. The LOGR Team is working with Ross Township and PWSA to obtain record drawings of the newly constructed sewers that were part of the Jacks Run Stream Removal project. Updated mapping is requested for Spruce Run as it appears the current regional mapping is missing one of the parallel trunk sewers.

ALCOSAN/Wade Trim is still in the process of obtaining information from the Municipalities. Some of the items needed include: Emsworth Pump Station drawings, Spruce Run sewer drawings, Jacks Run sewer drawings and Neville Township flow monitoring data. These documents are needed to show the connections and how the systems work.

The Existing Conditions Report Table of Contents is currently being developed. A Draft of the Existing Conditions Report as it relates to their municipality will be sent to all the Municipalities for review by in the first quarter of 2009. Municipalities are to review sections of the Existing Conditions Report as if relates to each municipality. Section 5 includes the largest discussion of municipal issues including System Configurations, municipal system appurtenances, and hydraulic restrictions in the system and potential for future development. Mr. Dan Lockard of ALCOSAN added that part of the plan includes Department of Environmental Protection (DEP) and Environmental Protection Agency (EPA) requirements for development of an overall Wet Weather Plan. Mr. Boddy will be the leading the effort of collecting the information from each of the Ohio River Municipalities. He will forward the Draft Existing Conditions Report to everyone and asked that each municipality look at it and document changes or corrections.

c. Near Term Activities - Status

Mr. Coleman reviewed the Near Term Activities and highlighted the goals of the Regional Wet Weather Plan and noted items the Regional Plan will not address, such as cost distribution. He noted that the focus should be on the development of a plan with input from municipalities and stakeholders in a collaborative manner. Mr. Coleman discussed that the Draft Existing Conditions Report is due December, 2008. The first level of screening will focus on identifying CSO controls and treatments that will be evaluated as part of the Regional Wet Weather Plan. The second level of screening is anticipated to eliminate all but 10-15 surviving alternatives. The plan development relies on an iterative process where the municipalities will need to define their specific flow management concepts, controls, etc. at various design and storm events in a consistent manner. It is very important that the local level of service (sewer capacity evaluation) is preformed in a manner to provide flow projections for these various conditions by the first quarter of 2010. This process is expected to continue throughout the development of the Facility Plan, with work to define such municipal conditions from mid 2009 until 2011.

At this point in the meeting, Mr. Coleman asked if he was answering the questions and concerns about the municipal responsibilities.

Mr. Art Gazdik from Ross Township said that the municipalities want to understand how far up the municipal systems that ALCOSAN will be modelling. Mr. Gazdik noted that this information (or locations) would be beneficial so that each municipality would know where to start looking and planning.

Mr. Lockard responded that ALCOSAN is preparing a Regional plan. Municipalities will need to look at what works for them. Municipalities need to see what control strategies and improvements they need within their municipal systems; they also need to consider and define what flows they will convey. ALCOSAN is working to address the flows at the points of connections and is obligated to accept the flow that the municipalities send. Municipalities need to refine, formulate solutions and then give their system decisions back to ALCOSAN. ALCOSAN is willing to share the model that is being developed by the Basin Planners to help facilitate the municipal feasibility studies.

ALCOSAN is going to be introducing the Municipal Feasibility Study Process. The requirements for this relates to local flow management. ALCOSAN will be asking for specifics on flows under different design storm conditions such as a 10-year storm. The municipal flow projections need to be complete and to ALCOSAN by the first quarter of 2010.

Mr. Gazdik from Ross Township said that each municipality has hydrographs from 3 Rivers Wet Weather or hydrographs that they have completed themselves. Some gaps still need to be defined. The key is that it is up to the communities to interpret data and how to "use" it within their systems. Mr. Gazdik suggested that ALCOSAN, 3 Rivers Wet Weather and others from management level assist with data points and list what is needed, how to use it and what to focus on so that each municipality can then "do what they can" within their municipal systems.

It was suggested that ALCOSAN develop the tools or guidelines for conducting peak rates projections to "guide" municipalities so they can identify bottlenecks. Mr. Paul Gaus from Ben Avon Heights Borough, (Gateway) suggested that an example would be helpful.

Mr. Roger Varner from Bellevue Borough, (HRG) believes that 3 Rivers Wet Weather will be lending a hand to assist municipalities. He also expressed that system operations and maintenance issues are very important to "share". A suggestion was made that this topic be discussed at the next Flow Monitoring Working Group where municipalities can discuss how to take flow monitoring to the next level within their boroughs and townships.

Mr. Lockard introduced the municipal Feasibility Study Completion Schedule and expressed the importance of municipalities determining how they plan to meet and implement their own feasibility studies. Mr. Lockard noted that even if you have no overflows, then you must make sure that some method is used to document capacity within the municipal lines leading to the ALCOSAN trunk sewer.

Mr. Lockard discussed that ALCOSAN would like to understand the intent and schedule of each municipality feasibility study programs. It is important to identify if any municipality is planning on working with other municipalities. If a municipality is struggling with meeting their municipal schedule, then at least let ALCOSAN/Wade Trim know this. If they have started their municipal feasibility study already, just let ALCOSAN/Wade Trim know this as well.

Referencing the Model Extent Map (provided), Mr. Boddy discussed the current proposed model extent and explained that the ALCOSAN Consent Decree requires that ALCOSAN model up to

any designed internal municipal CSO or SSO structures. He indicated that the representation of the Spruce Run trunklines may need to extended if it is determined that they are interconnected. It was noted that the pump stations in Neville Township and Emsworth Borough are not currently being planned to be modelled as the overflows upstream of these pump stations are considered emergency pump station overflows. The pump station in Kennedy is currently being evaluated by Wade Trim to determine if it will be modelled.

Mr. Gazdik from Ross Township requested the model be extended to a location where Ross Township experiences some manhole flooding. This would assist Ross Township in evaluation what they need to do in this area to address these excess flows. It was asked if everyone was comfortable with the current model extent or if any municipalities would like the model extended. Mr. Coleman asked the municipal representatives to think about whether they needed the model extended and if so please forward their requests to Mr. Boddy.

d. Public Outreach.

Mr. Lockard updated everyone on the Customer Municipal Advisory Committee. The committee has been selected and could start meeting before the end of the year. It is anticipated that these meetings will be more information based. The Customer Municipal Advisory Committee will be 15 members as appointed by County Executive.

Another committee mentioned by Mr. Lockard is the Regional Stakeholder Committee (RSC). The role and responsibility of the this committee includes issues related to water quality, the site layout process, environmental groups, planning agencies, costs, and maybe the development of guidelines. ALCOSAN needs two (2) volunteers from each planning basin for the RSC. The volunteers will attend quarterly meetings. The meeting attendees were invited to volunteer.

2. Items Distributed:

a. A meeting Agenda was handed out to the municipality/authority representatives within the Ohio River Communities Planning Basin. Meeting attendees also received a copy of the power point presentation, a working Draft dated 4/28/08 of the "Basin Planning Coordination with Municipal Orders" Schedule, and a watershed map.
b. Copies of the Agenda, power point presentation, Schedule and map are included as attachments to these meeting minutes.

3. Action Items:

a. Municipalities to review Wade Trim's Draft Existing Conditions Report in January of 2009.
b. Municipalities to supply requested mapping information to Brad Boddy of Wade Trim.

c. Municipalities to submit their Municipal Feasibility Study plans and schedules including ideas being considered in their municipal feasibility studies. For example, municipalities should consider "who's doing what?" and "when and how to implement?"
d. Municipalities to get their list of areas of concern within their systems to Mr. Brad Boddy and Mr. Mark Coleman of Wade Trim to see if specific needs should/can be addressed.
e. Municipalities to review current model extent and provide comments back to Mr. Brad Boddy.

4. Next Meeting:

The next meeting date was not set. However, there was a discussion that subsequent meetings would probably take place at this location, the Avalon Borough Building. The next meeting is anticipated after the 1st of the year. Wade Trim reiterated that they are more than willing to meet with anyone that wants to have a one-on-one meeting.

Mr. Coleman outlined considerations for the Agenda for the next meeting, including: a follow-up discussion of items reviewed today; the Existing Conditions Report; changes to the model; discuss how to communicate the planning process to the Municipal Boards and Mangers; how to consistently present material to the Municipal Managers and Municipal Officials; and the potential introduction of this subject to the public at large.

5. Attachments:

a. Attachments as identified above under section 2.b.

The meeting adjourned at approximately 2:45 pm.

These minutes are a summary of the writer's interpretation of the meeting. Should you have any comments regarding any of the items, please contact Wade Trim within five (5) calendar days of receipt of these Meeting Minutes. If no comments are received by this time, it will be considered that all attendees are in agreement of the proceedings recorded herein.

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ALCOSAN Basin Facilities Planning
Meeting Minutes

Lower Ohio/Girty's Run Planning Basin (Girty's Run Sub Basin)
Basin Planning Committee Meeting Number 2
Date / Time: October 27, 2008; 9:00 A.M.
Location: Girty's Run Joint Sewer Authority

Attendees:

Dan Lockard, ALCOSAN
Dolat Naik, ALCOSAN/M&E
Mike Stupy, Girty's Run Joint Sewer Authority
Courtney Casto, GRJSA/Chester Engineers
Dennis Blakley, MTSA
Virginia Pucci, Millvale Borough
Phil Herman, Millvale Borough/Senate Engineering
Don Waldorf, PWSA
John Maslanik, PWSA/Chester Engineers
Dick Hadley, Reserve Township
Gordon Taylor, Reserve Township/Senate Engineering
Bob Zischkau, West View Borough/Glenn Engineering
Brad Boddy, ALCOSAN/Wade Trim
Mark Coleman, ALCOSAN/Wade Trim
Kathy Chavara ALCOSAN/Collective Efforts

1. **Discussion / Decision / Agreement Summary**:

a. Meeting Goals, Agenda Review, and August 5, 2008 Meeting Summary

Mr. Mark Coleman of Wade Trim opened the meeting by welcoming everyone and thanking them for attending. He presented the agenda, which is attached to these meeting minutes. Mr. Coleman asked for any feedback from the previous meeting. He encouraged requests for additional information about what Wade Trim and Girty's Run will be doing and the importance of interactions. Meeting Minutes from the August 5, 2008 meeting were made available to the attendees.

b. Current Activities – Status

Mr. Brad Boddy from Wade Trim updated the group on a number of current activities. The first being flow monitoring where he noted there are three types of flow monitors; Long Term (which runs from Feb.1, 2008 to Feb. 1, 2009), Medium (March 15, 2008 to September 15, 2008) and Short Term Monitoring (March 15, 2008 to June 30, 2008). Monitoring data are available on the ALCOSAN and 3 Rivers Wet Weather websites. The second topic was mapping where he stated the municipalities have conducted eextensive mapping in the past number of years. It was requested that each municipality keep the LOGR Team informed of any mapping updates as they are developed. This will ensure the LOGR Team is working with the most accurate information. Mr. Boddy stressed that they need more information on the mapping, including Girty's Run Interceptor Improvements and Millvale Borough. Wade Trim sent out this information to everyone and will continue to do so periodically.

Comments on the ALCOSAN NMC were due by October 23, 2008. If you haven't looked at the report, it should still be available on the ALCOSAN website. ALCOSAN/Wade Trim is still in the process of obtaining information from the Municipalities. Some of the items needed include: Girty's Run Interceptor Improvement Drawings; Girty's Run EQ Basin Drawings; Girty's Run Diversion Chambers; Millvale GIS mapping; West View historical overflow monitoring; and the previous West View Wet Weather Plan.

The Existing Conditions Report Table of Contents was presented to the group and briefly discussed. This report will be integrated into the Wet Weather Plan and submitted to the EPA. The purpose of the report is to summarize the understanding of each basin, from the municipal systems to ALCOSAN's system. Information of the physical characteristics of the basin will include watercourses, land use and demographics, and impacts on water quality such as pollution sources. Section 5 provides extensive coverage of municipal collections systems. This section will be sent to each of the municipalities for review or their respective subsections in January 2009. Municipalities are to review and confirm the accuracy of the content.

Mr. John Maslanik (PWSA/Chester Engineers) asked if the Existing Conditions Report will recommend improvements. Mr. Boddy said that it won't. After this report is submitted, the H & H Modelling report will be prepared, and then the Feasibility Study (which will define alternatives/proposed improvements).

Mr. Coleman emphasized the importance of the Existing Conditions Report. One of the main goals is to provide ALCOSAN with comprehensive information regarding the existing conditions in each municipality. The draft of the Existing Conditions Report will be complete at the end of 2008, and it will be sent to all the Municipalities for review of their respective sections.

c. Near Term Activities - Status

The four primary goals of the Regional Wet Weather Planning process were outlined. It will involve developing a facilities plan to reduce wet weather flows to ALCOSAN's collection system and adequately treat overflows. The plan has to meet regulatory requirements. It will be developed in coordination and collaboration with the municipalities and will encompass all seven planning basins. The collaborative approach was emphasized in so far as it addresses both ALCOSAN's and the communities' needs. The Basin Planning Committee meetings are an excellent forum for information exchange. Municipalities should be aware that the Near Term Activities will not resolve municipal capacity/overload issues nor define cost distribution methods just yet.

Wade Trim provided an overview of the schedule and the topics of the reports to be completed. The draft of the Existing Conditions Report is due December 2008. In September of next year, the Hydraulic Model and Calibration Report will be submitted. By October of 2009, the Preliminary Alternatives Screening will be complete.

The coordination of Alternatives Analysis will be developed between the time period of October 2009 and June 2011. The Final Facility Plan will be complete in September 2011, and will

provide information such as the design storm and recommended combinations of alternatives. Report submissions and reviews are envisioned as an iterative process with a lot of coordination with the Municipalities and Authorities.

ALCOSAN requested that communities begin by initiating their own Municipal Feasibility Study process. Wade Trim will need a lot of information relating to local flow management, and a strong understanding of the municipal modelling needs. Items needed from municipalities would include information/data that the municipalities have, what they are planning to do in their own systems, capacity evaluations, and flows at various design and storm events, would be most beneficial. Design storms will need to be established (e.g., 10 or 25 year storms, 2 hour duration), as well as a determination of a base year for the design. The LOGR Team will need flow projections by the first quarter of 2010. Municipalities should start to look at the volumes coming in to their systems, and under what conditions.

Ms. Virginia Pucci (Millvale Borough) discussed with Mr. Mike Stupy (GRJSA) the potential need to do more flow monitoring within the GRJSA system. Mr. Stupy answered that he has been discussing the issues of funding for additional flow monitoring.

Mr. Maslanik (PWSA/Chester) asked Wade Trim about how specific they should be in providing flow information and projections about their systems. Mr. Coleman replied that they want flow projections of the flows that would be delivered to ALCOSAN.

Mr. Dan Lockard of ALCOSAN said that ALCOSAN must take the flows given to them. However, communities should evaluate the potential for success for such things at flow reduction at the source. Municipalities will be provided with the ALCOSAN/Wade Trim model. At this time, ALCOSAN is not looking at flow allocations. He shared his concern for dates in 2012 and the need for each planning basin to be coordinated with six other basins. Regional solutions seem to be the most cost effective. He also stressed the importance and need to work together on a planning tool for reasonable solutions to solve the wet weather flow; and Municipalities will need to look at and plan for their own upgradient flows.

Ms. Pucci noted that the flow in the Millvale combined system is also from other areas of the North Hills, not just Millvale. She was concerned about monitoring and expressed that the flow needs to be monitored before it hits Millvale. It was stated that the current RCSFMP does monitor the flows into the Millvale system from the upstream municipalities and that a model will be developed which will help facilitate the analysis of flows. This issue also highlights the need of municipalities to work together especially where flows are conveyed in multi-municipal sewers.

Mr. Bob Zischkau (West View/Glenn Engineering) said that during the planning stage that it would make sense for West View to work with the Girty's Run Joint Sewer Authority.

Mr. Lockard said that it was a good idea for communities to start looking at agreements and cost sharing now. He is optimistic that the Girty's Run communities will be able to work together. He asked if the attendees at today's meeting could give ALCOSAN a schedule and their plans for working together. He noted that even though the Municipal Orders requires communities to submit individual plans six months after ALCOSAN's report is sent to EPA there is a need for

data from the municipalities much sooner. He stressed the need to work together with each other and ALCOSAN/Wade Trim to determine flow projections.

Mr. Don Waldorf (PWSA) noted that they hope to close a few CSOs as part of the PennDOT Route 28 project. Mr. Dick Hadley (Reserve) said that Reserve Township may be also removing their flow from A-66-00 as part of the Route 28 project.

A copy of the Basin Planning Coordination with Municipal Orders schedule was provided to the meeting attendees. Mr. Coleman discussed the schedule with the group. He asked that the communities review the schedule in detail and let Wade Trim know their concerns.

A map providing the model extent, municipal sewer lines, and separate and combined sewer areas in the Girty's Run Sub Basin was distributed and discussed with the group. Mr. Boddy mentioned that the model provides a tool to help define peak rates. Wade Trim will be modelling internal overflows, CSOs, SSOs – per the Consent Order. It is also required to model a specific number of manhole structures upgradient of each connection point to ALCOSAN. Mr. Boddy asked if there were any locations where communities have concerns related to the model extent. No requests were made at the meeting but the communities were requested to review the proposed model extent and forward any requests for extensions to Brad Boddy.

Mr. Waldorf stated that he wanted to address regional capacity issues by looking at the potential of running an oversized line to Etna with a treatment plant at the end of Pine Creek. It was stated that a large range of alternative would be evaluated in the future as part of the alternative analysis. Mr. Lockard said that he welcomed suggestions of alternatives. He noted that the existing Wood's Run Plant is inadequate. In order to make up for the shortfall of plant capacity, ALCOSAN is looking at regional facilities, conveyance, and other land that may be available.

Mr. Coleman reiterated his concerns for the need now to define the extent of the model. He requested that the Girty's Run communities get back to him and Brad Boddy with feedback and suggestions soon.

d. Public Outreach

Mr. Lockard outlined the roles and responsibilities of the 15-member Customer Municipal Advisory Committee (CMAC). This Committee is required by the Consent Decree. Individuals have been approached with a request to serve on the Committee, but the names have not been released yet. The first meeting will probably be in November 2008, with the main agenda topic being the status of the Wet Weather Plan and flow monitoring.

Mr. Lockard explained that the Regional Stakeholder Committee (RSC) is another committee. The RSC is comprised of 2 volunteers from each of the seven Planning Basins. The focus of this committee will be water quality issues, regional environmental issues, and will also touch on the financial implications of proposed plan. The Committee should represent a good cross section of types of communities in all of the Planning Basins and is expected to meet quarterly at first. He welcomed suggestions of individuals or volunteers from LOGR Basin to serve on this committee.

e. Next Steps

Mr. Coleman reviewed the information currently needed. The group will meet again after the first of the year. As input for the January 2009 meeting he requested recommendations of individuals to serve on the Regional Stakeholder Committee. In addition, he asked for consideration of issues related to public outreach to municipal boards and the public, and planning over the next few years (without specific concerns focusing on the cost implications). He asked those present to think of what your community needs for the Model Extent and let Wade Trim know.

Mr. Zischkau said that since less than 2% of West View is in the Lowries Run Planning Basin, he requests that he be excused from the Lowries Run Subgroup meetings and that West View would focus their participation in the Girty's Run subbasin meetings. He would like to still like to be notified of the meeting dates and receive any correspondence from both Sub Basin meetings. Mr. Lockard informed the group that the official ALCOSAN meeting notes will be made available, but he stressed the importance of communities attending the meetings in person so that they are represented and also so that they can then provide valuable information to their Councils and Boards. Mr. Lockard stated again how important it is that the individuals that are representing the municipalities at the Basin Planning Committee meetings pass the word back in their communities about what is discussed at these meetings. He added that he will be happy to attend any municipal meetings if requested to do so.

2. Items Distributed:

a. A meeting Agenda was handed out to the municipality/authority representatives within the Girty's Run Communities Planning Sub Basin. Meeting attendees also received a copy of the power point presentation; a working Draft dated 4/28/08 of the "Basin Planning Coordination with Municipal Orders" Schedule, and a watershed map.
b. Copies of the Agenda, power point presentation, schedule and map are included as attachments to these meeting minutes.

3. Action Items:

a. Municipalities to review Wade Trim's Draft Existing Conditions Report in January of 2009. Municipalities to provide comments back to Brad Boddy of Wade Trim.
b. Municipalities to supply requested mapping information to Brad Boddy of Wade Trim.
c. Municipalities to submit their Municipal Feasibility Study plans and schedules including ideas being considered in their municipal feasibility studies. For example, municipalities should consider "who's doing what?" and "when and how to implement?"
d. Municipalities to get their list of areas of concern within their systems to Mr. Brad Boddy and Mr. Mark Coleman of Wade Trim to see if specific needs should/can be addressed.
e. Municipalities to review current model extent and provide comments back to Mr. Brad Boddy.
f. Recommendations of individuals to serve on the Regional Stakeholder Committee.

4. Next Meeting:

The date for the next meeting was not set, but it would probably take place in mid to late January of 2009.

Mr. Coleman outlined considerations for the Agenda for the next meeting, including: a follow-up discussion of items reviewed today; the Existing Conditions Report; changes to the model; outline of items while looking ahead; issues which have included communicating with Municipal Boards and Mangers; etc.

5. Attachments:

a. Attachments as identified above under section 2.b.

The meeting adjourned at approximately 10:30 am.

These minutes are a summary of the writer's interpretation of the meeting. Should you have any comments regarding any of the items, please contact Wade Trim within five (5) calendar days of these Meeting Minutes. If no comments are received by this time, it will be considered that all attendees are in agreement of the proceedings recorded herein.

MMC:KC:dms
ALC2003.01H

ALCOSAN Basin Facilities Planning
Meeting Minutes

Lower Ohio/Girty's Run Planning Basin (Lowries Run Sub Basin)
Basin Planning Committee Meeting Number 2
Date / Time: October 27, 2008; 1:00 P.M.
Location: Girty's Run Joint Sewer Authority

Attendees:

Dave Borneman, ALCOSAN
Dan Lockard, ALCOSAN
Dolat Naik, ALCOSAN/M&E
Mike Stupy, Girty's Run Joint Sewer Authority
Dennis Blakley, MTSA
John Sullivan, Ohio Township
Brad Boddy, ALCOSAN/Wade Trim
Mark Coleman, ALCOSAN/Wade Trim
Kathy Chavara ALCOSAN/Collective Efforts

1. **Discussion / Decision / Agreement Summary**:

   a. Meeting Goals, Agenda Review, and August 5, 2008 Meeting Summary

   Mr. Mark Coleman of Wade Trim opened the meeting by welcoming everyone and thanking them for attending. He noted that the Lower Ohio-Girty's Run Planning Basin was divided into three groups (Ohio River, Girty's Run, and Lowries Run) for this round of this Basin Facilities Planning Meetings. He presented the Agenda, which is attached to these meeting minutes. Mr. Coleman asked for any feedback that anyone might have from the previous meeting. Meeting Minutes from the August 5, 2008 meeting were provided.

   b. Current Activities – Status

   Mr. Brad Boddy from Wade Trim updated the group on a number of current activities. The first being flow monitoring where he noted there are three types of flow monitors; Long Term (which runs from Feb.1, 2008 to Feb. 1, 2009), Medium (March 15, 2008 to September 15, 2008) and Short Term Monitoring (March 15, 2008 to June 30, 2008). Monitoring data are available on the ALCOSAN and 3 Rivers Wet Weather websites. The second topic was mapping where he stated the municipalities have conducted extensive mapping in the past number of years. It was requested that each municipality keep the LOGR Team informed of any mapping updates as they are developed. This will ensure the LOGR Team is working with the most accurate information. Mr. Boddy stressed that they need more information on the mapping, includes information on the Lowries Run Joint Owned Sewer.

   Comments on the ALCOSAN NMC were due by October 23, 2008. If you haven't looked at the report, it should still be available on the ALCOSAN website. ALCOSAN/Wade Trim is still in the process of obtaining information from the Municipalities. Some of the items needed include:

Emsworth pump station drawings; Lowries Run Interceptor Mapping/GIS; Lowries Run Interceptor Model; and Lowries Run Historical Flow Monitoring.

The Existing Conditions Report Table of Contents is currently being developed. The report will summarize the understanding of the systems in this Basin, from the municipal systems to ALCOSAN's system. Information of the physical characteristics of the basin include; watercourses, land use and demographics, current water quality and pollution sources. Section 5 provides extensive coverage of municipal collections systems, which may include equalization tanks and pump stations; existing systems descriptions; and hydraulic restrictions in the system (capacity limitations). The Draft for the Existing Conditions Report needs to be sent to all the Municipalities for review by the first quarter of 2009. Municipalities are to review the sections that are related to their community and confirm the accuracy of the content. Wade Trim is interested in issues such as any capacity limitations that a municipality has, or future development so that ALCOSAN can plan for increases in flow.

c. Near Term Activities - Status

The Regional Wet Weather Planning process will involve developing a facilities plan to reduce wet weather flows to ALCOSAN's collection system and adequately treat overflows. The plan has to meet regulatory requirements. It will be developed in coordination and collaboration with the municipalities and will encompass all seven Planning Basins. The costs of such a plan will encompass both the up-front expenditures, as well as long-term operation and maintenance costs. Since the Basin Planning Meetings are mainly for technical issues, cost distribution and cost allocation for potential improvements will be addressed at a different forum.

The Draft of the Existing Conditions Report is due December 2008. In September of next year, the Hydraulic Model and Calibration Report will be submitted. By October of 2009, the Preliminary Alternatives Screening will be complete. More specific treatment alternatives will be presented in the Coordination of Alternatives Analysis, which will be developed between the time period of October 2009 and June 2011. The Final Facility Plan will be complete in September 2011. Wade Trim's Regional Wet Weather Report for the Lower Ohio – Girty's Run (LOGR) Planning Basin will discuss what's unique to this Planning Basin. The LOGR Report will then be included with the other seven Planning Basins to create one regional report.

Mr. John Sullivan of Ohio Township stated that their municipal engineer, Mr. Dick Stewart (NIRA), should attend these Basin Facilities Planning meetings. He has a good understanding of the sanitary system in Ohio Township. Mr. Coleman agreed that it is important for the municipal engineers to attend to ensure proper/correct information sharing.

ALCOSAN is going to be initiating the Municipal Feasibility Study Process. Wade Trim will be requesting a lot of information relating to flow management for this study, such as local flow management, capacity deficiencies, and flows at various design and storm events. They will need the municipalities to be able to provide projected flows under these various design conditions. Mr. Coleman noted that the municipalities will need to jump on this soon and work together in order to provide the LOGR Team with flow projections by the first quarter of 2010. Information

about the proposed community schedules of what and when things will be pulled together was requested.

Mr. Dan Lockard of ALCOSAN addressed the plan of action and schedule of elimination of SSO's/CSO's from the Municipal Collection System. He noted that the Municipal Orders requires municipalities to complete there feasibility study six months after ALCOSAN's Wet Weather Plan is submitted to EPA. He stressed the need to work together to determine flow projections as ALCOSAN needs to understand what the municipalities are going to do prior to completion of their Plan. ALCOSAN is aware that Lowries has a model and ALCOSAN would prefer to start with this model and incorporate it with LOGR Model. Once the model is calibrated and verified it will be shared with the municipalities. However, the LOGR Team will not be doing the modelling for the local municipalities. Mr. Lockard asked for a schedule of the Lowries Run planning process. Source reduction and green solutions, including their potential for success, should be considered by the municipalities. Once the municipalities have an idea of their future plans and development, it will be critical for ALCOSAN to identify future flows. ALCOSAN will identify technologies and share them with the Planning Basins as part of the Feasibility Study Process.

A copy of the Basin Planning Coordination with Municipal Orders schedule was provided to the meeting attendees. Mr. Coleman discussed the schedule with the group. Mr. Lockard noted that ALCOSAN understands that the current WWTP, as currently constructed, can't treat all the waste even if it all could physically get there.

Mr. Dennis Blakley (MTSA) asked if a capacity study has been requested at the plant, or if one is currently being performed. Mr. Lockard responded that ALCOSAN is conduction this analysis and it will be sending it the regulatory agencies by the end of the year. Mr. David Borneman of ALCOSAN informed the group that the Federal government has six months to get back to them with comments on this study.

A map providing the model extent, municipal sewer lines, and separate and combined sewer areas in the Lowries Run Sub Basin area was distributed and discussed with the group. Mr. Borneman pointed out that dry weather flows are also a concern as growth is experienced in this Sub Basin. Mr. Boddy stated the Consent Decree modelling requirements included modelling extents up to internal municipal overflow structures, as well as, a few manholes upstream of each point of connection. He noted that currently the Bear Run trunk line is not being modelled and that only a few manholes are being proposed for the Emsworth system. Mr. Boddy asked if there were any locations where communities have concerns related to the model extent. No requests were made at the meeting but the communities were requested to review the proposed model extent and forward any requests for extensions to Brad Boddy.

Mr. Blakely noted that the LRJOC has completed improvements on the trunk sewer above manhole 44. Mr. Coleman stressed that acquiring information on the Lowries Run Trunk Sewer is a critical path for Wade Trim.

d. Public Outreach

Mr. Lockard outlined the roles and responsibilities of the 15-member Customer Municipal Advisory Committee (CMAC). This Committee is required by the Consent Decree, and should be in place before the end of the year.

The Regional Stakeholder Committee (RSC) is another committee, comprised of 2 volunteers from each of the seven Planning Basins. Mr. Lockard noted that the volunteers should represent a good cross section of community members and that they will be involved with land use, conservancies, development, citing, and issues like water quality. He welcomed suggestions of individuals or volunteers from LOGR Planning Basin to serve on this committee.

e. Next Steps

Mr. Coleman said that the Lowries Run and Girty's Run Sub Basins may meet as one sub-group rather than as separate two Sub Basins for the next meeting in January. Wade Trim will send an information package to each municipality and will be getting together with MTSA very soon.

2. Items Distributed:

a. A meeting Agenda was handed out to the municipality/authority representatives within the Lowries Planning Sub Basin. Meeting attendees also received a copy of the power point presentation; a working Draft dated 4/28/08 of the "Basin Planning Coordination with Municipal Orders" Schedule, and a watershed map.
b. Copies of the Agenda, power point presentation, schedule and map are included as attachments to these meeting minutes.

3. Action Items:

a. Municipalities to review Wade Trim's Draft Existing Conditions Report in January of 2008. Municipalities to get information and comments back to Brad Boddy of Wade Trim.
b. Municipalities to supply requested mapping information to Brad Boddy of Wade Trim.
c. Municipalities to submit their Municipal Feasibility Study plans and schedules including ideas being considered in their municipal feasibility studies. For example, municipalities should consider "who's doing what?" and "when and how to implement?"
d. Municipalities to get their list of areas of concern within their systems to Mr. Brad Boddy and Mr. Mark Coleman of Wade Trim to see if specific needs should/can be addressed.
e. Municipalities to review current model extent and provide comments back to Mr. Brad Boddy.
f. Recommendations of individuals to serve on the Regional Stakeholder Committee.
g. Wade Trim will meet with Mr. Blakley at MTSA to discuss the LRJOC SWMM model.

4. Next Meeting:

The date for the next meeting was not set, but it would probably take place in mid to late January of 2009.

Mr. Coleman outlined considerations for the Agenda for the next meeting, including: a follow-up discussion of items reviewed today; the Existing Conditions Report; changes to the model; outline of items while looking ahead; issues which have included communicating with Municipal Boards and Mangers; etc.

5. Attachments:

a. Attachments as identified above under section 2.b.

The meeting adjourned at approximately 2:00 pm.

These minutes are a summary of the writer's interpretation of the meeting. Should you have any comments regarding any of the items, please contact Wade Trim within five (5) calendar days of these Meeting Minutes. If no comments are received by this time, it will be considered that all attendees are in agreement of the proceedings recorded herein.

MMC:KC:dms
ALC2003.01H

ALCOSAN Basin Facilities Planning
Meeting Minutes

Lower Ohio/Girty's Run Planning Basin (Girty's Run/Lowries Run Sub Basins)
Basin Planning Committee Meeting Number 3
Date / Time: March 11, 2009; 8:30 A.M.
Location: Girty's Run Joint Sewer Authority

Attendees:

Dan Lockard, ALCOSAN
Dolat Naik, ALCOSAN/AECOM
Jim Protin, ALCOSAN/AECOM
Tom Schevtchuk, ALCOSAN/CDM
Mike Stupy, Girty's Run Joint Sewer Authority
Jeff Chevalier, Girty's Run Joint Sewer Authority
Greg Scott GRJSA/Chester Engineers
Bill Youngblood, MTSA
Dennis Blakley, MTSA
Richard Stewart, OTSA, Ohio Township/NIRA
Don Waldorf, PWSA
Virginia Pucci, Millvale Borough
Mike Skinner, Emsworth Borough/Gateway Engineers
Bob Zischkau, West View Borough/Glenn Engineering
Michelle Buys, Allegheny County Health Dept.
Thomas Flanagan, PADEP
Bryan Rankin, PADEP
John Schombert, 3 Rivers Wet Weather
John Shannon, Baker Engineering/3RWW
Brad Boddy, ALCOSAN/Wade Trim
Tony Catania, ALCOSAN/K Bealer Consulting
Mark Coleman, ALCOSAN/Wade Trim
Beth Dutton ALCOSAN/Collective Efforts

1. **Discussion / Decision / Agreement Summary**:

   a. Meeting Goals, Agenda Review, and October 27, 2008 Meeting Summary

   Mr. Mark Coleman of Wade Trim opened the meeting by welcoming everyone and led the introductions. Mr. Coleman stated that the two primary goals for this meeting were information exchange and to convey a plan of action between now and September, the next deliverable date. He presented the Agenda, which is attached to these meeting minutes.

   b. Status Update ALCOSAN/3RWW

   Mr. Brad Boddy from Wade Trim updated the group on several technical items. He noted that most of the flow monitors have been removed, and the last set of flow monitoring data will be available in April. The flow monitoring data can be obtained from both the ALCOSAN Municipal and 3 Rivers Wet Weather (3RWW) websites. Deconstructed hydrographs for the municipal short term monitors are also available on the 3RWW website. To highlight some of the results of the flow monitoring program, maps of the Lowries Run Basin and Girty's Run Basin showing specific areas of observed surcharging were presented. These areas should be evaluated by the municipalities to determine if there is sufficient transport capacity in these portions of the collection system. A tabular summary of the number of activations (overflow frequency) and the

overflow volumes that have been observed during the flow monitoring program was presented to highlight some of the areas that the municipalities will need to develop control strategies as part of their feasibility studies.

Model extent maps of the Lowries Run and Girty's Run Basins were distributed at the meeting. Mr. John Shannon noted that the model extents don't extend to all of the monitors in the basin. Mr. Boddy agreed and stated that the model extent was developed by first extending the model to all internal designed overflows and then extended farther upstream based on comments received by the municipalities. Mr. John Schombert noted that 3RWW is incorporating the model extents into the regional mapping.

Mr. Boddy noted there is a new version of the "One Overall" mapping, version 3.0, is now available. This version contains two naming conventions for each of the municipal structures. A regional naming convention provided a unique name ALOCAN system wide while the local municipal naming convention is still tracked for historical purposes. Mr. Boddy said that he needs to get clarification on the mapping for a portion of the O-15 (MTSA Melwood Ave Area). Clarification is needed to define this area as tributary to ALCOSAN or another MTSA treatment plant. He also asked those present to let the LOGR Planning Team and 3RWW know when they (the municipalities) make updates to mapping so they have a current and accurate map of the system.

Mr. Jim Protin of AECOM provided an update on the status of public outreach items. The Customer Municipality Advisory Committee consists of 15 members, and includes a representative from each of the seven ALCOSAN Planning Basins. Their first meeting was February 18, 2009, and they have created by-laws and protocols. Mr. Dan Kinross, a member of the Ross Township Board of Commissioners, is the representative for the Lower Ohio Girty's Run Planning Basin. The Regional Stakeholders Group is a much larger group, with 50 members. This group has two representatives from each basin, and representatives from other organizations such as civic, academic, government, etc. Their first meeting is today, March 11, 2009 The intention is for this to be a grass-roots group who will engage the regional municipal governments and the general public in the wet weather planning process. ALCOSAN will provide a list of members when it has been finalized. Finally, the recent public meetings that ALCOSAN conducted were very well attended. These meetings provided the public with an overview of the Consent Decree, what's been done, and what's upcoming. These meetings will be held on an annual basis.

c. Information Exchange

Mr. Dan Lockard of ALCOSAN provided the group with a summary of the types of information that are now available on the updated ALCOSAN municipal website. Mr. Boddy stated that Ross Township had developed a good way of providing information to the ALCOSAN basin planners. Ross Township has developed a website to post information requested by the ALCOSAN basin planners. He noted that the LOGR Planning Team would like to have an update on the status of the stream removal project at A-66 in Reserve Township so that the LOGR Planning Team can accurately represent the proposed modifications in the model. He also requested that the

municipalities forward their MS4 Reports and storm sewer maps to him if they haven't done so already.

d. Program Manager Presentation: Financial Data Collection

Mr. Tom Schevtchuck of CDM provided an overview of the goals and activities of the Financial Data Collection process. The main goal of Financial Data Collection is to get a comprehensive understanding of the costs of the Wet Weather Plan. In response to Mr. Shannon's question of what ALCOSAN hopes to accomplish with the data collection, Mr. Schevtchuck stated that they want to determine what the costs are, and what is fair and equitable for the rate payers. Two important components are affordability (what rate payers are able to pay) and financial capability (what ALCOSAN will be able to finance).

ALCOSAN is using 2000 census data on median household income to determine affordability ranges. 1997 EPA guidance will guide the process to look at residential income versus wastewater costs. Mr. Schevtchuck distributed a draft Information Request Prototype with various categories of EPA Indicators, and an Affordability Calculation Information List. He noted that for 2009, the typical resident pays $560 for annual wastewater treatment.

The analysis has integrated some municipal data into the cost of service and affordability model. CDM utilized information that is available from municipal websites to start filling in the data template. ALCOSAN will send a draft of the template to the municipalities for review and to make sure that the data is accurate. ALCOSAN will also need municipalities to provide some additional information. In March or April, ALCOSAN will send a letter to the municipalities with information on what they are doing for financial data collection, and the information they are requesting. Mr. Schevtchuck agreed with Mr. Bob Zischkau that the municipal engineers should also be copied on this letter. Mr. Schevtchuck distributed a draft list of Municipal Data Needs which includes, for example:

- current and projected municipal wastewater costs,
- brief descriptions of the financial setup of the municipal sewer system,
- capital budget financing (bonds, PennVEST, etc.),
- municipal sewer rates, and
- institutional information.

Mr. Schevtchuck distributed a summary of the activities related to Financial Capability Assessment by category and by year for the next five years. The three categories are Financial and Institutional Assessment, Basin Planning, and Key Related Wet Weather Development. He highlighted the major activities of each.

Mr. Schevtchuck outlined the roles of the various entities involved in the wet weather planning process vis-à-vis Financial Data Collection. Municipalities will be asked to provide information on current and projected costs. 3RWW is implementing a financial asset and liability database, and facilitating data sharing and coordination. Mr. Schombert added that 3RWW has a grant from PADEP to gather municipal asset and financial information that would be useful for a municipality if they are considering consolidation of their municipal wastewater services. 3RWW

can provide this information to communities considering consolidation as an option. 3RWW is providing reimbursement to consultants who help them mine the data. The Basin Planners' roles will be to determine asset and data acquisition and to develop basin alternatives and costs. Finally, the Wet Weather Program Management Team will be responsible for data compilation and management, developing the financial model, and putting the formal paperwork together.

Mr. Lockard wrapped up the discussion on Financial Data Collection by emphasizing the fact that the overall effort has to look at what can realistically be done to improve water quality. He thanked the municipalities' in advance for providing their financial data and information, which are critical in order to make the financial analysis as accurate as possible.

The attendees engaged in discussion following Mr. Schevtchuck's Financial Data Collection presentation. The first point, raised by Mr. William Youngblood, was: should we invest the time to look at controls if ALCOSAN is going to resolve issues downstream? Mr. Lockard responded that ALCOSAN will keep municipalities informed regarding what improvements ALCOSAN is planning. He noted that this is a "chicken and egg" situation" in that what municipalities and ALCOSAN plan is based on what the other is planning as far as storage, transport, I/I source removal etc.

Mr. Shannon noted that municipalities should begin reviewing flow monitoring data. Municipalities should develop flow rates for a design storm. The Feasibility Study Working Group will provide information to municipal engineers required to develop flow rates for design storms, etc. Mr. Schombert added that municipal managers will also be brought into the process. Mr. Youngblood noted that he thinks everyone agrees that the flow monitoring process was well done.

Ms. Virginia Pucci asked if there is some way to determine how much flow is Millvale's versus how much is from other municipalities. Mr. Lockard responded that at this point the monitoring does not look at municipal boundaries. Basin groups should be focusing on "Where are the overflows occurring?" Mr. Schombert's group is valuable for this. Mr. Schombert added that flow monitoring data could probably provide some good data to answer Ms. Pucci's question. However, he agreed with Mr. Lockard that this is a basin-wide issue, and regional solutions are best.

Mr. Boddy commented that Ms. Pucci brought up an excellent point, dealing with the institutional issues of overflows: Who is responsible? Who is affected? How will we solve the problem? Ms. Pucci stated that she feels that municipal board members don't always listen to what the municipal managers say on this issue. It would be helpful if the engineers could communicate the seriousness of the wet weather problem and the need for solutions. Mr. Coleman said that the Wet Weather Planning Team will do whatever it takes to get the message across to elected officials. Mr. Lockard added that ALCOSAN has a standing offer to present to municipal boards.

e. Existing Conditions Report

Mr. Coleman requested feedback on the Existing Conditions Report. He has received a few comments, but requested confirmation from each municipality that they are either OK with the

report, or what edits the municipalities may need. The information in this report will be the basis for a lot of the modelling, so it's important that it's as accurate as possible.

f. Regional Wet Weather Overflow Control Plan & Municipal Feasibility Studies

Mr. Coleman stated that the Basin Planning Team has requested that municipalities provide feedback and information, but they haven't received as much as they would have liked over the past few months. So he expanded on the time line of reports and goals for the Regional Wet Weather Plan & Municipal Feasibility Studies with a detailed handout titled "Proposed Alternative Evaluation and Public Participation Process." This detailed time line shows what needs to be accomplished for main deliverables between now and December 2011. The work activities on the handout include: deliverables, H/H Modelling, Public Participation, Identification & Screening Technology Alternatives, Engineering Analysis, and Present Worth Analysis. The timeline also includes general time frames for report submittals/project tasks and estimated dates of future Basin Planning Committee Meetings.

Mr. Coleman stressed that a foundation of technical understanding of the basin is needed before costs can be discussed.

Mr. Youngblood voiced his concern for the cost to communities to implement the necessary technologies. Will this be part of ALCOSAN's long term control plan or will community money need to be committed? He is also concerned about how much more residents will be asked to pay for wastewater improvements. Mr. Lockard responded that communities will be responsible for the costs, for example, for overflows in their communities. Ms. Michelle Buys added that ALCOSAN will implement technologies such as swirl concentrators downstream, but they are not responsible for the flow getting to their structures. Mr. Youngblood noted that over $8,000 has already been spent in Girty's Run for engineering services for this program. He has heard other municipalities say that their costs and who will pay for it is a big concern for them, as well. He noted the large number of consultants present in the room for this meeting. Mr. Coleman agreed that there is a lot of technical work that needs to be done. Mr. Lockard said that this is a valid issue. ALCOSAN has been looking at how municipalities are paying for this in other parts of the country. Mr. Schombert said that they don't want to lose momentum from the very successful flow monitoring program. Mr. Youngblood said that Girty's Run will start the process on managing overflows. He will get his engineers together for a meeting and asked if the Basin Planners would attend. Mr. Lockard and Mr. Coleman readily agreed to participate and assist in any way.

g. Next Steps

Mr. Lockard concluded the meeting by stating that ALCOSAN will be sending out a letter to the municipalities requesting information on their schedule of starting and completion of their municipal Feasibility Studies. He told the Girty's Run/Lowries attendees that the group seems like it is ahead of the curve in having a mechanism to work together. ALCOSAN will need to integrate Feasibility Studies from 83 other municipalities. After initial review, they may have to adjust, based on what other Basins are doing. As the process moves along, they will have a better idea of what the costs are going to be to convey, store, and treat the wastewater. Many issues have

to be considered to consolidate the individual ALCOSAN Basin plans and municipal feasibility studies into one comprehensive plan. ALCOSAN's overarching goal is to improve the water quality in a reasonably affordable way. Mr. Boddy encouraged all present to participate in the Feasibility Working Group meetings organized by 3RWW

2. Items Distributed:

a. Meeting Agenda and PowerPoint presentation.

b. Model Extent Maps for Girty's Run Basin and Lowries Run Basin

c. Draft ALCOSAN Financial Capability Assessment – Municipal Data Needs – February 2009

d. Information Request Prototype – Municipality, Sewer Authority and Engineers

e. Financial Capability Assessment – Contact Information and Affordability Calculation Information List

f. Financial Capability Assessment, General Timeframe & Relationship to Basin Facilities Planning

g. LOGR Basin – Proposed Alternative Evaluation and Public Participation Process

h. Basin Planning Committee Schedule from Lower Ohio/Girty's Run Basin *Public Participation Plan*

Copies of the items distributed at the meeting are included as attachments to these meeting minutes.

3. Action Items:

a. Mr. Boddy needs clarification on the area of O-15 (MTSA Melwood Ave Area) that's shown on the mapping. He requested confirmation if this area is a tributary to ALCOSAN or to a MTSA treatment plant.

b. The LOGR Planning Team would like to have the status of the stream removal project at A-66 in Reserve Township so that it can be accurately represented in the model.

c. Mr. Boddy requested the municipalities to forward their MS4 Reports and storm sewer maps to him if they haven't done so already.

d. Mr. Coleman requested feedback on the Existing Conditions Report. He requested confirmation from each municipality that they are either OK with the report, or what edits the municipalities may needed.

4. Next Meeting:

Mr. Coleman said that it makes sense for the Lowries Run and Girty's Run Sub Basins to meet as one group rather than as separate Sub Basins for at least the next couple of meetings. The next Basin Planning Committee Meeting will be in about three months time. Mr. Coleman distributed a preliminary schedule of upcoming Basin Planning Committee meetings and agenda topics from the *Public Participation Plan*.

5. Attachments:

a. Attachments as identified above under Section 2.

The meeting adjourned at approximately 10:45 a.m.

These minutes are a summary of the writer's interpretation of the meeting. Should you have any comments regarding any of the items, please contact Wade Trim within five (5) calendar days of these Meeting Minutes. If no comments are received by this time, it will be considered that all attendees are in agreement of the proceedings recorded herein.

ALCOSAN Basin Facilities Planning
Meeting Minutes

Lower Ohio/Girty's Run Planning Basin (Ohio River Sub Basin)
Basin Planning Committee Meeting Number 3
Date / Time: March 16, 2009; 1:00 P.M.
Location: Avalon Borough Building

Attendees:

Dan Lockard, ALCOSAN
Dolat Naik, ALCOSAN/AECOM
Jim Protin, ALCOSAN/AECOM
Tom Schevtchuck, ALCOSAN/CDM
Harry Dilmore, Avalon Borough & Kilbuck Township
Shawn Rosensteel, Avalon Borough & Kilbuck Township/Chester
Scott Swansinger, Bellevue Borough/HR&G
Ed McGee, Ben Avon Borough
Jennifer Dickson, Ben Avon Heights Borough
Paul Gaus, Ben Avon Heights & Emsworth /Gateway
Barry Davidson, Kennedy Township/RV&B
Bob Kipp, Kennedy Township/RV&B
Jim Barrick, Neville Township
Scott Hoffman, Stowe Township/ms consultants
Donna Davis, PADEP
Thomas Flanagan, PADEP
Bryan Rankin, PADEP
Cindy Hasenjager, 3 Rivers Wet Weather
Brad Boddy, ALCOSAN/Wade Trim
Kaye Bealer, ALCOSAN/K Bealer Consulting
Tony Catania, ALCOSAN/K Bealer Consulting
Mark Coleman, ALCOSAN/Wade Trim
Kathy Chavara ALCOSAN/Collective Efforts

1. **Discussion / Decision / Agreement Summary**:

   a. Meeting Goals, Agenda Review, and October 20, 2008 Meeting Summary

   Mr. Mark Coleman of Wade Trim opened the meeting by welcoming everyone and led the introductions. Mr. Coleman stated that the two primary goals for this meeting were information exchange and to convey a plan of action between now and September. He presented the Agenda, which is attached to these meeting minutes.

   b. Status Update ALCOSAN/3RWW

   Mr. Brad Boddy from Wade Trim updated the group on several technical items. He noted the locations of the few remaining flow monitors and how long they are expected to remain in place. The last set of flow monitoring data will be available in April. The flow monitoring data can be obtained from both the ALCOSAN and 3RRWW Municipal websites: (http://municipalities.alcosan.org/portal/site/Municipalities), and 3 Rivers Wet Weather (3RWW) Municipal Data Support website: (http://www.3riverswetweather.org/c_muni/c_datasupport.stm). Deconstructed hydrographs for the municipal short term monitors are also available on the 3RWW website. To highlight some of the results of the flow monitoring program, a map of the Ohio

River Communities showing specific areas of observed surcharging was presented. These areas should be evaluated by the municipalities to determine if there is sufficient transport capacity in these portions of their collection system.

A model extent map of the Ohio River Communities Sub Basin was distributed at the meeting. The lines in the system indicated in green will be included in the model. Ms. Donna Davis of PADEP asked if the model extent was based on where there was observed surcharging during the flow monitoring program. Mr. Boddy replied that the model extent was first based on including municipal sewers up to and including all existing municipal designed overflow structures. The model was then extended based on comments received from the municipalities such as the extension of the model in the Jack's Run sewershed.

Mr. Boddy noted that a new version of the "One Overall" map, version 3.0, is now available. This version contains two naming conventions for each of the municipal structures. A regional naming convention provided a unique name for ALOCAN system wide, while the local municipal naming convention is still tracked for historical purposes. Mr. Boddy said that he still needs to get clarification on the mapping for O-18 (Avalon and Bellevue trunk sewers). He also asked that the municipalities let the LOGR Planning Team and 3RWW know when they make updates to mapping so they have a current and accurate map of the system.

Mr. Jim Protin of AECOM provided an update on the status of public outreach items. The Customer Municipality Advisory Committee consists of 15 members, and includes a representative from each of the seven ALCOSAN Planning Basins. The members are appointed by the County Executive and ALCOSAN. Their first meeting was held on February 18, 2009, and he noted that their purpose is to develop a consensus-based process. Mr. Dan Kinross, a member of the Ross Township Board of Commissioners, is the representative for the Lower Ohio Girty's Run Planning Basin.

The Regional Stakeholders Group is a much larger group, with 50 or more members. This group has two representatives from each basin, and representatives from other organizations such as civic, academic, government, etc. Their first meeting was held on March 11, 2009 The intention is for this RSG to be a grass-roots group who will engage the regional municipal governments and the general public in the wet weather planning process. ALCOSAN will provide a list of RSG members when it has been finalized. The membership is very fluid and may increase or decrease. Mr. Harry Dilmore and Mr. Ken Wolf are the representatives for the Lower Ohio Girty's Run Planning Basin. Mr. Dilmore commented that the public meeting was well attended and there was a good representative cross section of the Basin residents in attendance.

The annual public meetings that ALCOSAN conducted provided the public with an overview of the Consent Decree, what's been done, and what's upcoming. They are looking at ways that information can be shared between the public and ALCOSAN.

The Customer Municipality Advisory Committee and the Regional Stakeholders Group will meet again during the first week of May, and these will be followed by next round of BPC meetings.

c. Information Exchange

Mr. Dan Lockard of ALCOSAN provided the group with an overview of the types of information that are available on the updated ALCOSAN Municipal website: (http://municipalities.alcosan.org/portal/site/Municipalities).

Mr. Boddy noted that Ross Township has developed a good way of providing information to the ALCOSAN Basin Planners. Ross Township developed a website to post information requested by the ALCOSAN basin planners, "Ross Township Basin Planning Information."

Mr. Boddy reviewed a number of outstanding municipal data needs. These include a map of Avalon showing both the Avalon and Bellevue Spruce Run Trunk sewers. Individual maps of these lines have been provided by Avalon and Bellevue Boroughs to the LOGR Basin Planning Team. Neville Township has been providing flow monitoring data from the Townships mag meter. It was requested that the latest data be provided to ALCOSAN and the LOGR Basin Planning Team. He also requested that the municipalities forward their latest MS4 Reports and storm sewer maps to him if they haven't done so already.

d. Program Manager Presentation: Financial Data Collection

Mr. Tom Schevtchuck of CDM and Ms. Kaye Bealer of K Bealer Consulting, LLC provided an overview of the goals and activities of the Financial Data Collection process. The main goal of Financial Data Collection is to get a comprehensive understanding of the costs of the Wet Weather Plan. Two important components are affordability (what rate payers are able to pay) and financial capability (what ALCOSAN and the Municipalities will be able to finance).

Total Current Costs are comprised of ALCOSAN's current costs and Municipal current costs. Total Future Costs are comprised of ALCOSAN's future costs and Municipal near and long term O & M costs. Information will be needed over the next several years for items such as sewer budgets (spot repairs) and expansions. ALCOSAN will need to know targeted improvements for bigger capital improvements.

ALCOSAN is using 2000 census data on median household income to determine affordability ranges. 1997 EPA guidance will guide the process to look at residential income versus wastewater costs. Mr. Schevtchuck distributed a draft Information Request Prototype with various categories of EPA Indicators, and an Affordability Calculation Information List. He noted that for 2009, the typical resident pays $560 for annual wastewater treatment.

Ms. Bealer presented information from the EPA program "CSO Guidance for Financial Capability Assessment and Schedule Development." This is a planning tool that assists with cooperatively defining control strategies. Financial Rate Information has two phases. Phase 1 consists of a Resident Indicator, including Median Household Income. Phase 2 consists of the Permitted Financial Indicator. This includes debt indicators, socioeconomic indicators, and financial management indicators.

The preliminary analysis using 2009 as the base case shows the median household income in Allegheny County to be $48,700, with a range of $18,000 to $192,000. Current Affordability Indicators are also being developed. The Data and Model Development also includes Base Case Analysis.

The handout titled "ALCOSAN Financial Capability Assessment, Municipal Data Needs – February 2009" lists the information ALCOSAN will need to acquire from the municipalities. There is currently a gap in the available data.

Mr. Schevtchuck stated that public documents will be provided to DCED and others. 3RWW is currently working toward building a comprehensive database on financial assets and liability. This will be the third leg of the Municipal Data Support website. Ms. Cindy Hasenjager clarified that ALCOSAN is looking at the financial data from the aspect of potential affordability of required initiatives, while 3RWW is collecting the data from the perspective of the type of data needed to evaluate the consolidation of municipal wastewater services.

The analysis has integrated some municipal data into the cost of service and affordability model. CDM utilized information that is available from municipal websites to start filling in the data template. ALCOSAN will send a draft of the template to the municipalities for review and to make sure that the data is accurate. ALCOSAN will also need municipalities to provide some additional information. In March or April, ALCOSAN will send a letter to the municipalities with information on what they are doing for financial data collection, and the information they are requesting from the municipalities. The data that ALCOSAN will need the municipalities to supply includes, for example:

- Current municipal wastewater costs
- Near term costs (i.e. 5 year),
- Major capital improvements,
- A brief description of the financial setup of the municipal sewer system,
- Capital project financing,
- Municipal sewer rates, and
- Institutional information.

Mr. Schevtchuck distributed a summary of the activities related to Financial Capability Assessment by category and by year for the next five years. The three categories are Financial and Institutional Assessment, Basin Planning, and Key Related Wet Weather Development. He highlighted the major activities of each.

Mr. Schevtchuck outlined the roles of the various entities involved in the wet weather planning process vis-à-vis Financial Data Collection. Municipalities will be asked to provide information on current and projected costs. 3RWW is implementing a financial asset and liability database, and facilitating data sharing and coordination. 3RWW is gathering municipal asset and financial information that would be useful for a municipality if they are considering consolidation of their municipal wastewater services. The Basin Planners' roles will be to determine asset and data acquisition and to develop basin alternatives and costs. Finally, the Wet Weather Program

Management Team will be responsible for data compilation and management, developing the financial model, and putting the formal paperwork together.

e. Existing Conditions Report

Mr. Coleman requested feedback on the Existing Conditions Report. He has received a few comments, but requested confirmation from each municipality either that the report reflects the current status of the collection system of municipality or that edits are needed. He offered to meet with individual municipalities to discuss the report, if that would be helpful.

f. Regional Wet Weather Overflow Control Plan & Municipal Feasibility Studies

Mr. Coleman anticipates that from October 2009 to June 2010 there will be a great deal of back and forth exchange of information and data for review between the Basin Planning Team and the municipalities. He stated that at the last Basin Planning Committee meeting the Basin Planning Team requested that municipalities provide feedback and information regarding their plans and schedules to complete their municipal feasibility studies. A few municipalities have responded but they haven't received as many or the detail as they would have liked over the past few months. This indicated to ALCOSAN that our last meeting overview was not clear to the participants. So he expanded on the time line of reports and goals for the Regional Wet Weather Plan & Municipal Feasibility Studies with a detailed handout titled "Proposed Alternative Evaluation and Public Participation Process." This detailed time line shows what needs to be accomplished for main deliverables between now and December 2011. The work activities on the handout include: Deliverables, H/H Modeling, Public Participation, Identification & Screening of Technology and Alternatives, Engineering Analysis and Present Worth Analysis. The timeline, which has been intentionally left general, also includes general time frames for report submittals/project tasks and estimated dates of future Basin Planning Committee Meetings. The handout is color coded; blue indicates activities lead by the Basin Planning team, green are municipal lead activities/information needs, and red are ALCOSAN items available for use by both the Basin Planner and the municipalities.

Technical information such as the hydraulic model and Alternative Costing Tool (ACT) will begin to be developed in 2009. Mr. Lockard noted that the Ohio River Sub Basin does not have many locations with large multi-municipal sewers, so they shouldn't wait for the hydraulic model distribution from Basin Planner but should get started with their planning process as soon as possible.

As part of the Identification and Screening of Technology and Alternatives, Mr. Coleman said that screening criteria will be developed for the technologies, alternatives and the identified potential sites. Though not currently established, the criteria typically encompass three (3) general areas:

- Effectiveness or Environmental Impacts (such as volume and frequency reduction; pollutant reduction, etc)
- Implementation (such as siting and construction, land requirements, institutional constraints, etc.), and
- Operational (such as complexity, flexibility, reliability, public acceptance, etc.).

A ranking system will be developed and this first pass will consist of determining and eliminating what does not make sense. Cost will not be considered until later in the process.

Mr. Coleman noted that the *Feasibility Report and Present Worth Analysis* is currently scheduled to be complete by March 2010, but it may extend beyond this date. Mr. Lockard noted that this deliverable will include the integration of information from all seven basins, and improvements of ALCOSAN's Waste Water Treatment Plant.

Under the Public Participation task, Mr. Coleman noted that the Basin Planners will need input from the municipalities regarding their preliminary alternatives and sites. By January 2010, Wade Trim will provide municipalities with what design storm(s) that they would like corresponding flows from the municipality. Wade Trim and ALCOSAN are evaluating alternatives to address the ALCOSAN structures, and municipalities need to look at their system deficiencies (capacity limitations or control/elimination of internal CSO or SSOs) and evaluate transport, treatment, and I&I reduction alternatives to address these issues.

The Alternative Costing Tool (ACT) is another important aspect of the alternative evaluation Process. The ACT will be prepared by the Program Manager and will be available to the municipalities for use.

The one page handout entitled *ALCOSAN Wet Weather Plan, Lower Ohio/Girty's Run Basin Public Participation Plan, was briefly discussed*. This text provides a preliminary schedule of upcoming Basin Planning Committee meetings and agenda topics to enhance the understanding of the flow of the planning process.

Mr. Coleman presented an example of what is needed as part of a Municipal Feasibility Studies using the Spruce Run area as an example. This was a good example for explaining the need for municipalities to work together to understand their system and how improvements are interrelated. This was highlighted by discussing the impacts of alternatives of upstream municipality such as Ross Township or West View Borough could have on downstream municipalities. Mr. Coleman stated that the communities shouldn't delay with the preparation of their own feasibility studies, and that the Basin Planners will meet with them individually if requested.

g. Next Steps

Mr. Lockard told the group that he was pleased with the good start that the Ohio River Communities have in the Wet Weather Planning process. He encouraged them to provide more feedback to ALCOSAN and Basin planner Wade Trim in the areas of institutional information and technical issues which will impact the Feasibility Study. He also asked that municipalities should engage others as we talk about sites and types of treatments. Their goal is to arrive at list of options for the best cost effective solutions for the best water quality improvement.

Mr. Lockard noted that the Flow Monitoring Group, consisting of managers and engineers, is meeting, and encouraged everyone to attend. Ms. Hasenjager stated that 3RWW is meeting with all the municipal managers on April 15 at 1 p.m. @ Green Tree Municipal Building to discuss

bringing them into the Feasibility Study Working Group. Invitations will be e-mailed in the near future, and she encouraged all present to participate.

2. Items Distributed:

a. Meeting Agenda and Power Point presentation.

b. Model Extent Map for Ohio River Communities Basin

c. Draft ALCOSAN Financial Capability Assessment – Municipal Data Needs – February 2009

d. Information Request Prototype – Municipality, Sewer Authority and Engineers

e. Financial Capability Assessment – Contact Information and Affordability Calculation Information List

f. Financial Capability Assessment, General Timeframe & Relationship to Basin Facilities Planning

g. LOGR Basin – Proposed Alternative Evaluation and Public Participation Process

h. Basin Planning Committee Schedule from Lower Ohio/Girty's Run Basin *Public Participation Plan*

Copies of the items distributed at the meeting are included as attachments to these meeting minutes.

3. Action Items:

a. Mr. Boddy needs clarification on the mapping for O-18 (Avalon and Bellevue trunk sewers). He also requested information on which lines in Ben Avon are being CCTVed.

b. Mr. Boddy requested a map of Avalon showing both Spruce Run Trunk sewers

c. Mr. Boddy requested the municipalities to forward their MS4 Reports and storm sewer system maps to him if they haven't done so already.

d. Mr. Coleman requested feedback on the Existing Conditions Report. He requested confirmation from each municipality that they are either OK with the report, or what edits the municipalities may needed.

4. Next Meeting:

Mr. Coleman said that the next Basin Planning Committee Meeting will be in about three months time. Mr. Coleman distributed a preliminary schedule of upcoming Basin Planning Committee meetings and agenda topics from the *Public Participation Plan*.

5. Attachments:

a. Attachments as identified above under Section 2.

The meeting adjourned at approximately 3:00 p.m.

These minutes are a summary of the writer's interpretation of the meeting. Should you have any comments regarding any of the items, please contact Wade Trim within five (5) calendar days from the date of publication these Meeting Minutes. If no comments are received by this time, it will be considered that all attendees are in agreement of the proceedings recorded herein.

ALCOSAN Basin Facilities Planning
Meeting Minutes

Lower Ohio/Girty's Run Planning Basin (Ohio River Sub Basin)
Basin Planning Committee Meeting Number 4
Date / Time: June 25, 2009; 1:30 P.M.
Location: Avalon Borough Building

Attendees:

Dan Lockard, ALCOSAN	Art Gazdik, Ross Township Engineer
Dave Bingham, ALCOSAN/AECOM	Scott Hoffman, Stowe Township/ms consultants, inc.
Dolat Naik, ALCOSAN/AECOM	Michelle Buys, ACHD
Rob Arnold, Avalon & Kilbuck/Chester	Mike Moskorisia, ACHD
Scott Swansinger, Bellevue Borough/Herbert Rowland & Grubic, Inc.	Paul Eiswerth, PADEP
Al Grubbs, Ben Avon Heights Borough	Janie French, 3 Rivers Wet Weather
Paul Gaus, Ben Avon Heights & Emsworth/Gateway	Brad Boddy, ALCOSAN/Wade Trim
Bob Kipp, Kennedy Township/Remington, Vernick and Beach	Karen Brean, ALCOSAN/Brean Associates
Mel Weinstein, Kennedy Township	Kathy Chavara, ALCOSAN/Collective Efforts
Jim Barrick, Neville Township Engineer	Mark Coleman, ALCOSAN/Wade Trim
Andrew Maul, PWSA	Janai Williams, ALCOSAN/Ebony Holdings

1. **Discussion / Decision / Agreement Summary:**

   a. **Program Update**

   Mr. Mark Coleman of Wade Trim opened the meeting by welcoming everyone and led the introductions of those presenting at today's meeting and their topics. Mr. Coleman requested feedback regarding the content and format of the BPC meeting, and for everyone to fill out the Evaluation Form at the conclusion of the meeting. He presented the Agenda, which is attached to these meeting minutes.

i. Flow Monitoring

Mr. Brad Boddy from Wade Trim reported that, except for sites O-20-00 and O2500__-POC-L-01A, where flow monitoring is still occurring, flow monitoring is substantially complete in the Ohio River Communities Sub Basin.

Hydrograph deconstructions for municipal monitors are now on the Three Rivers Wet Weather Program Municipal (3RWW MDS) Website. Deconstruction of hydrographs for ALCOSAN sites will be available in October or November. Contact Mr. Boddy if you need this information sooner.

Mr. Boddy presented combined and sanitary sewer capture values for flow monitoring locations in the planning basin. He handed out the "Draft Summary of Observed Capture Values within the LOGR Planning Basin, June 24, 2009." The table summarized the Best Fit Capture Values for each monitor as well as the community and type of system the monitor was measuring. The table isn't final, and he requested interaction and discussion with municipalities regarding the data presented in the table. He asked those present to take a look at their municipality, as well as other municipalities. He noted that areas with high Best Fit Capture Values should be evaluated further to determine why those areas are getting so much flow.

ii. Modeling

Mr. Boddy provided an update on the status of the development of the model. Hydraulic development for the sewer network is complete. Dry weather calibration is ongoing, and wet weather calibration will start soon. He noted that data regarding the municipal pump stations in Kennedy, Stowe, and Emsworth is still needed.

--Design Storms and Typical Year

The 1,2,5,and 10 year – 24 hour storms were chosen as the design storms that will be evaluated with the model, although only the 2 and 10 years storms are required by the Consent Decree. Rainfall volumes will be based on NOAA Atlas 14, and distributed in time with a Type II distribution. The typical wet weather year for use in evaluating CSO will be 2003. Although 2003 is typical when comparing to the long-term rainfall record at the Pittsburgh International Airport, the calibrated pixel data will be evaluated for the 20 largest storm events and adjusted accordingly if they are not representative of the typical data record at the airport. This will be completed to ensure that 2003 is statistically typical across the whole watershed.

iii. Public Participation

-- CMAC/RSG

Ms. Janai Williams of Ebony Holdings provided an update on Public Participation activities from an overarching Program perspective. A CMAC (Customer Municipal Advisory Committee) meeting was held on 5/12/2009. Major topics at this meeting included a brief overview of WWP, Understanding Basin Planning, the Feasibility Study Working Group, and Public Participation. The follow-up meeting was held on June 23, 2009. They are tracking comments and other relevant items that come up at these meetings.

A meeting with similar topics was held for RSG (Regional Stakeholders Group) on 5/14/2009, with the next meeting scheduled to be held on 7/9/09. CMAC and RSG attendees were encouraged to offer comments on Basin Meetings, and to share topics and any other ideas. ALCOSAN would like to bring in additional members to serve on these two committees.

-- Basin Quarterly Activity Report

Ms. Karen Brean of Brean Associates presented the Public Participation Program information from a LOGR Basin specific perspective. A major component of the public participation outreach, the first "Basin Quarterly Activity Report," (QAR) was distributed recently by e-mail to municipal managers and engineers, as well as the representatives from PADEP, ACHD, and 3RWW that are invited to the Basin Planning Committee meetings. It provided an overview of the project, highlighted the planning activities for the basin, and what is on the horizon. It also provided contact information for the Basin Planning Team. It is scheduled to be distributed 4 times a year to keep people not closely involved in the program/basin activities up to speed on what is happening. The elected municipal officials, solicitors and commissioners will be receiving a copy of the report in the mail shortly. She will distribute a copy of the list of individuals that this report will be distributed to each quarter. Contact her or Wade Trim with additional agencies that you feel should be added to the distribution list.

-- Basin Public Outreach Program Implementation

For Basin Public Outreach, Ms. Brean stated that outreach will be targeted to local organizational stakeholders, with the team presenting at public forums held within the basin. She asked those present for their suggestions on stakeholders that should be invited to attend public forums, and the best method to contact them. This may include, for example, Environmental Groups, Watershed Groups, etc.

b. Technology and Site Screening

i. Screening Process

Mr. Mark Coleman introduced the Technology and Site Screening process to the group. The "Screening of Controls and Sites Report," due in October 2009, will summarize: control technologies, screening tools – eliminating technologies that don't apply, and the evaluation process. This is the first stage of the alternative development process and is really a high level evaluation and screening process. He said that rather than a number scale, a pass/neutral/fail (+, 0, -) rating system will be used to determine the effectiveness of the control technology at that site, based on current flow model requirements for each outfall. An evaluation form would be used for potential control sites to investigate the sites and record observations.

ii. Technologies Under Consideration

Mr. Coleman then moved on to discuss the handout "Control Technologies Considered for Screening" that lists all of the available control elements grouped in four major categories. The first category of control technologies is Source Control Technologies, which includes Best Management Practices, Infiltration/Inflow Control, Traditional Stormwater Management Practices,

Innovative (Green) Storm Water Management Practices, and Stream Removal. The second category of control technologies is Collection System Control Technologies, which includes Sewer System Optimization, Inter-Basin Flow Balancing/Relief and Sewer Separation. The remaining two categories are Storage Technologies that involve In-line Storage, Subsurface Storage, or Surface Storage; and Treatment Technologies that include Floatable and Coarse Solids Control, End-of-Pipe CSO Treatment Facilities, or Other Technologies, such as constructed wetlands or tertiary treatment control elements. The elements in the first two groups are generally controls that are outside of ALCOSAN's jurisdictional limits to employ and will in all likelihood be screened out from future LOGR alternative development. They are, however, items that local municipalities may find very useful in their municipal wet weather program development so they were included in the listing and will be set aside by the ALCOSAN team for municipal use.

iii. Sites

The siting process will involve looking at outfalls, completing the site evaluation form, and using maps to overlay the information gathered to determine if there is adequate space to site the proposed technology. The initial screening process will be more like a pass/fail determination than a full evaluation. Mr. Paul Eiswerth asked about consolidation of the outfalls. Mr. Coleman indicated that consolidation of outfalls will certainly be evaluated but not at this early stage since it will be looked at as an alternative rather than a standalone control technology. Mr. Coleman then presented the "Site Evaluation Form." He noted that evaluation of sites will be a two-stage process. The first stage, as detailed on the form, will be a desk study. If the site is found to be suitable, a field investigation would then be conducted. He will provide the electronic version of this form to any of the municipalities upon request. Mr. Coleman also said if there were any comments, he would like municipalities to contact him.

iv. Screening Criteria

Mr. Coleman also walked the group through the "Technology Screening Matrix," which highlights the three control technology screening criteria that will be used: environmental factors, implementation factors, and operational factors for the determination of the feasibility of the technologies under evaluation. He noted environmental factors as the overarching criteria that a technology must meet in order to continue to be considered in the screening process. One of the implementation factors highlighted was "Would technology be within ALCOSAN's direct jurisdiction to implement?" This is an important factor to keep in mind when evaluating screening technology. Mr. Coleman cited the example of wetland creation as one that would be difficult for ALCOSAN to implement outside of their jurisdiction.

v. Municipal Input

Mr. Coleman opened the discussion on how to best obtain municipal input during the technology and site screening process. He noted that the Basin Planners will be talking to the communities about potential sites. In addition, he proposed and offered a workshop to allow the municipalities to stay involved in the screening process and to address their major concerns or answer specific questions, which will require municipalities to do their homework. These workshops would also be of great benefit to the Municipal Feasibility Study work, which probably will include a similar process. He proposed one point person per community, with all of the representatives around one table. He will discuss these workshops with Mr. Dan Lockard. He told the group that he knows

that cost is a large concern, as are time constraints. One of the meeting attendees asked what would happen if we agreed on the technology but not on the financing. Mr. Coleman replied that financing discussions will be very lively and spirited. It is important however that during that time period the discussions don't get sidetracked by questions concerning the technical merits of the selected program. That is the reason we need to agree on the technical basis of the program, which will provide the framework to work together to figure out the most cost effective implementation.

c. Control Alternatives and Development

i. Early Action Projects/Multi-Municipal Projects

-- Source Controls (I/I reduction) – Rehab Critical Sewers

Mr. Dan Lockard said that early action projects/multi-municipal projects might include source controls (I/I reduction) in rehabilitating critical sewers.

Mr. Lockard requested those present to have a look at situations where flows may be high using Brad's information indicating a potential area for inflow and infiltration reductions. We should target multiple municipality-issues. ALCOSAN will work to help to secure funds.

In response to a question, Mr. Lockard stated that seeking other funding would not preclude initiating an early action project and asked participants to forward the request/information to the Basin Planner for follow up with ALCOSAN. Mr. Barrick said he had a few in mind and will send information to Mr. Coleman and Mr. Lockard to see what funding might be available. A common sewer serving Avalon and Bellevue is being looked at for an early action project and a decision must be made fairly soon. Mr. Lockard said that they are always looking for a win/win situation.

ii. Basin "Pilot" Projects

ALCOSAN would be interested in doing a demonstration project, and for municipalities to consider volunteering an area within their community (however, opportunities may be limited in LOGR). The thought is to take the area and run a mini-alternative analysis on it in terms of sizing and siting a control facility. . Ideally, sites would be parallel to the interceptor and near diversion structures. Attendees were asked to forward suggested locations to the Basin Planner.

d. Act 537 Funding

Mr. Lockard then moved on to speak about Act 537 Funding. He said ALCOSAN is working with PA DEP to secure as much funding as possible to lessen the burden on ratepayers. Basin Planners will separate out the time billed to Act 537 tasks to clarify reimbursement. Mr. Eiswerth noted that this needs to be designated to the legislature so that a pot of money can be used by communities to recoup costs for their 537 plans.

e. ALCOSAN Municipal Secure Website

Mr. Lockard went on to discuss the features ALCOSAN's redesigned municipal website. As the Basin Planning Process continues, workshop handout materials, deliverables and reports will be posted with dates on the website.

f. Financial Information Update

Mr. Lockard reported that ALCOSAN is working with 3RWW to obtain some financial and institutional information from the municipalities, as discussed at the last BPC. 3RWW has implemented its Regional Asset Implementation Database Program. The information collected by 3RWW will be used by ALCOSAN to determine baseline municipal and regional financial capability. Since 3RWW is sharing the data with ALCOSAN, municipalities will save time and effort by only responding to one information request. 3RWW has a fund that can be used to reimburse for time billed by engineers to complete the financial information request forms.

Mr. Lockard outlined the schedule of events for data collection and the baseline financial capability assessment through October.

g. Coordinated Schedule-Basin Planning and Municipal Feasibility Studies

Mr. Coleman distributed the Coordinated Schedule of basin planning activities over the next 17+ months. The Coordinated Schedule addresses a timeline, deadlines, as well as what is expected of both the LOGR Team, as well as Municipalities. These schedules were prepared specifically to address the unique preparatory activities and deliverable activities for each municipality/authority. One has been prepared for each municipality as well as for the major multi-municipal systems (Spruce Run, Lowries Run, and Girty's Run) and is a further drill down from the schedule prepared and overviewed at the last BPC meeting # 3. To reinforce this fact, they have been color coded consistent with the earlier distributed schedule. The agenda packets prepared for each municipality include that municipality's specific schedule along with the schedules of the multi-municipal systems they are a part of. While the information on the schedules appears to be redundant, they have been distributed in this manner to reinforce the fact that municipalities need to be coordinating their facility planning activities beyond just with ALCOSAN.

Mr. Lockard also noted that ALCOSAN and Municipalities should prepare for the "Worst Case." By March 2010 municipalities should know the "worst case" maximum flow volume to ALCOSAN.

Mr. Coleman noted that the first key municipal input date is the March 2010 BPC meeting. At this time the municipalities will be asked to confirm that the H&H model that will be used for subsequent alternative evaluations does in fact represent reality from the municipality's perspective. Also, if the municipality has identified wet weather level of service issues, what the overarching approach to addressing them will be (such as inflow reduction, storage, relief sewers, etc.) After the March, 2010 meeting, communities with issues to address should continue their feasibility work on addressing them while communities without issues simply need to stay plugged into the program to stay abreast of its progress and potential changes that may be made, such as Transport and Treatment Costs may change, and its impact on their local planning. Final municipal flow volume numbers to the ALCOSAN system need to be provided to the LOGR team

by September, 2010. There is a recognition that issues may crop up impacting this time frame. There are, however, numerous BPC meetings that will be held between now and then where status updates will be provided and issues and their impact on schedule can be discussed and flushed out. Also, there's no need to wait until the H&H model, which will be distributed later this year, is complete; there are activities that can occur in preparation for the hydraulic analysis work.

A period of discussion followed. Mr. Gazdik asked for clarification on what is expected from the municipalities regarding flows and how was this different than what the ALCOSAN Basin Planning team was doing with the H/H model. Mr. Coleman replied that he needs the municipalities to evaluate their flows prior to being provided the H/H model so that the BP Planning Team can evaluate the flows being generated by the model. This would also include coordinating with other municipalities that are tributary to the same multi-municipal sewer. As part of this evaluation the municipality would also evaluate whether they would be conducting any projects that would impact the flows in the future such as I/I removal, construction of parallel relief sewers, new development, or construction of other control measures up in their municipal systems. Mr. Gazdik noted that at some point it would be helpful to have municipalities within multi-municipal sewersheds to meet with the Basin Planning Team to evaluate municipal alternatives. Mr. Coleman replied that ALCOSAN does not want the Basin Planning Team to become the referees between municipalities that flow to a single point in the line. ALCOSAN can't do the "guts" of municipal, inter-municipal agreements/system improvements. Agencies such as PADEP are looking toward the municipalities to take the lead in these discussions. Organizations such as 3RWW are helping municipalities with the structure of the planning process – the schedule, ideas, discussion points, meter points, etc.

Capture rates and areas contributing to the flow are being provided. Mr. Gazdik requested more specific information like the capture values.

Dan said that formats have not been exactly the same from Basin to Basin, and he is allowing for a schedule extension for LOGR Basin Team since most of the LOGR Basin flow goes to the ALCOSAN plant.

2. Items Distributed:

a. Meeting Agenda and PowerPoint presentation.

b. Control Technologies Considered for Screening

c. Site Evaluation Form, ALCOSAN Facilities Planning, and Lower Ohio/Girty's Run Planning Basin.

d. Technology Screening Matrix

e. ALCOSAN Lower Ohio/Girty's Run Planning Basin, Basin Planning Committee Meetings, June 25 and 30, 2009 Coordinated Schedule – Distribution Listing

f. Draft Summary of Observed Capture Values within the LOGR Planning Basin, June 24, 2009

g. Introducing the Redesigned ALCOSAN Municipal Website

h. ALCOSAN Basin Facilities Planning – Lower Ohio/Girty's Run Basin June 25, 2009 Ohio River Municipalities Sub-Basin Planning Committee Meeting Participant Meeting Evaluation Form

i. ALCOSAN Basin Planning – Lower Ohio Girty's Run Basin, Coordinated Schedule – Basin Planning and Municipal Feasibility Studies, June 25, 2009 Basin Planning Committee Meeting, (specific to each municipality and distributed in their packet at the meeting)

Copies of the items distributed at the meeting are included as attachments to these meeting minutes.

3. Action Items:

a. Municipalities should review the "Draft Summary of Observed Capture Values within the LOGR Planning Basin, June 24, 2009." Mr. Boddy welcomes discussion and interaction with municipalities regarding the data presented in the table, particularly for areas with high Best Fit Capture Values.

b. Recommendations for ALCOSAN of additional representatives to serve on the Customer Municipal Advisory Committee and the Regional Stakeholders Group.

c. Contact Ms. Karen Brean or Wade Trim with additional agencies that you feel should be added to the Quarterly Activity Report distribution list.

d. Contact Ms. Karen Brean with suggestions on stakeholders that should be invited to attend public participation forums, and the best method to contact them. This may include, for example, Environmental Groups, Watershed Groups, etc.

e. Technology and site screening workshops were proposed for municipalities to help everyone stay involved in the screening process and to address major concerns or answer specific questions. Mr. Coleman will discuss setting up these workshops with Mr. Dan Lockard.

f. Consider potential Basin "Pilot" Projects sites within your community and contact Mr. Lockard and or BP Wade Trim to discuss.

g. Review distributed coordination schedule and take appropriate steps within your municipalities to accomplish the noted activities on the presented schedule.

4. Next Meeting:

The next Basin Planning Committee Meeting will be in September 2009.

5. Attachments:

a. Attachments as identified above under Section 2 – Items Distributed.

The meeting adjourned at approximately 3:45p.m.

These minutes are a summary of the writer's interpretation of the meeting. Should you have any comments regarding any of the items, please contact Wade Trim within five (5) calendar days from the date of publication of these Meeting Minutes. If no comments are received by this time, it will be considered that all attendees are in agreement of the proceedings recorded herein.

ALCOSAN Basin Facilities Planning
Meeting Minutes

Lower Ohio/Girty's Run Planning Basin (Girty's Run/Lowries Run Sub Basins)
Basin Planning Committee Meeting Number 4
Date / Time: June 30, 2009; 9:00 A.M.
Location: Girty's Run Joint Sewer Authority

Attendees:

Dan Lockard, ALCOSAN

Dave Bingham, ALCOSAN/AECOM

Dolat Naik, ALCOSAN/AECOM

Jim Protin, ALCOSAN/AECOM

Mike Stupy, GRJSA

Gregg Scott, GRJSA/Chester

William Youngblood, MTSA

Virginia Pucci, Millvale Borough

Richard Stewart, Ohio Twp and OTSA/NIRA

Phil Herman, Reserve Township/Senate Engineering

Robert Zischkau, West View/Glenn Engineering

Paul Eiswerth, PADEP

Brian Rankin, PADEP

Janie French, 3 Rivers Wet Weather

Brad Boddy, ALCOSAN/Wade Trim

Karen Brean, ALCOSAN/Brean Associates

Beth Dutton, ALCOSAN/Collective Efforts

Mark Coleman, ALCOSAN/Wade Trim

1. **Discussion / Decision / Agreement Summary:**

   a. **Program Update**

   Mr. Mark Coleman of Wade Trim welcomed the meeting attendees and introduced those presenting at today's meeting and their topics. Mr. Coleman requested feedback regarding the content and format of the BPC meeting, and for everyone to fill out the Evaluation Form at the conclusion of the meeting. He presented the Agenda, which is attached to these meeting minutes.

      i. **Flow Monitoring**

   Mr. Brad Boddy from Wade Trim reported that flow monitoring is still ongoing at sites O-20-00 in Avalon, and at O2500__-POC-L-01A, where the flow monitor was put in place after the completion of the stream removal project for the period Sept 2009-Sept 2010. Other than those two sites, flow monitoring is substantially complete in LOGR Basin.

As far as analysis, there are hydrograph deconstructions for municipal flow monitors now available on the 3RWW MDS website. These deconstructions break the flow into base wastewater, groundwater infiltration, and I/I flow components. Hydrograph deconstructions for ALCOSAN flow monitoring sites will be available in October or November. Contact Mr. Boddy if you need this information sooner.

Mr. Boddy said that Wade Trim is also taking a look at capture values, or the percent of rainwater getting into collection systems. Referring to the "Draft Summary of Observed Capture Values within the LOGR Planning Basin, dated June 24, 2009" he noted that capture values for combined sewer areas are ranging from 17-46%. A couple of areas (e.g. A-65) have unrealistically high values, so the areas contributing to these monitored locations need to be re-evaluated. Sanitary sewer capture values range from <1-23%. Since typical capture values are single digits, areas with double digit capture values should be evaluated to see why they're getting so much flow. In response to Mr. Bill Youngblood's question about the negative reference to so much flow getting into the combined systems, Mr. Boddy said that even though the systems are designed to capture the flow there may be benefits in removing some flow. Sometimes partial separations are used to reduce flow to get the CSO overflows to levels that are acceptable to regulatory agencies. Mr. Youngblood asked if acceptable levels have been determined. Mr. Coleman responded that level of service is an issue to be addressed individually by the municipality and the regulators. Our approach will be to look at the areas with high levels to see if the capture value represents reality – which it actually might. We are using this information to help calibrate the model.

ii. Modeling

Mr. Boddy provided an update on the status of the development of the H&H model. He said that Hydraulic Model development for the sewer network is pretty much complete. Dry weather calibration is ongoing now, and wet weather calibration will start soon. All calibration will be completed by September, 2009.

--Design Storms and Typical Year

Once the model calibration is complete, we'll have a tool to evaluate the 1, 2, 5, and 10 year – 24 hour design storms. These are the storms that ALCOSAN has chosen as the sanitary systems design storms for the model, although only the 2 and 10 years storms are required by the Consent Decree. The additional selected storms will facilitate a more robust knee of the curve effectiveness analysis. The design storm hyetographs will be based on NOAA Atlas 14 and a Type II distribution. A typical year will be used to evaluate combined sewer areas. The year 2003 was selected as a typical wet weather year. The top 20 storm events are being evaluated on a pixel level to ensure that the rainfall is not only typical at the Pittsburgh International Airport, but also across the entire ALCOSAN service area. Modification will be made to pixel data to make the selected year storms typical across the entire planning basin. The rainfall data will be shared with the municipalities. Mr. Youngblood asked if the agencies have agreed on design storms. Mr. Boddy replied that they haven't, but in separate sanitary areas, it relates to levels of service which is a local discussion with the agencies. Mr. Dick Stewart asked about the installation dates and durations of flow monitoring. Mr. Boddy replied February 2008 to February 2009 for the long term monitors; March 2008 to September 2008 for the medium term monitors; and March 2008 to - June 2008 for the short term monitors. The monitor in Jack's Run was installed in September 2008 and will be left in place until September 2009.

iii. Public Participation

-- CMAC/RSG

Mr. Jim Protin of AECOM updated the group on program-wide Public Participation activities. The second meetings of the CMAC (Customer Municipal Advisory Committee) and RSG (Regional Stakeholders Group) were held in a round table format, and resulted in productive discussion. The main focus of the meetings was educating the stakeholders on where the programs began and where we are now in the basin planning process. We will also be bringing these two groups up to speed on the Feasibility Study Working Group (FSWG) process and activities. The follow-up meeting to the May 12 CMAC meeting was a meeting held on June 23, 2009. Attendance was good, with approximately 80% of the 14 members present. The follow-up meeting for the May 14 RSG meeting will be held on July 14. This is a large, diverse group of about 40 people, and there has been a lot of interactive communication with e-mails and telephone calls since the May 14th meeting. The topics for the CMAC and RSG meetings were the similar. The next CMAC meeting # 4 is scheduled for October 14, and October 15 for the RSG. Contact Mr. Lockard or Mr. Dolat Naik if you know of anyone that might have an interest in sitting on one of these committees. In response to a request for the list of members, Mr. Protin said that the Basin Planner will provide a list of members and that the minutes of the meetings will be posted on the ALCOSAN public website. Mr. Lockard added that there are two representatives from each basin on the RSG. You are encouraged to engage with the representatives from LOGR – Mr. Harry Dilmore from Avalon and Mr. Ken Wolf from West View. The CMAC is an advisory committee specific to the wet weather plan. If you have any issues, contact Mr. Tim Rogers of Shaler or Ms. Mary Ellen Ramage of Etna. Both of these individuals are very involved and they help to complete the loop between ALCOSAN and the communities. All of ALCOSAN's regional planning team attends these meetings. The meetings have been very productive so far. County Council member Joan Cleary represents all of Allegheny County at the CMAC meetings.

-- Basin Quarterly Activity Report

Ms. Karen Brean of Brean Associates presented an update on basin-specific public participation activities, with the main focus being "How do we engage the public at the basin level?" She noted that all present should have received the first Quarterly Activity Report (QAR) that was distributed recently by e-mail to municipal managers and engineers, as well as the representatives from PADEP, ACHD, and 3RWW that are invited to the Basin Planning Committee meetings. We will provide you with a list of all the Individuals and Municipalities to whom the QAR will be distributed to every quarter. We will welcome your suggestions for additional individuals and organizations which shall be included in this list.

-- Basin Public Outreach Program Implementation

As potential sites get discussed, we may want to bring in additional stakeholders for a wider public forum to provide information about the program. We need your help in determining who to invite and how to best contact them (Boy Scout troops, churches, libraries, etc.). We will send you a list and you can add additional people that you think should be involved in the local efforts. We plan to have targeted outreach groups with regular quarterly meetings.

b. Technology and Site Screening

i. Screening Process

Mr. Mark Coleman introduced Technology and Site Screening as the first step in the alternatives evaluation process. The "Screening of Controls and Sites Report" is due by October 30th of this year, and it will summarize control technologies (i.e., which will be useful in the LOGR Basin for wet weather control) and potential sites. Mr. Coleman outlined the three–step screening process. First, we will identify all potential wet weather control technologies (they are about 100). Then we'll develop screening criteria for control technologies that make sense to apply in this region. Then we will use the criteria to evaluate how controls line up to match with the established screening criteria. We will look at each control to see if it addresses the environmental concerns that we need to address. Control technologies will be assigned a relative rating, pass/neutral/fail (+, 0,-) and technologies will be eliminated that don't apply. We'll then summarize the list of feasible controls.

ii. Technologies Under Consideration

Mr. Coleman then moved on to discuss the handout titled "Control Technologies Considered for Screening." To clarify the areas that the LOGR team was evaluating, Mr. Boddy noted that there are two types of outfalls which need to be evaluated during the wet weather planning process. The first are the upstream municipal overflows which will be the responsibility of the local municipalities to evaluate such as the upstream overflows within the Girty's Run and Lowries Run systems. The second types of outfalls are the outfalls along the ALCOSAN interceptor such as O-15 thru A-67. The LOGR team will be focusing on the alternative evaluation of these outfalls. Mr. Youngblood asked if a new waste water treatment plant will be one of the controls considered noting that he and others feel a 10-20 mgd treatment plant would solve the problem. Mr. Coleman replied that this is included in the listing of potential alternatives. All basin planners will include this as a potential control technology for their basin. ALCOSAN will make the decision if they should build another plant (or several) during the basin planning consolidation process. Mr. Eiswerth added that PADEP is requiring ALCOSAN to evaluate adding additional Sewage Treatment Plants in the 537 Plan. Mr. Coleman noted that some source control technologies and collection system control technologies aren't applicable to ALCOSAN since their implementation is beyond their jurisdictional controls. These are more for the municipalities to consider. These will get screened out and placed in an off line location for municipal use as deem appropriate. Treatment Technologies on the far right of this handout tend to be high in energy needs, operationally intensive, and may come off the list of control alternatives. Mr. Youngblood offered to identify some sites in Lowries Run for an additional Sewage Treatment Plant. He also added that about five years ago he proposed to ALCOSAN that they put aside a small amount from their sewage treatment rate charges to create a pool of money which can be made available to assist municipalities in their technical evaluation services as a part of their collection system feasibility study work. He said that he is going to present this idea to ALCOSAN again.

iii. Sites

The screening process for sites will be similar to that for control technologies. We will evaluate all potential sites, initially using aerials to view their locations. We will visit the sites, develop site screening criteria and apply it, then identify all of the sites that may potentially be useful for

implementation of control technologies. The third step will be to evaluate potential controls alternatives in conjunction with the available and suitable sites. Mr. Coleman said that he will send an electronic copy of the Site Evaluation Form, and Criteria for Screening of Controls Technologies being used in Lower Ohio/Girty's Run Basin Planning process to anyone who would like to have one.

Mr. Youngblood asked if there will be opportunities available for public involvement in the on-going Basin planning process. He heard that there was a meeting in Millvale where the public objected to a proposed control technology being located in their trail parking lot, and ALCOSAN just said, "Too bad, we're installing it there anyway." Mr. Coleman said that there absolutely will be public involvement. Ms. Pucci provided additional details on the meeting in Millvale that Mr. Youngblood referred to. She said this was a meeting at the Community Center, and due to schedule conflicts neither she nor any Council members could attend. She was told by attendees that ALCOSAN's proposed technology was moved from the Marina site and they are now considering the parking lot used for access to the trail. PennDOT is going to put in a bridge from the trail to the City as part of the project to widen Route 28. She feels that it will be a waste of money to put in a bridge, since if the parking lot facility is eliminated, no one is going to use the Millvale Trail, and the bridge won't get used. In addition, Millvale has only 1,800 people, and is not causing the overflow problem, so we need to do something about all the stormwater that's getting into the system from upstream areas. She recommended using a site that hasn't already been developed. Is the trail parking lot site going to continue to be considered or not? If it is, we need to make the decision on whether it's worth spending money on the bridge. She said she is trying to save her community. Millvale wants to help ALCOSAN, but the trail and park are a couple of Millvale's biggest assets. She feels it's the largest asset they have, that's why she is so passionate about the trail. They fought hard to get the property for the trail and they are going to fight to save it. She compared it to taking McKnight Road from Ross Township and using it for a control facility. Mr. Coleman replied that since Millvale is part of Girty's Run, we need to find out what Girty's Run is going to do for their wet weather control. Mr. Lockard added that this is a regional problem. We're going to try to integrate what everyone's doing and we need to look at the costs of the solutions. If we put something in we'll try to mitigate it as much as possible. If we eliminate parking, we'll try to put parking in somewhere else. We don't want to negatively impact amenities such as trails. We need to look at the most cost-effective solutions. We're listening to you. There are very few perfect sites, so we'll have to work together to address concerns. We need to make sure that people's interests are addressed. Mr. Phil Herman added that there are long-term maintenance agreements with PennDOT for the Millvale site. He's not sure how this will be impacted. There may also be some existing historical and archeological issues, too. Mr. Coleman said that we are looking at available sites using the Site Evaluation Form to determine which are legitimate sites to be considered. The reviews are performed in two parts – an office review and a site review. The goal is to get a list of as many potential sites as possible for the evaluation process. Mr. Paul Eiswerth asked for clarification about which bridge in Millvale they are talking about. Ms. Pucci said it's the bridge that PennDOT will construct due to the widening of Route 28 Project. Friends of the Riverfront and Riverlife Taskforce have also been involved in the bridge discussions. The bridge will connect Millvale to the City, so we're not going to construct the proposed bridge from Millvale to Herr's Island. Mr. Herman added that PennDOT's bridge will be a cantilevered pathway off Route 28 – it won't be a standalone bridge. Mr. Eiswerth commented that this conversation needs to continue. He encouraged Ms. Pucci to stay involved and to see how she could make this proposed improvement work.

Mr. Youngblood asked who will pay for the controls – for example, will the community or ALCOSAN pay for a tank? Mr. Coleman replied that if the improvement is intended to control local flows or address a local issue, it will be the municipality (ies) cost. If it is intended to control flows within the ALCOSAN Interceptor Collection System and Treatment System, it will be an ALCOSAN cost.

iv. Screening Criteria

Mr. Coleman presented the "Technology Screening Matrix" in the packet of meeting handouts, which highlights the three control technology criteria: environmental factors, implementation factors, and operational factors for the initial determination of the feasibility of the technologies under evaluation. He noted that there will be a longer list of technologies. Environmental factors are the overarching criteria that a technology must meet in order to continue to be considered in the screening process. Feasible technologies that receive + ratings and will progress through the evaluation. Other technologies will no longer be evaluated. Mr. Coleman noted that this is still a draft, and if anyone has any input, he would be delighted to hear it. Between now and October, Wade Trim Planning Team will use this as a tool to compare sites with control technologies, and look at volume and flow requirements at outfalls, then apply that to evaluate the available sites.

v. Municipal Input

Mr. Coleman opened the discussion on how to best obtain municipal input during the technology and site screening process. He proposed offering small group workshops to allow the municipalities to stay involved in the screening process and to address major concerns or answer specific questions. Mr. Youngblood agreed with the idea of workshops. Mr. Coleman said that he will talk with Mr. Lockard about scheduling a workshop. Mr. Youngblood noted that most of the attendees at this meeting are engineers and they will have to pass the information about the workshops onto their municipalities. Mr. Coleman noted that the Basin Planners will be contacting communities about potential sites under consideration. Mr. Coleman added that what the Basin Planners are currently doing is what those present at this meeting are going to end up doing in their municipalities. Mr. Greg Scott noted that Girty's Run has already started the process. Mr. Youngblood said that we also need to consider the amount of water getting into the collection system when the stream flow elevation comes up. The flow gets in through the floors and walls. They're not sure how they will adjust for this inflow. He also noted that stream beds are getting shallower upstream, and there is lots of debris existing at downstream end. Some pipes are covered compared to pre-Ivan storm. He said that they have a North Hills stormwater control planning process currently under way. Mr. Coleman replied that they should integrate the storm water control planning work into their collection system feasibility study and planning work since they are both wet weather issues. Ms. Pucci noted that Millvale is having more hillside slides and sediment problems again.

c. Control Alternatives and Development

i. Early Action Projects/Multi-Municipal Projects

-- Source Controls (I/I reduction) – Rehab Critical Sewers

Mr. Lockard said that there is room for improvement in some lines, e.g. low-hanging fruit like partial separations or work along Girty's Run or along the tributaries. For example, ALCOSAN would be willing to partner with municipalities to help seek out funding sources. He requested those present to let ALCOSAN know if they would like to participate. Mr. Youngblood noted that $25,000 is needed for construction of a new manhole near the marina, just upstream of the A-67 structure. This manhole would be used to install a long term point of connection monitor for the A-67 sewershed. Mr. Lockard said he'll look into it.

ii. Basin "Pilot" Projects

ALCOSAN would be interested in doing a demonstration project, and for municipalities to consider volunteering an area within their community. The thought is to take the area and run a mini-alternative analysis on it in terms of sizing and siting a control facility. Ideally, sites suitable would be parallel to the interceptor and near diversion structures. Attendees were asked to forward suggested locations to the Basin Planner. Mr. Youngblood noted that they can't understand why MH-25, the first manhole in Millvale, overflows so much. Mr. Lockard replied that this may be a good area for a pilot project.

d. Act 537 Funding

Mr. Lockard reminded everyone that some wet weather planning tasks are eligible for Act 537 Funding. He said ALCOSAN is working with PADEP to secure as much funding as possible to lessen the burden on rate payers. Mr. Youngblood noted that they had tried to get funding for the Lowries Run Watershed to do a 537 Plan, but they got shot down. Mr. Eiswerth said that ALCOSAN will do a 537 Plan for the Basin and will try to reimburse municipalities for providing engineering work needed to do the 537 Plan. The funding, however, will not be available until a good distance into the future. Contact Donna Davis for more information. Mr. Youngblood said that he will ask his engineer Don Newman to contact her.

e. ALCOSAN Municipal Secure Website

Mr. Lockard reminded those present to visit the redesigned ALCOSAN Municipal Website. The graphics have improved and we'll continue to populate it with items such as archives, minutes, workshops and meeting schedules, and Basin Planner deliverables. Contact Ann Murphy at ALCOSAN with any questions.

f. Financial Information Update

Mr. Lockard reported that ALCOSAN is working with 3RWW to obtain some financial and institutional information from the municipalities, as discussed at the last BPC meeting. 3RWW has implemented its Regional Asset Implementation Database Program. The information collected by 3RWW will be used by ALCOSAN to determine baseline municipal and regional financial capability. Since 3RWW is sharing the data with ALCOSAN, municipalities will save time and effort by only having to respond to one request for information. 3RWW has a fund that can be used to reimburse for time billed by engineers to complete the information request forms. He added that this is important to initiate serious discussions regarding implementation and operation and maintenance. We'll seriously look at opportunities for consolidation. It is important to note that the Basin Planning Team and the municipalities are working in parallel. The

municipalities and authorities have their own feasibility issues and these will need to be worked into the overall wet weather plan.

g. Coordinated Schedule-Basin Planning and Municipal Feasibility Studies

Mr. Coleman discussed the Coordinated Schedule, listing basin planning activities over the next 17+ months. He said Mr. Lockard had asked Wade Trim to focus the discussion on the efforts between November 2009 (we'll have the H&H model ready by then) and November 2010, and to provide more detail on the technical information/data exchange between Basin Planners (in blue) and municipalities (in green). Individual schedules were developed for each municipality/authority, and they are in the meeting packet with the forms that relate to you. The schedule can also be used as a trigger of who you need to interface with. Activities are noted as being either deliverables or a preparatory activity for an upcoming deliverable. Mr. Coleman walked through the schedule for Girty's Run as an example. At the March 2010 Basin Planning Committee Meeting we'll be asking the municipalities and authorities to confirm that the H&H model is reflecting reality and that it is the tool we can move forward with. In addition, between the March and June 2010 BPC meetings, we'll be looking at issues you've identified so that I get a sense of total flows into the system. After the June BPC meeting Mr. Coleman will need an update on what the municipalities are doing. Between the June and December 2010 meetings we'll reduce the alternatives to two or three. December will be the final alternative evaluation. By August of 2010, Mr. Coleman will need the "final" flows from the communities. You may not know them exactly, but make your best determination. Mr. Youngblood asked if he could use a 10 year storm. Mr. Coleman replied yes, if he felt that it's the right level of control for his system. The decision is up to him. Mr. Coleman added that if Mr. Youngblood also wanted to use the 1, 2, 5, and 10 year storms he would be delighted. Mr. Scott noted that, for example, Girty's Run has West View at the top of the system and Millvale at the bottom of the system are combined, while Shaler and Reserve are separate systems. Mr. Boddy said that A-67 is considered a CSO, so when we look at Girty's Run we'll run the model for both separate and combined under a typical year. Mr. Boddy said that we are looking at how municipalities are handling their CSOs. This will impact the flows getting to us and how they will be managed downstream. He added that when talking about Girty's Run (which has both combined and sanitary) and Lowries Run (with multiple municipalities to coordinate with) there will need to be back and forth interaction to lessen the impacts downstream and optimize the solution for all.

Mr. Boddy noted that although the H&H model will be calibrated in September, the flow monitoring data is now available and you can prepare for when you get the flow numbers. Girty's Run has some historical data and hydrograph deconstructions, and he can get this information for anyone that needs it. You can use some simplified approaches to look at the magnitude of flow for Girty's, as well as complex analyses. You can look at linear regressions of peak rates to see the pros and cons of getting flows to ALCOSAN.

Mr. Coleman noted that he would like everyone to fill out the meeting evaluation form provided earlier with the meeting handout materials. He will distribute this form again at every BPC meeting to get feedback from the group and agenda topics you all would like to include at the next meetings.

Mr. Lockard concluded the meeting by noting that Mr. Coleman has done a good job at laying out the timelines. He noted some of the municipalities in LOGR are also part of other planning

basins. He is giving the LOGR Basin Planners some extra time and flexibility in the schedule due to some specific considerations involved in this basin Planning process.

2. Items Distributed:

a. Meeting Agenda and PowerPoint presentation.

b. Control Technologies Considered for Screening

c. Site Evaluation Form, ALCOSAN Facilities Planning, Lower Ohio/Girty's Run Planning Basin.

d. Technology Screening Matrix

e. ALCOSAN Lower Ohio/Girty's Run Planning Basin, Basin Planning Committee Meetings – June 25 and 30, 2009 Coordinated Schedule – Distribution Listing

f. Draft Summary of Observed Capture Values within the LOGR Planning Basin, June 24, 2009

g. Introducing the Redesigned ALCOSAN Municipal Website

h. ALCOSAN Basin Facilities Planning – Lower Ohio/Girty's Run Basin June 25, 2009 Girty's Run/Lowries Run Sub-Basin Planning Committee Meeting Participant Meeting Evaluation Form

i. ALCOSAN Basin Planning – Lower Ohio Girty's Run Basin, Coordinated Schedule – Basin Planning and Municipal Feasibility Studies, June 25, 2009 Basin Planning Committee Meeting, (specific to each municipality and distributed in their packet at the meeting)

Copies of the items distributed at the meeting are included as attachments to these meeting minutes.

3. Action Items:

a. Municipalities should review the "Draft Summary of Observed Capture Values within the LOGR Planning Basin, June 24, 2009." We're going to take a look at the areas contributing to sites with high Best Fit Capture Values.

b. Contact Mr. Lockard, Mr. Dolat Naik or Jim Protin if you know of anyone that might have an interest in sitting on the CMAC/RSG.

c. The Basin Planner will provide a list of members of the CMAC and RSG, and the minutes of the meetings will be placed on the ALCOSAN public website.

d. The Basin Planners will provide municipalities with a list of names of Individuals and Agencies the Quarterly Activity Report will be distributed to, every quarter. Contact Ms.

Brean or Wade Trim with additional agencies that you feel should be added to the Quarterly Activity Report distribution list.

e. Contact Ms. Brean with suggestions of stakeholders that should be invited to attend public participation forums, and the best method to contact them. This may include, for example, Boy Scout troops, churches, libraries, etc.

f. Mr. Coleman will talk with ALCOSAN about scheduling a workshop to provide information and gather municipal input on the control technology and site and alternatives screening process. He will contact the municipalities with the dates and times of the workshops.

g. Contact Dan Lockard if your municipality is interested in partnering with ALCOSAN for Early Action Projects/Multi-Municipal Projects.

h. Contact Dan Lockard/ALCOSAN and or BP Wade Trim if your municipality is interested in identifying an area to do a demonstration Basin "Pilot" Project.

4. Next Meeting:

The next Basin Planning Committee Meeting will be in September 2009.

5. Attachments:

a. Attachments as identified above under Section 2 - Items Distributed.

The meeting adjourned at approximately 11:00 a.m.

These minutes are a summary of the writer's interpretation of the meeting. Should you have any comments regarding any of the items, please contact Wade Trim within five (5) calendar days from the date of publication of these Meeting Minutes. If no comments are received by this time, it will be considered that all attendees are in agreement of the proceedings recorded herein.

ALCOSAN Basin Facilities Planning
Meeting Minutes

Lower Ohio/Girty's Run Planning Basin (Ohio River Sub Basin)
Basin Planning Committee Meeting Number 5
Date / Time: September 28, 2009 - 1:00 P.M.
Location: Avalon Borough Building

Attendees:

Dan Lockard, ALCOSAN

Jan Oliver, ALCOSAN

Dave Bingham, ALCOSAN/AECOM

Shawn Rosensteel, Avalon Boro. & Kilbuck Twp. /Chester Engineers

Harry Dilmore, Avalon Borough & Kilbuck Twp.

Scott Swansinger, Bellevue Borough/Herbert Rowland & Grubic, Inc.

Al Grubbs, Ben Avon Heights Borough

Bob Kipp, Kennedy Township/Remington, Vernick and Beach

Mike Skinner, Emsworth Borough, Gateway

Michelle Buys, ACHD

Mike Moskorisin, ACHD

Scott Hoffman, StoweTownship/ms Consultants, inc

Jim Barrick, Neville Township Engineer

Paul Eiswerth, PADEP

Mark Coleman, ALCOSAN/Wade Trim

Brad Boddy, ALCOSAN/Wade Trim

Janai Williams, ALCOSAN/Ebony Holdings

Kathy Chavara, ALCOSAN/Collective Efforts, LLC

1. **Discussion/Decision/Agreement Summary**
   a. **Welcome/ Review**
   Mr. Mark Coleman of Wade Trim opened the meeting by welcoming everyone and led the introductions. Mr. Coleman reviewed the Agenda, which is attached to these meeting minutes. He noted that in response to comments received at the last Basin Planning Committee Meeting, hard copies of the power point presentation as well as the talking tools information have been provided for all meeting attendees and the power point will only be used to keep the meeting focused.

   b. **Technical Data Update**

      i. **Flow Monitoring**
      Mr. Brad Boddy from Wade Trim reported that flow monitoring data is available on the ALCOSAN municipal and 3 Rivers Wet Weather (3RWW) websites.

      ii. **H&H Modeling and Model Report**
      Mr. Boddy reviewed the calibrated GWI flows and provided preliminary information on RTK values (R=percentage of rainfall that enters the sanitary sewer system as RDI/I, T= time to peak flow, and K=ratio of the time to peak and the recession limb). Average annual

numbers of 0.27 MGD/acre were reported for Relative GWI Flow per acre with two notable exceptions: O-03-00 and O-18A-00_-POC-L-01; which both exceeded 1.0 MGD/acre. Items to consider when looking at the results for O-03-00 include the fact that this location receives stream input and is a project being considered for stream removal. O18A00_-POC-L-01 may be skewed due to the small watershed size. Draft RTK parameters were also discussed. Mr. Boddy stated that the time to peak for the sanitary districts were very fast and were in the range of 15 minutes to 1 hour. Mr. Boddy distributed GWI charts for the basin and RDII Hydrographs for 5 locations.

iii. Design Storms and Typical Year Rainfall

Design storms for 1, 2, 5, and 10-year return periods will be evaluated (note that the Consent Decree only requires the 2 and 10 year storms be analyzed). The year 2003 will be used as the typical year storm with some adjustments to correct for observed spatial differences from one part of the watershed to another. Further information on how the design storms were determined is available on the ALCOSAN website.

iv. Model Sharing Protocols

Mr. Boddy noted that SWMM5 is being used for the model. Design hydrographs are being prepared for each design storm (1, 2, 5 & 10) at each point of connection (POC). Mr. Boddy reminded attendees that documents are posted on ALCOSAN's secure Municipal Website.

Mr. Boddy requested that each municipality:

- review the model/flows,
- comment on or accept that the model reasonably reflects the municipal flow characteristics, and
- provide municipal design flows by March 2010.

Items for communities to consider include:

- anticipated growth,
- proposed construction or rehabilitation projects,
- projects that would reroute flows, and
- a general approach on how they will manage their flows to address overflows that are occurring within their system.

Mr. Boddy asked the attendees to comment during the meeting or get back to him afterwards if they required anything from the BP beyond the model itself and the point of connection hydrographs.
It was asked how long it takes to run the model and if any special equipment was required. Mr. Boddy noted that the model has been run in pieces to date and that the submodels to 1 to 2 hours to run an annual simulation and that a special computer was not required. Mr. Dan Lockard also noted that the Chartiers Creek model takes approximately 24-hours to run an annual simulation but that it is a larger basin.

v. ALCOSAN Municipal Secure Website

Attendees were reminded about the ALCOSAN secure website where basin specific as well as wet weather program information will be posted.

c. Financial Update

i. Early Action Projects

Mr. Boddy led a discussion about Early Action Projects in the LOGR Basin.

- Neville Township – Point Source Reduction.
- Bellevue/Avalon – There is a project to rehabilitate a multi-municipal trunk sewer. The community is looking for funding, as the line is an exposed and damaged terra cotta pipe.
- Millvale – Looking at Point Source Inflow Reduction.

ii. Alternative Costing Tool (ACT)

Mr. Lockard reminded communities that the Alternative Costing Tool (ACT) will need updates and that folks should use ACT as a resource tool for consistency and not to bias the outcome. He noted that communities should use their own database of actual costs for conveyance to assure locally experienced job costs.

iii. Funding Update

Mr. Lockard noted that ALCOSAN is looking into a number of funding sources, including Congressman Doyle's office. He reminded the attendees that there are going to be a number of additional public workshops. ALCOSAN is looking to have the workshops occur before the holidays and they are hoping that this will foster municipal and multi-municipal involvement.

iv. Municipal Financial Data Update

Mr. Lockard noted that ALCOSAN is working with 3RWW to optimize "affordability," even with the concerns of existing infrastructure age and terrain. They believe that projects may need to be prioritized.

d. Municipal / ALCOSAN Coordination Update

i. CMAC/RSG

Ms. Janai Williams reminded participants about the upcoming series of public meetings; while Mr. Lockard updated the group about the Customer Municipal Advisory Committee, (CMAC). The CMAC will meet again on October 14, 2009.

Mr. Ken Wolf and Mr. Harry Dilmore are the members of the Regional Stakeholders Group, (RSG). Their next meeting is scheduled for October 15, 2009. This group includes community members at large and special-interest groups. Mr. Dilmore noted a few ways

that the RSG plans to get the word out, as the public does not understand much about the wet weather and sewer issues.

ii. Basin Forum/Basin Quarterly Activity Report/Comment Cards

Mr. Coleman noted various methods of public outreach, including the BPC Meetings and other ways to reach out to rate payers including holding "neighborhood" forums. Mr. Coleman identified 3 forums to cover the Lower Ohio/Girty's Run Basin, including:

- one joint neighborhood public meeting will be held with Upper Allegheny (Etna),
- one joint neighborhood public meeting will be held with Chartiers Creek, and
- one meeting is planned within the LOGR Basin at a location to be determined.

Mr. Coleman discussed that ALCOSAN expects a brief presentation of materials, with specific kiosks or "stations" in which community members will be invited to talk with someone directly concerning a particular issue or concern.

The public forums are expected to take place in November, prior to Thanksgiving.

Mr. Coleman informed the group that the second Basin Quarterly Activities Report is due out around November 2. He noted that they have not received comments from the initial one sent out to municipal decision makers. Absent any feedback, this next one will be developed and distributed in a similar fashion. When asked if the managers or engineers have answered questions related to distributed wet weather program materials, Mr. Dilmore said that he fills others in as needed.

Mr. Coleman noted that "Comment Cards" will soon be distributed to municipalities and at public forums. These "Comment Cards" are a means for community concerns, questions, etc. to be addressed directly by ALCOSAN.

iii. BPC Meeting #3 and #4 Coordination Handout Material Reminder

Mr. Coleman reviewed a number handouts provided at earlier BPC meetings related to wet weather program information coordination and schedule between ALCOSAN and the municipalities. These handouts were provided to further municipal understanding of the planning process and their role. The meeting participants indicated the handouts have been helpful.

iv. Feasibility Study Working Group

Mr. Lockard noted that 3RWW hosts the Feasibility Study Working Group (FSWG) meetings and that the pace of these meeting has accelerated (as they now meet every other Thursday). The focus is hands-on and one-on-one working with the communities.

Mr. Dave Bingham noted that eight (8) "DRAFT" documents and the costing tools are being discussed. Mr. Bingham believes the "DRAFTS" are on the web, or may be available to the FSWG attendees.

Ms. Jan Oliver noted that ALCOSAN provided I&I guidance, flow isolation studies, multi-municipal and "sample" agreements. Ms. Oliver asked that municipalities consider practicality, cost, and constructability.

Mr. Boddy suggested that folks consider consolidation of smaller flows into larger flows.

Mr. Lockard noted that solutions will consider, for example:

- Storage – How long it sits and odors,
- Treatability at plant,
- Ability to transport and treat flows after a storm.

Ms. Michele Buys noted that sites that have big impacts on the overall solution are best.

Mr. Al Grubbs asked about the interest in previous work. They have spent money for new pipes and pipe linings. He questioned if this work might be reflected in the 3RWW flow monitoring data. Mr. Boddy noted that flow monitoring ended February 2009; however, some monitoring was longer at a few locations. If communities have a major fix in 2009, or know of a repair project in 2010, Wade Trim wants to incorporate/review the real data (i.e. flow reduction) into the model and municipal information to facilitate this need to be forwarded to the BP.

Mr. Lockard requested and hopes communities will look to include source reduction, green infrastructure, public space, and zoning ordinance revisions to help mitigate the sewer system overflows.

Mr. Paul Eiswerth asked: "How is Wade Trim sure that the municipalities will do what they have to do?" It was noted that ALCOSAN believes, based on meetings and community engagement, the Chartiers Creek and the Lower Ohio/Girty's Run Basin municipalities are getting the message.

Mr. Eiswerth wanted to make sure that all parties are getting the message as to what they (each municipality) need to do. He referenced ALCOSAN's reporting about some communities that are not active and requested that ALCOSAN make sure they address these folks/communities. He also requested more information as to why some technologies were screened out. Mr. Coleman will send the technology screening methods/process to Mr. Eiswerth.

e. Sites and Technologies Screening and Evaluation

i. Overview of Screening of Controls & Sites Report

Mr. Coleman noted that a Screening of Controls and Sites Report Workshop was conducted on September 1, 2009 and many in attendance today attended it. For this reason he indicated that he would briefly overview the report process and would get into as much or as little detail as needed by the meeting participants.

The approach to reduce the listing of SSO/CSO Control Technologies was overviewed. Using a screening process the list was screened into three general groupings; technologies that are not applicable in the LOGR basin, technologies that will be considered in the next phase of the LOGR basin planning, and technologies that are not able not applicable within ALCOSAN's jurisdiction but are so within the municipal jurisdiction. The last grouping tend to be best management practices and green solutions that often have the best means for implementation within municipalities.

Relative to sites, 60 potential sites were initially identified and evaluated with a goal of identifying a preferred site for each outfall. At this stage of the program, the site identification was an "inconclusive" approach since site conditions change over time and alternatives may be needed at a later date. Though a screening process this list has been reduced to 22+/- end-of-pipe preferred sites. It is very important to note that while a preferred site has been identified for each outfall, most will not eventually be used. During the alternative development and analysis stage outfall elimination, consolidations, tunnel construction, etc will eliminate the need to construct a facility at each and every outfall.

ii. Municipal Input into Screening of Controls & Sites Report

Mr. Coleman noted in addition to the workshop, one on one meetings with municipalities where there are preferred sites will be conducted to obtain their feedback on site selection. To date 3 have been conducted, 5 are scheduled and the feedback obtained has been great. As a result of the meetings preferred sites have changed, additional sites identified and the ranking of sites modified. If anyone who has not been scheduled for a one-on-one meeting but would like one, please contact Wade Trim. He shared that one site in Lowries Run is being considered for a sewage treatment facility at I-279 & Camp Horne Road based on input from the Lowries Run Joint Operating Committee.

iii. A Look Forward at the Progressive Process

Mr. Coleman noted that we are about to start the progressive alternative development process. The first step will be using the model to determine the end of pipe flow characteristics for the various storm/design conditions at each ALCOSAN POC with different interceptor/outlet capacities (unrestricted/current conditions/projected future conditions). Based on an evaluation of these conditions, options will be developed for further analysis.

It is important to note that when sizing a wet weather storage facility, ability to dewater the facility needs to be considered for the facility to be available for use during back to back storms. The sizing may need to be increased if the outlet sewer does not recede from the wet weather flow conditions for a significant period of time. This tends to happen during the spring and early summer when ground water conditions are high. Communities were cautioned to look at how "dewatering" will affect overall system.

As noted, options will be developed based on a review of the initial end of pipe flow characteristics. To provide and understanding of this process by way of an example, the overflows in Stowe Township were shown graphically and various options reviewed. Options for these overflows may include:

- Influent reduction of flow eliminating the need for an end of pipe treatment facility.

- Over sizing one end of pipe treatment facility to free up interceptor capacity for a nearby overflow eliminating the need for an end of pipe facility at that overflow.

- Consolidation of multiple overflows to a single larger end of pipe facility.

- Consolidation of multiple overflows and conveyance to the WWTP (on north side of Ohio River).

- Consolidation and conveyance to an adjoining basin treatment facility, such as Chartiers Creek (to be evaluated after individual Basin Planning Teams complete basin specific evaluations).

f. Wrap-Up / Next Steps

i. Next Meeting
With the upcoming ALCOSAN Public Forums scheduled for November, the next BPC meetings are anticipated in January 2010.

ii. Agenda Topics
Potential Agenda topics include the Preliminary Site & Technology Reports and initial outfall flow characteristics.

2. Items Distributed:

a. Meeting Agenda and PowerPoint presentation.

b. LOGR Relative Ground Water Infiltration Chart (2 pps); Total RDII Hydrograph Shapes for Individual Month (5 pps).

c. LOGR Basin – Proposed Alternative Evaluation and Public Participation Process, dated 02/09 (2 pps).

d. ALCOSAN Wet Weather Plan - Lower Ohio/Girty's Run Basin Public Participation Plan, page 9, dated 2/26/09.

e. ALCOSAN Lower Ohio Girty's Run Planning Basin/Basin Planning Committee Meetings June 25 and 30, 2009/Coordinated Schedule – Distribution Listing (6 pps).

f. LOGR Basin Screening of Controls and Sites Report, Control Technologies Screening Process, dated 9/16/09 (6 pps).

g. LOGR Basin Screening of Controls and Sites Report, Site Selection and Screening Process, dated 9/16/09 (3 pps).

h. ALCOSAN Lower Ohio Girty's Run Planning Basin Preferred Sites, dated 9/09 (5 pps).

i. Combined Sewer Area – Treatment Facility; Separate Sanitary Area –Storage; Separate Sanitary Area – Dewatering (1); Separate Sanitary Area – Dewatering Time (2) (4 pps).

j. ALCOSAN Lower Ohio Girty's Run Planning Basin, Lower Ohio South, Aerials Maps: Inflow Reduction; Facility/Conveyance Optimization; Consolidation; Conveyance to WWTP; Conveyance to Chartiers Creek, dated 9/09 (5 pps).

Copies of the items distributed at the meeting are included as attachments to these meeting minutes.

3. Action Items:

a. Wade Trim will let all know date and time for anticipated Public Outreach Meeting(s) when finalized date/time/locations are known.

b. The Comment Cards will be distributed to the municipalities when available.

c. Availability of the Feasibility Study Working Group "draft" documents will be determined and discussed with 3RWW, so that communities can be included on the distribution of documents that are provided to the working group.

d. Mr. Coleman to provide Mr. Eiswerth with a copy of the full technology screening so DEP can see how technologies dropped out and why.

4. Next Meeting:

The next Basin Planning Committee Meeting will be in January 2010.

5. Attachments:

Attachments as identified above under Section 2 – Items Distributed.

The meeting adjourned at approximately 3:00 P.M.

These minutes are a summary of the writer's interpretation of the meeting. Should you have any comments regarding any of the items, please contact Wade Trim within five (5) calendar days from the date of publication of these Meeting Minutes. If no comments are received by this time, it will be considered that all attendees are in agreement of the proceedings recorded herein.

ALCOSAN Basin Facilities Planning
Meeting Minutes

Lower Ohio/Girty's Run Planning Basin (Girty's Run / Lowries Run Sub Basins)
Basin Planning Committee Meeting Number 5
Date / Time: October 6, 2009 / 9:00 am
Location: Girty's Run Joint Sewer Authority

Attendees:

Dan Lockard, ALCOSAN	Michelle Buys, ACHD
David Borneman, ALCOSAN	Gordon Taylor, Millvalle Borough and Reserve Township, Senate Engineering
Greg Scott, GRJSA, Chester Engineers	Bill Youngblood, MTSA
Dennis Blakley, MTSA	Virginia Pucci, Millvalle Borough
Karen Brean, Karen Brean Associates	Mark Coleman, ALCOSAN/Wade Trim
Donna Davis, PADEP	Brad Boddy, ALCOSAN/Wade Trim
Art Gazdik, Ross Township	Kathy Chavara, ALCOSAN/Collective Efforts, LLC
Mike Skinner, Emsworth Borough and Ben Avon Heights, Gateway Engineers	Bob Zischkau, West View Borough, Glenn Engineering
Richard Stewart, Ohio Township Sanitary Authority, NIRA Consulting Engineers	John Maslanik, PWSA, Chester Engineers
Mike Stupy, Girty's Run Joint Sewer Authority	Tom Riley, MTSA
Dolat Naik, ALCOSAN/AECOM	Janai Williams, Ebony Holdings

iii. Discussion/Decision/Agreement Summary

a. Welcome/ Review

Mr. Mark Coleman of Wade Trim opened the meeting by welcoming everyone and reviewed the Agenda for the meeting. He noted that in response to comments received at the last Basin Planning Committee Meeting, hard copies of the power point presentation as well as the talking tools information have been provided for all meeting attendees and the power point will only be used to keep the meeting focused.

b. Technical Data Update

i. Flow Monitoring

Mr. Brad Boddy from Wade Trim reported that flow monitoring data is available on the ALCOSAN municipal and 3 Rivers Wet Weather (3RWW) websites.

ii. H&H Modeling and Model Report

Mr. Boddy introduced a number of Ground Water Infiltration (GWI) comparison charts. He noted that the results within the Lowries Run Sub Basin are comparable to other areas and noted two larger flows per acre results. Girty's Run also indicated several larger results of GWI flow per acre. Mr. Boddy noted that these results could be due to the smaller size of the sewersheds.

Mr. Boddy reviewed the calibrated GWI flows and provided preliminary information on RTK values (R=percentage of rainfall that enters the sanitary sewer system as RDI/I, T= time to peak flow, and K=ratio of the time to recession to the time to peak). Mr. Boddy pointed out the time to peak times were less than an hour which is a bit faster than expected in sanitary areas. Wade Trim is still working on the Girty's Run results/modeling. He asked that municipalities look at the GWI flow rates for their area and determine if it would be possible to remove any of the GWI flow. The H&H Modeling and the Model Report will be completed and available by the end of 2009.

iii. Design Storms and Typical Year Rainfall

Design storms for 1, 2, 5, and 10-year return periods will be evaluated (note that the Consent Decree only requires the 2 and 10 year storms be analyzed). The year 2003 will be used as the typical year storm with some adjustments to correct for observed spatial differences from one part of the watershed to another. Further information on how the design storms were determined is available on the ALCOSAN website.

iv. Model Sharing Protocols

Mr. Boddy noted that SWMM5 is being used for the model. Design hydrographs are being prepared for each design storm (1, 2, 5 & 10) at each point of connection (POC).

Mr. Boddy reminded attendees that the modeling will be delivered to ALCOSAN at the end of this year. Mr. Bill Youngblood asked when the municipalities/authorities can expect to get the Wade Trim modeling information as the information is needed for the GRJSA to complete their negotiations with West View. Mr. Boddy indicated that they expect the modeling to be available towards the end of this year. Mr. Bob Zischkau noted that the Feasibility Study Working Group (FSWG) is working on language for a new Maintenance Agreement that other communities will be able to use. Based on the community interests, Mr. David Borneman noted that ALCOSAN would expedite Model Report reviews/availability to municipalities. The majority of the meeting attendees felt the sooner provided the better. Once the models are made available to the municipalities, Mr. Boddy requested that each municipality:

- review the model/flows,
- comment on or accept that the model reasonably reflects the municipal flow characteristics, and
- provide municipal design flows by March 2010.

Items for communities to consider include:

- anticipated growth,
- proposed construction or rehabilitation projects,
- projects that would reroute flows, and
- a general approach on how they will manage their flows to address overflows that are occurring within their system.

Mr. Art Gazdik asked what deliverables or products will be available. The anticipated products include the model itself and the design hydrographs at the point of connections. Mr. Gazdik noted that if Wade Trim/ALCOSAN have any information (i.e.; monitors with known overflows) at any up-gradient locations, this information would be useful as well. Mr. Coleman noted that all parties are encouraged to let Wade Trim/ALCOSAN know what model information they might need and Wade Trim will try to get the requested information to the municipalities.

v. ALCOSAN Municipal Secure Website

Attendees were reminded about the ALCOSAN secure website where basin specific as well as wet weather program information will be posted.

c. Financial Update

i. Early Action Projects

Mr. Boddy led a discussion about Early Action Projects in the LOGR Basin.

- Neville Township – Point Source Reduction.
- Bellevue/Avalon – There is a project to rehabilitate a multi-municipal trunk sewer. The community is looking for funding, as the line is an exposed and damaged terra cotta pipe.
- Millvale – Looking at Point Source Inflow Reduction.

ii. Alternative Costing Tool (ACT)

Mr. Lockard reminded communities that the Alternative Costing Tool (ACT) will need updates and that folks should use ACT as a resource tool for consistency and not to bias the outcome. He noted that communities should use their own database of actual costs for conveyance to assure locally experienced job costs.

iii. Funding Update

Mr. Lockard noted that ALCOSAN is looking into a number of funding sources, including Congressman Doyle's office. He reminded the attendees that there are going to be a number of additional public workshops. ALCOSAN is looking to have the workshops occur before the holidays and they are hoping that this will foster municipal and multi-municipal involvement.

iv. Municipal Financial Data Update

Mr. Lockard noted that ALCOSAN is working with 3RWW to optimize "affordability," even with the concerns of existing infrastructure age and terrain. They believe that projects may need to be prioritized.

d. Municipal / ALCOSAN Coordination Update

i. CMAC/RSG

Ms. Janai Williams talked about the upcoming series of public meetings; while Ms. Karen Brean updated the group about the Customer Municipal Advisory Committee, (CMAC). The CMAC will meet again on October 14, 2009.

Mr. Ken Wolf and Mr. Harry Dilmore are the members of the Regional Stakeholders Group, (RSG). Their next meeting is scheduled for October 15, 2009. This group's role is to share the scope of this effort with community members and help the public understand what the municipalities need to do.

ii. Basin Forum/Quarterly Activity Report/Comment Cards

Ms. Brean talked to the group about the many levels of community outreach; including the Program Level, the Technical Level with the Basin Planners (these BPC Meetings), and the Customer Level. The Customer Level meetings will be held in November and are a means to reach out to the rate payers.

Mr. Coleman talked to the group about the Quarterly Activity Reports and "Comment Cards." Mr. Coleman noted that the "Comment Cards" will soon be distributed to municipalities and at the public forums. These "Comment Cards" are a means for community concerns, questions, etc. to be recorded during the study and for dissemination of ideas and information between basins. The hope is for more effective feedback. Mr. Coleman noted that the second Basin Quarterly Activities Report is due out around November 2. He noted that they have not received comments from the initial one sent out to municipal decision makers. Absent any feedback, this next one will be developed and distributed in a similar fashion.

Mr. Coleman noted that ALCOSAN wants the interface and conversations about what the municipalities want to get, their needs, and concerns, etc and the comment cards and Quarterly Reports are two vehicles for this to occur.

iii. BPC Meeting #3 and #4 Coordination Handout Material Reminder

Mr. Coleman reviewed a number handouts provided at earlier BPC meetings related to wet weather program information coordination and schedule between ALCOSAN and the municipalities. These handouts were provided to further municipal understanding of the planning process and their role. The meeting participants indicated the handouts have been helpful.

iv. Feasibility Study Working Group (FSWG)

Mr. Lockard noted that the FSWG includes representatives from PADEP and the ACHD. This group was created to provide a regional plan and assistance with things like multi-municipal agreements and consent order requirements. Mr. Zischkau noted that the O&M Committee is looking at CCTV Cleaning Schedule Guidance and development of a list of questions and answers. The group's focus is hands-on and they are generating information for the municipalities to use in the development of their feasibility studies.

e. Sites and Technologies Screening and Evaluation

i. Overview of Screening of Controls & Sites Report

Mr. Coleman noted that a Screening of Controls and Sites Report Workshop was conducted on September 1, 2009 and many in attendance today attended it. For this reason he indicated that he would briefly overview the report process and would get into as much or as little detail as needed by the meeting participants.

The approach to reduce the listing of SSO/CSO Control Technologies was overviewed. Using a screening process the list was screened into three general groupings; technologies that are not applicable in the LOGR basin, technologies that will be considered in the next phase of the LOGR basin planning, and technologies that are not able not applicable within ALCOSAN's jurisdiction but are so within the municipal jurisdiction. The last grouping tend to be best management practices and green solutions that often have the best means for implementation within municipalities.

Relative to sites, 60 potential sites were initially identified and evaluated with a goal of identifying a preferred site for each outfall. At this stage of the program, the site identification was an "inconclusive" approach since site conditions change over time and alternatives may be needed at a later date. Though a screening process this list has been reduced to 22+/- end-of-pipe preferred sites. It is very important to note that while a preferred site has been identified for each outfall, most will not eventually be used. During the alternative development and analysis stage outfall elimination, consolidations, tunnel construction, etc will eliminate the need to construct a facility at each and every outfall.

Mr. Youngblood was very concerned about Millvale Park and voiced his desire for a facility upstream of Millvale in Girty's Run. He requested that an option of a plant/facility be added or identified within the site selection study to show that "something else" was evaluated and part of the plan. Mr. Coleman noted that the single most impacting sizing element for the A-67 overflow in Millvale is wet weather control in the upstream Girty's Run system which is very wet. He also indicated that the BP will look into sites upstream of Millvale.

ii. Municipal Input into Screening of Controls & Sites Report

Mr. Coleman noted, in addition to the workshop one on one meetings with municipalities, where there are preferred sites will be conducted to obtain their feedback on site selection. To date, 6 have been conducted, 2 are scheduled and the feedback obtained has been great. As a

result of the meetings preferred sites have changed, additional sites identified and the ranking of sites modified. If anyone who has not been scheduled for a one-on-one meeting but would like one, please contact Wade Trim. He shared that one site in Lowries Run is being considered for a sewage treatment facility at I-279 & Camp Horne Road based on input from the Lowries Run Joint Operating Committee.

Mr. Lockard noted that ALCOSAN is looking at the Regional Plan. ALCOSAN is looking at their existing facilities, at locations that might have sufficient sanitary flow to warrant a treatment plant, and at the larger tributary/sanitary drainage ways. He identified that ALCOSAN is aware that Lowries Run, Pine Creek, Turtle Creek and Chartiers are all Basins with large sewersheds. He encouraged conversations where communities or multi-municipalities would evaluate options of championing upstream treatment.

Mr. Youngblood noted that MTSA approached PADEP years ago with a request for planning a facility in Lowries Run. At that time, the reaction was a negative response. ALCOSAN noted that the decision may have been misunderstood and that ALSOCAN thought that PADEP would allow for such options.

Ms. Virginia Pucci asked if it was possible to look at the potential to transfer flow from Millvale to Etna and, if so, why shouldn't flow conveyance be discussed in the Report. Mr. Lockard noted that these types of discussion are good, but ALCOSAN needs to balance the conditions of the existing plant. If too many new plants were envisioned, this could starve the existing treatment facility. The impacts of both the wet and the dry weather flow capacities must be considered. The critical information is the municipal volumes so that all parties know the flows being considered for feasible solutions. He encouraged the communities within Pine Creek and Girty's Run to identify their flows.

Ms. Pucci noted that Millvale has about 1,800 customers. They are the smallest location with the smallest flows. Millvale takes flow from Ross, Shaler, and West View. However, of the 7 to 8 sites shown, why are they all located in Millvale? Mr. Borneman indicated that the study was being completed at the ALCOSAN POCs, as that is what ALCOSAN can control, design for, etc. They are not looking at facility placement beyond ALCOSAN's POCs.

Ms. Pucci said that she is aware that Etna identified site locations to another basin team and they were not taken seriously. She realizes the constraints of ALCSOAN/Wade Trim's evaluation, but why not take the ideas seriously. A brief discussion occurred about the current treatment facility capacity and its design based on dry-weather flows; the solution is not an additional 83 new treatment facilities; and that initial sites and technologies need to be looked at and evaluated. ALCOSAN again requested that the communities identify sites, locations, possible solutions as they determine where and what they may be within their own communities.

Mr. Youngblood asked that ALCOSAN include a discussion within the Site Report to define sites that MTSA, Millvale, Ross, etc. may talk about or identify. Mr. Borneman strongly encouraged the communities to stay in close contact with ALCOSAN to identify these sites and to share what the municipalities may believe to be a solution. He assured the attendees that the decisions and the sites were not carved in stone.

Mr. Art Gazdik noted that Millvale Park is a watershed treasure. He suggested that the plan not touch the park as the communities are prepared to fight to keep it. Mr. Coleman noted that Girty's Run is not different than other communities being studied/evaluated. He is scheduled to sit down with Millvale and discuss site issues and work with them.

Mr. Youngblood indicated that when it rains, flow from West View makes up 110% of the flow at the Girty's Run connection to ALCOSAN. He suggested that Wade Trim look at the Shop and Save location. Mr. Boddy indicated that certainly what the municipalities do at upstream reaches and locations will have a significant effect on the flow and conditions at the ALCOSAN POCs. He further indicated that as Girty's Run solves its CSO/SSO issues, the POC flows may become smaller to the point that the solution of conveyance becomes more viable.

Ms. Pucci noted that ten years ago, local discussions centered on the overflows that occur in Millvale at A-66. She recalls discussions were with Reserve Township and the City of Pittsburgh. Nothing was ever done. Now, with the improvements to SR28, PennDOT will be doing work to drain the storm flow to the river. To summarize, Mr. Youngblood noted that the attendees just want to know where ALCOSAN is looking to locate facilities.

Mr. Coleman noted that at the conclusion of the site discussions, he wants folks to realize that this initial evaluation started with 60 sites. The screening process was completed and about 22 preferred sites resulted from the initial evaluation. Three consolidation or tunnel corridors were also initially identified. Mr. Coleman stressed that just because 22 sites were identified, this does not mean that all 22 sites will be designated for a structure, facility or activity.

Mr. Coleman indicated that Wade Trim has conducted one-on-one meetings with six municipalities so far, and plans to meet with Millvale and the City of Pittsburgh in the next few weeks.

iii. A Look Forward at the Progressive Process

Mr. Coleman noted that we are about to start the progressive alternative development process. The first step will be using the model to determine the end of pipe flow characteristics for the various storm/design conditions at each ALCOSAN POC with different interceptor/outlet capacities (unrestricted/current conditions/projected future conditions). Based on an evaluation of these conditions, options will be developed for further analysis.

It is important to note that when sizing a wet weather storage facility, ability to dewater the facility needs to be considered for the facility to be available for use during back to back storms. The sizing may need to be increased if the outlet sewer does not recede from the wet weather flow conditions for a significant period of time. This tends to happen during the spring and early summer when ground water conditions are high. Communities were cautioned to look at how "dewatering" will affect overall system. This is particularly true in the Girty's Run system where preliminary review of spring and early summer flows are significantly higher than base flow.

As noted, options will be developed based on a review of the initial end of pipe flow characteristics. To provide and understanding of this process by way of an example, the

overflows in Millvale and the City of Pittsburgh were shown graphically and various options reviewed.

Mr. Coleman discussed the development of options; consolidation, overflow frequency reduction and capacity reallocation. He noted that in Millvale, CSO A-66 is an active overflow. Under the SR28 highway improvement project, the sanitary flow (except for the park pavilion) will be removed. The storm flow will be directed to the river. Redirection of the park pavilion sanitary connection would result in not needed a treatment facility for this overflow.

Mr. Coleman discussed options between locations A-67 and A-65. These are locations that may have options of consolidation, therefore eliminating the need for a facility/solution at say, A-65. Consolidation may take the form of opportunities to direct flow toward another outfall and a single larger facility, under the river, or consolidation and conveyance into another neighboring basin such as Main Rivers or Upper Allegheny which will be evaluated after individual Basin Planning teams complete their basin specific evaluations.

Mr. Dennis Blakley voiced that at the recent LO/GR Workshop, he said that it became clear to him that MTSA and the communities needed to have their Boards and Council Members involved now. He shared that MTSA wants to do their part.

Mr. John Maslanik noted that flow projections are a concern for all of the communities. He also suggested that it would be helpful if Wade Trim and ALCOSAN could review the big picture at the start of each BPC meeting. This review would help let all attendees know where the current activities fit into the overall work being completed. Mr. Coleman noted that all parties need to share the responsibility of schedule commitment and agreed to provide a schedule overview at the start of future BPC meetings rather than later in the meeting.

Ms. Donna Davis asked Wade Trim if they could look at a map and plot areas up stream of Millvale in the Girty's Run system and find a location for a wet weather facility. Mr. Borneman replied that he is hopeful that the communities will be providing some of this mapping and system understanding, so that the municipal solutions and actions can be well incorporated with the overall regional planning. ALCOSAN did not want to "tell" communities or offer a "perceived" direction of what to do where. ALCOSAN feels that the communities know their systems the best, as well as the points of concern within their municipal systems.

Mr. Gazdik shared that the North Hills COG is looking at Cemetery Lane for construction of a storm water retention pond.

Mr. Borneman noted that the schedule for Draft Feasibility Plans is not until 2012. Considering a two-year review period, the designs are about 5-years down the road. In addition, PADEP will be looking at ALCOSAN's recommendations.

Mr. Gazdik asked a question related to I&I source reduction and how (if they use the costing tool) could the municipalities keep focus on the system? Ms. Davis responded that PADEP is looking for a concrete plan with reasonable estimation of the infiltration and inflow to be

removed from a system. She noted that if reductions are not met, PADEP is interested in what fall back design options are being considered.

Mr. Coleman summarized at the conclusion of the meeting that once Wade Trim is finished with its work within this Lower Ohio/Girty's Run Basin, then ALCOSAN will address and compile the Intra-Basin Alternative Analysis for all seven basins. Overall, the regional plan needs to consider the ability of this region to pay for the necessary improvements. In addition, cost sharing benefits will need to be evaluated.

f. Wrap-Up / Next Steps

i. Next Meeting

The next BPC Meetings are expected in January 2010.

2. Items Distributed:

a. Meeting Agenda and PowerPoint presentation.

b. LOGR Relative Ground Water Infiltration Chart – Lowries Run.

c. LOGR Relative Ground Water Infiltration Chart – Girty's Run.

d. Combined Sewer Area – Treatment Facility; Separate Sanitary Area – Storage; Separate Sanitary Area – Dewatering (1); Separate Sanitary Area –Dewatering Time (2) (4 pps).

e. LOGR Basin Screening of Controls and Sites Report, Site Selection and Screening Process, dated 9/16/09.

f. LOGR Basin Screening of Controls and Sites Report, Tables 8.2-1 and 8.2-2, dated 9/16/09.

g. ALCOSAN Lower Ohio/Girty's Run Planning Basin Preferred Sites, dated 9/09 (5 pps).

h. ALCOSAN Wet Weather Plan – Lower Ohio/Girty's Run Basin Public Participation Plan, page 9, dated 2/26/09.

i. LOGR Basin – Proposed Alternative Evaluation and Public Participation Process, dated 02/09 (2 pps).

j. ALCOSAN Lower Ohio Girty's Run Planning Basin/Basin Planning Committee Meetings June 25 and 30, 2009/Coordinated Schedule – Distribution Listing (6 pps).

k. LOGR Basin Screening of Controls and Sites Report, Control Technologies Screening Process, dated 9/16/09 (6 pps)

l. Total RDII Hydrograph Shapes for Individual Month (6 pps).

m. ALCOSAN Lower Ohio/Girty's Run Planning Basin, Lower Allegheny North, Aerials Maps: A-66 Inflow Reduction; Facility/Conveyance Optimization; Consolidation; Conveyance to Main Rivers; dated October 2009 (4 pps).

3. Action Items:

a. Wade Trim will let all know date and time for anticipated Public Forum Meeting(s) when finalized date/time/locations are known.

b. The Comment Cards will be distributed to the municipalities when available.

c. Mr. Coleman will review a schedule overview at the next BPC Meeting.

4. Next Meeting:

The next Basin Planning Committee Meeting will be in January 2010.

5. Attachments:

Attachments as identified above under Section 2 – Items Distributed.

The meeting adjourned at approximately 11:30 a.m.

These minutes are a summary of the writer's interpretation of the meeting. Should you have any comments regarding any of the items, please contact Wade Trim within five (5) calendar days from the date of publication of these Meeting Minutes. If no comments are received by this time, it will be considered that all attendees are in agreement of the proceedings recorded herein.

ALCOSAN Basin Facilities Planning
Meeting Minutes

Lower Ohio/Girty's Run Planning Basin (Lower Ohio Sub Basin)
Basin Planning Committee Meeting Number 6
Date / Time: March 4, 2010 – 1:00 P.M.
Location: Avalon Borough Building

Attendees:

Dan Lockard, ALCOSAN	Michelle Buys, ACHD
David Borneman, ALCOSAN	Bill Hixson, 3RWW
Jerry Brown, 3RWW	Shawn Rosensteel, Avalon Borough & Kilbuck Township/Chester Engineers
Rob Arnold, Avalon Borough & Kilbuck Township/Chester Engineers	John Maslanik, PWSA/Chester Engineers
Paul Eiswerth, PADEP	Harry Dilmore, Avalon Borough & Kilbuck Township
David Gillingham, Jr., Bellevue Borough	Mark Coleman, ALCOSAN/Wade Trim
Dolat Naik, ALCOSAN/AECOM	Brad Boddy, ALCOSAN/Wade Trim
John Isherwood, Ben Avon Heights Borough	Janette Campbell, ALCOSAN/Ebony Holdings
Bob Kipp, Kennedy Township/Remington Vernich & Beach	Karen Brean, ALCOSAN/Brean Associates
Mike Meyer, Stowe Township/Remington Vernich & Beach	Mike Skinner, Emsworth Borough/Gateway Engineers
Ed McGee, Ben Avon Borough/AECOM	Kathy Chavara, ALCOSAN/Collective Efforts, LLC
Scott Swansinger, Bellevue Borough/Herbert, Roland & Grubic, Inc.	Lisa Sorg, ACHD

Discussion/Decision/Agreement Summary

1. Welcome and Program Update

Mark Coleman of Wade Trim opened the meeting by welcoming everyone and led the introductions. Mr. Coleman reviewed the Agenda; a copy is attached to these meeting minutes. He also provided an update of the program and reviewed the schedule. The project timeline is generally the same as what has been reviewed at past meetings. The data collection, screening of technologies and sites, and model development phases of the project are substantially complete. The focus of the LOGR Team now will be the development of the Feasibility Report and PW

Analysis (Alternative Development) while the municipalities will be focused on the municipal feasibility work. The Feasibility Report and the Present Worth Analysis are scheduled to be completed in September of this year. It is very important for communities and municipalities to get information to the Basin Planning Team on the individual Municipal Feasibility Studies.

2. Screening of Controls & Sites Report

The Screening of Controls & Sites Report has been drafted and reviewed by ALCOSAN. The LOGR team is currently incorporating the ALCOSAN comments into the report. The "surviving" control alternatives are storage, transport, and a new satellite WWTP within the Lowries Run sewershed for SSOs and storage (tanks and/or tunnel), treatment (Retention Treatment Basins, High Rate Clarification, Screening and Disinfection, and Vortex Separators), transport, separation, and source reduction/green solutions (municipal implementation).

The preferred sites were also reviewed and discussed. The preferred location for the O-15-00 and O-18-00 overflows was modified based on comments received from Avalon and Bellevue Boroughs.

3. H&H Modeling

i. Release to Municipalities

The LOGR models have been finalized and will be sent to the managers of each of the tributary municipalities and authorities within the next two weeks. The report will be posted to the ALCOSAN municipal web site shortly after distribution of the models.

Mr. Paul Eiswerth asked if Model Calibration information was going to be included with the H&H Modeling Report. Mr. Boddy noted that the H&H Model Validation and Characterization Report contain background information on the model development, model validation, and summary results of the existing conditions model.

ii. Existing Conditions Results

Results from the Existing Conditions model were presented. The following summary tables were provided at the meeting: Summary of Municipal Trunk Sewer Capacity Adequacy – Combined Sewer Systems, ALCOSAN Interceptor Wet Weather Flows, Typical Year Overflow Statistics, Summer Design Storm Overflow Statistics.

iii. Model Applications

Now that the existing conditions model has been finalized it will be utilized to facilitate alternative development and evaluation. First the model will be updated to reflect future conditions including future growth and proposed ALCOSAN and municipal capital projects such as the Route 28 work and the Orr Street stream removal project in Stowe Towship. It was requested that the municipalities forward details to Brad Boddy of any current or near term projects that would impact the flows being delivered to ALCOSAN.

Currently future growth is being estimated based on the SPC Population projections. It is anticipated that municipalities would have a better feel for potential growth within their community and therefore it was requested that population assumptions be provided with the Peak flow estimates that the municipalities will be delivering to ALCOSAN.

The future conditions model will then be used to evaluate the system performance under a number of different boundary conditions (plant capacities). Under each of these boundary conditions the overflow statistics will be estimated based on the typical year for CSOs and design storms for SSOs.

Paul Eiswerth noted that it would be good for ALCOSAN to provide clarification or a list of items that they are requesting from the municipalities.

iv. Preliminary Flow Estimates

The main purpose of the Preliminary Flow estimates is to confirm the LOGR model representation. To facilitate this confirmation it is requested that the municipalities provide design hydrographs for the 1, 2, 5, and 10 year design storms for separate sanitary areas and hydrographs for the 6 largest events from the typical year for combined areas. Along with the hydrographs, it is requested that the municipality provide their current understanding of their system level of service (does additional capacity need to be added to convey flows to ALCOSAN) along with assumptions made during the hydrograph development (i.e. Month used for design storm projections, future growth assumption, I/I removal assumption if any, etc…).

There was a general question related to if ALCOSAN was still requesting that Peak Flow Estimates be submitted March 31, 2010 or whether more time would be provided to the municipalities since the model is just becoming available. It was stated that Peak Flow Estimates were still being requested by March 31, 2010 but that it was understood that some municipalities may require more time if they were planning on using the model for their flow estimates.

4. Feasibility Report and Present Worth Analysis

i. Alternatives Development and Evaluation Strategy

Mark Coleman provided a brief overview of the alternative development and analysis process. As part of this process alternatives will be compared to one another using a screening tool. The screening tool has been broken into five main categories. Each category contains a number of questions that will be answered by comparing the potential alternatives to one another. In order to convert these answers to numeric values, a yes answer will be given a value of 1, a no a value of -1, and a somewhat a value of 0. These numeric values then will be multiplied by a weighting factor. In order to get the Basin Planning Committee comments on how these weighting factors should be assigned, the meeting attendees were asked to break into smaller groups of about four people each and develop weighting factors for each of the five categories.The following Criteria weightings were developed by four workgroups:

Group #	1	2	3	4	Summary
Economic Factors	40	25	30	30	30
Public Factors	20	25	30	20	25
Water Quality, Public Health , etc.	20	25	10	20	20
Operation Impacts	10	10	20	20	15
Implementation Impacts	10	15	10	10	10

Dan Lockhart noted that these results were somewhat consistent with the results of the other Basins. It appears that the top three factors are the areas that people are most concerned about.

ii. Preliminary Site Alternatives

Mark Coleman reviewed the nine preferred consolidated sites that will be used during the alternative development. These sites included new sites that have been identified by some of the municipalities. A new site near I-279 and Camp Horne Road in Lowries Run was identified by the LRJOC that will be evaluated for a satellite WWTP.

Mark Coleman then walked through an example as to how alternatives would be developed and evaluated along the Lower Ohio North interceptor. During the example it was illustrated how the sizing of facilities would be based on the overflow statistics from the modeling results. Alternatives will then be developed with two major assumptions related to the boundary condition. The first assumption is that no new transport capacity will be added and all excess flows will be handled by the new site alternatives. The second assumption is that a new interceptor will be constructed to transport all excess flows to the existing ALCOSAN WWTP. These two assumptions will bound the potential future conditions of the interceptor system. Alternatives will be developed and evaluated under these two conditions. An evaluation will then be conducted to try to optimize these alternatives by evaluating the impact of some new additional transport on the site alternatives.

John Maslanik wanted to know what the treatment capacity is at ALCOSAN and the condition of the existing interceptor. Mr. Coleman noted that the capacity at ALCSOAN is currently 250 MGD but that the system will be evaluated under a number of different plant capacities and that the model takes into consideration known sediment loads within the existing interceptor.

Michelle Buys asked if the existing interceptors had been inspected. It was noted that the Lower Ohio North interceptor has not been inspected due to limited access into the deep tunnel interceptor.

iii. Cost of Performance Analysis

Mark Coleman reviewed the Cost of Performance Analysis that all of the Basin Planning Teams would be using. The present worth cost of each alternative will be developed using the ACT Costing tool for each level of control. The highest ranking alternative for each level of control will then be plotted verses the present worth cost of the alterantive to evaluate the knee-of-the-curve.

5. Municipal Feasibility Study Work

Mark Coleman asked about feedback on Municipal Feasibility Studies and how communities are progressing with their own studies. He asked if he has provided what each municipality may need to complete their Feasibility Study. When folks indicated that they were anxious for the Model, Mr. Lockard noted that the Model would be out to the Township Managers on CD next week.

6. Public Outreach

i. Municipal Outreach

Janette Campbell noted that the Customer Municipality Advisory Committee (CMAC) met Tuesday, March 2, 2010. The CMAC also shared concerns and issues with ALCOSAN. She reviewed the appointed LO/GR CMAC representatives as Tim Rogers (Shaler) and Dan Kinross (Ross).

In addition, the Regional Stakeholder Group (RSG) was to meet on March 16, 2010. She reviewed the appointed LO/GR representatives for the RSG as Harry Dilmore (Avalon) and Ken Wolf (West View Borough).

There was a request to give consideration to holding the BPC Meetings in the evening when folks do not need to take time off from work to attend.

ii. Public Meetings

Ms. Campbell noted that ALCOSAN held multiple Public Outreach Meetings in January and February 2010. The times/locations of the meetings varied, and they were held to engage members and address comments from the public.

iii. Additional Stakeholder participation in BPC meetings

Karen Brean asked if anyone had any feedback on the information provided in the Basin Quarterly Activity Reports (BQARs) and that the next BQAR #3 would be distributed shortly. Ms. Brean asked if the group felt that it was the appropriate time to invite additional stakeholders to these BPC Meetings. There were no objections, so Ms. Brean will prepare an initial list of potential, additional attendees and distribute to the current members for review and comment.

7. Financial Data Collection

Dan Lockhart discussed the status of the Alternatives Costing Tool (ACT). The ACT would be updated at end of the month. He noted that the ACT is being developed regionally and would be available on the Municipal Website. Satellite Treatment is being added to the ACT as well.

Dan Lockhart noted that they are continuing to collect financial data related to capital costs, long term O&M, etc. to be used as part of the Financial Affordability Analysis. They are working with 3RWW and hope to have this additional costing information completed by the end of the year.

John Maslanik asked if the costs that ALCOSAN presents will include the local (municipal) cost considerations. In addition, a statement or urgency was voiced concerning their need for local municipalities to consider if they will need to raise taxes in order to cover needed improvements/solutions. Mr. David Borneman noted that ALCOSAN's goal is to include all costs at the Program level.

At the conclusion of the meeting, Mark Coleman revisited the topic of Municipal Feasibility Work and the progress. All attendees acknowledged the urgency of the model distribution and noted that it will take the communities some time to pull the peak flow estimates together.

8. Items Distributed:

i. Meeting Agenda and PowerPoint presentation.

ii. LOGR Basin – Proposed Alternative Evaluation and Public Participation Process, dated 02/09 (2 pps)

iii. Summary of Municipal Trunk Sewer Capacity Adequacy, Separate Sewer Systems

iv. Summary of Municipal Trunk Sewer Capacity Adequacy, Combined Sewer Systems

v. ALCOSAN Interceptor Wet Weather Flows

vi. Lower Ohio Typical Year Overflow Statistics

vii. LOGR Design Storm Overflow Statistics

viii. ALCOSAN Wet Weather Planning Program, LOGR Planning Basin – Feasibility Report and Present Worth Analysis Guidance, Site Alternative Evaluation Process Overview, dated March 2010

ix. ALCOSAN Wet Weather Planning Program, LOGR Planning Basin – Feasibility Report and Present Worth Analysis Guidance, Alternative Evaluation Criteria Ranking Categories, dated March 2010

x. LOGR Worksheet

9. Action Items:

i. Wade Trim will distribute the next Basin Quarterly Activity Report (BQAR # 3) within the next month.

ii. An expanded BPC Meeting Attendee List will be drafted and distributed to the municipalities to review and recommend additional, appropriate stakeholders from their respective communities.

iii. Wade Trim to submit the H&H Modeling Report to ALCOSAN in March 2010 and ALCOSAN will post the H&H Report on secured Municipal web site for the communities' reference.

10. Next Meeting:

The next Basin Planning Committee Meeting will be in June/July 2010 time frame.

11. Attachments:

Attachments as identified above under Section 8 – Items Distributed.

The meeting adjourned at approximately 3:30 p.m.

These minutes are a summary of the writer's interpretation of the meeting. Should you have any comments regarding any of the items, please contact Wade Trim within five (5) calendar days from the date of publication of these Meeting Minutes. If no comments are received by this time, it will be considered that all attendees are in agreement of the proceedings recorded herein.

ALCOSAN Basin Facilities Planning
Meeting Minutes

Lower Ohio/Girty's Run Planning Basin (Girty's Run/ Lowries Run Sub Basin)

Basin Planning Committee Meeting Number 6

Date / Time: March 9, 2010 – 9:00 A.M.

Location: Girty's Run Joint Sewer Authority

Attendees:

Dan Lockard, ALCOSAN

David Borneman, ALCOSAN

Richard Stewart, Ohio Township & GRJSA/NIRA

Rob Arnold, Avalon Borough & Kilbuck Township/Chester Engineers

Tom Flanagan, PADEP

Andy Maul, PWSA

Dolat Naik, AECOM

Don Newman, Buchart Horn

John Shannon, 3RWW/Michael Baker

Gordon Taylor, Millvale Borough & Reserve Township/Senate Engineering

Dennis Blakley, MTSA

Bill Youngblood, MTSA

Michelle Buys, ACHD

Lisa Sorg, ACHD

Mike Stupy, GRJSA

Art Gazdik, Ross Township

Tracy Schubert, 3RWW

Mark Coleman, ALCOSAN/Wade Trim

Brad Boddy, ALCOSAN/Wade Trim

Janai Williams, ALCOSAN/Ebony Holdings

Karen Brean, ALCOSAN/Karen Brean Associates

Jerry Brown, 3RWW

Bob Zischkau, West View Borough/Glenn Engineers

Kathy Chavara, ALCOSAN/Collective Efforts LLC

Discussion/Decision/Agreement Summary

1. Welcome and Program Update

Mark Coleman of Wade Trim opened the meeting by welcoming everyone and led the introductions. Mr. Coleman reviewed the Agenda; a copy is attached to these meeting minutes. He also provided an update of the program and reviewed the schedule.The project timeline is generally the same as what has been reviewed at past meetings. The data collection, screening of technologies and sites, and model development phases of the project are substantially complete. The focus of the LOGR Team now will be the development of the Feasibility Report and PW

Analysis (Alternative Development) while the municipalities will be focused on the municipal feasibility work. The Feasibility Report and the Present Worth Analysis are scheduled to be completed in October/ November of this year. It is very important for communities and municipalities to get information to the Basin Team on the individual Municipal Feasibility Studies.

2. Screening of Controls & Sites Report

The Screening of Controls & Sites Report has been drafted and reviewed by ALCOSAN. The LOGR team is currently incorporating the ALCOSAN comments into the report. The "surviving" control alternatives are storage, transport, and a new satellite WWTP within the Lowries Run sewershed for SSOs and storage (tanks and/or tunnel), treatment (Retention Treatment Basins, High Rate Clarification, Screening and Disinfection, and Vortex Separators), transport, separation, and source reduction/green solutions (municipal implementation). It was asked if a new satellite WWTP should only be considered a SSO technology. It was stated that for a WWTP it is important to have 24/7 flow to the plant for proper operation. Therefore, WWTPs are generally more applicable for SSOs than CSOs. Typically CSOs are more of a wet weather issue that can be controlled with wet weather facilities more economically than with new WWTPs.

The preferred sites were also reviewed and discussed. The preferred location for the A-67-00 overflow was shifted to the end of the Millvale Park based on comments received from Millvale Borough.

3. H & H Modeling

i. Release to Municipalities

The LOGR models were sent to the managers of each of the tributary municipalities and authorities this week. The report will be posted to the ALCOSAN municipal web site within the next couple of weeks. The H&H Model Validation and Characterization Report contain background information on the model development, model validation, and summary of results of the existing conditions model.

ii. Existing Conditions Results

Results from the Existing Conditions model were presented. The following summary tables were provided at the meeting: Summary of Municipal Trunk Sewer Capacity Adequacy – Combined Sewer Systems, ALCOSAN Interceptor Wet Weather Flows, Typical Year Overflow Statistics, Summer Design Storm Overflow Statistics.

iii. Model Applications

Now that the existing conditions model has been finalized it will be utilized to facilitate alternative development and evaluation. First the model will be updated to reflect future conditions including future growth and proposed ALCOSAN and municipal capital projects such as the Route 28 work and the A-67 stream removal project. It was requested that municipalities forward details to Brad Boddy of any current or near term projects that would impact the flows being delivered to ALCOSAN.

Currently future growth is being estimated based on the SPC Population projections. It is anticipated that municipalities would have a better feel for potential growth within their

community and therefore it was requested that population assumptions be provided with the Peak flow estimates that the municipalities will be providing to ALCOSAN.

The future conditions model will then be used to evaluate the system performance under a number of different boundary conditions (plant capacities). Under each of these boundary conditions the overflow statistics will be estimated based on the typical year for CSOs and design storms for SSOs.

iv. Preliminary Flow Estimates

The main purpose of the Preliminary Flow estimates is to confirm the LOGR model representation. To facilitate this confirmation it is requested that the municipalities provide design hydrographs for the 1, 2, 5, and 10 year design storms for separate sanitary areas and hydrographs for the 6 largest events from the typical year for combined areas. Along with the hydrographs, it is requested that the municipality provide their current understanding of their system level of service (does additional capacity need to be added to convey flows to ALCOSAN) along with assumptions made during the hydrograph development (i.e. Month used for design storm projections, future growth assumption, I/I removal assumption if any, etc…).

Mr. John Shannon asked if ALCOSAN was still requesting that Peak Flow Estimates be submitted March 31, 2010 or whether more time would be provided to the municipalities since the model is just becoming available. It was stated that Peak Flow Estimates were still being requested by March 31, 2010 but that it was understood that some municipalities may require more time if they were planning on using the model for their flow estimates.

4. Feasibility Report and Present Worth Analysis

i. Alternatives Development and Evaluation Strategy

Mark Coleman provided a brief overview of the alternative development and analysis process. As part of this process alternatives will be compared to one another using a screening tool. The screening tool has been broken into five main categories. Each category contains a number of questions that will be answered by comparing the potential alternatives to one another. In order to convert these answers to numeric values, a yes answer will be given a value of 1, a no a value of -1, and a somewhat a value of 0. These numeric values then will be multiplied by a weighting factor. In order to get the Basin Planning Committee comments on how these weighting factors should be assigned, the meeting attendees were asked to break into smaller groups of about four people each and develop weighting factors for each of the five categories.The following Criteria weightings were developed by the four workgroups:

Group #	1	2	3	4	Proposed
Economic Factors	25	40	35	20	30
Public Factors	60	10	10	20	25
Water Quality, Public Health , etc.	5	25	30	20	20
Operation Impacts	5	10	15	20	12.5
Implementation Impacts	5	15	10	20	12.5

Dan Lockhart noted that the results were consistent throughout the region, with the top three factors being of primary concern.

ii. Preliminary Site Alternatives

Mark Coleman reviewed the preferred consolidated sites that will be used during the alternative development. These sites included new sites that have been identified by some of the municipalities. A new site in Lowries Run was identified by the LRJOC that will be evaluated for a satellite WWTP. A site upstream of Millvale Borough near the Little Brown Jug within the A-67 (Girty's Run) sewershed was identified by the GRJSA as a potential site for a storage basin.

Mark Coleman then walked through an example as to how alternatives would be developed and evaluated along the Lower Northern Allegheny interceptor. During the example it was illustrated how the sizing of facilities would be based on the overflow statistics from the modeling results. Alternatives will then be developed with two major assumptions related to the boundary condition. The first assumption is that no new transport capacity will be added and all excess flows will be handled by the new site alternatives. The second assumption is that a new interceptor will be constructred to transport all excess flows to the existing ALCOSAN WWTP. These two assumptions will bound the potential future conditions of the interceptor system. Alternatives will be developed and evaluated under these two conditions. An evaluation will then be conducted to try to optimize these alternatives by evaluating the impact of some new additional transport on the site alternatives.

Ms. Michelle Buys asked how close Wade Trim is working with PWSA and the PWSA's Long Term Control Plan as they are a large component of the region. It was stated that multiple meetings have been held with PWSA and that PWSA has been actively participating in the BPC meetings. Mr. Dan Lockhart pointed out that all of the Basin Teams have access to PWSA's plan for reference, and that the Main Rivers Basin Team meets regularly with PWSA since the majority of the PWSA system is tributary to the Main Rivers Basin.

iii. Cost of Performance Analysis

The cost for each optimized basin alterantive for each level of control will be presented on a knee-of-the-curve plot to show the cost benefit of the different levels of control.

5. Municipal Feasibility Study Work

Mark Coleman asked for feedback on Municipal Feasibility Studies. He noted that he understood that the GRJSA has had a technical meeting with their member municipality engineering representativies. The GRJSA stated that a follow-up meeting has been scheduled.

Mr. Bill Youngblood asked about differences in LOGR Model and the LRJOC flow monitoring data. Brad Boddy reported that the flow monitoring data received from the LRJOC for MH 63 had some data quality issues that have led to the LOGR model over-simulating flows in the upper sections of the Lowries Run sewershed. The LRJOC is currently reviewing the data and a meeting will be scheduled to discuss their findings. Don Newman noted that a coordination meeting is being set to occur within the next week with the Basin Planning Team to review specifics concerning Lowries Run.

6. Public Outreach

i. Municipal Outreach

Janai Williams reported that CMAC met last Tuesday, March 2, 2010. During the meeting the CMAC were provided an overview of the various CSO/SSO control technologies that are being considered and how they may be integrated into the alternative analysis phase. They also conducted a similar exercise on the development of the screening tool weights the results of which will be available shortly.

ii. Public Meetings

Janai Williams discussed Key Agenda Topics that the Regional Stakeholders Group (RSG) covers. The next RSG Meeting will be held on March 16, 2010.

In total, there have been 13 Basin Public Outreach Meetings. Workshops were provided to engage members and address comments from the public. In January and February 2010, there were 4 daytime and 1 evening Annual Customer Information Meetings. The overall concern is about the costs for municipalities to implement their plans.

iii. Additional Stakeholder participation in BPC meetings

Karen Breen asked, "What is the right time to add additional stakeholders". There were no comments to the question, but consensus was that the time was nearing to add/invite additional stakeholders to the quarterly BPC Meetings. Karen Breen will develop a listing of potential stakeholders to start inviting to the BPC Meetings using the Allegheny County Work Group list developed when the ALCOSAN Overflow Control Facility was being considered in Millvale as a starting point. .

7. Financial Data Collection

Dan Lockhart noted that the Alternatives Costing Tool (ACT) would be updated at end of the month. Since the development of points on curve were based on "larger" regional facilities, he cautioned municipalities to use the ACT with an understanding that costs were based on large regional projects.

Dan Lockhart noted that they are continuing to collect financial data related to capital costs, long term O&M, etc. to be used as part of the Financial Affordability Analysis. They are working with 3RWW and hope to have this additional costing information completed by the end of the year.

8. Items Distributed:

i. Meeting Agenda and PowerPoint presentation
ii. LOGR Basin – Proposed Alternative Evaluation and Public Participation Process, dated 02/09 (2 pages)
iii. Summary of Municipal Trunk Sewer Capacity Adequacy, Separate Sewer Systems
iv. Summary of Municipal Trunk Sewer Capacity Adequacy, Combined Sewer Systems
v. ALCOSAN Interceptor Wet Weather Flows
vi. Lower Ohio Typical Year Overflow Statistics
vii. Lower Northern Allegheny Typical Year
viii. LOGR Design Storm Overflow Statistics
ix. ALCSOAN Wet Weather Planning Program, LOGR Planning Basin – Feasibility Report and Present Worth Analysis Guidance, Site Alternative Evaluation Process Overview, dated March 2010
x. ALCSOAN Wet Weather Planning Program, LOGR Planning Basin – Feasibility Report and Present Worth Analysis Guidance, Alternative Evaluation Criteria Ranking Categories, dated March 2010
xi. LOGR Worksheet

9. Action Items:

i. Wade Trim will distribute the next Basin Quarterly Activity Report (BQAR # 3) within the next month.

ii. An expanded BPC Meeting Attendee List will be drafted and distributed to the municipalities to review and recommend additional, appropriate stakeholders from their respective communities.

iii. Wade Trim to submit the H&H Modeling Report to ALCOSAN in March 2010 and ALCOSAN will post the H&H Report on secure Municipal web site for reference and use of the communities.

10. Next Meeting:

The next Basin Planning Committee Meeting will be in June/July 2010 time frame.

11. Attachments:

Attachments as identified above under Section 8 – Items Distributed.

The meeting adjourned at approximately 11:30 a.m.

These minutes are a summary of the writer's interpretation of the meeting. Should you have any comments regarding any of the items, please contact Wade Trim within five (5) calendar days from the date of publication of these Meeting Minutes. If no comments are received by this time, it will be considered that all attendees are in agreement of the proceedings recorded herein.

ALCOSAN Basin Facilities Planning
Meeting Minutes

Lower Ohio/Girty's Run Planning Basin
(Girty's Run/Lowries Run Sub Basin)
Basin Planning Committee Meeting Number 7
Date / Time: July 8, 2010 – 9:00 A.M.
Location: Ross Township Municipal Building

Attendees:

Dan Lockard, ALCOSAN	Andy Maul, PWSA
Paul Eiswerth, Pennsylvania DEP	Kaye Bealer, ALCOSAN/K Bealer Associates
John Shannon, Michael Baker Corp./3RWW	Bob Zischkau, Glenn Engineering, West View Borough
Jan Oliver, ALCOSAN	Glenn Jonnet, Glenn Engineering
Tammi Halapin, ALCOSAN/Collective Efforts	Mark Coleman, ALCOSAN/Wade Trim
Dolat Naik, ALCOSAN/AECOM	Brad Boddy, ALCOSAN/Wade Trim
Karen Brean, ALCOSAN/Brean Associates	Janette Campbell, ALCOSAN/Ebony Holdings
Anthony Catania, ALCOSAN/K Bealer Associates	Tom Schevtchuk, ALCOSAN/CDM
Art Gazdik, Ross Township	Jerry Brown, 3RWW
Grace Jaesteadt, Millvale Marina	Don Newman, Buchard Horn
Dave Weiss, Millvale Boat Club	Beth Dutton, 3RWW
Mike Stupy, Girty's Run Joint Sewer Authority	

1. **Discussion/Decision/Agreement Summary:**

   a. **Program to Date Status Overview**

   Mr. Mark Coleman, of Wade Trim, welcomed the meeting attendee. He noted that, previously, the Basin Planning Committee decided to invite stakeholders who had not been involved in the process to date. Since there were some new faces, he invited introductions around the room, asking attendees to note their affiliations as well as names. He presented an overview of the meeting agenda (attached). Mr. Coleman reported on the status of the LOGR planning team's planning process. He noted that the team is on schedule and that there is only one minor change in

the schedule. The Feasibility Report and Present Worth Analysis was originally identified to be completed in the spring. It is now scheduled for a draft delivery date of November 1, 2010. He explained that the LOGR planning team has been working their way up to the feasibility work and coming up with basin alternatives that will get rolled into the overarching regional alternative for the seven basins. He also reported that the planning team is about a third of the way into the Alternatives Analysis Process. He noted that, as a result, the numbers to be discussed in the meeting are very preliminary.

b. Modelling and Preliminary Flow Estimates (PFEs)

1. Hydrologic & Hydraulic (H&H) Model and Report Distribution

Mr. Brad Boddy, of Wade Trim, reported that the H&H Model was released and distributed to the municipal managers in March and that municipal engineers should have received it from the managers. The Hydrologic & Hydraulic Model Validation and Characterization Report was also posted to the ALCOSAN municipal web site on April 7, 2010. He explained that there is a lot of documentation with the model so that everything is transparent. Municipal managers and engineers can access exactly the information that they need.

Ms. Jan Oliver, of ALCOSAN, suggested that Mr. Boddy explain the H&H model for the benefit of those stakeholders who are new to the Basin Planning Committee meetings. Mr. Boddy explained that the H&H Model is a computer simulation of pipes, tributaries areas, and rainfall. In order to get the data to calibrate the Model, rain gauges and monitors were placed throughout the system to understand flows and, ultimately, to simulate weather conditions. He noted that part of the system is made up of combined sewers, which are designed to handle both storm runoff and sanitary sewer flow. The H&H Model allows the group to understand what happens, in terms of system flow, during both dry and wet weather. Mr. Boddy also explained that there is a separate sanitary sewer system in the middle of the basin, but clean water still gets into the system, through defects in both the private and public collection systems.

2. Municipal Model Coordination and Assistance/Municipal PFEs

Mr. Boddy explained that the LOGR basin planning team has requested PFEs from the municipalities. The team needs to know what changes will occur between now and 2046, to be able to understand the impact on the system. In addition, the LOGR basin team needs to make sure that the municipalities agree with the technical assumptions of the model, which is a key tool in the planning process. He noted that, for the Separate Sanitary (SS) flows, the LOGR basin planning team is requesting hydrographs for one, two, five, and ten year design storms. For the Combined System Overflow (CSO) flows, planning the team is looking for data for the six largest events from a typical year (2003). The team is also looking for current and future level of service information.

Mr. Boddy presented a matrix showing the status of the municipalities' PFE submissions. He noted that the LOGR basin team received information on PFEs from Emsworth, Bellevue, and the Pittsburgh Water and Sewer Authority (PWSA). The rest of the submissions have not been received. Mr. Boddy noted that the team understands that municipalities need to look at the H&H model in order to submit their PFEs. However, in some cases, the extended deadlines have past and the basin planning team needs the PFE information to go forward with planning. He asked for updates from the municipalities that had not yet submitted their PFEs. Mr. Art Gazdik, of Ross Township, reported that the information for Ross Township should be submitted in July. Mr. Bob Zischkau, of Glenn Engineering, stated that the information for West View Borough is being

reviewed. Mr. Don Newman, of Buchard Horn, reported that three of four communities have provided information so far on Lowries Run. He is working with Kilbuck Township to get their information and to make sure that the information from all communities is compatible. Mr. Newman expects to submit the information in two to three weeks from today.

Mr. Andy Maul, of PWSA, stated that, for PWSA points of connection, if any municipalities only drain to these points of connection, they should be removed from the list. Mr. Boddy responded that there is not a single municipality in the basin fitting that description. No entities are just tributaries to PWSA in this watershed.

Mr. John Shannon, of Three Rivers Wet Weather (3RWW), asked whether the three PFE submissions utilized the ALCOSAN H&H Model. Mr. Boddy responded that Bellevue and PWSA utilized the model and Emsworth used a tool developed by 3RWW.

3. Consensus of LOGR Model Representation

Mr. Boddy asked the participants for their assessment of the model. He asked whether, in their opinion, it does a pretty good job of representing the municipal flow. He reiterated that the model is a key to the analysis. Mr. Coleman added that the LOGR basin planning team wants to make sure that there is an agreement with the technical assumptions. If there are not issues raised, then the team will assume that the municipalities are in agreement.

Mr. Maul asked if there were any modelling work groups. Mr. Jerry Brown, of 3RWW, explained that his organization is providing assistance to municipalities to facilitate the use of the H&H Model. In lieu of a modelling group, 3RWW is holding bi-weekly meetings that modellers attend. Ms. Oliver noted that ALCOSAN held at least three sessions on the use of the model. She clarified that the workshops were general in nature and that, if there are specific issues pertaining to the point of connection, ALCOSAN would expect that the municipality would work directly with the basin planner.

c. Alternatives Development and Evaluation Progress

Mr. Boddy presented an overview of the progress on alternatives development and evaluation. He explained that the LOGR basin team will be using the model to estimate the overflow statistics. They will identify and size the site alternatives based on these overflow statistics to various control levels (i.e. 1, 2, 4,7,& 12 overflows per year for combined areas). They will screen the alternatives for each control level and boundary condition. Then, the planning team will utilize the costing tool to develop present worth costs for each alternative. Ultimately, the LOGR team will take the best basin alternatives and optimize them with adjacent basins.

Mr. Boddy reported that the LOGR basin planning team has developed a future conditions model utilizing the Southwestern Pennsylvania Commission's (SPC) 2035 population projections. He explained that the LOGR team has made assumptions but the team is looking to confirm these assumptions with population estimates from the municipalities. He added that the team has not assumed any population decreases, even if the SPC projections identify decreases, in order to assume the worst case scenario in terms of flow volume.

Mr. Gazdik asked whether the population statistics could be shared with the group. Mr. Boddy responded that they are in the H&H Model Report, but the team could pull them out for him. He also noted that the percentages were in today's packets. Mr. Shannon noted that the SPC projections are also available on the 3RWW web site. Mr. Dan Lockard, of ALCOSAN, noted that the SPC model is really a software program and that he is hopeful that the municipalities, particularly the school districts, might have a better handle on population projections.

Mr. Paul Eiswerth, of the Pennsylvania Department of Environmental Protection, asked what the planning team was doing to account for aging systems relative to infiltration and inflow. Mr. Boddy answered that the team is assuming that they remain the same, that systems will be maintained. Mr. Lockard added that there is some element of faith that the systems won't get worse and ALCOSAN may do some detective work if the reality down the road doesn't match the projections from the municipalities. Mr. Eiswerth reminded the group that, if the municipal projections don't match their ultimate flows, it will be the municipalities' responsibility to get the flows down to what they projected. Mr. Gazdik noted that the municipalities have done a lot of work to prepare for this, including continued operation and maintenance.

Mr. Boddy explained that, for future conditions, the team is accounting for major near term projects, such as the direct stream input at O-03 in Stowe, which has recently been removed, and the impacts of the Route 28 widening project which included both inflow reduction (removal of street drainage) and the removal of a direct stream in the A-66 sewershed.

Mr. Maul asked whether ALCOSAN was planning on removing sediment within the ALCOSAN system. Ms. Oliver responded that the assumption is that the shallow cut interceptors would be cleaned, but that the technology to clean the deep tunnel is lacking and sediment is being factored into the planning.

Mr. Newman asked whether a schedule would be developed for controlling the ALCOSAN wet well. Mr. Lockard responded that there will be an implementation plan. They cannot say right now what the ultimate capacity of the plant will be but that it will be included in the ALCOSAN Wet Weather Plan that will be available for municipal comment towards the end of 2011. He added that, right now, the boundary conditions impact the ALCOSAN overflow volume, but they are not aware of upstream overflows being caused by the existing boundary conditions.

Mr. Gazdik noted that it is difficult to evaluate for them because the point of connection issues are related to ALCOSAN's plant capacity. Mr. Boddy explained that the LOGR basin planning team want to know what will be generated by the municipalities and conveyed to ALCOSAN. Once the municipalities have generated what they believe they will send down, the planning team will figure out what to do with the flow factoring in the boundary condition.

Mr. Boddy explained that 59 potential facility sites were identified by the LOGR team. The sites were evaluated and screened against the established criteria resulting in 23 "preferred" sites. The "preferred" sites were consolidated into 12 "consolidated preferred" sites. He noted that ACT version 2.0 was used to evaluate capital and operation and maintenance costs. He reported that the alternative components being analyzed include collector sewers and new diversion chambers, pump stations, facilities (such as storage tanks, retention treatment basins, screening and disinfection, etc.), and dewatering pumps and pipe lines. Mr. Boddy noted that within the Lower Northern Allegheny side of the LOGR Basin there are three potential sites, one upstream of Millvale, one down at the downstream end of the Millvale Park, and one closer to the A-62 structure. In addition the LOGR basin team is working with the Main Rivers basin team to examine transferring flow to the Main Rivers Basin.

Mr. Boddy reported that, for the Lower Ohio/Lowries Run area, there are two potential sites, a satellite wastewater treatment site in Ohio Township, and a site at the Avonsworth ball field. In addition, the team is looking at a possible new interceptor. Mr. Lockard noted that, preliminarily, the basin planning team found that the upstream sites won't minimize overflows at the points of connection. This is particularly true in the Girty's Run area upstream of Millvale, and it is being

eliminated from further ALCOSAN evaluation. It may however, be a viable Municipal Feasibility Study site.

Mr. Boddy presented the results of the screening criteria ranking from BPC #6 across all of the seven basins. He reported that the average of all of the ranking factors was used to come up with a final number for each of the criteria categories to be used in analyzing the alternatives.

Mr. Boddy presented preliminary cost estimates for Lower Ohio North – SSOs of the consolidated groups and basin alternative technologies relative to design storms. He noted that the slide compares underground tanks, conveyance, and tunnel alternatives and that the tunnel alternative's advantage is that it gives more operational flexibility.

Mr. Boddy explained that there had been municipal interest in a proposed Lowries Run waste water treatment plant. The alternative was evaluated utilizing the Alternatives Costing Tool (ACT). The cost came out higher than expected and the thought is that the tool was not developed for such a small waste water treatment plant. In order to evaluate the estimated cost a site specific cost estimate was developed based on other WWTP projects in the region. This cost was significantly lower than the estimate from the ACT tool and was used for the evaluation of this alternative. Given the adjusted cost for the plant, along with the fact that it would have limited impact on other Lower Ohio North outfall statistics, this alternative will be removed from further consideration and the LOGR basin team will move forward with other alternatives. Mr. Boddy clarified that a new WWTP is being removed from the basin-specific perspective. It is expected to still be evaluated on a regional planning level.

Mr. Coleman noted that costing tools, in general, do not work that well at the extreme ends, large or small. At those extremes, it is very important to check and see if the results of the costing tool reflect reality. The LOGR basin team will be doing this with some of the smaller alternatives.

Mr. Boddy presented preliminary cost estimates for Lower Northern Allegheny – CSOs of the consolidated groups relative to design storms. He noted that, at this point, the best alternatives seem to be an oversized pipe for storage for the lower control levels and a retention treatment basin for the higher control levels. In additional alternatives will be evaluated that would transport the flows from these areas to a facility being evaluated by the Main Rivers Planning Basin.

d. Municipal Feasibility Study Work

Mr. Coleman stated that, given where the team is in the alternatives analysis process now, it is critical to understand what is going on in the municipalities. Therefore, the municipal feasibility work is very important and reiterated that consensus on the model representation is critical. He noted that the LOGR team's job is to make sure that the technical basis reflects reality and that the model reflects the system as it operates.

e. Financial Data Collection Status and Affordability Analysis

Kaye Bealer, of K. Bealer Consulting, introduced the Financial Capability Assessment. She explained that CSO policy requires considering the permittee's financial capability. She explained that the Assessment is a two-phased process. The first phase, Affordability, the residential indicator, examines the rate payers' ability to pay. The second phase, financial management indicator, examines the permittee's ability to finance.

Kaye Bealer explained that the residential indicator is a percentage, with the annual wastewater cost (the sum of ALCOSAN and municipal costs) divided by annual income. The Environmental

Protection Agency (EPA) has established degrees of financial impact based on the residential indicator. A residential indicator less than 1% of Median Household Income (MHI) is considered low, 1 to 2% is considered mid-range, and greater than 2% is determined to be high impact.

Kaye Bealer explained how the financial analysis team arrived at defining typical household water usage and then how they arrived at a typical household ALCOSAN and municipal costs resulting in a regional typical cost per household of $450.

Tom Schevtchuk noted that there are huge variances in MHI between the City of Pittsburgh and other areas. The financial analysis team utilized 2007 census data along with adjustments by other statistics. In addition, larger municipalities in the service area have updated figures in the 2007 data and the team was able to utilize them to develop an average weighted annual growth.

Kaye Bealer explained that the ALCOSAN service area MHI is $43,200. Therefore, the Residential Indicator is 1.04%, at the low end of the mid-range established by EPA. However, a closer look shows the variation in inter and intra-municipal burden. The municipal MHIs range from $16,500 to $174,000. Within the City of Pittsburgh, the block group MHIs range from $8,000 to $182,000. Therefore, the current block group level residential indicators range from 0.13% to 5.15%.

Tom Schevtchuk presented an overview of the anticipated wet weather cost impact and the "Proxy Investment Analysis." Through this analysis, the financial analysis team is able to identify the range of "affordable" wet weather investments that would trigger a 2% residential indicator. The regional wastewater investments that would trigger the 2% residential indicator were determined to be approximately $2 Billion.

f. Program Updates and Upcoming Schedule

Janette Campbell, of Ebony Holdings, reported that the Customer Municipality Advisory Committee (CMAC) met on May 11, 2010, and received a presentation on the affordability analysis. The Committee voiced concern over how the whole process would impact affordability. Members of the Committee have launched a letter writing campaign to engage their peers in the planning process. The next CMAC meeting is scheduled for August 3, 2010. At that time, they will discuss the PFEs and moving forward with the regional Wet Weather Plan.

The Regional Stakeholders Group (RSG) met on May 13, 2010. They asked for information about what other cities are doing regarding water cost, water quality, and multi-municipal impacts. Four programs were identified that address these issues and will be shared with the RSG at their next meeting, scheduled for August 12, 2010. The four case studies are Portland, Washington, DC, Northern Kentucky, and Boston. In addition, the RSG members will be updated on some national wet weather policies.

Mr. Maul suggested adding Philadelphia to the case study list. Mr. Coleman noted that the Philadelphia Plan has not yet been approved. Mr. Lockard added that Philadelphia has a large green infrastructure component to their wet weather plan and that they have more implementation ability than ALCOSAN to implement the green solutions as there needs to be buy-in from planning and zoning to push for green infrastructure.

Mr. Lockard provided an update on the ACT and the ALCOSAN Municipal Web Site. He noted that the ACT is already on version 2.0. He explained that the goal of the ACT is to provide a common costing scale to help with the integration of the different basin solutions. Mr. Lockard

explained that the Existing Conditions Report is undergoing some final edits and will be posted on the ALCOSAN Municipal Web Site soon. He also stated that the Screening and Sites Report is being finalized at this time. He noted that any updates to posted reports will be in the form of technical memos appended to the posted document.

Mr. Coleman outlined the project's next steps. He reported that, over the next few months, the LOGR team will continue working on the alternatives evaluation process. He noted that the next BPC meeting #8 will be in the fall, possibly in September, before the next round of basin public forums.

2. Items Distributed:

- **a.** Meeting agenda and PowerPoint presentation
- **b.** LOGR Basin – Proposed Alternative Evaluation and Public Participation Process
- **c.** Projected Future Wastewater Increase for LOGR Planning Basin
- **d.** Lower Northern Allegheny Typical Year Overflow Statistics, Future 2046 Conditions
- **e.** LNA Existing vs. Future Conditions: Overflow Frequency; Peak Flow Rate; and Total Annual Overflow Volume
- **f.** Lower Ohio Typical Year Overflow Statistics, Future 2046 Conditions
- **g.** Lower Ohio Existing vs. Future Conditions: Overflow Frequency; Peak Flow Rate; and Total Annual Overflow Volume
- **h.** Lower Northern Allegheny Preferred Consolidation Sites
- **i.** Lower Ohio North and South Preferred Consolidation Sites
- **j.** Lower Ohio North – SSOs by Consolidation Group
- **k.** Lower Ohio North –SSOs by Basin Alternative Technology
- **l.** Lower Northern Allegheny – CSOs by Consolidation Group
- **m.** Lower Northern Allegheny – CSOs – Total Present Worth

3. Action Items:

a. Municipalities that have not submitted their PFE data will submit the data to the LOGR basin team according to the estimated completion dates discussed above.

b. ALCOSAN will post the Existing Conditions Report and the Screening and Sites Report on the ALCOSAN Municipal Web Site.

c. LOGR team to forward population statistics contained in the H&H Model Report to BPC members.

ALCOSAN Basin Facilities Planning
Meeting Minutes

Lower Ohio/Girty's Run Planning Basin (Lower Ohio Sub Basin)

Basin Planning Committee Meeting Number 7

Date / Time: July 9, 2010 – 9:00 A.M.

Location: Avalon Borough Building

Attendees:

Dan Lockard, ALCOSAN	Andy Maul, PWSA
Jim Barrick, Neville Township	Kaye Bealer, ALCOSAN/K Bealer Associates
John Shannon, Michael Baker Corp./3RWW	Shawn Rosensteel, Avalon Borough & Kilbuck Township/Chester Engineers
Scott Swansinger, Bellevue Borough/Herbert, Roland & Grubic, Inc.	Mike Skinner, Emsworth Borough/Gateway Engineers
Ed McGee, Ben Avon Borough/AECOM	Harry Dilmore, Avalon Borough & Kilbuck Township
Karen Napoli, ALCOSAN/Collective Efforts	Mark Coleman, ALCOSAN/Wade Trim
Dolat Naik, ALCOSAN/AECOM	Brad Boddy, ALCOSAN/Wade Trim
Karen Brean, ALCOSAN/Brean Associates	Janai Williams, ALCOSAN/Ebony Holdings
Anthony Catania, ALCOSAN/K Bealer Associates	Tom Schevtchuk, ALCOSAN/CDM
Sarah Fink, Avalon Borough & Kilbuck Township	

1. **Discussion/Decision/Agreement Summary:**

   a. **Program to Date Status Overview**

   Mr. Mark Coleman, of Wade Trim, welcomed the meeting attendees and invited introductions around the room. He presented an overview of the meeting agenda (attached). Mr. Coleman reported on the status of the LOGR planning team's planning process. He noted that the team is on schedule and that there is only one minor change in the schedule. The Feasibility Report and Present Worth Analysis draft delivery date is now scheduled for a November 1, 2010. He also reported that the planning team is about a third of the way into the Alternatives Analysis. He noted that, as a result, the numbers to be discussed in the meeting are very preliminary.

b. Modelling and Preliminary Flow Estimates (PFEs)

1. Hydrologic & Hydraulic (H&H) Model and Report Distribution

Mr. Brad Boddy, of Wade Trim, reported that the H&H Model was released and distributed to the municipal managers. The Hydrologic & Hydraulic Model Validation and Characterization Report was also posted to the ALCOSAN municipal web site on April 7, 2010. He explained that there is a lot of documentation with the model so that everything is transparent. Municipal managers and engineers can access exactly the information that they need.

2. Municipal Model Coordination and Assistance/Municipal PFEs

Mr. Boddy explained that the PFEs are used to validate the model representation and to get an understanding of the potential future flows. He noted that, for the Separate Sanitary (SS) flows, the LOGR basin planning team has requested hydrographs for one, two, five, and ten year design storms. For the Combined System Overflow (CSO) flows, the team is looking for data for the six largest events from a typical year (2003). The team is also looking for current and future level of service information.

Mr. Boddy presented a matrix showing the status of the municipalities' PFE submissions. He noted that the LOGR basin team received information on PFEs from Emsworth, Bellevue, Neville and the Pittsburgh Water and Sewer Authority (PWSA). He noted that the team understood that municipalities needed to look at the H&H model in order to submit their PFEs. However, the requested deadline extensions have past and the basin planning team needs the PFE information to go forward with planning. Mr. Boddy asked for updates on the PFE submissions. Harry Dilmore, of Avalon Borough and Kilbuck Township, stated that those municipal PFEs are in the process of being submitted. Ed Magee, of AECOM, municipal engineer for Ben Avon Borough, stated that those PFEs are also in process. Mike Skinner, of Gateway engineers, noted that Emsworth, Ben Avon Heights, and Ross Township are working with other municipalities to develop their PFEs.

3. Consensus of LOGR Model Representation

Mr. Boddy asked the participants for their assessment of the model. He asked whether, in their opinion, it does a pretty good job of representing the municipal flow. He reiterated that the model is a key to the analysis. Mr. Coleman added that the LOGR basin planning team wants to make sure that there is an agreement with the technical assumptions. If there are not issues raised at this stage of planning, then the team will assume that the municipalities are in agreement.

c. Alternatives Development and Evaluation Progress

Brad Boddy presented an overview of the progress on alternatives development and evaluation. He explained that the LOGR basin team will be using the model to estimate the overflow statistics. They will identify and size the site alternatives based these overflow statistics to various control levels (i.e. 1, 2, 4,7,& 12 overflows per year for combined areas). The alternatives will be screened for each control level and boundary condition. Then, the planning team will utilize the costing tool to develop present worth costs for each alternative. Ultimately, the LOGR team will take the best basin alternatives and optimize them with adjacent basins.

Brad Boddy reported that the LOGR basin planning team has developed a future conditions model utilizing the South western Pennsylvania Commission's 2035 population projections. The future model also accounts for stream removals, at O-03 and A-66, and for the inflow that will be

reduced as a result of the widening of Route 28. He noted that population increases had minimal impact on the overflow statistics.

John Shannon, of Three Rivers Wet Weather (3RWW), asked whether, in locations where stream removal has occurred, ALCOSAN has been performing flow monitoring to determine if there have been significant changes in flows. Brad Boddy answered that there is flow monitoring occurring at the one site that has been completed while the other site has not been completed to date and therefore additional flow monitoring has not been initiated by ALCOSAN.

Brad Boddy explained that there had been municipal interest in a proposed Lowries Run waste water treatment plant. The alternative was evaluated utilizing the Alternatives Costing Tool (ACT). The cost came out higher than expected and the thought is that the tool was not developed for such a small waste water treatment plan. In order to evaluate the estimated cost a site specific cost estimate was developed based on other WWTP projects in the region. This cost was significantly lower than the estimate from the ACT tool and was used for the evaluation of this alternative. Given the adjusted cost for the plant, along with the fact that it would have limited impact on other Lower Ohio North outfall statistics, the alternative will be removed from further consideration and the LOGR basin team will move forward with other alternatives. Mr. Boddy clarified that a new WWTP is being removed from the basin-specific perspective. It is expected to still be evaluated on a regional planning level.

Brad Boddy explained that 59 potential sites were identified by the LOGR team. The sites were evaluated and screened against criteria resulting in 23 "preferred" sites. The "preferred" sites were consolidated into 12 "consolidated preferred" sites. He noted that ACT version 2.0 was used to evaluate capital and operation and maintenance costs. He reported that the alternative components being analyzed include collector sewers and new diversion chambers, pump stations, facilities (such as tanks, retention treatment basins, screening and disinfection, etc.), and dewatering pumps and pipe lines.

Ed McGee asked about what was included in present worth costs. Brad Boddy answered that it included costs for construction, engineering, contingency, and operation and maintenance.

d. Municipal Feasibility Study Work

Mark Coleman reiterated that consensus on the model is critical. He noted that the LOGR team's job is to make sure that the technical basis reflects reality and that the model reflects the system as it operates.

Harry Dilmore asked if there were any surprises regarding the information received from the flow monitoring and from the municipal information. Mark Coleman answered that some of the systems are wetter than he expected. Brad Boddy added that there are fewer overflows in Stowe than he expected and, as such, with inflow reduction, the flow may be able to be controlled. He also was surprised that there is so much seasonal variability in the system response to the precipitation.

John Shannon asked if the range of capture values is up to as much as 50%**.** Brad Boddy answered that it is closer to 1-20% in wet sanitary areas and up to as much as 35% in winter.

John Shannon said that in other basins with 30% capacity, a sensitivity analysis has shown that reducing capture value by 10% can make a significant difference. He asked about the difference that it would make in the Lower Ohio Basin. Brad Boddy answered that the LOGR team has looked at it from a CSO reduction perspective. It could reduce the size of facilities, but would still require further wet weather controls. He said that there are some areas where inflow reduction is under consideration in Stowe but he did not have an exact number for the basin.

Mike Skinner said that, once the Emsworth pump station is online, there will be some changes to the flows. He asked if it would be beneficial if the flows were re-monitored to determine how the municipal system would be affected. Brad Boddy answered yes. It was inquired that the LOGR Team will meet with each set of communities on a point of connection basis. Brad Boddy stated that the LOGR Team would only be requesting follow up with the municipalities regarding the PFEs if their PFEs are not consistent with the LOGR future conditions model. Mark Coleman stated that the only sewersheds that the LOGR Team is anticipating that might need a meeting would be O-15 (Lowries Run), O-18 (Spruce Run), and A-67 (Girty's Run).

Mike Skinner asked when ALCOSAN is expecting the municipalities to submit the Municipal Feasibility Plans. Dan Lockard answered that they should be in by the end of September, 2010. Mike Skinner stated that he was concerned that this would not allow for sufficient time for the iterative process needed to optimize the municipal feasibility study with the work that ALCOSAN is doing.

e. Financial Data Collection Status and Affordability Analysis

Kaye Bealer, of K. Bealer Consulting, introduced the Financial Capability Assessment. She explained that CSO policy requires considering the permittee's financial capability. She explained that the Assessment is a two-phased process. The first phase, Affordability, the residential indicator, examines the rate payers' ability to pay. The second phase, financial management indicator, examines the permittee's ability to finance.

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Tom Schevtchuk noted that there are huge variances in MHI between the City of Pittsburgh and other areas. The financial analysis team utilized 2007 census data along with adjustments by other statistics. In addition, larger municipalities in the service area have updated figures in the 2007 data and the team was able to utilize them to develop an average weighted annual growth.

John Shannon noted that the Allegheny County Health Department is requesting that municipalities track all costs associated with waste water. So, all municipalities need to now track separately their waste water system costs.

Kaye Bealer explained that the ALCOSAN service area MHI is $43,200. Therefore, the Residential Indicator is 1.04%, at the low end of the mid-range established by EPA. However, a closer look shows the variation in inter and intra-municipal burden. The municipal MHIs range from $16,500 to $174,000. Within the City of Pittsburgh, the block group MHIs range from $8,000 to $182,000. Therefore, the current block group level residential indicators range from 0.13% to 5.15%.

Tom Schevtchuk presented an overview of the anticipated wet weather cost impact and the "Proxy Investment Analysis." Through this analysis, the financial analysis team is able to identify the range of "affordable" wet weather investments that would trigger a 2% residential indicator. The regional wastewater investments that would trigger the 2% residential indicator were determined to be approximately $2 Billion.

f. Program Updates and Upcoming Schedule

Janai Williams, of Ebony Holdings, reported that the Customer Municipality Advisory Committee (CMAC) met on May 11, 2010, and received a presentation on the affordability analysis. The Committee voiced concern over how the whole process would impact affordability. Members of the Committee have launched a letter writing campaign to engage their peers in the planning process. The next CMAC meeting is scheduled for August 3, 2010. At that time, they will discuss the PFEs and moving forward with the regional Wet Weather Plan.

The Regional Stakeholders Group (RSG) met on May 13, 2010. They asked for information about what other cities are doing regarding water cost, water quality, and multi-municipal impacts. The Basin Coordinator has found four similar programs that address these issues and will share them with the RSG at their next meeting, scheduled for August 12, 2010. In addition, the RSG members will be updated on some national wet weather policies.

Mark Coleman reviewed the key items in LOGR Basin Quarterly Activity Report #4. He noted that it was sent out prior to the meeting and offered to make more copies available to any municipality.

Mr. Lockard provided an update on the ACT and the ALCOSAN Municipal Web Site. He noted that the ACT is already on version 2.0. He explained that the goal of the ACT is to provide a common costing scale to help with the integration of the different basin solutions. Mr. Lockard thanked those present for their concurrence on the Existing Conditions Report. He explained that the document is undergoing some final edits and will be posted on the ALCOSAN Municipal Web Site soon. Screening and Sites Report is being finalized at this time. He reiterated that the LOGR basin planning team is looking forward to receiving the remaining PFEs and that the Draft Feasibility and Present Worth Analysis Report will be completed by November. He added that the next Basin Planning Committee meeting #8 will probably be at the end of September, before the next round of basin public forums.

2. **Items Distributed:**

   a. Meeting agenda and PowerPoint presentation

   b. LOGR Basin – Proposed Alternative Evaluation and Public Participation Process

   c. Projected Future Wastewater Increase for LOGR Planning Basin

   d. Lower Ohio Typical Year Overflow Statistics, Future 2046 Conditions

   e. Lower Ohio Existing vs. Future Conditions: Overflow Frequency; Peak Flow Rate; and Total Annual Overflow Volume

   f. Lower Ohio North and South Preferred Consolidation Sites

   g. Lower Ohio North – SSOs by Consolidation Group

   h. Lower Ohio North –SSOs by Basin Alternative Technology

   i. Lower Ohio South – CSOs by Consolidation Group

   j. Lower Ohio South – CSOs by Control Level – Total Present Worth

3. **Action Items:**

   a. Municipalities that have not submitted their PFE data will submit the data to the LOGR basin team according to the estimated completion dates discussed above.

   b. LOGR basin municipalities will submit their Feasibility Plans by the end of September, 2010.

   c. ALCOSAN will post the Existing Conditions Report and the Screening and Sites Report on the ALCOSAN Municipal Web Site.

   d. The LOGR Basin Draft Feasibility Report will be completed by November, 2010.

ALCOSAN Basin Facilities Planning
Meeting Minutes

Lower Ohio/Girty's Run Basin Planning Committee
Meeting Number 8
Date / Time: October 12, 2010/ 10:30 a.m. – 12:00 p.m.
Location: Avalon Borough Municipal Building

Attendees

Dan Lockard, ALCOSAN	John Maslanik, PWSA
Doug Sample, Bellevue Borough	Barry Davidson, Kennedy Township
John Shannon, Michael Baker Corp./3RWW	Beth Dutton, 3RWW
Scott Swansinger, Bellevue Borough/Herbert, Roland & Grubic, Inc.	Mike Skinner, Emsworth Borough/Gateway Engineers
Bob Zischkau,West View Borough	Harry Dilmore, Avalon Borough & Kilbuck Township
Paul Gaus, Ben Avon Heights Borough	Mark Coleman, ALCOSAN/Wade Trim
Dawson Garrod, Stowe Township	Brad Boddy, ALCOSAN/Wade Trim
Dolat Naik, ALCOSAN/AECOM	Janette Campbell, ALCOSAN/Ebony Holdings
Karen Napoli, ALCOSAN/Collective Efforts	Joe Day, ALCOSAN
Karen Brean, ALCOSAN/Brean Associates	

1. **Welcome and Introductions:**

   Mr. Mark Coleman, of Wade Trim, welcomed the meeting attendees. He noted that the meeting was a combined meeting of the Lower Ohio and the Girty's Run/Lowries Run Sub Basins and invited introductions around the room. He presented an overview of the meeting agenda (attached) and asked if anyone wanted to add any items or issues to the agenda.

2. **Program to Date Status Overview:**

   Mr. Coleman reported on the status of the LOGR Basin planning team's planning process. He presented the timeline for the major work elements and noted changes in the schedule from the last Basin Planning Committee meeting (#7). He noted that the blue items in the timeline refer to work to be done by the LOGR Basin planning team and the green items are suggested work plan items for the municipalities to undertake. He noted a few changes in the schedule. First, the Feasibility Report and

Present Worth Analysis will be a "living document" from the end of October of this year through June of 2011.

John Shannon, of Three Rivers Wet Weather (3RWW), asked about the differences between the Feasibility Report and Present Worth Analysis and the Wet Weather Plan. Mr. Coleman explained that the Feasibility Report narrows down the alternatives to one or two basin alternatives. The Wet Weather Plan integrates alternatives with other basins and then circles back to the LOGR Facilities Plan. Mr. Dan Lockard, of ALCOSAN, added that the Feasibility Report also provides the rationale for arriving at the final Basin Facilities Plan.

Mr. Coleman noted that the project schedule was also revised to include additional Basin Planning Committee meetings to continue the dialogue that has been happening around the development of the Wet Weather Plan. The schedule also now includes a box for optimizing alternatives for the municipalities. The LOGR team will be identifying the best basin alternative and the best regional alternative. The regional alternatives will begin to be integrated with other basins and with other regional changes that ALCOSAN is working on. Until the end of the first quarter of 2011, there will be a lot of back and forth interface and coordination with the municipalities.

Mr. John Shannon asked at what point will the LOGR team "close the door" on input from the municipalities. Mr. Coleman answered that the end of the first quarter of 2011 is the point where they will need to know exactly what they will be receiving from the municipalities.

3. Modeling/Preliminary Flow Estimates (PFE)/Municipal Feasibility Study Work:

Mr. Brad Boddy, of Wade Trim, reported that the LOGR team has received PFEs from all of the municipalities. The LOGR team is still working through some of the PFEs with the municipalities. Mr. Boddy noted that there are substantial differences between the LOGR model and the PFEs received from the townships of Neville, Stowe, and Kennedy, and with the Borough of West View. In addition, the LOGR team is reviewing the information received from Lowries Run. Mr. Boddy reminded the group that, at the last Basin Planning Committee meeting, the LOGR team discussed the need for consensus on the LOGR model representation. He reiterated that, other than the few identified model differences; the LOGR team assumes that there is buy-in on the model. There were no comments from the municipal representatives stating any additional concerns regarding the model

Mr. John Shannon asked whether the problem regarding peak flows at Girty's Run had been corrected. Mr. Boddy answered that the PFE received from the GRJSA matched the current LOGR estimates.

Mr. Dan Lockard asked whether the future population estimates in the model were consistent with municipal PFEs. Mr. Boddy responded that there are some municipalities that are assuming no population growth where the SPC population projections used in the model show a slight, five to ten percent, increase. Even where these discrepancies exist, the projected dry weather flows were only slightly different. For the most part, however, there is agreement between the LOGR model assumptions and those made in the municipal PFEs.

Mr. Boddy summarized a number of model updates that have been completed since the last BPC meeting. The LOGR team received corrected flow monitoring data from the Lowries Run Operating

Committee. The O-15 sewershed was recalibrated based on this revised data set. A number of minor changes were also made to the model representation of the ALCOSAN interceptor system.

Mr. Shannon asked whether A-67 was an SSO or a CSO. Mr. Boddy responded that it is regulated as a CSO.

Mr. Boddy reported that the LOGR team analyzed a new boundary condition which would result from the WWTP being expanded to 600 mgd. The overflow statistics resulting from this revised boundary condition and the model updates discussed above were presented.

Mr. Boddy asked about the status of the municipal feasibility work and whether the municipalities needed any information from the LOGR basin team. He asked for updates from the municipalities. The following updates were given:

- West View Borough is working on their peak flows estimates and feasibility information.
- Girty's Run Joint Sewer Authority has not started the feasibility work yet.
- The information for Ben Avon Heights and Emsworth is relatively straightforward and they do not expect major changes to their PFEs.
- The Pittsburgh Water and Sewer Authority (PWSA) has a preliminary draft Feasibility Study which they are reviewing internally. Their time frame for completion should match the LOGR needs.
- The information from Avalon appears straightforward and they do not anticipate significant changes to their PFE.
- Bellevue does not anticipate significant changes to their PFE.
- Kennedy and Stowe Townships will be working with the LOGR team to review their PFE assumptions. Both Townships are preoccupied with sewer repairs but are looking to move forward with the feasibility study work.

4. Alternatives Development Status:

Mr. Boddy briefed the Basin Planning Committee on the status of the alternatives development. He explained that the LOGR team has developed alternatives for the basin-based and regional based control strategies as well as cross basin alternatives for each level of control. The team estimated the Present Worth Cost and screened the alternatives to select the preferred and 2nd preferred alternatives for further analysis. The preferred LOGR basin-based and regional strategies are being modeled.

The Lower Ohio North alternatives look primarily at storage provided either in a number of near surface tanks or in a storage tunnel. Five potential sites were evaluated for near-surface storage. Mr. Boddy explained that the analysis is focused on two-year design storms, but the team is also looking at the one, five and ten-year design storms. In addition, the team examined the cost to transport all flows to the treatment plant but noted that the preliminary cost does not include the cost of upgrading the treatment plan to accommodate the additional flow. The best alternative is probably something between conveyance and storage.

For the Lower Ohio South CSOs, the LOGR team looked at treatment technologies as well as storage. They looked at a number of levels of control, including zero, one, four, seven, twelve, and twenty overflows per year. The highest ranked alternative, for zero to seven overflows, was a retention treatment basin (RTB). For higher overflow frequencies, storage tanks seem to be the best alternative.

As a cross basin alternative, the LOGR team looked at directing the CSO flows from O-01 through O-05B to a facility located in McKees Rocks that is being evaluated by the Chartiers Creek Basin Planner.

For the Lower Northern Allegheny area, the LOGR team looked at evaluating storage and treatment technologies at the preferred consolidated sites. They also evaluated tunnel storage. The team identified some constructability issues, notably the limited space for conveyance between A-64 and A-65 due to the Route 28 widening project. As a result, conveyance for A-65 and A-67 to A-62 would need to be constructed in the back channel. The preferred basin based alternative was a RTB at all control levels. It was discussed that the decisions that will be made by the GRJSA on how to handle their upstream overflows will have a significant impact on the sizing of a facility to handle the A-67 overflow. In addition, a cross basin alternative was evaluated that would include two new interceptors parallel to the northern side of the Allegheny River, one from A-64 to Main Rivers site 9 and one to A67 where a new river crossing would send flow over to Main Rivers site 56 on the south side of the Allegheny River.

Mr. John Maslanik, representing the Pittsburgh Water and Sewer Authority, asked whether any thought had been given to addressing affordability. Mr. Coleman answered that, at the last Basin Planning Committee, the Program Manager gave a presentation on the status of financial data collection and the affordability analysis that they have undertaken.

5. Program Updates:

Ms. Karen Brean, of Brean Associates reviewed the key items in LOGR Basin Quarterly Activity Report #5. She noted that the Report was distributed prior to the Basin Planning Committee meeting and offered to make more copies available to municipal representatives. She also noted that the public forums are being convened throughout the seven basins and that the LOGR public forum will be held on Wednesday, October 20, from 5:30 to 8:00 PM, at the Bellevue Christian Church.

Ms. Janette Campbell, of Ebony Holdings, reported that the Customer Municipality Advisory Committee (CMAC) met on August 3, 2010. They discussed the 3RWW Regionalization Request for Proposals (RFP), and the Program's public participation and outreach efforts. They also are continuing to communicate with elected officials to inform and engage them in the planning process. The next CMAC meeting is scheduled for November 9, 2010.

Ms. Campbell noted that the Regional Stakeholders Group (RSG) met on August 13, 2010. They received an update on the affordability analysis process, and the preliminary alternatives development process. They also discussed water quality assessment and public participation and outreach. The next RSG meeting is scheduled for November 16, 2010.

Mr. Joe Day, of ALCOSAN, provided further information on the upcoming public forums. He stated that, in addition to the basin-specific public forums, a daytime, region-wide meeting has been scheduled for Thursday, November 4, from 10:00 AM to 4:00 PM, at the Senator John Heinz History Center, where parking will be available. He noted that there will be presentations given throughout the day, at 11:30 AM, 12:30 PM, and 2:00 PM. Ms. Brean confirmed that representatives of all of the basin planning teams, including LOGR, will be present at the daytime meeting and invited those

unable to attend the basin-specific meeting on October 20th, to attend the region-wide meeting on November 4th.

Mr. Dan Lockard, of ALCOSAN, provided an update on the Alternatives Costing Tool (ACT). He noted that a revised ACT is being posted on the ALCOSAN Municipal Website that incorporates cost data supplied by the municipalities regarding local projects. The Feasibility Study Working Group has endorsed the newer version as a tool for conducting alternative analyses for the municipal feasibility studies. Mr. Lockard also updated the group on the ALCOSAN Municipal Website. He reported that the LOGR Basin Hydrologic and Hydraulic (H&H) Model and Report and the LOGR Basin Existing Information and Conditions Report have been posted on the site. In addition, the LOGR Basin Screening of Controls and Sites Report will be posted on the site sometime in the future.

Mr. Coleman closed the meeting with a brief overview of next steps. He noted that the LOGR BP team will continue to work on the LOGR basin and regional alternatives and on optimizing the basin and municipal control strategies. He also reported that the draft Feasibility Report and Present Worth Analysis will be completed by November 1st, 2010. Finally, he raised the issue of continuing to meet as a combined Basin Planning Committee moving forward. Members of the Committee supported the idea of combined meetings.

6. **Items Distributed:**
   - **a.** Meeting agenda and PowerPoint presentation
   - **b.** LOGR Basin – Proposed Alternative Evaluation and Public Participation Process (revised October 2010)
   - **c.** Lower Ohio Overflow Comparison: Total Annual Overflow Volume
   - **d.** Lower Ohio Overflow Comparison: Peak Flow Rate
   - **e.** Lower Northern Allegheny Overflow Comparison: Total Annual Overflow Volume
   - **f.** Lower Northern Allegheny Overflow Comparison: Peak Flow Rate
   - **g.** Maps illustrating potential LOGR alternative layouts

7. **Action Items:**
   a. The LOGR basin public forum will be convened on October 20, 2010.
   b. ALCOSAN post the Screening and Sites Report on the ALCOSAN Municipal Web Site.
   c. The LOGR Basin Draft Feasibility Report will be completed by November 1st, 2010.

ALCOSAN Basin Facilities Planning

Meeting Minutes

Lower Ohio/Girty's Run Planning Basin

(Girty's Run/Lowries Run Sub Basin)

Basin Planning Committee Meeting Number 9

Date / Time: March 7, 2011 – 1:00 P.M.

Location: Ross Township Municipal Building

Attendees:

Dan Lockard, ALCOSAN	Andy Maul, PWSA
Paul Eiswerth, Pennsylvania DEP	Joe Wagner, ALCOSAN
John Shannon, Michael Baker Corp./3RWW	Bob Zischkau, Glenn Engineering (West View Borough)
John Findley, ALCOSAN	Glenn Jonnet, Glenn Engineering
Kathy Chavara, ALCOSAN/Collective Efforts	Mark Coleman, ALCOSAN/Wade Trim
Keith Jensen, ALCOSAN/AECOM	Brad Boddy, ALCOSAN/Wade Trim
Karen Brean, ALCOSAN/Brean Associates	Jesse Santiago, Mon Yough Outfitters
Mike Scheer, Allegheny County Health Department	Joe Day, ALCOSAN
Art Gazdik, Ross Township	Jerry Brown, 3RWW
Richard Stewart, NIRA Consulting Engineers, Inc.	Rich Brown, Three Rivers Rowing Association
Bill Youngblood, McCandless Township Sanitary Authority	Dennis Blakley, McCandless Township Sanitary Authority
Mike Stupy, Girty's Run Joint Sewer Authority	Barney Oursler, Pittsburgh United
Andrew Dewitt, Staff, District 1 Pittsburgh City Council	Bob Kipp, Reserve Township

1. **Welcome and Introductions**

   Mr. Mark Coleman, of Wade Trim, welcomed the meeting attendees. Since there were some new faces, he invited introductions around the room, asking attendees to note their affiliations as well as names. He presented an overview of the meeting agenda (attached).

2. Program to Date Status Overview

Mr. Coleman reported on the status of the LOGR planning team's planning process. He noted that the team remains on schedule with the timeline first presented in February of 2009. The LOGR planning team completed the Draft Feasibility Report and is currently working with the Program Manager and the other basins for integration and refinement. Mr. Coleman presented a second schedule, created by the Program Manager, showing the integration of work by the Program Manager, the Basin Planners, and the municipalities. He suggested that the LOGR transition to utilizing that schedule as the project moves forward.

Mr. Coleman noted that the LOGR planning team developed initial site alternatives for each level of control (Basin Based Strategy) and conveyance alternatives for each level of control (Regional Based Strategy). The team is looking in more detail at cross-basin alternatives, noting opportunities with the Chartiers Creek and Main Rivers Basins. The team performed the costing analysis and screening of alternatives. They identified preferred Basin Based and Regional Alternatives. The analysis focused on a two-year control level for SSOs and a range of control levels for CSOs to keep the number of hydraulic runs to a reasonable level. Other levels of SSO control will be evaluated as boundary conditions and other analysis variables become more firm.

3. Basin Feasibility Report

Mr. Brad Boddy, of Wade Trim, described the two sub-basins that constitute the LOGR Basin. He noted that the Lower Ohio sub-basin is a mixture of different types of sewer sheds. There are SSOs on the north side of the Ohio River, down to Bellevue. There are two combined districts in Pittsburgh as well as a combined area in Stowe Township. For the sanitary areas, the LOGR planning team evaluated storage and conveyance. For the CSO areas, the planning team evaluated storage, treatment, and conveyance. Mr. Boddy presented the details of the control alternatives. For the City of Pittsburgh CSOs at the 0 and 1 overflow/year control levels, the preferred technology is a Retention Treatment Basin (RTB). For control levels of 4, 7, and 20, the preferred technology is a storage tank. In Stowe Township, the preferred technology is a combination of RTBs (0, 1, 4, and 7 overflow/year control levels) and storage tanks (20 overflows/year control level). The preferred SSO control technology is a storage tunnel that would parallel the Ohio River from O-15 down to the WWTP.

Mr. Andrew Maul, of the Pittsburgh Water and Sewer Authority, asked whether the storage facilities being evaluated were above or below ground. Mr. Boddy answered that the facilities being evaluated were below ground structures.

Mr. Paul Eiswerth, of the Pennsylvania Department of Environmental Protection, asked whether the flow to Jack's Run had been separated. Mr. Boddy responded that sanitary flows from Ross and Bellevue were disconnected from O-25; however the City of Pittsburgh still contributes combined flows to O-25.

Mr. Boddy explained that, in addition to the basin based strategy, the LOGR team has been looking at what's needed to convey everything to the ALCOSAN Wet Weather Treatment Plant (WWTP) for treatment. For the control of overflows O-15 through O-24 for the two-year level of control, a new interceptor parallel to the northern side of the Ohio River from O-15 to O-25 would be required. For the control of O-01 through O-05B, for the 0, 1, 4, 7, and 20 overflows/year control levels, a new interceptor parallel to the southern side of the Ohio River from O-01 to O-25 would be required. For the control of overflows O-25 and O-26, for 0, 1, 4, 7, and 20

overflows/year control level, a new interceptor parallel to the northern side of the Ohio River from O-25 to the WWTP would be required which would also collect and transport the flows from O-15 through O-24 and O-01 through O-05B.

In addition, Mr. Boddy reported that the LOGR team is exploring a cross-basin alternative for Stowe, in which the flow would be conveyed to a facility in McKees Rocks being investigated by the Chartiers Creek Basin team.

Mr. John Shannon, of Baker Engineers, representing the 3RWW project management team, inquired about the type(s) of facilities being considered for solution optimization across basins (with Chartiers) in Stowe. Mr. Boddy noted that there are a number of alternatives being evaluated. He added that, at this time, it appears that a sizable RTB facility may be the best.

In a follow-up question, Mr. John Shannon asked whether the overflows at Stowe, beyond the control level, would be treated. Mr. Boddy indicated that they would not be treated. Mr. Eiswerth noted that there would still have to be some sort of screening. He stated that it would be important to check the CSO policy because he believes that it specifies that any discharge has to have some sort of screening.

Mr. Boddy reported that, for the Lower Northern Allegheny, the LOGR team evaluated storage and treatment technologies along with tunnel storage. He noted that a couple of the outfalls are being controlled through the Route 28 widening project. A-63 and A-66 will be eliminated as part of the project. In addition, much of the storm drainage from Route 28 is being separated from the ALCOSAN system.

Mr. Glenn Jonnet, of Glenn Engineering, asked for clarification of the stream removal in connection with the Route 28 construction. Mr. Boddy indicated that sanitary flows would soon be eliminated to A-66 and re-routed to A-65. The existing conveyance infrastructure to A-66 would be then dedicated to carry only stormwater flows.

Mr. Boddy noted that the LOGR team is also looking at opportunities to collaborate with the Main Rivers Basin, which is looking at facilities along the Allegheny River in two locations. The LOGR Basin could conceivably build conveyance to those two locations. This investigation is still in the early stages.

Mr. Boddy explained that the LOGR team is incorporating the Municipal final flow estimates. The team received comments from Westview and have finished recalibrating the model. There were some catch basin restrictions that are now accounted for in the model.

The LOGR team is also looking at the impact of potential regional projects on the sizing of alternatives within the LOGR planning basin. Potential regional projects include WWTP improvements and additional regional conveyance. The LOGR team is also trying to get a better grasp of what direction the municipalities are taking to handle the wet weather flows within their municipal systems.

4. Municipal Feasibility Studies

Mr. Boddy presented a matrix detailing the Municipal Feasibility Studies. For each municipality, the table notes whether the PFE was received and matched the LOGR team's estimate, whether the LOGR team expects the PFE to change, whether the municipal system can convey the provided PFE and the LOGR team's understanding of the municipal alternatives being considered. Utilizing the matrix as a guide, Mr. Boddy asked each of the municipalities to provide for an update.

Dennis Blakley reported that the Lowries Run Joint Operating Committee (LRJOC) will be sending the submittal soon and that it will show a conveyance alternative to bring the flows to the ALCOSAN interceptor. Mr. Coleman noted that he had heard previously that only additional transport would be required in the upper sections of the system but it sounds as if that the additional transport will be needed all the way to the ALCOSAN interceptor. Dennis confirmed that was correct. Regarding information still needed from the LRJOC, Mr. Boddy noted he was trying to update the model to better reflect the transport of the upstream overflows to ALCOSAN. To do this he requested LRJOC to forward information regarding the additional transport that they are currently evaluating.

Mr. Maul, of PWSA, concurred the LOGR team's understanding that they will convey existing flows to the ALCOSAN WWTP without any system improvements and stated that PWSA will be sending a letter to that effect. Mr. Boddy noted that the LOGR team will need some confirmation of peak flow estimates for the area as the Route 28 work will modify the PWSA flows between A-62 and A-66. Mr. Boddy asked Mr. Maul if PWSA would be looking at green solutions. Mr. Maul answered that, related to green solutions; their policy is to require sewer separation for new facilities.

Mr. Andrew DeWitt, staff to City Councilwoman Darlene Harris, District 1, asked about the size of certain facilities similar to that shown on one of the presentation graphics and how many people might be working at one of these facilities. Mr. Boddy answered that the facility shown would be underground with a control facility above ground. He added that these facilities are wet weather facilities and would not have dedicated staff since they would only be operated during wet weather events.

Mr. Boddy reiterated that the LOGR team has recalibrated the model with the information received from Westview. Representatives of Westview noted that they will make a submittal but are waiting for the results of the recalibrated model. They added that the flows are called "final," but want the option to make changes. The controls they are considering will most probably be storage, screening, and treatment. They are also looking at green technologies. Mr. Boddy stated that the model would be ready at the end of the current week and Westview stated that they hope to have their submittal by the end of April, 2011.

Mr. Mike Stupy, of the Girty's Run Joint Sewer Authority, reported that they will be evaluating additional storage without any additional flow from Westview. They will present their first draft to the Authority's Board on the evening of March 10, 2011 and will present it to ALCOSAN shortly after that. They noted that they are not evaluating any green solutions.

Mr. Boddy presented a slide, which has been discussed at the 3RWW Feasibility Working Group, illustrating the format that municipalities should use to record their CSO and SSO control

alternatives and estimated costs. The format provides a way to summarize results for municipal projects.

Mr. Shannon asked about the time frame being considered for facility renewal and/or replacement. Mr. Boddy responded that the plans should project out to 2046.

Mr. Dan Lockard, of ALCOSAN, stated that this analysis gets to the affordability issue. ALCOSAN wants to make sure that they capture all of the costs that can reasonably be expected. In addition, the municipalities are committing to some reasonable level of sewer rehabilitation to insure their long term integrity.

Mr. Shannon asked whether the LOGR Basin team would be sharing the costs determined to date for the various solutions being considered. Mr. Boddy responded that the costs were handed out at the previous Basin Planning Committee meeting #8, in October of 2010. He also cautioned the group that the costs were estimates only and that costing and sizing will evolve and will be revised.

Mr. Shannon asked whether the LOGR team looked at 85% capture. Mr. Boddy responded that, when they looked, 85% capture became a non-issue. With the plant improvements alone, the analysis shows that an 85% capture was achieved for the Lower Ohio. As long as Girty's Run could get all flows to A-67, along with the plant improvements, the LNA basin was at an 85% capture control level and no more gray infrastructure would be required to meet the 85% control level.

Mr. Coleman summarized the results of the Municipal Feasibility Studies discussion. He noted that the Lowries Run area analysis is fully underway and will most likely land on transporting down to the ALCOSAN WWTP. The Pittsburgh Water and Sewer Authority will convey to the WWTP without any system improvements. Westview is still looking at storage and treatment within the municipality and is not likely to transport down to ALCOSAN. Girty's Run Joint Sewer Authority is looking at storage and transport.

5. Program Updates

Mr. Joe Day, of ALCOSAN, reported on the Customer Municipality Advisory Committee (CMAC) meeting that was convened on March 1, 2010. Items discussed included municipal advocacy, working with elected officials and a basin planning report update. ALCOSAN also provided the CMAC with the regionalization planning study. The group discussed the status of the Wet Weather Plan, especially related to affordability and integration of basin planning. The CMAC members gained an understanding of the challenge, to get as much as possible within the Consent Decree time frame and to make sure to keep short term solutions in concert with the final solution. All of the components of the solution are big ticket items and need to be addressed without overburdening the rate payers. Mr. Day also noted that there are vacancies on the CMAC and that the County Executive is identifying individuals to fill the vacancies. They hope to be at full complement by the next meeting.

Mr. Day noted that the Regional Stakeholders Group (RSG) last met on November 16, 2010. The meeting included a presentation by Michael Kenney on PWSA's storm water management process. It also included discussion of green technologies and a review by 3RWW of regionalization ideas. The next meeting will be convened on March 17, 2011.

Mr. Day provided an overview of the ALCOSAN 2010 community meetings. The meetings provided the public with a review of the basin alternatives development process, potential basin solutions, the annual Customer Information Update for 2010, and an opportunity to interact with ALCOSAN staff and with the Basin Planners. Ten meetings were held, nine in the basins and one in downtown. The first part of the meeting was an update on the Consent Decree and the second part of the meeting was a presentation specific to the basin communities. Overall, about 200 people attended the 2010 community meetings. Interests and comments included common wet weather technologies and their impact on surrounding communities and residents, implementation of green technologies, and overall interest in continued opportunities for the public to be educated about the wet weather issue. The LOGR Basin community meeting was convened in Bellevue, with about twenty people in attendance.

Mr. Lockard presented the five options that ALCOSAN proposed for the Three Rivers Wet Weather (3RWW) Request for Proposals (RFP) for Regional Optimization. The five options proposed by ALCOSAN were to:

- Build, operate, and maintain wet weather control facilities;
- Build, operate and maintain select inter-municipal trunk sewers;
- Contract, operate, and maintain municipal sewers and facilities;
- Build, operate, and maintain sewage and storm water facilities within the ALCOSAN service area; and/or
- Own, operate, and maintain County sewage and storm water infrastructure.

Mr. Lockard stated that ALCOSAN believes it is important to start looking at the whole picture, whether or not ALCOSAN is the lead entity. Economies of scale and efficiencies are going to be the key. There simply are a lot of municipalities that may not be able to afford what's required. The regional planning is envisioned to be an 18-month process and there will be ample opportunity for input.

Ms. Karen Brean, of Brean Associates, providing outreach services on the Wade Trim team, presented an overview of purpose and content of the Basin Quarterly Activity Report (BQAR) # 6. She asked whether there were any comments on the Report and whether there were other items that members of the Basin Planning Committee would like to see included. She also noted that it is intended to help the municipalities with keeping their citizens informed and asked whether it would be useful for the members to receive the BQAR digitally. BPC members concurred and Karen stated that the LOGR team would send the latest issue, and all subsequent issues, in digital as well as hard copy format.

6. Summary of Meetings

Mr. Lockard gave an overview of recent events and meetings. He noted that ALCOSAN had recently met with the Allegheny County Health Department. Following that meeting, the Health Department sent a letter to the municipalities encouraging them to work with ALCOSAN to help them find the most cost effective solution for the region.

Mr. Lockard reported that 3RWW recently convened a meeting with municipal managers. Mr. Lockard noted that ALCOSAN is looking for the best available municipal information. Furthermore, the earlier the information is received, the more opportunity there will be to work

together. He added that ALCOSAN is expecting to start meeting regularly with the Regulators to show them where the planning is headed.

Mr. Jerry Brown, of 3RWW, stated that, on March 29, 2011, there will be a luncheon meeting for municipal solicitors and the PA Department of Environmental Protection will be giving a presentation similar to the one given to the municipal managers. He added that 3RWW wants to make sure that the solicitors are reengaged as the planning moves forward.

7. Next Steps

Mr. Coleman provided an overview of next steps. He stated that the LOGR Basin team will be responding to the Program Manager's feedback and refining the LOGR Basin Alternatives. In addition, the LOGR team will continue to interface with the other basins while getting input from the municipalities within the LOGR Basin. He noted that, during the next three months, the LOGR Basin team will be firming up their direction.

8. Items Distributed:

- **a.** Meeting agenda and PowerPoint presentation
- **b.** LOGR Basin – Proposed Alternative Evaluation and Public Participation Process
- **c.** Wet Weather Plan Work Flow Diagram
- **d.** 2-Year and 4-of/yr Lower Ohio Preferred Basin Based Alternative
- **e.** 2-Year and 4-of/yr Lower Ohio Preferred Regional Based Alternative
- **f.** 2-Year and 4-of/yr Lower Ohio Potential Cross Basin Alternative
- **g.** 2-Year and 4-of/yr Lower Northern Allegheny Basin Based Alternative
- **h.** 2-Year and 4-of/yr Lower Northern Allegheny Cross Basin Alternative
- **i.** Status of Municipal Feasibility Studies
- **j.** Example of Table Required for Municipal CSO and SSO Control Alternatives and Estimated Costs

9. Action Items:

- **a.** Municipalities will send any outstanding Municipal Feasibility Report information to the LOGR team by the end of April, 2011
- **b.** The LOGR team will email the Basin Quarterly Activity Report #6 to members of the Basin Planning Committee

ALCOSAN Basin Facilities Planning

Meeting Minutes

Lower Ohio/Girty's Run Planning Basin
(Ohio River Sub Basin)
Basin Planning Committee Meeting Number 9
Date / Time: March 8, 2011 – 1:00 P.M.
Location: Avalon Borough Municipal Building

Attendees:

Dan Lockard, ALCOSAN	Harry Dilmore, Avalon Borough and Kilbuck Township
Paul Eiswerth, Pennsylvania DEP	Shawn Rosensteel, Chester Engineers (Avalon Borough and Kilbuck Township)
Jan Oliver, ALCOSAN	Glenn Jonnet, Glenn Engineering
Karen Napoli, ALCOSAN/Collective Efforts	Mark Coleman, ALCOSAN/Wade Trim
Keith Jensen, ALCOSAN/AECOM	Brad Boddy, ALCOSAN/Wade Trim
Karen Brean, ALCOSAN/Brean Associates	Jesse Santiago, Mon Yough Outfitters
Mike Scheer, Allegheny County Health Department	Joe Day, ALCOSAN
Lisa Sorg, Allegheny County Health Department	Rob Arnold, Chester Engineers
Ed McGee, AECOM (Ben Avon Borough)	John Schombert, 3RWW
Jim Barrick, Neville Township	Doug Sample, Bellevue Borough
Dawson Garrod, Remington Vernick & Beach (Kennedy Township and Stowe)	Scott Swansiger, Herbert, Rowland & Grubic, Inc. (Bellevue Borough)
Mike Skinner, Gateway Engineers (Emsworth Borough)	

1. **Welcome and Introductions**
   Mr. Mark Coleman, of Wade Trim, welcomed the meeting attendees and invited introductions around the room, asking attendees to note their affiliations as well as names. He presented an overview of the meeting agenda (attached).

2. **Program to Date Status Overview**

Mr. Coleman reported on the status of the LOGR planning team's planning process. He noted that the team remains on schedule with the timeline first presented in February of 2009. The LOGR planning team completed the Draft Feasibility Report and is currently working with the Program Manager and the other basins for integration and refinement. Mr. Coleman presented a second schedule, created by the Program Manager, showing the integration of work by the Program Manager, the Basin Planners, and the Municipalities. He suggested that the LOGR transition to utilizing that schedule as the project moves forward.

Mr. Coleman noted that the LOGR planning team developed initial basin alternatives for each level of control (Basin Based Strategy) and conveyance alternatives for each level of control (Regional Based Strategy). The team is looking in more detail at cross-basin alternatives, noting opportunities with the Chartiers Creek and Main Rivers Basins. The team performed the costing analysis and screening of alternatives. They identified preferred Basin Based and Regional Alternatives. The analysis focused on a two-year control level for SSOs and a range of control levels for CSOs to keep the number of hydraulic runs to a reasonable level. Other levels of SSO control will be evaluated as boundary conditions and other analysis variables become more firm.

3. **Basin Feasibility Report**

Mr. Brad Boddy, of Wade Trim, described the two sub-basins that constitute the LOGR Basin. He noted that the Lower Ohio sub-basin is a mixture of different types of sewer sheds. There are SSOs on the north side of the Ohio, down to Bellevue. There are two combined districts in Pittsburgh as well as a combined area in Stowe Township. For the sanitary areas, the LOGR planning team evaluated storage and conveyance. For the CSO areas, the planning team evaluated storage, treatment and conveyance. Mr. Boddy presented the details of the control alternatives. For the City of Pittsburgh CSOs at the 0 and 1 overflow/year control levels, the preferred technology is a Retention Treatment Basin (RTB). For control levels of 4, 7, and 20, the preferred technology is a storage tank. In Stowe Township, the preferred technology is a combination of RTBs (0, 1, 4, and 7 overflow/year control levels) and storage tanks (20 overflows/year control level). The preferred SSO control technology is a storage tunnel that would parallel the Ohio River from O-15 down to the WWTP.

Mr. Boddy explained that, in addition to the basin based strategy, the LOGR team has been looking at what's needed to convey everything to the ALCOSAN Wet Weather Treatment Plant (WWTP) for treatment. For the control of overflows O-15 through O-24 for the two-year level of control, a new interceptor parallel to the northern side of the Ohio River from O-15 to O-25 would be required. For the control of O-01 through O-05B, for the 0, 1, 4, 7, and 20 overflows/year control levels, a new interceptor parallel to the southern side of the Ohio River from O-01 to O-25 would be required. For the control of overflows O-25 and O-26, for 0, 1, 4, 7, and 20 overflows/year control level, a new interceptor parallel to the northern side of the Ohio River from O-25 to the WWTP would be required which would also collect and transport the flows from O-15 through O-24 and O-01 through O-05B.

In addition, Mr. Boddy reported that the LOGR team is exploring a cross-basin alternative for Stowe, in which the flow would be conveyed to a facility in McKees Rocks being investigated by the Chartiers Creek Basin team.

The LOGR team is also looking at the impact of potential regional projects on the sizing of alternatives within the LOGR planning basin. Potential regional projects include WWTP improvements and additional regional conveyance. The LOGR team is also trying to get a better grasp of what direction the municipalities are taking to handle the wet weather flows within their municipal systems.

4. Municipal Feasibility Studies

Mr. Boddy presented a matrix detailing the Municipal Feasibility Studies. For each municipality, the table notes whether the PFE was received and matched the LOGR team's estimate, whether the LOGR team expects the PFE to change, whether the municipal system can convey the PFE, and the LOGR team's understanding of the municipal alternatives being considered. Utilizing the matrix as a guide, Mr. Boddy asked each of the municipalities for an update.

Mr Harry Dilmore, of Avalon Borough, stated that he agreed with the information in the matrix and that the Borough would submit flow numbers by the end of March.

Mr. Doug Sample, of Bellevue Borough, stated that he agreed with the information in the matrix and that they would submit their information in April.

Mr. Ed McGee stated that he agreed with the information in the matrix and that they would submit their information in April.

Mr. Mike Skinner, of Gateway Engineers, stated that he agreed with the information in the matrix regarding Emsworth. He added that the pump station is on line and they will be putting in some meters in April. They plan to have their information to ALCOSAN by the end of April.

Mr. Dawson Garrod, of Remington Vernick & Beach, reported that Kennedy Township is in the process of doing some internal modelling to get a better handle on assumptions and will have information to ALCOSAN by the end of March.

Mr. Boddy noted that, in regard to Stowe Township, conservative assumptions in the Township's PFE resulted in capacity limitations. In fact, the existing capacity may be sufficient. The issue will be how much additional flow is anticipated. Mr. Dawson Garrod, of Remington Vernick & Beach, reported that Stowe Township is in the process of doing some internal modelling to get a better handle on assumptions and will have information to ALCOSAN by the end of March.

Mr. Dilmore reported that Kilbuck Township agrees with the information in the matrix and will deliver their information to ALCOSAN by the end of March.

Mr. Jim Barrick, of Neville Township, noted that something will have to be done with SSO #3. Otherwise, there are no problems with the data and the Feasibility Study will be ready at the end of April. Mr. Barrick also asked, in regard to flow estimates, whether it should be assumed that all flows can be transported to ALCOSAN. Mr. Boddy answered that, when estimating flows, it should be assumed that ALCOSAN will be able to accept all flows.

Mr. Boddy presented a slide, which has been discussed at the 3RWW Feasibility Working Group, illustrating the format that municipalities should use to record their CSO and SSO control

alternatives and estimated costs. The format provides a way to summarize results for municipal projects.

Mr. Coleman asked whether any of the municipalities were thinking about green solutions. There were no positive responses. It should be noted that the majority of the municipalities represented at the meeting have separate sanitary systems. Mr. Boddy added that they did find that Stowe had some significant green factors already in the system, such as disconnected downspouts.

Mr. Coleman summarized key issues heard the previous day, at the Lowries Run/Girty's Run Sub Basin meeting. He noted that Westview reported that they are looking at controlling the CSOs in Westview, rather than conveying the flow down to Girty's Run. The Girty's Run folks have everything still on the table. The Pittsburgh Water and Sewer Authority (PWSA) reported that they do not have any plans beyond the activities related to the Route 28 construction and also are progressing with long term green strategies, such as requiring all new development to have separated sewers. He noted that the Lowries Run area analysis is fully underway and will most likely land on transporting down to the ALCOSAN point of connection.

Mr. Dan Lockard, of ALCOSAN, stated that they are trying to encourage Westview, once the municipality comes up with gray infrastructure costs, to try to take a sewer shed approach and see if green solutions make sense.

Mr. Ed McGee, of AECOM, municipal engineer to Ben Avon Borough, asked if PWSA is considering changes to their system to include separated flows for storm water. Mr. Lockard answered that, as an example, PWSA is planning to separate flows on the Route 28 project. Ms. Jan Oliver added that PWSA is working on the Bell's Run project to control storm water flows through green infrastructure.

5. Program Updates

Mr. Joe Day, of ALCOSAN, reported on the Customer Municipality Advisory Committee (CMAC) meeting that was convened on March 1, 2010. Items discussed included municipal advocacy, working with elected officials, and a basin planning report update. ALCOSAN also provided the CMAC with the regionalization planning study. The group discussed the status of the Wet Weather Plan, especially related to affordability and integration of basin planning. The CMAC members gained an understanding of the challenge, to get as much as possible within the Consent Decree time frame and to make sure to keep short term solutions in concert with the final solution. All of the components of the solution are big ticket items and need to be addressed without overburdening the rate payers.

Mr. Lockard noted that, given recent turnover, there are vacancies on the CMAC and that the County Executive is identifying individuals to fill the vacancies. They hope to be at full complement by the next meeting. He further explained that the CMAC is a 15-member committee put in place to monitor and provide advice on the Wet Weather Plan. The CMAC is a requirement of the Consent Decree.

Mr. Day noted that the Regional Stakeholders Group (RSG) last met on November 16, 2010. The meeting included a presentation by Michael Kenney on PWSA's storm water management process. It also included discussion of green technologies and a review by 3RWW of regionalization ideas. The next meeting will be convened on March 17, 2011.

Mr. Day provided an overview of the ALCOSAN 2010 community meetings. The meetings provided the public with a review of the basin alternatives development process, potential basin solutions, the annual Customer Information Update for 2010, and an opportunity to interact with ALCOSAN staff and with the Basin Planners. Ten meetings were held, nine in the basins and one downtown. The first part of the meeting was an update on the Consent Decree and the second part of the meeting was a presentation specific to the basin communities. Overall, about 200 people attended the 2010 community meetings. Interests and comments included common wet weather technologies and their impact on surrounding communities and residents, implementation of green technologies, and overall interest in continued opportunities for the public to be educated about the wet weather issue. The LOGR Basin community meeting was convened in Bellevue, with about twenty people in attendance.

Ms. Jan Oliver, of ALCOSAN, presented the five options that ALCOSAN proposed for the Three Rivers Wet Weather (3RWW) Request for Proposals (RFP) for Regional Optimization. She reported that ALCOSAN's proposal did not get funding from 3RWW. She noted that ALCOSAN is also looking at the experiences of other cities across the country, including Cincinnati, Cleveland, northern Kentucky, and Hampton Roads in Virginia. In addition, there are some local models of consolidation, such as McKeesport taking over Duquesne and Dravosburg as well as the Saw Mill Run consolidation in the early 1980s.

The five options proposed by ALCOSAN for the Regional Optimization study were to:

- Build, operate, and maintain wet weather control facilities;
- Build, operate and maintain select inter-municipal trunk sewers;
- Contract, operate, and maintain municipal sewers and facilities;
- Build, operate, and maintain sewage and storm water facilities within the ALCOSAN service area; and/or
- Own, operate, and maintain County sewage and storm water infrastructure.

Ms. Oliver noted that the last two options are the most extreme, including sewage and storm water, which would allow wet weather to be addressed holistically on a watershed basis. Ms. Oliver added that ALCOSAN intends to look for funding from foundations, such as the Allegheny Conference on Community Development. ALCOSAN anticipates an 18-month time frame for the Study and will organize a stakeholder group for input and reporting.

6. Summary of Meetings

Mr. Lockard gave an overview of recent events and meetings. He noted that ALCOSAN had recently met with the Allegheny County Health Department. Following that meeting, the Health Department sent a letter to the municipalities encouraging them to work with ALCOSAN to help them find the most cost effective solution for the region.

Mr. Lockard reported that 3RWW recently convened a meeting with municipal managers. Mr. Lockard noted that ALCOSAN is looking for the best available municipal information. Furthermore, the earlier the information is received, the more opportunity there will be to work together. At the meeting, there was a suggestion that municipal submissions were not due until June or July. He reiterated that the LOGR planning team needs the information by the end of April.

Ms. Oliver reported that ALCOSAN is expecting to start meeting regularly with the Regulators to partner on what the long term control plan should look like for the region. She noted that regional controls will have to be coupled with municipal controls and that it will be critical to optimize the best water quality improvements with a minimum of funding.

Ms. Karen Brean, of Brean Associates, providing public outreach services on the Wade Trim team, presented an overview of purpose and content of the Basin Quarterly Activity Report (BQAR) # 6. She asked whether there were any comments on the Report and whether there were other items that members of the Basin Planning Committee would like to see included. She also noted that it is intended to help the municipalities with keeping their citizens informed and asked whether it would be useful for the members to receive the BQAR digitally. BPC members concurred and Karen stated that the LOGR team would send the latest issue #6, and all subsequent issues, in digital as well as hard copy format.

7. **Next Steps**

Mr. Coleman provided an overview of next steps. He stated that the LOGR Basin team will be responding to the Program Manager's feedback and refining the LOGR Basin Alternatives. In addition, the LOGR team will continue to interface with the other basins while getting input from the municipalities within the LOGR Basin. He noted that, during the next three months, the LOGR Basin team will be firming up their direction.

8. **Items Distributed:**
   - **a.** Meeting agenda and PowerPoint presentation
   - **b.** LOGR Basin – Proposed Alternative Evaluation and Public Participation Process
   - **c.** Wet Weather Plan Work Flow Diagram
   - **d.** 2-Year and 4-of/yr Lower Ohio Preferred Basin Based Alternative
   - **e.** 2-Year and 4-of/yr Lower Ohio Preferred Regional Based Alternative
   - **f.** 2-Year and 4-of/yr Lower Ohio Potential Cross Basin Alternative
   - **g.** Status of Municipal Feasibility Studies
   - **h.** Example of Table Required for Municipal CSO and SSO Control Alternatives and Estimated Costs

9. **Action Items:**
   - **i.** Municipalities will send any outstanding Municipal Feasibility Report information to the LOGR team by the end of April
   - **j.** The LOGR team will email the Basin Quarterly Activity Report #6 to members of the Basin Planning Committee

ALCOSAN Basin Facilities Planning

Meeting Minutes

Lower Ohio/Girty's Run Planning Basin

(Ohio River Sub Basin)

Basin Planning Committee Meeting Number 10

Date / Time: June 3, 2011 – 9:00 A.M.

Location: Avalon Borough Municipal Building

Attendees:

Dan Lockard, ALCOSAN	Harry Dilmore, Avalon Borough and Kilbuck Township
Paul Eiswerth, Pennsylvania DEP	Shawn Rosensteel, Chester Engineers (Avalon Borough and Kilbuck Township)
Jan Oliver, ALCOSAN	Dawson Garrod, Remington Vernick & Beach (Kennedy Township and Stowe)
Karen Napoli, ALCOSAN/Collective Efforts	Mark Coleman, ALCOSAN/Wade Trim
Dolat Naik, ALCOSAN/AECOM	Brad Boddy, ALCOSAN/Wade Trim
Ben Landin, LSSE (Ben Avon Heights Borough)	Barry Davidson, Remington, Vernick & Beach (Kennedy Township)
Bob Firek, LSSE (Ben Avon Heights Borough)	Joe Day, ALCOSAN
Joe Catanese, Allegheny County Council	Rob Arnold, Chester Engineers (Avalon Borough and Kilbuck Township)
D.R. Fix, AECOM (Ben Avon Borough)	John Schombert, 3RWW
Dennis Flynn, Gateway Engineers (Emsworth Borough)	Brian Jensen, PA Economy League of Southwestern PA
Jim Barrick, Neville Township	Scott Swansinger, Herbert, Rowland & Grubic, Inc. (Bellevue Borough)

1. **Welcome and Introductions**
   Mr. Mark Coleman, Project Manager of Wade Trim, welcomed the meeting attendees, and invited introductions around the room, asking attendees to note their affiliations as well as names. He indicated that a copy of the Basin Quarterly Report has been sent by email to meeting invitees and that all other municipal officials and representatives will receive theirs by postal mail in the next few days. He presented an overview of the meeting agenda (attached).

2. **Program to Date Status Overview**
   Mr. Coleman reported on the status of the LOGR planning team's planning process. He noted that the team remains on schedule with the timeline created by the ALCOSAN Program Manager, showing the integration of work by the Program Manager, the Basin Planners, and the

Municipalities. He indicated that there are several key dates coming up including the Draft Facilities Plan which is expected to be completed in August and the System-Wide Facilities Plan which is expected to be completed in April 2012.

3. Basin Facilities Planning

Mr. Brad Boddy, of Wade Trim, explained that at the last meeting he gave a presentation on basin specific alternatives. At this time, there is also some consideration for system-wide alternatives.

A brief review of the basin specific alternatives was provided. For the basin based approach, the preferred alternative includes a tunnel to control the SSOs in the northern section of the basin combined with a storage/treatment facility to capture the flow from PWSA. For the southern portion of the basin, a storage/treatment facility is being considered. For the regional based approach, a new interceptor system parallel to the existing interceptor is being considered. The new interceptor would be approximately 42 inches in diameter near Emsworth and 96 inches in diameter near the ALCOSAN treatment plant. There is also some consideration for a cross basin alternative with the Chartiers Creek basin. This would involve transporting the flow from the southern portion of the basin to a retention/treatment basin located in McKees Rocks that would serve the LOGR basin as well as the Chartiers Creek basin.

Mr. Paul Eiswerth, of PADEP, asked if there is still some consideration being given to a facility on Brunots Island. Mr. Boddy replied that Brunots Island is not being evaluated by the LOGR basin. Mr. Dan Lockard, of ALCOSAN, indicated that a facility on Brunots Island is not under consideration at this time, but may be considered at a later time.

Mr. Boddy reported that now that alternatives are being narrowed down, it is important that they have a complete understanding of the municipal flows. This is important as the municipal alternatives will have an impact on the sizing of basin specific alternatives which will impact the sizing of the system wide alternatives.

Mr. Boddy then presented a slide showing the entire ALCOSAN service area and the individual basin based alternatives from all seven planning basins. These alternatives include the Lower Ohio SSO tunnel, storage tanks, retention/treatment tanks, and sewer separation. The alternative is very unlikely due to the number of satellite facilities.

He then showed a slide showing the potential impact of a system-wide alternative with a regional tunnel. The tunnel would allow a number of the satellite treatment facilities to be consolidated into the tunnel resulting in only a few satellite facilities at the outer edges of the service area. He then discussed the preliminary control cost estimates which indicated that for a greater number of overflows allowed per year, the basin based alternative may be more cost effective but for a fewer number of overflows per year, the tunnel based alternative is more cost effective.

Mr. Eiswerth asked that if 85% capture is the minimum control and 10-20 overflows is greater control. Mr. Boddy answered that the 10-20 overflows results in a percent capture higher than 85%. Mr. Lockard said that the affordability is at about 85% capture. Ms. Jan Oliver, of ALCOSAN, asked if the SSO controls are already built into the costs. Mr. Boddy answered yes. Ms. Oliver then asked if the graph includes the assumed municipal costs. The graphs shows both the ALCOSAN costs and estimated municipal costs.

Mr. Boddy showed a slide indicating the system-wide alternatives strategy overview. This chart indicates that the final system wide alternative will optimize between the system wide based alternative and the alternative with the regional tunnel. Work is ongoing to optimize the alternative by evaluating a number of regional tunnel extents under 6 CSO (0, 1-3, 4-6, 7-12, and 13-20 overflows/year as well as a water quality based control level) and 3 SSO (2 year, 10 year, and typical year) control levels.

4. Municipal Feasibility Studies

Mr. Boddy presented a matrix detailing the Municipal Feasibility Studies. For each municipality, the table noted the municipal alternative, whether the revised PFE was received and matched the LOGR BP team's estimate, whether the municipal system can convey the PFE, and comments. Utilizing the matrix as a guide, Mr. Boddy asked each of the municipalities for an update.

Mr Harry Dilmore, of Avalon Borough, and Mr. Rob Arnold, of Chester Engineers, stated that they agreed with the information in the matrix. They will need to gather some minor additional information to help resolve the differences between the Avalon PFE and the LOGR estimate. Mr. Eiswerth asked if Avalon had used winter or summer storms. Mr. Arnold answered they used January and August numbers. Mr. Eiswerth indicated that he would like to see the January numbers since he expected larger flows in January compared to other months.

Mr. Scott Swansinger, of Herbert, Rowland & Grubic, Inc., stated that he agreed with the information in the matrix.

Mr. D. R. Fix, of AECOM, indicated that he would discuss the status of the Ben Avon PFE with Ed McGee. He expects that the information will be provided soon.

Mr. Ben Landin, of LSSE, indicated that he agreed with the information in the matrix for Ben Avon Heights Borough.

Mr. Dennis Flynn, of Gateway Engineers, stated that he agreed with the information in the matrix and that a meeting will be scheduled with Mr. Boddy to resolve the discrepancies with the flows.

Mr. Barry Davidson, of Remington Vernick & Beach, reported that he agreed with the information in the matrix for Kennedy Township. Mr. Davidson stated that revised number would be provided to reflect flows to ALCOSAN verses flows to the Herbst Hallow PS which were previously provided.

Mr. Dilmore and Mr. Arnold reported that Kilbuck Township agrees with the information in the matrix.

Mr. Jim Barrick, of Neville Township, indicated that the new flow estimates seem to be more accurate. Mr. Boddy suggested a meeting to discuss the fact that some flows seem to be higher than the Neville Township pumping capacity.

Mr. Dawson Garrod, of Remington Vernick & Beach, indicated that he agreed with the information in the matrix for Stowe Township. He stated that the PFE for O-03 was being revised to reflect the Orr Street Stream removal project and that the revised PFEs will be available next week.

There was no representative for PWSA but Mr. Boddy indicated that he had met with PWSA and that PWSA was going to revise their PFE based on the items discussed at the meeting.

5. Program Updates

Mr. Joe Day, of ALCOSAN, reported on the Customer Municipality Advisory Committee (CMAC) meeting that was convened on May 10, 2011. He indicated that the County Executive has appointed new members to fill the vacant positions on the CMAC. The CMAC discussed the need for timely information exchange between ALCOSAN and the municipalities as well as the need for ALCOSAN to evaluate regionalization. Mary Ellen Ramage, Manager of Etna Borough presented information regarding their downspout disconnect program.

Mr. Day noted that the Regional Stakeholders Group (RSG) last met on May 17, 2011. The meeting included a presentation by Dan Lockard on stream removal projects and Matt Smuts on Green Technologies in use in other cities.

Mr. Day mentioned that the ALCOSAN open house is scheduled for September 17, 2011 and that public outreach community meetings will be scheduled this fall.

6. Regionalization

Ms. Jan Oliver, ALCOSAN, spoke about the ALCOSAN Regionalization Study. She indicated that 3RWW is funding six sub-regionalization studies which would probably be rolled into the ALCOSAN evaluation.

She also discussed different rolls ALCOSAN could play that were suggested by CMAC for the Regional Optimization study:

- Build, operate, and maintain wet weather control facilities;
- Build, operate and maintain selected inter-municipal trunk sewers;
- Contract, operate, and maintain municipal sewers and facilities in ALCOSAN service area
- Build, operate, and maintain Municipal sewage and storm water facilities within the ALCOSAN service area; and/or
- Own, operate, and maintain County-wide sewage and storm water infrastructure.

Ms. Oliver noted that the end product of discussing these options is not to make a recommendation, but to weigh pros and cons.

Mr. Lockard asked if this includes taking over small existing wastewater treatment plants outside of the current ALCOSAN service area. Ms. Oliver answered that the study would also evaluate this scenario.

7. Next Steps

Mr. Coleman provided an overview of next steps. He stated that there is much work to be done by ALCOSAN and Basin Planners to optimize the best system wide alternative. His expectations for the final alternative to be used on the north side of the Ohio River will be a tunnel from O-15 to the ALCOSAN plant. The size of the tunnel may vary depending on the ultimate flows from the municipalities and ALCOSAN WWTP capacity. The only expected changes in the municipal

system are within Lowries Run where the revised PFE stated that they plan to increase the capacity of the municipal trunk line to deliver all flow to ALCOSAN. In the Jack's Run area, he expects that there will be a small facility or a direct tie-in to the ALCOSAN plant to control the CSOs within the City of Pittsburgh. On the south side of the Ohio River, he expects there will be a storage/treatment facility in Stowe, or some sort of tie-in to the Chartiers Creek Basin as a regional solution. In the Lower Northern Allegheny area of the basin, he expects there to be a facility near A-62 or a tie in to a regional tunnel.

John Schombert, 3RWW, stated that communities need to understand that their usual service and maintenance on their sewer systems must still be done and must be included in their budgets. This will be important to maintain their flows at the current levels.

Jim Barrick asked about the status of the O&M program. Mr. Eiswerth answered that the O&M Plans are being reviewed. He also stated that it will be important for the municipalities to budget for the activities included in the municipal O&M plans.

8. Items Distributed:

- **a.** Meeting agenda and PowerPoint presentation
- **b.** LOGR Basin – Proposed Alternative Evaluation and Public Participation Process
- **c.** PM Moving Forward Schedule
- **d.** System Wide Alternative Development – Basin Based Control
- **e.** System Wide Alternative Development – Tunnel Based Control
- **f.** River Communities Municipal Feasibility Studies

ALCOSAN Basin Facilities Planning
Meeting Minutes
Lower Ohio/Girty's Run Planning Basin
(Girty's Run/Lowries Run Sub Basin)
Basin Planning Committee Meeting Number 10
Date / Time: June 10, 2011 – 9:00 A.M.
Location: Ross Township Municipal Building

Attendees:

Dan Lockard, ALCOSAN	Beth Dutton, 3RWW
Thomas Flanagan, Pennsylvania DEP	Jan Oliver, ALCOSAN
Ray Lattin, Pennsylvania DEP	Ross Towers, ALCOSAN
John Shannon, Michael Baker Corp./3RWW	Bob Zischkau, Glenn Engineering (West View Borough)
Dave Borneman, ALCOSAN	Joe Day, ALCOSAN
Ellen Hanna, ALCOSAN/Collective Efforts	Mark Coleman, ALCOSAN/Wade Trim
Dolat Naik, ALCOSAN/AECOM	Brad Boddy, ALCOSAN/Wade Trim
Karen Brean, ALCOSAN/Brean Associates	Greg Scott, Buchart Horn
Mike Scheer, Allegheny County Health Department	Amy Miller, Allegheny County Conservation District
Emile Ketterer, NIRA Consulting Engineers, Inc.	Jerry Brown, 3RWW
Richard Stewart, NIRA Consulting Engineers, Inc.	Virginia Pucci, Millvale Borough
Mike Stupy, Girty's Run Joint Sewer Authority	Dennis Blakley, McCandless Township Sanitary Authority
Barney Ouster, Pittsburgh United	

1. **Welcome and Introductions**
   Mr. Mark Coleman, BP Project Manager of Wade Trim, welcomed the meeting attendees and invited introductions around the room, asking attendees to note their affiliations as well as names. He presented an overview of the meeting agenda (attached) and materials.

2. Program to Date Status Overview

Mr. Coleman reported on the status of the LOGR planning team's planning progress. He reminded those present that, at the last meeting, the LOGR planning team had migrated to the calendar being used by the Program Manager and that the bulk of the work going forward will focus on consolidating the work of basin planning into the Regional Plan. The LOGR team is currently updating and finalizing the LOGR Basin Plan as well as getting information from the local municipalities to incorporate into the Basin Plan and, ultimately, into the Regional Plan. By August, the LOGR team will have completed the draft Basin Facilities Plan Report and will have a good understanding of the municipalities. The final Report will be finished at the end of 2011. Regional planning work will be very active in the first half of 2012.

3. Basin Facilities Planning

Mr. Brad Boddy, of Wade Trim, reviewed the alternatives discussed at the last Basin Planning Committee (BPC) meeting. He reminded the group that, in the Basin Based Alternatives, all the flows are controlled within the LOGR Basin. In the Regional Based Alternative, all the flows would be conveyed to the ALCOSAN Wet Weather Treatment Plant (WWTP). In addition, the LOGR team has been coordinating with other adjacent basins to identify joint, consolidated facilities.

Mr. Boddy reviewed the Preferred Basin Based Alternative for the Lower Ohio North area, which consists of a storage tunnel to control the SSOs and a retention treatment basin or storage tank (depending on the level of control) at the northern end of the ALCOSAN WWTP to control the CSOs. The Preferred Basin Alternative for the Lower Ohio South area is either a retention treatment basin or storage tank (depending on the level of control).

The Preferred Basin Based Alternative for the Lower Northern Allegheny (LNA) area is a retention treatment basin located near the A-62 outfall. Mr. Boddy also reported that the LOGR Basin planning team has looked at a cross basin alternative that would tie the LNA flows into two potential Main Rivers (MR) Basin facilities, where the MR team is looking at retention treatment basins. Tying into these facilities may be more cost effective than a LOGR stand-alone facility.

Mr. Boddy presented an overview of the way in which the LOGR Basin planning fits into the overall Wet Weather Plan process. He explained that the Municipal Controls and Future Flow Estimates provide the foundation for the LOGR Basin Alternatives analysis which, in turn, impacts the regional strategies. Mr. Boddy noted that the Basin Alternatives analysis started with focusing on controlling flows within each basin. The result is a large number of facilities that would be required to be built and maintained. At the other end of the spectrum, the Regional Based Alternative assumes that additional regional conveyance is available by way of a new regional tunnel. This scenario includes a few satellite SSO and CSO storage tanks with most flows being managed by a regional tunnel.

Mr. Barney Ouster, of Pittsburgh United, asked if there would be multiple wastewater treatment facilities if the tunnel alternative were selected. Mr. Boddy answered that the current regional tunnel alternative that is being evaluated does not include any additional satellite wastewater treatment plants. Mr. Ouster then asked whether the WWTP capacity would allow getting all of the LOGR flow to the plant. Mr. Boddy stated that the WWTP capacity assumed for these alternatives was 600 MGD. Various alternatives are being evaluated to control the remaining

flows that cannot be handled at the WWTP, such as the SSO tunnel and satellite facilities in Stowe and near the WWTP.

Mr. Boddy presented the preliminary system-wide cost curves for the basin based and tunnel based alternatives. He noted that the tunnel based alternative was more cost effective for the higher control levels.

Mr. Boddy stated that the main alternative activity is to optimize between these two alternatives. This evaluation is considering 6 CSO control levels (0, 1-3, 4-6, 7-12, and 13-20 overflows/year as well as a water quality based control level) and 3 SSO control (2 year, 10 year, and typical year) levels as well as two WWTP capacities. Additional alternatives being considered include sewer separation and outfall relocation near sensitive areas.

4. Municipal Feasibility Planning

Mr. Boddy stated that the LOGR Basin planning team is now incorporating the municipal alternatives. He presented his understanding of the status of the Municipal Feasibility Studies, including whether revised municipal Preliminary Flow Estimates (PFE) had been received, whether they matched the LOGR estimate, the Municipal Alternative proposed, whether the municipal system could convey the PFE, and any additional comments.

Mr. Boddy reported that the LOGR Basin team received revised PFEs from the Pittsburgh Water and Sewer Authority (PWSA). Their Municipal Alternative shows conveying existing flows to ALCOSAN without system improvement. Mr. Boddy met with PWSA to discuss the impact of the Route 28 work. They have reached consensus on the impacts and PWSA is in the process of revising their PFEs accordingly.

Mr. Boddy reported that Lowries Run Joint Operating Committee submitted their revised PFEs. Their Municipal Alternative includes all flow conveyed to ALCOSAN with increased conveyance capacity. The LOGR Basin team is incorporating the proposed conveyance system into the Lower Ohio model. Once the model is updated the revised PFE will be reviewed.

Mr. Boddy noted that the LOGR Basin team received the revised PFEs from West View Borough. The PFEs matched those of the LOGR Basin team. The Borough is examining storage at Cemetery Lane and conveyance of flow from Cresson Avenue. Additional analysis is needed on whether there is adequate transport capacity from Cresson Avenue to the point of connection. Mr. Bob Zischkau, of Glenn Engineering, the municipal engineer for West View Borough, added that the Borough is also looking at green infrastructure. Mr. Boddy noted that the size of the storage basin at Cemetery Lane may be oversized and stated that he had discussed this with Glenn Engineering.

Mr. Boddy reported that the Girty's Run Joint Sewer Authority (GRJSA) is looking at storage, though they have not identified a location. He added that the PFEs submitted did not match the LOGR Basin planning team's estimates. The planning team also thought there would be additional controls beyond the one storage tank proposed by GRJSA. Mr. Boddy noted that the LOGR Basin planning team and representatives from ALCOSAN would be meeting with GRJSA and 3RWW immediately following the BPC meeting.

Mr. Lockard asked if GRJSA had any sense of when Girty's Run and West View would have updated planning information to submit to ALCOSAN. Mr. Dennis Blakley, of the McCandless Township Sanitary Authority, said that they would have a better idea of when the Girty's Run and West View planning information would be completed after discussing the model at the A-67 Girty's Run sewershed analysis modelling meeting to be held after the BPC meeting today.

Ms. Jan Oliver, of ALCOSAN asked for clarification of the designation "na" for Lowries Run on the Municipal Feasibility Studies table shown on the slide (page 7 of the handout). Mr. Boddy stated that "na" meant that the LOGR Basin Planning team has not yet incorporated the Lowries Run PFE information into the model. Mr. Boddy noted that Lowries Run has submitted all the information.

5. Program Updates

Mr. Joe Day, of ALCOSAN, reported on the Customer Municipality Advisory Committee (CMAC) meeting that was convened on May 10, 2011. Items presented included municipal coordination, a report on the Etna Downspout Disconnect Program, and the Regionalization Study. The next meeting is scheduled for August 2, 2011.

Mr. Day noted that the Regional Stakeholders Group (RSG) last met on May 17, 2011. The meeting included an update on stream removal projects by Dan Lockard, of ALCOSAN, a presentation on green technologies by Matt Smuts, of the Urban Redevelopment Authority of Pittsburgh, and an update on critical Wet Weather Plan sites by Dave Borneman, of ALCOSAN. The next meeting will be convened on August 18, 2011.

Mr. Day reported on upcoming public outreach events. The ALCOSAN Open House is scheduled for September 17, 2011. The next round of community meetings on the Wet Weather Program will be convened in the fall of 2011.

6. Regionalization

Ms. Oliver provided an update on ALCOSAN's Regionalization Study. She explained that the Study was initiated because of the high cost associated with wet weather control. She noted that Three Rivers Wet Weather (3RWW) is also funding various sub-regionalization projects and that some of those projects will be rolled into ALCOSAN's Regionalization Study. She reviewed the five options that ALCOSAN will be evaluating in the Study:

- Build, operate, and maintain wet weather control facilities;
- Build, operate and maintain selected inter-municipal trunk sewers;
- Contract, operate, and maintain municipal sewers and facilities in ALCOSAN service area.
- Build, operate, and maintain Municipal sewage and storm water facilities within the ALCOSAN service area; and/or
- Own, operate, and maintain County-wide sewage and storm water infrastructure.

Ms. Oliver explained that the stakeholder process for the Regionalization Study will be coordinated by the Allegheny Conference on Community Development. The Study is expected to take 18 months. The first meeting with the stakeholders will take place sometime in September to identify the scope of work.

7. **Next Steps**

Mr. Coleman provided an overview of next steps. He noted that the key issue to take away from the meeting was that the LOGR Basin and the other six basins have progressed far enough to be fed into the regional analysis. So far, the basin teams have looked at two extremes, all flows controlled up in the system versus everything conveyed to the ALCOSAN WWTP. At this point, it is time to look at refining the solution, which lies somewhere between those two extremes. For the LOGR Basin, this means that it will be most cost effective for Lower Ohio South to combine with the Chartiers Creek Basin. Across the river to the north, most communities, other than Lowries Run, will not be changing the flow. The solution will be a piping system, either storage or transport tunnel. There will most probably be a pipe along the north side of the river. Looking at the Lower Northern Allegheny, the integration process will probably land on the LOGR area combining with the MR Basin or regional tunnel. There are a couple of options for Girty's Run and the answer won't become clear until the LOGR team has a clear and confirmed understanding of the Girty's Run flow.

Mr. Coleman concluded the meeting by thanking Ross Township for hosting the meeting and announced that the next Basin Planning Committee would be reconvened in about three months.

8. **Items Distributed:**
   - **a.** Meeting agenda and PowerPoint presentation
   - **b.** Wet Weather Plan Work Flow Diagram
   - **c.** System Wide Alternative Development – Tunnel Based Control
   - **d.** Maximum Extent Regional Tunnel
   - **e.** Lowries Run/Girty's Run: Municipal Feasibility Study Matrix

9. **Action Items:**
   - **a.** The LOGR team will meet with Girty's Run Join Sewer Authority following the Basin Planning Committee meeting (June 10, 2011) to discuss the model.
   - **b.** Girty's Run and West View will submit model information to ALCOSAN two or three weeks after the meeting on the model (convened on June 10, 2011).

ALCOSAN Basin Facilities Planning

Meeting Minutes

Lower Ohio/Girty's Run Planning Basin

Basin Planning Committee Meeting Number 11

Date / Time: October 13, 2011 – 1:30 P.M.

Location: Ross Township Municipal Building

Attendees:

Rob Arnold, Chester Engineers (Avalon Borough / Kilbuck Township)	Ben Landin, Lennon, Smith, Souleret Engineers (Ben Avon Heights Borough)
Bill Barlett, Clean Rivers Campaign	Jeff Lenner, Pittsburgh Water and Sewer Authority
Dennis Blakley, MTSA	Mike Meyer, Remington Vernick & Beach (Stowe Township)
Brad Boddy, ALCOSAN/Wade Trim	Dolat Naik, ALCOSAN/AECOM
Dave Borneman, ALCOSAN	Karen Napoli, ALCOSAN/Collective Efforts
Karen Brean, ALCOSAN/Brean Associates	Jan Oliver, ALCOSAN
Jerry Brown, 3RWW	Virginia Pucci, Millvale Borough
Mark Coleman, ALCOSAN/Wade Trim	Shawn Rosensteel, Chester Engineers (Avalon Borough / Kilbuck Township)
Barry Davidson, Bemington Vernick & Beach (Kennedy Township)	Mike Scheer, Allegheny County Health Department
Joe Day, ALCOSAN	Greg Scott, Buchart Horn (LROC)
Andrew DeWitt, Pittsburgh City Council (Darlene Harris office)	Mike Skinner, Gateway Engineers (Emsworth Borough)
Harry Dilmore, Avalon Borough / Kilbuck Township	Lisa Sorg, Allegheny County Health Department
Dan Fix for Ed McGee, (Ben Avon Borough)	Mike Stupy, MTSA (Girty's Run Joint Sewer Authority)
Thomas Flanagan, Pennsylvania DEP	Scott Swansinger, Herbert, Rowland & Grubic (Bellevue Borough)
Dennis Flynn, Gateway Engineers (Emsworth Borough)	Bill Youngblood, MTSA
Glen Jonnet, Glen Engineering (West View Borough)	Ray Lattin, Pennsylvania DEP
Emile Ketterer, NIRA Consulting Engineers, Inc.	John Shannon, Michael Baker Corp./3RWW

1. Welcome and Introductions

Mr. Mark Coleman, of Wade Trim, welcomed the meeting attendees and invited introductions around the room, asking attendees to note their affiliations as well as names. He presented an overview of the meeting agenda (attached) and materials.

2. Program to Date Status Overview

Mr. Coleman reported on the status of the LOGR planning team's planning progress. He referred to the Program Manager's schedule and noted that the LOGR team's work is drawing to a close with the development of the LOGR Facilities Plan. He reported that most of the current effort is in the development of system-wide alternatives and development of the Draft LOGR Basin Facilities Plan. Mark explained that planning will continue at the local and regional level after the Basin Facilities Plan is completed in January of 2012.

3. Basin Feasibility Study

Mr. Brad Boddy, of Wade Trim, provided a refresher on the previous analysis undertaken by the LOGR BP team. He reminded the participants that the LOGR team looked at addressing the overflows from a basin-based perspective and regional-based perspective. The basin-based analysis assumes that flows will go to the ALCOSAN Waste Water Treatment Plant (WWTP) through existing infrastructure and all remaining overflows would be controlled by wet weather facilities within the planning basin. The regional-based analysis assumes that additional transport capacity to the WWTP could be built.

Mr. Boddy reviewed the preferred basin-based alternative for the Lower Ohio North (LON) area, which consists of a storage tunnel to control the SSOs and a retention treatment basin or storage tank (depending on the level of control) at the northern end of the ALCOSAN WWTP to control the CSOs. The preferred basin-based alternative for the Lower Ohio South (LOS) area is either a retention treatment basin or storage tank (depending on the level of control). Conveyance to a Chartiers Creek Basin control facility is also being evaluated. The Lower Northern Allegheny (LNA) preferred basin-based alternative is a retention treatment basin.

Mr. Boddy stated that the preferred regional-based alternative for the LON and LO include the construction of parallel interceptors that would convey all flow to the existing ALCOSAN WWTP. The preferred regional-based alternative for the LNA includes an interceptor that would convey the flows from A-67-00 and A-65-00 to the south side of the Allegheny River and an interceptor that would convey flows from A-64-00 and A-62-00 along the north side of the Allegheny River. The LOGR Basin planning team has looked at opportunities for cross basin alternatives with both Charities Creek and Main Rivers for both basin-based and regional-based strategies.

Mr. Boddy noted the municipal information that has been incorporated into the LOGR planning. The Lowries Run conveyance improvements and West View's storage tank at Cresson Avenue have all been incorporated into the LOGR Feasibility Study. The GRJSA proposed storage tank was not included in the LOGR model as details as to the location of the tank were not provided. A convey all flow assumption was made for the GRJSA system. He added that the municipal alternatives impact the amount of flow into the basin and system-wide alternatives.

Mr. Boddy presented an overview of the basin-based analysis for all seven basins together. He explained that combining the system-wide basin-based controls results in a great number of facilities. That number of facilities would be difficult to maintain and operate for ALCOSAN and the likelihood of that alternative, in which all flows are controlled within each of the basins, is low.

Mr. Boddy presented the system-wide regional-based alternative which shows some remote CSO Storage/Treatment facilities in addition to a regional tunnel. He explained that, in general, the objective was to convey as much flow as possible to the ALCOSAN WWTP, but it is not economical to convey all of the flow to the ALCOSAN WWTP.

Mr. Boddy explained that the basin facility planning takes the best of the basin-based and regional-based alternatives. As a result, the Facilities Plan draws on a range of control strategies that were evaluated including tunnels along the Allegheny and Monongahela Rivers, remote Combined Sewer Overflow (CSO) treatment and storage, a satellite Waste Water Treatment Plant, sewer separation and outfall relocation near sensitive areas, additional conveyance, and complete sewer separation. Mr. Boddy reported that current thoughts for the LOGR Basin alternative would likely include a three mile long SSO Storage tunnel along the north side of the Ohio River, a storage tank at the ALCOSAN WWTP, conveyance for the LOS flows to Chartiers Creek, and conveyance of the LNA flows to a regional tunnel. The LOGR team is further evaluating the need for a stand-alone facility at the WWTP.

Mr. Boddy stated that the area from the Millvale Park to the back channel of Washington's Landing is an environmentally sensitive area and the LOGR team is looking at relocating flows from that area to downstream of the back channel in order to provide a higher level of treatment to this sensitive area.

Mr. Boddy presented an update on the Basin Feasibility Study schedule. He noted that the second draft of the Feasibility Study and Present Worth Report, which was completed in August, outlined the study process including alternatives ranking, and costing. The team will complete Alternative 3f-modified alternative that incorporates the regional tunnel with some satellite facilities, in November of 2011. The first draft of the LOGR Basin Facilities Plan will also be completed in November and the Final Basin Facilities Plan is slated to be completed in January of 2012.

4. Municipal Planning

Mr. Boddy presented a matrix that identified, for each municipality, whether the revised Preliminary Flow Estimates (PFEs) were received and, if so, whether the revised PFEs matched the LOGR estimate and whether the municipal system could convey the projected flows. Mr. Boddy reviewed the matrix and asked each municipal representative if they agreed with his assessment. All the municipal representatives that were in attendance agreed with the information within the matrix. Representatives from Neville and Ross Townships were not present at the meeting.

Areas where information was still needed were highlighted by Mr. Boddy. He noted that, for Avalon Borough, all information had been resolved with the exception of O-18. Harry Dilmore, Manager of Avalon Borough, stated that a revised PFE would be submitted for O-18. Mr. Boddy also noted that Emsworth Borough would be providing revised PFE to reflect new flow

monitoring data. Mr. Dennis Flynn of Gateway Engineers, stated that he would check on the status of the revised PFE and that he expected that it would be sent out shortly. Mr. Boddy stated that the LOGR team was scheduling a meeting with Neville Township to discuss the slight discrepancy between their revised PFE and the LOGR estimate.

Mr. Boddy reported that Lowries Run has identified system improvements but, even with this increased conveyance capacity, their system cannot convey the 2-year design storm flows to ALCOSAN POC without losses from the system. Only slight modifications to the Lowries Run alternative were required in order to transport the 2-year design storm flows without any overflows in their system. Bill Youngblood stated that he did not believe the ALCOSAN model but he did not provide any details as to what issues he had with the model. It was determined that the Lowries Run representatives would meet with the LOGR BP to discuss the LOGR BP findings.

Finally, Mr. Boddy stated that the LOGR team had received an initial alternative from Girty's Run Joint Sewer Authority (GRJSA) with a storage basin at the border of Millvale and Shaler. In addition, the initial PFE from West View Borough stated that a storage basin would be constructed to control the Cemetery Lane CSO. Mr. Boddy stated that he understood that 3RWW had been working with both the GRJSA and West View Borough in developing additional alternatives for the A-67 sewershed. Mr. Boddy requested that GRJSA representatives provide a status of their evaluations. Mr. Dennis Blakley stated that 3RWW had provided details for a number of alternatives including storage, conveyance, and conversion of one of the existing storage tanks to a Retention Treatment Basin. At this time they have not selected a preferred alternative. Mr. Boddy asked if conveyance of all flows to ALCOSAN was still an option and Mr. Blakley stated that it is still being considered.

5. Program Updates

Mr. Lockard reported that ALCOSAN would be sending a letter to council presidents or authority board chairmen seeking acknowledgement that the governing bodies are aware of what's been done and to advance some of the more complex sewer sheds that may require agreements. Mr. Lockard explained that ALCOSAN wants to make sure that municipal engineers are communicating with their boards.

Mr. Bill Youngblood asked whether, as a response to the complex sewer shed letter, the meeting minutes could be sent to show that the matter was discussed by board members, commissioners, or council members. Mr. Dan Lockard answered that a resolution is more appropriate to show that they are informed and in agreement with the current planning effort and recommendation for improvement if any. The resolution would also address the approach to coordinate with the other tributary municipalities.

Ms. Virginia Pucci asked whether the response to the letter needs to be a resolution. Mr. Dan Lockard answered that an official correspondence is needed to confirm that municipal officials are aware of and in support of the alternatives being developed for submittal to ALCOSAN.

Mr. Jonnet stated that the requests for information with different timelines are confusing given the current municipal timetable of June 2013 for the municipal feasibility plans. Mr. Dan Lockard stated that what is being requested by the Basin Planner and with the letter to the Council

President or Authority Board Chairman is for the best available information at the various points in time. It is understood that the municipal alternatives may continue to evolve.

Ms. Karen Brean, of Brean Associates, presented an update on the recent meetings of the Customer Municipality Advisory Committee (CMAC) and the Regional Stakeholders Group (RSG). Both groups met in early August and received an extensive update on Wet Weather Planning as well as an introduction to ALCOSAN's Regionalization Study. She reported that the next RSG meeting is scheduled for November 9, 2011 and the CMAC will meet on November 10, 2011. Ms. Brean also presented an overview of the 2011 ALCOSAN Town Hall meetings and invited those present to share the schedule and details with their constituents. She highlighted the LOGR Basin Town Hall meetings, scheduled for October 24th and November 3rd as well as the region-wide Town Hall meetings scheduled for November 9th and 15th.

6. Regionalization

Ms. Jan Oliver, of ALCOSAN, provided an update on ALCOSAN's 18-month Regionalization Study. She explained that the Study was initiated because of the high cost associated with wet weather flow control. Ms. Oliver explained that the Allegheny Conference convened a Regionalization Review Panel which had its first meeting on September 26, 2011.

Ms. Oliver explained that ALCOSAN originally identified the following five options to be studied:

a. Build, operate, and maintain wet weather control facilities;
b. Build, operate and maintain select inter-municipal trunk sewers;
c. Contract, operate, and maintain municipal sewers and facilities;
d. Build, operate, and maintain sewage and storm water facilities within the ALCOSAN service area; and/or
e. Own, operate, and maintain County wide sewage and storm water infrastructure.

Mr. DeWitt asked how frequent a storm event was the storm on August 19, 2011. Ms. Oliver responded that she understood that it was a 200 year storm. Mr. DeWitt further asked if the amount of flooding could be predicted by the model. Ms. Oliver answered that the model was not developed for modeling of surface flooding and is currently outside the capability of the collection system models.

7. Next Steps

Mr. Coleman noted four key items to remember from the meeting:

a. The LOGR Feasibility Study has been morphing into a Basin Facility Plan for the LOGR Basin with a lot of interface with the Program Manager and with adjoining basins.
b. It appears that the regional plan is starting to land on Alternative 3f. If that is where the LOGR Basin is headed, all but one of the end-of-pipe treatment facilities will be gone. The Lower Northern Allegheny control will be conveyance to the regional tunnel. On the northern side of the Ohio River, there will be a tunnel and there might be a facility at the WWTP for CSO control. On the southern side of the Ohio River, the LOGR control will be conveyance into a regional solution via a Chartiers Creek conveyance sewer.
c. All of the LOGR planning is based on information that the Basin Planning team generated as well as input from the municipalities.

d. The LOGR BP team is scheduled to deliver the draft by mid-November with a final submission in January of 2012. Essentially, the Basin Facility Planning work is completed and ALCOSAN will be submitting a regional WW Control Plan.

8. Items Distributed:

a. Meeting agenda and PowerPoint presentation
b. Alternative 3f (system-wide as of July 2011)
c. Lower Ohio Alternative 3f
d. Lower Northern Allegheny Alternative 3f
e. ALCOSAN Town Hall Meeting schedule

9. Action Items:

a. Emsworth Borough will provide revised PFE to reflect new flow monitoring data.
b. The Lowries Run representatives will meet with the LOGR Basin team to discuss the discrepancy in the performance of the Lowries Run alternative.
c. The LOGR Basin team will meet with Neville Township to discuss the discrepancy between the revised PFE and the LOGR estimate.
d. Avalon Borough will submit updated planning information for the O-18 sewershed.

ALCOSAN Basin Facilities Planning

Meeting Minutes

Lower Ohio/Girty's Run (LOGR) Planning Basin

Basin Planning Committee Meeting Number 12

Date / Time: May 9, 2012 – 9:00 A.M.

Location: Avalon Borough Building

Attendees:

Dan Lockard, ALCOSAN	Mark Coleman, ALCOSAN/Wade Trim
Joe Day, ALCOSAN	Brad Boddy, ALCOSAN/Wade Trim
Dolat Naik, ALCOSAN/AECOM	Karen Napoli, ALCOSAN/Collective Efforts
Karen Brean, ALCOSAN/Brean Associates	Gary Mercer, ALCOSAN/CDM Smith
John Schombert, 3RWW	Ed Magee, AECOM
Harry Dilmore, Avalon Borough, Kilbuck Twp.	Glenn Jonnet, Glenn Engineering
Dawson Garrod, Remington, Vernick and Beach	Don Newman, Buchart Horn
Ben Landin, Lennon, Smith, Souleret Engineers, Inc.	Greg Scott, Buchart Horn
Emile Ketterer, NIRA Consulting Engineers, Inc.	Doug Sample, Bellevue Borough
Mike Stupy, Girty's Run Joint Sewer Authority	Scott Swansinger, Herbert, Rowland & Grubic, Inc.
Tom Riley, McCandless Township Sanitary Authority	Dennis Blakley, McCandless Township Sanitary Authority
Jim Wallaort, McCandless Township Sanitary Authority	Bill Youngblood, McCandless Township Sanitary Authority
Ed Wirkowski, Girty's Run Joint Sewer Authority, Millvale	Lorraine Makatura, Avalon/Kilbuck
Jeff Lenner, PWSA	Jessica Antell, Chester Engineers
Merritt Bassiere, Clean Rivers Campaign	Dennis Flynn, Gateway Engineers
Brad Waters, Avonworth School District	

1. **Welcome and Introductions**

   Mr. Mark Coleman, Project Manager of Wade Trim, welcomed the meeting attendees and invited introductions around the room, asking attendees to note their affiliations as well as names. He presented an overview of the meeting agenda (attached) and materials.

2. **Program Status**

   Mr. Coleman reported on the status of the LOGR planning team's planning progress. He referred to the Program Manager's schedule and noted that the LOGR team's work has come to a close. He stated that ALCOSAN and the Program Manager/CDM are taking the LOGR facilities planning information and incorporating it into the overall Wet Weather Plan (WWP). He stated that the ultimate goal is to submit the WWP to the regulatory agencies in January of 2013. He reminded the group that the municipal planning will continue while the draft WWP is finalized and submitted.

3. **Basin Facilities Plan**

   Mr. Boddy reviewed the planning undertaken by the LOGR team. He started with a review of the alternatives that were presented at the last BPC meeting #11 held in October 2011. At that time the alternative for the north side of the Ohio River called for a SSO storage tunnel between Emsworth and the ALCOSAN Wastewater Treatment Plant (WWTP) and a storage tank to control the two combined sewer overflows (CSOs) within the City of Pittsburgh. Both the SSO storage tunnel and the CSO storage tank would capture the overflows and hold the wet weather flow until there would be capacity available in the interceptor to get the flow to the WWTP. In the Stowe area, the preferred alternative was to convey the overflows to the southeast to Chartiers Creek to tie into the regional storage tunnel which would in turn convey the flow to the WWTP. In the Lower Northern Allegheny the preferred alternate was to convey the overflows along the north side of the Allegheny River to tie into the regional tunnel near A-60.

   Mr. Boddy reported that there have been some revisions to those alternatives. He explained that, in the Lower Ohio Sub-basin, on the north side of the Ohio River, the Plan has been modified to eliminate the CSO storage tank by directing the CSO overflows into the storage tunnel. The storage tunnel size was configured to be able to capture the 2-year design storm for both the tributary CSOs and SSOs.

   Mr. Boddy noted that, on the south side of the Ohio, the existing interceptor is showing elevated hydraulic grade lines (hgl) due to the Neville sanitary sewer overflow (SSO) being closed. Modifications to the prior preferred alternative include extending the consolidation line further to the Neville Township connection to relieve these excess wet weather flows. The consolidation sewer still conveys the flow to Chartiers Creek where the flow would be sent to the regional tunnel.

   Mr. Boddy noted that the LOGR planning team has explored a few other options for the LNA sub-basin. One potential option is to take the overflows from A-67-00 and drop the flow into a drop shaft near the existing A-67-00 structure and then direct the flow across the Allegheny River to tie into the regional tunnel. This would eliminate some of the work in the Millvale riverfront park and allow the conveyance sewer along the north side of the Allegheny to be smaller. He added that those details would be worked out as the schedule for the regional tunnel gets developed.

Mr. Boddy stated that the area from Millvale Park to the back channel of Washington's Landing is defined in the ALCOSAN Consent Decree as an sensitive area and the LOGR planning team is looking at relocating flows from that area to downstream of the back channel. As an early action project, the Basin planning team explored ways to push the overflows to zero to see if there was anything that could be done to benefit the water quality of the park area prior to the implementation of the regional tunnel. One option would be to construct the conveyance sewer from A-67 to near the connection to the regional tunnel. A small dewatering pump station would be constructed at the terminus of the conveyance line and the sewer would be utilized as a storage tunnel until the regional tunnel would be constructed. A new overflow structure downstream of A-62-00 would allow most of the overflow volume that would exceed the available storage in the conveyance sewer to relieve to the Allegheny River downstream of the backchannel.

Mr. Bill Youngblood asked for clarification regarding the terminology of long term and short term, specifically wondering if dates were attached. Mr. Boddy answered that the long term date is 2026 and a reasonable short term date would be five to ten years after approval of the WWP by the regulatory agencies.

Mr. Boddy noted that the LOGR Basin planning team had to make a number of assumptions about municipal planning. He noted that the Alternative 3f-modified, the latest recommended LOGR Basin Alternative, assumes that there will be additional conveyance from McCandless Township to O-15-00 and additional conveyance from West View to A-67-00.

Mr. Boddy asked for updates on municipal planning information. The following updates were given:

- Avalon: Most of the work is being done by Chester Engineers; there is no new information.
- Bellevue: Conveying all flow.
- Ben Avon: There are no changes, but they are looking at infiltration which is shown, by data, to be high in some areas. There have been preliminary discussions with neighbors, such as Avalon, on cooperation.
- Emsworth: Conveying all flow.
- Girty's Run Joint Sewer Authority: They have been meeting with their engineers and are currently evaluating a number of alternatives. They are looking at a program to disconnect storm sewers within Millvale Borough. They have discovered a large area that relates to the PADOT system where the stormwater is not believed to be not tributary to the A-67 sewershed. GRJSA will forward details on this to the LOGR Basin Planner.
- Westview: They are working with GRJSA in developing alternatives for the A-67 sewershed. They have identified three small areas within their model representation that are separate sanitary areas that are currently represented as combined sewersheds. They are refining the model in terms of this new understanding. They will have drat plan firmed up by July, 2012.
- Kennedy Township: No changes to their plan of conveying all flow.
- Lowries Run Joint Operating Committee: There are no changes since last year provided information. They will incorporate projections from the service area communities and will revisit the future demands from the communities.

- Pittsburgh Water and Sewer Authority: No changes; conveying all flow.

4. Draft Wet Weather Plan

Mr. Gary Mercer, of CDM Smith, the Program Manager, provided an update on the development of the Draft Wet Weather Plan. He reported on the schedule, noting that the Draft WWP is being compiled for release on July 31, 2012. Mr. Mercer presented a diagram of the planning process. He stated that, during the alternative evaluation process, the Basin Planners looked at sites and technologies that led to discreet alternatives to control outfalls. Then, the Basin Planners used municipal planning information along with their own work to develop the Basin Alternatives. All seven Basin Alternatives were pulled together into the System-Wide Alternative, which formed the basis for the Draft WWP.

Mr. Mercer reminded the participants that the planning basin teams looked at addressing the overflows from a basin-based perspective and regional-based perspective. The basin-based analysis assumes that flows will go to the ALCOSAN Waste Water Treatment Plant (WWTP) through existing infrastructure. The regional-based analysis assumed that additional transport capacity to the WWTP could be built.

To develop the Preliminary Control Strategy, the Program Manager developed 26 system-wide CSO and SSO control alternatives. Mr. Mercer explained that the Preliminary Control Strategy eliminates SSOs and provides 95% CSO capture. It meets water quality requirements, which was the impetus for the Wet Weather Program. The Preliminary Control Strategy assumes the municipal CSO and SSO controls and total cost is projected to be $3.6B.

Mr. John Schombert asked whether the Preliminary Control Strategy includes an anticipated increased capacity of the Wastewater Treatment Plant up to 600 MGD. Mr. Mercer replied that it would be.

Mr. Tom Riley asked whether the operation and maintenance (O and M) costs have been included in the cost of the Preliminary Control Strategy. Mr. Mercer answered that O and M costs were included.

Mr. Riley asked whether the proposed tunnel would use gravity flow. Mr. Mercer replied that the tunnel would flow by gravity. Mr. Riley asked whether the tunnel would be empty most of the time. Mr. Mercer answered that the tunnel would only be full during periods of wet weather and would be dewatered within 48 hours after the event.

Mr. Riley asked what maintenance is required for the tunnel. Mr. Mercer answered that the maintenance needs are minimal. During wet weather, the velocities are high enough to re-suspend any debris so the tunnel is, in effect, self-cleaning.

Mr. Riley asked whether the tunnel construction would be done by a specialized firm, such as the firm that constructed the North Shore Connector tunnel and whether the geological testing had been complete. Mr. Mercer stated that a specialized firm would be engaged and that enough geological work had been done to know that the tunnel would work. However, more geological work, including core borings, would have to be undertaken for further development of detail design.

Mr. Ed Wirkowski asked whether the tunnel would be reinforced concrete. Mr. Mercer stated that it would be.
Mr. Harry Dilmore asked whether the municipalities' costs could be reimbursed by ALCOSAN. Mr. Dan Lockard stated that the municipalities would be on their own for their costs but that there might be some state financial aid available.

Mr. Mercer presented an analysis of the benefits, by planning basin, of the Preliminary Control Strategy. He noted that there would be great reduction in overflows across all basins.

Mr. Schombert asked for clarification of the term "10 percent" on the slide describing benefits by planning basin. Mr. Mercer answered that the term was referencing the Preliminary Control Strategy.

Mr. Mercer presented the cost curves for the Basin-based and System-wide alternatives. He noted that the triangle marks the Preliminary Control Strategy. He also noted that the affordability threshold, utilizing the EPA guidance, would be $2B regionally. In addition to the fact that the Preliminary Control Strategy exceeds the region's affordability, there are issues of financial and construction capability that would preclude being able to have full build-out WWP by 2026.

Mr. Don Newman asked whether the $3.6B cost includes municipal costs. Mr. Mercer answered that it does include the municipal costs.

Mr. Riley asked for more clarification regarding the breakdown of costs for the Preliminary Control Strategy. Mr. Mercer answered that about $500M would be for plant expansion, $500M for municipal improvement costs, $700M for tunnel construction, and that the largest single cost would be for consolidation piping and connection to the tunnel.

Mr. Mercer said that, given the fact that the region can only afford $2B; the question is what to spend it on first. He explained that the Wet Weather Program requires control of both SSOs and CSOs. The objectives of the Program are to both address water quality and to allow for economic and population growth. Mr. Mercer reported that the ALCOSAN outfall CSO load is responsible for 86% of the fecal coliform load (cfu), the key measure of water quality. Municipal outfalls are responsible for 4% of the CSO load. The SSO load contributes a total of 10% to the cfu, with the responsibility split equally between ALCOSAN and Municipal SSO loads.

In addition to the requirement stated in the Consent Decree for implementation by 2026, he noted that there is a separate settlement in place with the Pennsylvania Environmental Defense Foundation (P.E.D.F.) to eliminate the SSOs in Chartiers Creek by September 2019.

Mr. Mercer presented three options that prioritize different improvements while staying within affordability guidelines and allow for cost effective expansion for additional improvement phases in the future. He noted that all three scenarios assume that all municipal improvements would be in place by 2026. The first option presented gives priority to eliminating SSOs. In this scenario, the WWTP capacity would be expanded to 480 MGD for primary treatment and 295 MGD for secondary treatment. The tunnel in the LOGR basin would be built, but the regional tunnel, along the three main rivers, would be postponed. All SSOs, throughout the ALCOSAN service area,

would be controlled to the two-year level. Sensitive area outfalls would be relocated or controlled and there would be about 70% to 75% capture of CSOs.

The second option gives priority to improving water quality. In this scenario, the WWTP would be expanded to 600 MGD for primary treatment and 295 MGD for secondary treatment. This option includes construction of the regional tunnel along the Ohio and Allegheny Rivers, along with construction of a portion of the regional tunnel along the Monongahela River. This option does not include any work in the LOGR Basin. SSOs along the Allegheny River would be controlled to the two-year level and there would be about 85% to 90% CSO capture.

Mr. Mercer presented the second, water quality, option as an overlay on results from a recreational use survey that showed frequency of primary and secondary contact. Mr. Newman asked for clarification regarding the number of recreational users indicated on the map. Mr. Mercer explained that those results were based on a rudimentary survey to determine the number of people using the waters for recreation and to compare the use of the main rivers to the use of the tributary waterways.

The third option attempts to provide balanced priorities between CSO and SSO control, water quality improvement, and continued economic development. This scenario is similar to the water quality priority option in terms of the regional tunnel, which would also be partially constructed. Along the Allegheny River, the regional tunnel is proposed to be shorter. As a trade-off, priority is given to SSO control in Chartiers Creek PB. In addition to meeting that requirement, spelled out in the P.E.D.F. settlement, there would be a big impact on water quality by expanding the WWTP and partially constructing the regional tunnel.

Mr. Youngblood asked whether, if the primary focus of the EPA is water quality, why that option wouldn't go forward. Mr. Mercer responded that many factors had to be considered and options had to be weighed. Each of the factors is important in its own right and, in fact, priorities vary within the regulatory agencies. He stated that it is important to keep the range of priorities in mind during the decision regarding the alternative to be used. Mr. Coleman added that, although water quality is a key priority (and control of CSOs makes the biggest impact), it is important to note that all SSOs are illegal.

Mr. Youngblood further asked whether the balanced priorities plan would be the one that is offered. Mr. Mercer answered that the goal is to balance EPA requirements in the Consent Decree. The Plan that will be offered will be the one that best accomplishes that.

Mr. Glenn Jonnet asked what happens after 2026. Mr. Mercer responded that the focus now is on 2026. The assumption is that, after 2026, there would be a reevaluation.

Mr. Mercer presented an overview of the municipal planning information that will be included in the Draft WWP. The major municipal planning assumptions included in the report are:

- Assumed population growth percentage by municipality (total for all basins)
- Assumed growth in area served
- Table and map of preferred/assumed municipal improvements
- Total capital cost of municipal improvements (system-wide total)

- System-wide total Operation & Maintenance (O&M) and Renew & Replace (R&R) Costs
- Capital, O&M and R&R costs by municipality are used to estimate residential indicator by municipality, but not reported explicitly
- Average annual flow contribution by POC

5. Update on Program Outreach

Ms. Karen Brean, of Brean Associates, presented an update on the recent meetings of the Customer Municipality Advisory Committee (CMAC) and the Regional Stakeholders Group (RSG). Both groups met in March and received an extensive update on Wet Weather Planning as well as an update on ALCOSAN's Regionalization Study and the recent efforts of the Regionalization Review Panel. In addition, the RSG continued to discuss the topic of green infrastructure. She reported that the next CMAC meeting is scheduled for May 23, 2012 and the RSG will meet on May 24, 2012.

Ms. Brean also presented an overview of the public outreach milestones related to the release of the Draft WWP. She noted that the public comment period will commence with the release on July 31, 2012, and will continue through October 19, 2012. Public meetings and hearings will be convened in August through October. There will also be a presentation about the Draft WWP at the annual ALCOSAN Open House, to be held on September 15, 2012. Ms. Brean discussed the grassroots outreach strategy that the public involvement team has launched, taking the show on the road to organizations and municipalities. She invited those present to take advantage of this opportunity and schedule a presentation in their locality.

6. Regionalization Study

Ms. Brean provided an update on ALCOSAN's Regionalization Study. She reminded the group that the Study was initiated because of the high cost associated with wet weather control as well as municipal requests for greater ALCOSAN involvement. She described the recent activities of the Regionalization Review Panel, chaired by Dr. Jared Cohon, of Carnegie Mellon University and managed by the Allegheny Conference on Community Development. She explained that, most recently, the Panel broke up into subcommittees around six categories that have been identified for evaluation of regionalization options: financial; regulatory/legal; environmental; organizational; stakeholder acceptance; and operations and maintenance. The Subcommittees each met twice during March and April to test the application of the evaluation criteria. The AECOM team will be evaluating the options during the summer and fall of 2012 and the study report is expected to be completed by December 2012.

7. Next Steps

Mr. Coleman reminded the group of the schedule for the Draft WWP release, finalization, and submission as well as the schedule for the completion of municipal feasibility studies.

Mr. Lockard thanked the members of the Basin Planning Committee for their work and cooperation over the last three years. He noted that ALCOSAN is looking for everyone's cooperation in terms of any additional municipal information submission and for help in fine-tuning the Draft WWP.

8. Items Distributed:

- **a.** Meeting agenda and PowerPoint presentation
- **b.** Lower Ohio Alternative 3f-modified
- **c.** Lower Northern Allegheny Alternative 3f-modified
    1. LNA_BA87
    2. LNA_BA89
    3. LNA_BA87 Early Action
- **d.** Preliminary Control Strategy
- **e.** Preliminary Control Strategy: Benefits by Basin
- **f.** Affordable Alternative Focused on SSO Control Priority
- **g.** Affordable Alternative Focused on Water Quality Priority
- **h.** Water Quality Priority Alternative with Recreational Use Survey Results
- **i.** Affordable Alternative Focused on Balanced Priorities

Main Rivers Basin

ALCOSAN Basin Facilities Planning
Meeting Overview

Basin: Main Rivers
Meeting Purpose: Basin Planning Committee
Date / Time: July 2, 2008, 10:00 AM
Location: Ross Township Municipal Complex
1000 Ross Municipal Drive, Pittsburgh, PA 15237

Attendees:

Tom Lavorini / Ross Township
Art Gazdik/Ross Township
Don Waldorf/Pittsburgh Water and Sewer Authority
Bob Hutton, Pittsburgh Water & Sewer Authority
Andrew Maul/ Pittsburgh Water and Sewer Authority
John Maslanik, Chester Engineers/PWSA
Dick Hadley, Reserve Township
Gordon Taylor, Senate Engineering (Reserve)
Dan Lockard/ALCOSAN
Keith Jensen/Metcalf & Eddy
Jim Reynolds/Chester Engineers
Ann Scott/Chester Engineers
Karen Brean/Brean Associates

1. Discussion / Decision / Agreement Summary:

a. Program Overview and Status

Dan Lockard, of ALCOSAN, presented an overview of the ALCOSAN Basin Facilities Planning Program. Mr. Lockard noted that he did not intend to present, again, the overview that had been presented at the Three Rivers Wet Weather Basin Group meetings. He explained that the meeting would be the first of many meetings to work together to reach solutions that would be the most cost effective with the least negative impacts. He further explained that the Basin Planning Committee would provide a forum for information exchange as well as an opportunity to raise any other related issues. He also noted that, ultimately, all seven basins will need to come together for the Plan.

b. Main Rivers Basin (MRB) Scope and Schedule

Jim Reynolds, of Chester Engineers, the Basin Planner for the Main Rivers Basin, presented an overview of the project scope and schedule. He explained the geography of the seven planning basins and discussed the boundaries of the Main Rivers Basin in detail. He noted that the three municipalities that comprise the Basin are Reserve Township, Ross Township, and the City of Pittsburgh. Although the meeting was being hosted by Ross Township, he noted that their participation within the Main Rivers Basin would most probably be limited since the bulk of their municipality lies outside of the Basin. By Ross Township's estimation, approximately 30 to 50 home tie into the Pittsburgh Water and Sewer Authority's system and there are no sanitary sewer overflows.

Mr. Reynolds discussed the Main Rivers Basin project team, scope and schedule. Municipal representatives requested digital copies of the material distributed, particularly the project schedule. *They further asked whether there could be a web site set up so that they could access the information. This was of particular interest to municipalities that participate in more than one planning basin. Dan Lockard and Keith Jensen will follow up to find out about the feasibility of setting up such.*

c. MRB Information Exchange

Ann Scott, of Chester Engineers reiterated that one of the purposes of the Basin Planning Committee is to facilitate the exchange of information between ALCOSAN and the municipalities of the Main Rivers Basin. She distributed a list of elected and appointed officials to ascertain whether the project team's assumptions about point of contact were correct.

Ms. Scott also distributed a list of materials that would ultimately comprise the information needed from the municipalities to undertake basin facilities planning. She noted that the highlighted items represented information that would be needed relatively quickly. The group discussed the fact that much of the information was available on web sites, etc. and requested more specific information on what information would be needed and in what format. Ms. Scott explained that, if the municipal representatives could point the Basin Planning Team to the most current information, the team members are ready and willing to retrieve the information MRB Basin Planning Committee

Karen Brean, of Brean Associates, a member of the Chester team, referred to the Public Participation and Stakeholder Involvement organizational chart to explain the role of the Basin Planning Committee. Ms. Brean explained that those present at the meeting represent the core participants of the Basin Planning Committee. At key junctures, and as the Committee finds appropriate, it is anticipated that he Committee will be expanded to include other municipal representatives, local environmental and other interests, regulatory agencies, and members of the general public who reside in the Main Rivers Basin. She added that the project team anticipates the Basin Planning Committee meeting approximately quarterly.

Ms. Brean explained the local geographic focus of the Basin Planning Committee. She also noted the focus of the Regional Stakeholder Group, to be convened following the establishment of the Basin Planning Committees. Finally, Ms. Brean suggested that, if, indeed, Reserve Township and the City of Pittsburgh would be the main participants in the Basin Planning Committee, it would be necessary to have break-out discussions or some mechanism to make sure that various sectors of the City have an opportunity to participate while not overshadowing the participation of Reserve Township. There was some discussion among the participants about the geographic sub-groups but the consensus was that it was too early to make that determination.

2. Items Distributed:

a. Program Overview and Status

Meeting Agenda

Wet Weather Planning Team Organization Chart

b. Main Rivers Basin (MRB) Scope and Schedule

Map of Main Rivers Planning Basin

Map of Main Rivers Planning Basin identifying communities

ALCOSAN Wet Weather Program Public Participation and Stakeholder Involvement Organizational Framework

MRB Team Organizational Chart

MRB Project Directory

MRB Baseline Project Schedule

c. MRB Information Exchange

MRB Elected and Appointed Officials

Request for Information: Main Rivers Basin Communities

d. MRB Basin Planning Committee

Basin Planning Committee Participants

3. Next Meeting:

a. The date of the next meeting has not been set, though the participants did discuss the need to meet, at the beginning of the process, more frequently than quarterly.

4. Attachments:

a. As listed above

ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Main Rivers Bain
Meeting Purpose: Basin Planning Committee
Meeting Number 2
Date / Time: Wednesday, November 12, 2008; 11:00 am
Location: Pittsburgh Water and Sewer Authority Office, 1200 Penn Avenue, 2nd Floor

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Attendees: (Name/Organization)

Andy Maul , Pittsburgh Water & Sewer Authority
John Maslinik, PWSA & Chester Engineers
Dick Hadley, Reserve Township
Gordon Taylor, Reserve Township, Engineer
Mike Lichte, ALCOSAN
Mary Carmichael, Brown & Caldwell
Keith Jensen, M&E
Jim Protin, M&E
Jim Reynolds, Chester Engineers
Ann Scott, Chester Engineers
George Brown, Chester Engineers

INVITED GUESTS unable to attend meeting;

1. Ross Township Representatives
2. Rob Stephany, Urban Redevelopment Authority of Pittsburgh
3. Kim Graziani, Office of the Mayor of the City of Pittsburgh
4. Noor Ismail, Pittsburgh City Planning
5. Dan Sentz, Pittsburgh City Planning

Items Distributed:

- Agenda
- Copy of Power Point Presentation
- Modeling Extent – Maps
- ALCOSAN News Release – 2009 Rate Structure

Agenda Topics/Discussion

Introduction & Welcome – Mike Lichte & Jim Reynolds

Mike welcomed everyone and thanked them for coming to the second Main Rivers Basin Planning Committee Meeting. We went around the room and introduced ourselves. Mike stated that the meeting was informal and encourages participants to ask questions at any time. Jim Reynolds also took the opportunity to introduce himself as the Project Manager and gave a brief overview of the Agenda.

- A question was raised by John Maslanik who inquired about utilizing "Green" solutions in future ALCOSAN planning. Mike explained that ALCOSAN will certainly be reviewing and considering "Green" solutions when considering the best, most cost effective solutions to a specific problem. He also noted that sometimes the most cost effective solution is not always "Green". Often times, green solutions are applicable in conjunction with other flow management solutions.

Note – The powerpoint presentation was started and followed throughout the meeting.

Customer Municipal Advisory Committee (CMAC) – Ann Scott

Ann discussed the roles and responsibilities of the CMAC Committee. She explained that the group is a Steering Committee to assist in the development of the ALCOSAN Wet Weather Plan. The committee is comprised of seven elected and appointed officials. The County Executive, with ALCOSAN input, will make the appointments. The CMAC group will likely meet sometime before December 31, 2008, but no definite date has been scheduled.

Regional Stakeholder Committee (RSC) – Ann Scott

Ann discussed the roles and responsibilities of the RSC Committee. She explained that this group would be comprised of residents, special interest groups, and officials etc who are interested in volunteering for this Committee. The Executive Director will make the final appointment. Ann asked if anyone in the group was interested in volunteering to notify ALOSAN or herself.

Flowing Monitoring and Mapping –Mike Lichte & Jim Reynolds

Mike provided an overview and update of the Regional Flow Monitoring Program. Mike stated that the Short Term and Medium term meters have been removed and that the long term meters were still installed through January 2009. He went on to state that ALCOSAN is reviewing the requests from Basin Planners for meter installation at various locations for modeling purposes.

Jim Reynolds discussed the Data Gap Analysis Report and what information is still required from the Communities to complete the model extents. Jim stated that the MR Team has been working with communities and their representatives to gather the information. He stated that the final report will be submitted to ALCOSAN and, once finalized, it will be shared with the Municipalities.

Modeling – Mary Carmichael

Mary provided a detailed overview of the sewer mapping and how Hydrologic and Hydraulic modeling will be used by ALCOSAN in the development of the Long Term Control Plan. Included in the power point presentation were several map depicting three Model Extent scenarios; Exhibit 3 - Scenario No. 2 Model Extent which goes beyond the Consent Decree requirements; and Exhibit 2 – PWSA Model Extent; Exhibit 1 – Combination of both [A1].

Mary reviewed with the attendees what Hydraulic and Hydrologic modeling was and how information derived from the model will be utilized in preparing ALCOSAN's final Wet Weather Plan including future growth analyses and planning for the system.

Mary reviewed the Model Extents that will be utilized for the Main Rivers Basin. She reviewed the difference in the model extent between Scenario 3, Scenario 2 and Scenario 1. She explained how Scenario 1 meets the basic requirements of Consent Decree, however, in order to prepare a more accurate model of the system, Scenario 2 was created extending further into the PWSA system. The MR Basin Team has opted to utilize the Scenario 2 model extent. The group continued with an informal discussion of the modeling maps presented.

- John Maslanik inquired if Basement flooding complaints would be utilized to determine model extents? He mentioned specific areas where flooding still occurs within the PWSA system; Carnegie Mellon University and Fifth Avenue area and upper Oakland. Through the CMU campus and near Margaret Morrison and Tech Street. This information will be forwarded to the Main Rivers modeling expert (Hazem Geith) who was unable to attend this meeting. Hazem will follow up with John Maslanik to obtain additional information.

- Gordan Taylor discussed sewer overflows in Reserve Township, noting that there were four (4) overflow locations. He stated that Reserve Township will work with PWSA in the Spring Garden Area to gather information on the SSOs, notating the field investigation may be necessary in this area. One overflow belongs to PWSA and one other overflow is being reviewed at the time by the MR Team.

Mike Lichte stated that coordination and communication between the Communities and the Basin planners is critical to the project. It is also critical for the Basin Planners to share data collected by the project team with the Communities so that they may utilize that information in the preparation of their Municipal Feasibility Studies and Long Term Control Plans.

Information Exchange – Jim Reynolds

Jim Reynolds discussed the progress of the Main Rivers Basin planning effort, future project deliverables and the status of the MR Team [A2]. He stated that the Team continues to meet with the Communities on data collection issues, and has discussed field work that may need to be completed to gather additional data.

Existing Conditions Report – Jim Reynolds

Jim provided a brief explanation of the context of this report [A3]. He stated that a draft report is due to ALCOSAN by December 1, 2008. Once the report is finalized, ALCOSAN will provide a copy to the Communities. This Report will provide a "road map" or a snapshot of the current systems in the Basin.

Regional Wet Weather Plan – Mike Litche

Draft wet Weather Plan is due to the Municipalities on July 30, 2012. Final Plan due January 30, 2013. ALCOSAN will be working with the CMAC, the RSC and the Municipalities to complete.

Mike discussed the Municipal Feasibility Studies and how they must include sewage flow projections through 2046; corrections to be made to hydraulic restrictions, methods for the containment of SSO discharges, the management of CSO discharges and plans for I & I reduction.

- Mike reminded the group of the deliverables due dates including SSO Response Plan (August 31, 2009), Hydraulic Capacity Evaluations (August 1, 2010) and Long Term Control Plans (August 1, 2010).

- Feasibility studies are due six months after ALCOSAN submits the wet weather plan. However, ALCOSAN's goal is to coordinate and submit a Regional Plan that incorporates municipal feasibility studies.

Next Steps – Jim Reynolds

Jim stated our next Planning Meeting will be in February or March 2009; no date has been determined. ALCOSAN will keep in close contact with the Communities.

Jim reminded the group that the Main Rivers team is still collecting data for the Existing Conditions Report and will contact the Communities and ALCOSAN as required regarding this information. He also noted that flow projections from the Communities into the ALCOSAN system will be needed by the MR Team by the first quarter of 2010.

A general discussion on the model extents followed. John Maslanik suggested that the PWSA modeling team schedule a meeting with the MR Basin modeling team to discuss level of service established, model extent, etc. Mike Lichte commented this was a great idea, but to be sure to notify ALCOSAN and M&E of the meeting date, time and location for their attendance.

The meeting adjourned at approximately 12:20 pm

ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Main Rivers
Meeting Purpose/Number: Basin Planning Committee Meeting Number 3
Date / Time: February 25, 2009, 10:00 AM
Location: Pittsburgh Water and Sewer Office
1200 Penn Avenue, 2nd Floor

Attendees: (see attached Sign-in Sheet for complete list of attendees)

Introduction (Mike Lichte, ALCOSAN, Jim Reynolds, Chester Engineers)

a) Mike Lichte welcomed those in attendance to the Main Rivers Basin Planning Committee Meeting No. 3. Noting that there were new participants to the Planning Meetings he explained that there are seven planning basins in the Basin Facilities Planning Project. He introduced Jim Reynolds, of Chester Engineers, as the Project Manager for the Main Rivers Basin (MRB).

b) Jim Reynolds asked all present to introduce themselves and their affiliations. He noted that there are three municipal entities in the Main Rivers Basin – Pittsburgh Water and Sewer Authority (PWSA), comprising 95.3% of the Basin, Reserve Township, comprising 4.25%, and Ross Township, comprising 5% (Percentages based upon land area). In comparison to the other six planning basins, the Main Rivers Basin has the smallest number of entities, but also has the most complex system.

c) Jim Reynolds distributed meeting notes from the Basin Planning Committee meeting held on November 12, 2008. He also gave a brief recap of the previous two Basin Planning Committee meetings. He explained that the first meeting was an opportunity to introduce the project to members of the Committee. The second meeting was a review and discussion on the Regional Flow Monitoring Program, Model Extents and discussion on the requirements of the Municipal Feasibility Studies. Key issue raised at the second meeting was the utilization of green technologies. Jim noted that these technologies were generally most applicable in the upper reaches of the Basin and most helpful in combination with other control technologies.

The group also briefly discussed the Customer Municipal Advisory Committee (CMAC). Mike indicated that the CMAC Committee will be discussed in greater detail further in the presentation.

There was discussion regarding flow monitoring and the basis for the development of the hydraulic model for the Basin. Most of the discussion focused on the boundary extents of the hydraulic model in the MRB. Jim invited members of the Basin Planning Committee (BPC) to contact him if interested in receiving a copy of the memo that outlines the model extents, including a map of the model, along with the criteria used. Jim noted that the MRB model extents resemble the PWSA model.

Finally, the second BPC included a presentation of data needs and a discussion on the Existing Conditions Report that was due to ALCOSAN the end of January 2009.

d) Mike Lichte discussed the Regional Wet Weather Plans and the fact that the CMAC, Regional Stakeholders Group (RSG), and the Basin Planning Committee will have a lot of interaction with ample opportunity for feedback. The goal is to maximize input from customer municipalities and stakeholders. He also added that, in regard to the Overflow Control Facilities planning, PWSA is further along than most Communities with their study. Other basins do not have the benefit of having feasibility studies completed. Discussion and interaction will be very important to foster a meeting of the minds on how to deal with the overflows in Reserve Township.

1) Status Update: Flow Monitoring, Model Extents, and Mapping (Jim Reynolds, Chester Engineers, Mike Lichte, ALCOSAN)

a) Jim Reynolds reported that the Main Rivers Basin team has completed the development of the Hydraulic model. The Chester Engineers Team has defined the model extents and has inputted the physical attributes. Jim noted that work has begun on the model calibration process about a week ago, and integrating model attributes and information from the ALCOSAN and PWSA models is critical to the accurate development of the MRB model.

b) Mike Lichte explained that, in developing the hydraulic model, the planners are attempting to capture all of the flow leaving the system They want to ensure that the model satisfies flow continuity from upstream to downstream meters.

c) Jim Reynolds stated that the MRB team has completed most of the mapping required for the Basin. He also noted that there is an on-going effort to more clearly define the boundary or interface between the basins. There are some neighborhoods that have been flow divided into different basins. The MRB team is trying to fully clarify unique neighborhoods/houses that were thought to be flowing into the Main Rivers basing rather than the adjacent basin. These occurrences have minimal impact on flow, but the goal is to have the boundaries as accurate as possible.

2) Status Update: Customer Municipal Advisory Committee (CMAC) and Regional Stakeholder Group (RSG) (Jim Protin – M&E)

a) Jim Protin explained that the CMAC and the RSG are both entities defined in the Consent Decree and handed out a brief overview of each (attached). The CMAC met on February 18, 2009, and the RSG is scheduled to meet on March 11, 2009 The CMAC is mostly comprised of municipal representatives, appointed by the County Executive and ALCOSAN. There will be two representatives from each basin and they will receive information for their basins to provide feedback to ALCOSAN and to the Wet Weather Planning team. Their first task was to review and comment on the draft Consent Decree information booklet which provides a global overview of the Consent Decree requirements. They will also be responsible for communicating the message to the elected officials. To accomplish this, they may provide a quarterly progress report that would be basin-specific but also contain some regional or global information.

b) The RSG is a much more broad-based group, numbering greater than 50 members. In addition to two members from each basin, they will represent a range of interests, such as civic leadership, academia, and charitable organizations. The group is expected to grow going forward and will have the most impact with the Basin Planners. It will be their responsibility is to provide Basin Planners with feedback from the constituents. The Wet Weather Planning team will determine the interaction between the CMAC, the Basin Planning Committee, and the Regional Stakeholders Group. The CMAC is being considered as acting as the Steering Committee for the RSG, with formal by-laws, etc. Minutes from each meeting will be available on the ECM.

3) Information Exchange (Jim Reynolds, Chester Engineers)

a) Jim Reynolds explained that the updated ALCOSAN municipal web site is available to all municipalities and is password protected. It will be the main conduit for communication of information. Jim distributed a handout listing the information needed and the due date for receipt of that information. The list included on-lot treatment, boundary clarifications, surface stream inflow points, potential site identification, control measures/plans, and future wet weather design flows. He explained that the due date on the sheet is Chester Engineers' due date for submitting the information. Therefore, the municipalities are asked to have the information to Jim in advance of the due date.

b) Jim noted that, regarding on-lot treatment, the MRB team is trying to locate those properties (numbering anywhere from 250 to 500) that use something other than the main line. Don Waldorf, PWSA, stated that those situations are normally run through Allegheny County Health Department. According to Geoff Butia , of the Allegheny County Health Department, the estimate of 250 may be very low for this situation. Geoff stated that one way to locate on lot systems is through complaints received by the Department. They will check the files and forward the complaint information to Mike Lichte. Tom Schevtchuk, of CDM, mentioned that it might be worth looking at water and sewer billing data. In response, Don Waldorf stated that folks may be paying water and sewer bills but still not be connected.

c) Regarding stream inflow points, Jim Reynolds stated that, as the City and County grew, the inflow points grew as well. John Maslanik asked whether there is a GIS analysis being performed to find the inflow points. Jim responded that the MRB team has looked at surface drainage from a GIS standpoint and the streams that can be seen above the point of a sewer line and not below, they have made assumptions and then field check them. He noted, however, that there are also points that are not readily available in GIS files.

d) Don Waldorf asked what constitutes a stream. Does it have to be constant or perennial? Jim Reynolds responded that the MRB team has not established specific criterion for them, though perennial should be one criterion. Mike Lichte added that Panther Hollow would be one example. Jim also encouraged participants to keep the dialog going by inviting any other specific requests that relate to information exchange. Bob Hutton from PWSA stated he can forward information on perennial streams in the PWSA service area.

e) Jim Reynolds stated that the project will be moving ahead into alternatives analysis. One of the early steps is to screen the technologies to be used with the alternatives. But another key component of the analysis is identifying potential sites for the alternatives. The MRB team would like to get input from the communities as early as April regarding potential sites. Mike Lichte noted that Boundary Street or Two Mile Run, underneath the Bloomfield Bridge, might be good sites. Mike noted that the downtown area is very tight and not the best site for possible solutions.

f) Don Waldorf reminded folks that the MRB is in the low end of the flow, he stated that the flow should be dealt with before it reaches the City. Don inquired if tunnel storage would be utilized in the analysis to which Mike answered it will be considered.

g) Mike Lichte added Green Solutions would be ideal in a number of locations through the City of Pittsburgh, however, these types of projects require a lot of ordinances, inspectors, and a general level of effort on the part of the municipalities. Furthermore, other cities that have addressed the issue have not gone solely green. It's possible to need a smaller facility if green solutions are worked on simultaneously. Portland is a good example, having been able to reduce tunnel size based on the implementation of green solutions. In closing this part of the discussion, Jim Reynolds added that the CMAC and RSG are the people who need to hear this kind of discussion.

h) Matt Smutts, the new Sustainability Coordinator at the Urban Redevelopment Authority (URA) of Pittsburgh, said that the URA is committed to incorporating green solutions into their projects. Jim Reynolds noted that, quite often in other locations with wet weather programs, the program itself can be a catalyst for Brownfield and other development. Since the construction of the wet weather treatment facilities will probably start in 2015 at best, the facilities need to be in conjunction with other development.

i) Don Waldorf added that all of the Basin Planners should be directed to look at green solutions. He suggested that Nine Mile Run and the Casino rain gardens are good examples and noted that PWSA has had several meetings on developing standards for green infrastructure.

j) Jim Reynolds reported that alternatives development will be started this spring. The MRB team needs to know future plans for municipalities to be able to understand future wet weather design flows. Control measures and future design flows are two pieces of critical information for alternatives analysis. Jim noted that PWSA had done a lot of work in that area. Jim stated that these projects can lead to growth and development for the communities. It is critical that the MR Basin Team is aware of any future developments and additional flows. This will aid us to find alternatives that can be utilized well into the future.

k) Mike confirmed that the MRB team is developing base line flows and then looking toward municipalities regarding feedback to change the design flows rather than looking to get design flows from scratch.

l) Don Waldorf reiterated that PWSA can control their flow but not amount of flow coming from the upstream communities, whose flows they receive. Jim Reynolds stated that, once the MRB team has the flow information from the MRB, they will turn it over to the Program Manager, CDM, who will mesh them with the upstream flows to come up with an overall plan for all 7 basins.

m) Cindy Hasenjager asked whether the information request is consistent with the other basins or ahead of them. Mike Lichte explained that it was a little ahead of the other basins because the other basins do not have the level of information that's available to the MRB team through PWSA's work. Jim Reynolds noted that, although the information request may be a bit ahead, the screening of alternatives dictates the level of information exchange that the MRB team is requesting.

4) Program Manager Presentation: Financial Data Collection (Tom Schevtchuk, CDM, Kaye Bealer, Kaye Bealer Consulting)

a) Tom Schevtchuk explained that the goal of financial data collection is to gain a comprehensive understanding of costs at the local, basin, and regional level. This understanding will be utilized in the alternatives analysis. With this data in hand, the consultants and ALCOSAN will be working with the regulatory agencies to figure out how to maximize regulatory flexibility to reinvest in infrastructure while working with the regulatory framework. The results of the analysis will be used in the ongoing pursuit of federal and state funding. Ultimately, a key component will be a regional financing strategy.

b) Tom explained that the data can be analyzed in a number of different ways. The planning area consists of 83 municipalities. Typically the analysis is done at the regional or municipal level. Tom showed a map of 1999 median household income by municipality ranging from $14,000 to $150,000. Figuring out what's affordable, given this wide range in median household income, will be a challenge. Tom also explained that they will examine how to best parcel out the information. For example, the analysis may require an examination at the census tract or block level. The median household income for the City of Pittsburgh is $29,000. However, on the census tract level, the median household income ranges from $6,000 to greater than $150,000.

c) Kaye Bealer, of Kaye Bealer Consulting, introduced a document produced by the Environmental Protection Agency (EPA) in 1997 providing guidance for financial capability assessment and schedule development. The document will provide a planning tool for evaluating financial resources available to implement Combined Sewer Overflow (CSO) controls and assist ALCOSAN municipalities and the regulatory agencies in cooperatively defining a financing strategy.

d) Kaye Bealer explained that the first phase of the analysis focused on residential indicators. Through internet searches, budgets, and work with the 3RWW rate survey, the Program Manager has developed a set of indicators. The municipalities will be asked to comment on the indicators. The Financial impact will be analyzed. A low financial impact will be less than one percent of median household income. Mid-range impact will be one to two percent. Greater than 2% represents high impact.

e) The Program Manager is also identifying other financial capability indicators, such as debt, socioeconomic, and financial management indicators. The preliminary analysis shows that the typical residential costs in 2009 are projected to be $560. Within the ALCOSAN communities, the median household income is $48,700.

f) Tom Schevtchuk distributed a list of municipal data needs to perform the financial capability assessment (attached). The list includes both financial and institutional information. He further explained how the data would be collected, stored in a database, and protected.

g) Tom Schevtchuk distributed the general timeframe for the financial capability assessment and its relationship to the basin facilities planning process. He noted that the schedule had some "fuzziness" with respect to specific dates. He added that, in parallel to this schedule, the Program Manager will be soliciting long term cost estimates to factor into their analysis. In general, the schedule for coordination and logistics will be:

   a. 2009 –The Program Manager will work with municipalities on data acquisition, base line regional assessment, and basin screening of preliminary alternatives.

   b. 2010 – The seven feasibility reports will be completed; The Program Manager will look at their "fit" as a step to developing a regional financing plan.

   c. 2011 – Municipalities, Basin Planning Teams, and ALCOSAN will be preparing recommended alternatives and examining how they mesh together in order to develop a compliance strategy. The draft facilities plan and formalized financial analysis will be prepared.

   d. 2012 - Draft Wet Weather Plan will be completed and submitted. There will be a formal comment period

   e. 2013 – The Regional Wet Weather Plan is due to the regulatory agencies.

h) Tom Schevtchuk gave an overview of roles and responsibilities in crafting the financial capability assessment.

   a. The municipalities will be responsibility for providing current and projected costs, financing and institutional information, and for continued participation in the planning and policy process.

   b. The basin planners will be assisting with data acquisition and will be developing basin alternatives and costs.

   c. The Program Manager will be developing the financial and model, integrating the basin alternatives, and preparing the policy analysis.

i) Tom Schevtchuk explained the next steps. ALCOSAN will be sending information to the municipalities explaining the information gathering process. The Program Manager will be following up with the municipalities in April.

j) Matt Smutts, URA, asked how a storm water authority could be incorporated into the financial model. Tom Schevtchuk answered that it was and interesting idea and a hot topic. He suggested that it would ultimately fall into looking at cost allocation structures. Kaye Bealer added that it is both a policy and financial issue.

k) Mike Lichte noted that PWSA has a lot of financial information that could be useful. Don Waldorf added that they have an annual budget and annual report that is public information. Providing any other information would take an action of the Board.

5) Existing Conditions Report (Jim Reynolds, Chester Engineers)

a) Jim Reynolds reported that the MRB team submitted the Existing Conditions Report in draft form to ALCOSAN on January 30, 2009. ALCOSAN has now collected them from all 7 basins and they are correlating them. The MRB team anticipated getting comments back in the next few weeks to then have a final report to ALCOSAN at the end of March. The team will make the Report available to all MRB Communities at that time.

6) Regional Wet Weather Overflow Control Plan and Municipal Feasibility Studies (Mike Lichte, ALCOSAN)

a) Mike Lichte noted that ALCOSAN was working internally to identify alternatives and control tools such as equalization tanks, screening and disinfection facilities, etc. He also noted that the challenges of obtaining Municipal Feasibility Studies are much less in the MRB than in other basins because, other than PWSA, there are only the municipalities of Reserve and Ross.

7) Regional Wet Weather Overflow Control Plan and Municipal Feasibility Studies (Mike Lichte, ALCOSAN, and Jim Reynolds, Chester Engineers)

a) Jim Reynolds reported that work has begun in the MRB on Alternative Analysis. Identifying potential sites for various projects is critical. Input from the Communities is imperative to making the project a success.

b) Mike suggested a few locations to be considered; Boundary Street or Two Mile Run underneath the Bloomfield Bridge. He noted that everyone realized that an equalization tank will not constructed in the downtown area, just not possible. Mike noted that green solutions will require permits , inspections, acquisition of land, etc. A project that reduced the size of a tunnel by utilizing green solutions may be a beneficial approach.

c) Matt Smuts, URA noted that sustainability is an advantage of utilizing green solutions; Aesthetic values that provide for an increase is water quality may be more acceptable by the communities. He stated water quality was just as important as quantity.

d) Jim Reynolds noted that any of these projects may actually lead to growth and development in our area. He reiterated that importance of providing the team with Community information, we need to know about any future development plans. This will be incorporated in alternative analysis, i.e. the Casino on the North Side utilizing Rain Gardens on their property for storm water control.

e) Jim Reynolds reported that the MRB team will be planning for the next Basin Planning Committee number four, to be convened in the next quarter, either late May or early June. Jim asked that, because of moving into alternatives evaluation and site selection, whether there were any other stakeholders that need to be involved and that aren't represented on the RSG. Specifically, when MRB sites are being identified, he wondered whether there are other groups that should be invited to the Basin Planning Committee. Mike Lichte suggested Citiparks, the Pennsylvania Department of Transportation, and railroad representatives. Jim Reynolds asked the group to give any other ideas for inclusion of additional stakeholders to Karen Brean, working on public outreach with the MRB team. Mike Lichte noted groups such as the Pirates, the Neighbors in the Strip and other local neighborhood groups. He reiterated that the challenge as the MRB team is to receive feedback from those people specifically affected by the Main Rivers alternatives.

Attachments:

- **Agenda**
- **Attendance Sheet**
- **Meeting Notes: November 12, 2009 Basin Planning Committee**
- **CMAC and RSG Overview**
- **Information Exchange Needs**
- **Financial Capability Assessment Calendar**

ALCOSAN Basin Facilities Planning
Meeting Minutes

Main Rivers Basin
Basin Planning Committee Meeting Number 4
June 4, 2009; 10:00 AM
Location: Pittsburgh Water and Sewer Offices
1200 Penn Avenue

Attendees: (see attached Sign-in Sheet for complete list of attendees)

1. Introduction – Mike Lichte

Mike Lichte welcomed the participants and asked for introductions around the room.

2. Agenda – Mike Lichte

Mike Lichte presented an overview of the meeting's agenda.

3. Program Update & Information Exchange – Allen Fathi

Allen Fathi, Main Rivers Basin (MRB) Planner, Chester Engineers, noted that the first three Basin Planning Committee meetings discussed the regional flow monitoring plan and system H&H modeling. He explained that the MRB team is utilizing 95 flow meters to calibrate their model, and that their schedule indicates that the dry weather model calibration should be completed by August, 2009.

Allen introduced Hazem Geith, the team's technical lead for model development. Hazem noted that the extent of the model is equivalent to the model produced by the Pittsburgh Water and Sewer Authority (PWSA), with some additional pipes. He is currently finalizing the model extents as suggested by ALCOSAN. The model is nearly complete in terms of dry weather flow calibration, and the modeling team is now working on wet weather calibrations.

Hazem explained that, regarding Reserve Township, the model has two (2) sanitary sewer overflows (SSO) built into it. The modeling team would like to perform field investigations at those SSO sites to verify hydraulic conditions, since no Geographic Information System (GIS) information is currently available for the Reserve Twp. Sewer systems. The MR Basin modeling team needs to verify connections and manholes at the SSO sites. Hazem noted he will contact the engineer for Reserve Township to inquire if any information is available. He noted that at the SSO site, the PWSA model shows something different than the model being developed by the modeling team. The team is preparing a list of questions for each Community regarding certain aspects of their systems; however, Hazem noted that there are no major concerns at this time. The representative from Reserve Township stated that they are currently updating their GIS storm sewer information, and will set up a meeting with the modeling team. Hazem noted that the first draft of the model has been delivered to ALCOSAN for review.

Allen Fathi noted that the Existing Conditions Report is being finalized and should be available in a few weeks.

4. Stakeholders Update

Janai Williams, of Ebony Development, presented an overview of recent stakeholder activities. She stated that the Customer Municipal Advisory Committee (CMAC) had their second meeting on May 12, 2009 and that it was a lively roundtable discussion. She noted that one of the recurring themes has been how the basin planning teams continue to communicate with the municipalities. The meeting ran overtime and the group decided to reconvene sometime in June, no date has been set.

Janai also reported that the Regional Stakeholder Group (RSG) met on May 14, 2009 and also had a lively discussion on communications. The RSG will have a follow-up meeting in June. She also mentioned that the MR Team is working on preparing a quarterly newsletter that will be distributed in July to the Communities and some of the stakeholders.

Mike Lichte reported that the Municipal Feasibility Study working group is meeting every second and fourth Thursday of the month. The group is working internally with 3RWW on a coordinated schedule between the municipalities and ALCOSAN Consent Orders.

Mike Lichte noted that the ALCOSAN Municipal Secure website is a good resource and encouraged the municipal representatives to access it. Jan Oliver added that there are also forms on the website that address issues such as "O&M" requirements; she suggested that municipalities may find them helpful, (inspection forms, debris removal, etc.) Each municipality has their own secure municipal log-in. Information is constantly being updated. It is also possible to communicate with ALCOSAN through the web site. Eventually, the costing tool for the Feasibility Study will be available on the web site.

5. Alternative Development Process

Allen Fathi explained that the MRB team is currently undertaking the screening of technologies and sites. He explained that the team is developing a matrix of technologies and site alternatives which will be updated continuously. Allen noted there are 103 ALCOSAN outfalls in the MR Basin.

6. Technology Screening

The technologies under consideration include source control, transmission, storage, and treatment. Allen noted that the MRB team has not yet developed the technology screening criteria. He presented an example from the City of Columbus that evaluated technologies in terms of costing, environment, implementation, and operational impacts. Allen provided a hand out to the group of a List of Technologies that may be considered. He noted that PWSA utilized a similar process during the development of their draft Feasibility Study.

7. Example Site Screening

Allen explained that it will be important to work with MRB stakeholders to identify the most important sub-criteria regarding the potential site location of potential facilities. Mike Lichte added that PWSA followed a similar process in screening their alternative technologies. Senior key PWSA personnel developed the screening categories, which were then presented to a group of stake holders for validation. Finally, Allen presented an example of site screening criteria such as availability, proximity, compatibility with technology, and impact on surroundings.

In answer to the question of how criteria groupings are being considered or applied, Allen answered that the highest numerical score is the best score. Cindy Hasenjager asked who, typically, determines the scoring scale. Allen answered that, in the examples he cited, a committee determines the criteria groupings and then reviews them with community stakeholders for buy-in. The criteria within each grouping would be established by community stakeholders. Jan Oliver noted that, depending on the group of stakeholders assembled to determine the groupings, the impact would be different.

Karen Brean added that the MRB Public Participation Plan states that the MRB Planning Committee would be expanded by invitation for specific discussions, such as discussions of potential sites for control alternatives. Mike Lichte described the process of planning at PWSA, wherein a smaller group identified a preliminary ranking system and then rolled it out to a larger group for review. Mike Lichte added that the MRB Team, along with Regional Stakeholders and the Basin Planning Committee, will need to establish the rankings as a group and review the rationale for the rankings. When Jan Oliver asked about the schedule for the process, Allen stated that the process should be preliminary completed by March of 2010. He explained that they will be matching the technologies to sites for every outfall. Then, proceeding to selection will involve scoring and ranging. Allen further explained that various technologies will be assigned to each outfall; a footprint of the location will be included into the matrix as a factor in ranking. He added the available technologies that fit on the site will be a driver in the ranking system.

John Maslanik, a representative from PWSA, stated that PWSA has completed their draft Feasibility Study, and were planning to update their plan based on ALCOSAN's plan. PWSA already has identified potential solutions for a control level of 4 overflows per year and will be able to refine that based on the findings of ALCOSAN's basin planning process. PWSA has provided the MRB planning team with tech memos, appendices', etc.

When asked about the difference between MRB planning and PWSA's planning, Mike Lichte answered that ALCOSAN is looking at regional solutions that are not specific to any one municipality. Although PWSA staff looked at recommendations for all of the CSOs in the PWSA service area, they did not have the ability to look at other constraints, such as treatment plant capacity or upstream contributions.

Jan Oliver asked John Maslanik whether their Feasibility Study identified specific sites. John answered the Study identified sites and the information is contained in a tech memo. Jan asked whether that process went beyond PWSA, polling the neighborhood development association, for example. John answered that the site identification was completed internally without community outreach. Allen noted that in this case, on the sample evaluation criteria, attainable sites might be those without critical infrastructure. Mike noted the following Example, A48 at PNC, would not be feasible for the storage treatment tank.

8. Control Alternatives and Development

Allen Fathi explained that the MRB team will need to identify technologies that are applicable at various levels of control at available sites. When asked how the optimum level of control will be identified, Allen answered that the MRB team will define the "knee of the curve" through a series of cost vs. level of control plots. Jan Oliver added that they would look at specific site issues and how they impact the overall Long Term Control Plan.

Allen Fathi explained that the ALCOSAN design parameters will utilize 2003 precipitation data. John Maslanik noted that the PWSA Feasibility Study utilized 2005 precipitation data, based on recommendations from both their consultant and CDM. He expressed concern that the difference between the two data sets was significant enough that PWSA's completed work (with 2005 data) would not be comparable to ALCOSAN's work (with 2003 data), ultimately forcing PWSA to re-do work that had already been completed.

Don Waldorf stated that PWSA has spent millions of dollars utilizing 2005 data and also inquired as to why the 2003 data was being used by ALCOSAN. Jan Oliver noted that there has been a memo drafted to support the use of the 2003 data; however, she stated that the ALCOSAN staff would meet with PWSA staff regarding this issue. PWSA staff stated that they wanted to make sure that the theoretical view of utilizing 2003 data would not be weighed against the practical effect of changing the design year. They also want to make sure that sufficient weight is placed on work that has already been done.

Ann Scott noted that the municipalities are being asked to identify joint municipal action projects that may be completed early in the planning process. She is working with Jan Oliver and with 3RWW staff to set up a grant application workshop at ALCOSAN to take advantage of various funding opportunities, including PENNVEST, RUS, and CDBG. The intention of this workshop is to assist communities with funding requirements and provide guidance on the applications. Ann will be leading the PENNVEST applications. Jan and Ann will be meeting with PENNVEST officials and will start an on-line information repository. She stressed that the applications should be for joint municipal projects. Jan indicated that joint projects are rated higher on the priority scale.

Jan added that the stimulus funding recently awarded to both ALCOSAN and PWSA indicates the priority given to funding Western Pennsylvania area projects. Reserve

Township should be eligible for RUS funding and PWSA should be eligible for PENNVEST funding. She noted that for each project one community would need to take the lead on the funding applications.

Jan noted that the Spring Garden area could be good project area for a joint application between Reserve Township and PWSA. She stated that ALCOSAN wanted to take advantage of funding out there and begin to work on early source reduction projects while finalizing their Long Term Control Plan. For the Main Rivers Basin, the projects are probably easily identified. The intention is to try to find two projects within each basin that would reduce I/I and that don't require any type of permitting.

When asked if two good projects could not be identified for each basin, would ALCOSAN consider a project that crossed basin boundaries, Jan stated that such projects would certainly be considered. She suggested that green infrastructure projects, early action projects (concepts), trunk line repairs and restoration are each examples of such projects.

Mike Lichte requested that if the municipalities have any concepts for these kinds of projects, the municipalities get them to ALCOSAN. Mike further noted that regulator C-11 would likely be a good gunite (pipe lining) project. It is a PWSA pipe; however, ALCOSAN would like to install a manhole for access to the system and for O&M which may be a good joint operations and maintenance project.

9. EPA Financial Capability Assessment

Mike Lichte presented an update on the Financial Capability Assessment. Mike noted that they are working with 3RWW in gathering municipal financial information. Mike presented a schedule for the Financial Capability Assessment. 3RWW is in the process of gathering data now along with some of the Municipal Engineering firms. ALCOSAN will be working to complete the Assessment by October of 2009.

Mike also stated that, going forward, ALCOSAN is trying to get the Feasibility Studies captured under a regional act 537 update. There may be funding available in the mid-term, five to seven years down the line. He recommended that the municipalities capture their costs associated with supplying data to ALCOSAN and, potentially they could be reimbursable in the future.

10. Next Steps

Reserve Township will provide Chester with GIS storm data and the MR Basin Team will coordinate with the ALCOSAN information. When asked when ALCOSAN is expecting to receive municipal flow projections, Mike Lichte stated that they are looking for preliminary information by March of 2010. He noted that a memo was circulated by 3RWW identifying the time frame. 3RWW staff felt that the time frame may be difficult for municipalities, so the deadline was extended to be submission between March and June.

The 3RWW Feasibility Study working group is continuing to meet on the second and fourth Thursday of every month and is working on some technical memos. In order to gather the financial data for the Financial Capability Assessment, 3RWW has initially contracted with four engineering firms that each have multiple municipal clients (Senate, Chester, Gateway, and Glenn) and will soon have data from approximately 55 municipalities.

When asked whether the joint letter to municipalities had gone out, as indicated in the Financial Capability Assessment slide, Cindy Hasenjager noted that it had not yet gone out. 3RWW is hiring a municipal consultant to collect the information. The letter will prepare the municipalities for that information gathering. One way or another, 3RWW will communicate with the municipalities.

When asked when ALCOSAN will be hosting the funding workshop, Ann noted that a date had not been set. Because August is the next funding deadline for November action, they may try a pilot project in August. When asked about green projects, Ann stated that there would likely be a funding set-aside for green infrastructure, but the amount has not yet been determined. She also noted that green projects add points to funding applications.

Meeting adjourned at 11:20.

ALCOSAN Basin Facilities Planning
Meeting Minutes

Main Rivers Basin
Basin Planning Committee Meeting Number 5
October 20, 2009; 10:00 AM
Location: Pittsburgh Water and Sewer Offices
1200 Penn Avenue

Attendees: (see attached Sign-in Sheet for complete list of attendees)

1. Introduction

Mike Lichte welcomed the participants and asked for introductions around the room. He stated that this is an informal meeting and feel free to ask questions at any time during presentation.

2. Agenda

Allen Fathi presented an overview of the meeting's agenda and informed the group who will be responsible for presenting each topic.

3. Technical Data Update

Allen Fathi briefly provided a technical data update for the Main Rivers Basin. He stated that flow monitoring information is available for municipal review and use on the 3RWW website. He added that the Chester Team is in the process of finalizing the H&H Model, the 2008 data has been collaborated and the model will be utilizing the 2003 as the typical year. The Modeling report should be completed by the end of November and available for review by the Communities.

Allen Fathi informed the attendees that the Alternative Screening draft report has been submitted to ALCOSAN for review. ALCOSAN has reviewed the draft report and has submitted comments. The comments have been discussed with ALCOSAN and plans have been made to address the comments and to submit the revised report to ALCOSAN by the end of November.

4. Financial Update

Mike Lichte stated that the Alternative costing tool along with a brochure and a manuscript on how to use the tool have been posted on the ALCOSAN website. He encouraged the communities to go to the website and test out the Costing Tool. In reference to Early Action Projects, he noted that ALCOSAN held a meeting with Congressman Mike Doyle's Office to discuss potential funding for these projects. They are working together toward getting these projects funded.

Jan Oliver added that in MR Basin, the one project submitted as a candidate for Early Action Project is in the Reserve TWP, (the Spring Gardens SSO project). She also stated

that ALCOSAN will be reviewing each project submitted by the Basins Planners, and will work with the communities to identify the best type of funding available for those projects.

Don Waldorf (PWSA) inquired if this was the only Project for MR Basin. Jan Oliver stated that there were several separation projects in the Saw Mill Run & Upper Allegheny Basins. Mike Lichte added that there were a few projects near Kelly Street and Susquehanna Street that PWSA is aware of regarding separation. Don Waldorf inquired if there was a comprehensive list of projects that could be provided to PWSA. Mike Lichte noted that a list is available and will be provided to PWSA.

Allen Fathi noted there are four (4) projects identified as early action projects in MR Basin including the Spring Gardens project. Another project that has been identified is located near the Convention Center.

In reference to Municipal Financial Data, Mike Lichte noted that ALCOSAN is working with 3RWW on collecting data and the development of an affordability analysis. Jan Oliver added that they are currently working on an existing conditions model and as alternatives are developed, it will evolve into the financial capability analysis for the long term wet weather control plan.

5. Municipal/ALCOSAN Coordination

Janai Williams of Ebony Holdings, presented an overview of recent stakeholder activities. She stated that the Customer Municipality Advisory Committee (CMAC) is the advocate for customer municipalities. Throughout the calendar year they have met and discussed several areas of concern which include; Multi-Municipal Funding efforts, Feasibility Studies, and ALCOSAN planning efforts and its impact on the Municipalities. She added that the CMAC held their third meeting on October 14, 2009 (last week). The meeting summary has not been completed yet. However, they will be available on the web site soon. She added the areas of concern presented to the CMAC by the Municipalities related to rates and rate structure. Meeting key points will be available on the web site. Their next meeting is tentatively February 9, 2010.

Janai Williams also reported that the Regional Stakeholder Group (RSG) met on October 15, 2009 with their next meeting tentatively scheduled for February 11, 2010. This committee is made of a diverse representation including municipal, academia, environmental and business representatives. The group has identified five topics of concern which include green infrastructure.

Janai Williams announced that ALCOSAN will be hosting a series of meetings for the General Public regarding wet weather issues; items to be discussed include the problems, the solutions and the planning process. She noted that there are 13 total meetings and that a handout of the schedule of meetings is available for the attendees.

Mike Lichte reported that the Municipal Feasibility Study working group meets every second and fourth Thursday of the month. The group is working with the municipalities on preliminary flow determination and working paper for the flow isolation.

6. Preliminary Sites & Technologies Screening and Evaluation

Steve Freedman stated that Chester had recently completed a workshop with the PWSA regarding the preliminary Site and Technologies Screening. He also added that the screening report has recently been submitted to ALCOSAN. This report summarizes the sites and technology processes. He noted that since the H&H Model was not completed in time for the screening report, the existing PWSA CSO data for the 2005 typical storm year for a frequency level of four events per year was used for screening analysis The team will utilize the model associated with the 2003 typical year when it becomes available.

Steve Freedman noted the magnitude of the CSOs in the MR Basin, he referenced the slide which listed and identified the top 10 CSOs by volume. He stated that there are basically four categories for potential controls; treatment, source controls, conveyance and storage with each of these having several subdivisions.

Steve Freedman added that the Control Technologies selected for this initial level of evaluation in the MRB are: satellite secondary treatment; screening and disinfection; retention/treatment; high rate clarification; vortex separation, off-line storage; sewer separation and tunnels. He noted that the types of controls carried forward without siting analysis are: satellite secondary treatment; screening and disinfection; sewer separation; and tunnel. He indicated technologies such as sewer separation or tunnels are not evaluated for site selection. These types of technologies need much less siting requirements in comparison to the requirements of other control technologies such as offline storage, vortex separation. He added that the prime focus of today's workshop is to identify the critical technologies and how they are matched with the available sites.

Steve Freedman indicated that the spatial requirements for control technologies are controlled by the larger, below ground process tankage, the requirement for a 50-ft. setback; and the above-ground support systems (control room, emergency power, etc.) had a lower overall footprint. He also presented a list of criteria for preliminary screening and ranking of the control facilities. It was noted that only certain criteria were used for this preliminary ranking at this stage. Additional criteria, including the life-cycle costs, will be used as the process advances into the feasibility report. The results of technology screening indicated that RTB has the lowest overall ranking. The others technologies were generally equal in ranking. More rigorous analysis will be completed when the sites have been determined.

Mark Scally discussed how the siting analysis process was utilized and how the technologies and screening were meshed together. He indicated that the process of site selection began with existing information from Allegheny County Tax Database for the first screening of parcels.

The first step in site screening included a fatal flaw analysis which involved the removal of parcels that do not have any potential for use by control technologies. The fatal flaw criteria included Distance for CSO's, Elevation difference between the potential site and the CSO structures and site Use-Description. The results of the fatal flaw analysis identified 16,000 parcels out of 66,000 parcels in the MR Basin for future consideration.

Mark Scally discussed the site selection and scoring criteria and noted that each of the parcels were then scored and tabulated, with a total score of 10 being the highest score. This evaluation led to the Ortho Analysis, which takes into account the highest scoring parcels and review them using aerial photography to evaluate the actual site and their potential for use. He added that the results of the ortho analysis show 60 potential sites. Of these 60 sites, 25 sites were associated with the top 10 CSO's based on volume. It was also noted that during this process possible local conveyance routes and CSO consolidation opportunities were also been indentified.

Mark Scally also noted some of the other critical factors used in the site evaluation including economic, social and environmental impacts. He added that the site and technology evaluation results demonstrated three possibilities. The potential site was adequate, not adequate and more than adequate for a particular control facility. The results that scored more then adequate were particularly important to note since this indicated that there may be even greater potential for the facility to control flows beyond the four events per year.

Steve Freedman noted that after matching potential sites with control technologies, particularly for the top ten CSO's by volume, clearly there are very limited usable potential sites in MR Basin. He also noted that the technologies discussed earlier do not take into account the regional plan. Jan Oliver noted that a particular overflow located in the MR Basin, must take into account tributary flows coming from surrounding communities.

7. Next Steps

Allen Fathi reviewed the next steps: alternative analysis costing is due in May of 2010, the feasibility Study is scheduled for September of 2010. Critical Information from the Municipalities will be characterization of flow and system capacity analysis.

Allen Fathi also noted as stated earlier, our next Basin meeting will be in January 2010, and the Public Meetings for MR Basin are scheduled for November of 2009 and copies of the flyer for the public meetings are available for the attendees.

Mike Lichte noted that as we go through this process, ALCOSAN and municipalities need to work cooperatively and asked that municipalities should provide their thoughts and ideas to the Basin Planner.

8. Questions

Andy Maul, PWSA, inquired if the 2003 data compares to the 2005 typical storm year. Mike Lichte noted that the years are comparable and have found no significant difference throughout the process.

John Maslanik, Chester/PWSA noted that all of the work completed by PWSA utilized 2005 year storm. He inquired if PWSA needs to do anything to the work they have completed since ALCOSAN will be utilizing the 2003 storm year.

Paul Eiswerth from the PA DEP, stated that from the Department perspective, he believes that a comparison of the results will be sufficient and the Department will hope the outcome will be compatible. The attendees agreed that t the ultimate out come should be very close.

Mike Lichte noted that lot of the PWSA information was utilized for construction ALCOSAN costing tools. Therefore the results of PWSA and ALCOSAN analysis should be relatively close Don Waldorf noted that the PWSA doesn't want to use additional funds by redoing the completed work. Jan Oliver acknowledged that the design years are nearly identical.

Don Waldorf noted costs for storage tanks has gone from $2.00 per gallon to somewhere around $15.00 per gallon. Therefore, that might impact consideration of storage/tunnel as an affordable alternative. Mike Lichte noted that PWSA needs to look at the costing tools and compare.

Steve Freedman noted that affordability is not included in the screening report and the analysis at this point is non-monetary. Jan Oliver stated that affordability will have to be looked at regionally, take into account the entire Long Term Control Plan.

Don Waldorf stated that another significant hurdle will be selling the site alternatives to the individual municipalities. He noted the PWSA will have to approve the various sites and technologies as well as the City Council, Zoning and Planning. Mike Lichte noted that it goes without saying, the plan will require public hearings and meetings with local officials and residents.

Andy Maul asked Paul Eiswerth to summarize the conclusions on the 2003 and 2005 typical year analysis. Paul Eiswerth stated that the Departments doesn't have any problems or concerns with utilizing two different years, but noted it will require thorough comparison of the data/results. Perhaps selecting the more conservative number of the two results may be considered. If results come out significantly different, then another analysis will have to be completed.

Don Waldorf inquired if any consideration has been made regarding deep tunnels. It was noted that it was not done as a part of these analysis but will be considered in a future analysis. The attendees inquired when the tunnel will be considered. It was noted that

the tunnels will be considered in the next report. Tunnels will be a key component in future analysis.

Paul Eiswerth noted that maintenance of the existing tunnel system needs to be addressed in the prospect of the construction of future tunneling, and noted that there has been no maintenance on the tunnels over the last 50 years.

Dave Borneman inquired to PWSA overflow in the 279 corridor. Don Waldorf noted that technically 279 is separated, the trunk lines run up the valley and all the CSO's (24 total) bypass into the storm sewer owned by PENNDOT. Dave inquired as to who is managing the solution to these overflows and overseeing the analysis. Paul Eiswerth suggested that a meeting with PENNDOT may be warranted to discuss these overflows, the amount of flow needs to be addressed. Mike Lichte noted these overflows are included in PWSA report. John Maslanik stated that these overflows are accounted for and are included in the study. Don Waldorf noted that structure A-58 could more than likely, be closed. Dave suggested that this is one area that needs to be included in the Feasibility Study.

Meeting was concluded at approximately 11:25 pm.

ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Main Rivers
Basin Planning Committee Meeting Number 6
March 11, 2010/10:00 AM
Pittsburgh Water and Sewer Authority
1200 Penn Avenue, 2nd Floor

Attendees: (see attached Sign-in Sheet for complete list of attendees)

1) Introduction and Program Update (Mike Lichte, ALCOSAN, Allen Fathi, Chester Engineers)

a) Mike Lichte welcomed the group and asked for introductions around the room. He introduced Allen Fathi, the Project Manager for the Main Rivers Basin (MR), who presented an overview of the agenda.

b) Allen Fathi provided an update on the Wet Weather Program. He noted that the last meeting of the Basin Planning Committee was convened on October 20, 2010 and that minutes are available. Final comments have been received on the Existing Conditions Report. The Screening of Sites and Controls Report had been resubmitted to ALCOSAN in January of this year and should be available for distribution soon.

2) H& H Modeling and Model Report (Allen Fathi, Chester Engineers)

a) Allen Fathi reported that the draft H&H Model Report was submitted at the end of September of 2009. Following review, the revised Report was resubmitted in February of 2010.

b) Allen noted, the calibrated model will be available soon on DVD, in SWMM software. He reminded the group that preliminary flow estimates are due by the Municipalities to ALCOSAN in Spring of 2010.

3) Preliminary Flow Estimates (Allen Fathi, Chester Engineers)

a) Allen reiterated the importance of receiving flow estimates from the municipalities. He noted that, if there is a municipal feasibility report available, the MR Basin team would like to incorporate information contained in it in the MR Basin planning effort.

b) Regarding flow estimates, Allen explained that there are three basic assumptions the MR team can make:

1) Allen noted, the MR team is assuming that Communities will send all flows, including current overflows, to the point of connection to the ALCOSAN system unless told otherwise;

2) Communities will maintain existing flows by addressing overflows locally and not sending additional flow to ALCOSAN; and

3) Communities will employ a control system or source reduction to reduce their current flow to ALCOSAN.

4) Screening of Controls and Sites Report (Steve Freedman, Brown and Caldwell)

a) Steve Freedman discussed the Screening Report and noted that the top 10 overflows in the basin account for 72% of the overflow volume. He presented a diagram that illustrated that the largest outfalls, by annual volume, are spread throughout the basin, making it harder to consolidate.

b) Steve noted that the peak overflow rate during a typical year on the top 10 overflows, ranges from a high of 800 MGD to a low of 100 MGD. These are all considered large overflows. There is an even more uniform array of overflows, by peak flow rate, around the edges of the Basin. He added that these data will be very important as the project moves into the feasibility study.

c) Andy Maul, PWSA, inquired which rainfall data "typical year" was being used. Allen Fathi noted that the MR Basin team utilized the 2003 data year. He noted that the same top 10 overflows also occur in the 2005 data that were used by PWSA, though the top 10 rankings may change a bit.

d) Jan Oliver inquired about dry weather flow, and whether its contribution is based on the area. Steve Freedman explained that dry weather flows in combined sewer areas are inflow driven, rather than driven by population. That is a different situation than that of Sanitary Sewer Overflows (SSO). Steve noted that the peak dry weather flow of the MR basin is approximately 35mgd.

e) Steve Freeman noted that there are four categories of control in the Screening of Controls and Sites Report:

1) Source Control;

2) Conveyance:

3) Storage; and

4) Treatment.

f) For purposes of the Screening Report, Steve explained that the MR team looked at technologies for treatment, conveyance and storage. In order to undertake the Report, a large part of the study involved looking at sites available for various technologies. Steve noted that the MR Basin is the most tightly constrained of all of the Basins in terms of land for control alternative siting. The team examined the technologies and how they would fit on available sites. The team performed detailed analysis, using established criteria, and came up with a set of curves, plotting design peak flow (in MGD) against required acreage for each technology. For example, the least land intensive technology is screening and disinfection. Retention treatment basins are among the most land intensive technologies, and were the least favorable because they take a lot of space and also have a level of complexity associated with treatment. Steve noted that this is the kind of thinking that will be used going forward in planning.

g) When asked about how source control fits in to Basin planning, Steve Freedman answered that the team believes source control will be likely an important part of the solution, but it is a municipal function. The team will include it going forward, but not necessarily as an ALCOSAN function. In the MR Basin, CSO's drive the solutions.

h) Jan Oliver asked for an explanation of "complexity" as a criterion within the category of operational impacts. She suggested tunnels as an example, with subsurface conditions that can be unreliable. Steve Freedman agreed, explaining that, often, that's why people go a lot deeper than expected, in order to get to more reliable rock. The goal is to have the best rock possible, which requires more cost for shaft and plumbing, but can mean an overall savings. Steve further recommended that, if tunnels appear to be the regional solution, the geotechnical work should start sooner rather than later to increase knowledge of subsurface conditions and minimize risk. Steve noted that the more vertical digging the higher the cost.

i) Jan Oliver reemphasized that green infrastructure is addressed under sewer separation. Steve Freedman concurred, saying that it is not enough to put in a storage tank without addressing the source of the overflow. He added that, when the MR Basin planning team develops the cost performance curves, they will see the shape of the curves for different control levels. It will show where green initiatives will have a larger impact. Furthermore, certain Basins are more conducive for green infrastructure. Mike Lichte noted that this analysis is a preliminary first cut. As planning goes forward, the project will move deeper into the details.

j) Jan Oliver asked whether green infrastructure is more effective with high frequency rather than high flow rates. Steve Freedman replied that it really depends. He has seen green initiatives in other programs and they tend to be long range solutions, involving changes in local ordinances and other complications. Allen Fathi added that green solutions affect peak flow first.

k) Steve Freedman explained that the other aspect of the screening was the ranking of parcels. Over 16,000 parcels were analyzed in the first cut. The next level of analysis resulted in 63 potential sites, which, in some cases, combined parcels. Steve presented the summary of combined sites. He noted that the top 10 sites carry 72% of the overall volume system-wide.

l) Don Waldorf, of PWSA, asked whether anything was considered for upstream storage. He suggested that it would be more manageable to have in-line storage upstream. Jan Oliver answered stating that ALCOSAN needs to take a regional approach. PWSA's Feasibility Study

will determine whether the Authority wants to convey all of the flow downstream or manage some of the flows upstream. Don Waldorf added that the areas being looked at by ALCOSAN are just too huge and are in valuable riverfront property. Both Mike Lichte and Steve Freedman noted that the planning is still quite preliminary. Steve added that the MR Basin planning team has not recommended a single parcel yet; but they need to know the land options available to them. Mike added that the weighting exercise includes public factors. The exercise is an opportunity for stakeholders to provide feedback. Jan Oliver noted that most wet weather control facilities in other cities have been coordinated with riverfront development. Matt Smutts added that it will be important to coordinate efforts with the plans for the Allegheny Riverfront master plan.

5) Feasibility Report and Present Worth Analysis Guidance (Steve Freedman, Brown and Caldwell)

a) Steve Freedman reported that the MR Basin team is presently working on the Feasibility Report which will be built from the Existing Conditions Report, the H&H model and the Screening of Controls and Sites Report. He noted that there will be a series of progress meetings during the drafting of the Feasibility Report. The meetings are scheduled for April 30th, June 15th, and July 30th of 2010. Jan Oliver clarified that the purpose of the progress meetings is for the Basin Planning teams to compare alternatives amongst themselves during the drafting of their respective Feasibility Reports. The preliminary MR Feasibility Report is due on August 15th and the final is due on September 30th.

b) When asked when the implementation of the affordability portion of planning would be undertaken, Jan Oliver answered that affordability will be considered from the beginning of the planning process the cost curve addresses affordability. Steve Freedman added that if the costs come in too high on the affordability scale, the choices will be to either stretch out the time frame for implementation or to decrease the level of service. When further asked why planning is being undertaken without knowing the affordability outcome, Jan Oliver emphasized that it is very difficult to justify the conclusions made by an Affordability Study without having completed a Feasibility Study to document alternatives and explained that the regulating agencies have directed ALCOSAN to undertake the planning effort before it is limited by affordability. Steve Freedman noted that the solution is a regional one that cannot be accomplished in, or by, a single basin. Jan Oliver stated that Philadelphia recently submitted a plan that limits costs to $1 Billion. In that plan, they have mostly identified green infrastructure solutions. Matt Smutts noted, however, that Philadelphia is not under a Consent Order. Steve Freedman gave the example of a mid-sized city in Ohio, for which Brown and Caldwell did a study. The City submitted the report bottom line, stating that the plan was unaffordable.

c) Andy Maul asked whether the model for the MR Basin will be hydraulically connected to other basins. Allen Fathi answered that model includes boundary conditions related to those other basins. Mike Lichte gave the example that the Upper Allegheny/Pine Creek basin will generate an output that is used for input to the MR Basin. In addition to these connections in the model, there will also be meetings among basins to ensure coordination.

d) Don Waldorf, PWSA, mentioned his concern over the timeframe to get flow information to ALCOSAN. Allen Fathi offered to set up a meeting to assist in the preliminary flow estimates.

e) Jan Oliver inquired if the Pittsburgh Water and Sewer Authority (PWSA) could use their model rather than the ALCOSAN model. Allen Fathi explained that, if MRB Team incorporates PWSA solution, it might not match the ALCOSAN model. Jan continued, asking whether the model would work even in locations where PWSA is sending all of the flow to ALCOSAN. Steve noted that the MR Basin planning team did find some discrepancies between the outputs of the PWSA and ALCOSAN models but noted that despite these differences, the results of the two models were generally consistent. Mike noted that at the end of this project, there will be a one ALCOSAN model to be used as a basis for a system wide, regional approach.

f) Jan Oliver asked about Spring Garden's Overflow. PWSA noted they have been talking with Reserve Township about it. They know that there will be something done jointly to address the situation, but they do not know what yet. Jan said she heard that there might be a bottleneck in Reserve's system. Gordon Taylor, of Reserve Township, stated that the overflow is not a bottleneck, but sort of a bypass. He concurred that the solutions will be a joint effort of Reserve Township and PWSA.

6) Alternative Evaluation Criteria Weighting Exercise (Karen Brean, Brean Associates and Steve Freedman, Brown and Caldwell).

a) Steve Freedman explained that the MR Basin planning team will be evaluating various control alternatives and the team would like to get input from the Basin Planning Committee on criteria that will be used in the evaluation process. He introduced Karen Brean, of Brean Associates, to lead an exercise to gather input on the relative weights of various evaluation factors.

b) Karen Brean distributed a matrix identifying twenty criteria that fall within the following five broad categories:

1) Economic factors;
2) Public factors;
3) Water quality, public health and environmental impacts;
4) Operation impacts; and
5) Implementation factors.

c) Karen explained that, although the exercise may be done anonymously, the Basin Planning Team would have more insight if your name or who you represent would be included on your completed score sheet. So, for example, it would be important to know whether the prioritization represents the priorities of a municipal manager versus an environmental organization.

d) Karen distributed a scoring sheet for weighting the categories to each attendee, with the exception of representatives of ALCOSAN, AECOM, and the Basin planning team. Each person was provided with 10 dots, 9 dots in blue and one dot in red. They were asked to signify the importance of each category by the placing as many of their dots in each category as they thought prudent. She explained that the red dot carried the same weight as the blue dots, but was to be placed on the category that each person thought was the most important. Placement of the red dot should correspond to the category with the most dots overall.

e) Karen collected the scoring sheets for compilation and presentation back to the group at the end of the meeting.

7) Municipal Outreach (Janette Campbell, Ebony Holdings)

a) Janette Campbell, of the AECOM team, presented an update on municipal and public outreach efforts. She reported that the Customer Municipality Advisory Committee (CMAC) met on March 2, 2010. Key agenda topics included evaluating the draft site screening criteria, municipal advocacy, affordability, preliminary flow estimates, and weighting criteria. Janette also noted that the Regional Stakeholder Group (RSG) meeting would be held on March 16, 2010. At their previous meeting, the key agenda topics included evaluating the site screening criteria, comparative analysis criteria, and CSO control and alternative technologies.

b) Janette reported that Basin public outreach meetings were held throughout November. The primary goal of these meetings was to educate and engage the public concerning the overall Wet Weather Program and the associated issues. The key themes discussed at these meetings included:
   1) Alternatives analysis/facilities sites;
   2) Consent Decree;
   3) Municipal coordination;
   4) Program costs;
   5) Public awareness/engagement; and
   6) Public health.

c) In January and February of 2010, ALCOSAN held the Annual Customer Information Meetings. The goal of these meetings was to provide an update on the status of the Wet Weather Program. The key themes and issues discussed included:
   1) Alternatives analysis/facilities sites;
   2) Consent Decree;
   3) Municipal coordination;
   4) Municipal costs;
   5) Program costs; and
   6) Public awareness/engagement.

8) Financial Update (Mike Lichte, ALCOSAN)

a) Mike Lichte reported that the Alternative Costing Tool (ACT) is being updated and the revised version will be posted to the municipal website. Mike also noted that ALCOSAN continues to be interested in early action projects. He reported that, $225,000 in Federal funding was appropriated in 2010. He also noted that the State has a $4 Million program to promote green infrastructure. Projects such as stream separation for Delafield Avenue might be appropriate for that funding.

b) Mike reported that Three Rivers Wet Weather (3RWW) is currently collecting municipal asset information from communities to be able to compile information about what the region can afford. He noted the importance of this information to the affordability study, and Communities should make sure that their financial data is being reported.

9) Next Steps (Allen Fathi, Chester Engineers)

a) Allen Fathi reported that the H&H model will be given to the communities soon. A final status meeting is scheduled for Monday, March 15, 2010. The H&H Report will be available within two weeks after the model is finalized. He noted that there are not a lot of surprises in the report A lot of the hydrologic responses are very similar. Much of the focus of the Report is placed on the largest overflows.

b) Allen explained that the alternatives analysis will continue. At the next Basin Planning Committee meeting, to be convened in June, there will be more alternatives analysis information presented. He also anticipates that there will be periodic updates as working sessions as the MR Basin planning team gets closer to milestone dates.

10) Action Items (Allen Fathi, Chester Engineers)

a) Allen Fathi stated that he will meet with representatives of PWSA to discuss the projected flows for each sewer shed within the Main Rivers Basin.

11) Prioritizing Exercise – Summary Results (Karen Brean, Brean Associates)

a) Karen Brean presented the results of the criteria category prioritizing exercise as follows:

	Red dots	Blue dots
Economic Factors	50%	19%
Public Factors	33%	33%
Water Quality, Public Health, and Environmental Impacts	17%	27%
Operation Impacts	0%	10%
Implementation Impacts	0%	11%

b) After presenting the prioritizing results to the group, Karen discovered that one of the scoring sheets did not follow the rules outlined. With that sheet disqualified the results would look as follows:

	Red dots	Blue dots
Economic Factors	33.3%	23%
Public Factors	33.3%	35%
Water Quality, Public Health, and Environmental Impacts	33.3%	21%
Operation Impacts	0%	10%
Implementation Impacts	0%	11%

Attachments:

- **Agenda**
- **Attendance Sheet**
- **Power Point Presentation**
- **Screening Criteria Explanations**
- **Screening Criteria Score Sheet**
- **ALCOSAN – Technology Outreach**

ALCOSAN Basin Facilities Planning
Meeting Minutes

Main Rivers Basin
Basin Planning Committee Meeting Number 7
June 29, 2010/10:00 AM
Pittsburgh Water and Sewer Authority
1200 Penn Avenue, 2nd Floor

Attendees: (see attached Sign-in Sheet for complete list of attendees)

1) Introduction and Program Update (Mike Lichte, ALCOSAN, Bill Sukenik, Chester Engineers)

a) Mike Lichte, ALCOSAN, welcomed the group and noted that there had been a lot of progress on the Main Rivers Basin since the last Basin Planning Committee meeting. He explained that the team has started ranking the alternatives and has also undertaken an affordability analysis. He then introduced Bill Sukenik of Chester Engineers.

b) Bill Sukenik introduced the Chester Engineers/Brown and Caldwell Team. He noted that the last meeting of the Basin Planning Committee was convened on March 11, 2010, and that minutes were available for that meeting. He then presented an overview of the meeting agenda.

2) Modeling and PFEs (Bill Sukenik, Chester Engineers)

a) Bill Sukenik reported that H&H Model and Report were distributed to the MR Basin communities and the Pittsburgh Water and Sewer Authority (PWSA).

b) Bill Sukenik noted that the team is still waiting for future conditions projects and is looking forward to discussing any PFE/Basin model differences.

c) Mike Lichte asked about the status of the PFEs from the PWSA, noting that the PFEs from Ross and Reserve Townships will most like rely on PWSA data. Representatives from PWSA stated that they have loaded the model and will be able to get the PFEs to ALCOSAN by mid-July. They further explained that they utilized the Southwestern Pennsylvania Commission (SPC) Cycle 8 population projections through 2035 and extrapolated those projections to 2046. They performed Geographic Information System (GIS) analysis on both the neighborhood and municipal levels. The analysis was weighted to reflect changes in population, usage rates, etc.

d) Mike Lichte asked whether the PWSA analysis made any modifications to the SPC data to reflect conditions specific to the City of Pittsburgh. PWSA representatives stated that, early on, the SPC projections were vetted with staff of Pittsburgh Department of City Planning.

e) PWSA representatives noted that Reserve Township is working with PWSA and that PWSA will simultaneously submit PFEs to Reserve Township and ALCOSAN.

3) Site/Basin Alternatives Development and Evaluation (Steve Freedman, Brown and Caldwell)

a) Steve Freedman presented an overview of the status of the MR Basin planning. He explained that, since the last Basin Planning Committee meeting, the model results have become available. He presented a table of the extent of overflows in the MR Basin noting that there are 101 combined sewer overflows broken down into three types based on overflow volume during the largest storm in the typical year: Type A - less than 1 million gallons (MG), Type B - greater than 1 MG but less than 6 mg, and Type C - 6 MG and greater. The largest overflows (Type As) make up almost 70% of the total annual overflow volume.

b) Steve Freedman presented a map identifying locations of the Type A, B and C outfalls and noted that the largest overflows are not clustered together which means that the problem is not easily solved.

c) Steve Freedman stated that consolidation is very important for addressing the 101 MR Basin overflows. He explained that consolidation would both minimize the number of site alternatives and facilitate optimization of basin alternatives. He further explained that consolidated outfalls need to be associated with at least one potential site to which to bring the consolidated flow. A table was presented showing the outfalls associated with each consolidated flow unit. Currently, the MR Basin planning team has identified 11 consolidated groupings that will be further analyzed. Forty five of the 101 overflows are associated with consolidation alternatives.

d) Bill Sukenik noted that there could be a combination of consolidation and stormwater redirection which could reduce the amount of required "gray" infrastructure.

e) Mike Lichte asked about the criteria for determining whether stormwater redirection would work. Steve Freedman responded that it will be dependent upon the ability to redirect the flow to a catch basin, culvert or other conduit with the shortest length to receiving water for discharge. He also asked about how the MR Basin planning team would take this analysis to the next step. Steve Freedman answered that the team has to look at the costs; if stormwater redirection ends up with a high cost, it would be advisable to look at other issues to bring the catchments into compliance.

f) Matt Smutts, Urban Redevelopment Authority of Pittsburgh, asked about the distinction between stormwater redirection and green infrastructure. Bill Sukenik explained that redirection, for example, to a piped catch basin with direct discharge to receiving water may have little opportunity for biorention or to infiltrate to the ground, whereas green infrastructure is designed to allow infiltration of the redirected stormwater.

g) Jan Oliver, ALCOSAN, noted that, in terms of the evaluation, there is not a differentiation between redirection and green infrastructure. Steve Freedman concurred but stated that the basin planning team has to provide the Project Manager with hydrographs of the storm water leaving the basin. Green infrastructure would reduce that storm water.

h) Matt Smutts noted that putting water into an existing stream bed would be mimicking natural hydrological systems. He asked whether stream beds would have to be shored up. Steve Freedman answered that for the MR Basin, most of the new pipes would be directed into one of the three rivers, not the smaller runs that are more prevalent in the upstream basins.

i) Jan Oliver stated that, when evaluating green infrastructure, it is important to realize that the municipalities would be the entity to encourage/enforce its use. There has to be a desire and commitment on the part of the municipalities, including Pittsburgh. And, if green infrastructure initiatives are not successful, there may have to be other forms of relief put in place.

j) Bill Sukenik explained that green infrastructure could be used as a way to decrease the cost of gray infrastructure. He referred to the EPA web site, Managing Wet Weather with Green Infrastructure (http://cfpub.epa.gov/npdes/greeninfrastructure/technology.cfm#greenroofs) about cities utilizing roof gardens to assist with redirection of storm water, including Chicago and Washington, DC. He noted that, interestingly, four of the 10 Canadian and U.S. cities with the largest amount of roof garden square footage, are in cold climates. Washington, DC planners are looking for 20% roof coverage with roof gardens by 2020. He noted that demonstration projects and earliest available data are noting an offset of two dollars or more of gray infrastructure for each dollar of green infrastructure. The MR Basin team identified 29 sewer sheds that possibly could benefit from green technology.

k) Jan Oliver noted that there may be some benefit to looking at merging controls with other adjacent basins. Steve Freedman noted that, for example, M-29 might be tied into the Upper Monongahela basin and that there could be a shared facility. Another possibility exists with the Upper Alleghany basin.

l) Don Waldorf, PWSA, stated that he does not believe all of the facilities should be located within the City and that overflows should be treated upstream. Jan Oliver said that she understood Don's point but that, many times, transporting the overflow is not cost effective. Mike Lichte added that most of the overflows under discussion do not have upstream flows from other municipalities.

m) Mike Lichte noted that the consolidation analysis is very important, whether it results in a local or regional solution, such as tunnels. Bill Sukenik explained that the analysis so far has been "desktop" and now the MR Basin team needs PWSA and others to share their on-the-ground knowledge.

n) Don Waldorf stated that the City will likely not be interested in utilizing riverfront property for retention. Steve Freedman explained that the actual site area needed for a tunnel shaft would be about ½ acre while treatment could require two or more acres. Matt Smutts noted that, in terms of riverfront development, URA is engaged in the Allegheny Riverfront Master Plan and it makes sense to coordinate the wet weather planning activities with the URA activities. Steve Freedman concurred that it is important to find out now about the potential sites and any planned development.

o) Steve Freedman presented an overview of Basin Alternative MR_BA01. He explained that it is being optimized based on the criteria of consolidation, cost, and site availability. He also reported that Basin Alternative MR_BA02 is a tunnel that would most likely depend on upstream basins and would lend itself to a more regional alternative. Steve explained that any tunnel would likely be designed for both conveyance and storage to minimize the size and cost of downstream pumping and treatment facilities.

p) Steve Freedman gave an overview of the way in which the basin planning team has addressed the 101 outfalls at a WWTP capacity of 600 MGD and a four annual overflow level of control. He explained that 45 of the outfalls are part of the 11 consolidated flow units. He noted that screening and disinfection (S/D) was the preferred technology and that further optimization is required. He reported that 15 of the outfalls do not overflow (at this level of control). The remaining 41 outfalls would have individual site alternatives, including sewer separation / stormwater redirection (24 outfalls), tank storage (3 outfalls), in-line storage (10 outfalls), and S/D (4 outfalls).

q) Keith Jensen, AECOM, asked whether cost was a factor in identifying S/D as the preferred technology. Steve Freedman answered that it was based on guidance from Technical Memorandum 11 and the costing tool, or ACT model.

r) Steve Freedman showed the knee of the curve analyses for both alternatives (BA_01 and BA_02) and noted that the control level of six overflows per year appears to be the most cost-effective at this point in the analyses.

s) Mike Lichte suggested that, when the alternatives are put together, there should be an explanatory write-up accompanying them. Steve Freedman explained that the details of the alternatives will be presented in detail in the Feasibility Report.

t) Don Waldorf asked about the basis for costing. Mike Lichte noted that the costing tool, the ACT, is available on the ALCOSAN municipal web site.

4) Financial Data Collection Status and Affordability Analysis (Tom Schevtchuk, CDM, and Kaye Bealer, K. Bealer Consulting)

a) Kaye Bealer, K. Bealer Consulting, introduced the Financial Capability Assessment. She explained that CSO policy requires considering the permittee's financial capability. She explained that the Assessment is a two-phased process. The first phase, Affordability, the residential indicator, examines the rate payers' ability to pay. The second phase, Financial Management Indicator, examines the permittee's ability to finance.

b) Kaye Bealer explained that the residential indicator is a percentage, with the annual wastewater cost (the sum of ALCOSAN and municipal costs) being divided by annual income. The Environmental Protection Agency (EPA) has established degree of financial impact based on the residential indicator. A residential indicator less than 1% of Median Household Income

(MHI) is considered low, 1 to 2% is considered mid-range, and greater than 2% is determined to be high impact.

c) Kaye Bealer explained how the financial analysis team arrived at defining typical household water usage and then how they arrived at typical household ALCOSAN and municipal costs resulting in a regional typical cost per household of $450.

d) Steve Freedman asked about how this analysis is undertaken where a small municipality has no specific sewer maintenance budget, i.e. costs are lumped together under general expenses or "maintenance". Jan Oliver noted that, in those cases, the bookkeeping on sewer expenditures is nonexistent. She added that the most important message is that the municipal cost factors into what's considered affordable and that we need to get that information. Steve Freedman noted that Three Rivers Wet Weather (3RWW) is going through a data mining exercise to uncover that information.

e) Tom Schevtchuk noted that there are huge variances in MHI between the City of Pittsburgh and other areas. The financial analysis team utilized 2007 census data along with adjustments made due to other statistics. In addition, larger municipalities in the service area have updated figures in the 2007 data and the team was able to utilize them to develop an average weighted annual growth.

f) Kaye Bealer explained that the ALCOSAN service area MHI is $43,200. Therefore, the Residential Indicator is 1.04%, at the low end of the mid-range established by EPA. However, a closer look shows the variation in inter and intra-municipal burden. The municipal MHIs range from $16,500 to $174,000. Within the City of Pittsburgh, the block group MHIs range from $8,000 to $182,000. Therefore, the current block group level residential indicators range from 0.13% to 5.15%.

g) Tom Schevtchuk presented an overview of the anticipated wet weather cost impact and the "Proxy Investment Analysis." Through this analysis, the financial analysis team is able to identify the range of "affordable" wet weather investments that would trigger a 2% residential indicator.

h) Michael Kenney, of PWSA, asked who set the criteria for the acceptable residential indicator range. Tom Schevtchuk responded that they were established by the EPA in 1997. Mike Kenney noted that the model is good but the problem is that this region has such a disparity of income levels. Jan Oliver noted that community income is not directly related to wastewater rates. She added that the presentation highlights the importance of getting the municipal information.

i) Mike Lichte explained that, currently, the engineers are looking for the maximum control for the minimum cost. Bill Sukenik added that there are also non-economic factors to consider and reminded the group that they had ranked the non-economic factors in the previous Basin Planning Committee meeting.

j) Joe Agnello, of KCI Technologies, asked whether it was conceivable that EPA could change its residential indicator impact scale. Steve Freedman answered that he was familiar with one case

where the utility convinced EPA to look at the most disadvantaged community and use that as the 2% number. Bill Sukenik added that Atlanta took multiple tries to demonstrate level of burden. The problem is that the project had to proceed while those negotiations were taking place. By the time a "high burden" finding was accepted by EPA, the City had already bid all of its CSO control projects without the benefit of Consent Decree schedule relief as a measure to manage that level of burden.

5) Program Updates (Mike Lichte, ALCOSAN)

a) Mike Lichte reported that the Customer Municipal Advisory Committee (CMAC) will hold its seventh meeting on August 3, 2010. In addition the Regional Stakeholders Group (RSG) will be holding its seventh meeting on August 12, 2010.

b) Mike Lichte noted that, as mentioned earlier in the meeting, the costing tool has been posted on the ALCOSAN municipal web site. He explained that costs in the costing tool err on the conservative side and that they are based on real projects. He also noted that there is a manual available. Finally, he invited those present to use the municipal web site, noting that new information is constantly being posted.

6) Wrap-up/Next Steps (Bill Sukenik, Chester Engineers)

a) Bill Sukenik noted that the MR Basin planning team would be leaving the maps with PWSA to allow staff to take some time to review the consolidation conduit alignments. He also stated that the team is looking forward to receiving the municipal PFEs and information about future projects. He also explained that there will be a monthly progress meeting between the MR Basin team and ALCOSAN in July and that the next Basin Planning Committee will be scheduled for the fall of 2010.

b) Karen Brean, Brean Associates, and Joe Agnello, KCI Technologies, noted that the next round of basin public forums will be convened in the fall of 2010.

Attachments:

- **Agenda**
- **Attendance Sheet**
- **PowerPoint Presentation**
- **Meeting Notes: March 22, 2010 Basin Planning Committee**

ALCOSAN Basin Facilities Planning
Meeting Minutes

Main Rivers Basin
Basin Planning Committee Meeting Number 8
October 11, 2010/10:00 AM
Location: Pittsburgh Water and Sewer Authority
1200 Penn Avenue, 2nd Floor

Attendees: (see attached Sign-in Sheet for complete list of attendees)

1) **Basin Planning Committee #7 Recap (Mike Lichte, ALCOSAN, Bill Sukenik, Chester Engineers)**

   a) Mike Lichte welcomed the group and noted that there had been a lot of progress on the Main Rivers basin analysis since the last Basin Planning Committee meeting in June. He explained that the team has started to hone in on actual basin alternatives. Mike noted that there will be a lot of interplay between the MR basin alternatives and ALCOSAN's overall regional alternatives.

   b) Bill Sukenik, of Chester Engineers, introduced the Chester Engineers/Brown and Caldwell team and welcomed self introductions around the room. Bill noted that minutes were available from the last Basin Planning Committee (BPC) meeting, convened on June 29, 2010. He reported that, since the last BPC meeting, the Main Rivers (MR) team has developed additional levels of control for the regional based alternatives, advanced the MR site evaluations, executed percent capture calculations, developed enhanced modeling of the MR basin alternatives, completed an initial sensitivity analysis of the implementation of green infrastructure, implemented an electronic data directory, and updated the alternative process diagrams.

   c) Bill presented an overview of the meeting agenda, noting that much of the work completed since the last BPC meeting has been toward the November 1st deadline for the Draft Feasibility Report.

2) **Modeling and PFEs (Steve Freedman, Brown and Caldwell)**

   a) Steve Freedman, of Brown and Caldwell, reported that the MR basin team reviewed reports from the Pittsburgh Water and Sewer Authority (PWSA) on July 28, 2010 providing PWSA's preliminary flow estimates (PFEs) at their ALCOSAN points of connection (POCs). For purposes of developing the PFEs, PWSA stated that no significant expansion of the service area was anticipated and no significant changes to the configuration or condition of the sewerage system were expected. The initial review of the PWSA data has been completed. The total net

increase in flows was quite low and not expected to be of great significance. The projected population increase in year 2046 is 18,000 over baseline conditions. Incorporating the PFEs will not result in a major change to the current model. Nevertheless, dry weather flow (DWF) comparisons will be shown in the Draft Feasibility Report. If the model needs to be updated because of any one shed, the MR basin team will do so.

b) Bill Sukenik reported that the focus of most of the work has been on preparing the Feasibility Report and Present Worth Analysis. The MR basin team first looked at solving the overflow problems without benefit of a regional solution. One of the controls incorporates storage and treatment technologies and the other incorporates source control technologies. The regional-based approach is complex because several other basins flow into the MR basin and affect it hydraulically. The team looked at tunnel alternatives, which need work going forward through coordination with various basins.

c) Steve Freedman explained that each of the alternatives has to be analyzed at five different levels of control ranging from zero to twenty untreated overflows per year. Each alternative at each level of control has been given a unique name.

d) Andy Maul, of PWSA, asked whether the Environmental Protection Agency would look at four overflows as the minimum level of control. Steve Freedman answered that the range of zero to twenty overflows is a standard applied to all seven basins as a common basis for analysis. Andy further asked whether there would be a criterion that would be financially based, such as 13 to 19 overflows. Steve explained that there is no “financially-based” analysis, only a “knee of the curve” analysis to determine the most cost-effective level of control. The work being discussed at this meeting is to develop the knee of the curve with financial considerations being a parallel set of evaluations by others.

e) John Maslanik, Chester Engineers (for PWSA), inquired if under the 4 to 6 overflows per year level of control solution, there would be no sediment. Steve Freedman clarified that the existing PWSA model includes sediment. However, while MR models were to reflect no sediment being removed, the ALCOSAN Program Manager has since requested that one model run for the 4 to 6 overflows per year level of control will look at a condition where interceptor sediment is reduced. Decisions would have to be made as to how to deal with removing the sediment. Mike Lichte asked how the sediment could be removed and would there be a benefit of redundancy, say from a new regional tunnel solution. Steve Freedman responded that, if there would be a new tunnel constructed as a regional solution, dry weather flow could be diverted to the new tunnel to allow cleaning of the existing interceptor tunnel to occur on a routine basis, something that cannot be accommodated now.

f) Steve reported that a variable hydraulic gradient boundary condition with no free discharge is being applied to the preferred basin-based alternative. Percent capture for this alternative has been calculated to be 98.6%. He further reported that source control based alternative fell to the second preferred alternative because of the governance issues associated with it. ALCOSAN does not have the jurisdiction to implement source control at the level of the individual property

owner. Bill Sukenik added that green infrastructure could demonstrate savings over gray infrastructure, so it still makes sense to explore those strategies.

g) Mike Lichte asked how the City of Philadelphia has been faring with putting source control requirements on private property owners. He asked whether they have employed ordinances or fees. Bill Sukenik answered that a document ("A Triple Bottom Line Assessment of Traditional and Green Infrastructure Options for Controlling CSO Events in Philadelphia's Watersheds") was published last fall about the Philadelphia approach and that their objectives go beyond the Clean Water Act to other issues like managing the "heat island" effect of heavy urbanized development and the associated health impacts. They are also looking at a range of financing theories. Mike Lichte added that he had heard that Philadelphia is putting a lot of responsibility on private owners. Steve Freedman noted that the Public Works agency in Philadelphia is the implementing body which has advantages as a City department. In ALCOSAN's situation, they do not have building permitting and zoning control over the individual property owners. And, in addition to the governmental challenges, Philadelphia and Pittsburgh have very different topographies.

h) Steve Freedman reported that the preferred regional-based alternative is conveyance of all flows to the ALCOSAN Wastewater Treatment Plant (WWTP). The second preferred alternative is conveyance and pumping of all flows to a proposed wet weather treatment facility. John Maslanik asked whether the number in the matrix for uncontrolled overflow frequency refers to events per outfall or region-wide. Steve Freedman answered that the number refers to events per outfall on a typical-year basis. That is important in terms of regulatory enforcement as the most frequently occurring CSO establishes the actual level of control for the entire combined system. Bill Sukenik noted that with climate change, there is still uncertainty about the future rainfall picture – intensity of storms and annual rainfall depth. Steve Freedman added that, in Seattle's wet weather planning that has traditionally focused on storage tanks, they now consider two uncertainties – the rising elevation of Puget Sound and climate change.

i) John Shannon, of Three Rivers Wet Weather (3RWW) asked why the percent capture, as calculated by the MR team, is high and whether the team would share their theory on that. Steve Freedman said that they did not want to share the theory until they have had a chance to vet it with the Project Manager and Basin Coordinator. John noted that other basins have also shown high capture rates.

j) Steve Freedman presented an overview of how the data is being organized to mesh with the other basins. He gave an illustration of the level of detail for each of the unique alternatives, noting that each alternative will have a schematic with flow rates, pipe sizes, etc.

3) Feasibility Report and Present Worth Analysis (Steve Freedman, Brown and Caldwell and Bill Sukenik, Chester Engineers)

a) Steve Freedman presented an example of a basin-based alternative – BA03. He noted that, for this retention treatment basin (RTB) alternative, the assumption is that the level of control

would be met on the basin level, with no new conveyance capacity, WWTP capacity and with existing sediments in the ALCOSAN interceptor tunnel. Mike Lichte asked whether, for this alternative, it is assumed that there would be flow received from other basins. Steve responded that the alternative assumes some flow from other basins. He also noted that the Basin Alternative location map shows purple shaded areas at sites where there is no room for an RTB. Those areas would revert to screening and disinfection because of their smaller footrpints. Bill Sukenik reiterated that, because of the urban setting, there are places where RTBs will not work. Steve noted that controls for A-48, in the vicinity of PNC Park, would default to source control technologies because it is very difficult to find enough room for a storage or treatment control alternative in that area.

b) John Shannon asked about sewer separation for the Central Business District (CBD). Steve Freedman answered that sewer separation would be extremely disruptive and very expensive, and they would first suggest source control and storm water redirection.

c) With regard to control of the CSO near PNC Park (A-48), Don Waldorf, PWSA, noted that the area between the railroad tracks and the river already has separated sewers. He suggested that the sewer coming down Mazeroski Way could be used. Steve answered that, for a tunnel solution, a shaft could probably be located in proximity to Mazeroski Way, but accommodating flow through treatment facilities, e.g., RTB, would be much more difficult due to the land area that would be required. Don also stated that the area from Federal Street to the West End Bridge has been seeing new development with separate sewers.

d) Bill Sukenik noted a large CSO at Boundary Street (M-29), could provide a coordination opportunity with the nearby Upper Mon. basin. Steve Freedman added that the Upper Mon basin is looking at satellite secondary wastewater treatment for that area, so it could make sense to bring the M-29 flow to that satellite facility. This opportunity will be vetted during development of a regional solution. Mike Lichte noted that the scenario still would mean increased conveyance to the ALCOSAN WWTP.

e) Steve Freedman noted that the MR team is completing Phase 1 Site assessments for key alternative sites with information on setbacks, buffers, etc. Over 60 sites were initially considered; 22 now remain. Mike Lichte noted the sensitivity of private property issues, such as the property owned by the Regional Industrial Development Corporation (RIDC). Don Waldorf noted that PWSA has had conversations with RIDC and with the Mon Valley Initiative about culverted streams being daylighted.

f) Steve Freedman reported that, whereas the development of basin-based control alternatives was quite constrained by the size of available sites, the regional-based solution could be less constrained in that a much smaller footprint may be needed for a tunnel shaft that would be needed to accommodate a Retention Treatment Basin (RTB). He explained that the above-ground footprint for the RTB facility is smaller than the below ground footprint. The footprint in plan view for an RTB ranges from a small one at 80 feet by 80 feet to a large RTB at 195 feet by 195 feet.

g) Steve Freedman presented a map showing the regional-based alternative, BA13, tunnel conveyance. He explained that the alternative has a lot more flexibility and creates less short- and long-term impact on the landscape. John Maslanik asked about the white (non-shaded) areas on the map, corresponding to the west end of the basin and to the Central Business District (CBD). Steve Freedman explained that, through model optimization, flow is more controlled upstream allowing flow downstream to get into the existing system without new shafts. Andy Maul asked if the existing interceptor tunnel would have the ability to be taken out of service for maintenance. Steve Freedman answered that, if a new structure were built and there was the ability to gate off the downstream side on the existing structure, they would be able to shed all of the dry weather flow into the new tunnel, thereby allowing cleaning. Steve further noted that under normal operation the new tunnel would be dry except during wet weather events. Bill Sukenik added that ALCOSAN and the PM have looked at patented equipment used to clean big tunnels. Steve also noted that, given the tunnel option, there would not have to be any major changes to the system in the Central Business District (CBD), with the exception of the possible addition of some regulators. Don Waldorf asked about how the tunnel would be discharged. Steve answered that the tunnel discharge would have to be pumped and, in fact, the assumption is that the new tunnel should be as deep as, or deeper than, the existing tunnel.

h) Bill Sukenik explained that, for cost estimating, the MR basin team has been using a cost tool ("ACT") universal to the seven planning basins. He noted that the team is looking at estimating the "knee of the curve" -- a point beyond which the incremental cost of a control is much more than the incremental amount of benefit received -- combining modeled and spreadsheet analysis and will be submitting the Feasibility Report on November 1 with this cost information. Bill also provided a status report on the models to be submitted.

i) Bill Sukenik presented the work plan flow chart prepared by the ALCOSAN Program Manager. He explained that the team began with developing the H&H model and with the Screening of Controls and Sites. The critical path is getting from the draft Feasibility Report (to be submitted November 1, 2010) to the end of 2012, and ultimately to the preparation of ALCOSAN's Wet Weather Plan. Facilities planning of the preferred basin- and regional-based alternatives will be undertaken in 2011. Water quality analysis is also going on and will feed into the basin facilities plan. Bill added that the MR team needs input from the municipalities on any new or subsequently planned municipal collection system improvements that could affect ALCOSAN overflow solutions. This is required before finalizing the Feasibility Report in 2011 and continuing with preparation of the facilities planning.

j) Mike Lichte reiterated the need for municipal input on planned collection system improvements that could affect ALCOSAN overflow solutions within the next six months. The input will be more critical in some areas than others. He also noted that public comment is scheduled for six months before the submission date, which would put public comment in mid 2013.

k) Tom Gigliotti, PWSA, asked about when affordability will become part of the mix. Steve Freedman answered that the affordability analysis is ongoing and it will be available right before the plan goes out for public comment. Tom noted that he believes people will balk at the

expense. Steve explained that ALCOSAN signed a Consent Decree with fixed dates. If the cost is not affordable through the period of full compliance, causing a high burden to the ratepayers, the Environmental Protection Agency may allow a longer implementation period for the capital projects that relieves the burden to a moderate level. The Environmental Protection Agency does not historically make grants for capital wastewater projects, but, as noted above, could add time to consent decree compliance dates in order to spread project costs out. Steve further noted that another possible approach could be to do a more affordable level of control while everyone "gets on the green wagon" which ultimately could result in reduced capital and/or operations and maintenance costs while achieving water quality requirements. This approach would have to be negotiated with the Environmental Protection Agency.

l) Don Waldorf noted that PWSA's policy is that all new development has separated sewers.

4) Program Updates (Mike Lichte, ALCOSAN)

a) Mike Lichte reported that the Customer Municipality Advisory Committee (CMAC) met on August 3, 2010. He noted that Mickey Kenney, of PWSA, has raised the affordability issue at the CMAC. At the August meeting, the CMAC discussed the 3RWW Regionalization Request for Proposals and the Wet Weather Program's public participation and outreach efforts. They are also continuing to communicate with elected officials to inform and engage them in the planning process.

b) Mike Lichte noted that the Regional Stakeholders Group (RSG) met on August 13, 2010 and discussed many of the same issues.

c) Joe Day, of ALCOSAN, provided information on the upcoming public forums. He stated that, in addition to the basin-specific public forums, a daytime, region-wide meeting has been scheduled for Thursday, November 4, from 10:00 AM to 4:0 PM, at the Senator John Heinz History Center, where parking will be available. He noted that there has been extensive outreach for this round of public forums and invited participants to join ALCOSAN's Facebook page.

5) Next Steps

a) Bill Sukenik provided an overview of the project's next steps. He reiterated that the Draft Feasibility Report will be submitted on November 1st. He also noted that the MR team needs to schedule a meeting with PWSA staff to further discuss sewer separation and in-line storage concepts as measures to achieve desired CSO level of control. They will plan to meet after the submission of the Draft Feasibility Report.

b) Don Waldorf stated that PWSA will be revising their own feasibility study. This will tentatively be completed by March, 2011.

c) Bill Sukenik noted that the next Basin Planning Committee meeting will be convened early in the first quarter of 2011.

d) John Shannon asked whether there is a cost estimate available for the regional based alternative. Steve Freedman answered that an early preliminary cost estimate was prepared and includes both the regional and MR basin alternatives. Mike Lichte noted that ALCOSAN will be working with CDM, the Program Manager, to look at regional solution costs.

Attachments:

- Agenda
- Attendance Sheet
- PowerPoint Presentation
- Meeting Notes: June 29, 2010 Basin Planning Committee

ALCOSAN Basin Facilities Planning
Meeting Minutes

Main Rivers Basin
Basin Planning Committee Meeting Number 9
February 24, 2011/10:00 AM
Location: Pittsburgh Water and Sewer Authority
1200 Penn Avenue, 2nd Floor

Attendees: (see attached Sign-in Sheet for complete list of attendees)

1) Basin Planning Committee #8 Recap (Mike Lichte, ALCOSAN, Bill Sukenik, Chester Engineers)

a) Mike Lichte welcomed the group and asked those in attendance to introduce themselves. He noted that the Main Rivers (MR) Basin team has started working on the MR Basin Facilities Plan, due in the fall of 2011.

b) Bill Sukenik, of Chester Engineers, presented an overview of the meeting's agenda and a recap of the areas that were discussed in the previous Basin Planning Committee (BPC) meeting, convened on October 11, 2010. Bill noted that minutes were available from that meeting. He also noted that the MR Basin Quarterly Activity Report was in the mail and that a limited number of copies were available at the meeting.

2) Basin Feasibility Report (Bill Sukenik and Mark Scally, Chester Engineers)

a) Bill Sukenik provided an update on activities since the last BPC meeting. The Draft Basin Feasibility Report was submitted to ALCOSAN on November 1, 2010. The Report contained a combination of background, basin-based and regionally-based solutions, along with estimated preliminary costs for those alternatives. The Report was subjected to an intensive review by the Basin Coordinator, the Project Manager, and ALCOSAN staff. The MR Basin team is in the process of preparing a response to the review comments, and anticipates that there will be a number of related report revisions.

The MR Basin team is currently analyzing the MR components of two system-wide control alternatives - 85% capture of wet weather flows (known as Alternative 5) and total sewer separation of selected areas. In addition the Program Manager has begun to look at system-wide conveyance tunnel alternatives.

b) Mark Scally clarified the difference between the basin based and regional based alternatives. He defined the basin based alternative as the first of two broad control strategies that the Basin Planner is using to frame the development of the basin alternatives. In this scenario, the assumption is that the maximum release rate at the downstream end of the planning basin to the Wet Weather Treatment Plant (WWTP) will not exceed the hydraulic capacity of the interceptor

in existing conditions. The basin based alternatives focus on facilitating control of CSOs by way of storage and/or treatment within the MR Basin.

Mark explained that the regional based alternative is the second broad control strategy used to frame the development of the basin alternatives. In this case, the assumption is that ALCOSAN's regional conveyance facilities will be able to convey peak flows from the MR Basin to the ALCOSAN WWTP, and that the WWTP would have a treatment capacity of 600 mgd during periods of wet weather. The regional based alternatives focus on options for conveying as much flow to ALCOSAN as possible, and storing and/or treating the remaining overflow volumes. In the latter case, there would be a system of new tunnels, likely in close proximity to the three rivers in the basin. Overflows would be properly controlled to a predetermined level (fixed frequency of CSO events per year) and introduced into the tunnels.

c) Mark Scally explained that the MR Basin Planner is evaluating and sizing control facilities for the following basin alternatives:

1) Storage and conveyance of wet weather flow via conventional tunnel to ALCOSAN WWTP fortreatment (1st preferred regional-based alternative);
2) Conveyance of wet weather flow via conventional tunnel to a proposed treatment center on Brunot Island for treatment (2nd preferred regional-based alternative); and
3) Collection, storage, and, if needed, treatment of all wet weather flows not conveyed to the ALCOSAN WWTP at several CSO control facilities located within the MR Basin (1st preferred basin-based alternative).

d) Mark Scally noted that the MR Basin Feasibility Report included information that looked at sewer separation for the entire MR Basin. It also looked at the feasibility of sewer separation per sewer shed for the basin-based and regional-based alternatives.

He also explained that basin alternatives 5 and 7 are focused on 85% capture and treatment of all system flows. He explained that basin alternative 7 is a hybrid of basin alternative 5. It also focuses on 85% capture, but utilizes information from other basins as well so holistic water quality implications are taken into consideration, not just those of the MR basin.

e) Mark Scally explained that the Draft Basin Feasibility Report also describes a 2nd preferred basin-based alternative that maximizes the use of source controls, such as sewer separation, inflow reduction, storm water redirection, and green infrastructure, with the remaining flow conveyed to the ALCOSAN WWTP. Based on preliminary feasibility comparisons against the 1st preferred basin-based alternative, this alternative was not analyzed any further as a complete basin alternative. Nonetheless it was noted that the source controls evaluated in this alternative could prove to be effective as a means for controlling or optimizing an individual overflow that is part of the 1st preferred basin-based alternative. As a result, he noted that portions of this alternative should be kept under consideration.

f) Mark Scally presented a matrix identifying the basin based and regional based alternatives. He noted that BA03 is the 1st preferred basin based alternative at a 4 to 6 overflow per year level of

control. Bill Sukenik presented a summary map of alternative BA03, showing the sewer sheds and their respective controls. For the most part, the individual sewershed controls are retention treatment basins. In addition, an area at the east end of the MR basin would be controlled by way of a compact screening and disinfection facility due to limited site availability – there doesn't appear to be enough room to accommodate the footprint of a retention treatment basin. For the downtown area and the rivers' edges, the controls include storage tanks, sewer separation, and the maximization of existing system storage and conveyance capacity.

g) Paul Eiswerth, of the Pennsylvania Department of Environmental Protection (DEP), asked why there were areas on the BA03 summary map that were marked "not applicable". Mark Scally responded that the MR Basin has some compliant SSOs. Paul Eiswerth stated that any SSO discharge is non-compliant. Bill Sukenik clarified that the areas in white on the summary map, corresponding to "N/A" on the legend, refer to areas where no improvement is required to meet the 4 to 6 CSO events/year level of control.

h) Tom Flanagan, of DEP, asked whether the basin alternatives were based on taking all flows from the municipalities, such as Penn Hills. Mark Scally answered that the only other municipalities that affect the MR Basin flow are Ross and Reserve Townships. The Basin Planner utilized the Ross and Reserve Preliminary Flow Estimates (PFEs) and came up with the flows that were analyzed for the basin alternatives. Bill Sukenik added that the Basin planning team will work with Don Waldorf, of the Pittsburgh Water and Sewer Authority (PWSA), to confirm the numbers utilized for Ross and Reserve. Mike Lichte noted that, in general, the PFEs seem to be consistent with the assumption.

i) Mark Scally presented a slide of the MR Basin based alternatives as well as those of the other six planning basins. He noted that there are a number of storage facilities identified in the surrounding basins. Because of the density of development in the MR Basin, the MR team has only been able to identify a limited number of sites suitable for storage or treatment facilities. He presented a diagram showing one of the proposed control facility sites for BA03, which is the preferred basin based alternative. This was a proposed screening and disinfection facility along the Allegheny River at the northern end of the Strip District. The slide illustrated the complexity of constructing a proposed control facility and consolidation pipes in this area, with neighboring buildings, infrastructure, and with limited options for other available sites.

   Mark Scally also presented a diagram of BA43, the preferred regional based alternative, identifying drop shaft locations along the proposed tunnel for conveyance to the ALCOSAN WWTP. Although the Program Manager has taken on the task of designing the tunnel alignment from this point, he explained that the possible differences in tunnel alignment discussed thus far will not have a significant impact on the MR drop shaft locations. The Basin Planner is now analyzing the benefits of adding more proposed drop shaft locations in lieu of proposing lengthy CSO consolidation pipes. For instance it may have made sense to propose a lengthy consolidation for controlling many CSOs to a proposed control facility associated with a high capital cost and complex siting issues. But the estimated capital cost for an additional drop shaft is most likely less than a control facility and will require much less room to construct, therefore considering more drop shafts would likely be feasible.

j) Mark Scally noted that the MR Basin planning team has also been involved in inter-basin coordination. They are looking at possible shared facilities including a joint remote CSO facility with the Upper Mon Basin and a facility near A-35 to be shared with the Upper Allegheny Basin. They are also in the early stages of examining the opportunity to have flow conveyed from the Lower Ohio/Girty's Run Basin to the control locations identified along the Allegheny River.

k) Jan Oliver, of ALCOSAN, presented the five options that ALCOSAN proposed in response to the Three Rivers Wet Weather (3RWW) Request for Proposals (RFP) for Regional Optimization. The five options proposed by ALCOSAN were to:

1) Build, operate, and maintain wet weather control facilities;
2) Build, operate and maintain select inter-municipal trunk sewers;
3) Contract, operate, and maintain municipal sewers and facilities;
4) Build, operate, and maintain sewage and storm water facilities within the ALCOSAN service area; and/or
5) Own, operate, and maintain sewage and storm water infrastructure throughout the County.

l) Jan Oliver reported that ALCOSAN's proposal did not get funding from 3RWW. ALCOSAN is now looking to private foundations for potential funding, possibly from the Allegheny Conference on Community Development. She added that with our without outside funding, ALCOSAN is proceeding with development of their Regional Optimization study.

ALCOSAN is also looking to gain knowledge from the CSO control experiences of other cities across the country.

m) Michele Buys, of the Allegheny County Health Department (ACHD), asked about ALCOSAN's timeframe for completing the Regional Optimization study. Jan Oliver stated that the time frame is anticipated to be 18 months.

n) Don Waldorf noted that PWSA will make an award by March to engage a firm for a storm water utility study. Three firms have been shortlisted and interviews are in progress. The study is slated to take 6 months.

3) Municipal Feasibility Studies (Bill Sukenik and Mark Scally, Chester Engineers)

a) Mark Scally reported a limited amount of PFE information was included in the November 1 Draft Basin Feasibility Report. He noted that there were some differences between the numbers received from PWSA and those of the Basin Planner, and that they are working through any discrepancies. Mark added that these are few in number.

b) Bill Sukenik reported that the Basin Planner has a March 4, 2011 deadline to respond to the review comments received from ALCOSAN on the Draft Basin Feasibility Report. He added that, as of last July, there were no envisioned significant PWSA collection system changes that might influence MR CSO control solutions, but the Basin planning team would like to revisit that. By this June, the Basin planning team will move into facilities planning and will want to synchronize this effort with any new PWSA information on its collection system. The Basin

planning team has looked at some potential sites for controls, and would like to discuss them with PWSA staff, particularly in relation to compatibility with any on-going or proposed site planning.

c) Don Waldorf reported that PWSA will have their Final Flow Estimates completed by April. He also stated that PWSA is requiring all new developments to have separated sewers. PWSA is currently working with Buncher Development Company on their plans for the Strip District redevelopment. The Buncher Company will move forward to separate sewers in the area from 16th to 21st street along the Allegheny River.

d) Gordon Taylor, of Senate Engineering, the Reserve Township Engineer, reported that he plans to meet with PWSA to coordinate and finalize Reserve Townships PFEs.

e) Mike Lichte asked whether there was any news on green developments from the Pittsburgh Urban Redevelopment Authority (URA). Matt Smutts, of the URA, reported that Councilman Peduto recently passed legislation at City Council to require Tax Increment Financing projects greater than $1M to have 95% capture. He noted that the Pittsburgh Department of Public Works should be involved in these discussions. He also mentioned that the cities of Seattle and Portland are doing a lot of green solutions in the right of way.

   Don Waldorf noted that PWSA does not control the ground surface above their water and sewer lines and, furthermore, he is concerned about legal issues with the cart way. Matt followed up, asking about whether Green Controls could be pursued in the area adjacent to the right of way. Tom Gigliotti, of PWSA, mentioned that that their storm water utility study will look at encouraging developers to incorporate green solutions and that Dwayne Ashley will represent the Mayor's office in the upcoming interviews with proposing teams.

f) Matt Smutts noted that the Urban Redevelopment Authority's (URA) recently published Allegheny Riverfront Plan has a twenty-year plan. He stated that the URA would be interested in coordinating with ALCOSAN and that there might be an opportunity to accommodate the controls under the current plan.. Mike Lichte stated that ALCOSAN needs to take a hard look at the Plan and explore the possibilities for the integration of ALCOSAN and URA projects. He noted that ALCOSAN staff met with Rob Stephany, Executive Director of the URA, a few months ago and they need to follow up.

g) Bill Sukenik noted that the Draft Basin Feasibility Report looked at opportunities for green controls for areas with a threshold of ½ acre roofs and ½ acre or more of ground level parking. This threshold was estimated to ensure further analysis would be focused to areas where potential impact could be realized. These opportunities were incorporated into the model. They did not look at pervious street pavement, pervious sidewalks, rain gardens or rain barrels. In some cases, with these green solutions in place, some of the smaller CSOs would not need additional gray infrastructure to achieve the possibly needed level of control.

4) Program Updates (Joe Day and Mike Lichte, ALCOSAN)

a) Joe Day, of ALCOSAN, reported on the Customer Municipality Advisory Committee (CMAC) meeting that was convened on November 3, 2010. Items presented included the 3RWW Feasibility Studies Working Group memorandum on issues critical to the feasibility process and 3RWW's Regionalization RFP. The group also discussed ALCOSAN's rates, scheduling conflicts, and the basis for basin planning and design. At the next meeting, scheduled for March 1, 2011, the members plan to discuss municipal advocacy and updates on the basin planning report and the regionalization study.

b) Joe Day noted that the Regional Stakeholders Group (RSG) last met on November 16, 2010. The meeting included a presentation by Michael Kenney on PWSA's intent to issue an RFQ related to the formation of a Stormwater Utility. It also included discussion of green technologies and a review by 3RWW of regionalization ideas. The next meeting will be convened on March 17, 2011.

c) Mike Lichte noted that ALCOSAN would like PWSA to continue to attend the CMAC and RSG meetings. Michael Kenney, who has recently left his position with PWSA, had been attending those meetings. Tom Gigliotti said that he would place the meetings on the PWSA calendar to make sure that staff would attend.

d) Joe Day provided an overview of the ALCOSAN 2010 community meetings. The meetings provided the public with a review of the basin alternatives development process, potential basin solutions, the annual Customer Information Update for 2010, and an opportunity to interact with ALCOSAN staff and with the Basin Planners. Ten meetings were held, nine in the basins and one downtown.

e)

The first part of the meetings was an update on the Consent Decree and the second part of the meetings was a presentation specific to the basin community. Overall, about 200 people attended the 2010 community meetings. Interests and comments included common wet weather technologies and their impact on surrounding communities and residents, implementation and scheduling of green technologies, and overall interest in continued opportunities for the public to be educated around the wet weather issue.

5) Summary of Meetings (Bill Sukenik, Chester Engineers)

a) Bill noted that the MR Basin team met with the Department of City Planning in November of 2010. They reviewed two sites along the Allegheny River and four sites along the Monongahela River, discussing current and proposed property ownership and use.

The MR Basin team also met with staff of the URA in December of 2010. They discussed Riverlife's Ohio River project objectives, the URA's Vision Plan, with emphasis on green infrastructure and green design objectives, and four identified sites for input on current use and future proposed development. The MR Basin team found out, through discussion, that there are a few sites that are not appropriate for controls. The dialogue remains open; Riverlife does not want to upset property owners at this stage but want continued help on the site viability from the City government's perspective.

b) Jerry Brown, of 3RWW, reported that, at the managers meeting on January 31, there was a discussion to make sure that the managers were aware of their obligations with respect to the ALCOSAN orders. He added that there are two meetings planned to reengage the solicitors during which there will be similar presentations on regulatory content, presented by the Department of Environmental Protection. He also noted that the Feasibility Study Working Group is now meeting once per month. Tim Prevost, of ALCOSAN, at the January 31, 2011 meeting presented information about the kind of data to be submitted with a format for submitting final flow estimates.

c) Michele Buys, of ACHD, asked how municipalities can get this FFE information if they do not attend the Working Group. Mike Lichte stated that the information can be shared with them. Jerry Brown explained that the format is a summary table, to accompany the municipal FFE submittal, to make sure that all of the criteria have been covered. Jan Oliver, of ALCOSAN, stated that ALCOSAN would email the format to all of the municipalities.

6) Next Steps (Bill Sukenik, Chester Engineers)

a) Bill Sukenik provided an overview of the project's next steps. He noted that they need to obtain draft Municipal Feasibility Studies by April 2011 and will be busy as they move to June for the conclusion of the Feasibility Report. The Basin planning team will be undertaking more detailed development of the first preferred MR Basin basin-based and regional-based alternative, including cost estimates, control facility site plans, and non-monetary factors, etc. The team will also coordinate with ALCOSAN to assess various regional-based control alternatives. The municipal FFE's and/or Feasibility Reports will be reported in Chapter 5 of the Basin Facilities Plan. Finally, the next MR Basin Planning Committee will be convened in June to wrap up the Feasibility analysis. Facilities planning will be undertaken in the second half of 2011.

b) Paul Eiswerth, of DEP, asked whether the June BPC meeting will have more emphasis on the regional basin alternatives and their impact on other basins. Mike Lichte answered that the Program Manager is still working through that analysis. It will be presented, but it is unclear, at this point, how much detail will be presented. Jan Oliver added that the work will be further along and that they are analyzing the affordability to determine whether it will be a full plan or a phased plan. Bill Sukenik noted that Cincinnati has a phased approach and that, if Pittsburgh were to pursue a phased plan, they could perhaps be more aggressive with green solutions now and resolve any related underperformance issues in a later phase of improvements implementation. Paul Eiswerth stated that the Environmental Protection Agency should be brought into these discussions. Jan Oliver agreed and noted that ALCOSAN is planning to do so in April to be able to get answers that could impact their analysis and resultant priorities.

Attachments:

- Agenda
- Attendance Sheet
- PowerPoint Presentation
- Meeting Notes: October 11, 2010 Basin Planning Committee

ALCOSAN Basin Facilities Planning
Meeting Minutes

Main Rivers Basin
Basin Planning Committee Meeting Number 10
May 26, 2011/10:00 AM
Location: Pittsburgh Water and Sewer Authority
1200 Penn Avenue, 2nd Floor

Attendees: (see attached Sign-in Sheet for complete list of attendees)

1) **Basin Planning Committee #9 Recap (Mike Lichte, ALCOSAN, Bill Sukenik, Chester Engineers)**

   a) Mike Lichte welcomed the group and asked those in attendance to introduce themselves. He noted that the Main Rivers (MR) Basin team is completing the MR Feasibility Report Update, due July 1, 2011, and has started working on the MR Basin Facilities Plan, due in the fall of 2011.

   b) Bill Sukenik, of Chester Engineers, presented an overview of the meeting's agenda and a recap of the areas that were discussed in the previous Basin Planning Committee (BPC) meeting, convened on February 24, 2011. Bill noted that hard copies of the meeting minutes were available for those interested at the sign in table.. He also noted that the MR Basin Quarterly Activity Report would be distributed following the BPC meeting.

   c) Bill Sukenik stated that the schedule that was issued by the Program Manager for 2011 shows a submittal date of July 1, 2011 for the Feasibility Report Update. Following that submittal, the Draft Facilities Plan will be due at the end of October, 2011, and the Final Facilities Plan due December 30, 2011. The work of the MR Basin team is expected to conclude during the first quarter of 2012.

2) **ALCOSAN Feasibility Report and Basin Facilities Plan (Mark Scally, Chester Engineers)**

   a) Mark Scally explained that the MR Basin team received comments from ALCOSAN on the Draft Basin Feasibility Report in January, 2011. The team then provided a preliminary response to those comments and participated in a follow-up workshop to discuss the comments and respective responses. As a result, the team eliminated major regulator modifications from consideration and refined outfall consolidation concepts. Also, the MR Basin team, along with the ALCOSAN project manager and basin coordinator, walked many of the sites to assess the feasibility of consolidation concepts, facilities and/or drop shafts. One of the major challenges is the lack of appropriate sites for facilities and drop shafts to the existing tunnel or to a new

tunnel. Mark also noted that the Basin Feasibility Report Update will include two new sections: Integration of Municipal Alternatives (Section 5); and Regional Integration (Section 6).

b) Mark Scally provided an update on coordination with the Lower Ohio/Girty's Run (LOGR), Upper Allegheny (UA), and Upper Monongahela (UM) Basins.

Coordination with the LOGR Basin would most likely result in conveying flows down from the LOGR Basin to various MR control locations along the Allegheny River. Sites 9 and 56 within the MR Basin would be shared under the Basin Based scenario alternative and sites 71 and 56 would be shared under the Regional Based scenario alternative.

Since the last BPC meeting, more rigorous analysis was undertaken regarding coordination with the UA Basin for a shared facility near A-35. In the Basin Based scenario alternative, the cost would be approximately the same to move the MR flow to a proposed control facility identified by the UA Basin team as it would be to control the flow via a separate proposed control facility within the MR Basin. Conveying flow to the UA Basin would result in one less site to acquire and one less facility to operate and maintain. For the Regional Based scenario alternative, the evaluations determined that including two proposed drop shafts, one in each of the MR and UA Basins, would be most suitable to control those flows.

Finally, analysis has continued regarding a joint CSO facility with the UM Basin. The MR Basin Planner prefers the proposed site location to be as close as possible to the M-29 regulator structure located near the border of the MR and UM Basins, in the Boundary Street area. This preference is due to the excessive cost for conveying flow to any other sites such as the one identified in the UM Basin A similar evaluation for the Regional Based alternative scenario suggested the same location for a proposed drop shaft.

c) Mike Lichte, ALCOSAN project manager, noted that the Pittsburgh Water and Sewer Authority (PWSA) has an existing water line in the Boundary Street location. Don Waldorf, of PWSA, added that there may be some coordination required between PWSA and ALCOSAN, regarding a possible "green" initiative in nearby Panther Hollow.

d) Matt Smutts, of the Urban Redevelopment Authority, asked about the typical size of a proposed drop shaft near M-29. Mike Lichte responded that the construction would require about an acre but the finished drop shaft would have a footprint of about one quarter acre.

e) Mark Scally reported on the additional alternatives evaluated by the MR Basin team since the last BPC meeting. He noted that 100% sewer separation has been evaluated on a basin-wide basis. The results indicated a total present worth of $3.6 billion which was recognized as the highest cost alternative. Additionally, the team has also evaluated sewer separation by sewershed during Basin Based and Regional Based scenario alternatives refinement. It was found that sewer separation can play a vital role to control overflows in some areas, particularly where siting/conveyance of control facilities was extremely challenging, where minimal control was required, or where new development is proposed. Currently, the use of sewer separation as

a site alternative, whether it is defined by sewershed or some portion within a sewershed, remains a conservative approach during alternatives development, but the potential for source control and green technologies could play a critical role as the effectiveness and benefits of these opportunities are explored in comparison to more costly sewer separation.

f) Mark Scally explained that a significant development proposed in the Strip District provides potential for sewers in the lower portions of the sewer sheds to be separated as new work progresses. Consequently, the Feasibility Report Update will identify separation for that area. He also noted that the remaining portions of the sewer shed near Penn Avenue in the Strip District, with combined sewers, will need to be addressed. The amount of additional separation needed depends on the level of CSO control required.

g) John Maslanik, of PWSA (Chester Engineers), stated that the MR Basin's team approach of looking at incremental solutions is extremely valuable to PWSA. Bill Sukenik added that the team is looking at a more granular approach to source control as alternatives are being narrowed down. More detailed attention can be given to some select areas as the MR Basin team wraps up the Feasibility Report Update.

h) Paul Eiswerth, Pennsylvania Department of Environmental Protection, stated that, whereas the MR Basin planning team was talking about targeted sewer separation, he did not see targeted separation in PWSA's future flow estimates. He asked about the effectiveness of communication between PWSA and the MR Basin team that is needed to ensure that their information would be coordinated.

i) Mark Scally explained that the MR Basin planning team has met with PWSA staff to discuss sewer separation areas. Talks are on-going and the resultant information will be incorporated into the MR Basin analysis. Paul Eiswerth noted that PWSA's submittal also should reflect the same ideas as well and voiced his concern that the "window for coordination" may be closing quickly. Mike Lichte noted that the implementation of the controls will take time, requiring property acquisition, additional studies, preliminary design, etc. He added that, although the analyses were begun separately, they are converging and will result in the optimization that needs to take place.

j) John Maslanik stated that, given the analysis completed by the MR Basin planning team, PWSA can now revisit the PWSA Preliminary Draft Feasibility Study. Don Waldorf added that the short term solution is retention/storage and the long term solution is separation.

k) Mark Scally reported that Basin Based Alternative 5 shows an 85% capture of untreated overflow volume by the receiving stream. It identifies a Retention Treatment Basin (RTB), at M-29 and near A-22, with a total present worth (TPW) of $56 million. Bill Sukenik noted that the low TPW is a result of the need for minimal additional controls within the existing system to achieve 85% capture.

l) Paul Eiswerth stated that the regulators are skeptical about "85% capture" satisfying the needed level of control to achieve water quality standards. Bill stated that the 85% capture analysis was performed under the presumptive approach per the CSO Rule and understood that it provided minimal control in comparison to the other alternatives evaluated, i.e., various levels of control reflective of 2003 typical year rainfall. Mike added that 85% capture analysis provides valuable information and can help with the phasing of construction such that initial phases meet 85% and later phases meet higher levels of control.

m) Mark Scally presented BA63, the preferred Basin Based Scenario Alternative. He noted that it achieves a 4-6 OF/year level of control. The Alternative includes eight RTBs, six screening and disinfection facilities, three storage tanks, and 19 locations for sewer separation. Since the November 1st submission, the team has taken a more conservative approach in its analysis of this Alternative by eliminating major regulator modes from consideration and by refining overflow consolidation concepts. Consequently, the refinement resulted in a substantially higher TPW than originally reported.

n) Mark Scally explained that the Basin Based Scenario Sewer Separation Alternative has a TPW of $3.6 billion. This cost has been refined since the Nov 1 submittal based on more detailed analyses of land use. It includes both private structure tap-ins as well as public infrastructure construction required for total separation. The high cost reflects the fact that the area to be separated is comprised of commercial, industrial, and high density residential land uses as well as the downtown area.

o) Mark Scally stated that BA73, the Preferred Regional Based Scenario Alternative, consists of 27 drop shafts to a new regional tunnel and nine locations for sewer separation. He noted that the TPW of $360 million only includes surface construction activities, such as consolidation conduits, new regulator structures, and site costs. The Program Manager is responsible for costing drop shafts, tunneling, tunnel dewatering pumping and treatment, and those costs will be combined with the MR costs when system-wide alternatives are further developed.

3) System-wide Analysis and Alternatives (Mike Lichte, ALCOSAN)

a) Mike Lichte presented an overview of the way in which the MR Basin planning fits into the overall Wet Weather Plan process. He explained that the Municipal Controls and Future Flow Estimates provide the foundation for the MR Basin Alternatives and analysis. The Basin Based Alternatives have resulted in 37 proposed facilities across the system. In this scenario, the flows from each basin are handled without improving the interceptor capacity. With a tunnel based control scenario, significantly fewer facilities would be needed. The Program Manager is in the process of evaluating the relative expense of a tunnel based alternative versus the numerous individual surface facilities that would be needed to handle the flow without the new tunnel. In addition to the operation and maintenance challenges of many new facilities, it would be difficult to undertake the surface consolidation needed to make the system work. Building a new tunnel would reduce the need for extensive surface consolidation.

b) Don Waldorf, of PWSA, noted that he believed that there would be many maintenance related advantages of having a second tunnel and asked whether it would be deeper than the existing tunnel. Mike Lichte responded that a proposed tunnel would likely be deeper than the existing tunnel. Tunnels, such as the one proposed, typically have to be two to three tunnel diameters below bedrock and a conservative distance from the existing tunnel. A deeper tunnel may allow for regular maintenance of the existing interceptor. He did point out, however, that the deeper the tunnel, the more pumping would be required. Nonetheless, insufficient geotechnical information is available to accurately determine the depth of a new tunnel at this time and ALCOSAN has not yet prepared for design.

c) Don Waldorf inquired whether the basins are still looking at incorporating satellite secondary treatment facilities into their alternatives. Dave Bingham, AECOM, pointed out that the UM Basin team looked at a satellite treatment plant option in Hazelwood. They found that the costs, especially considering conveyance costs to get flow to the facility, were way beyond that of the tunnel, aside from the challenges of obtaining a site for the facility, which in this particular case has already received negative feedback.

d) Keith Jensen, AECOM, noted that the tunnel alternative assumes that the treatment capacity of the ALCOSAN Waste Water Treatment Plant (WWTP) will be upgraded to accommodate future flows and wet weather flows as currently planned.

e) Mike Lichte presented the preliminary CSO and SSO control cost curves for all basins that illustrated the relationship of untreated overflow volume and costs. He provided a brief explanation of the cost curve which ranges from $2.5 billion to about $7 billion and shows that the tunnel approach appears at this point more cost beneficial as more overflow is to be controlled. The outlier at the end of the tunnel cost curve was due to a change in the type of construction assumed for the tunnel being proposed (from deep boring machine to micro-tunneling).

f) He explained that the Program Manager is looking at pumping and treatment options for the WWTP. He stated that the bulk of the water quality impacts are due to CSOs, not SSOs, and that increased pumping capacity at the WWTP will reduce the CSOs.

g) Mike Lichte provided an overview of the system-wide alternatives being considered, and noted that they consist of Basin Based, Regional Based, Hybrid, and other control strategies. He reported that the Basin Based and Regional Based strategies are looking at six levels of controls for CSOs and SSOs. They are also both assuming an expansion of the ALCOSAN WWTP. The Basin Based Strategies focus on remote storage and treatment, whereas the Regional Based Strategies are based on a tunnel to all basins. The Hybrid and other control strategies include: Allegheny and Monongahela Tunnels with remote CSO treatment and storage; satellite WWTP; sewer separation and outfall relocation near sensitive areas; additional conveyance and remote CSO treatment and storage; and complete sewer separation.

4) Municipal Planning (Mike Lichte, ALCOSAN)

a) Mike Lichte reviewed the municipal input required by the ALCOSAN Consent Decree Section 75. He reiterated the importance of the information to the work that is being done in the MR Basin and in the regional work. Mike also noted that this issue has been discussed at the Feasibility Studies Working Group meetings and showed an illustration of the information that is required to be submitted to ALCOSAN.

b) Mike Lichte presented a status report on the information ALCOSAN still needs from PWSA. He noted that ALCOSAN and the Basin Planner met with PWSA recently. PWSA will be delivering all of their H&H models to ALCOSAN and will be helping them validate flow rates at the points of connection. The group will continue to meet. John Maslanik noted that this is the critical juncture to meet, while going from preliminary to final flow estimates. Therefore, upcoming meetings can be anticipated.

c) Mike Lichte reported on the municipal planning information received from Reserve and Ross Townships. Reserve Township has a separated system with two SSOs that do not activate during the two-year design storm. ALCOSAN met with Reserve Township in the fall of 2009 to review planned projects. They were informed that there are no planned projects that would impact the MR Basin outside of regular maintenance projects. Ross Township has a small separated system within the MR Basin. The Township's sanitary system connects into PWSA's combined sewer system. They anticipate routine maintenance but no major projects.

5) Program Updates (Joe Day, ALCOSAN and Dave Bingham, AECOM)

a) Joe Day, of ALCOSAN, reported on the Customer Municipality Advisory Committee (CMAC) meeting that was convened on May 10, 2011. Items presented included municipal coordination, a report on the Etna Downspout Disconnect Program, and the Regionalization Study. The next meeting is scheduled for August 2, 2011.

b) Joe Day noted that the Regional Stakeholders Group (RSG) last met on May 17, 2011. The meeting included an update on stream removal by Dan Lockard of ALCOSAN, a presentation on green technologies by Matt Smuts of the Urban Redevelopment Authority of Pittsburgh, and an update on critical Wet Weather Plan sites by Dave Borneman of ALCOSAN. The next meeting will be convened on August 18, 2011.

c) Joe Day reported on upcoming public outreach events. The ALCOSAN Open House is scheduled for September 17, 2011. The next round of community meetings on the Wet Weather Program will be convened in the fall of 2011.

d) Dave Bingham, AECOM, provided an update on ALCOSAN's Regionalization Study. He explained that, due to the high cost of wet weather controls needed throughout the region, ALCOSAN would like to examine whether possible consolidations of services could reduce overall costs. The stakeholder process for the Regionalization Study will be coordinated by the

Allegheny Conference on Community Development. The Study is expected to take 18 months. Three Rivers Wet Weather (3RWW) is also funding various sub-regionalization studies.

e) Dave Bingham explained that the Regionalization Study will look at a number of options, ranging from the local to the regional. On the local end of the spectrum, there are municipally owned trunk sewers that could be turned over to ALCOSAN. As another option, any wet weather facilities added to the ALCOSAN system could be owned, operated, and maintained by ALCOSAN. In some cases, communities have communicated a desire to transfer ownership of their sewer systems to ALCOSAN. Other communities view them as assets that they wish to retain. At the most regional end of the range of options, the ALCOSAN system could be made County-wide. These options will be refined through the stakeholder process.

f) John Schombert noted that the sub-regionalization studies being funded by 3RWW will be continuing through the end of June. The results will be given to ALCOSAN to feed into the overall Regionalization Study.

6) Next Steps (Bill Sukenik, Chester Engineers)

a) Bill Sukenik provided an overview of the project's next steps. He noted that the MR Basin team has guidance for completion of the Feasibility Report Update. They will also be focusing on the new Report sections five and six. The Feasibility Report is due to ALCOSAN on July 1st. As the Report is updated, the MR Basin team wishes to quickly move into the facility planning effort with a scheduled December 30th final submittal. Currently, the Wet Weather Plan is expected to be delivered to the municipalities in the summer of 2012. As the municipal work continues, ALCOSAN will be far enough along in their planning efforts to help guide the municipal process and the Municipal Feasibility Studies into a cohesive plan.

Attachments:

- Agenda
- Attendance Sheet
- PowerPoint Presentation
- Meeting Notes: February 24, 2011 Basin Planning Committee

ALCOSAN Basin Facilities Planning
Meeting Minutes

Main Rivers Basin
Basin Planning Committee Meeting Number 11
October 27, 2011/10:00 AM
Location: Pittsburgh Water and Sewer Authority
1200 Penn Avenue, 2nd Floor

Attendees: (see attached Sign-in Sheet for complete list of attendees)

1) **Basin Planning Committee #10 Recap (Mike Lichte, ALCOSAN, Bill Sukenik, Chester Engineers)**

   a) Mike Lichte welcomed the group and asked those in attendance to introduce themselves. He noted that the Program Manager is in the early stages of writing the Wet Weather Plan, laying out Alternative 3f that includes a system-wide tunnel with a few storage tanks, notably in the Chartiers Creek and Turtle Creek Basins. He added that the scope of work for the Main Rivers (MR) Basin team is winding down and the team will be transitioning into a support role.

   b) Bill Sukenik, of Chester Engineers, presented an overview of the meeting's agenda and a recap of the areas that were discussed in the previous Basin Planning Committee (BPC) meeting, convened on May 26, 2011. Bill noted that hard copies of the meeting minutes were available at the sign-in table in addition to advance copies of the MR Basin Quarterly Activity Report.

   c) Bill Sukenik reported that, at the time of the last BPC meeting, the MR Basin Planning team was preparing section 5 - Integration of Municipal Alternatives and section 6 - Regional Integration, that outlined the municipal alternatives and system-wide alternatives, respectively. At the BPC meeting, the team presented basin-based and regional-based alternatives and was beginning to look at the integration of the MR Basin with a system-wide regional approach.

2) **Basin Facilities Plan Development (Bill Sukenik and Mark Scally, Chester Engineers)**

   a) Bill Sukenik provided an update on the schedule for completing the Feasibility Study and Present Worth Analysis, referenced going forward as the draft Basin Facilities Plan. He noted that the updated draft was submitted in July of 2011 and a supplemental draft was submitted in August of 2011. The MR Basin Planning team received comments from ALCOSAN, the Program Manager, and the Basin Coordinator on the first six sections. The team is incorporating those comments and preparing section seven that presents the recommended Main Rivers project. It is due for submittal to ALCOSAN on November 11, 2011.

b) Bill Sukenik presented an overview of the basin-based and regional-based alternatives. He reminded the group that the basin-based analysis assumes that flows would go to the ALCOSAN Waste Water Treatment Plant (WWTP) through existing infrastructure. The regional-based analysis assumes that additional transport capacity to the WWTP could be built. He noted that the basin-based alternative is comprised of a lot of decentralized treatment and storage facilities. The analysis of the basin-based and regional-based alternatives led to the development of Alternative 3f, which was also the first opportunity for the MR Basin team to consider modeled information from other basins.

c) Mark Scally, of Chester Engineers, explained the details of Alternative 3f. He noted that the Alternative achieves a level of control of four to six overflows per year under the typical rainfall condition (YR 2003). As a starting point, the team used the MR Basin Alternative 73, which is similar to Alternative 3f, but limited to the MR Basin. The boundary conditions for Alternative 3f were provided by the Program Manager, as were other constraints to be consistent across all basins. In addition, the MR Basin Planning team looked into a higher level of control at environmentally sensitive areas. The implementation of Alternative 3f would result in 28 drop shaft locations in the MR Basin.

d) Mark Scally noted that the MR Basin team also analyzed system-wide Alternative 8a, which has a lower level of control of 13 to 15 overflows per year. It is similar to the MR Basin Alternative 75, but focuses on a completely new set of system-wide boundary conditions that are specific to Alternative 8a.

e) Mark Scally explained that the preferred MR Basin Alternative is a modified system-wide Alternative 3f referred to as "MR_BA3fm." That Alternative is detailed in section seven of the Draft Basin Facilities Plan. The MR_BA3fm incorporates updated boundary conditions identified by the Program Manager. It also incorporates PWSA planned projects. Mark also noted that, during the analysis, it became evident that it would be more cost effective to increase the number of drop shafts along the regional tunnel in lieu of sewer separation and more lengthy consolidation sewers. As a result, the Alternative shows 41 rather than 28 proposed drop shafts.

f) Mark Scally reported that, during a recent regular monthly progress meeting with ALCOSAN, the MR Basin team discussed with ALCOSAN staff and with the Program Manager how areas with potential for sewer separation should be carried through into the Draft Basin Facilities Plan as an alternative. An example was shown that identifies an area just north of the Convention Center. The area looks promising for sewer separation as a potential method of overflow control. However, it was determined at this time that sewer separation could only be applied if confirmed by PWSA as a planned project, or if other alternatives are deemed unfeasible. As a result, additional drop shafts will be proposed in lieu of sewer separation in the Basin Alternative 3f modified.

g) Don Waldorf, of PWSA, asked what size the drop shaft would be. Mark Scally answered that in this particular area (proximate to Convention Center), the diameter may be around 10 to 12 inches, but this would be confirmed. Mike Lichte stated that he would follow up and give the

drop shaft size information to PWSA. Don Waldorf added that PWSA is looking at sewer separation from 16th to 22nd Street in the Strip District. He also noted that the area to the east of 43rd street has sewer separation and it was designed to be advanced "up the hill." In addition, PWSA installed a storm sewer around Children's Hospital.

h) Mark Scally explained that, in general, the environmentally sensitive area analysis did not have a big impact on planning, although two additional drop shafts were identified. One proposed drop shaft, at A-47, is just downstream of PNC Park, at Mazeroski Way. The other proposed drop shaft, at M-18, is located in the southern portion of the South Side park area, east of 18th Street and downstream of the Hot Metal Bridge.

i) Don Waldorf noted that the sewers are separated upstream of the Hot Metal Bridge.

j) Mark Scally reported that section seven of the Basin Facilities Plan will detail the recommended Basin Alternative 3f modified. It will outline the level of CSO and SSO control and identify drop shaft sites and shallow pipeline routes. It will also detail operational features of the Alternative.

k) Bill Sukenik stated that the Basin Facilities Plan also has a section on Environmental Impact Assessment. That portion of the Plan identifies probable land and property easement acquisitions, a review of permitting requirements, and evaluation of environmental impacts.

l) Bill Sukenik noted that the Basin Facilities Plan will also have a section on the probable cost of construction. That section will outline the knee of the curve analysis and will include estimated capital, operations and maintenance (O &M), and repair and replacement costs.

3) Municipal Planning (Mark Scally, Chester Engineers)

a) Mark Scally presented a status update on outstanding tasks. He reported that the MR Basin Planning team received information from PWSA and from Ross and Reserve Townships. Specifically, PWSA has identified one municipal project that includes separating a portion of the East Street drainage area. In addition, PWSA submitted estimated capital and annual operation and maintenance and renewal/replacement costs, and confirmed to ALCOSAN that the Preliminary Flow Estimates (PFEs) that were submitted in July be considered as Final Flow Estimates (FFEs).

4) Program Updates (Mike Lichte, ALCOSAN)

a) Mike Lichte reported that ALCOSAN would be sending a letter to council presidents or authority board chairmen seeking acknowledgement that the governing bodies are aware of what has been accomplished to date and that planning must be further advanced in some of the more complex sewer sheds, perhaps requiring agreements. Mike explained that ALCOSAN wants to make sure that municipal engineers are communicating scope and improvements costs to their boards. In addition, although the municipal plans are not due until a year after the

ALCOSAN Wet Weather Plan is delivered to the regulating agencies, ALCOSAN would like to keep receiving information and refinements as planning goes forward.

b) Karen Brean, of Brean Associates, presented an update on the recent meetings of the Customer Municipality Advisory Committee (CMAC) and the Regional Stakeholders Group (RSG). Both groups met in early August and received an extensive update on Wet Weather Planning as well as an introduction to ALCOSAN's Regionalization Study. She reported that the next RSG meeting is scheduled for November 9, 2011 and the CMAC will meet on November 10, 2011. Karen also presented an overview of the 2011 ALCOSAN Town Hall meetings and invited those present to share the schedule and details with their constituents. She highlighted the MR Basin/Region-wide Town Hall meetings, scheduled for November 9th and 15th.

5) Regionalization Study (Mike Lichte, ALCOSAN)

a) Mike Lichte explained that the Regionalization Review Panel, convened by the Allegheny Conference, is acting in an advisory capacity on the Regionalization Study.

b) John Schombert, of Three Rivers Wet Weather (3RWW), noted that the Review Panel is a very diverse group with lots of interest in the issue.

c) Mike Lichte added that the Regionalization Study will look at a number of options, ranging from the local to the regional. He stated that the region is extremely fragmented, with 83 municipalities in the ALCOSAN service area. On the local end of the spectrum of possible regionalization examples, there are municipally owned trunk sewers that could be turned over to ALCOSAN. Furthermore, any wet weather facilities added to the ALCOSAN system could be owned, operated, and maintained by ALCOSAN. In some cases, communities have communicated a desire to transfer ownership of their sewer systems to ALCOSAN. Other communities view them as assets that they wish to retain. At the most regional end of the range of options, the ALCOSAN system could be made County-wide. These options will be refined through the stakeholder process.

6) Next Steps (Bill Sukenik, Chester Engineers)

a) Bill Sukenik provided an overview of the project's next steps. He noted that the MR Basin team will be submitting the draft Basin Facilities Plan by November 11, 2011. He encouraged those present to attend the upcoming Town Hall meetings in November. He stated that the final MR Basin Facilities Plan will be submitted by January 20, 2012, and ALCOSAN will be delivering the draft Wet Weather Plan to the municipalities in the summer of 2012 with the final Wet Weather Plan submitted to the regulating agencies in early 2013. Finally, the Wet Weather Plan Schedule indicates a period concluding in July 2013 when municipalities may continue with their Feasibility Studies.

Attachments:

- Agenda
- Attendance Sheet
- PowerPoint Presentation
- Meeting Notes: May 26, 2011 Basin Planning Committee

ALCOSAN Basin Facilities Planning
Meeting Minutes

Main Rivers Basin
Basin Planning Committee Meeting Number 12
May 4, 2012/10:00 AM
Location: Pittsburgh Water and Sewer Authority
1200 Penn Avenue, 2nd Floor

Attendees: (see attached Sign-in Sheet for complete list of attendees)

1) **Basin Planning Committee #11 Recap (Mike Lichte, ALCOSAN, Bill Sukenik, Chester Engineers)**

   a) Mike Lichte, of ALCOSAN, welcomed the group and asked those in attendance to introduce themselves. He presented an overview of the agenda.

   b) Bill Sukenik, of Chester Engineers, presented a recap of the areas that were discussed in the previous Basin Planning Committee (BPC) meeting, convened on October 27, 2011. Bill noted that hard copies of the meeting minutes were available at the sign-in table in addition to copies of the MR Basin Quarterly Activity Report.

   c) Don Waldorf, of PWSA, requested that the record reflect that the minutes of the October 27, 2011 BPC meeting should include his statement that "downstream communities should not handle upstream flow."

   d) Bill Sukenik reported that, at the time of the last BPC meeting, the MR Basin Planning team was wrapping up the Present Worth Analysis and other work that became the foundation for the Basin Facilities Plan. He noted that the MR Basin planning team's focus was on Alternative 3f-modified, and that, currently, the Program Manager is finalizing the regional Draft Wet Weather Plan.

2) **Basin Facilities Plan (Mike Lichte, ALCOSAN, Mark Scally and Bill Sukenik, Chester Engineers)**

   a) Mark Scally noted that there were no major changes to the MR Basin Facilities Plan from the previous work that was presented to the MR BPC. The MR Basin planning team did receive comments on the draft Basin Facilities Plan submitted Feb. 24, 2012, from ALCOSAN and incorporated edits based on the comments. He also reported that the Basin Planning team continued to integrate municipal information, such as the sewer separation at Evergreen and Ivory Streets.

b) Paul Eiswerth, of the Pennsylvania Department of Environmental Protection (PADEP), asked whether the sewer separation in the Strip District was incorporated. Mark Scally responded that there are pockets of sewer separation and they are discussed in the MR Basin Facilities Plan as potentially satisfying the level of control. He noted, however, that the sewer separation areas were not brought forward as a municipal alternative. Don Waldorf, of PWSA, clarified that the area in question is the site owned by the Buncher Company. It represents about 10 blocks in the Strip District, stretching from 11th to 21st Streets, from the River to Smallman Street. Mike Lichte added that, unless the sewer separation of the area was provided as part of the Final Flow Estimates (FFE), it has not been formally integrated.

c) Paul Eiswerth asked whether the MR Basin Facilities Plan will include the work that could be done at Saline Street regarding the surcharge problem. Mark Scally responded that the area is discussed in Section 7 of the MR Basin Facilities Plan. Bill Sukenik added that the area has been addressed in two ways. In the context of developing the Basin Facilities Plan, the MR planning team looked at the level of control necessary to ensure CSO Rule compliance and reviewed the hydraulic grade line to make sure that, with the solution, it did not create a backwater curve that would exacerbate the upstream conditions. Outside of the facilities plan, the MR team worked with Mike Lichte to look at flooding. Potential solutions have been identified but not costed. Mark Scally noted that the M-29 alternative can convey 2003 typical year flows, but there is a significant issue with stormwater management in extreme wet weather.

d) Paul Eiswerth stated that he believed that Saline Street had problems that weren't just problems with extreme weather conditions and wanted to make sure that the Feasibility Study to be submitted from PWSA will resolve that problem. Don Waldorf responded that solving the problem by 2026 may not be doable because of the cost. Paul Eiswerth stated that, in an area with basement flooding, there must be a solution to the problem.

e) Mark Scally noted that, regarding the East Street valley, the model looked at capturing the flow and conveying it into the ALCOSAN system. The MR planning team has subsequently looked at more alternatives. The MR planning team looked at conveying the flow from two diversion structures upstream to A-51. It looked at conveying the flow from the PennDOT culvert to A-58. The preferred approach of the MR team is to control by way of a new diversion structure and to convey through a new pipe to the 102" trunk sewer.

f) Mark Scally reported that there were no significant issues with Reserve Township. However, there are some surcharge areas. Bill Sukenik noted that the MR Basin Facilities Plan contains only one municipal project from Reserve. The MR Basin team did take the opportunity to model the area and included a solution in the Basin Facilities Plan. There were two parallel pipes added in the model: one connecting from MH-C-179 to PWSA and one from SSO #2 to PWSA.

g) Bill Sukenik noted that the MR planning team recommended additional investigations. They identified outfalls with level of control solutions that may have high risks that threaten successful implementation, and outfalls to monitor or re-monitor due to either no previous

monitoring or land use changes that could significantly impact sewer flows.. They also identified outfalls that could benefit from cost-saving source control. The MR team also recommended that the Program Manager reconsider the use of conservative constraint dates that result in more costly, higher level of control than the targeted 4-6 overflows/year.

3) Draft Wet Weather Plan (Ed Kluitenberg, CDM Smith)

a) Ed Kluitenberg, of CDM Smith, the Program Manager, provided an update on the development of the Draft Wet Weather Plan. He reported on the schedule, noting that the Draft WWP is being compiled for release on July 31, 2012 and presented a diagram of the planning process. He stated that, during the alternative evaluation process, the Basin Planners looked at sites and technologies that led to discreet alternatives to control outfalls. Then, the Basin Planners used municipal planning information along with their own work to develop the Basin Alternatives. All seven Basin Alternatives were pulled together into the System-Wide Alternative, which formed the basis for the Draft WWP.

b) Ed Kluitenberg stated that the basin teams looked at addressing the overflows from a basin-based perspective and regional-based perspective. The basin-based analysis assumes that flows will go to the ALCOSAN Waste Water Treatment Plant (WWTP) through existing infrastructure, while the regional-based analysis assumes that additional transport capacity to the WWTP could be built.

c) To develop the Preliminary Control Strategy, the Program Manager developed 26 system-wide CSO and SSO control alternatives. Ed Kluitenbeg explained that the Preliminary Control Strategy eliminates SSOs and provides 95% CSO capture. It meets water quality requirements, which was the impetus for the Wet Weather Program. The Preliminary Control Strategy includes municipal CSO and SSO controls with a total cost projected to $3.6B.

d) Ed Kluitenberg presented an analysis of the benefits, by basin, of the Preliminary Control Strategy. He noted that there would be great reduction in overflows across all basins.

e) Ed Kluitenberg presented the cost curves for the Basin-based and System-wide alternatives. He noted that the triangle marks the Preliminary Control Strategy. He also noted that the affordability threshold, utilizing the EPA guidance, would be $2B regionally. In addition to the fact that the Preliminary Control Strategy exceeds the region's affordability threshold (cost of service at 2% of median household income), there are issues of financial and construction capability that threaten being able to fully implement the Wet Weather Plan by 2026, the date for full compliance with the Consent Decree.

f) Tom Gigliotti, of PWSA, asked how the financial analysis relates to the disparity of incomes across Allegheny County. Ed Kluitenberg responded that the EPA metric looks at the service area as a whole and, clearly, some communities with lower median incomes will have residents with rates that end up being higher than 2% of their median household income. He also noted

that the rates will depend on the actual project costs for each municipality in addition to the ALCOSAN costs.

g) Ed Kluitenberg said that, given the fact that the region can only afford $2B, the question is what to spend it on first. He explained that the Wet Weather Program requires control of both SSOs and CSOs. The objectives of the Program are to 1) address water quality and 2) to accommodate economic and population growth. He reported that the ALCOSAN outfall CSO load is 86% of the total fecal coliform load to the rivers, the key measure of water quality. Municipal outfalls are responsible for 4% of the CSO load. The SSO load contributes a total of 10% to the total fecal coliform load, with the source split equally between ALCOSAN and municipal SSO loads.

h) In addition to the requirement stated in the Consent Decree for implementation by 2026, Ed Kluitenberg noted that there is a separate settlement in place with the Pennsylvania Environmental Defense Fund (PEDF) to eliminate the SSOs in Chartiers Creek by 2012.

i) Ed Kluitenberg presented three options that prioritize different improvements while staying within affordability guidelines and allowing for cost effective expansion for additional improvement phases in the future. He noted that the three scenarios assume that all municipal improvements would be in place by 2026. The first option presented gives priority to eliminating SSOs. In this scenario, the WWTP capacity would be expanded to 480 MGD for primary treatment and 295 MGD for secondary treatment. All SSOs, throughout the ALCOSAN service area, would be controlled to the two-year return design storm level. Sensitive area outfalls would be relocated or controlled, and there would be a 70% to 75% capture of CSOs.

j) The second option gives priority to improving water quality. In this scenario, the WWTP would be expanded to 600 MGD for primary treatment and 295 MGD for secondary treatment. This option includes construction of the regional tunnel along the Ohio and Allegheny Rivers, along with construction of a portion of the regional tunnel along the Monongahela River. SSOs along the Allegheny River would be controlled to the two-year level and there would be an 85% to 90% CSO capture. Ed Kluitenberg presented the second, water quality, option as an overlay on results from a recreational use survey that showed frequency of primary and secondary contact. Dan Lockard, of ALCOSAN, added that the Plan that meets full compliance, at $3.6B, would eliminate all SSOs.

k) Don Waldorf, of PWSA, asked whether the presentation could be made available digitally as it is difficult reading the reduced size slides on the handout. Mike Lichte stated that he would check into that request.

l) Ed Kluitenberg presented the third affordable option which attempts to provide balanced priorities between CSO and SSO control, water quality improvement, and continued economic development. This scenario is similar to the water quality priority option in terms of the regional tunnel, which would also be partially constructed. Along the Allegheny River, the regional tunnel is proposed to be shorter. As a trade-off, priority is given to SSO control in Chartiers Creek. In addition to meeting that requirement, spelled out in the PEDF settlement,

there would be a big impact on water quality by expanding the WWTP and partially constructing the regional tunnel.

m) Tom Flanagan, of PADEP, asked where SSOs would remain in the balanced Priority scenario. Ed Kluitenberg responded that the SSOs would be eliminated in Chartiers Creek, but would remain in Turtle Creek, Saw Mill Run, Upper Allegheny/Pine Creek, and Lower Ohio/Girty's Run Basins. Tom stated that PADEP would like to know how often they would overflow. Ed Kluitenberg noted that under the balanced priority scenario, all municipal SSOs would be removed.

n) Ed Kluitenberg presented an overview of the municipal planning information that will be included in the Draft WWP.

o) John Maslanik, of Chester Engineers (member of Chester's PWSA program team), asked whether the Draft WWP will include municipal costs. PWSA does not want to have items double counted. Dan Lockard stated that ALCOSAN could break down the costs for PWSA.

p) Jerry Brown, of 3RWW, asked whether the Draft WWP will project a range of rates. Dan Lockard explained that ALCOSAN has engaged a firm to undertake an independent rate study. John Maslanik noted that PWSA would need that information for their affordability analysis.

q) Paul Eiswerth, of PADEP, stated that ALCOSAN's analysis will be the overall driver of the schedule and that the agency realizes that municipalities may need more time. He also stated that the agency fully expects that PWSA would be brought into compliance in the same time frame as ALCOSAN but the agency would consider some extensions.

r) Don Waldorf stated that PWSA's plan still has to go through City of Pittsburgh zoning review. Paul Eiswerth stated that he expects that the City will have comments on PWSA's plan.

4) Update on Program Outreach (Karen Brean, Brean Associates)

a) Karen Brean, of Brean Associates, presented an update on the recent meetings of the Customer Municipality Advisory Committee (CMAC) and the Regional Stakeholders Group (RSG). Both groups met in March and received an extensive update on Wet Weather Planning as well as an update on ALCOSAN's Regionalization Study and the recent efforts of the Regionalization Review Panel. In addition, the RSG continued to discuss the topic of green infrastructure. She reported that the next CMAC meeting is scheduled for May 23, 2012 and the RSG will meet on May 24, 2012.

b) Karen Brean also presented an overview of the public outreach milestones related to the release of the Draft WWP. She noted that the public comment period will commence with the release on July 31, 2012, and will continue through October 19, 2012. Public meetings and hearings will be convened in August through October. There will also be a presentation about the Draft WWP at the annual ALCOSAN Open House, to be held on September 15, 2012.

c) Karen Brean discussed the grassroots outreach strategy that the public involvement team has launched, taking the show on the road to organizations and municipalities. She invited those present to take advantage of this opportunity and schedule a presentation.

d) Paul Eiswerth reiterated the importance of the grassroots outreach presentations, particularly to municipalities. He expressed his concern that public officials at the City and municipalities need to be prepared to comment on the Draft WWP.

5) Regionalization Study (Karen Brean, Brean Associates)

a) Karen Brean provided an update on ALCOSAN's Regionalization Study. She reminded the group that the Study was initiated because of the high cost associated with wet weather control as well as municipal requests for greater ALCOSAN involvement. She described the recent activities of the Regionalization Review Panel, chaired by Dr. Jared Cohon, of Carnegie Mellon University and managed by the Allegheny Conference on Community Development. She explained that, most recently, the Panel broke up into subcommittees around six categories that have been identified for evaluation of regionalization options: financial; regulatory/legal; environmental; organizational; stakeholder acceptance; and operations and maintenance. The Subcommittees each met twice during March and April to test the application of the evaluation criteria. The AECOM team will be evaluating the options during the summer and fall of 2012 and the report is expected to be completed by December 2012.

6) Next Steps (Mike Lichte)

a) Mike Lichte thanked the members of the Basin Planning Committee for their work and cooperation over the last three years. He added that ALCOSAN will be looking for any additional municipal information and for continued cooperation in fine-tuning the Draft WWP.

Attachments:

- Agenda
- Attendance Sheet
- PowerPoint Presentation
- Meeting Notes: October 27, 2011 Basin Planning Committee

Saw Mill Run Basin

ALCOSAN Basin Facilities Planning
Meeting Minutes

Saw Mill Run Planning Basin
Saw Mill Run (SMR) Facility Plan Workshop #1
July 30, 2008 / 9:00 a.m.
Green Tree Municipal Building,
10 West Manilla Avenue, Pittsburgh, PA 15220

Attendees:

Mike Lichte / ALCOSAN
Donald Geisser / ARCADIS
John Perriello / ARCADIS
Darby Neidig / Metcalf & Eddy
Karen Napoli / Collective Efforts, LLC
Mike Smith / Bethel Park Municipal Authority
George Zboyovsky / Brentwood Borough
Thomas Hartswick / Castle Shannon Borough
Warren Cecconi / Borough of Dormont
Stephen Feller / Municipality of Mt. Lebanon
Tom Kelley / Municipality of Mt. Lebanon
Bob Hutton / Pittsburgh Water and Sewer Authority
Denise Fitzgerald / Scott Township
Randy Lubin / Scott Township
Larry Lennon / Scott Township Engineer
James Leventry / Whitehall Borough
Ruthann Omer / Gateway Engineers
Daniel Deiseroth / Gateway Engineers
Justin Wagner / Gateway Engineers
Ned Mitrovich / Lennon, Smith, Souleret Engineering, Inc.
Glenn Jonnet / Pittsburgh Engineering Corp.

1. Discussion / Decision / Agreement Summary:

a. Introduction

Mike Lichte provided a general overview of ALCOSAN's Wet Weather Program and stated that the purpose of this meeting was to initiate the municipal coordination and outreach for the SMR Facilities Planning. Mike stated that the formulation of the SMR Facilities Plan will be a coordinated effort and encouraged all SMR basin customer municipalities to actively participate in the process in order to maximize efficiency and minimize program costs.

Mike Lichte introduced himself as ALCOSAN's Planning Basin Project Manager, Darby Neidig, Metcalf & Eddy as the Basin Coordinator and Don Geisser, ARCADIS as the Planning Basin Project Manager. All meeting attendees provided self introductions.

b. Program Overview

Don Geisser provided an overview of the SMR Facilities Planning which includes the following:

- Eliminate sanitary sewer overflows;
- Control combined sewer overflows;

- Provide conveyance and treatment capacity for municipal flows; and

- Coordinate and integrate individual municipal feasibility studies with the SMR Facility Plan and ultimately ALCOSAN's Wet Weather Program.

Don Geisser stated that the SMR Planning Basin includes approximately 13 customer municipalities with several of the municipalities included within more than one planning basin. In addition, there are several municipalities (i.e., Ingram, Mt. Oliver and Crafton) which have small land areas included in the SMR Planning Basin and may not choose to actively participate in the SMR planning effort. All customer municipalities were encouraged to become active participants in the SMR Planning effort as this will lead to the most cost effective solutions.

Ruthann Omer stated that Mt. Oliver Township was almost entirely located within the SMR Planning Basin. Don Geisser indicated that the GIS data will be reviewed to verify this.

Don Geisser stated that as part of the community outreach effort, a SMR Basin Planning Committee would be established to help facilitate the coordination efforts between ALCOSAN and the customer municipalities.

Project contact information was provided for Mike Lichte and Don Geisser (refer to Meeting Handout). Initially, all project requests should be addressed to Mike Lichte and eventually, engineering issues will be directed to Don Geisser.

c. SMR Planning Status

Don Geisser provided an overview of the current project status which includes the following activities:

- Flow monitoring is on-going and cumulative summary reports are being distributed to the customer municipalities. All customer municipalities are encouraged to review this information and notify ALCOSAN if the data appears questionable or errant. Don stated that since the flow data will be used to calibrate the H&H model, it is extremely important to review these data as it will have a bearing on the resulting decisions made during the alternatives evaluation.

- GIS mapping is currently being compiled for the SMR Planning Basin. The GIS data is currently being "scrubbed" and a data gap analysis is being developed to determine where additional data will need to be obtained to complete the data set.

- The H&H model has been obtained from ALCOSAN and is currently being reviewed and expanded to include the "critical" sewer lines in the customer municipalities. In addition, the PWSA's H&H model is currently being converted so that it will be compatible with the ALCOSAN model. Don Geisser stated that the critical sewer lines have not been set-in stone, and as the model is developed, additional segments may be identified for inclusion into the model.

d. SMR Information Exchange

It is the goal to gather sufficient information on each "critical" sewer line within the customer municipality in order to accurately depict these areas in the H&H model. In addition, as part of the data gathering it will be imperative to get a thorough understanding of each customer municipalities sewer surcharging and problem areas as well as their recommended improvements to address these areas so that they can be coordinated with the overall SMR Basin Planning efforts.

e. SMR Basin Planning Committee

As previously indicated, a SMR Basin Planning Committee will be developed with the purpose of facilitating the coordination between ALCOSAN and the customer municipalities in the development of the SMR Facility Plan and the Regional Wet Weather Plan. A regular schedule will be developed (assumed initially as quarterly) to meet to exchange data, discuss program updates and status and develop the plans. The committee would then be encouraged to disseminate this information to their customer municipality to help build community understanding and support.

f. SMR Next Steps

The next steps to progress the SMR Planning include the following:

- Complete GIS data gap analysis;
- Coordinate with ALCOSAN and customer municipalities to acquire missing data;
- Refine preliminary H&H model;
- Integrate PWSA H&H model into SMR H&H model; and
- Establish SMR Basin Planning Committee.

g. Questions/Discussion

The following issues were discussed:

- Larry Lennon inquired as to what extent each of the customer municipalities should be reviewing the flow monitoring data since there is a group designated to perform the QA/QC. Don Geisser stated that the municipalities are not expected to QA/QC the flow monitoring data but rather should review the data to identify any potential anomalies. If questionable information is being provided such as higher than expected flows for a specific area, etc., this concern should be brought to the attention of the flow monitoring group and/or ALCOSAN.

- Larry Lennon stated that the individual municipal facility plans are scheduled to be completed after completion of ALCOSAN's Wet Weather Program; therefore, it is important that the development of the municipality and ALCOSAN plans is well coordinated.

- Larry Lennon inquired if the SMR Planning Basin deliverables will be shared with the customer municipalities. Mile Lichte stated that draft project deliverables will be provided to the municipalities for review and comment prior to finalizing.

- Ruthann Omer stated that it is important for customer municipalities located in multiple planning basins to receive a consistent dissemination of information from the basin planning groups.

- Don Geisser stated that an invitation letter will be sent to each of the customer municipalities requesting a designated person(s) for the SMR Basin Planning Committee membership. Future meetings will be conducted quarterly and meeting locations could be rotated throughout the SMR planning basin

2. Items Distributed:

a. See attachments

3. Action Items:

a. None

4. Next Meeting:

a. To be determined.

5. Attachments:

a. Meeting Agenda

b. Meeting Handout

c. Meeting Attendance Sheet

ALCOSAN Basin Facilities Planning
Meeting Minutes

Saw Mill Run Planning Basin
Saw Mill Run (SMR) Basin Planning Committee
Meeting No. 2
November 13, 2008 / 9:00 a.m.
Whitehall Borough Municipal Building,
100 Borough Park Drive, Pittsburgh, PA 15236

Attendees:

Mike Lichte / ALCOSAN
Donald Geisser / ARCADIS
Dan Harris/ARCADIS
John Perriello / ARCADIS
Darby Neidig / AECOM
James Protin /AECOM
Tammi Halapin / Collective Efforts, LLC
Glenda Murphy / Olszak Management Consulting
Glenn Jonnet / Pittsburgh Engineering Corp., representing Baldwin Township
George Zboyovsky / Brentwood Borough
Thomas Hartswick / Castle Shannon Borough
Warren Cecconi / Borough of Dormont
Tom Kelley / Mt. Lebanon
Mike Skinner / Gateway Engineers, representing Mt. Lebanon
Bob Hutton / Pittsburgh Water and Sewer Authority
Ned Mitrovich / Lennon, Smith, Souleret Engineering, Inc., representing Scott Township and Castle Shannon Borough
James Leventry / Whitehall Borough

1. Discussion / Decision / Agreement Summary:

a. Introduction

Mike Lichte provided a general overview of ALCOSAN's Wet Weather Program and stated that the purpose of this Basin Planning Committee (BPC) meeting was to continue the municipal coordination and outreach for the SMR Facilities Planning. Mike stated that the involvement of the customer municipalities was a requirement of the Consent Decree and encouraged all SMR basin customer municipalities to actively participate in the process. The intent of the BPC meetings is to gather input and consensus from the customer municipalities as the SMR Facilities Plan is developed.

Mike Lichte introduced himself as ALCOSAN's SMR Planning Basin Project Manager. All meeting attendees provided self introductions.

Mike Lichte stated that the first BPC meeting was conducted in July and that the next would be scheduled in the February/March 2009 timeframe and future BPC meetings would be conducted on a quarterly basis.

b. Program Overview

Don Geisser provided an overview of the meeting agenda which included an overview of the SMR Planning Basin, BPC representatives and an update on the current facilities plan work status.

Contact information for both Mike Lichte and Don Geisser is provided below under item 2b.

c. Customer Municipal Advisory Committee (CMAC)

Mike Lichte discussed the formation of the CMAC. The purpose of the CMAC is to act as an overall steering committee for the Wet Weather Program. The CMAC is made up of approximately ten members with representation from each planning basin. The CMAC is currently being finalized at the County Executive's office as CMAC members are being invited/notified of committee membership. The CMAC members will not be announced to the Basin Planners (BP) or to municipal officials until said members have confirmed their ability to hold a seat on the CMAC. Mike Lichte expected that the CMAC membership would be announced before the end of 2008 with the first meeting held prior to year's end. Meetings are expected to be held on a quarterly basis.

d. Regional Stakeholder Group

Mike Lichte stated that similar to the CMAC, the formation of the Regional Stakeholder Group (RSG) is still being developed. The purpose of the Regional Stakeholder Group is to provide oversight on key planning topics (public participation, financing, technical issues, etc.) for the Wet Weather Plan. The group is intended to be broader in scope and membership than the CMAC with several sub-committees being developed within the Regional Stakeholder Group. The makeup of the RSG will likely include representation from various municipalities, environmental groups, community development groups, academia and regulatory agencies. Mike Lichte stated that two volunteers from the SMR Basin are needed to participate in the Regional Stakeholder Group and that volunteers interested in joining the group should contact him directly. (Note: After the meeting, Glenn Jonnet volunteered to participate in the Regional Stakeholder Group. One more volunteer from the SMR planning basin is encouraged to participate in the Regional Stakeholder Group. Please contact Mike Lichte or Don Geisser to volunteer.) The RSG expects to conduct meetings twice per year.

e. Flow Monitoring and Mapping

Dan Harris provided an overview of the current SMR Facilities Plan flow monitoring and mapping work efforts which includes:

- Review of ongoing flow monitoring data;
- Definition of critical sewers in the customer municipalities;

- Compilation of readily available data for the critical sewers;
- Development of individual data gap maps for each customer municipality indicating areas of incomplete sewer data; and
- Conducting one-on-one meetings with customer municipalities to obtain the most current and complete sewer data for the critical sewers.
- Some communities may not be contacted because they do not have any identified data gaps.

f. Sewer System Modeling

Dan Harris provided an overview of the proposed SMR basin hydraulic and hydrologic model (H&H model). The model serves as the primary tool for understanding how the collection system behaves during wet weather events. The primary components of the model include sanitary flow, dry weather infiltration, rainfall dependent infiltration / inflow and stormwater runoff. The model will be used to develop and evaluate various alternatives to control sewer overflows.

The USEPA SWMM model will be used as the H&H model for the SMR basin. The model is being developed from the following three sources: ALCOSAN Tier II model, PWSA model and raw data being gathered from the customer municipalities to define the critical sewers. The extents of the model will include all known CSO and SSO locations.

Dan Harris demonstrated the capabilities of the SWMM model and stated that once developed and calibrated with the flow monitoring data, the model would be utilized to develop and evaluate alternative improvements to the collection system for the SMR Basin Facilities Plan.

g. Regional Wet Weather Plan and Municipal Feasibility Studies

Don Geisser provided an overview of the development of the Regional Wet Weather Plan and coordination with the individual Municipal Feasibility Studies. ALCOSAN is developing seven individual planning basin facility plans. Each plan will outline measures to be taken that will eliminate SSOs and control CSOs. The individual facility plans will be consolidated into one comprehensive Regional Wet Weather Plan. The individual plans will include the following key elements.

- Existing Conditions Report - Draft document due February 2009
- H&H Model Calibration Report
- Alternatives Screening Report
- Present Worth Analysis

On a parallel track, the customer municipalities are developing individual Municipal Feasibility Studies. The final Regional Wet Weather Plan will take into consideration the resulting individual Municipal Feasibility Studies to provide an overall Wet Weather Regional Plan. Municipalities must actively coordinate their Feasibility Studies with ALCOSAN, including:

- Establishing rate of municipal flow to ALCOSAN (level of service)
- Evaluating ALCOSAN's ability versus that of the municipality to retain, store, carry or treat wet weather flows.

h. SMR Next Steps

The next steps to progress the SMR Facilities Planning include the following:

- Conduct one-on-one meetings with the customer municipalities to obtain current and/or missing sewer data;
- Complete Existing Conditions Report (Draft Report due February 2009);
- Complete H&H model; and
- Establish next SMR BPC meeting for February/March 2009.

i. Questions/Discussion

The following issues were discussed:

- Tom Hartswick inquired as to what design level can ALCOSAN accept wet weather flows from the customer municipalities and how as a customer municipality do we complete our individual feasibility studies without knowing the quantity of flow which ALCOSAN can accept from the municipalities. Mike Lichte indicated the level of service, i.e., the design storm frequency, with which the ALCOSAN system will be designed to accept, has not yet been determined. Mike Lichte indicated that until the design storm frequency is determined, that customer municipalities should be proactive in evaluating their individual collection systems to determine what level of design storm their systems can handle and/or convey to ALCOSAN. When ALCOSAN establishes a design storm frequency, the municipalities will then be in a position to evaluate the needs of their collection system as it relates to the development of their individual feasibility studies. The Basin Planners will determine how much flow the ALCOSAN system can accommodate through their H&H modeling.
- Mike Lichte indicated that the determination of the level of service is complex and it would be beneficial for PADEP representatives to participate in the BPC meetings so that they are aware of the issues and concerns being voiced by the customer municipalities and how the Regional Wet Weather Plan and Municipal Feasibility Studies are being coordinated and developed.
- Ned Mitrovich stated that the customer municipalities need to understand how much it is going to cost ($/gallon) to convey flows to ALCOSAN for conveyance and treatment before decisions can be made by the customer municipalities in the development of their facilities plans. Mike Lichte agreed and stated that in order for the customer municipalities to complete their alternatives evaluation phase that ALCOSAN will need to provide cost

per gallon information. However, the municipalities are not precluded from conducting a level of service analysis.

- Warren Cecconi voiced a concern that the customer municipalities in the past have spent monies to correct a collection system problem only to find out that the correction either did not completely solve the problem or that the requirements changed and more remedial measures were required by the regulatory authority. Mike Lichte cautioned customer municipalities from initiating any major improvement projects until the development of the Regional Wet Weather Plan has been further progressed and better defined. Mike stated that under the ACOs and COAs, the municipalities were required to conduct repairs to significant defects and participate with ALCOSAN in the development of a LTCP.

- Tom Kelley inquired if an ALCOSAN website was being developed to inform customer municipalities and citizens on the project status and current issues. Jim Protin stated that an informational website was being developed and should be online by early 2009.

2. Items Distributed:

a. See attachments

b. Contact Information:

Mike Lichte, ALCOSAN SMR Planning Basin Manager

Email: michael.lichte@alcosan.org

Phone: 412.732.8004

Fax: 412.734.8371

Donald Geisser, ARCADIS, SMR Basin Planner

Email: donald.geisser@arcadis-us.com

Phone: 315.446.9120

Fax: 315.446.7485

3. Action Items:

a. None

4. Next Meeting:

a. Date to be determined; target is February/March 2009. Location of next BPC Meeting will be at the Whitehall Borough Municipal Building.

5. Attachments:

a. Meeting Handout

b. Meeting Attendance Sheet

ALCOSAN Basin Facilities Planning
Meeting Minutes

Saw Mill Run Planning Basin
Saw Mill Run (SMR) Basin Planning Committee
Meeting No. 3
March 10, 2008 / 9:00 a.m.
Whitehall Borough Municipal Building,
100 Borough Park Drive, Pittsburgh, PA 15236

Attendees:

Mike Lichte / ALCOSAN
Dave Borneman /ALCOSAN
Donald Geisser / ARCADIS
John Perriello / ARCADIS
Darby Neidig / AECOM
James Protin / AECOM
Tammi Halapin / Collective Efforts, LLC
Glenda Murphy / Olszak Management Consulting
Tom Schevtchuk / CDM
Anthony Catania / K Bealer Consulting
John Schombert / 3RWW
Tracy Schubert / 3RWW
Donna Davis / PADEP
Michelle Buys / ACHD
George Zboyovsky / Brentwood Borough
Tom Kelley / Municipality of Mt. Lebanon
Warren Cecconi / Dormont Borough
Bob Hutton / Pittsburgh Water and Sewer Authority
Mike Smith / Municipality of Bethel Park
Randy Lubin / Scott Township
Mike Skinner / Gateway Engineers / Municipality of Mt. Lebanon
Glenn Jonnet / Pittsburgh Engineering Corp. / Baldwin Township
Gino Rizza / Dormont Borough

1. Discussion:

a. Introduction

After all meeting attendees introduced themselves, Mike Lichte provided an overview of the Basin Planning Committee (BPC) Meeting No. 3 agenda.

Mike stated that participation with the customer municipalities was a requirement of the Consent Decree and encouraged all SMR planning basin customer municipalities to actively participate in the process. The intent of the BPC meetings is to gather input and consensus from the customer municipalities as the SMR Facility Plan is developed.

b. BPC Meeting No. 2 Review

Don Geisser provided an overview of the SMR planning basin including the municipalities included in the basin and the designated BPC representatives. Don Geisser indicated that an effort was currently being conducted to verify the limits of the SMR planning basin boundary. Specifically, basin boundaries in Mt. Oliver Borough, Crafton Borough and Ingram Borough are being reviewed and finalized.

Don Geisser provided a brief review of the previous BPC No. 2 meeting which was conducted on November 13, 2008 and included the following discussion items:

- Established points of contact for ALCOSAN and planning basin consultant
- Provided an overview of the purpose and composition of the Customer Municipality Advisory Committee (CMAC) and the Regional Stakeholder Group (RSG)
- Provided an overview of the SMR planning basin flow monitoring, mapping and modeling efforts
- Discussed the development of the Regional Wet Weather Plan and Municipal Feasibility Studies
- Discussed the development of the Existing Conditions Report and ongoing coordination with the customer municipalities

Don Geisser indicated that the Regional Collection System Flow Monitoring Plan (RCS-FMP), which consists of 64 individual flow monitoring stations in the SMR planning basin, was winding down and the data is now being reviewed and "ground truthed" for use in the Hydrologic and Hydraulic (H&H) Model. Going forward it will be important for the customer municipalities to review and confirm the basin flows. The H&H model parameters, such as the basin boundary, model extents and hydrological parameters, are being finalized.

c. Customer Municipal Advisory Committee (CMAC)

Jim Protin provided an overview of the CMAC purpose, responsibility, membership and relationship to the Basin Planning Committee. The first CMAC meeting was conducted on February 18, 2008 and was well attended and very productive. The SMR planning basin representative on the CMAC is Joan Cleary. One of the CMAC's first tasks is the development of a Consent Decree summary document which will be provided to the rate payers.

The CMAC is scheduled to meet at a minimum on a quarterly basis.

d. Regional Stakeholder Group (RSG)

Jim Protin also discussed the RSG which is scheduled to have their first meeting tomorrow (March 11, 2009). The purpose of the RSG is to provide oversight on key planning topics for the Wet Weather Plan and to bring public input into the planning process. The RSG is intended to be a more broad-based group than the CMAC, comprised of representatives from academia, civic, charitable and environmental organizations with two members representing each planning basin. The planning basin members will bring feedback from the RSG to the BPC groups. Jim Protin added that the RSG is scheduled to meet on a quarterly basis and that these meetings are not open to the public, however, public input will be solicited.

Mike Lichte indicated that both the CMAC and RSG groups are still developing bylaws and determining how they will most effectively interact with the various planning basin groups.

e. ALCOSAN Updated Municipal Website

Jim Protin presented the updated ALCOSAN website and encouraged attendees to visit the updated site (ALCOSAN.ORG) and provide feedback under the "contact" link on the website's content, presentation and usefulness.

f. Financial Capability Assessment

Tom Schevtchuk introduced Anthony Catania from K. Bealer Consulting who will be responsible for maintaining the cost information data base for the planning basin. Tom Schevtchuk provided an overview of the Financial Capability Assessment (FCA). The FCA will be based upon two components: the rate payer's and ALCOSAN's affordability and the customer municipality's ability to finance capital projects. The goals of the FCA will be to determine a firm understanding of the cost impacts to municipalities and rate payers and to develop a regional financial strategy to satisfy the Consent Decree requirements. The FCA will be driven by the guidelines established in USEPA's 1997 guidance document entitled "Combined Sewer Overflows – Guidance for Financial Capability Assessment and Schedule Development."

Tom Schevtchuk provided the following handouts: FCA contact information, municipal data needs, an information request prototype form and a general timeframe for the FCA. Upcoming steps include information requests to customer municipalities (tentatively in March 2009), information gathering and follow-up activities.

g. Existing Conditions Report

Don Geisser provided an overview of the SMR Facilities Plan activities including the development of the Existing Conditions Report. The report will serve as a baseline for the SMR planning basin. It will characterize the hydraulic and hydrologic characteristics of the SMR planning basin. The Basin Planner is still coordinating with customer municipalities to obtain information for the final report including the presence of on-lot disposal (septic) systems. John Perriello had a SMR planning basin map showing existing sewers and building footprints indicating suspected unsewered areas which could contain on-lot systems. Municipal representatives were encouraged to review the map after the meeting.

h. Regional Wet Weather Plan and Municipal Feasibility Studies

Don Geisser provided an overview of the upcoming activities in connection with the development of the Regional Wet Weather Plan and Municipal Feasibility Studies. The principal alternatives available for the SMR planning basin include conveyance to ALCOSAN, remote treatment and/or storage and implementation of source controls. Don Geisser indicated that due to the receiving stream water quality limitations, treatment options in the SMR planning basin will probably not be feasible. The intent of the alternatives evaluation is to identify and select the most cost-effective control alternative. The alternatives analysis will determine abatement approaches to eliminate SSOs and minimize CSOs. These alternatives will be developed in conjunction with the development of the Municipal Feasibility Studies.

Don Geisser provided an illustration of a "knee-of-the-curve" cost evaluation which will be utilized to develop cost effective alternatives. As part of the cost development, an Alternatives Costing Tool (ACT) will be utilized to screen alternative abatement strategies. The ACT is currently being developed by the Program Manager and it is intended to be provided to the customer municipalities in order to assist in the development of their Municipal Feasibility Studies.

Don Geisser provided a list of preliminary milestone dates for the SMR Facility Planning documents (refer to attachments).

i. Next Steps

Don Geisser indicated that the next steps for the Basin Planner include the following:

- Obtain additional municipal data input
- Finalize Existing Conditions Report
- Calibrate and validate H&H Model
- Begin alternative evaluations and Municipal Feasibility Plan coordination.

Don Geisser added that it was essential that the flow metering data currently being gathered and reviewed be confirmed by the municipalities prior to developing the alternatives and feasibility plans.

j. Questions/Discussion

The following issues were discussed:

- Mike Lichte asked the customer municipalities to interact with 3RWW in developing their Municipal Feasibility Studies, and to make sure they are represented and participate in upcoming planning meetings.

- John Schombert voiced this same sentiment, encouraging customer municipalities to stay involved and indicated that the next Feasibility Studies Working Group meeting is scheduled for Thursday (March 12, 2009) at the Green Tree Municipal Building. The group that is meeting is the previous Flow Monitoring Implementation Team which is now transitioning to a Feasibility Studies Working Group and is encouraging more participation.

- Dave Borneman indicated that the feasibility study development stage of the project is very critical and will be occurring over the next 6 to 12 months. The Basin Planners and customer municipalities need to work together to advance both the Wet Weather Plan and the individual Municipal Feasibility Studies.

- Michelle Buys stated that the customer municipalities would need the H&H model in order to better understand the impacts of their contributory flows. Dave Borneman indicated that the Basin Planners are building the H&H models to incorporate all critical portions of the planning basin, including all known CSOs and SSOs in the customer municipalities. The

customer municipalities have individual Administrative Consent Orders (ACOs) to develop their own Feasibility Plan but must work in conjunction with the Basin Planner in development of the overall ALCOSAN Wet Weather Plan.

- John Schombert reminded attendees that the municipal flow meter data is available on the 3RWW website.

2. Items Distributed:

a. Meeting Presentation
b. Financial Capability Assessment handouts

3. Action Items:

a. None

4. Next Meeting:

a. Tentatively in June 2009

5. Attachments:

a. Complete Meeting Presentation and Handouts
b. Meeting Attendance Sheet

ALCOSAN Basin Facilities Planning
Meeting Minutes

Saw Mill Run Planning Basin
Saw Mill Run (SMR) Basin Planning Committee
Meeting No. 4
June 16, 2009 / 9:00 a.m.
Whitehall Borough Municipal Building,
100 Borough Park Drive, Pittsburgh, PA 15236

Attendees:

Mike Lichte / ALCOSAN
Jan Oliver /ALCOSAN
Donald Geisser / ARCADIS
John Perriello / ARCADIS
George Sarapa / L. Robert Kimball
Darby Neidig / AECOM
James Protin / AECOM
Tammi Halapin / Collective Efforts, LLC
Glenda Murphy / Olszak Management Consulting
Janie French / 3RWW
Glenn Jonnet / Pittsburgh Engineering Corp. / Baldwin Township
George Zboyovsky / Brentwood Borough
Tom Hartswick / Castle Shannon Borough
Jason Stanton / Lennon, Smith, Souleret Engineering / Castle Shannon Borough
Tom Kelley / Municipality of Mt. Lebanon
Andrew Maul / Pittsburgh Water and Sewer Authority
Randy Lubin / Scott Township
James Leventry / Whitehall Borough
Mike Skinner / Gateway Engineers / Dormont Borough
Robert Mackewich / Brentwood Borough
John Shannon / Baker Engineers

1. Discussion:

a. Introduction

After all meeting attendees introduced themselves, Mike Lichte provided an overview of the Basin Planning Committee (BPC) Meeting No. 4 agenda. A copy of the meeting presentation is attached.

b. BPC Meeting No. 3 Review

Don Geisser provided an overview of the SMR planning basin including the municipalities included in the basin and the designated BPC representatives. Don Geisser indicated that Gino Rizza recently became the BPC representative for Dormont Borough and that based on a further review of the planning basin boundary information, Ingram Borough is no longer identified as being in the SMR planning basin.

Don Geisser provided a brief review of the BPC No. 3 meeting which was conducted on March 10, 2009 and included the following discussion items:

- Status Update on Customer Municipal Advisory Group (CMAG)
- Status Update on the Regional Stakeholder Group (RSG)
- Overview of Updated ALCOSAN Website

- Initial discussion on Financial Capability Assessment
- Status Update on Current Information and Conditions Report
- Status Update on the development of the Regional Wet Weather Plan and Municipal Feasibility Studies

c. Program Update

Don Geisser provided an update to the current program activities including the following:

- The RCS-FMP flow monitoring program has been completed and the SMR team is currently completing deconstruction of flow hydrographs for definition of dry and wet-weather flows and infiltration/inflow contributions. It is the intent of the Basin Planner to share this preliminary information with the municipalities in the near future.

- The Hydrologic and Hydraulic (H&H) Model is being finalized and initial runs have been made and indicate that the model is functioning well. Over the next several weeks the model will be calibrated and validated. The validated model will be used to generate various design storm flow rates and volumes for the upcoming technology and site screening analyses.

- The typical rainfall year has been changed from the previously used year 2005 to year 2003. ALCOSAN will be issuing a memorandum shortly on the basis for the change in the typical year to 2003.

- The Draft Current Information and Conditions Report was distributed to the customer municipalities on May 11, 2009. As of this date, only 4 of the 12 customer municipalities have provided review comments. It was requested that comments be provided to the Basin Planner within the next couple weeks. Mike Lichte reinforced the importance of receiving review comments and working towards obtaining the most accurate data for the H&H model development.

d. Customer Municipal Advisory Committee (CMAC) and Regional Stakeholder Group (RSG)

Don Geisser and Jim Protin provided an overview of the CMAC and RSG. The second meeting for each group was conducted on May 12, 2009 and May 14, 2009, respectively. The topics of discussion included the following:

- Overview of WWP
- Understanding of Basin Planning
- Feasibility Study Working Group
- Public Participation

Jim Protin indicated that CMAC and RSG members should be invited to all future BPC meetings. Jim Protin indicated that the SMR planning basin representative on the CMAC is Joan Cleary. Jan Oliver indicated that the RSG members were more concerned with policy issues pertaining to the National CSO Policy Guidelines, etc., and that the RSG is a more

broad-based group than the CMAC, comprised of representatives from academia, civic, charitable and environmental organizations with two members representing each planning basin.

e. Technology Screening Process

Don Geisser provided an overview of the technology screening process which will include the following steps:

- Utilize the completed H&H model to establish wet-weather flows and volumes for CSOs/SSOs
- Conduct preliminary screening of CSO/SSO abatement technologies and approaches
- Apply ALCOSAN's Alternative Costing Tool (ACT) to the most appropriate identified technologies and approaches
- Factor in non-cost technology screening criteria
- Identify most viable/feasible alternatives for further detailed analysis

Mike Lichte stated that the ACT will initially be shared with the Basin Planners on a trial basis. Once the ACT has been tested and/or refined, it will be provided to the customer municipalities for their use in development of their feasibility studies. The intent is to have a common cost basis for the planning level effort across all of the planning basins. Jan Oliver indicated that the ACT is a more regional tool; however, it does contain costing elements for such items as source control and conveyance pipes that will be useful to customer municipalities.

Jason Stanton inquired if the ACT included recent cost information for the North Shore tunnel project. Darby Neidig indicated that some but not all of the elements of this rail project are applicable to CSO projects. Mike Lichte stated that he would check to see if the tunneling aspects of this project were incorporated into the ACT.

Don Geisser stated that it is the Basin Planners intent to interact with the customer municipalities during the screening process to help define the most feasible alternatives.

Don Geisser presented a figure depicting CSOs within the SMR planning basin that have significant overflow volumes. A brief overview and examples of various technologies which will be considered for the technology screening were presented and included the following:

- Source Control (land-based stormwater management, private and municipal I/I reduction)
- Storage (tunnel, aboveground and below ground tank storage)
- Transmission (sewer separation, pump stations, consolidated conduits)

- Treatment (retention treatment basin, high-rate clarification, screening, vortex separation, disinfection)

Don Geisser stated that in addition to confirmation on the flow monitoring data and hydrograph deconstructions with the customer municipalities, the SMR team will need input from the customer municipalities on any planned source control measures in the SMR planning basin. .

f. Site Screening

In concert with the technology screening process, the SMR team will be conducting site screening evaluations for applying CSO and SSO controls in the SMR planning basin. The H&H model will be used to generate preliminary flow volumes and facility sizing to identify required land areas. A site screening will then be performed considering several factors including existing land use, critical infrastructure, constructability, environmental and cultural resources and site accessibility. The SMR team will be coordinating with customer municipalities regarding siting for CSO and SSO abatement facilities and transmission controls during the screening process.

g. Public Participation Plan

Glenda Murphy presented an overview of the SMR Public Participation Plan. The plan's purpose is to ensure successful development of the SMR Facilities Plan through a series of meetings and outreach activities to public officials, stakeholder groups and the general public. The plan includes regular communications through a quarterly SMR Basin Quarterly Activity Report which will first be issued in July 2009. Glenda Murphy added that for the public officials and general public meeting, an informational meeting would be scheduled first with the public officials in order to bring them up to date on the program prior to meeting with the general public.

Glenda Murphy handed out a municipal contact list and community group listing and requested that the meeting attendees review the lists and indicate who should be the point of contact for future communications concerning the public participation plan and if there were any additional community groups which should be included on the distribution list.

(Note: recognizing that customer municipalities in attendance at the meeting may not have had sufficient time to respond to both lists and that several customer municipalities were not in attendance at the meeting, both lists are attached to these meeting minutes; it is requested that those customer municipalities that did not have the opportunity to provide the requested information on these lists, please do so and return this information to Donald Geisser, ARCADIS SMR Project Manager [donald.geisser@arcadis-us.com].)

h. Early Action Projects and Funding Alternatives

Mike Lichte added that a goal of ALCOSAN was to identify candidates for "early action" projects such as stream removal or source control programs which may be eligible for immediate funding. Mike Lichte indicated that there are a few funding source opportunities including PennVest, Rural Utilities Service and the federal stimulus fund. Mike Lichte also

indicated that ACT 537 funding may become available for municipalities efforts to develop feasibility studies and related projects. It was advised that municipalities' costs/expenses for these efforts should be tracked for possible future reimbursement.

i. Coordinated Schedule

Mike Lichte indicated that ALCOSAN was working toward developing a coordinated schedule for the development of ALCOSAN's Wet Weather Plan in conjunction with the development of the Municipal Feasibility Studies. Currently, ALCOSAN's Consent Degree requires finalization of the Wet Weather Plan prior to the completion of the Municipal Feasibility Studies; therefore, the development of key system information, i.e., flows, source control plans, etc. need to be developed and coordinated between the municipalities and the Basin Planners. The Basin Planners will need to work hand-in-hand with the municipalities as they develop their feasibility studies. 3RWW is conducting bi-weekly Feasibility Study Working Group (FSWG) meetings to facilitate the development of the municipal feasibility studies.

Janie French added that a FSWG subcommittee has formed to discuss intermunicipal agreements between customer municipalities. The subcommittee is developing discussion points to promote further dialog between neighboring municipalities with the intent of eventually developing intermunicipal agreements.

j. ALCOSAN Municipal Secure Website

The redesigned municipal secure website is now available. The website is now more user friendly and provides a direct and secure link between ALCOSAN and the customer municipalities. The website has information which will be beneficial to the municipalities including various forms. The website will eventually have the ACT to assist municipalities in the development of their feasibility studies. The ACT is scheduled to be available on the website in the next few months.

k. Baseline Financial Capability Assessment

3RWW is currently collecting financial data from municipalities as discussed at the last Basin Planning Committee meeting; therefore, ALCOSAN will not be requesting this information. Once the information has been collected by 3RWW, ALCOSAN will be using it to calculate the baseline municipal and regional financial capability in order to perform an affordability analysis.

l. Next Steps

Don Geisser indicated that the next steps for the Basin Planner include the following:

- Complete flow monitoring hydrograph deconstruction
- Confirm flow monitoring data with municipalities
- Complete calibration/validation of H&H model
- Obtain input from municipalities on source control plans

- Generate model-derived flow volumes for the typical year and the 1, 2, 5 and 10 year design storms
- Conduct alternatives technology and site screening and prepare draft report

Don Geisser added that it was essential that the flow monitoring data currently being gathered and reviewed be confirmed by the municipalities prior to developing the alternatives and feasibility plans.

m. Questions/Discussion

The following issues were discussed:

- Andy Maul requested information/justification for the selection of year 2003 as the typical rainfall year. Mike Lichte indicated that preliminary information had been provided to PWSA but a more formal memorandum is being developed and will be made available to the municipalities in the next couple months.

2. Items Distributed:

a. Meeting Presentation

3. Action Items:

a. None

4. Next Meeting:

a. Tentatively in September 2009 at Whitehall Borough

5. Attachments:

a. Complete Meeting Presentation
b. Meeting Attendance Sheet

Distribution
Attendees
Daniel D. Harris, PE, ARCADIS
Invitees not in Attendance

ALCOSAN Basin Facilities Planning
Meeting Minutes

Saw Mill Run Planning Basin
Saw Mill Run (SMR) Basin Planning Committee
Meeting No. 5
September 23, 2009 / 9:00 a.m.
Whitehall Borough Municipal Building,
100 Borough Park Drive, Pittsburgh, PA 15236

Attendees:

Mike Lichte/ALCOSAN
Jan Oliver/ALCOSAN
Donald Geisser/ARCADIS
John Perriello/ARCADIS
George Sarapa/L. Robert Kimball
Darby Neidig/AECOM
John Shannon/Michael Baker
Janai Williams/Ebony Holdings
Michele Buys/Allegheny County Health Department
Tammi Halapin/Collective Efforts, LLC
Glenda Murphy/Olszak Management Consulting
Harry Geis/3RWW
Brian Rankin/PaDEP
George Zboyovsky/Brentwood Borough
Tom Kelley/Municipality of Mt. Lebanon
Gino Rizza/Dormont Borough
Jason Stanton/Lennon, Smith, Souleret Engineering/Castle Shannon Borough
Randy Lubin/Scott Township
Michael Smith/Municipality of Bethel Park
Glenn Jonnet/Pittsburgh Engineering Corp./ Baldwin Township

1. Discussion:

a. Introduction

Mike Lichte welcomed everyone to the Basin Planning Committee (BPC) Meeting No. 5. After all meeting attendees introduced themselves, Don Geisser provided an overview of the BPC Meeting No. 5 agenda.

b. BPC Meeting No. 4 Review:

Don Geisser provided an overview of the previously conducted SMR BPC Meeting No. 4 which was held on June 16, 2009. Don Geisser indicated that as an update to the previous meeting, the Current Information and Conditions Report had been completed and distributed to the BPC representatives. Don Geisser also indicated that the SMR Hydrologic and Hydraulic (H&H) model was nearing completion and would become available for the customer municipalities by the end of the year. Don Geisser reiterated that the CSO/SSO control technology overview had been presented at the previous BPC meeting and requested that the meeting attendees refer back to the previous meeting minutes/handouts if they had any questions on the control technologies.

c. Technical Data Update

Don Geisser provided an update to the current program activities including the following:

- The RCS-FMP flow monitoring program has been completed and the data is available on the 3 Rivers Wet Weather Municipal Data Support (MDS) Site.

- The SMR H&H Model has been completed and is being QA/QC'd by the Program Manager. The Basin Planner is currently working on the report documentation (H&H Model Report) to support the model development. The H&H Model and H&H Model Report will be made available to the customer municipalities by the end of the year.

- The typical rainfall year being used is calendar year 2003. The Basin Planner will be using year 2003 data to simulate annual overflow statistics.

- The Final Current Information and Conditions Report was distributed to the customer municipalities on August 28, 2009.

- ALCOSAN reiterated that key documents and data will be posted on the secure municipal website as they become available. If there are issues with gaining access to documents or working with the website, Mike Lichte should be contacted. Michelle Buys inquired as to how the H&H Model will be introduced/provided to the customer municipalities. Mike Lichte indicated that a separate meeting to discuss the model may help facilitate its distribution and use by the customer municipalities. ALCOSAN will determine how the H&H Model will be conveyed to the customer municipalities prior to its release.

d. Financial Update

Jan Oliver provided a financial update which included the following:

- The Alternative Costing Tool (ACT) has been posted to the municipal website for use by the customer municipalities in the development of their Feasibility Studies. The ACT will be receiving an update to include a costing module for Satellite Secondary Treatment Facilities.

- ALCOSAN is compiling a list of potential Early Action Projects with the intent of assisting customer municipalities with funding opportunities. Recently ALCOSAN attended a funding workshop sponsored by Congressman Mike Doyle. The workshop's intent was to ensure that monies are being made available to municipalities.

- ALCOSAN is working with 3 Rivers Wet Weather to gather municipal financial information to help model the existing financial conditions in order to calculate financial burden to rate payers.

e. Municipal/ALCOSAN Coordination

- Janai Williams provided an update on the Customer Municipal Advisory Committee (CMAC) and Regional Stakeholder Group (RSG) whom have both conducted three

meetings. The next scheduled CMAC and RSG meetings are October 14 and 15, 2009, respectively. The SMR CMAC representatives are Dave Montz and Joan Cleary. The SMR RSG representatives are Linda Book and Doug Sample.

- John Shannon provided an update on the Feasibility Study Working Group (FSWG). The FSWG meets the 2nd and 4th Thursday of every month and is open to all customer municipalities. The meetings are held at the Green Tree Municipal Building between 9 a.m. and 11 a.m. The goal of the meeting is to provide assistance to the customer municipalities in the development of their required Feasibility Studies and meeting their COAs and ACOs. John Shannon also identified the following two active subcommittees:

    - Intermunicipal Agreements Subcommittee: Meets at Gateway Engineer's Offices for the purpose of assisting municipalities with development of intermunicipal agreements. The next meeting is scheduled for October 1, 2009 at 10 am.

    - O&M Subcommittee: Meets at the Green Tree Municipal Building for the purpose of assisting municipalities with the development of their Sanitary Sewer Operation and Maintenance Programs which are due by March 2010. The next meeting is scheduled for September 28, 2009.

- The next FSWG meeting is scheduled for October 8, 2009.

- Jan Oliver reiterated the importance of customer municipalities meeting to discuss multi-municipal systems that contain overflows. ALCOSAN through its wet weather program is addressing system improvements on a regional basis, i.e., at points of connection to the ALCOSAN interceptor system. Jan Oliver stated that ALCOSAN cannot dictate what improvements are required in the customer municipality systems to control overflows as these improvements are the responsibility of the municipalities in meeting their own COAs and ACOs.

f. Preliminary Sites Screening Evaluation

John Perriello provided an overview of the preliminary site screening evaluation process which includes the following steps:

- Identification of Significant Overflows and Groupings

  Utilizing the ALCOSAN Existing Conditions Model data and existing discharge monitoring report (DMR) data from ALCOSAN and PWSA, significant CSOs and SSOs which exhibited an annual average overflow volume of greater than 5 million gallons (mg) were identified. These significant overflows were then grouped geographically with either other significant overflows or groupings of adjacent minor overflows (i.e., overflows with less than 5 mg average annual discharge volume) to identify site screening areas.

- Preliminary Site Screening Criteria

  Once the site screening areas were identified, an area within a 2,000-foot radius of each significant or minor upstream and downstream overflow was established to define the site

area limits. Within each site area limit, the following preliminary screening criteria were utilized to narrow down the potential site options by eliminating sites which included:

- Critical infrastructure (major transportation corridors, interceptor sewers, SMR, railways, etc.);
- steep topography (slopes greater than 20 percent);
- areas listed on the National Register of Historic Places; and,
- areas designated as Allegheny County Land Trust Greenways.

John indicated that the preliminary site screening criteria could be relaxed if suitable sites are not identified using the above preliminary site screening criteria.

- Secondary Site Screening Criteria

  Available site areas were further screened utilizing the following secondary site screening criteria:

  - Land usage (vacant areas favored over occupied areas);
  - critical infrastructure (avoid secondary roadways, overhead utilities, etc.);
  - public facilities (avoid parks, public parking facilities, etc.);
  - engineering considerations (avoid flood plains, significant elevation differences, etc.);
  - historical and cultural resources (avoid impacts to historic or culturally significant areas);
  - environmental resources (avoid impacts to wetlands, endangered species core habitat areas); and,
  - accessibility (properties with road frontage favorable over landlocked areas).

John Perriello provided a site screening example for Site Screening Area A located at the confluence of Saw Mill Run and the Ohio River. John Perriello indicated that 14 site screening areas where established which includes a total of 46 CSOs and 6 SSOs. John Perriello indicated that the preliminary site screening area findings were available for review/questions after the meeting.

g. Consolidation Pipeline Route Selection Criteria

John Perriello stated that the consolidation pipeline route selection criteria was the same as was used for the site selection criteria with the exception that routes could be located within/along existing transportation corridors and/or existing interceptor routes.

John Perriello indicated that the consolidation pipeline routes identified were limited to the location of the existing interceptor routes which follow the existing transportation corridors: Library Road, McNeilly Road and Saw Mill Run Boulevard. The limitation of routing alternatives was due to the SMR basin's topography and build-out.

h. Site Screening Workshops

John Perriello stated that site screening workshops were conducted with the following impacted municipalities: Municipality of Bethel Park, Castle Shannon Borough, Baldwin Township and the City of Pittsburgh (PWSA). The information gathered in the workshops will be utilized in the development of the Screening of Controls and Sites Report.

i. Next Steps

Don Geisser indicated that the next steps for the Basin Planner include the following:

- Complete Screening of Technology Controls and Sites Report in October/November 2009
- Complete H&H model and Model Report in October/November 2009. The completed QA/QC'd model will be available for the municipalities by the end of 2009
- Complete and distribute the Fall 2009 Basin Quarterly Activity Report
- Glenda Murphy provided an overview of the upcoming Public Meetings/Forums:
  - The SMR planning basin is proposing to conduct three separate public meetings with the first tentatively scheduled for November 10, 2009 in Whitehall Borough to include the following communities: Whitehall Borough, Castle Shannon Borough and Brentwood Borough. The other two public meetings are being coordinated with adjoining planning basins with one being planned with the Chartiers Creek planning basin to include Baldwin Township, Municipality of Bethel Park and the Municipality of Mt. Lebanon and one being planned with the Main Rivers planning basin to include the City of Pittsburgh.
  - Glenda Murphy stated that they are trying to find locations and dates for the two latter meetings. Also, it is the intent to hold a preliminary meeting with the public officials prior to conducting the public meetings.
- With the completed H&H Model, the Basin Planner will initiate detailed analyses for the Feasibility Report and Present Worth Analysis which is scheduled to be completed in Summer 2010.
- After discussion with the group, Don Geisser indicated that the next BPC meeting would be scheduled for January 2010. Don Geisser also requested that if there are any topics that the meeting attendees would like to discuss at the next meeting they should provide topics to Don Geisser or Mike Lichte.

j. Questions/Discussion

The following issues were discussed:

- Jason Stanton stated that the findings from the H&H Model Report and Controls and Site Screenings Report would be good information to discuss at the next BPC meeting.

- Randy Lubin inquired if ALCOSAN was going to initiate a new rate increase. Jan Oliver stated that due to ALCOSAN having to meet the requirements of the Consent Decree, that that yearly rate increases of approximately 10 percent per year could be anticipated. Jan Oliver stated that ALCOSAN typically decides on rate increases in November. Mike Smith stated that older communities with large fixed income populations will be interested in the program due to the impacts on their rates.

2. Items Distributed:

a. Meeting Presentation

3. Action Items:

a. None

4. Next Meeting:

a. Tentatively scheduled for January 2010 at Whitehall Borough

5. Attachments:

a. Complete Meeting Presentation and Handouts

b. Meeting Attendance Sheet

ALCOSAN Basin Facilities Planning
Meeting Minutes

Saw Mill Run Planning Basin
Saw Mill Run (SMR) Basin Planning Committee
Meeting No. 6
February 24, 2010 / 9:00 a.m.
Whitehall Borough Municipal Building,
100 Borough Park Drive, Pittsburgh, PA 15236

Attendees:

Mike Lichte/ALCOSAN
Donald Geisser/ARCADIS
John Perriello/ARCADIS
George Sarapa/L. Robert Kimball
Darby Neidig/AECOM
John Shannon/Michael Baker
Janai Williams/Ebony Holdings
Lisa Sorg/Allegheny County Health Department
Tammi Halapin/Collective Efforts, LLC
Glenda Larson/Olszak Management Consulting
Harry Geis/3RWW
Jerry Brown/3RWW
Paul Eiswerth/PaDEP
Michael Smith/Municipality of Bethel Park
George Zboyovsky/Brentwood Borough
Tom Hartswick/Castle Shannon Borough
Jason Stanton/LSSE/Castle Shannon Borough
David Montz/Green Tree Borough
Andrew Maul/PWSA
Randy Lubin/Scott Township
Mike Skinner/Gateway Engineers
James Leventry/Whitehall Borough

1. Discussion:

a. Introduction

Mike Lichte welcomed everyone to the Basin Planning Committee (BPC) Meeting No. 6. After all meeting attendees introduced themselves, Don Geisser provided an overview of the BPC Meeting No. 6 agenda.

b. BPC Meeting No. 5 Review:

Don Geisser provided an overview of the previously conducted SMR BPC Meeting No. 5 which was held on September 23, 2009. Don Geisser indicated that the following items were previously discussed at BPC Meeting No. 5: progress of the Hydrologic and Hydraulic (H&H) model and report; the Alternatives Costing Tool (ACT); municipal/ALCOSAN coordination; preliminary sites screening evaluation; and upcoming public meetings.

c. Municipal and Public Outreach Update

Don Geisser and Glenda Larson provided an update to the current public outreach activities including the following:

- The Customer Municipality Advisory Committee (CMAC) Meeting No. 5 was rescheduled for Tuesday, March 2, 2010.

- The Regional Stakeholder Group (RSG) Meeting No. 5 was expected to be rescheduled to early March 2010.

- Key topics at the CMAC and RSG meetings will be the following: draft alternatives screening and weighting criteria, alternatives evaluation process and stakeholder advocacy.

- A total of 13 planning basin outreach meetings were conducted in November 2009 in addition to the annual customer information meetings conducted in January and February 2010. Key topics of discussion included the ALCOSAN CD; facility siting; alternatives analysis; municipal coordination; public awareness and engagement; and public health.

- Three public outreach 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 attendance for the general public was generally modest, but attendance by elected officials was good. Interaction and engagement with both groups was high. Going forward more emphasis will be placed on publicizing upcoming meetings and inviting public officials. Presentations will be kept short and to the point.

- The next round of public outreach meetings will be conducted in the fall of 2010 with an emphasis on preliminary alternatives and sites.

- The Basin Quarterly Activity Report No. 3 is scheduled to be issued in March 2010.

d. Financial Data Update

Don Geisser provided a financial update which included the following:

- The Alternatives Costing Tool (ACT) is being revised and will be posted to the municipal website when available. John Shannon requested that a listing of the ACT revisions be provided when the revised version is posted so that all ACT users will be aware of which items in the ACT have changed.

- The 3RWW municipal asset data survey is currently ongoing with approximately 75% percent response received. Information obtained will be used to develop an overall "affordability" model for the ALCOSAN customers. Jerry Brown indicated that the survey is actually beyond its due date and the cut-off date for receiving information is approaching.

e. Screening of Controls & Sites Report

Don Geisser stated that the redraft of the Screening of Controls and Sites Report was provided to ALCOSAN in February 2010 and once it is reviewed and approved by ALCOSAN it is the intent to release it to the municipalities; potential date for release is March 2010.

Don Geisser provided a summary overview of the site screening results and combined site and technology evaluation.

f. H&H Modeling Update

Don Geisser provided an update on the status of the H&H modeling effort for the SMR planning basin which includes the following:

- The H&H model and report were submitted to ALCOSAN in October/November 2009.
- Comments on the initial H&H model and report were received by ARCADIS in December 2009.
- The revised H&H model and report were submitted to ALCOSAN on February 1, 2010. ALCOSAN and the Program Manager are currently reviewing the submittal and it is anticipated that the final H&H model and report will be completed in March 2010 with distribution to the customer municipalities thereafter.

Don Geisser presented an overview of the H&H model development including the development of the model extents, model calibration and validation process, model simulations conducted, and overflow results summary for the 2003 typical year.

- Simulations were completed for the 2003 Typical Year conditions as well as 1, 2, 5 and 10-year, 24-hour Design Storm events.

Mike Lichte added that preliminary flow estimates are due to ALCOSAN by the end of March 2010; however, it is recognized that the H&H models might not be available or will have only been available to the municipalities a short period of time before the due date. John Shannon indicated that many of the municipalities are intending to utilize the H&H models to generate the requested flow estimates.

Jason Stanton inquired what condition the H&H model will represent. Don Geisser stated that the model will represent the baseline, year 2008 existing conditions.

John Shannon indicated that the municipalities are curious as to how the H&H model transaction will occur. Mike Lichte indicated that ALCOSAN is reviewing this issue.

Andy Maul inquired if any of the PWSA flow monitoring data was utilized in the model development. Don Geisser indicated that some of the PWSA data was used to verify model calibration in areas where the RCS-FMP data was lacking in coverage.

g. Feasibility Report and Present Worth Analysis

Don Geisser provided an overview of the SMR planning basin alternatives and sub-alternatives which will be evaluated using cost and non-cost criteria. A knee-of-the-curve (KOC) analysis will then be used to evaluate varying degrees of CSO/SSO controls for the five identified basin-wide alternatives. Paul Eiswerth stated that KOC analysis for SSOs is not applicable since by law SSOs are not permitted.

Don Geisser presented a Weighted Cost/Non-Cost Screening of Control Site Alternatives form which will be used by the basin planners to rate alternatives. Each of the rating categories were discussed and a blank form was distributed to the BPC meeting attendees to get their input on the category weighting factor. Don Geisser explained each one of the categories and associated criteria questions and asked each of the stakeholders in the meeting to assign weights to the categories. It was also requested that the most important category to each stakeholder be indicated.

Mike Smith inquired as to how the categories for "Operational Impacts" and "Implementation Impacts" should be weighted, as a municipal owner or as and ALCOSAN owner. The categories should be weighted from your individual prospective, i.e., in the case of The Municipality of Bethel Park, a municipal owner. Jason Stanton indicated that some categories, such as "Implementation Impacts" and "Public Factors" have some overlapping criteria, e.g., construction impacts and community disruptions. The results of the survey are attached to these meeting minutes and will be reviewed by ALCOSAN and factored into the final category weighting.

Don Geisser reviewed the KOC process and identified the key progress milestones for the development of the Feasibility Report and Present Worth Analysis with the final report due on September 30, 2010.

h. Next Steps

Don Geisser indicated that the next steps for the Basin Planner include the following:

- Finalize Screening of Sites and Controls Report and distribute to municipalities
- Finalize H&H model and report and distribute/present to municipalities
- Obtain municipal input on existing and projected flows to points of connection to ALCOSAN system (Note: It was discussed that going forward, municipalities, ALCOSAN and the Basin Planner could meet individually to review flow projections to ALCOSAN.)
- Progress development of Feasibility Report and Present Worth Analysis
- Conduct additional municipal coordination during alternatives evaluation process

2. Items Distributed:

a. Meeting Presentation

3. Action Items:

a. None

4. **Next Meeting:**

   a. Tentatively scheduled for June 2010 at Whitehall Borough

5. **Attachments:**

   a. Complete Meeting Presentation and Handouts

   b. Cost/Non-Cost Screening of Control Site Alternatives form survey results

   c. Meeting Attendance Sheet

Distribution
Attendees
Invitees not in Attendance

ALCOSAN Basin Facilities Planning
Meeting Minutes

Saw Mill Run Planning Basin
Saw Mill Run (SMR) Basin Planning Committee
Meeting No. 7
June 30, 2010 / 9:00 a.m.
Whitehall Borough Municipal Building,
100 Borough Park Drive, Pittsburgh, PA 15236

Attendees:

Jan Oliver/ALCOSAN
Mike Lichte/ALCOSAN
Donald Geisser/ARCADIS
John Perriello/ARCADIS
George Sarapa/L. Robert Kimball
Darby Neidig/AECOM
John Shannon/Michael Baker
Joe Agnello/KCI Technologies
Lisa Sorg/Allegheny County Health Department
Tammi Halapin/Collective Efforts, LLC
Jackie Freeman/Olszak Management Consulting
Kaye Bealer/Bealer Consulting, LLC
Anthony Catania /Bealer Consulting, LLC
Harry Geis/3RWW
Tom Hartswick/Castle Shannon Borough
Tom Kelley/Municipality of Mt. Lebanon
Gino Rizza/Dormont Borough
Andrew Maul/PWSA
Randy Lubin/Scott Township
Michael Smith/Municipality of Bethel Park
Mike Skinner/Gateway Engineers
James Leventry/Whitehall Borough
Glenn Jonnet/Baldwin Township
Thomas Schevtchuk/CDM

1. Discussion:

a. Introduction

Mike Lichte welcomed everyone to the Basin Planning Committee (BPC) Meeting No. 7. Don Geisser provided an overview of the BPC Meeting No. 7 agenda.

b. BPC Meeting No. 6 Review:

Don Geisser provided an overview of the previously conducted SMR BPC Meeting No. 6 which was held on February 24, 2010. Don Geisser indicated that the following items were previously discussed at BPC Meeting No. 6:

- a summary of the November 2009 public meetings
- status of the financial data gathering and affordability analysis
- preliminary control sites screening results
- a summary overview of the Hydrologic and Hydraulic (H&H) model and 2003 typical year results
- an overview of the feasibility report and present worth analysis alternatives evaluation process and preliminary basin alternatives

- a meeting poll was conducted for ranking weighted cost and non-cost screening criteria for control site alternatives

The results of the meeting poll were provided in the BPC Meeting No. 6 minutes. Don Geisser noted that the results of the meeting poll were combined with other planning basin meeting polls to develop screening criteria weighting factors that will be used by all the basin planners in the development of control site alternatives.

c. H&H Modeling

Don Geisser provided an update on the status of the H&H modeling effort for the SMR planning basin which includes the following:

- The H&H model was finalized and provided to ALCOSAN and the Program Manager in March 2010. The model was subsequently posted on the municipal website for customer municipality review and use.
- The H&H Model Characterization and Validation Report was provided to ALCOSAN and the Program Manager in May 2010 and was subsequently posted on the municipal website for customer municipality review and use.

ARCADIS has been responding to customer municipality questions on the H&H model as necessary.

d. Preliminary Flow Estimates (PFEs)

Don Geisser indicated that no PFEs have been provided to ALCOSAN from the SMR planning basin customer municipalities through June 25, 2010 and inquired as to the status and schedule for the customer municipalities to provide. The following is a summary of the discussions for the preliminary delivery schedule of the PFEs from each customer municipality:

- Baldwin Borough and Green Tree Borough: No updates were provided as there were no representatives from consulting engineers in attendance for these customer municipalities. Jan Oliver indicated that ALCOSAN would follow-up with these customer municipalities to confirm status of the PFEs.
- Baldwin Township: Glenn Jonnet indicated that PFEs for CSOs 2A, 6, and 14 were complete, but that information needs to be confirmed with neighboring Castle Shannon Borough. Glenn Jonnet anticipates completing PFEs by the week of July 10, 2010. Glenn Jonnet indicated that estimates for S-15 are currently under review by PWSA and anticipates receiving information from PWSA by the week of July 10, 2010.
- Municipality of Bethel Park: Mike Smith indicated that he anticipates finalizing PFEs by mid-July 2010. Mike Smith indicated that the Municipality of Bethel Park installed a flow monitor in CS52 in mid-February and initial monitoring results show significantly lower flows than previously observed at this structure due to recent Inflow/Infiltration reduction measures. Mike Smith requested clarification from ARCADIS on what impact (if any) these results might have on their H&H Model and Feasibility Report. Don Geisser and Mike Lichte responded that this information needs to be reviewed with ALCOSAN and

ARCADIS and suggested setting up a meeting the week of July 5, 2010 to discuss the findings. Mike Lichte indicated that ground-truthing of the modeling results would be required throughout the Feasibility Report development period for the entire ALCOSAN service area. Mike Smith indicated that the Municipality of Bethel Park is anticipating that it will be going out for bond funding in 2011 to finance the rehabilitation of additional pipelines and that this would likely have further flow reduction impacts in the Municipality of Bethel Park.

- Brentwood Borough, Crafton Borough, Dormont Borough, Municipality of Mt. Lebanon, Mt. Oliver Borough, and Whitehall Borough: Mike Skinner of Gateway Engineers represents all of these customer municipalities and anticipates delivering PFEs for the above municipalities by July 13, 2010. Mike Skinner indicated that he is working with PWSA to confirm PFEs at the points of connection (POCs) located in the City of Pittsburgh. Jan Oliver inquired as to whether pipelines were adequately sized when municipalities were conducting their evaluations in order to accommodate all flow to the ALCOSAN interceptor system. Glenn Jonnet indicated that Baldwin Township was assuming that their pipelines were being upsized in order to eliminate municipal overflows/surcharging and convey all the flow from S-15 to the ALCOSAN interceptor. Glenn Jonnet also indicated that preliminary meetings have been held with municipal officials to discuss the potential fiscal impacts of infrastructure improvements on the Township. Mike Lichte indicated that the cost to upsize municipal conveyances should be evaluated to gauge the overall basin project costs. Don Geisser indicated that the evaluation process is iterative and that any additional input from municipal representatives would be incorporated moving forward.
- Castle Shannon Borough: Tom Hartswick indicated that he would check with the Borough's engineers (Lennon, Smith and Souleret) on their schedule.
- City of Pittsburgh: Andy Maul indicated that he anticipates delivering PFEs by mid-July.
- Scott Township: Randy Lubin indicated that he would contact Lennon, Smith, and Souleret for a status update.

Don Geisser indicated that the SMR Team is assuming a worst-case scenario in that all municipal flows will be conveyed to ALCOSAN. Mike Lichte indicated that this was a requirement of the Consent Decree. Don Geisser added that ARCADIS' modeler upsized or included additional conveyances as necessary in the customer municipality systems to alleviate municipal overflows and to convey all the flow to the ALCOSAN interceptor system.

Don Geisser provided an overview of the development of the Future Conditions (2046) model for the SMR planning basin which included revising the base wastewater flow based on the highest projected total basin population which is projected to occur in 2030 per the SPC population projections. Don Geisser also indicated that no significant land use changes were identified in the planning basin during the planning period (2046).

John Shannon inquired as to how peak basin population estimates were developed. John Perriello indicated that population data for each portion of the customer municipality included within the SMR planning basin were summed up for each of the design years to determine the basin overall, peak population. The peak basin population occurred in year 2030. John

Perriello indicated that ARCADIS will be scheduling meetings with customer municipalities in July to review the population projection data.

Don Geisser provided an overview of the proposed municipal coordination efforts once the PFEs are received from the customer municipalities:

- The SMR team will meet with the customer municipalities to review population projections and SMR model estimated flows versus the municipal PFEs
- Any flow discrepancies (+/- 15% to 25%) will be identified
- The SMR team will discuss significant discrepancies with ALCOSAN and the customer municipality
- Flow discrepancies will be reconciled/resolved and agreed upon flows will be included in the SMR H&H model

Don Geisser indicated that an initial meeting was conducted with the PWSA on June 8, 2010 to discuss the initial SMR POC flow estimates and the modeling assumptions used in their development. Don Geisser described instances where CSOs are combined with separate storm water and stream flows in a common overflow pipe. Don Geisser described the Plummers Run system and identified several other sewersheds which had similar configurations. The SMR team will be evaluating these sewersheds by assuming a consolidation pipeline will be constructed to collect the CSO flows from the diversion chambers and conveying them to the ALCOSAN system only; however, if the consolidation pipeline is cost prohibitive, the total overflow volume (including the separate storm water and stream flows) will be evaluated for conveyance to ALCOSAN for subsequent storage and/or treatment.

Don Geisser indicated that ARCADIS is investigating the impacts on the system of receiving all of the flows from sewersheds with separate storm water and/or stream connections. Andy Maul indicated the need to analyze each situation on a case-by-case basis.

e. Site/Basin Alternatives Control Strategy

Don Geisser provided an in-depth explanation of the process developed and implemented by ARCADIS to evaluate SSO and CSO alternatives within the SMR planning basin. The site/basin alternatives control strategy included the following steps (refer to presentation slide nos. 11 through 33 for additional detail):

- Develop basin future conditions model
- Develop draft basin alternatives
- Break into flow source components
- Identify control technologies and control sites for each flow source
- Develop site alternatives by combining control technologies with control sites for each flow source
- Score each site alternative using the Site Alternative Screening Form for the 2-year design storm (SSOs) and 4 overflows/year (CSOs)

- Rank each site alternative for each flow source
- Identify the highest ranking site alternative for each flow source
- Verify control technology fits on the control site
- Develop knee of the curve analysis
- Determine the most appropriate knee of the curve for the SSO and CSO alternative
- Develop final basin alternatives (SSOs and CSOs combined) and knee of the curve for 0, 1-3, 4-6, 7-12 and 20 overflows per year
- Perform source reduction sensitivity analysis
- Develop overall most appropriate basin alternative

Don Geisser indicated that ARCADIS intends to perform a sensitivity analysis which would involve reaching out to municipalities to determine if they intend to engage in green infrastructure projects, storm sewer separation efforts, etc., which could reduce wet-weather flows into the ALCOSAN system.

Glenn Jonnet inquired as to whether SSO modeling results were incorporated into ARCADIS' evaluation as the future conditions model shows more overflows than the existing conditions model. John Perriello indicated that ARCADIS' preliminary evaluation assumed that pipes would be upsized as required to convey all flows from the customer municipalities to the ALCOSAN interceptor in order to eliminate the upstream municipal overflows. This represents the worst-case scenario for ALCOSAN. Mike Lichte indicated that ALCOSAN would also be conducting a sensitivity analyses relative to SSOs to determine the impacts of municipality activities on the degree of sewer overflows. Mike Smith indicated that he would provide information to ALCOSAN pertaining to recent improvements to the Municipality of Bethel Park collection system upstream of the identified SSOs.

John Shannon offered that it would be beneficial for ARCADIS to keep the customer municipalities in the loop moving forward with regard to its progress on the evaluation process in order to eliminate any redundant planning efforts as the municipalities are analyzing flow reduction versus additional conveyances versus storage options. Jan Oliver added that some basin planners are using different storm frequencies for the development of their controls, e.g., Turtle Creek/Thompson Run basin planners are utilizing a 10-year design storm. Jan Oliver indicated that the level of control will be a negotiation point with the regulatory authorities. Don Geisser indicated that based on the preliminary knee-of-the-curve analysis developed by the SMR team, that a 5-year design storm is the optimal level of SSO control. John Shannon inquired as to whether ARCADIS had determined a method of determining the inflection point on the knee-of-the-curve; Don Geisser indicated that a standard method to determine this had not yet been developed by the Program Manager.

Don Geisser indicated that ARCADIS has developed 5 basin-wide control strategies for the SMR planning basin and provided an explanation of the process involved with each basin alternative. Don Geisser stated that because SMR has an existing TMDL for phosphorus which requires a reduction of 100% SSOs and 98% CSOs that the application of advanced

treatment controls on discharges to SMR would be required for treatment controls. Don Geisser presented the initial first-cut results of the SSO and CSO site/basin alternatives for SMR. Mike Lichte inquired as to how costs were apportioned to each alternative analysis. John Perriello indicated that costs were developed for each of the basin alternatives assuming that all flow would be conveyed to ALCOSAN and that costs for municipal conveyances where not included in the evaluation.

Randy Lubin inquired as to whether costs to customer municipalities to convey flows to ALCOSAN are included into the alternative evaluations. Jan Oliver indicated that ALCOSAN bills based on consumption and is not prepared to bill based on municipal-specific capital expenditures. Jan Oliver further indicated that billing based on capital expenditures required within a particular municipality effectively penalizes rate payers based on the location of their residences.

Tom Hartswick inquired as to where, specifically, the alternative SSO sites are located as one of the municipalities recently completed a $1 million bridge project in the general vicinity of one of the indicated sites. Don Geisser indicated that the sites were selected in 2009 and that additional input from the customer municipalities would be incorporated into any final site selection. John Perriello stated that the potential control sites were documented in the meeting minutes from the siting and routing workshops conducted last fall.

John Shannon inquired as to ARCADIS' delivery schedule for releasing the draft SMR planning basin Feasibility Report and Present Worth Analysis. Mike Lichte indicated that ARCADIS anticipates submitting the draft report to ALCOSAN in the October/November 2010 timeframe.

f. Financial Capability Assessment

Tom Schevtchuk provided a summary of the ongoing financial capability assessment to assess potential costs of necessary sewer improvements in the ALCOSAN service area (refer to presentation slide nos. 34 through 53). Tom Schevtchuk reiterated the importance of working with the basin planners and customer municipalities to develop future system costs in order to develop impacts to the customers. John Shannon stressed the importance of tracking all expense related to improving municipal systems as these costs are the most difficult to capture and include in the development of financial analyses.

g. Municipal and Public Outreach

Don Geisser mentioned that the CMAC and RSG meetings were held back in May 2010. The next meetings are scheduled for August 2010. There are seven public meetings planned throughout the entire ALCOSAN service area and one regional public meeting to be planned to be held at the Pittsburgh Convention Center. Don Geisser mentioned that the 4th SMR Basin Quarterly Activity Report was distributed to the municipal managers and officials on June 24, 2010. There were extra copies at the BPC meeting.

Don Geisser identified the following key agenda items for 2010:

- Evaluate control/site alternative ranking criteria weights

- Integrate feedback on the site alternative screening and evaluation criteria
- Municipal advocacy
- Build public consensus for CSO/SSO solutions
- Conduct a second round of public meetings scheduled for October/November

h. Alternatives Costing Tool (ACT)

Don Geisser indicated that some minor modifications have been made to the ACT for the secondary treatment elements. The revised ACT (version 2.0) has been posted to the municipal website; in addition, standardized alternative process diagrams and guidance on the impact of replacement costs has been provided. Don Geisser also noted that the assumption of a 15-minute detention time for disinfection tanks was made for tank sizing purposes.

i. Questions/Comments

- John Shannon indicated that a FSWG committee had been formed to review the revised ACT. Initial findings indicate that costing for pipe lining installation may need to be modified. This committee is expected to provide a recommendation by September 2010.
- John Perriello indicated that ARCADIS has not received feedback from the Municipality of Mt. Lebanon or Green Tree Borough on the final Existing Conditions Report which was distributed to the municipalities in August 2009. It was requested that confirmation be provided so that the final report could be posted to the municipal website.

2. **Next Steps**

Don Geisser indicated that the next steps for the Basin Planner include the following:

- Meet with customer municipalities to review population projections
- Obtain PFEs from customer municipalities, develop estimated POC flows for worst-case scenario, then meet with customer municipalities to establish agreed upon flow estimates
- Complete alternatives evaluation and prepare draft Feasibility Report and Present Worth Analysis
- Conduct next BPC meeting in September/October 2010. Don Geisser requested if any participant would like to meet anywhere other than Whitehall Borough. All meeting participants agreed to conduct next meeting in Whitehall Borough – Jim Leventry graciously offered the municipal office building meeting room for the next BPC meeting.

3. Items Distributed:

a. Meeting Presentation

4. Action Items:

a. None

5. **Next Meeting:**

   a. Tentatively scheduled for September/October 2010 at Whitehall Borough

6. **Attachments:**

   a. Complete Meeting Presentation and Handouts

   b. Meeting Attendance Sheet

Distribution

Attendees
Invitees not in Attendance

ALCOSAN Basin Facilities Planning
Meeting Minutes

Saw Mill Run Planning Basin
Saw Mill Run (SMR) Basin Planning Committee
Meeting No. 8
September 29, 2010 / 9:00 a.m.
Whitehall Borough Municipal Building,
100 Borough Park Drive, Pittsburgh, PA 15236

Attendees:

Mike Lichte/ALCOSAN
Donald Geisser/ARCADIS
John Perriello/ARCADIS
Darby Neidig/AECOM
John Shannon/Michael Baker
Mike Scheer/ Allegheny County Health Department
Lisa Sorg/Allegheny County Health Department
Tammi Halapin/Collective Efforts, LLC
Thomas Flanagan/PaDEP
Harry Geis/3RWW
Jason Stanton/LSSE, Inc.
Michael Smith/Municipality of Bethel Park
Tom Hartswick/Castle Shannon Borough
Tom Kelley/Municipality of Mt. Lebanon
Andrew Maul/PWSA
Randy Lubin/Scott Township
Mike Skinner/Gateway Engineers
James Leventry/Whitehall Borough
Glenn Jonnet/Baldwin Township

1. Discussion:

a. Introduction

Mike Lichte welcomed everyone to the Basin Planning Committee (BPC) Meeting No. 8. Don Geisser reviewed the meeting agenda.

b. BPC Meeting No. 7 Review:

Don Geisser provided an overview of the previously conducted BPC No. 7 meeting. Don Geisser indicated that the SMR Team received a recent clarification to the naming convention for Basin Alternatives from the ALCOSAN Program Manager (PM). This clarified naming convention will be used as the Basin Alternatives are further progressed.

c. Population Projections

- The SMR Planning Basin Team (SMR Team) initiated contact with the customer municipalities with assistance from Collective Efforts in late July/early August to discuss/review the 2046 SMR population projections.
- The SMR Team completed confirmation/verification of population projections with all SMR municipalities with the exception of the Municipality of Mt. Lebanon. The SMR Team is continuing discussion with Mt. Lebanon on the population projections. Most of the municipalities concurred with the SMR Team's projections or required minor

adjustments to the projections.

- John Shannon inquired as to what methodology was used for the SMR population projections. Don Geisser stated that the TAZ projections were utilized and John Perriello indicated that the highest projected year (2030) was used for the 2046 projection as it represented the worst case for the planning period.

d. Preliminary Flow Estimates (PFEs)

- Don Geisser indicated that the SMR Team planned on having follow-up meetings with each of the SMR planning basin municipalities that have direct points of connection to the ALCOSAN system over the next couple months to discuss/review PFE results. The municipalities that have direct POCs to the ALCOSAN system include; PWSA, Castle Shannon and Bethel Park. The PFEs from these municipalities are currently being reviewed by the SMR Team. Once reviews have been completed, the aforementioned meetings will be scheduled to discuss the results.

- Andy Maul indicated that PWSA has had follow-up discussions with Baldwin Township, the Municipality of Mt. Lebanon and Dormont Borough and they have concurred with the PWSA PFEs. Glenn Jonnet indicated that Ruth Ann Omer (Gateway Engineers) is going to schedule a follow-up meeting with several municipalities tributary to ALCOSAN to discuss PFEs.

- Glenn Jonnet stated that a request for an extension to the September 30, 2010 deadline in ALCOSAN's September 22, 2010 letter request for municipal flow estimates, municipal system modifications and alternatives being considered for flow delivery, if applicable, is forthcoming. Mike Lichte indicated that ALCOSAN's letter is not requesting a formal submittal, but rather more informal input from the municipality.

- Jason Stanton discussed the ALCOSAN letter and inquired from the BPC group if ALCOSAN's requested date of September 30, 2010, to receive preliminary information on municipal flows and flow strategies could be met.

- Mike Lichte stated that he did not consider September 30th as a drop dead date.

- John Shannon indicated that there is a problem inherent with the schedules for ALCOSAN's CD and the municipalities' ACOs; and that municipalities will be working on PFEs for the next 1-2 months. Mike Lichte indicated that the Basin Planner (BP) is required to submit a draft Feasibility Report on November 1, 2010, which will represent the worst case scenario and that from November 2010 to April 2011, ALCOSAN will be finalizing their planning basin Feasibility Reports. From April 2011 through December 2011, ALCOSAN will be working to develop their Wet Weather Plan (WWP).

- Don Geisser reiterated the BP's schedule and stated that while the BP is looking to frame in the SMR basin alternatives, the Program Manager (PM) is concurrently looking at the regional system.

- Jason Stanton stated that ALCOSAN's CD requires them to accept all municipal flows as part of a worst case scenario. Jason Stanton inquired if there has been any discussion within ALCOSAN on where this analysis is heading, i.e., can ALCOSAN handle all flows? will there be a flow limit set for the municipalities? or a modification made to the CD?

- Mike Lichte stated that he was not aware of a flow limit being set for the municipalities but rather ALCOSAN is looking at what improvements would be required (and the associated cost implications) for the WWTP to receive all flows. This flow information is being integrated into a regional plan/model by the ALCOSAN PM. The Basin Feasibility Reports will provide different levels of control with associated costs and an affordability analysis will be factored in as a case to the regulators for the selection of the selected level of control.

- John Shannon stated that the municipalities are looking for a final date for when ALCOSAN will need their required municipal plans. Mike Lichte stated there is not a fixed date and that the planning process is a work in progress. Mike Lichte stated that ALCOSAN also wants to build green technologies and I/I reduction into the program.

- Don Geisser stated that the SMR Team's modeler is currently reviewing the municipal PFEs and if there is a significant discrepancy found which results in a change to the H&H Model, this discrepancy resolution will be coordinated with the municipality.

- John Shannon stated that ALCOSAN had stated that it was not going to reissue the H&H models. Mike Lichte indicated that re-issuing the H&H Model was not ALCOSAN's intent; however, he indicated that if changes are significant, it could result in a reissuance of the H&H model. Mike Lichte indicated that to date, most of the discrepancies with the PFEs are not due to the physical model but the use of the input parameters, RTK values, etc.

- Glenn Jonnet stated that the municipalities are currently using the H&H model and if changes are made, then a new H&H model will need to be reissued.

- Jason Stanton indicated that a series of meetings with ALCOSAN and adjacent municipalities will be required to come to agreement on the PFEs.

- Jason Stanton stated that the September 22, 2010 letter from ALCOSAN was only issued to the municipalities with points of connections (POCs) to the ALCOSAN interceptor system. Jason Stanton added that in terms of a response to the letter (i.e., the cost to get the municipal flows to ALCOSAN), a response will not yet be available as the municipalities are currently working with upstream municipalities in several systems. The requested information would be more realistically available in Spring 2011.

- Mike Smith stated that the November draft Feasibility Report represents the worst case of all flows to ALCOSAN, but asked at what point will ALCOSAN have flow allocations for the municipalities? Mike Lichte does not believe there will be flow allocations set for each

of the municipalities as ALCOSAN is looking at each basin and costing different levels of control with the alternatives.

- Jason Stanton inquired if the Screening of Controls and Sites Report (SCSR) is going to be available for the municipalities to review. In addition, Jason Stanton asked when boundary conditions will be provided to the municipalities. Mike Lichte stated that he is not sure this will happen as ALCOSAN is looking at how all municipal flows will get to the ALCOSAN system and the BPs are being directed to cost different levels of control for the resulting flows.

- Glenn Jonnet added that municipalities need to understand the cost implications to the entire system in order to compare alternatives so the most cost effective alternatives can be determined.

- Mike Skinner inquired if ALCOSAN was looking at storage in the municipal systems. Mike Lichte stated no and added that the BPs are only looking at storage (or control facilities) in the ALCOSAN system. Mike Lichte indicated that the municipalities need to determine if they are going to provide storage in their systems or build conveyances to the POC; this is a municipal alternative evaluation responsibility.

- Mike Skinner indicated that it would be helpful if ALCOSAN could advise the municipalities where the areas of concern are so the municipalities can focus on these areas during their alternatives development.

- Mike Smith indicated that Bethel Park intends on providing PFEs to ALCOSAN by September 30, 2010.

e. Basin Alternatives Development – SSO

- Don Geisser presented the control measures and strategy for the SSO component of the SMR Basin Alternatives. A Basin Alternative will include the necessary measures to control both SSOs and CSOs within the SMR basin. The SSO basin alternatives are measures used to specifically control the SSOs within the SMR basin.

- Jason Stanton asked if the control facilities and sites being presented are documented in the SCSR and if they are considered final. Mike Lichte responded that no, the sites and controls are preliminary and based primarily on the lowest cost alternative. Mike Lichte added that the planning process is an iterative process and nothing has been finalized. Don Geisser indicated that nothing is final, but sites have been preliminarily identified in order to site/cost out facilities, levels of control, etc.

- Don Geisser stated that in the upcoming public meetings, these preliminary basin alternatives, including control sites will be presented so that input can be received from the public.

- Randy Lubin inquired how the meetings were being advertised. Darby Neidig indicated that numerous meeting announcements have been distributed to special interest groups in

the planning basins. Randy Lubin indicated that he would like to get the word out to the general public.

- In reference to the SSO tank site plan (see attached presentation handout, slide entitled Preliminary Control Facility Site Plans, Basin Alternative BA03, Flow Source: SSO B42), Jason Stanton inquired as to what level of control is being provided. Don Geisser indicated that currently the 2-year design storm is being used to size the facilities for SSOs. Don Geisser added that as a potential system optimization alternative, additional interceptor capacity could be added along Library Road to eliminate the need for the SSO storage facility; however, this is projected to be a more costly alternative.

f. Basin Alternatives Development – CSO

- Don Geisser reviewed the measures to control CSOs in each of the proposed SMR Basin Alternatives, including flow source groupings, model schematics and site plans. A Basin Alternative will include the necessary measures to control both SSOs and CSOs within the SMR basin. The CSO basin alternatives are measures used to specifically control the CSOs within the SMR basin.

- John Shannon inquired if only the 4-6 overflows per year (OF/yr) condition has been analyzed. Don Geisser stated that for the initial alternative screening, the 4-6 OF/yr condition was utilized and that all OF/yr conditions are being used with the leading basin alternative. The site plans presented at this date's meeting represent the 0 OF/yr condition to demonstrate that the facilities can fit on the sites for the worst case.

- Mike Lichte added that the alternatives being presented represent the worst case, all flows to ALCOSAN scenario, and the selected alternatives will ultimately depend on what the upstream municipalities are doing in their system, e.g., PWSA with Plummers Run. Don Geisser elaborated on the analysis conducted for Plummers Run and how this effects downstream facility sizing.

g. Regional Plan Integration

- Don Geisser noted that the SMR Team is working with the ALCOSAN PM to assist in the development of the Regional Wet Weather Plan (RWWP).

- Don Geisser noted that the ALCOSAN PM is currently integrating all planning basin leading alternatives into a preliminary RWWP.

h. Municipal Feasibility Studies

- Don Geisser asked the BPC group attendees the status of their respective municipality's feasibility study and inquired if the municipalities are actively progressing the work.

- Jason Stanton stated that now that the PFEs have been developed and the H&H Models have been disaggregated, the municipalities are starting to concentrate on the more complex intermunicipal systems.

- John Shannon asked which municipalities might be in a position to have meaningful flow strategies by the end of the year. Jason Stanton indicated that realistically it would be Spring 2011 before flow strategies are developed for Castle Shannon Borough. Mike Skinner indicated that they are looking at more internal capacity issues and that they are very early in their review/development of control strategies.

- Jason Stanton stated that Castle Shannon Borough is looking at increased capacity as a strategy if ALCOSAN is going to base their sewer charges on water consumption. If sewer charges are going to be based on metered flows, then the strategy could change to flow reduction.

- John Shannon asked Mike Lichte if Spring 2011was a reasonable/acceptable timeframe for the municipalities to convey preliminary flow strategy information to ALCOSAN? Mike Lichte indicated that this would need to be discussed at ALCOSAN but felt this time frame may possibly not be acceptable given ALCOSAN's CD schedule.

- Glenn Jonnet indicated that some simple sewersheds could have flow strategies determined by the end of the year; however, he added that for complex sewersheds this would not be possible by the end of the year.

- Jason Stanton added that there is a lot of intermunicipal coordination that has to occur for the complex sewersheds and he did not see this happening by the end of the year and restated that Spring 2011 is a more realistic timeframe to have preliminary municipal flows and costs prepared for ALCOSAN.

- Mike Lichte stated that municipalities need to get the PFEs finalized and cost out the conveyance versus storage alternatives to determine their preliminary flow strategies.

- John Shannon added that it was discussed in the FSWG meetings that ALCOSAN is only asking for the municipalities' present thinking on their strategies instead of a formal submittal.

- Andy Maul indicated that interim flow estimates for PWSA should be achievable in a time frame by the end of the year (2010).

i. Program Update

- Mike Lichte indicated that a new version of the ACT (2.1) has been made available on the municipal website. The new version includes costing recommendations by the FSWG for open cut pipe and CIPP. John Shannon stated that the consensus of the FSWG subcommittee was to utilize the ACT for the municipal costing of alternatives.

- Mike Lichte added that it is ALCOSAN's intent to post the SCSR to the municipal website; however, Mike Lichte does not have a date for when this is going to occur; the H&H reports, as well as the Existing Conditions reports, have already been posted to the municipal website; updates will be posted via technical addendum.

j. ALCOSAN Community Meetings

- Don Geisser provided an overview of the two upcoming public meetings scheduled this fall. The purpose of these meetings is to provide the following information:
  - Provide ALCOSAN's annual public information updates and the development of the Wet Weather Control Plan.
  - Present preliminary developed control solutions for the specific ALCOSAN planning basins.
- The upcoming meetings schedule pertinent to the SMR basin are as follows:
  - The November 4, 2010 meeting is scheduled from 10:00 a.m. to 4:00 p.m. at the Heinz History Center and is intended to be more regional in nature. Multiple presentations will be made throughout this day.
  - The October 27, 2010 meeting is scheduled from 5:30 – 8:00 p.m. at St. Mark's Evangelical Lutheran Church. Don Geisser added that this meeting is intended to be more basin specific for SMR
- Mike Lichte noted that the 2010 Annual Customer Information Update required to be presented by ALCOSAN pursuant to the Consent Decree will be provided at the upcoming community meetings described previously by Don Geisser. Mike Lichte also provided an update on the recent and upcoming CMAC and RSG meeting nos. 7 and 8.

2. **Next Steps**

- Don Geisser reviewed the SMR Team's next steps which include the following:
  - Finalize population projections and PFEs with customer municipalities
  - Progress Basin Alternatives
  - Coordinate with ALCOSAN PM to develop integrated Regional WWP
  - Prepare draft SMR Feasibility Report
- Andy Maul inquired if the draft Feasibility Report would be made available for the municipalities. Mike Lichte indicated that the report is draft and that the intent was for it to be more of an internal document for ALCOSAN. Mike Lichte did not know if it would be distributed but stated that the concepts and costs would be shared with the municipalities.
- John Shannon stated that the more information shared early on will help the municipalities in their development of their alternatives.

- Don Geisser thanked Whitehall Borough for their hospitality in hosting the meeting and asked the group if future BPC meetings at Whitehall Borough were still preferred. The group said they would like to meet for the next BPC at Whitehall Borough, likely to be scheduled in January 2011.

3. Items Distributed:

a. Meeting Presentation

4. Action Items:

a. None

5. Next Meeting:

a. Tentatively scheduled for January 2011 at Whitehall Borough

6. Attachments:

a. Complete Meeting Presentation and Handouts

b. Meeting Attendance Sheet

Distribution

Attendees
Invitees not in Attendance
Joseph Day, ALCOSAN

ALCOSAN Basin Facilities Planning
Meeting Minutes (Addendum No. 1 – November 12, 2010)

Saw Mill Run Planning Basin
Saw Mill Run (SMR) Basin Planning Committee
Meeting No. 8
September 29, 2010 / 9:00 a.m.
Whitehall Borough Municipal Building,
100 Borough Park Drive, Pittsburgh, PA 15236

Attendees:

Mike Lichte/ALCOSAN
Donald Geisser/ARCADIS
John Perriello/ARCADIS
Darby Neidig/AECOM
John Shannon/Michael Baker
Mike Scheer/ Allegheny County Health Department
Lisa Sorg/Allegheny County Health Department
Tammi Halapin/Collective Efforts, LLC
Thomas Flanagan/PaDEP
Harry Geis/3RWW
Jason Stanton/LSSE, Inc.
Michael Smith/Municipality of Bethel Park
Tom Hartswick/Castle Shannon Borough
Tom Kelley/Municipality of Mt. Lebanon
Andrew Maul/PWSA
Randy Lubin/Scott Township
Mike Skinner/Gateway Engineers
James Leventry/Whitehall Borough
Glenn Jonnet/Baldwin Township

Addendum No. 1

The following clarifications of the previously issued meeting minutes were provided by Jason Stanton, LSSE, Inc. on November 10, 2010.

- On Page 3 of 8, 1st bullet, Jason Stanton states: "I inquired of the contents of the CD. The way it is written implies that I was reciting the CD. That certainly was not the case."
- On Page 4 of 8, 1st complete bullet, Jason Stanton states "in addition to the boundary condition discussion, my notes reflect 'ALCOSAN advised that the municipalities are being requested that the municipal alternative analysis being performed use a *free flow* condition at the ALCOSAN POC.' "

Distribution

Attendees
Invitees not in Attendance
Joseph Day, ALCOSAN

ALCOSAN Basin Facilities Planning
Meeting Minutes

Saw Mill Run Planning Basin
Saw Mill Run (SMR) Basin Planning Committee
Meeting No. 9
February 23, 2011 / 9:00 a.m.
Whitehall Borough Municipal Building,
100 Borough Park Drive, Pittsburgh, PA 15236

Attendees:

Jan Oliver/ALCOSAN
Mike Lichte/ALCOSAN
Joseph Day/ALCOSAN
Donald Geisser/ARCADIS
Kristin Angello/ARCADIS
Keith Jensen/AECOM
John Shannon/Michael Baker
Michelle Buys/Allegheny County Health Department
Lisa Sorg/Allegheny County Health Department
Tammi Halapin/Collective Efforts, LLC
Paul Eisworth/PaDEP
Harry Geis/3RWW
Jerry Brown/3RWW
Tim Brett/LSSE, Inc.
Michael Smith/Municipality of Bethel Park
George Zboyovsky/Brentwood Borough
Tom Kelley/Municipality of Mt. Lebanon
Andrew Maul/PWSA
Randy Lubin/Scott Township
Emily Gaspich/Gateway Engineers
Mike Skinner/Gateway Engineers
Glenn Jonnet/Baldwin Township

1. Discussion:

a. Introduction

Mike Lichte welcomed everyone to the Basin Planning Committee (BPC) Meeting No. 9. Don Geisser reviewed the meeting agenda.

b. BPC Meeting No. 8 Review:

Don Geisser provided an overview of BPC Meeting No. 8, previously conducted in September 2010. Don Geisser stated that the Preliminary Control Facility Site Plans that were presented at BPC Meeting No. 8 were selected as the sites that seemed most appropriate at that time.

c. Draft Feasibility Report

- Don Geisser stated that the SMR Planning Basin Team (SMR Team) submitted the Draft Feasibility Report to ALCOSAN on November 1, 2010. The contents of the report were discussed. Don Geisser stated that a future conditions hydraulic and hydrologic (H&H) model was developed for the Draft Feasibility Report. Glenn Jonnet inquired if the future conditions model will be distributed to the municipalities. Mike Lichte stated that ALCOSAN will review this request and get back to the municipalities with a response.

- Based on ALCOSAN comments on the Draft Feasibility Report, a workshop was conducted on December 14, 2010 with ALCOSAN and the Basin Planners (BPs) that Mike Lichte has responsibility for to establish a consistent set of assumptions relative to the Alternatives Costing Tool (ACT). John Shannon inquired if any of the results of this workshop should be passed on to the municipalities. Mike Lichte stated that there may be merit in providing this information to the municipalities. ALCOSAN will consider this request and what they may be able to do to accommodate this request. Some of the more significant assumptions to consider are relative to pump stations (depth and type), pavement restoration (width and type), and trenchless pipe installation (soil or rock type assumed). Jan Oliver stated that the municipalities should be using their best judgment to evaluate costs consistently.

- The SMR Planning Basin includes points of connection (POCs) to the ALCOSAN SMR interceptor system from three municipalities: Pittsburgh Water and Sewer Authority (PWSA), Castle Shannon, and Bethel Park. Don Geisser stated that the SMR Team received and reviewed preliminary flow estimates (PFEs) from these three municipalities. General concurrence was obtained on the PFEs between ALCOSAN, the SMR Team, and all three municipalities through meetings and discussions.

d. Refined Mixed Sewershed Approach

- Don Geisser stated that after the submittal of the Draft Feasibility Report, the SMR Team, in conjunction with ALCOSAN and the ALCOSAN Program Manager (PM), identified a more refined modeling approach for mixed sewersheds (i.e., sewersheds that contain both combined and separate sanitary areas). The refined approach is as follows:
    - Apply the typical year rainfall to combined areas and set the regulators to the desired level of control. This is initially set at 0 overflows per year to represent the worst case condition relative to flows and volumes conveyed to the ALCOSAN SMR interceptor system.
    - With the regulators set per above, apply the 2-year design storm to the entire mixed sewershed (i.e., both the combined and separate sanitary areas).
    - Provide capacity to convey the 2-year design storm flow to a wet weather control facility without causing any surcharging or overflows in downstream municipal trunk sewers or the ALCOSAN SMR interceptor system. This is accomplished by adding conveyances into the H&H model as necessary to convey these flows.

- Don Geisser stated that this is a conservative approach to estimating flows and volumes to be conveyed to the ALCOSAN SMR interceptor system; however, the SMR Team wanted to evaluate what this upper limit scenario would look like for the first preferred alternative presented in the Draft Feasibility Report. Application of the refined mixed sewershed approach resulted in significantly more flow and volume conveyed to the ALCOSAN SMR interceptor system. Therefore, the SMR Team identified a new first preferred basin-based alternative to include tunnel storage and additional upstream conveyance and a first preferred regional-based alternative to include conveyance to the ALCOSAN Deep Tunnel system.

- Don Geisser presented a figure showing the new first preferred basin-based alternative. In general, the alternative is comprised of an approximate 29,000 linear foot, 15-foot diameter storage tunnel along Saw Mill Run Boulevard from McNeilly Road to the Ohio River and a 12,300 linear foot, 36-inch diameter additional interceptor from Connor Road to the storage tunnel at McNeilly Road. Don Geisser noted that under this alternative the previously proposed storage facility for the upstream ALCOSAN SSOs in the Connor Road area will be eliminated and these flows will instead be conveyed downstream to the proposed storage tunnel. John Shannon inquired what design storm condition this reflected. Don Geisser stated that this evaluation included the 2-year design storm.

- Don Geisser presented figures depicting the potential municipal improvements in the complex sewersheds as per the refined mixed sewershed approach. These improvements include:
    - CSO Consolidation Lines: sewers that would be constructed to convey all CSO flow during the typical year (i.e., 0 overflows per year) to the ALCOSAN SMR interceptor system
    - Additional Municipal Sewer Lines: sewers that would be constructed to convey the 2-year design storm flows from the separate sanitary areas without any surcharging or overflows

- The complex sewersheds presented included the following:
    - McNeilly Road (S-15): Dormont, Mt. Lebanon, Baldwin Township, PWSA
    - Plummers Run (SMRE-40): Dormont, PWSA
    - Banksville Road (MH-18): Dormont, Mt. Lebanon, Scott, Green Tree, PWSA
    - Weyman Run (MH-89): Bethel Park, Whitehall, Castle Shannon, Brentwood, PWSA
    - McCartney Street (MH-11): Green Tree, PWSA
    - Port Authority/Mt. Lebanon Blvd (SMR-CS-34): Mt. Lebanon, Castle Shannon
    - S-23: PWSA

- Michelle Buys asked how the pipe sizes depicted in the potential municipal improvements would be affected if municipalities elected to evaluate, for example, the 4-6 overflows per year condition instead of the 0 overflows per year condition. Don Geisser stated that it is anticipated that the pipe sizes would decrease.

- Glenn Jonnett inquired if the potential municipal improvements included sewer separation. Mike Lichte stated that they do not and if the municipalities implement sewer separation it would be expected that the pipe sizes would decrease from those depicted in the figures. Jan Oliver stated that if source reduction is part of a municipality's control it should be indicated as such in the submittal of final flow estimates (FFEs). Jerry Brown stated that it may be difficult for municipalities to project the impact of source control. Mike Lichte stated that the municipalities should be in the process of developing ordinances relative to

source control and implementing them. Similar to other wet weather controls, ALCOSAN needs information to understand what flows and volumes will be conveyed into its system.

- Jan Oliver stated that the potential municipal improvements depicted on these figures are conceptual and are not ALCOSAN's recommendation to the municipalities; however, in the absence of FFEs from municipalities this will be the SMR Team's assumption. Mike Lichte reiterated the importance of ALCOSAN receiving FFEs and costs from the POC municipalities in April. As ALCOSAN and the BPs move forward, it is important that the municipalities are in agreement with the municipal assumptions being used by the BPs.

- Mike Lichte inquired as to how the municipalities are coming with respect to producing FFEs. Jerry Brown stated that several inter-municipal meetings are being scheduled to discuss FFEs for each POC. John Shannon stated that the current plan is for FFEs to be submitted to ALCOSAN in April. There was general concurrence from the municipal representatives in attendance that there is progress being made on development of FFEs.

- Michelle Buys inquired as to who is taking the lead on scheduling the inter-municipal meetings to discuss the FFEs and suggested that the meetings be scheduled in a timely manner to meet the April submittal date to ALCOSAN.

- Paul Eisworth stated that it is expected that the municipalities will follow through on what they propose to ALCOSAN as their plans.

- Jan Oliver suggested that the municipalities evaluate their alternatives over a range of overflow conditions, similar to how ALCOSAN is performing their evaluations, so that affordability can be analyzed. Glenn Jonnet stated that Baldwin Township is progressing in this manner; however, it would be helpful to understand what ALCOSAN's charges to the municipalities will be. Jan Oliver stated that once all of the costs are received, the total plan will be presented to the PaDEP for review based on water quality goals and affordability. Paul Eisworth suggested that the municipalities continue to progress their plans in a quick and intelligent manner.

- Mike Lichte stated that the municipalities should be aware that the BPs are transitioning from conceptual evaluations into finalization of their alternatives. The opportunity for the BPs to accommodate revisions to FFEs after April will be limited. Andrew Maul stated that PWSA will provide FFEs to ALCOSAN by the end of April. Tim Brett confirmed that Castle Shannon will provide its FFEs by the end of March.

e. Municipal Feasibility Studies and Status

- Mike Lichte reiterated that cost estimates relative to municipal improvements are due to be provided along with FFEs in April. Mike Smith stated that Bethel Park had an internal draft developed by the end of January, a new employee (modeler) from Chester Engineers had recently reviewed the draft, and the FFEs will be finalized in the near future.

- Don Geisser inquired if any municipalities were planning green solutions as part of their controls. Don Geisser encouraged that green solutions be evaluated along with sewer separation programs. Glenn Jonnet stated that a green solution was implemented in the McNeilly Road area (S-15) near Sussex Avenue. The area where the green solution is located is a separate sanitary area; however, it is immediately upstream of a combined area. Jan Oliver stated that this is one of the few areas where green separation would make sense in a separate sanitary area. Mike Lichte stated that the Pittsburgh mayor recently revealed a riverfront vision which included green infrastructure. Small areas should be considered for green solutions as these may be good pilot studies.

- Jerry Brown stated that the municipalities are working to provide "grey" solutions to ALCOSAN as soon as possible; however, they need to start looking at green solutions as well. Jan Oliver re-stated that if source reduction is a part of a municipality's solution it must be a part of the municipal plan provided to ALCOSAN.

- Don Geisser stated that 3RWW has completed activities relative to alternatives in the McNeilly Road (S-15) area. Don Geisser inquired as to the status of 3RWW's activities relative to alternatives for Banksville Road (MH-18) and Weyman Run (MH-89). It was stated that inter-municipal discussions have begun on MH-18 and MH-89.

- Don Geisser presented example tables relative to CSO and SSO control data that ALCOSAN and the PM will be seeking information on from the BPs. Don Geisser requested that the municipalities present their municipal FFE data in this format, since this is the format that the SMR Team is required to present to the ALCOSAN PM in its future submittals. Jan Oliver inquired how the tables should be completed if there is more than one municipality tributary to a POC. Glenn Jonnet stated that he provided has broken out separate lines for each municipality, with one line that presents the total for the POC. The attendees were in agreement with this approach.

f. Program Updates – Municipal Outreach

- Joseph Day presented an overview of the municipal outreach activities that ALCOSAN has conducted since BPC Meeting No. 8.
- CMAC Meeting No. 8 was held on November 3, 2010. Jan Oliver provided an overview of the regionalization evaluation that CMAC has been discussing. ALCOSAN is in the process of submitting grant applications to several foundations for funding of an evaluation relative to regionalization. Jan Oliver stated that regionalization would allow ALCOSAN to make water quality improvements more effectively. The five levels of regionalization that are being considered are as follows:
    - ALCOSAN to take over construction, design, operation, and maintenance of municipal facilities;
    - ALCOSAN to take over multi-municipal trunk sewers (e.g., McNeilly Road Trunk Sewer);
    - ALCOSAN to take over operation and maintenance of facilities for municipalities under a contractual agreement;

- ALCOSAN to take over operation and maintenance of all sewers, including storm sewers, within its service area; and
- ALCOSAN to take over operation and maintenance of all sewers, including storm sewers, in Allegheny County.

- RSG Meeting No. 8 was held on November 16, 2010. Joseph Day stated that green technologies continue to be an important priority to the RSG members.

- Joseph Day stated that 10 community outreach meetings were held in Fall 2010. There was a noted increase in public participation; however, ALCOSAN requested that municipalities continue to encourage their constituents to attend the public meetings.

g. Additional Updates

- Relative to the 3RWW Engineers and Managers Meeting, Jerry Brown stated that the main message of the meeting was to have the Managers understand that this is a time sensitive issue and that they need to put thought into the FFEs and Municipal Feasibility Studies.

- Relative to the 3RWW/FSWG Meetings, Jerry Brown stated that the next meeting will get into more detail regarding the CSO and SSO control data tables for each POC.

- Paul Eisworth stated that providing cost information to ALCOSAN along with the FFEs is critical. Jan Oliver agreed that the financial information is needed to understand affordability and so that the wet weather program can be appropriately prioritized. It does not make sense for ALCOSAN to implement a regional control if the municipalities cannot afford to make the improvements necessary to convey the flows and volumes to that control. The region needs to work together to improve water quality in the area.

- Michelle Buys requested clarification relative to deadlines for FFEs. Mike Lichte stated April 2011 is the ALCOSAN deadline for receipt of the FFEs.

- Paul Eisworth raised concerns relative to the BPs not being available to the municipalities since the BPs are transitioning their focus. Jan Oliver stated that the BPs have budgets and schedules which must be adhered to. The BPs cannot be continuously re-evaluating alternatives and must start moving towards optimization and prioritizing alternatives, including regional alternatives.

- Paul Eisworth and Michelle Buys requested cost information relative to the new first preferred basin-based alternative presented in the meeting. Mike Lichte stated that these costs will be provided to them in the near future.

- Michelle Buys inquired if ALCOSAN will make the draft Feasibility Reports available to the municipalities. Mike Lichte stated that the BPs are in the process of revising the draft Feasibility Reports and plan to have these complete at the end of June. Ultimately the draft Feasibility Reports will transition into the Facilities Plan, which is due to be submitted by the end of the year as a draft. Jan Oliver stated that ALCOSAN's concern with providing the draft Feasibility Reports is that they are working documents. ALCOSAN does

understand the importance of sharing this information, but needs to make sure the information contained in the reports is accurate.

- Jerry Brown stated that several municipal entities are evaluating regionalization and joint agreements. The evaluation reports are due to be complete in June. Jan Oliver stated that ALCOSAN will continue to evaluate its regionalization evaluations regardless of whether it receives grant funding or not.

2. **Next Steps**

- Don Geisser reviewed the SMR Team's next steps which include the following:
  - Obtain municipal FFEs in April 2011
  - Evaluate a more detailed development of the first preferred basin alternative
  - Coordinate with the ALCOSAN PM to assess various regional-based control alternatives
  - Prepare the Basin Facilities Plan
  - Present municipal assumptions in the Basin Facilities Plan

- John Shannon inquired as to the status of an 85% capture alternative. Don Geisser stated that the SMR Team has been tasked with truncating the first preferred basin alternative to the point where only 85% capture is achieved. Cost estimates are currently being developed by the SMR Team for this alternative.

- Jan Oliver stated that ALCOSAN and the PM are still trying to figure out what level of control to target and prioritize appropriately for water quality. For example, a portion of a storage control could be implemented in a first phase and expanded upon later.

- Mike Skinner inquired as to what design storms the municipalities should be providing data on. Paul Eisworth stated that municipalities should provide data for both the 2-year and 10-year design storms.

- Don Geisser thanked Whitehall Borough for their hospitality in hosting the meeting and asked the group if future BPC meetings at Whitehall Borough were still preferred. The group said they would like to meet for the next BPC at Whitehall Borough, likely to be scheduled in June 2011.

3. Items Distributed:

a. Meeting Presentation

4. Action Items:

a. ALCOSAN will review the request to distribute the future conditions model to the municipalities

b. ALCOSAN will provide cost information relative to the new first preferred basin-based alternative presented in the meeting to PaDEP, ACHD and the municipalities.

5. Next Meeting:

a. Tentatively scheduled for June 2011 at Whitehall Borough

6. Attachments:

a. Complete Meeting Presentation and Handouts

b. Meeting Attendance Sheet

Distribution

Attendees
Invitees not in Attendance

ALCOSAN Basin Facilities Planning
Meeting Minutes

Saw Mill Run Planning Basin
Saw Mill Run (SMR) Basin Planning Committee
Meeting No. 10
May 25, 2011 / 9:00 a.m.
Whitehall Borough Municipal Building,
100 Borough Park Drive, Pittsburgh, PA 15236

Attendees:

Mike Lichte/ALCOSAN
Joseph Day/ALCOSAN
Donald Geisser/ARCADIS
John Perriello/ARCADIS
Keith Jensen/AECOM
Dave Bingham/AECOM
John Shannon/Michael Baker
Michelle Buys/Allegheny County Health Department
Tammi Halapin/Collective Efforts, LLC
Paul Eisworth/PaDEP
Harry Geis/3RWW
Jason Stanton/LSSE
Michael Smith/Municipality of Bethel Park
Robert Mackewich/Brentwood Borough (for George Zboyovsky/Brentwood Borough)
Ian McMeans/Dormont Borough
Tom Kelley/Municipality of Mt. Lebanon
Don Waldorf/PWSA
Randy Lubin/Scott Township
James Leventry/Whitehall Borough
Mike Skinner/Gateway Engineers (for Emily Gaspich/Gateway Engineers)
Ruthann Omer/Gateway Engineers (for Gino Rizza/Dormont Borough)

1. Discussion:

a. Introduction

Mike Lichte welcomed everyone to the Basin Planning Committee (BPC) Meeting No. 10. Don Geisser reviewed the meeting agenda.

b. BPC Meeting No. 9 Review:

Don Geisser provided an overview of BPC Meeting No. 9, previously conducted on February 23, 2011.

c. ALCOSAN Feasibility Report Update

- Don Geisser stated that the SMR Planning Basin Team (SMR Team) submitted the Draft Feasibility Report to ALCOSAN on November 1, 2010. Since then the SMR Team has reviewed and revised Sections 1 through 4 of the Draft Feasibility Report in response to comments received from ALCOSAN, the Program Manager (PM) and the Basin Coordinator (BC).

- Don Geisser stated that the Basin Planners (BPs) will be applying a new Basin Alternative Ranking and Assessment Tool provided by the PM to assess the various basin alternatives.

Don Geisser stated that the new tool is based upon the previously developed Site Alternatives evaluation tool which factors both cost and non-cost criteria into the assessment. Jason Stanton inquired if the new tool is similar to the 3RWW tool being utilized to assess intermunicipal alternatives. Mike Lichte stated that the tool incorporates a lot of the same evaluation criteria.

- Don Geisser presented the SMR Planning Basin's current 1st Preferred Basin and Regional Alternatives which consist of the following:

  - 1st Preferred Basin Alternative (4 overflows/year level of control): 29,000 linear feet of 15-foot diameter tunnel storage extending from the south bank of the Ohio River upstream to McNeilly Road with an additional 12,300 linear feet of 36-inch diameter conveyance pipeline from McNeilly Road upstream to Connor Road.

  - 1st Preferred Regional Alternative: 29,000 linear feet of 12-foot diameter conveyance tunnel from the north bank of the Ohio River upstream to McNeilly Road with an additional 12,300 linear feet of 36-inch diameter conveyance pipeline from McNeilly Road upstream to Connor Road.

- Don Geisser noted that the basin-based alternative is a storage alternative and as such would require dewatering via a pumping station to the existing ALCOSAN river crossing at the conclusion of each wet-weather event. The regional-based alternative is a conveyance tunnel which would drain by gravity via a new river crossing to a new regional ALCOSAN tunnel. Under both alternatives, the existing ALCOSAN interceptor system would convey dry weather flows through the existing ALCOSAN river crossing and the new tunnel would only be utilized when there is no available capacity in the existing interceptor system.

- Don Geisser noted that display boards were setup in the room to provide more detail for the basin and regional alternatives including the tunnel alignments and site locations for the tunnel access and drop shafts.

- Ruthann Omer inquired if any of the large conveyances were going to be installed via open-cut construction as she indicated that there is a Route 51 corridor group that is looking for opportunities to make improvements in the area. Mike Lichte stated that because of the congestion/development density in the Route 51 and 88 corridors and size of conveyances required, the tunnel alternative presents advantages over open-cut or micro-tunnel installation methods because it minimizes the impacts associated with those activities in the planning basin.

- Jason Stanton inquired as to what is the determining factor for choosing between the basin-based and regional-based alternative. Don Geisser indicated that the PM is evaluating both the basin-based and regional-based alternatives from a cost perspective for different levels of control to determine which approach is the most cost-effective for the entire ALCOSAN service area.

- Don Geisser stated that the SMR Team is currently reviewing the municipal planning information received to date and that the information will eventually be incorporated into Section 5 of the Feasibility Report Update. Don Geisser reviewed the previously requested municipal information for both CSO and SSO controls as presented at BPC Meeting No. 9 on February 23, 2011.

- Paul Eiswerth inquired if the Feasibility Report Update would be provided to the municipalities. Mike Lichte stated he would review this specific request with ALCOSAN management but indicated that the information would eventually be shared with the municipalities.

- Paul Eiswerth stated that the municipalities, in the interest of being thorough and providing multiple level of control options, should be evaluating their separate sanitary sewer systems for the following levels of control: 1, 2, 5 and 10 year design storms. This will be important when recommending a planned level of control to the regulatory authorities. Jason Stanton stated that ALCOSAN has initially requested information for the 2-year level of control but the Borough of Castle Shannon is evaluating levels of control for the 1, 2, 5 and 10 year design storms.

- Don Geisser presented an overview of the Regional Integration activities being conducted by the PM including the evaluation of the combination of individual BP's basin-based controls and the evaluation of a more regional approach based on a storage tunnel system along the three rivers. The PM is currently evaluating various combinations of the two approaches. These evaluations will be documented in Section 6 of the Feasibility Report Update.

d. Municipal Alternatives and Final Flow Estimates

- Don Geisser reviewed the requirements of the ALCOSAN Consent Decree as it relates to municipal input. Mike Lichte reiterated the importance of receiving municipal planning information as soon as possible so that the most cost-effective Wet Weather Plan (WWP) can be developed. Mike Lichte requested that the municipal H&H models being utilized in the development of the municipal alternatives/flow estimates be submitted to ALCOSAN to help facilitate the BP's activities.

- Don Geisser stated that municipal information received by ALOCSAN to date has been reviewed by the SMR Team. Don Geisser distributed a status sheet matrix with detailed information received to date from the municipalities. This information included the municipality name, its POC to the ALCOSAN system, proposed improvements, costs status, and if submitted information was sufficient for ALCOSAN's planning purposes. A copy of the distributed matrix is attached to these meeting minutes. It was requested that each municipality review the detailed status sheet to ensure that the listed information is correct.

- Don Geisser stated that the submittal for the Municipality of Bethel Park appeared complete. Michael Smith indicated that if additional information is needed on the cost estimates or the H&H model, that requests should be directed to John Balewski at Chester Engineers.

- Don Geisser stated that the submittal information for Castle Shannon Borough was almost complete except for MH-89 (Weyman Run sewer shed) and SMR-CS-34. Jason Stanton indicated that the analysis for those sewer sheds is ongoing and being coordinated with the following municipalities: Mt. Lebanon Township, Brentwood Borough, Whitehall Borough and PWSA. Jason Stanton added that with the exception of SMR-CS-34, no action is needed in the Castle Shannon Borough sewer sheds to accommodate the 10-year design storm. Jason Stanton also stated that the H&H model would be provided to the SMR BP.

- Paul Eiswerth questioned the municipalities on analyzing the individual sewer sheds with a free discharge at the POC with ALCOSAN and that it may underestimate the surcharging or flooding potential in the municipal sewer systems. Mike Lichte indicated that the BPs will incorporate the proposed municipal system improvements into the respective planning basin model and ensure no surcharging or flooding is caused by the ALCOSAN system at the POC.

- Don Geisser stated that some submittal information has been received from PWSA on several complex sewer sheds but more information is still needed. In addition, Don Geisser inquired if PWSA was coordinating with the upstream municipalities for multi-municipal sewer sheds in which PWSA has the POC with ALCOSAN. Don Waldorf indicated that the coordination with the upstream municipalities is ongoing.

- Jason Stanton requested that a meeting be scheduled with PWSA and the other SMR Basin municipal engineering representatives to discuss what is being submitted by PWSA for the multi-municipal sewer sheds such as S-15. Ruthann Omer agreed and volunteered to coordinate a meeting within the next few weeks with the affected municipalities, ALCOSAN and the SMR Team.

- Don Geisser stated that some information has been received from Baldwin Township; however, analysis for S-15 is still ongoing.

- Don Geisser stated that Brentwood Borough had submitted a response; however, they had indicated that the alternative analysis for MH-89 was still being performed.

- Don Geisser stated that Dormont Borough had submitted a response; however, they indicated that an analysis on source reduction alternatives was still being evaluated. Ruthann Omer stated that preliminary indications are that source reduction alternatives will not be cost effective and that the existing system is capable of conveying the 10-year design storm to downstream municipalities.

- Don Geisser stated that Green Tree Borough had submitted a response; however, they had indicated that the alternative analysis for MH-18 was still being performed.

- Don Geisser stated that the Municipality of Mt. Lebanon had submitted a response; however, they had indicated that a number of alternative analyses were still being performed and additional information from other adjacent municipalities was still pending. In addition, no information or response was provided for SMR-CS-43; Don Geisser also noted that a recent review of the data indicated that planning information for SMR-CS-31 and MH-18 was omitted and needs to be provided to ALCOSAN.

- Don Geisser stated that Mt. Oliver had submitted a response and that no action is needed for sewer shed S-29 (Note: this is the only Mt. Oliver sewer shed located in the SMR Planning Basin).

- Don Geisser stated that Whitehall Borough had submitted a response; however, they had indicated that the alternative analysis for MH-89 was still ongoing.

- Don Geisser stated that no response was received from either Crafton Borough or Scott Township. Even though both of these municipalities have small areas tributary to the SMR Planning Basin and FFEs are not required, these municipalities should at a minimum document this and provide a response in writing to ALCOSAN. Mike Lichte indicated that an email response documenting that no FFEs are applicable would be acceptable.

e. Municipal Outreach – CMAC, RSG

- Joseph Day presented an overview of the municipal outreach activities that ALCOSAN has conducted since BPC Meeting No. 9.

- CMAC Meeting No. 10 was held on May 10, 2011. Joe Day noted that attendance for these meetings had been declining to approximately 6 attendees; however, an effort to promote the meetings resulted in the last meeting having very good attendance. At the meeting, presentations were made on municipal coordination, green technologies and regionalization/consolidation. The next CMAC meeting is scheduled for August 2, 2011.

- RSG Meeting No. 10 was held on May 17, 2011. Joe Day stated that the meeting included the following presentations:

    - Stream Removal Projects by Dan Lockard, ALCOSAN

    - Green Technologies by Matt Smutts, URA

    - Critical Wet Weather Plan Sites by Dave Borneman, ALCOSAN

- Joe Day stated that the next RSG meeting is scheduled for August 18, 2011. In addition, ALCOSAN's annual Open House is scheduled for September 17, 2011. Joe Day indicated that there were approximately 2,500 attendees at last year's Open House. Joe Day also indicated that ALCOSAN is beginning to plan for a series of Community Meetings for Fall 2011. The locations and number of meetings is still being evaluated to determine the most beneficial approach/venue to encourage increased meeting attendance.

- Joe Day distributed a copy of Arletta Scott William's recent presentation on ALCOSAN's Wet Weather Program at the recent Allegheny League of Municipalities conducted on April 7-10, 2011.

f. Regionalization

- Dave Bingham provided an overview of the regionalization evaluations that ALCOSAN is evaluating in an effort to find ways to potentially reduce the high cost of the wet-weather program. Dave Bingham stated that in addition to ALCOSAN's regionalization evaluations, 3RWW is funding several "sub-regionalization" studies that include multiple municipal groupings. Dave Bingham stated that the stakeholder process will be coordinated by the Allegheny Conference which is a non-profit private sector leadership organization dedicated to economic and quality of life issues in Allegheny County. The regionalization efforts will be conducted between June 2011 and December 2012. Dave Bingham stated that regionalization would allow ALCOSAN to make water quality improvements more effectively. The five levels of regionalization that are being considered are as follows:

    - ALCOSAN to take over multi-municipal trunk sewers (e.g., McNeilly Road Trunk Sewer);

    - ALCOSAN to take over construction, design, operation, and maintenance of municipal wet weather facilities;

    - ALCOSAN to take over operation and maintenance of facilities for municipalities under a contractual agreement;

    - ALCOSAN to take over operation and maintenance of all sewers, including storm sewers, within its service area; and

    - ALCOSAN to take over operation and maintenance of all sewers, including storm sewers, in Allegheny County.

g. Current Program Schedule

- Mike Lichte presented the current program schedule and indicated that the Basin Facilities Planning activities may be extended into next year due to review times, etc. Based upon the current schedule, Mike Lichte reinforced the importance of obtaining the municipal planning information as soon as possible as the BPs are working to finalize the revised Feasibility Report Update by August 1, 2011.

- John Shannon inquired as to the overall cost estimate for the proposed wet weather improvement program and that he had seen slides and LOC curves in other BPC meetings. Although that slide was not included in the SMR BPC meeting, Mike Lichte stated that the overall program is currently in the $4 billion range for a level of control (LOC) of 4-6 overflows per year.

2. **Next Steps**

- Don Geisser reviewed the SMR Team's next steps which include the following:
  - Prepare new sections for the Feasibility Report Update due by August 1, 2011
  - Continue to review Municipal Planning Information and incorporate into ALCOSAN model and planning process
  - Coordinate with the ALCOSAN PM to advance the system-wide alternatives analysis
- Prepare Draft and Final Basin Facilities Plan

3. **Items Distributed:**

a. Meeting Presentation

b. Saw Mill Run Planning Basin, Municipal Planning Information Status

c. Allegheny League of Municipalities 38th Annual Spring Conference, ALCOSAN Presentation

4. **Action Items:**

a. ALCOSAN will review the request to distribute the Feasibility Report Update to the municipalities.

b. Municipalities will continue to develop and submit requested municipal planning information, including H&H models to ALCOSAN.

c. Ruthann Omer will setup a coordination meeting on multi-municipal sewer sheds with PWSA POCs with PWSA, affected municipalities, ALCOSAN and the SMR Team.

5. **Next Meeting:**

a. Tentatively scheduled for September 2011 at Whitehall Borough

6. **Attachments:**

a. Complete Meeting Presentation and Handouts

b. Meeting Attendance Sheet

Distribution

Attendees

Invitees not in Attendance

ALCOSAN Basin Facilities Planning
Meeting Minutes

Saw Mill Run Planning Basin
Saw Mill Run (SMR) Basin Planning Committee
Meeting No. 11
October 7, 2011 / 9:00 a.m.
Whitehall Borough Municipal Building,
100 Borough Park Drive, Pittsburgh, PA 15236

Attendees:

Mike Lichte/ALCOSAN
Joseph Day/ALCOSAN
Donald Geisser/ARCADIS
John Perriello/ARCADIS
Darby Neidig/AECOM
Lisa Sorg/Allegheny County Health Department
Tammi Halapin/Collective Efforts, LLC
Thomas Flanagan/PaDEP
Jerry Brown/3RWW
Jason Stanton/LSSE
Michael Smith/Municipality of Bethel Park
Robert Mackewich/Brentwood Borough (for George Zboyovsky/Brentwood Borough)
Tom Kelley/Municipality of Mt. Lebanon
Jeff Lenner/PWSA
Mike Skinner/Gateway Engineers (for Emily Gaspich/Gateway Engineers)
Gino Rizza/Dormont Borough
Bill Bartleti/Clean Rivers Campaign

1. Discussion:

a. Introduction

Mike Lichte welcomed everyone to the Basin Planning Committee (BPC) Meeting No. 11. Don Geisser reviewed the meeting agenda.

b. BPC Meeting No. 10 Review:

Don Geisser provided an overview of BPC Meeting No. 10, previously conducted on May 25, 2011.

c. Basin Feasibility Studies

- Don Geisser stated that the SMR Planning Basin Team (SMR Team) submitted the Initial Draft Feasibility Study and Present Worth Analysis Update Report to ALCOSAN on July 1, 2011 and the Revised Draft Report to ALCOSAN on August 1, 2011. Since then, the SMR Team has received and is currently addressing comments received from ALCOSAN, the Program Manager (PM) and the Basin Coordinator (BC).

- Don Geisser stated that the Basin Planners (BPs) have incorporated the municipal planning information received into the Draft Feasibility Study and Present Worth Analysis Update Report.

- Don Geisser reviewed the SMR Planning Basin's current 1st Preferred Basin-Based and Regional-Based Alternatives for a CSO level of control of 4-6 overflows/year and an SSO 2-year design storm level of control. The alternatives consist of the following:

    - 1st Preferred Basin-Based Alternative (4 overflows/year level of control): 29,000 linear feet of 15-foot diameter tunnel storage extending from the south bank of the Ohio River upstream to McNeilly Road with an additional 12,300 linear feet of 36-inch diameter conveyance pipeline from McNeilly Road upstream to Connor Road.

    - 1st Preferred Regional-Based Alternative: 29,000 linear feet of 12-foot diameter conveyance tunnel extending from the new Regional Tunnel on the north bank of the Ohio River upstream to McNeilly Road with an additional 12,300 linear feet of 36-inch diameter conveyance pipeline from McNeilly Road upstream to Connor Road.

- Don Geisser provided an overview of the regional integration process in which the individual BPs are working with the PM who is developing complementary System-Wide Alternatives. The System-Wide Alternatives, consisting of regional tunnels, storage facilities and treatment systems, are being analyzed for varying levels of control and include higher levels of control for control facilities discharging to Consent Decree defined "Sensitive Areas". It was noted that no "Sensitive Areas" have been designated for the SMR Planning Basin.

- Don Geisser noted that display boards were set up in the room to provide more detail on the SMR Planning Basin's Preferred Basin-Based and Regional-Based Alternatives as well as the PM's System-Wide Alternatives.

d. Basin Facilities Plan

- Don Geisser provided an overview of the Basin Facilities Plan. The objective of the Basin Facilities Plan is to provide additional detail on the recommended SMR Planning Basin control facilities and the preferred System-Wide Alternative. The Basin Facilities Plan will consists of the following components:

    - A description of the Recommended Alternative, including a basis of facilities design, detailed mapping and description of operational features.

    - Identification and analysis of Environmental Impacts including probable property and easement requirements, permitting requirements, potential impacts on land use, water and air quality, noise and aesthetics, vehicular and pedestrian traffic and floodplains.

    - The probable Cost of Construction including capital, operation and maintenance (O&M) and renew and replacement costs.

    - An Implementation Plan including development of a construction sequencing plan, identification of construction challenges, identification of O&M requirements, a determination on the feasibility of implementation and a listing of recommended additional investigations.

- The completion schedule for the Draft Facilities Plan is November 11, 2011 and the Final Facilities Plan is due January 20, 2012.

- Gino Rizza inquired if the proposed tunneling work would impact the proposed Routes 88 and 51 interchange project and if the tunneling would cause vibration issues. Don Geisser stated that the tunneling work would most likely be performed several years after the interchange project and it is not anticipated that the deep tunneling work will have significant vibration issues.

e. Municipal Planning Information

- Don Geisser stated that municipal planning information received by ALOCSAN to date has been reviewed by the SMR Team and incorporated into the SMR Feasibility Report and Present Worth Analysis Update, which will be transitioned into the Basin Facilities Plan. Don Geisser reviewed the following supplemental information that has been requested from the municipalities:

    - City of Pittsburgh (PWSA) – Additional detail for proposed parallel relief sewer routes, extents and depths; additional backup information on the ACT costs; and, sewer separation cost assumptions for several sewer sheds.

    - Borough of Castle Shannon – The municipalities proposed system improvements for POC sewershed SMR-CS-34, including costs.

    - Municipality of Bethel Park – Cost backup information for the recommended sewer replacement and information on O&M and renew and replacement costs.

- John Perriello distributed a copy of Figure 5-1 from the Draft Feasibility Study and Present Worth Analysis Update Report depicting the preliminary municipal improvements received to date in the SMR Planning Basin.

- Jason Stanton stated that the SMR-CS-34 sewershed is a multi-municipal system (Mt. Lebanon and Castle Shannon) that is being analyzed using the ALCOSAN H&H Model. The model was modified by disconnecting the system at the ALCOSAN POC. Jason Stanton stated that the sewershed is being analyzed for the 1, 2, 5 and 10-year design storms to determine the conveyance capacity and resulting level of sewer surcharging. Jason Stanton stated that for the 2-year design storm, the system requires no improvements. For higher levels of control, some improvements may be necessary. Jason Stanton indicated that this analysis is still ongoing. Jason Stanton stated that a memorandum will be provided to ALCOSAN describing the SMR-CS-34 evaluations and results. Mike Lichte stated that ALCOSAN has instructed the BPs to analyze the system to alleviate all surcharging as a level of conservatism.

- Don Geisser and Mike Lichte reviewed a summary of the preliminary municipal improvement costs provided by the municipalities. Mike Lichte stated that preliminary costs for several PWSA POC sewersheds appeared low. Specifically, ALCOSAN and the SMR Team have conducted a preliminary evaluation of POC sewershed SMRE-40

(Plummers Run) for constructability and cost and determined that the inherent construction difficulty along W. Liberty Avenue will probably result in a significantly higher construction cost than is being presented by PWSA.

- Mike Lichte indicated that if the PWSA recommended relief sewer for SMRE-40 is found to be too expensive, a possible scenario would be to send all the flow in the current system configuration to ALCOSAN. This could result in significant changes to the currently proposed SMR Planning Basin's preferred alternative, i.e., the conveyance tunnel would require upsizing. Mike Lichte explained that it would be in everyone's best interest to evaluate these critical POC sewersheds now so as to avoid potential changes and/or potentially under sizing facilities in the future. Mike Lichte and the SMR Team offered to meet with the PWSA to discuss these POC sewersheds. Jeff Lenner agreed that a meeting would be beneficial and stated that he would discuss a possible meeting with Tom Gigliotti.

- Don Geisser asked the municipal representatives present at the meeting about the current status of their individual Municipal Feasibility Studies. A summary of the responses are provided below:

    - Michael Smith, Municipality of Bethel Park, stated that the municipal board is aware and comfortable with the proposed recommended improvement plan.

    - Mike Skinner, Gateway Engineers (representative for Municipality of Mt. Lebanon, Brentwood Borough, Whitehall Borough and Dormont Borough) stated that development of the Municipal Feasibility Studies is on schedule.

    - Tom Kelley, Municipality of Mt. Lebanon, stated that Gateway Engineers is providing the municipality with regular status updates and is on schedule.

    - Jason Stanton, Lennon, Smith, Souleret Engineering, Inc. (representative for Castle Shannon Borough), stated that SMR-CS-34 is the only POC sewershed that needs to be completed and that the development of the Municipal Feasibility Study is on schedule.

    - Jeff Lenner, PWSA, stated that the PWSA is making progress and that the PWSA improvement plan has essentially been defined but some additional detailed investigation still needs to be performed.

- Mike Lichte stated that ALCOSAN is currently preparing a letter to be sent to municipalities which contain complex sewersheds requesting that draft Feasibility Studies be submitted on the complex sewersheds in advance of the municipalities formal submittal to the regulatory agencies. Mike Lichte explained that due to ALCOSAN's schedule to submit the Wet Weather Plan (WWP) prior to the completion of the Municipal Feasibility Studies, it is critical that improvement plans for several complex sewersheds be determined prior to the WWP completion. Joe Day added that the complex sewershed plans will need to be approved by all relevant municipal boards with a non-binding agreement prior to submittal to ALCOSAN. Mike Lichte added that detailed cost estimates will be requested but definition of municipal cost allocations will not be required. Mike Lichte stated that

the draft Feasibility Studies for the complex sewersheds will be due to ALCOSAN by July 31, 2012.

f. Municipal Outreach – CMAC, RSG, Town Hall Meetings

- Karen Brean presented an overview of the municipal outreach activities that ALCOSAN has conducted since BPC Meeting No. 10.

- CMAC Meeting No. 11 was held on August 2, 2011. Karen Brean stated that the meeting focused on the Wet Weather Planning Update and Regionalization Study and was well attended. Karen Brean noted that several new CMAC members were in attendance at the meeting and it is expected that future CMAC meetings will become even more meaningful as ALCOSAN continues to develop their WWP. The next CMAC meeting is scheduled for November 10, 2011.

- RSG Meeting No. 11 was held on August 18, 2011. Karen Brean stated that similar to the CMAC meeting, the meeting focused on the Wet Weather Planning Update and Regionalization Study. The next RSG meeting is scheduled for November 9, 2011.

- Karen Brean stated that the 2011 Town Hall Meetings have been scheduled. The meetings are comprised of a series of basin-specific meetings and region-wide meetings. The SMR basin-specific meetings are scheduled for the following dates:

    - Monday, October 23, 5:30-7:30 PM at the Brentwood Library Community Room

    - Thursday, November 3, 10:00 AM to Noon at the Courtyard by Marriot, West Homestead

- Karen Brean stated that the region-wide meetings are scheduled for the following dates:

    - Wednesday, November 9, 5:30-7:30 PM at the I.B.E.W. #5/Circuit Centre and Ballroom

    - Tuesday, November 15, 10:00 AM-4:00 PM at the Heinz History Center

- Karen Brean stated that the intent of these meetings is to get the general public educated on the Wet Weather Program and get them to provide input into the process. Karen Brean encouraged all customer municipalities to get the word out about the Town Hall meetings.

g. Regionalization

- Mike Lichte provided an overview of the regionalization evaluations that ALCOSAN is undertaking in an effort to find ways to potentially reduce the high cost of the wet-weather program. Mike Lichte stated that the Regionalization Review Panel, coordinated by the Allegheny Conference, met on September 26, 2011. The regionalization study will be conducted for a period of approximately 18 months between June 2011 and December 2012. Mike Lichte stated that regionalization would allow ALCOSAN to make water

quality improvements more effectively. The five options for regionalization that are being considered are as follows:

- ALCOSAN to take over select multi-municipal trunk sewers;
- ALCOSAN to take over construction, design, operation, and maintenance of municipal wet weather facilities;
- ALCOSAN to take over operation and maintenance of facilities for municipalities under a contractual agreement;
- ALCOSAN to take over operation and maintenance of all sewers, including storm sewers, within its service area; and
- ALCOSAN to take over operation and maintenance of all sewers, including storm sewers, in Allegheny County.

The options will be refined through the stakeholder process with the intent to save costs on a system-wide basis. The stakeholder group is a diverse mix of institutional, public and private business members.

- Jerry Brown inquired if ALCOSAN was intending on increasing the sewer rates for 2012. Mike Lichte did not know if a rate increase was being proposed for 2012 and indicated that he would inquire within ALCOSAN.

- Michael Smith inquired as to what was the construction cost estimate for the proposed SMR Planning Basin improvements. Mike Lichte stated that the preliminary planning level costs were in the range of $250 to $300 million.

- Mike Lichte stated that ALCOSAN will be initiating an interceptor sewer project consisting on of 5,000 to 6,000 linear feet of sewer re-lining in the Castle Shannon area. Mike Lichte stated that the project will be advertised for bids in the coming month with construction scheduled to occur during the summer of 2012. Jason Stanton requested that ALCOSAN coordinate the project work with the Castle Shannon Fire Chief as the interceptor runs under the fire hall.

2. Next Steps

- Don Geisser reviewed the SMR Team's next steps which include the following:
  - Continue to acquire and review Municipal Planning Information and incorporate into Basin Facilities Plan, as necessary
  - Participation in Fall 2011 Public Town Hall Meetings
  - Coordinate with the ALCOSAN PM to advance the system-wide alternatives analyses
  - Prepare Draft and Final Basin Facilities Plan

3. **Items Distributed:**

   a. Meeting Presentation

   b. Summary of Preliminary Municipal Improvements Plan Figure

4. **Action Items:**

   a. Municipalities will continue to develop and submit requested municipal planning information to ALCOSAN.

5. **Next Meeting:**

   a. None scheduled

6. **Attachments:**

   a. Complete Meeting Presentation and Handouts

   b. Meeting Attendance Sheet

Distribution

Attendees
Invitees not in Attendance

ALCOSAN Basin Facilities Planning
Meeting Minutes

Saw Mill Run Planning Basin
Saw Mill Run (SMR) Basin Planning Committee
Meeting No. 12
May 10, 2012 / 1:30 p.m.
Whitehall Borough Municipal Building,
100 Borough Park Drive, Pittsburgh, PA 15236

Attendees:

Mike Lichte/ALCOSAN
Joseph Day/ALCOSAN
John Perriello/ARCADIS
Darby Neidig/AECOM
Edward Kluitenberg/CDM Smith
Tammi Halapin/Collective Efforts, LLC
Karen Brean/Brean Associates
Thomas Flanagan/PaDEP
Harry Geis/3RWW
Jerry Brown/3RWW
Jason Stanton/LSSE
Mary McGinley/Baldwin Township
Tom McDermott/Baldwin Township
Michael Smith/Municipality of Bethel Park
Robert Mackewich/Brentwood Borough
Tom Kelley/Municipality of Mt. Lebanon
Jeff Lenner/PWSA
Mike Skinner/Gateway Engineers
Emily Gaspich/ Gateway Engineers

1. Discussion:

a. Introduction

Mike Lichte welcomed everyone to the Basin Planning Committee (BPC) Meeting No. 12. John Perriello reviewed the meeting agenda.

b. BPC Meeting No. 11 Review:

John Perriello provided an overview of BPC Meeting No. 11, previously conducted on October 7, 2011.

c. Regional-Based and Basin-Based Alternatives

- John Perriello reviewed the SMR Planning Basin's preliminary preferred basin-based alternative for a CSO level of control of 4-6 overflows per year and an SSO 2-year design storm level of control. The alternative consists of 29,000 linear feet of a 15-foot diameter storage tunnel from the West End Bridge to McNeilly Road and 12,350 linear feet of 36-inch diameter upstream parallel conveyance pipeline from McNeilly Road to Connor Road. The estimated present worth cost for the basin-based alternative was $296 million. This cost represents only the ALCOSAN improvements in the SMR Planning Basin.

- John Perriello reviewed the SMR Planning Basin's preliminary preferred regional-based alternative for a CSO level of control of 4-6 overflows per year and an SSO 2-year design storm level of control. The alternative consists of 30,200 linear feet of a 12-foot diameter conveyance tunnel extending to ALCOSAN's regional tunnel system located on the north shore of the Ohio River to McNeilly Road and 12,350 linear feet of 36-inch diameter upstream parallel conveyance pipeline from McNeilly Road to Connor Road. The estimated present worth cost for the regional-based alternative was $251 million. As with the basin-based alternative, this cost does not include any costs for municipal wet weather control improvements. John Perriello explained that the regional-based alternative was less expensive than the basin-based alternative because the conveyance tunnel was smaller in diameter and would not require dewatering pumping facilities since the SMR conveyance tunnel would drain by gravity to ALCOSAN's regional tunnel system.

d. Integration of Municipal Alternatives

- John Perriello provided a copy of Figure 5-1 from the draft SMR Basin Facilities Plan which depicts the current municipal improvements in the SMR Planning Basin. John Perriello explained that these improvements which were previously provided by the municipalities in 2011, have been incorporated into the SMR Planning Basin's updated basin alternative.

e. Updated Regional-Based Alternative

- John Perriello presented the updated regional-based alternative since the integration of the preliminary municipal improvements into the SMR planning basin's H&H model. The updated regional-based alternative consists of 30,200 linear feet of a 12-foot diameter conveyance tunnel from ALCOSAN's regional tunnel system located on the North Shore of the Ohio River to McNeilly Road and 12,350 linear feet of 18 to 30-inch diameter upstream parallel conveyance pipeline from McNeilly Road to Connor Road.

f. Municipal Feasibility Studies Update

- John Perriello asked the municipal representatives present at the meeting about the current status of their individual Municipal Feasibility Studies. A summary of the responses is provided below:
  - Mike Smith, Municipality of Bethel Park, stated that they are using a 10-year design storm and that they are planning to upgrade their interceptor sewer in accordance with the Chester Engineering report previously provided.
  - Tom McDermott, Baldwin Township, stated that they have been working with PWSA and their work is progressing.
  - Mike Skinner, Gateway Engineers, on behalf of Brentwood and Whitehall Boroughs has received information from Castle Shannon Borough and is also planning on meeting with PWSA next week to discuss sewershed MH-89. Jerry Brown stated that MH-89 was one of the complex sewersheds evaluated by 3RWW last year.

- Jason Stanton, LSSE, on behalf of Castle Shannon Borough, indicated that they were working with the upstream communities and they are on target to submit the draft Municipal Feasibility Study to ALCOSAN by the July 2012 due date. Mike Lichte inquired if Castle Shannon Borough and the Municipality of Mount Lebanon are considering I/I reduction measures upstream of McNeilly Road. Jason Stanton stated that flow isolation measures were performed at SMR-CS-34 for both communities and this issue can be discussed with ALCOSAN after the July submittal. Jason Stanton stated that based on the 2-year design storm, the peak flows can currently be conveyed to ALCOSAN in the existing sewer system. Jason Stanton stated that the municipalities will be willing to talk to ALCOSAN about flow reduction measures after the July submittal but for now the municipalities are evaluating conveyance alternatives.

- Emily Gaspich, Gateway Engineers, on behalf of Dormont and Crafton Boroughs and the Municipality of Mt. Lebanon stated that in another planning basin, an analysis was performed for a municipality between implementing source reduction measures and constructing additional conveyances which resulted in estimated costs of $7 million (source reduction measures) versus $9 million (conveyance of all flows). Since the estimated costs of the alternatives were relatively close, the more conservative approach was selected to upsize the conveyance pipelines versus source reduction measures due to the age of system and uncertainty that flow reduction measures would sufficiently meet flow reduction goals. Emily Gaspich stated that flow reduction measures may be more effective on newer systems, i.e., sewers built in the 1970s to present than older systems constructed in the 1930s and 1940s. It was added that Crafton Borough only has six homes in the SMR Planning Basin. Emily Gaspich indicated that they are meeting and working with neighboring municipalities to discuss cost allocations, improvements, etc., as part of the Municipal Feasibility Studies.

- The group indicated that Green Tree and Mount Oliver Boroughs have very small contributions to the SMR Planning Basin.

- Jeff Lenner, PWSA, stated that they have met with the contributory upstream municipalities and that they are on schedule to submit the draft Municipal Feasibility Study to ALCOSAN in July. Jeff Lenner indicated that the preliminary PWSA improvements are essentially the same as represented on Figure 5-1with the exception of some minor changes to pipeline diameters.

- Jason Stanton stated that Scott Township has a small contribution to the SMR Planning Basin with approximately 100 dwelling units tributary to the Municipality of Mt. Lebanon which eventually are conveyed to Dormont Borough.

g. Draft Wet Weather Plan

· Ed Kluitenberg, CDM Smith, presented the Wet Weather Plan (WWP) Update. The presentation (refer to the PowerPoint attachment) included the following items:

- Wet Weather Plan Schedule

- Evaluation of Alternative Solutions
- Regional Integration and Optimization
- Preliminary Control Strategy
- Review of Financial Capability
- Affordable 2026 Alternatives

· Ed Kluitenberg presented the preliminary control strategy ($3.6 billion) which satisfies the water quality requirements but exceeds the region's affordability limit of $2.0 billion. Three affordable alternatives consisting of the following were presented: SSO Control Priority, the Water Quality Priority and the Balanced Priorities. Both the $3.6 and $2.0 billion alternatives will be presented in the WWP.

· Jason Stanton inquired if the Draft WWP will include an implementation schedule. Ed Kluitenberg indicated that cost and schedule projections will be included in the draft WWP and added that it would be very difficult to meet the 2026 deadline given the complexity and magnitude of the WWP alternatives.

· Mike Skinner inquired if ALCOSAN is developing a future rate structure with the Draft WWP. Mike Lichte indicated that it's being looked at by RSG or CMAC but did not know if a rate structure would be provided in the Draft WWP and/or available by July. Jason Staton and Mike Skinner stated that in order for the individual municipalities to conduct an affordability analysis of alternatives, it is necessary to understand the future ALCOSAN transport and treatment costs.

· Mike Lichte stated that the rate study is being conducted separately. For the WWP, ALCOSAN is utilizing the current basis for the rates. The rates will increase; however, the methodology of the rate structure which is based on water consumption is staying the same. Mike Lichte added that until new rates are developed, the municipalities will need to make assumptions on future rates for the development of their Municipal Feasibility Studies.

· Jason Stanton stated that out of the three priority alternatives (SSO control, water quality and balanced) that only the SSO control priority includes ALCOSAN improvements to the SMR Planning Basin. Ed Kluitenberg concurred.

· Jason Stanton inquired if the three affordable ($2.0 billion) alternatives each included all of the municipal improvements which total approximately $530 million. Ed Kluitenberg stated that each of the three affordable alternatives included the assumption that the municipal improvements would be implemented and the municipal costs are included in the total cost of $2.0 billion. The municipal improvements and corresponding costs do not vary between the three affordable alternatives.

h. Update on Program Outreach

- Karen Brean presented an update on the CMAC and RSG.
  - CMAC Meeting No. 13 was held on March 20, 2012. Karen Brean stated that the meeting focused on the Wet Weather Planning Update and Regionalization Study. The CMAC also discussed the prioritization of the wet-weather improvements within the affordability guidelines as well as the development of a regionalization review panel subcommittee. The next CMAC meeting is scheduled for May 23, 2012.
  - RSG Meeting No. 13 was held on March 28, 2012. Karen Brean stated that similar to the CMAC meeting, the meeting focused on the Wet Weather Planning Update and Regionalization Study. The next RSG meeting is scheduled for May 24, 2012.
- Karen Brean stated that the following public outreach milestones have been established for the release of the Draft WWP:
  - Release Draft WWP for public review/comment on July 31, 2012
  - Public Comment Period: July 31, 2012 to October 19, 2012
  - ALCOSAN Grassroots Outreach activities: May – September 2012
  - ALCOSAN Public Meetings and Hearings: August – September 2012. Karen Brean stated that the testimony at the meetings and the written comments received will become an attachment to the final WWP.
  - ALCOSAN Open House: September 15, 2012
- Karen noted that WWP release updates are available at www.alcosan.org.

i. Regionalization Study

- Karen Brean provided an overview of the Regionalization Study. Currently nine regionalization options are being evaluated by a Regionalization Review Panel. The Regionalization Review Panel is comprised of 37 members and is chaired by Dr. Jared Cohon, president of Carnegie Mellon University. Karen Brean stated that the Regionalization Review Panel, coordinated by the Allegheny Conference, has met five times and last met on January 23, 2012.
- Karen Brean stated that six review panel subcommittees have been developed to review the nine regionalization options. The review panel subcommittees are utilizing six evaluation categories (financial, regulatory/legal, environmental, organizational, stakeholder acceptance, and operation and maintenance). The subcommittees have each met twice in March/April 2012.
- Karen Brean stated the Regionalization Study will continue to be conducted through the summer/fall of 2012 with the report completed in December 2012.

- Tom McDermott inquired about the schedule for regionalization. Ed Kluitenberg and Mike Lichte stated that the Regionalization Study is scheduled to be completed in December. Mike Lichte added that ALCOSAN is not making the recommendations, they are just presenting the results from the Regionalization Review Panel. The panel is responsible for developing the recommendations. The WWP is going to be submitted with the current rate system in-place, i.e., without the regionalization recommendation. Tom McDermott stated that the outcome of the Regionalization Study could alter the recommendations developed in the Municipal Feasibility Studies and added that it would be beneficial to avoid building municipal improvements twice.

2. Next Steps

a. John Perriello reviewed the next steps which include the following:

- SMR team to prepare the Final Basin Facilities Plan in June 2012
- PM to prepare the Draft WWP by July 31, 2012
- Public/Municipal Review and Comment Period on Draft WWP in August/September 2012
- Finalize the WWP in early 2013 followed by regulatory review.

3. Items Distributed:

a. Meeting Presentation

b. Saw Mill Run Planning Basin Preferred Municipal Improvements Figure 5-1

4. **Action Items:**

a. None noted

5. Next Meeting:

a. None scheduled

6. Attachments:

a. Complete Meeting Presentation and Handouts

b. Meeting Attendance Sheet

Distribution

Attendees
Invitees not in Attendance

Turtle Creek/Thompson Run Basin

ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Turtle Creek / Thompson Run
Meeting Purpose: Basin Planning Committee Meeting #1
Date / Time: August 7, 2008
Location: Churchill Borough Municipal Building

Attendees: (see attached Sign-in Sheet for complete list of attendees)

Note: Acronyms consistent with the ALCOSAN wet weather program, and used in these notes, are summarized in Attachment A.

1. Introduction

All attendees introduced themselves, citing their affiliations. The attached sign-in sheet lists meeting attendee information. Tim Prevost, ALCOSAN, introduced himself as the ALCOSAN manager for the basin. Nancy Schultz/CH2M HILL and Mark Poole/HDR[1] introduced themselves as the Basin Planner (BP) manager and assistant manager for the Turtle Creek/Thompson Run (TT) basin. Dave Minard, M&E, introduced himself as the Basin Coordinator (BC) assisting Tim Prevost of ALCOSAN. A packet of information was distributed to the attendees.

2. Program Overview (Tim Prevost, ALCOSAN)

a. The similarities and differences between the ALCOSAN Consent Decree (CD) and the municipal Consent Orders were discussed. Tim reviewed the shared responsibilities necessary for compliance (refer to the PowerPoint presentation).

b. Into the future, the meaning of the statements "eliminate sanitary sewer overflow (SSO)" and "control combined sewer overflow (CSO)" will need to be collectively determined by ALCOSAN and the team, along with the long-term impacts ("practical reality").

c. Tim noted that there are not many municipal CSOs or SSOs in the TT basin, so the focus will be on controlling ALCOSAN overflows. This will not relieve the municipalities from complying with their own Consent Order requirements.

d. The municipalities will have to determine what will be conveyed to ALCOSAN now and into the future and ALCOSAN will determine how to address it.

e. This project will require regional coordination and a cooperative approach in order to achieve common goals.

[1] Mark Poole resigned from HDR shortly after this meeting. Mark Poole is no longer associated with TT Basin Planner.

f. Tim noted that no later than 6 months after ALCOSAN submits their plan to the regulatory agencies, the municipalities must submit their Municipality Feasibility Studies. The municipal studies will be developed simultaneously along with the ALCOSAN plan. Tim was not sure about the format for the municipal studies. This will be determined as the project moves forward.

g. Currently, some data is being gathered by the BP, primarily by extracting data from that provided by the municipalities through the data gathering requirements of the Consent Orders. The BP will be contacting the municipalities to ask questions and gather additional information over the next several months.

h. There are seven (7) planning basins in the ALCOSAN service area that are being managed by a team of consultants and ALCOSAN personnel. Tim reviewed the organization chart that was included as part of the meeting packet.

i. The TT basin is at the upper end of the ALCOSAN system, and therefore, will have an impact on the determination of the controls that will be established downstream throughout the system to address the wet weather overflows in the future.

j. Tim briefly discussed availability of flow monitoring and rainfall information from ALCOSAN and 3 Rivers Wet Weather Demonstration Program (3RWW).

k. The working copy of the TT basin map was presented and discussed. The BP is currently identifying critical portions of the basin for inclusion into the hydraulic model that will be developed as part of the project. Feedback from the municipalities will be a critical component of the model development. The BP will not be able to model every part of the system and will concentrate on the areas that will have the biggest impact on the ALCOSAN system.

3. Program Status in Turtle Creek/Thompson Run Basin (Nancy Schultz, CH2M HILL)

a. Nancy noted that the basin map presented at the meeting is a "living document" and will be updated as information is gathered from the basin municipalities.

b. The organization of the BP team was reviewed.

c. The planning approach for this project emphasizes cooperation among all involved. The planning effort will be an interactive process focused on results:

   i. Improving local drainage and sewage conveyance.

   ii. Meeting regulations and court orders.

   iii. Considering alternatives that are cost effective and acceptable to the stakeholders.

   iv. Ensuring the plan is acceptable to the regulatory agencies and implemented.

d. The planning is organized to meet the schedules required by the CD and municipal orders. It will incorporate lessons from past municipal experiences, the careful analysis of data and development of models, and analysis of effective alternatives, with the end result of solutions that can be effectively implemented to benefit the basin municipalities.

4. Basin Planning Committee Overview

a. Cooperation with the Basin Planning Committee is a key factor in the successful implementation of the planning effort. This basin planning committee will ensure incorporation of past "lessons learned," allowance for municipal growth and projects, respect for specific local values, and consideration of opportunities for joint use of facilities and/or available land.

b. Nancy reviewed the following abbreviated (approximate) schedule for the basin planning:

   i. 2008–2009: Information gathering

   ii. 2009–2010: Alternatives development, refinement, and integration

   iii. 2010–2011: Basin Facility Plan finalization and preparation of the draft section for the regional Wet Weather Plan

c. Elected official and municipal management involvement in the planning process is critical to the success of the program. Support group involvement (Council of Governments, community groups, etc.) will be determined by the Basin Planning Committee. Tim noted all levels of municipal officials (public works, manager and elected officials) are encouraged to participate and will have a seat at the table.

d. At this point in the meeting, there was a discussion regarding the TT Planning Sub-basin committees. Four (4) options were presented. Additional discussions were postponed until later in this meeting (open discussion).

e. Tim wanted the option that is most acceptable to the municipalities determined as soon as possible so that the process can move forward.

5. Information Exchange

a. Flow Monitoring Data: This data is currently being made available through ALCOSAN and 3RWW.

b. Sewer Mapping: Data was submitted by the municipalities and is currently being compiled and checked by 3RWW.

c. Modelling: The BP is evaluating the possibility of extending the model into other areas of the basin based on information obtained from the municipal managers and engineers. This topic will be discussed at subsequent committee meetings and individual municipal meetings.

d. The BP has initiated meetings with the municipal engineers and managers, and Tim has met with many of the managers within the basin.

e. Individual information packets were provided to the municipalities present[2], summarizing the information that has been assembled and developed for their community, along with the questions from the BP regarding the specific communities**.** The community information packets for those not represented at the meeting will be mailed to both the managers and the engineers.

[2] Churchill Borough, Municipality of Monroeville, Monroeville Municipal Authority, Municipality of Penn Hills, North Huntingdon Township, Western Westmoreland Municipal Authority

f. It is expected that over the course of this work, the ALCOSAN team, the BP, and the municipalities will recognize the various overflow-related problems in the basin and will share discussions regarding the upcoming challenges, experiences, and opportunities that will result in a plan that meets the regulatory requirements and is acceptable to the basin communities.

6. Open Discussion of Next Steps and Questions

a. TT Planning Sub-basins

i. Tim discussed the four options presented for the planning sub-basins. Tim stated that this item needs to be addressed as soon as possible and that he wants to make sure that the municipal managers are involved in the next meeting and throughout the project. It is important that the municipalities are adequately represented throughout the process.

ii. Dave Minard, M&E, stated that the upcoming planning sub-basin committee meetings will be more specific (working meetings) with minimal time spent on overall basin planning updates.

iii. Lou Gerthoffer, Monroeville Municipal Authority, asked how the option to proceed would be decided. Tim Prevost, ALCOSAN, answered that the option map would be made available and that a copy would possibly be sent out with the meeting minutes. In the meantime, a copy of the legend for each of the options was handed out to show which communities are grouped together in the planning sub-basins. Some communities were included in more than one sub-basin, depending on the sewershed.

iv. It was generally agreed that it would be best to limit the number of meetings to once per quarter for an hour and a half to 2 hours.

v. Andy Blenko, North Huntingdon Township, voiced his opinion that it would be acceptable if some communities that are in multiple sub-basins attend more than one meeting. He favors the sewer shed boundary options rather than the political subdivision option. Tim Prevost agreed with Andy's assessment.

vi. Tim asked Glenn Engineering, who represents several municipalities in the basin, to take the options back to his communities to gain a consensus of opinion.

b. Alternatives Analysis

i. Andy Blenko, North Huntingdon Township, asked when the wet weather alternatives would be determined for this basin. Tim Prevost, ALCOSAN, responded that this task is still two steps ahead, and that the BP needs to assess existing conditions, begin development of the model, and determine where the areas of concern are within the municipalities. A discussion regarding possible technologies could then be held. Tim stated that it is not too early in the process to involve landowners if it appears likely that land acquisition for future facilities will be an issue.

c. Flow Allocations

i. Andy Blenko, North Huntingdon Township, asked if there would be one flow allocation (Gallons per Day [GPD]/Equivalent Dwelling Unit [EDU]) for all communities or if it would be different based on the modelling, technologies, and system characteristics. Tim Prevost, ALCOSAN, replied that, at this point, it could not be determined what flows the

municipalities would be able to convey unless the existing municipal service agreements with ALCOSAN stated flow limitations.

ii. Andy Blenko, North Huntingdon, asked whether the municipal service agreements would be amended or re-written. Tim Prevost, ALCOSAN, responded that re-opening the agreements is not on the table right now. However, ALCOSAN would be reviewing the existing municipal service agreements and acknowledged there may be a need one day to amend or re-write them, if necessary. Tim encouraged the municipalities to read through their agreements.

d. Planning Milestones

i. Andy Blenko, North Huntingdon Township, asked what the milestones are under the ACO/ COA and CD. Tim Prevost, ALCOSAN, responded that the ALCOSAN draft wet weather plan must be submitted to the municipalities for review no later than July 30, 2012 (6-months prior to the January 30, 2013 due date to the Regulatory agencies). He also stated that the municipalities should only be concerned about the July 30, 2012 date at this point (in addition to the other milestone dates contained within their individual Orders).

7. Items Distributed:

a. Agenda

b. Hard Copy of the Presentation

c. ALCOSAN Wet Weather Planning Organizational Chart

d. Planning Sub-basin Legends

8. Items To Be Addressed Prior To Next Committee Meeting

a. The municipalities will have to determine what will be conveyed to ALCOSAN now and into the future. ALCOSAN will determine how to address it.

b. The BP will be contacting the municipalities to ask questions and gather additional information over the next several months.

c. The BP will assist in determining which sub-basin option is most acceptable to the municipalities[3].

d. The BP will mail the community information packets for those not represented at the meeting to both the managers and the engineers.

e. The BP will contact each of the managers and engineers who were not in attendance at this first meeting to confirm receipt of the information packets that were mailed subsequent to this meeting.

f. The BP will send the sub-basin option map out with the meeting minutes

g. Glenn Engineering, who represents several municipalities in the basin, will take the sub-basin options back to his communities to gain a consensus of opinion

[3] Subsequent meetings with Glenn Engineering and Monroeville determined that Option 3 was the preferred option.

ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Turtle Creek/Thompson Run
Meeting Purpose/Number: Basin Planning Committee
Meeting No. 2 – Thompson Run Sub Basin
Date / Time: October 28, 2008, 9:00 AM
Location: Monroeville Municipal Authority

Attendees: (see attached Sign-in Sheet for complete list of attendees)

1) Introduction

a) All attendees introduced themselves, citing their affiliations. The attached sign-in sheet lists meeting attendee information. Tim Prevost, ALCOSAN, introduced himself as the ALCOSAN manager for the basin. Nancy Schultz, CH2M Hill introduced herself as the Basin Planner (BP) for the Turtle Creek/Thompson Run (TT) basin. Dave Minard, Metcalf & Eddy, introduced himself as the Basin Coordinator (BC) assisting Tim Prevost of ALCOSAN. Tammi Halapin, Collective Efforts, and Karen Brean, Brean Associates, introduced themselves as members of the CH2M team. The attached agenda and presentation were distributed to the attendees.

b) Nancy Schultz confirmed that attendees received the minutes of the previous Basin Committee meeting. The minutes from the previous meeting were mailed to all participants prior to this meeting. Nancy gave a few brief highlights of the previous meeting. She noted that the municipalities and engineers expressed a willingness to work together but also expressed concern over lack of budget and lack of time for extensive participation. Nancy stated that attendees at the previous meeting agreed to work in sub basins and that the meeting this morning was specifically for the Thompson Run Sub Basin. She also asked that the attendees think about how they could most effectively function as a working group and decide issues such as frequency of meetings.

2) Flow Monitoring And Mapping (Nancy Schultz, CH2M HILL)

a) Nancy Schultz stated that the data is being submitted by the municipalities and it looks to be in great shape. She also noted that ALCOSAN's consultants and 3 Rivers Wet Weather want to make sure that the flow monitor basin delineations match.

3) Sewer System Modeling (Nancy Schultz, CH2M HILL)

a) The consultants are currently working on sewer modeling; the model is really a planning tool. The model will include all sewers, structures, and connections.

b) The model will include the Penn Hills Gascola interceptor. To do so, the consultants will need municipal data on sewers that connect. The consultants already have most of that data.

c) Tim Prevost noted that when ALCOSAN made the data request in March of 2008, Turtle Creek / Thompson Run team had not defined the extents to be modeled. Tim added that there is a justification to extend the model up further to gain a better understanding of the system. He also suggested that the model may be helpful to the municipalities as they undertake their Feasibility Studies.

d) Nancy noted that the model will extend into the municipalities to include any hydraulically critical situation, that is one that could cause an overflow or that could have a substantial impact on the ALCOSAN system.

e) Nancy asked Tom O'Grady, Penn Hills Municipal Authority, whether the municipality has more flow monitoring data at overflows. Tom said that they would send what they sent to the Environmental Protection Agency (EPA) for the last five years. Nancy noted that this would provide a good check on whether the model is realistic.

4) Information Exchange (Nancy Schultz, CH2M HILL)

a) Nancy asked if any municipalities had additional data, such as knowledge of direct inflows of streams, overflows not yet noted, or monitoring data from their stormwater (MS4) submittals.

b) Bob Zischkau, Glenn Engineering, reported that Turtle Creek has not done flow monitoring.

c) Tom O'Grady, Penn Hills Municipal Authority, asked Tim Prevost whether ALCOSAN had flow monitoring information where their system connects to ALCOSAN. He said that he had given it to Joe Fedor at ALCOSAN. Tim said that he would check with Joe for the information and see if there are any gaps.

d) Bob Zischkau stated that the only flow monitoring of which he was aware was in Wilmerding. He reported to Tim Prevost that there is CSO alert information. Bob will send Tim the password and access to the CSO alert information.

e) Nancy Schultz asked if there were any comments on ALCOSAN's Nine Minimum Controls Report. Tim Prevost stated that he did not receive any comments during the comment period.

5) Existing Conditions Reports (Nancy Schultz, CH2M HILL)

a) Nancy Schultz stated that the Existing Conditions Report is due to ALCOSAN at the end of December. She is planning to have draft sections that pertain to the municipalities ready for their review by the end of November.

6) Regional Wet Weather Overflow Control Plan and Municipal Feasibility Studies (Nancy Schultz, CH2M HILL)

a) Tim Prevost said that the goal is for ALCOSAN to develop the Wet Weather Overflow Control Plan in parallel with the municipalities' development of their Feasibility Studies.

b) Nancy Schultz stated that the Feasibility Studies are due to the regulating agencies about six months after the submission of the Wet Weather Overflow Control Plan.

c) Nancy Schultz suggested that municipalities may find it helpful to consult the Guide to Managing Peak Wet Weather Flows in Municipal Wastewater Collection and Treatment Systems published in 2006 by the Water Environment Federation. She noted that the authors of the manual have a lot of experience explaining wet weather mitigation to regulatory authorities. She shared the web site at which the document can be ordered: www.e-wef.org/timssnet/static/CS/P06103E.htm.

7) Customer Municipal Advisory Committee (Karen Brean, Brean Associates)

a) Karen Brean gave an overview of the Customer Municipal Advisory Committee (CMAC). The CMAC, comprised of appointed and elected municipal officials, will have fourteen members. There will be at least one member from each planning basin and the rest of the members will be at large. The CMAC, which may serve as the steering committee for the Regional Stakeholder Group, is expected to be convened before the end of 2008.

8) Regional Stakeholder Group (Karen Brean, Brean Associates)

a) Karen Brean described the Regional Stakeholder Group. This committee will be comprised of a cross section of functional and geographic stakeholders. Metcalf & Eddy is currently compiling a database of potential members of the committee. Karen asked for recommendations for members to represent the basin. No recommendations were given at the meeting. Karen asked that participants give the committee some thought and send recommendations to Nancy Schultz. (Update: John Capor from Monroeville and Bill McKeever for Senate engineering have volunteered to represent TT Basin in the Regional Stakeholder Group.)

9) Next Steps

a) Nancy Schultz asked the participants to suggest a meeting schedule for the sub basin. Bob Zischkau suggested that the group meet only when there is new information; that the group should not meet automatically on a quarterly basis.

b) Tim Prevost noted that ALCOSAN has a requirement to meet with municipalities a set number of times per year. However, the individual meetings with municipalities "count" in terms of that requirement.

c) Nancy Schultz noted that there will most likely be individual meetings with the municipalities on the Existing Conditions Report. She confirmed that the basin sub committees will be reconvened when there is something significant to talk about.

d) Bob Zischkau said that, from the perspective of some municipalities and engineers, sub basin meetings simply are repetitive. Tim Prevost responded that, moving forward, the basin committee will meet as a whole unless there is specific business to be done at the sub basin level.

10) Questions/Discussion

a) Nancy Schultz asked whether any municipalities have water quality sampling data on the stream. She explained that ALCOSAN has to do an analysis of the impact that the overflows have on the stream. She noted that the consultants can use MS4 data. Nancy also mentioned that the consultants will be looking at industrial discharges.

b) Tim Prevost said that engineers will be asking for information regarding stormwater such as permits, MS4 data, water quality data, and maps, if available.

c) Tim Prevost asked whether the municipalities have begun to consult their financial people about funding possible improvements.

d) William McKeever, Senate Engineering, stated that a rate change in Wilkins four years ago generated about $250,000 per year. The idea was to start a reserve fund.

e) Tom O'Grady, Penn Hills Municipal Authority, said that Penn Hills performed a five-year rate projection and promised not to raise rates for those five years. Tom asked whether ALCOSAN would be raising its rates this year and, if so, by how much. Tim Prevost responded that there would be a rate increase, possibly a substantial one. Tom O'Grady said that he believed that municipalities were supposed to be notified of any rate increase by October. (Update: The rate increase was 16% announced by ALCOSAN on November 3, 2008).

11. Items Distributed:

a) Agenda

b) Hard Copy of the Presentation

12. Items to be Addressed Prior to Next Committee Meeting

a) The Existing Conditions Report is due to ALCOSAN at the end of December. Nancy Schultz will have a draft ready for review by the municipalities by the end of November.

b) The BP will continue to collect data from the municipalities to inform the model.

c) Tim Prevost will follow up on the Penn Hills flow monitoring data with ALCOSAN staff to determine if there are any gaps in the data.

d) Bob Zischkau will send Tim Prevost the password and access protocol to obtain CSO alert information for Wilmerding.

e) Basin Planning Committee members will submit to Nancy Schultz names of volunteers to serve on the Regional Stakeholders Group.

13) Next Meeting:

a) To be determined

14) Attachments:

a) Attendance list
b) Agenda
c) Hard Copy of the Presentation

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Sign-In Sheet 10-28-08 900 am TT Thompson.pdf

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ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Turtle Creek/Thompson Run
Meeting Purpose/Number: Basin Planning Committee
Meeting No. 2 – Upper Turtle Creek Sub Basin
Date / Time: October 28, 2008, 10:30 AM
Location: Monroeville Municipal Authority

Attendees: (see attached Sign-in Sheet for complete list of attendees)

1) Introduction

a) All attendees introduced themselves, citing their affiliations. The attached sign-in sheet lists meeting attendee information. Tim Prevost, ALCOSAN, introduced himself as the ALCOSAN manager for the basin. Nancy Schultz, CH2M Hill introduced herself as the Basin Planner (BP) for the Turtle Creek/Thompson Run (TT) basin. Dave Minard, Metcalf & Eddy, introduced himself as the Basin Coordinator (BC) assisting Tim Prevost of ALCOSAN. Tammi Halapin, Collective Efforts, and Karen Brean, Brean Associates, introduced themselves as members of the CH2M team. The attached agenda and presentation were distributed to the attendees.

b) Nancy Schultz confirmed that attendees received the minutes of the previous Basin Committee meeting. The minutes from the previous meeting were mailed to all participants prior to this meeting. Nancy gave a few brief highlights of the previous meeting. She noted that the municipalities and engineers expressed a willingness to work together but also expressed concern over lack of budget and lack of time for extensive participation. Nancy stated that attendees at the previous meeting agreed to work in sub basins and that the meeting this morning was specifically for the Upper Turtle Creek Sub Basin. She also asked that the attendees think about how they could most effectively function as a working group and decide issues such as frequency of meetings.

2) Flow Monitoring And Mapping (Nancy Schultz, CH2M HILL)

a) Nancy Schultz stated that the data is being submitted by the municipalities and it looks to be in great shape. She also noted that ALCOSAN's consultants and 3 Rivers Wet Weather want to make sure that the flow monitor basin delineations match.

b) Tim Prevost stated that the flow monitoring group would like to ask the municipalities about sharing data. The ALCOSAN 3 Rivers Wet Weather (3RWW) web sites should have access to everyone's data. Then the municipalities could choose one of two web sites from which to pull data.

3) Sewer System Modeling (Nancy Schultz, CH2M HILL)

a) The consultants are currently working on sewer modeling; the model is really a planning tool. The model will include all sewers, structures, and connections.

b) Nancy noted that, in the Upper Turtle Creek basin, the model will extend to any flow divider that is significant, that is one that could cause an overflow or that could have a substantial impact on the ALCOSAN system.

4) Information Exchange (Nancy Schultz, CH2M HILL)

a) Nancy noted that if any municipalities are making major repairs, they should let the consultants know in addition to ALCOSAN or the appropriate regulators.

b) Randal Collins, Chester Engineers, explained that Monroeville will have several code 4s and 5s that will have a cumulative impact.

c) Tim explained that ALCOSAN can also try to identify data for municipalities to share with the regulators to show improvement.

d) Stan Caroline, Penn Township and Penn Township Sewage Authority, asked whether, if the municipality has areas earmarked for development, ALCOSAN wants full build-out regardless of Equivalent Dwelling Units (EDUs). Tim recommended that Penn Township talk to ALCOSAN to give a heads up on amending Penn Township's agreement. Furthermore, before amending the agreement, the model should be run to make sure the build-out will work.

e) Nancy asked about the best way to access items like municipal land use plans. Stan Caroline stated that Penn Township will send a copy of their land use plan to Nancy. In addition, North Huntingdon is in the process of updating the Township's 537 and will send a copy to Nancy.

f) In response to Nancy's question about whether there were any plans among the municipalities to change sewer area boundaries, Richard Stewart, NIRA Consulting Engineers, stated that the Plum Borough Water and Sewer Municipal Authority has a modified sewer agreement and he will check on getting that agreement.

g) Nancy asked if there were any comments on ALCOSAN's Nine Minimum Controls Report. Tim stated that he had not received any comments during the comment period.

5) Existing Conditions Reports (Nancy Schultz, CH2M HILL)

a) Nancy Schultz stated that the Existing Conditions Report is due to ALCOSAN at the end of December. She is planning to have draft sections that pertain to the municipalities ready for their review by the end of November.

b) Nancy described the kind of questions that should be answered in the existing conditions report. For example, are there other NPDES permits within the basin that are not indicated in the Consent Decree? Is there other water quality data available? Are there other discharges?

c) Tim asked whether there is a GIS layer that shows non-ALCOSAN wastewater treatment plants. ALCOSAN is interested in this to understand the worst-case scenario. For example, would a municipality ever decommission a plant and then send the flow to ALCOSAN? If the answer is "no," there's no need to look further at these treatment plants. If the answer is "maybe," then ALCOSAN may need to look.

6) Regional Wet Weather Overflow Control Plan and Municipal Feasibility Studies (Nancy Schultz, CH2M HILL)

a) Tim Prevost said that the goal is for ALCOSAN to develop the Wet Weather Overflow Control Plan in parallel with the municipalities' development of their Feasibility Studies.

b) Nancy Schultz stated that the Feasibility Studies are due to the regulating agencies about six months after the submission of the Wet Weather Overflow Control Plan.

c) Nancy Schultz suggested that municipalities may find it helpful to consult the Guide to Managing Peak Wet Weather Flows in Municipal Wastewater Collection and Treatment Systems published in 2006 by the Water Environment Federation. She noted that the authors of the manual have a lot of experience explaining wet weather mitigation to regulatory authorities. She shared the web site at which the document can be ordered: www.e-wef.org/timssnet/static/CS/P06103E.htm.

7) Customer Municipal Advisory Committee (Karen Brean, Brean Associates)

a) Karen Brean gave an overview of the Customer Municipal Advisory Committee (CMAC). The CMAC, comprised of appointed and elected municipal officials, will have fourteen members. There will be at least one member from each planning basin and the rest of the members will be at large. The CMAC, which may serve as the steering committee for the Regional Stakeholder Group, is expected to be convened before the end of 2008.

8) Regional Stakeholder Group (Karen Brean, Brean Associates)

a) Karen Brean described the Regional Stakeholder Group. This committee will be comprised of a cross section of functional and geographic stakeholders. Metcalf & Eddy is currently compiling a database of potential members of the committee. Karen asked for recommendations for members to represent the basin. Participants recommended inviting representatives from the Turtle Creek Watershed Association and from the Monroeville Redevelopment Authority.

9) Next Steps

a) Nancy Schultz stated that the next meetings with the municipalities would be one-on-one meetings for discussion of detailed information. The next Basin Planning Committee meeting

will probably be of the whole group rather than sub-basins, and most likely will be convened after the completion of the Existing Conditions Report in early 2009.

10) Questions/Discussion

a) Stan Caroline asked about the situation if a municipality wanted to build a plant and be removed from ALCOSAN's system. He explained that there is a remote area of Penn Township that might warrant another plant, rather than upsizing the existing system. Tim said that the Township should bring it up to ALCOSAN. Stan said that a letter was sent to ALCOSAN in 1998 inquiring about this issue but the Township did not receive a response from ALCOSAN.

b) Stan Caroline also noted that various agreements made sense at the time that they were signed, but that some may need to be revisited.

11) Items Distributed:

b) Agenda

c) Hard Copy of the Presentation

12) Items to be Addressed Prior to Next Committee Meeting

a) The Existing Conditions Report is due to ALCOSAN at the end of December. Nancy Schultz will have draft sections that pertain to the municipalities ready for their review by the end of November.

b) The BP will continue to collect data from the municipalities to inform the model.

c) Penn Township will send a copy of their land use plan to Nancy.

d) North Huntingdon will send Nancy a copy of their updated 537 when they have completed it.

e) Richard Stewart, NIRA Consulting Engineers, will follow up on getting Nancy the modified sewer agreement of the Plum Borough Water and Sewer Municipal Authority.

13) Next Meeting:

a) To be determined

14) Attachments:

a) Attendance list

b) Agenda

c) Hard Copy of the Presentation

ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Turtle Creek/Thompson Run
Meeting Purpose/Number: Basin Planning Committee
Meeting No. 2 – Monroeville Sub Basin
Date / Time: October 28, 2008, 12:00 PM
Location: Monroeville Municipal Authority

Attendees:

Joe Storey/Monroeville Municipal Authority	Tim Prevost/ALCOSAN
Nancy Schultz/CH2M HILL	Dave Minard/Metcalf & Eddy
Tammi Halapin/Collective Efforts	Karen Brean/Brean Associates

This sub basin meeting was curtailed. Joe Storey attended the previous Upper Turtle Creek Sub Basin meetings and agreed that no new information would be presented in discussion of this sub basin.

1) Items Distributed at Previous Meeting:

a) Agenda

b) Hard Copy of the Presentation

2) Items to be Addressed Prior to Next Committee Meeting

a) The Existing Conditions Report is due to ALCOSAN at the end of December. Nancy Schultz will have draft sections that pertain to the municipalities ready for their review by the end of November.

b) The BP will continue to collect data from the municipalities to inform the model.

3) Next Meeting:

a) To be determined

4) Attachments:

a) Attendance list

b) Agenda

c) Hard Copy of the Presentation

Inserts

BPC_Agenda_Basin_Planning_Committee_Meeting_No_2_Monroeville Sub_Basin_JMH_v1.pdf

Alcosan_BPC2_STD_TT_nus_v4-lightened.pdf

ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Turtle Creek/Thompson Run
Meeting Purpose/Number: Basin Planning Committee
Meeting No. 2 – Middle Turtle Creek Sub Basin
Date / Time: October 31, 2008, 9:30 AM
Location: Churchill Municipal Building

Attendees: (see attached Sign-in Sheet for complete list of attendees)

1) Introduction

a) The introduction was shortened since all attendees had previously attended other similar sub-basin meetings.

2) Flow Monitoring And Mapping (Nancy Schultz, CH2M HILL)

a) Nancy Schultz stated that the data is being submitted by the municipalities and it looks to be in great shape. She also noted that ALCOSAN's consultants and 3 Rivers Wet Weather (3RWW) want to make sure that the flow monitor basin delineations match.

b) Bob Zischkau, Glenn Engineering, asked about how much flow monitoring evaluation the municipalities are expected to do. Nancy Schultz noted that engineers, such as Bob Zischkau, are already evaluating, evaluation is just not computer modeling, and that the issue really is the transfer of information rather than the reworking of any previous efforts.

3) Sewer System Modeling (Nancy Schultz, CH2M HILL)

a) The consultants are currently working on sewer modeling; the model is really a planning tool. The model will include all sewers, structures, and connections. It will extend into the municipalities to include any hydraulically critical situation, one that could cause an overflow or that could have a substantial impact on the ALCOSAN system.

b) Tim Prevost stated that ALCOSAN will have a fairly substantial model of the Falls Run watershed. The consultants and ALCOSAN will only need input on that model from the municipalities. Bob Zischkau noted that dye testing on Falls Run in North Braddock showed only 15 or 16 problems out of a couple hundred test points.

c) Bob stated that they need to get a handle on the flows in Braddock, Braddock Hills, North Braddock and Swissvale. Tim Prevost expressed hope that the municipalities could get together on this work. Bob stated, however, that the most economical way for the municipalities to undertake their feasibility studies would be on their own. That said, he added that the long term plans should be regional.

4) Information Exchange (Nancy Schultz, CH2M HILL)

a) Nancy asked if any municipalities had additional data, such as knowledge of direct inflows of streams, overflows not yet noted, or monitoring data from their stormwater (MS4) submittals.

b) Bob Zischkau stated that Chalfont, with a totally separate system, has less than 800 people. In fact, they have an exemption from the MS4 requirements because the service area is too small. With separated system communities, the exception is granted based on the size of the municipality.

c) Tim Prevost noted that John Hanna, CH2M Hill, is working on the situation in East McKeesport. John should contact Bob Zischkau for information. Bob stated that the data for East McKeesport is rather complete and that they worked closely with 3RWW on it.

d) Nancy asked if there were any comments on ALCOSAN's Nine Minimum Controls Report. Tim stated that he had not received any comments during the comment period.

5) Existing Conditions Reports (Nancy Schultz, CH2M HILL)

a) Nancy Schultz stated that the Existing Conditions Report is due to ALCOSAN at the end of December. She is planning to have draft sections that pertain to the municipalities ready for their review by the end of November.

6) Regional Wet Weather Overflow Control Plan and Municipal Feasibility Studies (Nancy Schultz, CH2M HILL)

a) Tim Prevost said that the goal is for ALCOSAN to develop the Wet Weather Overflow Control Plan in parallel with the municipalities' development of their Feasibility Studies.

b) Nancy Schultz stated that the Feasibility Studies are due to the regulatory agencies about six months after the submission of the Wet Weather Overflow Control Plan.

c) Nancy Schultz suggested that municipalities may find it helpful to consult the Guide to Managing Peak Wet Weather Flows in Municipal Wastewater Collection and Treatment Systems published in 2006 by the Water Environment Federation. She noted that the authors of the manual have a lot of experience explaining wet weather mitigation to regulatory authorities. She shared the web site at which the document can be ordered: www.e-wef.org/timssnet/static/CS/P06103E.htm.

7) Customer Municipal Advisory Committee (Karen Brean, Brean Associates)

a) Karen Brean gave an overview of the Customer Municipal Advisory Committee (CMAC). The CMAC, comprised of appointed and elected municipal officials, will have fourteen members. There will be at least one member from each planning basin and the rest of the members will be at large. The CMAC, which may serve as the steering committee for the Regional Stakeholder Group, is expected to be convened before the end of 2008.

8) Regional Stakeholder Group (Karen Brean, Brean Associates)

a) Karen Brean described the Regional Stakeholder Group. This committee will be comprised of a cross section of functional and geographic stakeholders. Metcalf & Eddy is currently compiling a database of potential members of the committee. Karen asked for recommendations for members to represent the basin. No recommendations were given. Nancy Schultz will send a reminder to the sub basin regarding recommendations.

b) UPDATE: Subsequent to the meeting, John Capor, of Monroeville Municipal Authority, and Bill McKeever, of Senate Engineering, volunteered to be representatives of the Turtle Creek municipal/technical community.

9) Next Steps

a) Nancy Schultz stated that the next meetings with the municipalities would be one-on-one meetings for discussion of detailed information. The next Basin Planning Committee meeting will probably be of the whole group rather than sub-basins, and most likely will be convened after the completion of the Existing Conditions Report in early 2009.

10) Questions/Discussion

a) Participants mentioned that there are also individual, non-systemic problems in some of the communities. For example, in Wilkinsburg, they discovered that specific commercial and multi-unit residential developments were connected to the storm sewer rather than the sanitary sewer.

b) Nancy mentioned to the participants that the consultant team was considering walking the stream and marking all outfalls. Bob Zischkau concurred that a field visit would be valuable. He reported that he did a field study of the culvert running under Electric Avenue. It is not as large as Nine Mile Run, but it is walkable. The Nine Mile Run culvert is 20 feet wide and 15 feet high. He also warned that culverts fill up very fast in wet weather. Therefore, whenever they do field visits, they have one person on top at all times to warn of possible wet weather.

c) Tim Prevost asked about the name of the tributary to T-10 (Monroeville to Turtle Creek). Bob Zischkau will get the name to Tim.

11) Items Distributed:

b) Agenda

c) Hard Copy of the Presentation

12) Items to be Addressed Prior to Next Committee Meeting

a) The Existing Conditions Report is due to ALCOSAN at the end of December. Nancy Schultz will have draft sections that pertain to the municipalities ready for their review by the end of November.

b) The BP will continue to collect data from the municipalities to inform the model.

c) John Hanna, CH2M Hill, will contact Bob Zischkau for information on East Mckeesport.

d) Nancy Schultz will send a reminder email to the sub basin representatives regarding recommendation of two volunteers to serve on the Regional Stakeholder Committee.

e) Bob Zischkau will find out the name of the tributary to T-10 and send that information to Tim Prevost.

13) Next Meeting:

a) To be determined

14) Attachments:

a) Attendance list

b) Agenda

c) Hard Copy of the Presentation

Insert

Sign-In Sheet 10-31-08 9:30 am TT Middle Turtle.pdf

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ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Turtle Creek/Thompson Run
Meeting Purpose/Number: Basin Planning Committee
Meeting No. 2 – Lower Turtle Creek Sub Basin
Date / Time: October 31, 2008, 11:00 AM
Location: Churchill Municipal Building

Attendees: (see attached Sign-in Sheet for complete list of attendees)

1) Introduction

a) All attendees introduced themselves, citing their affiliations. The attached sign-in sheet lists meeting attendee information. Tim Prevost, ALCOSAN, introduced himself as the ALCOSAN manager for the basin. Nancy Schultz, CH2M Hill introduced herself as the Basin Planner (BP) for the Turtle Creek/Thompson Run (TT) basin. Dave Minard, Metcalf & Eddy, introduced himself as the Basin Coordinator (BC) assisting Tim Prevost of ALCOSAN. Tammi Halapin, Collective Efforts, and Karen Brean, Brean Associates, introduced themselves as members of the CH2M team. The attached agenda and presentation were distributed to the attendees.

b) Nancy Schultz confirmed that attendees received the minutes of the previous Basin Committee meeting. The minutes from the previous meeting were mailed to all participants prior to this meeting. Nancy gave a few brief highlights of the previous meeting. She noted that the municipalities and engineers expressed a willingness to work together but also expressed concern over lack of budget and lack of time for extensive participation. Nancy stated that attendees at the previous meeting agreed to work in sub basins and that the meeting this morning was specifically for the Lower Turtle Creek Sub Basin. She also asked that the attendees think about how they could most effectively function as a working group and decide issues such as frequency of meetings.

2) Flow Monitoring And Mapping (Nancy Schultz, CH2M HILL)

a) Nancy Schultz stated that the data is being submitted by the municipalities and it looks to be in great shape. She also noted that ALCOSAN's consultants and Three Rivers Wet Weather want to make sure that the flow monitor basin delineations match.

b) Tim Prevost explained that the Flow Monitoring Working Group met the previous day. The main topic concerned how municipalities would move forward with flow monitoring. He said that there would be guidance available for the municipalities. 3 Rivers Wet Weather (3RWW) will be providing more information, particularly related to municipalities understanding the

flow monitoring results. He added that flow monitoring provides the basis for the feasibility studies.

c) Nancy explained that 3RWW is in the process of mapping and, if there are any data gaps, the consultants will come back to the municipalities to discuss them.

3) Sewer System Modeling (Nancy Schultz, CH2M HILL)

a) The consultants are currently working on sewer modeling; the model is really a planning tool. The model will include all sewers, structures, and connections. It will extend into the municipalities to include any hydraulically critical situation, one that could cause an overflow or that could have a substantial impact on the ALCOSAN system.

b) Tim Prevost asked whether there is a need to extend the model up to the top of the sewer shed or whether the municipalities that are part of Falls Run can suggest an alternative. When the municipalities represented at the meeting asked why the model should extend so far, Tim answered that he had heard that there might be a problem. Paul Gaus, Gateway Engineers, stated that there is a problem. Nancy Schultz said that she had heard that there is too much flow. She would like to know, from the municipalities' perspective, the model extent that would be useful. Tim Prevost added that, from ALCOSAN's perspective, it is not critical to extend the model to the top of the sewer shed. However, if it is useful for the municipalities, ALCOSAN will have the model extend that far. Tim noted that every municipality through which the model runs will have access to the model. He also explained that Falls Run has more monitors than other sewer sheds.

c) Tim asked whether the problem requires a model or whether there are erroneous tie-ins. Is it a question of source tracking or model extent? Paul Gaus, Gateway Engineers, suggested that building the model would help figure out the problem. Nancy stated that the group confirms that there is a benefit to building the model. Tim also noted that every municipality feeding into Falls Run does have some monitoring apparatus to help calibrate the model.

d) UPDATE - Tim Prevost stated at the Middle Turtle Creek meeting that ALCOSAN will have a fairly substantial model of the Falls Run watershed. The consultants and ALCOSAN will only need input on that model from the municipalities. Bob Zischkau noted that dye testing on Falls Run in North Braddock showed only 15 or 16 problems out of a couple hundred test points.

4) Information Exchange (Nancy Schultz, CH2M HILL)

a) Nancy asked if there were any comments on ALCOSAN's Nine Minimum Controls Report. Tim stated that he had not received any comments during the comment period.

b) Nancy asked if any municipalities had additional data, such as knowledge of direct inflows of streams, overflows not yet noted, or water quality sampling data from their stormwater (MS4) submittals

c) UPDATE: In the Middle Turtle Creek meeting, Bob Zischkau stated that Chalfont, with a totally separate system, has less than 800 people. In fact, they have an exception for the MS4

requirements because the service area is too small. With separated system communities, the exception is granted based on this size of the municipality.

5) Existing Conditions Reports (Nancy Schultz, CH2M HILL)

a) Nancy Schultz stated that the Existing Conditions Report is due to ALCOSAN at the end of December. She is planning to have draft sections that pertain to the municipalities ready for their review by the end of November. Nancy noted that they must report on all existing permits and any wastewater discharges other than those in the Consent Order.

b) Paul Gaus requested that the consultants send out the list of permits when they have collated them. Tim Prevost stated that that ALCOSAN and the consultants may find old, but still valid, permits when they check the regulatory database.

c) Paul said that Gateway Engineers had sampled Forest Hills and Wilkinsburg and will get the sampling data to Nancy.

d) Nancy explained that the Existing Conditions Report also must characterize development in the sub basins. She will write a general description and have them reviewed by the municipalities. Craig Robinson, Churchill Borough, agreed with this process.

6) Regional Wet Weather Overflow Control Plan and Municipal Feasibility Studies (Nancy Schultz, CH2M HILL)

a) Tim Prevost said that the goal is for ALCOSAN to develop the Wet Weather Overflow Control Plan in parallel with the municipalities' development of their Feasibility Studies.

b) Nancy Schultz stated that the Feasibility Studies are due to the regulating agencies about six months after the submission of the Wet Weather Overflow Control Plan.

c) Nancy Schultz suggested that municipalities may find it helpful to consult the Guide to Managing Peak Wet Weather Flows in Municipal Wastewater Collection and Treatment Systems published in 2006 by the Water Environment Federation. She noted that the authors of the manual have a lot of experience explaining wet weather mitigation to regulatory authorities. She shared the web site at which the document can be ordered: www.e-wef.org/timssnet/static/CS/P06103E.htm.

7) Customer Municipal Advisory Committee (Karen Brean, Brean Associates)

a) Karen Brean gave an overview of the Customer Municipal Advisory Committee (CMAC). The CMAC, comprised of appointed and elected municipal officials, will have fourteen members. There will be at least one member from each planning basin and the rest of the members will be at large. The CMAC, which may serve as the steering committee for the Regional Stakeholder Group, is expected to be convened before the end of 2008.

b) Bob Zischkau asked who had input into the selection of the Customer Municipal Advisory Committee (CMAC) and the Regional Stakeholder Group. Bob further noted that the CMAC plays an important role in this project.

c) Tim Prevost explained that the Consent Decree stated that the County Executive would appoint the CMAC. He explained that it would be comprised of both technical and non-technical people and is intended to provide a fair distribution of perspectives and be a sounding board of responsible individuals. Tim further noted that the Consent Decree states the CMAC should keep themselves apprised of flow monitoring and the overall wet weather planning. The CMAC will also examine the financial issues and changes that would need to be made for wet weather planning. Once the first meeting of the CMAC occurs, there will be a lot of input from them as the project moves forward.

8) Regional Stakeholder Group (Karen Brean, Brean Associates)

a) Karen Brean described the Regional Stakeholder Group. This committee will be comprised of a cross section of functional and geographic stakeholders. Metcalf & Eddy is currently compiling a database of potential members of the committee. Karen asked for recommendations for members to represent the basin. Participants recommended inviting representatives from the Turtle Creek Watershed Association and from the Monroeville Redevelopment Authority.

9) Next Steps

a) Nancy Schultz stated that the next meetings with the municipalities would be one-on-one meetings for discussion of detailed information. The next Basin Planning Committee meeting will probably be of the whole group rather than sub-basins, and most likely will be convened after the completion of the Existing Conditions Report in early 2009.

10) Questions/Discussion

a) Steve Morus, Forest Hills Borough, stated that they are involved in three basins and therefore have triple the work for their consulting engineers. He asked how he should direct the engineers so as not to incur too much expense. Tim Prevost stated that when municipalities fall into more than one basin they should figure out where the priorities are and attend that particular basin meeting. The municipality will still receive mailings and other information from the other basins in which they fall. For example, for Forest Hills, Tim suggested that their priority should be participation in the Upper Mon Basin.

b) Bill McKeever, Senate Engineering, asked whether the consultant team is interested in what's contemplated for development as well as what's been completed. Nancy Schultz responded that it is useful to know projects that are completed, those that are planned but not completed, and general priorities. Nancy further explained that the Existing Conditions Report is, in a sense, the first draft of a piece of the Feasibility Report.

c) Tim Prevost added that the municipalities need to use their judgment about what would be beneficial for the consultants and ALCOSAN to know in order to do the best planning.

11) Items Distributed:

b) Agenda

c) Hard Copy of the Presentation

12) Items to be Addressed Prior to Next Committee Meeting

a) The Existing Conditions Report is due to ALCOSAN at the end of December. Nancy Schultz will have draft sections pertaining to the municipalities ready for their review by the end of November.

b) The BP will continue to collect data from the municipalities to inform the model.

c) The consultant team will send out the collated list of permits to the municipalities when it is available.

d) Paul Gaus will send sampling data on Forest Hills and Wilkinsburg to Nancy Schultz.

e) Nancy Schultz will send each municipality, for their review, a copy of the general description characterizing development that she will write for the Existing Conditions Report.

13) Next Meeting:

a) To be determined

14) Attachments:

a) Attendance list

b) Agenda

c) Hard Copy of the Presentation

ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Turtle Creek/Thompson Run
Meeting Purpose/Number: Basin Planning Committee Meeting Number 3
Date / Time: February 23, 2009, 10:00 AM
Location: Monroeville Municipal Authority

Municipal Attendees:

Municipality/Authority	Municipal Representative	Engineer or Other Representing Municipality
Braddock Hills Borough	David Checchio	Corbet Martin, Senate Engineering
Chalfant Borough		Robert Zischkau, Glenn Engineering
Churchill Borough	Craig Robinson Ralph Zatlin	Paul Gaus, Gateway Engineers
East McKeesport Borough		Robert Zischkau, Glenn Engineering
East Pittsburgh Borough		Robert Zischkau, Glenn Engineering
Forest Hills Borough	Steve Morus	Paul Gaus, Gateway Engineers
Municipality of Monroeville		Shawn Rosensteel, Chester Engineers
Monroeville Municipal Authority	Joe Storey Lou Gerthoffer John Capor	
North Braddock Borough		Robert Zischkau, Glenn Engineering
North Huntingdon Municipal Authority	Katherine Petrosky	
North Huntingdon Township		
North Versailles Township		Robert Zischkau, Glenn Engineering
North Versailles Township Sanitary Authority		
Penn Hills, Municipality of		Richard Minsterman, Gateway Engineers
Penn Hills Water Pollution Control Department	Tom O'Grady	
Penn Township/Penn Township Sewage Authority	Stan Caroline Thomas Lamacz	
Pitcairn Borough		
Plum Borough		
Plum Borough Water and Sewer Municipal Authority		Richard Stewart, Nira Consulting Engineers
Trafford Borough		Robert Zischkau, Glenn Engineering
Turtle Creek Borough		Robert Zischkau, Glenn Engineering
Wall Borough		Robert Zischkau, Glenn Engineering
Western Westmoreland Municipal Authority		

Municipality/Authority	Municipal Representative	Engineer or Other Representing Municipality
Wilkins Township		Corbet Martin, Senate Engineering
Wilkinsburg Borough		Robert Zischkau, Glenn Engineering
Wilmerding Borough		Robert Zischkau, Glenn Engineering

Other Attendees:

Thomas Flanagan, Department of Environmental Protection
Donna Davis, Department of Environmental Protection
John Shannon, Baker Engineers, Representing 3RWW
Cindy Hasenjager, 3RWW
Tim Prevost, ALCOSAN
Dave Minard, AECOM
Jim Protin, AECOM
Janai Williams, AECOM/Ebony Holdings
Tom Schevtchuk, CDM
Kay Bealer, Kaye Bealer Consulting
Anthony Cataria, K. Bealer Consulting
Nancy Schultz, CH2M HILL
John Hanna, CH2M HILL
Tammi Halapin, Collective Efforts
Karen Brean, Brean Associates

1) Introduction

a) All attendees introduced themselves, citing their affiliations. Nancy Schultz presented an overview of the agenda and noted that the project team would like participation from the municipalities in these meetings. The intention is to have a real dialogue.

2) Status Update: Flow Monitoring, Model Extents, and Mapping (Nancy Schultz, CH2M HILL)

a) Nancy Schultz reported that the initial rounds of flow monitoring data are now complete and that the consultant team is reviewing and analyzing the data. Nancy distributed two templates, the Dry Weather Flow Results form and the Wet Weather Flow Results form (attached), to illustrate examples of information that the consultant team will be distributing to the municipalities. She noted that the flow monitors that will be examined are illustrated on the map (at the front of the room). The project team will be looking at major meters and will be modeling every sewer that has significant impact on the ALCOSAN system. In addition to modeling the ALCOSAN interceptor sewers and critical sewers, ALCOSAN has directed the consultant team to consider modeling municipal sewers that are of particular interest to a

community. Nancy invited the participants to review the map to understand which sewers are being modeled. Tim Prevost added that municipalities should share any comments or questions with the Basin Planning team as soon as possible.

b) Cindy Hasenjager (3RWW) asked whether there has been a time frame set for modeling and for getting information back to the municipalities. Tim Prevost (ALCOSAN) responded that the need for modeling has been discussed in each of the Basin Planning Committee meetings. In the last Basin Planning Committee meeting, municipalities were asked to let the project team know if there were any critical sewers that the team should know about. Since that meeting, the project team met with representatives of Wilkins Township and identified a potential sewer to model. The map that Nancy displayed illustrated the current model extents. Tim said that CH2M HILL is under a tight schedule to meet the ALCOSAN deadline to complete the model by fall 2009.

c) Nancy Schultz thanked the municipalities and 3RWW for their mapping efforts. She noted that, given the large amount of data available through Geographic Information System (GIS) mapping, it is difficult to visualize any one aspect. If the municipalities would like, the consultant team could send them SHAPE files of the GIS mapping, if requested.

3) Status Update: Customer Municipality Advisory Committee (Janai Williams, Ebony Development/AECOM)

a) Janai Williams, the ALCOSAN Public Relations coordinator consultant, explained the purpose, responsibility, and membership of the Customer Municipality Advisory Committee (CMAC) and its relationship to the Basin Planning Committee. CMAC's main purpose is to solicit feedback for the Long Term Wet Weather Control Plan. The group will meet quarterly to provide guidance. The membership represents the seven planning basins. Members were appointed by the County Executive with input from ALCOSAN. The CMAC will serve as the Steering Committee of the Regional Stakeholder Group (RSG). The CMAC held its first meeting on February 18, 2009.

4) Status Update: Regional Stakeholder Group (Janai Williams, Ebony Development/AECOM; Jim Protin, AECOM)

a) Janai Williams then explained the purpose, responsibility, and membership of the Regional Stakeholder Group (RSG). Jim Protin reported on the formation of the RSG. He explained that the membership numbers about fifty now, with representatives from academia, municipal government, regional government and land use entities, and special interest groups. The RSG's purpose is to assist with public participation. The RSG will be engaging the Basin Planning Committees to share insights, concerns, etc. The RSG's first meeting is scheduled for March 11, 2009.

b) Nancy Schultz asked when the minutes of the recent CMAC meeting would be available. Jim Protin explained that, once submitted to ALCOSAN and approved, the minutes will be posted on ALCOSHARE.

5) Information Exchange (Nancy Schultz, CH2M HILL)

a) Nancy Schultz explained that the consultant team has been involved in a lot of information exchange with the municipalities. The team has just completed the TT Basin Existing Conditions Report and distributed at the meeting three copies of the municipal-specific section of Section 5 of the report to each of the municipalities. The team wants to make sure that they will be solving the same problems that have been identified by the municipalities. Nancy introduced John Hanna (CH2M HILL) who is coordinating contact and the information exchange with the municipalities.

b) Nancy also explained that, as next steps, the team will be following up on details with the municipalities since a lot of detailed information is needed to develop a good hydraulic model. The team will be asking for more information, particularly about connection points. She also invited the municipal representatives to talk to team members at the meeting, or anytime, with questions about data exchange.

6) Program Manager Presentation: Financial Data Collection (Tom Schevtchuk, CDM; Kaye Bealer, Kaye Bealer Consulting)

a) Tom Schevtchuk explained that the goal of financial data collection is to gain a comprehensive understanding of costs at the local, basin, and regional level. This understanding will be utilized in the alternatives analysis. With these data in hand, the consultants and ALCOSAN will be working with the regulatory agencies to figure out how to maximize regulatory flexibility to reinvest in infrastructure while working within the regulatory framework. The results of the analysis will be used in the ongoing pursuit of federal and state funding. Ultimately, a key component will be a regional financing strategy.

b) Tom explained that the data can be analyzed in a number of different ways. The ALCOSAN service area consists of 83 municipalities. Typically the analysis is done at the regional or municipal level. Tom showed a map of 1999 median household income by municipality, ranging from $14,000 to $150,000. Figuring out what's affordable, given this wide range in median household income, will be a challenge. Tom also explained that they will examine how to best parse the information. The analysis may require an examination at the census tract or block level. For example, the median household income for the City of Pittsburgh is $29,000. However, on the census tract level, the median household income in the city ranges from $6,000 to greater than $150,000.

c) Nancy Schultz noted that the Turtle Creek/Thompson Run planning basin also covers a wide spectrum of income ranges.

d) Kaye Bealer, of Kaye Bealer Consulting, introduced a document produced by the U.S. EPA in 1997 providing guidance for financial capability assessment and schedule development. The document provides a planning tool for evaluating financial resources available to implement CSO controls and assist ALCOSAN municipalities and the regulatory agencies in cooperatively defining a financing strategy.

e) Kaye Bealer explained that the first phase of the analysis focuses on residential indicators. Through internet searches, budgets, and work with the 3RWW rate survey, the Program Manager has developed a set of indicators, which the municipalities will be asked to review and comment on. The financial impact will then be determined. A low financial impact is defined as costs of less than one percent of median household income, a mid-range impact is one to two percent, and greater than two percent represents high impact.

f) The Program Manager is also identifying other financial capability indicators, such as debt and socioeconomic and financial management indicators. The preliminary analysis shows that the typical residential costs in 2009 are projected to be $560. Within the ALCOSAN communities, the median household income is $48,700.

g) Tom Schevtchuk distributed a list of municipal data needs to perform the financial capability assessment (attached). The list includes both financial and institutional information. He further explained how the data would be collected, stored in a database, and protected.

h) Tom Schevtchuk distributed the general timeframe for the financial capability assessment and its relationship to the basin facilities planning process (attached). He noted that the schedule had some "fuzziness" with respect to specific dates. He also added that, in parallel to this schedule, the Program Manager will be soliciting long term cost estimates to factor into the analysis. In general, the schedule for coordination and logistics will be:

   a. 2009 – The Program Manager will work with municipalities on data acquisition, base line regional assessment, and basin screening of preliminary alternatives.

   b. 2010 – The seven feasibility reports will be completed; the Program Manager will look at their "fit" as a step to developing a regional financing plan.

   c. 2011 – Municipalities, Basin Planning Teams, and ALCOSAN will be preparing recommended alternatives and examining how they mesh together in order to develop a compliance strategy. The draft facilities plan and formalized financial analysis will be prepared.

   d. 2012 – Draft Wet Weather Plan will be completed. There will be a formal comment period

   e. 2013 – The Regional Wet Weather Plan is due to the regulatory agencies.

i) Tom Schevtchuk gave an overview of roles and responsibilities in crafting the financial capability assessment.

   a. The municipalities will be responsible for providing current and projected costs, financing and institutional information, and for continued participation in the planning and policy process.

   b. The Basin Planners will be assisting with data acquisition and will be developing basin alternatives and costs.

c. The Program Manager will be developing the financial model, integrating the basin alternatives, and preparing the policy analysis.

j) Tom Schevtchuk explained the next steps. ALCOSAN will be sending a formal letter to the municipalities in March explaining the information gathering process and requesting data. The Program Manager will then follow up with each municipality in April.

7) Existing Conditions Report (Nancy Schultz, CH2M HILL)

a) Nancy Schultz asked whether any of the municipal representatives had comments or feedback on the TT Basin Existing Conditions Report. She reported that John Hanna took the draft out to each municipality and spent a month getting comments. Those comments are included in the latest draft. Nancy believes that they have the conditions pretty well summarized at this point but may need a few more pieces of data.

b) John Hanna noted that, in going through the data gathering with the municipalities, the municipal representatives/engineers were very open and helpful. He asked the municipalities to review their information carefully and let the consultant team know if there are any issues.

8) Regional Wet Weather Overflow Control Plan and Municipal Feasibility Studies

a) Nancy Schultz stated that the Existing Conditions Report is tied to the feasibility studies. She noted that what's written in the Existing Conditions Report can be incorporated into the feasibility studies.

b) Tim Prevost noted that the consultant team and ALCOSAN staff wanted to prepare an Existing Conditions Report that would provide useful information to the municipalities, with each municipal-specific section able to be incorporated into the municipality's own feasibility study. He also noted that 3RWW has tried to put together an outline of a "typical" feasibility study.

c) Cindy Hasenjager stated that 3RWW is working to continue the Flow Monitoring Working Group process with a similar Feasibility Study Working Group, and will have a general meeting soon. They will examine the idea of an outline for the feasibility study.

d) Tim Prevost stated that the feasibility study is a little different case than the flow monitoring project. In the case of the feasibility study, ALCOSAN and the consultants need the information as soon possible. Feasibility studies from the municipalities in some form will be immensely important. Although the studies are not due to the regulating agencies until July 2013, the information that will be in them is very important to this planning process.

e) Donna Davis (PaDEP) suggested that ALCOSAN consider developing an outline for the feasibility studies.

f) Tim Prevost explained that ALCOSAN resources are not available for that effort and, furthermore, he thought that 3RWW would be working on that.

g) John Shannon (Baker Engineers) stated that 3RWW would be working towards the items that need to be in the feasibility study, and will develop a schedule of what needs to get done and when. If the feasibility reports will be used for developing the Wet Weather Control Plan, then there is a lot to accomplish in 2009.

h) Tim Prevost noted that he would like to see more open discussion at the Basin Planning Committee meetings. He asked the group to think through the items that they would like to have discussed at the next meeting, which will likely be more of a workshop format and will be

convened in May or June. He reiterated that he would like the agenda to be developed by the Basin Planning Committee.

i) John Shannon asked about the schedule regarding the Wet Weather Overflow Control Plan. Tim Prevost answered that ALCOSAN is planning to have the internal modeling report completed by the end of September 2009, and the Alternatives Screening Report should be available by the end of October 2009. Tim noted that, by the end of 2009/early 2010, ALCOSAN needs to have the municipalities show some level of effort on the feasibility studies. ALCOSAN is interested in how the municipalities are progressing on the feasibility studies and staff is available for questions.

j) Donna Davis reiterated her suggestion that ALCOSAN provide an outline for the feasibility studies.

k) Tim Prevost said that ALCOSAN and the consultant team will work with the municipalities. ALCOSAN does not know the regulatory agencies' expectations for the outline. Donna Davis at this point offered to prepare the draft outline/work plan for the municipalities and submit to Tim Prevost for his review and comments. Tim agreed that this would be a great idea and said that he would review the outline when Donna submits it to him.
NOTE: As of May 1st Tim Prevost has not received the referenced outline from Donna Davis for his review.

l) Stan Caroline (Penn Township Sewage Authority) asked what the municipalities should do if they feel they have done their part. Tim Prevost suggested that they lay out everything they have done. If the conclusion is that they need not do more, and that there has already been an improvement, that may be enough. However, the regulatory agencies may still see something missing in what the municipality thought was a reasonable level of effort.

m) Tom Flanagan (PaDEP) stated that the regulatory agencies also need the municipalities' best guess of future growth given projected economic development.

n) John Shannon noted that the first thing that the municipalities need is a number for their current flows. The municipalities need to compare that number with ALCOSAN's. He added that the modeling report is due in September 2009.

o) Tim Prevost added that what is pertinent for the modeling report is information about municipal monitors and ALCOSAN monitors. ALCOSAN plans to provide the model and the data to the municipalities by the end of the year.

p) Cindy Hasenjager asked whether ALCOSAN needs more information from the municipalities in the interim before the municipalities receive the model and the data. Tim Prevost answered that ALCOSAN still needs the municipalities to look at the data. All the municipalities have had access to the flow monitoring data since April 2008.

q) Kaye Bealer asked what would be best regarding getting feedback from the municipalities on the financial information. She asked whether people would prefer communicating via email, visiting, etc. As they have so far, each municipality will determine their most effective means of communication.

r) Donna Davis asked whether people could meet individually and whether they could talk about modeling as well because some municipalities may not even know what they are looking at.

s) Nancy Schultz suggested that the municipalities invite the Basin Planning Team out to work through this task together. Tim Prevost added that he will make sure that ALCOSAN has people reviewing the financial information, and if there is anything else that the municipalities want to have reviewed they should let him know.

t) Tim Prevost asked the group, again, to think about what they would like to discuss when they next meet and forward ideas/suggestions to him.

u) Dave Minard noted that Kaye Bealer referred to the fact that some municipalities might have confidential information. He asked her to define "confidential." Kaye Bealer clarified that, during the information exchange, the information is treated as confidential. Ultimately, however, it will be incorporated into the financial model and will, therefore, be public. In the meantime, though, the exchanges are treated as confidential. For example, future capital costs might be treated as confidential until that information becomes public in the financial model.

v) Tim Prevost asked when the Financial Capability Assessment would become an official document. Kaye Bealer responded that the report is due in 2012, but that there would be white papers produced prior to that.

9) Next Steps (Tim Prevost, ALCOSAN)

a) Tim Prevost stated that the next Basin Planning Committee will be convened in a few months. He hopes to incorporate agenda items suggested by the municipalities.

Attachments

Sign-In Sheet
Presentation Slides
Dry Weather and Wet Weather Flow Results Template Forms
Financial Capability Assessment, Timeframe
Financial Capability Assessment, Municipal Data Needs

ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Turtle Creek/Thompson Run
Meeting Purpose/Number: Basin Planning Committee Meeting Number 4
Date / Time: June 2, 2009, 9:00 AM
Location: North Versailles Library Community Room

Municipal Attendees:

Municipality/Authority	Municipal Representative	Engineer or Other Person Representing the Municipality
Braddock Hills Borough		William McKeever, Senate Engineering
Chalfant Borough		Robert Zischkau, Glenn Engineering
Churchill Borough	Craig Robinson Ralph Zatlin	Paul Gaus, Gateway Engineers
East McKeesport Borough		Robert Zischkau, Glenn Engineering
East Pittsburgh Borough		Robert Zischkau, Glenn Engineering
Forest Hills Borough		Paul Gaus, Gateway Engineers
Municipality of Monroeville		Shawn Rosensteel, Chester Engineers
Monroeville Municipal Authority	Joe Storey Lou Gerthoffer John Capor	Shawn Rosensteel, Chester Engineers
North Braddock Borough		Robert Zischkau, Glenn Engineering
North Huntingdon Municipal Authority	Katherine Petrosky	
North Huntingdon Township	Andy Blenko	Dave Coldren, KLH Engineers
North Versailles Township	Chastity Booker Jack Gaffney George Lokay	Robert Zischkau, Glenn Engineering
North Versailles Township Sanitary Authority		
Penn Hills, Municipality of		Paul Gaus, Gateway Engineers
Penn Hills Water Pollution Control Department	Tom O'Grady	
Penn Township/Penn Township Sewage Authority	Stan Caroline	George Pitcher, The EADS Group
Pitcairn Borough		Kevin Hammer, PA Soil and Rock
Plum Borough		
Plum Borough Water and Sewer Municipal Authority		
Trafford Borough		Robert Zischkau, Glenn Engineering
Turtle Creek Borough		Robert Zischkau, Glenn Engineering

Municipal Attendees:

Municipality/Authority	Municipal Representative	Engineer or Other Person Representing the Municipality
Wall Borough		Robert Zischkau, Glenn Engineering
Western Westmoreland Municipal Authority	Kevin Fisher	Mark Poole, Wade Trim
Wilkins Township		William McKeever, Senate Engineering
Wilkinsburg Borough		Robert Zischkau, Glenn Engineering
Wilmerding Borough		Robert Zischkau, Glenn Engineering

Other Attendees:

Paul Eiswerth, Department of Environmental Protection
John Shannon, Baker Engineers, Representing 3RWW
Tim Prevost, ALCOSAN
David Borneman, ALCOSAN
Dave Bingham, AECOM
Dave Minard, AECOM
Jim Protin, AECOM
Nancy Schultz, CH2M HILL
Susan Moisio, CH2M HILL
Tammi Halapin, Collective Efforts
Karen Brean, Brean Associates
Michelle Buys, Allegheny County Health Department
John Schombert, 3 Rivers Wet Weather

0) Welcome and Introductions

a) Tim Prevost from ALCOSAN started the meeting by having all the attendees introduce themselves, citing their affiliations.

1) Program Update: Flow Monitoring, Modeling, Design Storms and Typical Year and CMAC/RSG (Nancy Schultz, CH2M HILL)

a) Nancy Schultz explained that the flow monitoring was jointly developed and conducted by ALCOSAN, 3RWW, and the municipalities and has been discussed at previous meetings. ALCOSAN's basin planners are using the flow monitoring to develop, calibrate, and verify the hydrologic and hydraulic model. The Turtle Creek/Thompson Run (TT) team's analyses have identified a wide variety of "leakiness" factors (termed R factors) for the monitored sewersheds. Nancy Schultz explained that most of the sewer systems are separated and are not supposed to carry storm water, but they do, and that the "leakiness" generally ranges from 5 to 55% of the total rainfall entering the sanitary sewer system.

b) Nancy Schultz said that the modeling and subsequent alternative analyses will evaluate a range of design capture goals, including evaluating capture of a 5-year and a 10-year storm.

c) Jim Protin presented an overview of the progress of the Customer Municipality Advisory Committee (CMAC) and Regional Stakeholders Group (RSG). The second meeting of both groups was held in May 2009.

The CMAC discussion focused on information exchange, development of working models, etc. They also talked about basin planning to understand how it will be folded into ALCOSAN's Regional Plan. The group discussed the progress of the Feasibility Study Working Group and the public participation activities. A follow-up meeting of the CMAC is scheduled for June 23.

The RSG discussion included a brief overview of the Wet Weather Program, the work of the Feasibility Study Working Group, and the public participation activities. At the follow-up meeting on July 9, the group will discuss some of their protocols, documentation, etc.

2) Technology Screening: Screening Process, Technologies Under Consideration, Benefit and Impact, and Municipal Input (Nancy Schultz, CH2M HILL)

a) Nancy Schultz explained that the TT team is building the hydrologic model and looking at technologies that could be applied. They have looked at all of the background information and are writing a report on the potential technologies. Once the team identifies all of the technologies, they will look at their application to the TT basin. The team will also be asking about the expectations of the municipalities in the basin. She noted that the TT team is just starting into the evaluation. Nancy presented the Assessment Table (attached) for screening and evaluating potential technologies. She noted that the TT team will be concentrating on conveyance/storage and treatment since these are the technologies most appropriate for the regional agency. Source controls and "green" solutions are not the primary focus of the ALCOSAN program, but are more appropriate for municipalities since they reduce flows getting downstream. She also noted that, if participants want to learn more about the technologies, there will be references in the minutes to guide participants to more details about them (a set of guidance references is attached to these minutes). She noted that there are a lot of available control technologies and that generally conveyance means bigger and better pipes and storage means tanks or possibly oversized pipes. She noted that the existing system experiences in-system (in pipe) storage when stormwater fills the pipes before overflowing. Off-line storage means that excess flows are diverted elsewhere, to tanks, for example. Green solutions (which are listed in the Assessment Table) reduce the amount of stormwater entering the system.

Nancy explained that the TT team is using the SWMM 5 model to help with development of CSO control alternatives. She discussed the study area modeling extents map and explained that the team uses the model to estimate/predict/calculate the flow at different points along the system. She presented a hydrograph of two different points of the Falls Run trunk sewer, noting that the upstream hydrograph was flashy (peaked rapidly) while the downstream hydrograph showed a more drawn out flow pattern. By examining the hydrographs, together

with the information that there have not been reported overflows in Falls Run, the team could deduce that there is in-system storage available.

Nancy presented the profile of the Falls Run interceptor, at noon on April 4, 2008, at the peak of the storm. Based on information from 3RWW, there is an 8-inch pipe in the trunk system constricting the flow. Nancy noted that the model is not yet fully verified, and the 8-inch pipe constriction has not been confirmed yet. Nevertheless, she demonstrated how the model indicated that the 8-inch pipe restriction would be backing up the flow, causing overflows, and that possibly replacing one section of pipe may solve the overflow problem.

When asked whether CH2M HILL's scope of work would include going out in the field to verify modeled conditions, Nancy replied yes, unless they can get confirmation from the municipal engineer. She noted that she brought up this example as illustrative of the kind of questions that the TT team will have for the municipalities. She explained that the team will not go forward in the planning process until they have verification of critical information from the municipalities.

Tim Prevost added that the model is a good piece of technology. Nancy noted that this is an example of why the model is so useful as a tool for analyzing existing conditions and evaluating various control alternatives. The modeling software is available to anyone who wants to use it, for free from US EPA.

Nancy also showed a profile of the trunk line that goes up from T-10, from Turtle Creek towards Monroeville. The model shows that there is no problem in dry weather (no overflows, no surcharges), which is consistent with what has been previously reported, but the pipe is restrictive when flows increase during wet weather.

Nancy explained that the team was screening all of the technologies in the TT Basin. The process recognizes that many technologies require no additional sites, but the team is listing, discussing, and refining the criteria.

3) Site Screening: Screening Process and Siting Issues (Footprint/Capacity) (Nancy Schultz, CH2M HILL)

a) Nancy Schultz showed a slide and explained the range of criteria to be considered during site screening. She asked the group to review the criteria and see whether they had missed any important criteria. She also noted that no site will be perfect, but that the team would be looking for the best fit. She described the following three potential sites:

- Monroeville site abandoned by Wal-Mart
- Regional Industrial Development Corporation (RIDC) Park in East Pittsburgh
- Railroad property in North Versailles

Nancy asked those present to help identify other sites.

Tim Prevost added that the suggested sites are, at this time, just suggested; they are sites that seem to be able to accommodate some technology. ALCOSAN needs the cooperation of the municipalities to expand the number of potential sites. Furthermore, there is not a lot of

available land, so the basin planners really need to know if they are missing something. So far some municipalities have called to make suggestions. Municipalities should also be aware that the development could provide amenities for the community. The TT team is especially interested in municipalities and sites that touch the ALCOSAN system.

When asked whether all of the basins are using the same criteria, Dave Borneman answered that ALCOSAN was intending for each basin planner to identify issues and criteria for their basin. ALCOSAN wanted to allow for individuality of approach at this phase and then compare the approaches, issues, and criteria.

4) Control Alternatives and Development: Early Action Projects/Multi-Municipal Projects, Basin "Pilot" Projects, and Source Controls (I/I Reduction) – Rehab Critical Sewers (Nancy Schultz, CH2M HILL)

a) Nancy Schultz said that the TT team was getting started on a stream walk to make sure that they did not find anything out of the ordinary. She also recommended that, if municipalities are looking at opportunistic sewer separation or source control or infiltration/inflow reduction, they should start thinking about sewer system improvements that may become early action projects because money may be available to help fund these kinds of projects. She thought that this was a great opportunity for Wilkins Township and Turtle Creek Borough. She suggested that they call her if they would like further discussion of potential opportunistic sewer separation areas.

As far as the pilot projects are concerned, ALCOSAN is building the tools (flow analysis, models) for analysis of sewer problems and alternatives. They could open up the model, remove all restrictions, and see what total flow would go to ALCOSAN if the municipalities did no additional separation or storage, but instead relieved all of the municipal restrictions. But, municipalities could also plan more flow reduction so that they would not have to wait for, or pay for, ALCOSAN to expand capacity.

Nancy also spoke about the Falls Run improvements. She said that she and Susan Moisio (TT team's lead modeler) are available to help the municipalities understand the use of the model. She also said that the model would be useful to balance flows to Thompson Run with the Gascola interceptor. The two interceptors are run parallel to each other.

Nancy also referred to the storm in March 2008. Someone inquired about how many inches of rain fell. She said that it was not the largest storm during the monitoring period, but she would have to look up the information and put it into the meeting minutes. (The March 4, 2008 storm had a rainfall depth of about 1 inch.) Tim Prevost said that during the first part of the flow monitoring program, the ground conditions (antecedent moisture) was very wet. Storms are considered significant storms where all parts of the service area have seen some level of impact. The storms in the first few months of the 2008 monitoring put the team ahead of the curve in terms of the criteria. Nancy said that the TT team analysts are still working on the hydrologic model. Water (sewage) coming out of manholes during this March 4, 2008 storm would constitute an overflow requiring attention.

Tim Prevost said that every monitor that is being used for calibration of the model would have a summary contained in the hydraulic report of the top five storms, which would provide information on how much rain fell, peaking factors, etc. The TT modeling report will also provide the dry weather information for all of the meters used, summarizing average dry weather flow, peak flow, etc. Tim was not sure if the March 2008 storm would be in the top five storms since it may not have been area wide. There was one storm affecting most of the region that lasted four days with over 6 inches of rain.

A question was asked if there would be any effort to look at upstream locations. Tim answered that John Shannon, of the 3RWW team, would be best to answer that question. According to John, the GIS mapping shows all area tributary to each flow monitor. The updated version of the GIS mapping due to be released at the end of July will show houses (with virtual laterals) upstream of each of the monitoring points. Within the next version, it will include the information from all of the monitors, which will help the local municipalities know where to focus their efforts.

b) Regarding Source Control and infiltration/inflow (I/I) reduction, Nancy described a Cincinnati example of the use of R factors, the percentage of rain in each of the basins that actually got captured in the sewer. In Cincinnati they identified R factors in all sub-basins, and then ranked from the leakiest (high R value) to the lowest and focused mitigation on the leakiest. In September/October 2009 the team expects to provide R factors for various points in the TT system, and a similar ranking is anticipated.

John Shannon asked Nancy Schultz what she thought was the cost effective point (of the R factors between 2 and 55%) to address system leakiness. Nancy said that in other studies she has recommended everyone should get down to one standard deviation of the mean of the R value. Every region has a different mean R value. In Minneapolis, they are trying to get down to 6%. Tim Prevost said that, if you took all of the R factors and averaged them to 15%, where standard deviation is 7.5%, you need to ask whether, if you have an R factor of 0.2, is it cost effective to get down to 0.1? It is reasonable that most basins can get closer to the average R factor, probably within on standard deviation of the mean calculated for all basins.

Nancy said that thinking long term, it would always be useful to reduce I/I. Everyone needs to focus on the long-term benefit to the system. Once the team finalizes the hydrologic model, they will develop the hydraulic report and plan to provide basin model, R values, calibration that goes along with R value, and basic flow monitoring analysis. 3RWW will have their basic flow monitoring analysis this month. Every municipality should have a preliminary idea of what projects they can use to address the flows observed (or monitored) to date. The municipalities are asked to let ALCOSAN know what flow will be sent to ALCOSAN and what flow will be removed through I/I reduction.

Dave Borneman said that ALCOSAN and their consultants are now reaching a point where all the data are being compiled, and right now the basin planners are working through analyzing the information. Someone asked if there was any anticipation that the Allegheny County Health Department (ACHD) or Department of Environmental Protection (DEP) would impose an upper limit to the R value? Dave answered that it was too early to tell.

Nancy recommended that the municipal engineers try to get every municipality to reduce leakiness. She knows of only one city/region that actually assigned a maximum allowable leakiness.

5) Act 537 Funding (David Borneman, ALCOSAN)

a) David Borneman started out by saying that 1½ years ago he came across a guidance document that showed that there were some aspects of wet weather flow management that could be eligible for Act 537 funding. At the time, he was working with the DEP to compile activities and project types that may be eligible for the Act 537 reimbursement grant. There is going to be a Regional 537 Plan update to incorporate regional recommendations and the recommended municipal improvements from the feasibility studies. He is hoping that the ALCOSAN and 3RWW efforts would help with the background work for the grant applications.

There are three areas of municipal costs that must be compiled - engineering studies, administrative costs, and inter-municipal issues. Dave is trying to wrap all of this information up and get it to Donna Davis at the DEP to see if she can find out what might be eligible for the grant. He recognizes that there is State money that could be available for this effort, but there is also other funding available (RUS and PENNVEST). If municipal population is less than 10,000, the municipality is eligible for RUS funding. Multi-municipal projects could utilize the RUS funding. Dave will get better guidance from 3RWW and the State, and will share that information with the municipalities when it is available. He is hopeful about getting funding for ALCOSAN and the municipal projects. In summary, Dave indicated:

- ALCOSAN can assist the municipalities with review of grant applications for either planning or for projects,
- Regional and municipal improvements will follow procedures similar to the 537 program,
- The amount of money available for future work needs more guidance from DEP,
- Municipalities are encouraged to check into availability of and eligibility for RUS and PennVest grants and funding, and
- ALCOSAN is especially interested in supporting multi-municipal and early action projects.

6) Coordinated Schedule-Basin Planning and Municipal Feasibility Studies (Nancy Schultz, CH2M HILL)

a) Nancy stated that everyone who attended today's meeting has also been represented at the Feasibility Study Working Group convened by 3RWW and are thus are aware of the ongoing discussions and guidance for the feasibility studies. By March 2010, ALCOSAN needs to know each municipality's preliminary flow estimate of the flow that will ultimately be coming to ALCOSAN. Nancy Schultz strongly stated that everyone needs to understand that some municipalities will have to talk to each other about inter-municipal flows and combined flows to each point of connenction. The Feasibility Study Working Group stresses and facilitates this discussion too. ALCOSAN consultants have some milestones regarding information from the model report that will be helpful, particularly the monitoring analysis appendix and the routed flows. ALCOSAN is also developing an alternative costing tool

(ACT) that they plan on providing to the municipalities this month. ALCOSAN wants to take into account any costing tools that municipalities may have developed and utilized to date. Nancy asked for input from anyone who might have anything that could make the costing tool better.

Dave Borneman added that ALCOSAN is first trying to make sure that all basin teams are using the same costing methods. He also is open to source control measures. He knows that there are some communities that are further ahead then others. He asked if any municipality is already thinking about solutions to please share that information with the basin planners.

7) ALCOSAN Municipal Secure Website (Tim Prevost, ALCOSAN)

a) Tim Prevost mentioned that the ALCOSAN municipal secure website is up and running. He encouraged any municipal representatives to contact Anne Murphy from ALCOSAN for access assistance (same log-in ID and password as before) or to address any issues with the website. He also suggested contacting himself and he would forward the request/comment on to Anne Murphy.

8) Financial Information Update (Tim Prevost, ALCOSAN)

a) Tim Prevost recapped that Kaye Bealer spoke at the last BPC meeting regarding the financial analysis. He indicated that ALCOSAN will be pulling together the information collected thus far and will share it with 3RWW who will complete the financial data collection. The affordability analysis is needed to determine what the region can afford to do and how to achieve the wet weather program goals with the resources available.

9) Wrap Up / Next Meeting / Questions (Tim Prevost, ALCOSAN, Nancy Schultz, CH2M HILL)

a) Tim Prevost noted the timeline that they have to follow, saying that he would like to get resolution of modeling and alternative screening issues by the end of October or November 2009. Nancy Schultz stated that the meeting minutes will be available within the next two weeks. She wanted the municipalities to let her know if there was any other information that they need or want.

b) Nancy Schultz stated that the next meeting will be in September or October 2009, and that agenda items will be requested from the municipalities. She stressed that she wanted this to be a two-sided conversation. Tim Prevost reiterated the request for managers to come back with agenda items for the next meeting.

c) One of the agenda items mentioned was that, even though no one officially commits to it, they would like discussion of the target storm to design to, e.g., of a 2-year design storm. Tim Prevost was asked whether it would be possible to examine the +/- 55 storms in the typical year and say here is what looks like a 2-year, 24-hour storm? Tim Prevost answered that he did not think that it was a difficult thing. He can provide the information requested. Based on the statistical analysis of the rainfall data, the typical year will be 2003. The question regarding the 2-year, 24-hour storm being the threshold for design cannot be answered yet.

Dave Borneman said that, based on the Consent Decree, ALCOSAN has to conduct certain model runs (2-year and 10-year per the CD, and 1-year and 5-year also).

Paul Eiswerth from DEP noted that all SSOs are illegal, that DEP has shown discretion on enforcement, and that a 2-year storm is generally sufficient for sizing storage facilities.

In answer to the question of who is going to make this determination, Dave Borneman answered that the current efforts , including the preliminary flow estimates due March 2010, are just the first cut so ALCOSAN can start sizing (and costing) what facilities may be needed.

A comment was made that an elected official with a sewer system in bad shape might decide not to make any improvements and he could say that his costs could be borne by the whole region. Unless there's a long range plan to start thinking about regionalized rates, someone has to set the bar.

Dave Borneman replied by saying that all of those issues are down the road and that ALCOSAN is not dismissing any of them.

John Shannon said that he wanted to make a plug for the Feasibility Study Working Group. In the FSWG, the municipal engineers are considering these kinds of questions that are being raised in the Basin Planning Committee. 3RWW's would like to see municipalities involved with the Feasibility Studies Working Group, and an effort is being made by the municipalities to come together and speak as one voice.

Dave Borneman said that once they estimate the cost for options, then they can start thinking through things like source control, etc.

The meeting was adjourned with no further questions or comments.

Attachments

Sign-In Sheet
Presentation Slides
Assessment Table – Technology Screening
Guidance References

ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Turtle Creek/Thompson Run
Meeting Purpose/Number: Basin Planning Committee Meeting Number 5
Date / Time: September 22, 2009, 9:00 AM
Location: Turtle Creek Public Meeting Room

Municipal Attendees:

Municipality/Authority	Municipal Representative	Engineer or Other Person Representing the Municipality
Chalfant Borough		Robert Zischkau, Glenn Engineering
Churchill Borough		Paul Gaus, Gateway Engineers
East McKeesport Borough		Robert Zischkau, Glenn Engineering
East Pittsburgh Borough		Robert Zischkau, Glenn Engineering
Forest Hills Borough		Paul Gaus, Gateway Engineers
Municipality of Monroeville		Shawn Rosensteel, Chester Engineers
Monroeville Municipal Authority	Joe Storey Lou Gerthoffer John Capor	Shawn Rosensteel, Chester Engineers
North Braddock Borough		Robert Zischkau, Glenn Engineering
North Huntingdon Township	Andy Blenko Mike Turley	
North Versailles Township	Jack Gaffney	Robert Zischkau, Glenn Engineering
Penn Hills, Municipality of		
Penn Hills Water Pollution Control Department	Tom O'Grady	
Penn Township/Penn Township Sewage Authority	Stan Caroline	Lauren Sprankle, The EADS Group
Trafford Borough		Robert Zischkau, Glenn Engineering
Turtle Creek Borough		Robert Zischkau, Glenn Engineering
Wall Borough		Robert Zischkau, Glenn Engineering
Western Westmoreland Municipal Authority	Kevin Fisher	Mark Poole, Wade Trim
Wilkinsburg Borough		Robert Zischkau, Glenn Engineering
Wilmerding Borough		Robert Zischkau, Glenn Engineering

Other Attendees:

Tom Flanagan, Department of Environmental Protection
John Shannon, Baker Engineers, Representing 3RWW
Tim Prevost, ALCOSAN
Jan Oliver, ALCOSAN
Dave Minard, AECOM
Nancy Schultz, CH2M HILL
Janai Williams, Ebony Holdings
Tammi Halapin, Collective Efforts
Karen Brean, Brean Associates
Michelle Buys, Allegheny County Health Department

0) Welcome and Introductions

Nancy Schultz, of CH2M HILL, Basin Planner for the Turtle Creek/Thompson Run (TT) Basin, welcomed the attendees. She noted that the TT Basin planning team and the municipalities have all made progress on data collection and sharing. She encouraged the group to participate in the meeting, in hopes of having two way communications rather than merely presentation. At Tim Prevost's suggestion, self introduction of the attendees and their affiliations proceeded around the room.

1) Technical Data Update

Tim Prevost, of ALCOSAN, explained that the flow monitoring work is essentially complete. The results are available on the 3 Rivers Wet Weather (3RWW) Municipal Data Support (MDS) site and on ALCOSAN's secure municipal website. He added that the 3RWW website has tools to perform quick analysis on flow monitoring data. In addition, the Hydrology & Hydraulics (H&H) Modeling and Model Report will be available by the end of 2009. Tim indicated an expectation that the models will be shared in the future.

Tim explained that there is a design storm memo from ALCOSAN that will be shared with 3RWW so that the Feasibility Study Working Group (FSWG) will be using the same data as the Basin Planners (BPs). The typical storm year will be a slightly modified version of 2003. ALCOSAN is working on developing hydrographs for the typical storm year and they will share them soon. Currently, the typical year rainfall memo has been sent to the seven planning basins for comment.

Jan Oliver, of ALCOSAN, added that the ALCOSAN secure municipal website is the vehicle through which the information will be made available to municipalities. When asked whether municipalities need a password, Jan answered that all municipal and authority managers were provided with passwords and that municipalities should let ALCOSAN know if they still need one.

2) Financial Update

Jan Oliver stated that the Alternatives Costing Tool (ACT) is available on the ALCOSAN secure municipal website. She explained that it is used mostly for regional type facilities, but that there is also useful information on green infrastructure that could best be applied at a municipal level. Nancy Schultz noted that the ALCOSAN cost tool (ACT) includes a section on costing pipe, which might be a useful tool for the municipalities. Finally, Jan noted that, because it is critical for all basins to use the same unit costs, ALCOSAN needed to standardize the costing tools.

She explained that early action projects are projects that could improve the existing sewer system, rehabilitating what's in place. ALCOSAN will assist municipalities in finding funding for these projects. She noted two potential projects identified in the TT Basin: Lougeay Road Pump Station/Trunk Sewer; and the Combined Sewer Overflow (CSO) discharge at Pitcairn and Caldwell Streets.

ALCOSAN has created a new training center to help municipalities through the funding application process. It is set up to allow the municipality to have an application ready for submission upon leaving the training center. ALCOSAN is looking at a variety of funding avenues including Rural Utility Services (RUS), Pennvest, Community Development Block Grants (CDBG), Councils of Government (COGs), and the US Army Corps of Engineers.

Jan added that ALCOSAN has developed an affordability model with information from 3RWW. The affordability model is utilizing an existing rates model and will use it in the future to evaluate cost strategies.

3) Municipal/ALCOSAN Coordination

Janai Williams, of Ebony Development, with the Basin Coordinator (BC) team, gave an overview of regional municipal coordination activities. She noted that the Customer Municipal Advisory Committee (CMAC) met on June 23, 2009. The Committee members act as advocates for customer municipalities. At their last meeting they discussed the municipal feasibility studies, opportunities for collaboration, and coordination with ALCOSAN. Janai noted that the representatives from the TT Basin are Denise Edward and John Capor. The next CMAC meeting is scheduled for October 14, 2009 and the Committee will continue to be a forum for collective municipal concerns.

Janai explained that the Regional Stakeholder Group (RSG) is charged with examining and prioritizing issues for the public. At their next meeting, on October 15, 2009, they will be discussing effective avenues for communication with the public. The RSG representatives from the TT Basin are Rebecca Bradley and Steve Morus.

Nancy Schultz stated that the TT Basin will continue to have Basin Planning Committee meetings. She posed the question of whether the TT Basin municipalities would like to have individual meetings about sites or whether they would prefer to have those siting discussions at the basin level. No response or recommendations were given.

Tim Prevost stated that the Feasibility Study Working Group (FSWG) meetings have been very helpful. They are open to everyone. The next meeting will be on October 8, 2009. The group

will discuss source reduction in municipalities and whether Infiltration and Inflow (I/I) can be addressed on that level. Nancy Schultz added that the source control issue is particularly important for the TT Basin since most of the basin is served by separate sanitary sewers.

Jan Oliver noted that the FSWG has convened a subgroup to look at agreements between municipalities. She added that this is an important issue because, even if a municipality does not have an overflow within its boundaries, they could still be contributing to an overflow problem elsewhere in the sewer shed.

Jan Oliver also noted that a subgroup has been convened to help the municipalities develop their collection system Operations and Maintenance (O&M) Plans, due on March 31, 2009. Jan reiterated even though a municipality doesn't have an overflow, that doesn't mean that there isn't a problem. Each municipality needs to understand that they are a tributary to a larger, more complex basin in order to develop a feasibility study as is required in the Consent Decree.

Nancy Schultz noted that the FSWG does a good job of producing meeting notes, so, if municipalities are unable to attend, they should read the information available in the meeting notes.

4) TT Basin Screening of Controls and Sites Report (SCSR) Overview

Nancy Schultz reported that the TT Basin planning team looked at available sites and developed a selection process. The report on sites and technologies screening is due to ALCOSAN at the end of November, with drafts expected by the end of September.

Nancy explained that there are five major categories of technologies: source control; conveyance; storage; satellite or high rate treatment; and green solutions. She noted that there is a great deal of literature available on these topics and welcomed the opportunity to provide references for more information.

a) Source Control

Nancy explained that 85 percent of the TT Basin consists of separated sewers, so water should only be entering the system through building waste drains and sewage pipes. She noted that there is a large amount of literature available on private property separation, i.e., ways to get the non-sewage water out of the private buildings.

b) Conveyance

Nancy explained that conveyance technologies are summarized in the report on available technologies. Most conveyance technologies are already familiar – they are the sewer pipes currently in use. She invited the attendees to contact her if they need information regarding new materials or new construction techniques. She also noted that oversized conveyance can also be used for storage of flows beyond the downstream capacity rather than diverting flow to into a tank for storage.

c) Storage

Nancy displayed photos (see attached presentation) of existing wet weather storage sites. When asked where the location depicted in the photos of the storage examples, Nancy answered that they are both in the Toronto area. She explained that tanks can vary in design including large aboveground tanks or underground tanks that can provide usable open space above.

d) Satellite or High Rate Treatment

Nancy explained that for the most part, the TT Basin team will be focusing on conveyance and storage solutions, but there is a chance for satellite or high rate treatment. She described a unique example of satellite treatment that was used in Cincinnati. In that case, the tributary sewers are separated but the sanitary sewage system had a lot of I/I in it. She explained current regulatory interpretations indicate that the Cincinnati wet weather treatment facility is an interim solution since it does not provide the secondary, biological treatment required for sanitary sewage.

In answer to a question regarding the possibility of satellite biological treatment, Nancy explained that it is not feasible to operate biological treatment in a plant that is operated only in wet weather. Biological treatment requires the organism to remain live; treatment cannot start and stop, as must occur in a wet weather facility. Nancy added that several regulatory agencies are requiring biological treatment but it is difficult to do in wet weather only.

Nancy further clarified that any wet weather treatment is comprised of tanks, discharge works, and influent works. The idea is to "get it in there, store or treat it, and get it out of there."

e) Green Solutions

Nancy explained that green solutions do not take up much space. In fact, any place on a site that can store water until it infiltrates the site is essentially a green solution. She stated that there are many green technologies available and that there was very good information presented on these technologies at last year's 3RWW Sewer Conference. She noted that there will be a presentation on green solutions used in Chicago at the Engineer's Society of Western Pennsylvania sometime in October or early November. Nancy also noted that Philadelphia has some good examples of green solutions.

Nancy explained that, once the team determines the technologies to be used, the team will then determine the locations. She explained that the consultant team identified a set of potential sites based site criteria developed for facilities planning, primarily:

- Owned by either ALCOSAN or a municipality;
- One quarter acre or greater contiguous area;
- Topography favorable for construction;
- Compatible land use with adjoining properties;
- Minimal apparent utility conflicts;
- Presence of highways/roads for construction access; and
- Proximity to significant overflows and sewers requiring relief.

From the set of all potential sites, the team identified sites of opportunity close enough to the ALCOSAN facilities to be useful (the first screening). A second screening selected the sites that were judged most compatible for facility location. The team then performed site reconnaissance on the selected sites.

Nancy noted that there will be no site preferences established until the team talks with the municipalities. She further clarified that as soon as the team has identified a likely location for a site to be built, they will meet with the municipalities in the immediate area. This identification will probably take place in the next month. Jan Oliver asked if the team is using the model to determine where a control might be needed. Nancy answered yes. Nancy further noted that the TT Basin only has very few combined overflows, but has lots of smaller overflows.

Mr. Andy Blenko of North Huntingdon Township noted that about 20 years ago, Center Township built an uncovered wet weather holding facility with a fence around it. It was unique, with no pumps and no electricity. He wondered, given the region's topography, if this approach could be used today. Nancy noted that she worked on a similar facility in Canada, which used gravity flow in and gravity flow out. Tim Prevost noted that such a gravity-in-gravity-out facility would have to be located away from the ALCOSAN basin because ALCOSAN's pipes are flat along the flood plain. That said, he concurred that it would have great appeal to municipalities since this type of system has low O&M costs. Jan Oliver noted that ALCOSAN would definitely require a facility of this type to be covered and to have odor control. Tim reiterated that the terrain is a good resource for passive facilities.

Nancy gave an overview of the upcoming meetings, including the public forums to be held in November. She explained that they will be an open house format and that two of the forums will be convened in collaboration with adjoining basins (Upper Allegheny and Upper Monongahela). The third forum will be convened in the eastern end of the TT Basin. Karen Brean added that the Basin team will be sharing the public engagement plan for these forums with the BPC and welcome any ideas to reach the public in the TT Basin.

5) Questions/Comments/Next Meeting

Andy Blenko described an incident several years ago when the Municipal Consent Orders were first enacted, where Tim Rodgers from Shaler Township wore a sandwich sign saying "Sewer Systems for Sale". This implied that the municipalities would desire to sell their sewer systems to ALCOSAN rather than to be involved in the Consent Order process. Mr. Blenko asked whether it is the case that ALCOSAN would like to own all of the systems? Jan Oliver replied that there are some benefits to ALCOSAN owning the entire system. They have not, however, received many requests lately to take over any municipal systems.

John Shannon of Michael Baker Corporation said that 3RWW is studying the collaboration of sewer systems. They are not looking at ALCOSAN as a model, but they are looking at existing collection associations. Collaboration needs to be looked at not only for this process; but maybe we need to get through this planning so that everyone knows where they stand. Since it would be

advantageous to have less than 83 entities to deal with, collaboration should be considered as an option.

Jan Oliver said that Franklin Park merged with McCandless Township Sanitary Authority. John Shannon noted that even though it was mutually agreeable to both parties, it was a 2½ to 3 year process. John Schombert of 3RWW has been saying for years that it's unusual to have 83 owners of the system. The increase in the interest in mergers probably coincided with the Consent Orders. The requirement for the O&M Plans might again trigger an interest in mergers.

Michelle Buys, of the Allegheny County Health Department, will be looking at enforcing the O&M Plans. The Health Department's idea is to carry the assessment forward and not have to go into assessment mode again and again. Nancy Schultz said that, if nothing else, this work drives home the cost required to maintain the systems.

Jan Oliver said that the strategic planning paper developed for the Heinz Foundation is pertinent. Jan will share it with Michelle Buys, who voiced interest in seeing it.

Nancy Schultz requested suggested topics for the next BPC meeting. There was interest in which sites are being evaluated, early analysis of flow modeling data, and the model. Nancy noted that the sites will be discussed with the municipalities first. A suggestion was made that, in addition to a basin hydrology discussion, it would be good to hear about the regional picture regarding all of the basins and the problems that exist. The hydrology of the basins could be shown on screen through animation and/or example profiles. Jan Oliver added that it would be good to hear about control technologies from other cities and how they fit into their compliance requirements. There was also interest in an explanation of the ALCOSAN costing tool, perhaps working through that part of the web site at the meeting. It would be interesting to see if there is a trade off between capital costs and O&M costs.

Tim Prevost noted, for the benefit of those who do not regularly attend the 3RWW FSWG meetings, ALCOSAN will be looking for preliminary flow estimates from each of the municipalities by March of next year. He noted the need to examine the worst case scenarios to try and determine ways that municipalities could reduce flow going to ALCOSAN facilities. When asked about the format for the flow estimate report, Tim stated that ALCOSAN had not established a format yet, but will.

The next meeting of the TT Basin Planning Committee will be scheduled for January 2010.

The meeting was adjourned with no further questions or comments.

Attachments

Sign-In Sheet
Presentation Slides

ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Turtle Creek/Thompson Run
Meeting Purpose/Number: Basin Planning Committee Meeting Number 6
Date / Time: February 23, 2010, 9:00 AM
Location: Monroeville VFC No. 4, Gateway Hall

Municipal Attendees:

Municipality/Authority	Municipal Representative	Engineer or Other Person Representing the Municipality
Chalfant Borough		Robert Zischkau, Glenn Engineering
Churchill Borough	Craig Robinson	Kurt Todd, Gateway Engineers
East McKeesport Borough		Robert Zischkau, Glenn Engineering
East Pittsburgh Borough		Robert Zischkau, Glenn Engineering
Forest Hills Borough	Steve Morus	Kurt Todd, Gateway Engineers
Municipality of Monroeville		Jessica Antell, Chester Engineers
Monroeville Municipal Authority	Joe Storey Lou Gerthoffer John Capor	Jessica Antell, Chester Engineers
North Braddock Borough		Robert Zischkau, Glenn Engineering
North Huntingdon Township	Andy Blenko	Dave Coldren, KLH Engineers
North Versailles Township		Robert Zischkau, Glenn Engineering
Penn Hills, Municipality of		Kurt Todd, Gateway Engineers
Penn Hills Water Pollution Control Department	Tom O'Grady	
Penn Township/Penn Township Sewage Authority	Stan Caroline	
Trafford Borough		Robert Zischkau, Glenn Engineering
Turtle Creek Borough		Robert Zischkau, Glenn Engineering
Wall Borough		Robert Zischkau, Glenn Engineering
Western Westmoreland Municipal Authority	Kevin Fisher	Mark Poole, Wade Trim
Wilkins Township	Joe Costa	Amber Yon, Senate Engineering
Wilkinsburg Borough		Robert Zischkau, Glenn Engineering
Wilmerding Borough		Robert Zischkau, Glenn Engineering

Other Attendees:

Jerry Brown, 3RWW
Madeline Izzo, 3RWW
Dave Minard, AECOM
Tim Prevost, ALCOSAN
Lisa Gorg, Allegheny County Health Department
Karen Brean, Brean Associates
Nancy Schultz, CH2M HILL
Tammi Halapin, Collective Efforts
Janai Williams, Ebony Holdings
Mike Harvey, HDR
Thomas Flanagan, PA Department of Environmental Protection

1) Welcome and Introduction

Tim Prevost, of ALCOSAN, welcomed those present. He noted that the agenda includes a discussion of the model and that the municipalities and their engineers have been awaiting its distribution. He explained that the model (for all seven basins) took longer than expected to get to a level with which the Program Manager and ALCOSAN were satisfied. He added that he believes that the resultant model will be an excellent planning tool for the municipalities.

Nancy Schultz, of Turtle Creek/Thompson Run (TT) Basin Planning Team, invited the participants to introduce themselves. Following the introductions, Tim Prevost noted that the meeting was the first time since the convening of the TT Basin Planning Committee that all municipalities were represented.

2) Program Update

Nancy Schultz presented an update on the Wet Weather Program. She noted that ALCOSAN and the municipalities have a lot of work to do between now and January of 2013. At that time, ALCOSAN will submit the Wet Weather Plan to the United States Environmental Protection Agency, the Pennsylvania Department of Environmental Protection, and the Allegheny County Health Department. Under the Consent Decree, to which ALCOSAN entered with these regulating agencies, ALCOSAN is to complete construction of all remedial controls, and be implementing all remedial activities, as required by the approved Wet Weather Plan, no later than September 30, 2026. Nancy also noted that ALCOSAN is in compliance with the required interim deliverables.

Nancy Schultz provided a recap of the last Basin Planning Committee meeting, held on September 22, 2009, at the Turtle Creek public meeting room. At that time, the Screening of Controls and Sites Report and site reconnaissance were in progress, and the Modeling Report was nearing completion.

3) H & H Modeling

Nancy Schultz presented an update on the H&H modeling. She reported that the preliminary TT model and documentation were submitted in September 2009. Following extensive review, the refined model and Report were submitted in January 2010. She reported that refinements are currently being incorporated. She anticipates distribution of the model and the Report very soon. Nancy further noted that the continued refinement of the model has been undertaken because ALCOSAN wants to give the municipalities a model that is well documented, easy to understand, and usable throughout the Wet Weather Program. Dave Minard, of AECOM, the TT Basin Coordinator, added that all seven planning basins are in the same situation regarding refinement of the model. Tim Prevost noted that, when the Feasibility Studies Working Group members were asked about the release of the model, the engineers were in agreement that, rather than wait for all seven basin models to be released at once, it would be better if the models were released as they are completed.

Nancy Schultz described the model extent, noting that there is a lot of model extension beyond what is required in the Consent Decree, which should help in municipal planning. She explained that much of the effort in the TT basin is spent on trying to calibrate the model through the separated sewer areas and noted that the TT basin sewers are 85% separated.

4) Screening of Controls and Sites

Mike Harvey, of the Turtle Creek/Thompson Run (TT) Basin Planning Team, presented the overall approach to the screening of controls and sites as a process of evaluating different types of control technologies and identifying sites for potential control facilities within the basin. Mike explained that the TT Basin team looked at viable sites within a boundary created around the ALCOSAN interceptor. Utilizing the county-wide geographic information system, the TT Basin team screened sites that met the following criteria:

- Owned by either ALCOSAN or municipality;
- One quarter acre or greater contiguous area;
- Topography favorable for construction;
- Compatible land use with adjoining properties;
- Minimal apparent utility conflicts;
- Presence of highways/roads for construction access; and
- Proximity to significant overflows and sewers requiring relief.

The process involved identifying all potential sites based on the criteria stated above. Then, during the first screening for sites of opportunity, the team identified potential sites for more detailed evaluation. Following that, in a second screening, the team selected those sites judged most compatible for facility location. Site reconnaissance on the sites of the second screening resulted in a list of eight sites. Meetings with municipalities regarding those eight sites have resulted in the identification of some additional sites. The Draft Report is being reviewed and will be finalized soon.

5) Preliminary Flow Estimates

Mike Harvey provided an update on the preliminary flow estimates. He explained that the preliminary flow estimates will be determined by the municipalities and submitted to ALCOSAN. Estimates of future flows will utilize this flow monitoring data in conjunction with the Southwestern Pennsylvania Commission (SPC) population projections.

6) Evaluation of Alternatives

Mike Harvey explained that the TT Basin planning team will be evaluating the alternatives, and the team would like to get input from the Basin Planning Committee on criteria that will be used for scoring. Mike introduced Karen Brean, of Brean Associates, to lead an exercise to gather input on the relative weights of various scoring factors.

Karen Brean distributed a matrix (attached) identifying twenty criteria that fall within the following five broad categories:

- Economic factors;
- Public factors;
- Water quality, public health and environmental impacts;
- Operation impacts; and
- Implementation factors.

Karen also distributed a scoring sheet and asked each participant (other than those from the Basin Planning team) to assign a percentage reflecting the priority that each of those five broad categories should be given when alternatives are reviewed. The total percentage for all five categories should equal 100%. Karen explained that, although the scoring may be done anonymously, the Basin Planning team would like to know what perspective is being represented by the scoring sheet. So, for example, it would be important to know whether the prioritization represents the priorities of a municipal manager versus an environmental organization.

One of the participants asked how the prioritization exercise could be undertaken without applying them to the specific sites. Both Karen and Mike Harvey explained that the exercise is to determine a set of criteria that will be used to evaluate alternatives region wide.

Participants filled in the scoring sheets. Karen entered the data from each sheet into a spreadsheet. Tim Prevost presented the following results from the scoring exercise (a total of 21 participants scored the categories):

Category	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	5%	25%	10%

7-9) Municipal Outreach / Public Outreach / Public Meetings

Janai Williams, of Ebony Holdings, presented an update on municipal and public outreach efforts. She reported that at the last meeting the Customer Municipality Advisory Committee (CMAC) evaluated the draft site screening criteria and discussed municipal advocacy. The CMAC will meet on March 2, 2010, a meeting that was rescheduled due to inclement weather in early February. Janai also noted that the Regional Stakeholder Group (RSG) meeting is also being rescheduled for March, having been cancelled due to inclement weather. At the RSG's previous meeting, the key agenda topics included evaluating the site screening criteria, comparative analysis criteria, and CSO control and alternative technologies.

Janai reported that Basin public outreach meetings were held throughout the service area in November. The TT Basin team convened the public outreach meeting in North Versailles on November 16th and participated in the Penn Hills meeting convened by the Upper Allegheny/Pine Creek Basin on November 9th. The primary goal of these meetings was to educate and engage the public concerning the overall Wet Weather Program and the associated issues. The key themes discussed at these meetings included:

- Alternatives analysis/facilities sites;
- Consent Decree;
- Municipal coordination;
- Program costs;
- Public awareness/engagement; and
- Public health.

In January and February 2010, ALCOSAN held the Annual Customer Information Meetings. The goal of these meetings was to provide an update on the status of the Wet Weather Program. The key themes and issues discussed included:

- Alternatives analysis/facilities sites;
- Consent Decree;
- Municipal coordination;
- Municipal costs;
- Program costs; and
- Public awareness/engagement.

10) Financial Data Collection

Tim Prevost reported that the Alternative Costing Tool (ACT) is being updated, and the revised version will be posted to the municipal website. Tim also provided an update on funding. He noted that in 2010 $225,000 in Federal funding was appropriated. ALCOSAN is now pursuing funding for 2011. ALCOSAN is also planning a Rural Utility Services (RUS) and Pennvest application workshop. He explained that Jan Oliver, of ALCOSAN, has had discussions with RUS and that the TT basin has several communities with populations lower than 10,000 that could apply for RUS funding. Tim noted that $11M in Pennvest funds have been put aside for Allegheny County, and he encouraged those interested in applying for grants and/or low interest loans to let ALCOSAN know since they are interested in packaging the applications together.

Tim provided an update on the financial data. He explained that ALCOSAN and Three Rivers Wet Weather (3RWW) are compiling information for each of the municipalities. He explained that, right now, analysis is being held up by municipalities that have not done the municipal asset data survey. All of this information will be compiled into the overall question of what this region can afford. That will be a key answer to help guide the Wet Weather Plan. 3RWW has a committee that has already met twice on the affordability issue.

11) Next Steps

Mike Harvey explained that the model will be distributed in March and that municipal flow projections are expected to be submitted to ALCOSAN by the end of March, understanding that they could be delayed, given the delay in the distribution of the model. The TT team will perform the detailed Alternatives Analysis between now and October 2010. He explained that the prioritizing exercise is a precursor to evaluating the non-economic factors. Following completion of the Alternatives Analysis, the seven basin planning reports will be merged, consolidating projects as appropriate. The merged Plan is expected to be ready in September 2011. The Basin Planning Committee will have the opportunity to review and provide comment on the merged Plan in 2012. The final Wet Weather Plan will be submitted to the regulatory agencies in January 2013.

Mike Harvey distributed the meeting evaluation form and encouraged those present to take the ALCOSAN comment cards provided and make them available to their respective municipalities and constituencies.

12) Questions/Discussion

Jerry Brown, of 3RWW, asked that if the model is being sent to municipal managers, would a copy of the transmittal letter go to the consulting engineers. Tim Prevost answered that his plan is to contact the engineers directly (either by phone or email) when the model is sent. Jerry further asked whether there was a release date for the TT basin model. Tim Prevost answered that he anticipates March for the model release.

Attachments

Criteria Weighting Form
Meeting Evaluation Form
Presentation Slides
Sign-In Sheet

ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Turtle Creek/Thompson Run
Meeting Purpose/Number: Basin Planning Committee Meeting Number 7
Date / Time: June 29, 2010, 1:00 PM
Location: Monroeville VFC No. 4, Gateway Hall

Municipal Attendees:

Municipality/Authority	Municipal Representative	Engineer or Other Person Representing the Municipality
Chalfant Borough		Robert Zischkau, Glenn Engineering
Churchill Borough	Craig Robinson	Paul Gaus, Gateway Engineers
East McKeesport Borough		Robert Zischkau, Glenn Engineering
East Pittsburgh Borough		Robert Zischkau, Glenn Engineering
Forest Hills Borough	Steve Morus	Paul Gaus, Gateway Engineers
Municipality of Monroeville		Shawn Rosensteel, Chester Engineers
Monroeville Municipal Authority	John Capor	Shawn Rosensteel, Chester Engineers
North Braddock Borough		Robert Zischkau, Glenn Engineering
North Huntingdon Township	Andy Blenko	Dave Coldren, KLH Engineers
North Versailles Township	Jack Gaffney	Robert Zischkau, Glenn Engineering
Penn Hills, Municipality of		Paul Gaus, Gateway Engineers
Penn Hills Water Pollution Control Department	Tom O'Grady	
Penn Township/Penn Township Sewage Authority	Stan Caroline	
Trafford Borough		Robert Zischkau, Glenn Engineering
Turtle Creek Borough		Robert Zischkau, Glenn Engineering
Wall Borough		Robert Zischkau, Glenn Engineering
Western Westmoreland Municipal Authority	Kevin Fisher	Mark Poole, Wade Trim
Wilkins Township	Joe Costa	Amber Yon, Senate Engineering
Wilkinsburg Borough		Robert Zischkau, Glenn Engineering
Wilmerding Borough		Robert Zischkau, Glenn Engineering

Other Attendees:

John Shannon, 3RWW
Madeline Izzo, 3RWW
Dave Minard, AECOM
Jan Oliver, ALCOSAN

Tim Prevost, ALCOSAN
Lisa Sorg, Allegheny County Health Department
Karen Brean, Brean Associates
Nancy Schultz, CH2M Hill
Ali Finley, Cosmos
Tammi Halapin, Collective Efforts
Janette Campbell, Ebony Holdings
Mike Harvey, HDR
Kaye Bealer, Kaye Bealer Consulting
Anthony Cataria, Kaye Bealer Consulting
Tom Schevtchuk, CDM
Thomas Flanagan, PA Department of Environmental Protection

1) Welcome and Introduction

Mike Harvey, of HDR, project manager for the basin planning for the Turtle Creek/Thompson Run (TT) basin, welcomed the participants and invited them to introduce themselves. He presented an overview of the meeting agenda. Jan Oliver, of ALCOSAN, noted that at other basin planning committee meetings participants gave updates of their progress on the municipal preliminary flow estimates (PFEs). Mike said that this meeting would also include that discussion.

2) Review of Basin Planning Committee Meeting No. 6 and Project Status Report

Mike Harvey provided a recap of the previous Basin Planning Committee meeting, held on February 23, 2010 at Gateway Hall. He explained that the meeting included an overview of the Screening of Controls and Sites Report. At that time, the Modeling Report was nearing completion and final submission.

Mike Harvey presented a status report. He noted that the TT Basin team has completed three reports: the Existing Conditions Report; the Screening of Controls and Sites Report; and the Hydrologic and Hydraulic (H&H) Modeling Report. He explained that the TT team is currently working on components of the draft Feasibility Report which is the next report that will be produced.

3) Modeling and Preliminary Flow Estimates (PFEs)

Tim Prevost, of ALCOSAN, reported that the H&H Model was distributed to the municipal managers and the H&H Model Report had been posted on the ALCOSAN Municipal Web Site. Nancy Schultz, of CH2M HILL, noted that if people have questions about those items, they should contact herself or Susan Moisio, of CH2M Hill, at phone (513) 530-5520 or email susan.moisio@ch2m.com.

Tim Prevost presented a summary of status of PFE information for the municipalities in the TT basin. He noted that the municipalities that are not shaded in the matrix would be sharing PFE

information with downstream municipalities. Those shaded in blue are the municipalities whose PFEs have been received. Those in green are expected to have their PFE information in soon, and the municipality shaded in red has not communicated with ALCOSAN or the TT basin team at all prior to the BCP No. 7 meeting. At the request of the municipalities, the TT basin team will distribute the matrix by email. (Note: the matrix was distributed on July 2)

Bob Zischkau, of Glenn Engineering, stated that a two to three week deadline for submission of PFEs would be reasonable for the municipalities represented by Glenn Engineering. Paul Gaus, of Gateway Engineers, said that Penn Hills should be submitting their PFEs within the next few weeks. Joe Costa, of Wilkins Township, noted that Wilkins Township would also be submitting their PFEs in the next few weeks, but first wanted to coordinate further with their neighbors. (Note: as of the distribution of these minutes, ALCOSAN received additional PFEs from two TT municipalities)

Nancy Schultz presented 2035 population projections developed from the Southwestern Pennsylvania Commission (SPC). She explained that the TT basin team needed to compute preliminary PFEs based on the population projections. She noted that municipalities shaded in green are projected to have a decline. Therefore, those municipalities should use the 2005 numbers for their PFEs. Tim Prevost noted that ALCOSAN and the TT basin planning team will work with the municipalities to get a handle on realistic population projections. The population projection table will also be emailed to the group. (Note: the matrix was distributed on July 2)

Jan Oliver asked Nancy Schultz to describe the worst case scenario, relative to population projections, for wet weather planning. Nancy answered that the worst case would be that all of the population projected by the SPC materialized and the sanitary sewer infiltration/inflow (leakage) continued to increase. Jan Oliver asked why assume leakage. Nancy Schultz replied that, nationwide, even new sanitary sewers leak, catching about 6% of the rain. Tim Prevost added that the TT basin planning team had to make assumptions until the PFEs were available.

4) Site/Basin Alternatives Development Progress and Evaluation Strategies

Nancy Schultz noted that the TT basin planning team has completed preliminary modeling of anticipated future flow conditions and alternatives to capture the wet weather overflows. The first step was to screen the alternatives. Then, the team talked to several of the municipalities about facility placement and continued to refine only the viable alternatives. She noted that in order to accommodate anticipated flow, the ALCOSAN interceptors would have to be bigger. Nancy pointed out the presentation board showing model predicted increases in municipal pipe sizes needed to convey flow to the ALCOSAN system. There was a purple and yellow color coding for > double in size, and double in size, respectively. She noted that storage and relief pipes would be the most cost effective strategies and showed a graphic of a preliminary storage facility. Nancy walked through the basin alternatives BA-01, BA-01A, BA-03, BA-05, BA-07, BA-04, and BA-06

Nancy Schultz explained that the TT basin planners are analyzing how much it will cost to provide different levels of protection. For Sanitary Sewer Overflow (SSO) control, the analysis of basin alternatives will be based on four design storms – one, two, five, and ten-year storms. For

Combined Sewer Overflow (CSO) control, the analysis will initially be based on four to six overflows per year.

Jan Oliver asked what 3RWW is using for design storm guidance. Tim Prevost noted that the municipalities first need to determine whether they want to use winter (March) data, summer (June) data, or a combination. John Shannon added that Three Rivers Wet Weather (3RWW) is looking at the cost curves as well.

Nancy Schultz reiterated that all of the alternatives utilize a combination of storage and pipe size relief. Jan Oliver asked whether treatment was given consideration. Nancy Schultz answered that because of the scattered site availability and high peak flows in the TT basin, treatment is more costly than a combination of storage and conveyance.

5) Financial Data Collection Status and Affordability Analysis

Kaye Bealer, of K. Bealer Consulting, introduced the Financial Capability Assessment. She explained that the CSO policy requires considering the permittee's financial capability. She explained that the Financial Capability Assessment is a two-phased process. The first phase, the affordability indicator, uses a residential indicator and examines the rate payers' ability to pay. The second phase, the financial management indicator, examines the permittee's ability to finance.

Kaye Bealer explained that the residential indicator is a percentage, with the annual wastewater cost (the sum of ALCOSAN and municipal costs) divided by annual income. The Environmental Protection Agency (EPA) has defined degrees of financial impact based on the residential indicator. A residential indicator less than one percent of Median Household Income is considered low, one to two percent is considered mid-range, and greater than two percent is determined to be high impact.

Kaye Bealer explained how the financial analysis team arrived at defining typical household water usage and then how they arrived at typical household costs for both ALCOSAN and municipal charges resulting in a regional typical cost per household of $450.

Jan Oliver underscored the fact that it is a residential indicator. She stressed that if more than two percent of household income goes to wastewater, it is considered a burden. She also noted that there are no businesses in the mix. Tom Schevtchuk, of CDM, suggested that nothing precludes talking to commercial users about wastewater treatment cost.

Tom Schevtchuk noted that there are huge variances in median household income between the City of Pittsburgh and other areas. The financial analysis team utilized 2007 census data along with adjustments by other statistics. In addition, larger municipalities in the service area have updated figures in the 2007 data and the team was able to utilize them to develop an average weighted annual income growth.

Kaye Bealer explained that the ALCOSAN service area median household income is $43,200. Therefore, the Residential Indicator is 1.04%, at the low end of the mid-range established by EPA. However, a closer look shows the variation in inter and intra-municipal burden. The municipal median household incomes range from $16,500 to $174,000. Within the City of Pittsburgh, the

block group median household incomes range from $8,000 to $182,000. Therefore, the current block group level residential indicators range from 0.13% to 5.15%.

Tom Schevtchuk presented an overview of the anticipated wet weather cost impact and the "Proxy Investment Analysis." Through this analysis, the financial analysis team is able to identify the range of "affordable" wet weather investments that would trigger a two percent residential indicator.

John Shannon mentioned that some of the municipal engineers have suggested that the municipalities undertake the same kind of investment analysis. If, on the municipal level, the costs approach the two percent threshold, municipalities may want to look at prioritizing projects and making the case that total project cost over the threshold could be detrimental to the communities. Jan Oliver added that ALCOSAN will provide information on the impact on municipalities.

6) Program Updates

Nancy Schultz presented an update on the Alternatives Costing Tool (ACT). She noted that revised version 2.0 has been posted on the ALCOSAN Municipal Website. She added that, if found useful, municipal construction cost data for small-scale projects will be added in the next update.

John Shannon reported that 3RWW sponsors the Feasibility Study Working Group and that the group is looking at a range of things that they could be doing to assist municipalities. That information should be available sometime in September.

Nancy Schultz reported that the TT Basin H&H Modeling Report has been posted on the ALCOSAN municipal website. The TT Basin Screening of Controls and Sites Report (SCSR) will be posted on the site in the near future. The TT Basin Existing Information and Conditions Report is being finalized. Tim Prevost noted that any updates to the reports that are posted will be made in the form of a short technical memo addendum.

John Shannon asked when the SCSR would be posted to the website. Tim Prevost responded that all of the information for that report has been received and it is now being reviewed and coordinated.

Janette Campbell, of Ebony Holdings, presented an update on municipal and public outreach efforts. She reported that the Customer Municipality Advisory Committee (CMAC) met on May 11, 2010 and received a presentation on the affordability analysis. Their next meeting is scheduled for August 3, 2010. She also reported that the Regional Stakeholder Group (RSG) met on May 13, 2010. At that time, they requested to see the way other cities have dealt with program costs, water quality impacts, green infrastructure, and multi-municipal plans. The RSG will be examining case studies from Portland, Washington, DC, Northern Kentucky, and Boston. The next meeting of the RSG is scheduled for August 12, 2010.

Jan Oliver asked whether the TT basin planning team had considered source reduction/green infrastructure. Nancy Schultz responded that the team had looked at opportunities for source

reduction and that they would be more than happy to talk with municipalities about how to get the flow out of the system. Green infrastructure can be very effective at keeping the flow out of the sewers, particularly for combined systems. She reported that she recently attended a workshop in Portland, Oregon, where they are doing a lot of wet weather modeling. They have discovered that, when they get into calculating how much grey infrastructure will be saved by green infrastructure, it's difficult to figure out regionally. It apparently is easier to quantify on a municipal level.

7) Next Steps

Mike Harvey provided an overview of next steps for the TT basin planning team. He reported that the team will continue to work on the Alternatives Analysis. The team will receive and incorporate the remaining PFEs into a future conditions model. The draft alternatives analysis, in the form of the Draft Feasibility Report, is expected to be delivered to ALCOSAN in the Fall of 2010. Following that, in 2011, the seven basin planning reports will be merged, consolidating projects as appropriate. Municipalities will have the opportunity to review and comment on the merged Wet Weather Plan in 2012. He noted that the final ALCOSAN Wet Weather Plan will be submitted to the regulatory agencies in January of 2013.

Attachments

Presentation Slides
Sign-In Sheet

ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Turtle Creek/Thompson Run
Meeting Purpose/Number: Basin Planning Committee Meeting Number 8
Date / Time: October 12, 2010, 1:30 PM
Location: Gateway Hall, Monroeville VFD No. 4

Municipal Attendees:

Municipality/Authority	Municipal Representative	Engineer or Other Person Representing the Municipality
Chalfant Borough		Robert Zischkau, Glenn Engineering
Churchill Borough		Paul Gaus, Gateway Engineers
East McKeesport Borough		Robert Zischkau, Glenn Engineering
East Pittsburgh Borough		Robert Zischkau, Glenn Engineering
Forest Hills Borough		Paul Gaus, Gateway Engineers
Municipality of Monroeville		Shawn Rosensteel, Chester Engineers
Monroeville Municipal Authority	Joe Storey Lou Gerthoffer John Capor	Shawn Rosensteel, Chester Engineers
North Braddock Borough		Robert Zischkau, Glenn Engineering
North Huntingdon Township	Andy Blenko	
North Versailles Township		Robert Zischkau, Glenn Engineering
Penn Hills, Municipality of		
Penn Hills Water Pollution Control Dept.	Tom O'Grady	
Penn Township/Penn Township Sewage Authority	Stan Caroline	Vince Seyko, The EADS Group
Pitcairn Borough		George Pitcher, The EADS Group
Trafford Borough		Robert Zischkau, Glenn Engineering
Turtle Creek Borough		Robert Zischkau, Glenn Engineering
Wall Borough		Robert Zischkau, Glenn Engineering
Western Westmoreland Municipal Authority	Kevin Fisher	Tarun Sonkhya, Wade Trim
Wilkinsburg Borough		Robert Zischkau, Glenn Engineering
Wilmerding Borough		Robert Zischkau, Glenn Engineering

Other Attendees:

Tim Prevost, ALCOSAN
Joseph Day, ALCOSAN
Jerry Brown, 3RWW
Jack Crislip, PaDEP
John Shannon, Baker Engineers, Representing 3RWW
Dave Minard, AECOM
Nancy Schultz, CH2M HILL
Mike Harvey, HDR, Inc.
Tammi Halapin, Collective Efforts

1) Welcome and Introductions

Mike Harvey of HDR, Inc. welcomed the attendees and asked that everyone introduce themselves.

2) Review of BPC Meeting No. 7

Mike Harvey provided a review of Basin Planning Committee (BPC) Meeting No. 7, held on June 29, 2010, and a brief status report of the project. He mentioned that the Existing Conditions Report, Screenings of Control and Sites Report, and H&H Modeling Report have been submitted. The draft version of the Feasibility Report and Present Worth Analysis is due by November 1, 2010. The Program Manager is currently preparing the Affordability Analysis. Future deliverables will include the draft and final versions of the Facilities Plan.

3) Preliminary Flow Estimates

Nancy Schultz of CH2M HILL, Basin Planner (BP) for the Turtle Creek/Thompson Run (TT) Basin, began a discussion of the Preliminary Flow Estimates (PFEs), which are intended to assist in planning for future flow conditions in the basin. ALCOSAN and the TT BP have already met with several of the municipalities to discuss the results and the PFE analysis, but still need to meet with Penn Hills, Pitcairn, and Wilkins Township.

The preliminary planning is based on the sewer system handling all of the projected flow expected to be generated by the anticipated growth in population, unless directed otherwise by the municipality. The TT Basin is comprised of 85% separate sewers. Much of the terrain is steep which limits where facilities can be located. The alternatives analysis of viable sites continues.

Andy Blenko of North Huntingdon Township stated that it is not cost effective to construct a secondary wastewater treatment plant and questioned whether or not ALCOSAN was considering upgrading their existing WWTP.

Tim Prevost of ALCOSAN indicated that ALCOSAN is considering upgrading the capacity of the current WWTP facilities and is in the process of relocating various buildings to accommodate additional treatment facilities. The customer service building has been demolished to make room for the new operations and maintenance building. Once completed, ALCOSAN will raze the existing building for new treatment processes. He also indicated that ALCOSAN is planning to expand the secondary treatment to 325 MGD and for the plant to have 600 MGD wet weather capacity.

A question was asked that if the PFEs developed by the TT Basin Planner are generally similar to those projected by the contributing municipalities. Tim and Nancy answered that in general, the small- to mid-sized sewersheds are consistent, but the larger sewersheds require additional discussion. They indicated that additional meetings with some of the municipalities are needed so the results can be compared and discussed.

4) Feasibility Report and Present Worth Analysis

Tim and Nancy provided a summary of the preferred basin alternatives and discussed the site locations within the TT Basin.

Andy Blenko questioned why options TT-BA11, TT-BA12, and TT-BA13 all have the same size storage at CF02-CF04. Nancy answered that this is because there is not a big difference in flows within the system until the flows get to Turtle Creek Borough. Tim went on to explain that consolidation may require larger diameter pipes and that the tanks are designed to surcharge.

A question was asked about what the tank size is a function of and if the 2-year design storm is constant. Nancy indicated that the tank size serving separated sewer service areas is only a function of the design storm. Tanks serving combined sewer service areas are sized based on the design storm along with a given number of permitted CSO events per year.

The next topic of the meeting was a dialogue concerning siting the various options currently under consideration. Within the Turtle Creek area of the Basin, Site 36 is located at a former Westinghouse site and is located to avoid the adjacent soccer field parking area. Site A, also within the Turtle Creek area, is located at what was formerly being considered for the construction of a Walmart. This site has a potential benefit for the community due to the close proximity of the ball fields. Site 5 in the Turtle Creek area is in North Versailles, and Site B in the Turtle Creek area is a sliver of land paralleling the stream across from Keystone Commons. Within the Thompson Run area of the Basin, Site 18 is the parking lot for the Sri Venkateswara Temple and is being seriously considered. Tim asked Tom O'Grady of Penn Hills Water Pollution Control Department if he has any contacts at the Temple. Tom indicated that he did and could provide them. Site 7 in the Thompson Run area of the Basin is located in Wilkins Township on Anchor Industry's land at the bottom of Rodi Road. This is being considered for the construction of a large culvert type storage facility due to the long narrow site. Nancy mentioned that if inflow and infiltration (I/I) is removed from the system, or green designs are implemented, the size of required storage tanks may be reduced or the need for tanks may be eliminated altogether.

John Capor of the Monroeville Municipal Authority asked whether or not sizing for the 2-year peak flow was adequate for the sanitary system since regulatory agencies for stormwater require design based upon a 25-year storm. Nancy responded that both the 2- and 10-year storms must be evaluated. Stan Caroline of the Penn Township Sewage Authority asked if this means there will still be overflows. Tim confirmed that overflows would occur for larger storms, and stated that the region cannot afford the costs associated with upgrades that would be required in order to experience no overflows under a rare storm, indicating that designing for the 2-year storm may be affordable. He further stated that ALCOSAN is required to design system upgrades that will function under normal conditions.

A question was asked that if overflows are not being eliminated, what that means for water quality. Tim answered that based on a 2-year storm, water quality will still be better than current conditions. Tim also made the point that if the sewer pipes in a municipality are capable of storing a 2-year storm, then the Basin should be okay. Tim indicated that trunk sewer surcharges will be closely analyzed and that periodic surcharging may be permitted if sufficient rationale is provided to the regulatory agencies. Such surcharging would be considered as "storage" as long as the piping network is structurally sound and adequate for the "storage." This would not apply, however, to chronic sewer basement back-up issues.

Stan commented that Penn Township wanted to install a 24-inch diameter pipe to connect to ALCOSAN's 24-inch diameter interceptor, but that the Pennsylvania Department of Environmental Protection (DEP) would not permit it and only allowed an 18-inch diameter pipe, which may not be adequate for the demand of the system.

5) Municipal Feasibility Study Work

Tim discussed the status of the Feasibility Study work, summarizing where municipalities are currently in the process and what is planned. The current assumption is that ALCOSAN will receive all flows generated by municipalities. In some areas, such as Falls Run, this would require an increase in trunk size. Tim stated that ALCOSAN will need to continue meeting with municipalities to discuss future demand.

Stan asked Tim whether or not he had received Penn Township's updated modeling results. Tim stated that he had and that after he has had a chance to review them, he will plan to discuss the results with Stan and John Capor (Monroeville) at the same time. Tim also indicated that more meetings will be scheduled with other municipalities to determine what each municipality is planning to do.

Jerry Brown of 3RWW clarified that municipalities should not be limiting their flow studies to only the 2-year storm event, but should also be looking at 10-year storms.

Tim stated that he will establish a one-day schedule to meet with all municipalities to discuss their flow modelling. Bob Zischkau of Glenn Engineering requested that this meeting day be after November 1st.

6) Program Update

Joe Day of ALCOSAN introduced himself as a new employee of ALCOSAN, tasked with municipal and public outreach. He stated that the Customer Municipality Advisory Committee (CMAC) and Regional Stakeholder Group (RSG) meetings had taken place on August 3, 2010 and August 13, 2010, respectively.

With regard to the 3RWW Regionalization RFP, Jerry Brown stated that they had received eleven proposals and that they will review and evaluate them following the 3RWW conference.

Joe Day discussed the upcoming ALCOSAN Community Meetings and indicated that they had been combined with annual public meetings and basin updates this year. A schedule of all of the Community Meetings was presented to the group. Joe encouraged everyone to join ALCOSAN's Facebook and Twitter page.

Tim provided an update on the Alternatives Costing Tool (ACT) and municipal website postings.

Mike Harvey of HDR updated everyone about the basin planner activities. He indicated that Basin Quarterly Activity Report #5 had recently been distributed. He also provided an overview of the next steps for the Basin.

7) Questions/Comments/Next Meeting

John Shannon of Baker Engineers stated that at other BPC meetings, some indication of the costs associated with the upgrades was provided. He stated that the information he received was in the $300-400 million range for the 2-year storm, with four to six overflows per year permitted. He asked if there are regional solutions available for the TT Basin. Tim stated that there are, the regional solution involves a regional tunnel extending to the lower reaches of Turtle Creek. Under the regional solution, some of the storage tanks (at Sites B and 5) would be eliminated and replaced with drop shafts to the tunnel.

John Shannon also had a question pertaining to the water quality study. He wanted to know if any portion of the TT Basin was included in the study. Tim stated that there are two locations along Thompson Run being monitored and one location along Turtle Creek. John asked when this report would be available. Tim answered that the field work was done in 2006-2009 and the report will be available once USGS has completed it. He stated that ALCOSAN is also doing some water quality monitoring along select CSO outfalls, but that wet weather overflow samples have been difficult to obtain.

The meeting was adjourned with no further questions or comments.

Attachments

Sign-In Sheet
Presentation Slides

ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Turtle Creek/Thompson Run
Meeting Purpose/Number: Basin Planning Committee Meeting Number 9
Date / Time: February 22, 2011, 1:30 PM
Location: Gateway Hall, Monroeville VFD No. 4

Municipal Attendees:

Municipality/Authority	Municipal Representative	Engineer or Other Person Representing the Municipality
Chalfant Borough		Robert Zischkau, Glenn Engineering
Churchill Borough		Mike Skinner, Gateway Engineers
East McKeesport Borough		Robert Zischkau, Glenn Engineering
East Pittsburgh Borough		Robert Zischkau, Glenn Engineering
Forest Hills Borough	Steve Morus	
Municipality of Monroeville		Shawn Rosensteel, Chester Engineers
Monroeville Municipal Authority	Joe Storey Lou Gerthoffer John Capor	Shawn Rosensteel, Chester Engineers
North Braddock Borough		Robert Zischkau, Glenn Engineering
North Huntingdon Township	Andy Blenko	Dave Coldren, KLH Engineers
North Huntingdon Township Municipal Authority	Katherine Petrosky Charles Gilbert	
North Versailles Township		Robert Zischkau, Glenn Engineering
Penn Hills, Municipality of		Mike Skinner, Gateway Engineers
Penn Hills Water Pollution Control Dept.	Tom O'Grady	
Penn Township/Penn Township Sewage Authority	Stan Caroline	Don Black, EADS Group
Pitcairn Borough		Don Black, EADS Group
Trafford Borough		Robert Zischkau, Glenn Engineering
Turtle Creek Borough		Robert Zischkau, Glenn Engineering
Wall Borough		Robert Zischkau, Glenn Engineering
Western Westmoreland Municipal Authority	Kevin Fisher	Mark Poole, Wade Trim
Wilkins Township	Joe Costa Ed Bruener	Amber Yon, Senate Engineering
Wilkinsburg Borough		Robert Zischkau, Glenn Engineering
Wilmerding Borough		Robert Zischkau, Glenn Engineering

Other Attendees:

Tim Prevost, ALCOSAN
Joseph Day, ALCOSAN
Lisa Sorg, ACHD
Tom Flanagan, PADEP
John Shannon, Baker Engineers, Representing 3RWW
Dave Minard, AECOM
Jerry Brown, 3RWW
Mike Harvey, HDR, Inc.
Tammi Halapin, Collective Efforts
Tom Kochaba, HDR

1) Welcome and Introductions

Mike Harvey of HDR, Inc. welcomed the attendees and asked that everyone introduce themselves.

2) Review of BPC Meeting No. 8

Mike Harvey provided a review of Basin Planning Committee (BPC) Meeting No. 8, held on October 12, 2010, and a brief status report of the project. He mentioned that the meeting discussed the PFE analysis, presented an overview of the preliminary alternatives development, and provided dates for the CMAC and RSG meetings.

3) Basin Feasibility Study Report

Mike Harvey introduced Tom Kochaba from HDR and asked him to discuss the status of the Basin Feasibility Study Report. The Draft TT Basin Feasibility Study Report was submitted to ALCOSAN on November 1, 2010. The report was based on all wet weather flow being delivered to ALCOSAN. The report will start to be redeveloped based on information of what the municipalities' final flow estimates are and their feasibility studies. Andy Blenko of North Huntingdon Township asked if the report assumed that there are no SSOs upstream. Tim Prevost answered that they were all added to the wet weather flow.

Tom mentioned that they have evaluated a preferred basin alternative consisting of consolidation of sewers and distributed storage, and a preferred regional alternative consisting of a deep tunnel, consolidation of sewers and distributed storage. Andy Blenko asked what is meant by consolidation of sewers. Tom answered that they are parallel sewers to the interceptors. Andy asked how far downstream will the sewers run. Tom indicated that he will go into more detail to answer this question later in the presentation.

Tom reviewed the details associated with the preferred basin alternatives for Site B, Site 5, Site A, Site 36, Site 7, and Site 18. Three of the sites (Sites 7, 18 and 36) were considered SSO sites. Sites A, B and 5 were considered CSO sites. The Site B alternatives include a consolidation sewer and a buried storage tank on site. Andy Blenko asked if this alternative collects all flow or just from T-08. Tom clarified that Site B handles flow from T-08 through T-01. Tim mentioned that the flow rates appear to be very high since they have to handle the design storm with peak rates. This assumes no overflows and that all flow is coming to ALCOSAN. This results in a massive peak flow. Realistically these flows may not be reached. Andy asked if it is based on a 2 year/24 hour storm. Tim indicated that it is for now. John Shannon of Michael Baker Corporation asked if at the ALCOSAN point of connections where consolidation sewers are proposed will the next downstream point of connection overflow. The answer was no. John asked if the storage unit becomes filled will there be multiple overflows at the outfalls. Tom answered yes. John asked if the overflows would be untreated. The answer was yes.

Tom continued describing the proposed alternatives associated with the other sites. All of the alternatives consisted of consolidation sewers and buried storage tanks, except for Site 7 and Site 18 which did not include consolidation sewers.

4) Municipal Feasibility Studies

Tim Prevost discussed the municipal feasibility studies. He mentioned that he has already talked to most of the municipalities regarding their feasibility studies and their Planning Information as requested by ALCOSAN. He mentioned that ALCOSAN needs all Planning Information by the end of April 2011. This will allow ALCOSAN and the municipalities two months to review and coordinate any issues with the Planning Information by July 1, 2011. ALCOSAN will move forward with whatever Planning Information they have by July 1st and incorporate the information into their planning efforts. If ALCOSAN does not receive the municipal Planning Information by July 1st (April 30th preferred) they will move forward with assumptions based on best engineering judgment. Tim presented slides indicating the eight complex sewersheds within the TT Basin and the 43 simpler sewersheds. He stressed that ALCOSAN needs to know the Planning Information on all of the sewersheds not just the complex ones. Tim presented an example table showing the information that ALCOSAN needs the municipalities to provide regarding CSO and SSO control alternatives. This information included technology utilized, CSO or SSO control level, capital costs, O&M costs, renew and replacement costs, and the source of the costing information (either the ACT or other). The table is not required, but does include everything ALCOSAN is looking for in their request for Planning Information.

This discussion generated several questions. John Shannon asked if the TT Basin is looking at a regional alternative like some of the other basins. Tim answered no. A deep tunnel all the way up to Turtle Creek would be cost prohibitive, and it would not make a large impact to the basin alternatives.

John asked if there will be 85% capture. Tim answered that the 85% capture goal is going to be difficult to meet. At some point, affordability has to come into play. He said that ALCOSAN is going to have to weigh the options as to what they can build base on funds. It is known that both CSOs and SSOs have to be managed. But the decision of what to do first or prioritize will probably be up to the regulators.

John Shannon asked if they are giving preference to SSOs or CSOs at this point. Tim answered no. They are trying to see what gives the most benefit for the cost. He mentioned that it is not only ALCOSAN involved in the affordability issues; the municipalities have to consider the O&M costs are whatever is built.

Andy Blenko asked at what point and who will proportion the costs between the contributing municipalities. Will the costs be rolled into ALCOSAN rates or divided by municipalities? Tim said that was a good question. Currently, the Service Agreements read if ALCOSAN pays for it, the cost will be paid by the entire service area.

5) **Program Updates**

Joe Day of ALCOSAN discussed the most recent municipal and public outreach items. He mentioned that the Customer Municipality Advisory Committee (CMAC) and Regional Stakeholder Group (RSG) meetings had taken place on November 2, 2010 and November 16,

2010, respectively. He mentioned that the CMAC stressed the importance of more involvement from elected officials. The RSG members wanted a Wet Weather Plan update at the next meeting.

Joe discussed the results of the ALCOSAN 2010 Community Meetings that were held last fall. He mentioned that approximately 200 people attended the meetings. With respect to the meeting associated with the TT Basin, ten people were in attendance. But he noted that there was a heavy rainstorm on the meeting night which might have affected the attendance numbers.

Tim Prevost discussed the subject of regionalization options. He mentioned that 3RWW received 11 submittals for funding requests of which ALCOSAN was one. The amount of money that ALCOSAN needs to conduct the regionalization study was more than 3RWW could offer so ALCOSAN is looking for other funding options. Tim identified that there are five regionalization options being considered and to be studied.

Stan Caroline of Penn Township Sewage Authority asked where is the money going to come from for regionalization. It would not be wise to take over a system and other certain rate payers pay for the upgrades. Is there any consideration to conducting a pilot program first? Tim answered that the study has not even been completed yet so it is too early for these answers. Basically his thoughts are that with a larger pool of rate payers, the more risk you can take and spread out the costs. It's the concept of "economies of scale". You can do more with fewer resources. Tom Flanagan from PADEP said to ask MTSA what they do if Franklin Park needs capital updates or repairs. They probably bill Franklin Park differently. Jerry Brown of 3RWW answered that the MTSA/Franklin Park Agreement was time based. At first, there are separate rates between the two communities, but later the rates will be blended. There are a few communities such as South Fayette, McDonald, Oakdale, Penn Hills and North Fayette that have different Agreements with ALCOSAN then the others in the service area.

6) Summary of Meetings

Mike Harvey mentioned that there have been several meetings conducted since the last BPC meeting. ALCOSAN has met with the Allegheny County Health Department, PADEP, and many of the municipal mangers.

7) Next Steps

Mike Harvey summarized the next steps associated with the TT Basin. The Basin Feasibility Studies from all seven basins will be consolidated into a Wet Weather Plan. The municipalities will have the opportunity to review and provide comments on the draft Wet Weather Plan in July 2012. The final Wet Weather Plan will be submitted to the regulatory agencies in January 2013. The next TT BPC Meeting will be held in May 2011.

8) Questions/Discussion

The meeting was adjourned with no further questions or comments.

Attachments

Sign-In Sheet
Presentation Slides

ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Turtle Creek
Meeting Purpose/Number: Basin Planning Committee Meeting Number 10
Date / Time: May 24, 2011, 1:30 PM
Location: Gateway Hall, Monroeville VFD No. 4

Municipal Attendees:

Municipality/Authority	Municipal Representative	Engineer or Other Person Representing the Municipality
Chalfant Borough		Robert Zischkau, Glenn Engineering
Churchill Borough		Mike Skinner, Gateway Engineers
East McKeesport Borough		Robert Zischkau, Glenn Engineering
East Pittsburgh Borough		Robert Zischkau, Glenn Engineering
Forest Hills Borough		Paul Gaus, Gateway Engineers
Municipality of Monroeville		Shawn Rosensteel, Chester Engineers
Monroeville Municipal Authority	Joe Storey Lou Gerthoffer John Capor	Shawn Rosensteel, Chester Engineers
North Braddock Borough		Robert Zischkau, Glenn Engineering
North Huntingdon Township		
North Huntingdon Township Municipal Authority	Katherine Petrosky	
North Versailles Township		Robert Zischkau, Glenn Engineering
Penn Hills, Municipality of		Mike Skinner, Gateway Engineers
Penn Hills Water Pollution Control Dept.		
Penn Township/Penn Township Sewage Authority	Stan Caroline	
Pitcairn Borough		
Trafford Borough	Casey Shoub	Robert Zischkau, Glenn Engineering
Turtle Creek Borough		Robert Zischkau, Glenn Engineering
Wall Borough		Robert Zischkau, Glenn Engineering
Western Westmoreland Municipal Authority	Kevin Fisher	Mark Poole, Wade Trim
Wilkins Township	Joe Costa	Amber Yon, Senate Engineering
Wilkinsburg Borough		Robert Zischkau, Glenn Engineering
Wilmerding Borough		Robert Zischkau, Glenn Engineering

Other Attendees:

Tim Prevost, ALCOSAN
Joseph Day, ALCOSAN
John Schombert, 3RWW
Lisa Sorg, ACHD
Paul Eiswerth, PaDEP
John Shannon, Baker Engineers, Representing 3RWW
Dave Minard, AECOM
Dave Bingham, AECOM
Mike Harvey, HDR, Inc.
Tom Kochaba, HDR, Inc.
Tammi Halapin, Collective Efforts

1) Welcome and Introductions

Mike Harvey of HDR, Inc. welcomed the attendees and asked that everyone introduce themselves.

2) Review of BPC Meeting No. 9

Mike Harvey provided a review of Basin Planning Committee (BPC) Meeting No. 9, held on February 22, 2011, and a brief status report of the project. He mentioned that the meeting reviewed the status of the draft Feasibility Study Report, presented details of the preferred Basin Alternatives, discussed municipal planning information needs, and provided updates of the CMAC and RSG meetings.

3) Basin Facilities Plan

Tom Kochaba from HDR discussed the status of the Basin Feasibility Study Report. He said the draft version of the Feasibility Study focused on the process to get cost effective and feasible basin alternatives that are then combined to form overall system-wide alternatives. He summarized the Preferred Basin-Based Alternatives (BA10-BA14), the Preferred Regional Alternatives (BA20-BA24), and the Basin Alternative (B15). Tom explained the direct relationship between the municipal controls and future flow estimates to the basin alternative analysis. He also explained the relationship between the basin alternative analysis and the regional integration and system-wide alternatives analysis. Tom discussed that the basin-based controls are based on controlling wet weather flow in the basin using consolidation sewers and storage then sending it to ALCOSAN as wet weather conditions subside. The tunnel-based controls include tunnels to replace much of the storage in the basin alternatives. For the TC basin, some tunnel-based alternatives may eliminate two storage basins in the downstream reaches of the basin (Site 5 and Site B). But the tunnel may only extend as far as the Upper Monongahela Basin and not reach the TC Basin, which would have little impact on storage needed in the basin. Kevin Fisher asked what the size and depth of the proposed tunnels will be. Tim Prevost answered that the diameter will probably be deeper than the existing one using tunneling standards to determine optimal depth and will have a diameter of 14 to 22 feet. All decisions regarding the tunnel-based controls will be determined by affordability.

With respect to costing, Tom explained that municipal costs have been assumed. The assumptions have been based on estimating the length of pipe needed to get the municipal flows to the ALCOSAN point of connection and then applying pipeline cost factors. This is the costing placeholder being used until municipal costs are provided or more detailed costing is developed. In general, when the overflows reduce (higher level of control), the tunnel seems to be the more cost-effective alternative.

Tom reviewed the overall program schedule which showed the interaction needed between the municipalities and the basin planners and program manager.

4) Municipal Feasibility Studies

Tim Prevost discussed how ALCOSAN has been evaluating and using the municipal planning information received to date. The information has been classified into one of four categories: 1) no municipal alternative identified – flow estimates are in agreement; 2) no municipal alternative identified – flow estimates between basin planner and municipality differ; 3) municipal alternative identified – alternative does not affect basin alternatives; and 4) municipal alternative identified – alternative affects basin alternatives. Tim reviewed which sewersheds fell into each category. He mentioned that ALCOSAN will be sending a memo to the municipalities for every point of connection with any remaining questions and any outstanding information requests such as costs. Tim indicated that further coordination between ALCOSAN and the municipality are needed for the Category 2 sewersheds. The basin planner will set up meetings to discuss. For the Category 4 sewersheds, Tim indicated that ALCOSAN needs to talk to the municipal engineer. ALCOSAN does not want to underestimate the sizing of the facilities.

Tim indicated that ALCOSAN needs all the municipal information by July 1, 2011. Cost estimates were not previously requested in ALCOSAN's letter to the municipalities, but this information would be a great help. ALCOSAN will have to proceed on assumptions if the requested information is not received by this date or within a reasonable time frame. Paul Eiswerth of the PADEP mentioned that at the Upper Allegheny BPC Meeting, the deadline for municipal information was June 1, 2011 not July 1, 2011. Dave Bingham responded that the June 1st date was an interim date for something else. Paul asked that if ALCOSAN does not receive the municipal information by July 1st, is ALCOSAN going to have to go forward with certain assumptions. Will ALCOSAN leave some time for the municipalities to still come to terms or agreement with ALCOSAN's assessment? Tim Prevost responded, yes. But ALCOSAN needs to keep going with their report. ALCOSAN definitely wants to talk to the municipalities instead of making assumptions. ALCOSAN wants to work things out. Mark Poole of Wade Trim asked who will be setting up the meetings. Tim responded that either Mike Harvey or himself.

5) Program Updates

Joe Day of ALCOSAN discussed the most recent municipal and public outreach items. He mentioned that the Customer Municipality Advisory Committee (CMAC) had met on May 10, 2011 and their next meeting was scheduled for August 2, 2011. The last CMAC meeting discussed municipal coordination, green technologies (such as the Etna Borough's downspout disconnect program headed up by Ms. Mary Ellen Ramage of Etna), and regionalization. Casey Shoub of Trafford Borough was introduced as a new CMAC member.

Joe mentioned that the Regional Stakeholder Group (RSG) meeting was held on May 17, 2001 and the next meeting is scheduled for August 18, 2011. The last RSG meeting discussed four ALCOSAN stream removal projects, Matt Smuts' (URA) presentation on green technologies, critical wet weather plan sites, and upcoming public outreach.

Joe had brought several extra copies of the ALCOSAN handout from the April 8, 2011 ALOM Conference for anyone who wanted a copy. Copies of the TC Basin Quarterly Activity Report

(BQAR) No. 7 were also available at the BPC meeting. The BQAR would also be mailed following the meeting.

Joe mentioned that the annual ALCOSAN Open House is scheduled for September 17, 2011 and that the annual Community Meetings will be held in the fall of 2011.

6) Regionalization

Dave Bingham of AECOM discussed the ALCOSAN regionalization study. He mentioned that 3Rivers Wet Weather has funded several sub-regionalization studies. The Allegheny Conference will coordinate the stakeholder process. The study is planned to take place between June 2011 and December 2012. The advantages and disadvantages of several regionalization options will be evaluated. He said that the options will be refined through the stakeholder process.

7) Next Steps

Mike Harvey summarized the next steps associated with the TC Basin. The system-wide alternatives will continue to be evaluated. An updated, draft Basin Feasibility Plan refined with municipal information will be submitted to ALCOSAN in July 2011. The draft Basin Facilities Plan for selected alternatives is due to be submitted to ALCOSAN by January 2012. The municipalities will have the opportunity to review and provide comments on the draft Wet Weather Plan in July 2012. The final Wet Weather Plan is due to the regulatory agencies in January 2013. The next TC BPC Meeting will be held in August or September 2011.

8) Questions/Discussion

The meeting was adjourned with no questions or comments.

Attachments

Sign-In Sheet
Agenda
Presentation Slides

ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Turtle Creek
Meeting Purpose/Number: Basin Planning Committee Meeting Number 11
Date / Time: October 3, 2011, 1:30 PM
Location: Gateway Hall, Monroeville VFD No. 4

Municipal Attendees:

Municipality/Authority	Municipal Representative	Engineer or Other Person Representing the Municipality
Chalfant Borough		Robert Zischkau, Glenn Engineering
Churchill Borough		Mike Skinner, Gateway Engineers
East McKeesport Borough		Robert Zischkau, Glenn Engineering
East Pittsburgh Borough		Robert Zischkau, Glenn Engineering
Forest Hills Borough	Steve Morus	
Municipality of Monroeville		Shawn Rosensteel, Chester Engineers
Monroeville Municipal Authority	Joe Storey John Capor	Shawn Rosensteel, Chester Engineers
North Braddock Borough		Robert Zischkau, Glenn Engineering
North Huntingdon Township	Andy Blenko	
North Huntingdon Township Municipal Authority		
North Versailles Township		Robert Zischkau, Glenn Engineering
Penn Hills, Municipality of		Mike Skinner, Gateway Engineers
Penn Hills Water Pollution Control Dept.	Tom O'Grady	
Penn Township/Penn Township Sewage Authority	Stan Caroline	Vince Seyko, EADS Group
Pitcairn Borough		
Trafford Borough		Robert Zischkau, Glenn Engineering
Turtle Creek Borough		Robert Zischkau, Glenn Engineering
Wall Borough		Robert Zischkau, Glenn Engineering
Western Westmoreland Municipal Authority		Tarun Sonkhya, Wade Trim
Wilkins Township	Joe Costa Ed Bruener	Amber Yon, Senate Engineering
Wilkinsburg Borough		Robert Zischkau, Glenn Engineering
Wilmerding Borough		Robert Zischkau, Glenn Engineering

Other Attendees:

Tim Prevost, ALCOSAN
Joseph Day, ALCOSAN
Dave Minard, AECOM
Lisa Sorg, ACHD
Tom Flanagan, PaDEP
John Shannon, Baker Engineers, Representing 3RWW
Jerry Brown, 3 Rivers Wet Weather, Inc.
Karen Brean, Brean Associates
Mike Harvey, HDR, Inc.
Tom Kochaba, HDR, Inc.
Tammi Halapin, Collective Efforts

1) Welcome and Introductions

Mike Harvey of HDR, Inc. welcomed the attendees and asked that everyone introduce themselves. He reviewed the agenda for this BPC meeting.

2) Review of BPC Meeting No. 10

Mike Harvey provided a review of Basin Planning Committee (BPC) Meeting No. 10, held on May 24, 2011. In that meeting, a status of the Draft Feasibility Report was presented, in addition to details of the preferred Basin Alternatives. Also discussed were municipal planning information needs for basin planning. An update of the basin and regional community meetings was also provided.

3) Basin Feasibility Studies

Mike Harvey and Tom Kochaba of HDR, Inc. discussed the current status of the Basin Feasibility Study. Mike explained that the draft Feasibility Study with updated Sections 1 through 6 and appendices was sent to ALCOSAN in August.

Tom discussed the basin alternatives. The system wide alternatives include 3F which accounts for a 2-year storm event, 3H which accounts for a 10-year storm event, and 3I which accounts for a typical year storm event. He referred to the 11x17 handout (Figure 6-6) that identified the Basin Alternative TT-BA16. He then continued to discuss and explain other handouts, specifically Figure 6-7 which shows the details of Site B; Figure 6-8 shows the details for Site 5; Figure 6-9 shows the details for Site A; and Figure 6-10 shows the details for Site 36. He indicated that this is very close to what the preferred alternative for this basin is going to be.

Tom discussed the System-wide Alternative 3F (11x17 handout) and indicated that this alternative seems to be the leading candidate. He further indicated and showed through the handouts that the Basin Based Alternatives rely on storage instead of tunnels, and that the Regional Based Alternatives extend the tunnels and eliminates several proposed storage facilities.

Tom reviewed the overall program schedule which showed that the first draft of the Basin Facilities Plan is due in mid-November to ALCOSAN.

4) Municipal Planning

Tim Prevost of ALCOSAN discussed how ALCOSAN has been evaluating and using the municipal planning information received to date. ALCOSAN facilitated five municipal-related meetings in June and July. These meetings involved Monroeville Municipal Authority, Penn Township, Western Westmoreland Municipal Authority, North Huntington Township Municipal

Authority, Glenn Engineering, 3 Rivers Wet Weather, Inc., Gateway Engineers, Senate Engineers, Wilkins Township, Municipality of Penn Hills, and Pitcairn Borough.

Tim briefly reviewed the municipal planned project information that ALCOSAN has received to date. Tim then discussed with the group in detail the known municipal projects that have missing information, which are as follows:

- Regarding T-18, Tim asked Bob Zischkau of Glenn Engineering if there are any other options. Bob answered that they plan to televise the line and evaluate its condition. If possible, some flow may be able to be eliminated.

- Regarding Monroeville, Tim asked about the seven points of connection to go to Turtle Creek. Most are small but one still needs to be discussed. John Capor of Monroeville Municipal Authority answered that they are still monitoring and they continue to go upstream searching for the problem area. They are trying to find it. Based on the conditions known, ALCOSAN's proposed alternative will require a storage tank for this area that is 20 feet deep with a capacity of 21 to 29 million gallons. Tim said that he would hope to have a smaller tank if possible since the storage tank will be located at a site suspected to be contaminated. In addition, this property is currently trying to be sold.

- Regarding Western Westmoreland Municipal Authority, Tim stated that ALCOSAN needs a better understanding of flows and peak flows. [Update: WWMA has provided additional information regarding their planning information.]

- Regarding Penn Township, ALCOSAN needs a letter stating that Penn Township is not predicting any additional flow due to the new development.

- Regarding Thompson Run (TR-06--T-09), ALCOSAN needs to talk with the four communities to discuss what is going to be done. Tim indicated that ALCOSAN needs peak flows and volume (based on a 2-year storm for sanitary and based on 4 to 6 overflows/year for combined systems).

Tim then specifically discussed the Monroeville Turtle Creek points of connection (POCs) with respect to information submitted and projects planned or required. Regarding T-10, 3 Rivers Wet Weather, Inc. (3RWW) helped facilitate this project and they did the analysis. ALCOSAN needs to confirm that both communities are on board with 3RWW's analysis. Tim stressed that municipal councils need to be kept informed of all plans.

Tim's discussion led to the complex sewersheds within the TC Basin. Tim stated that ALCOSAN will identify critical POCs, not all 400, and will send out a request letter to the municipalities. The letter should be sent out in a few weeks. The letter will request that a single draft Feasibility Study per POC be prepared. For the ones that are multi-municipal, ALCOSAN recommends that one municipality/authority takes the lead for the document or that the municipalities prepare the report together. The draft Feasibility Study will not be binding but ALCOSAN is hoping that it will be represent a close indication of what the municipalities propose to do. Each complex sewershed was then discussed, as follows:

- Regarding Complex Sewershed T-04, 3RWW initiated this study. It included mostly Glenn Engineering communities, and Churchill Borough is a minor contributor.

- T-04-02 involves Penn Hills only right now. 3RWW planned this project which includes potentially re-routing flow from Wilkins Township into this sewershed. Tom O'Grady of Penn Hills Water Pollution Control said that the Mayor and Council need to approve this plan. The ALCOSAN letter will be sent to council presidents. Tim stated that if Wilkins Township gets pulled into the scenario, ALCOSAN needs to know. Jerry Brown of 3RWW indicated that they met with the managers. Tom said that the Penn Hills council knows about it. Amber Yon of Senate Engineering said that the Wilkins Township Manager communicates with her commissioners. ALCOSAN needs to be informed when all involved parties are on board with the planned project.

- Regarding the Thompson Run Interceptor, the key POC is T-09. Tim asked what the communities' plans are. ALCOSAN's base assumption at this time is a large pipe. The member municipalities will be responsible for conveying excess flow from TR-06 to T-09.

- Regarding T-10, 3RWW is involved and the proposed project is a parallel relief sewer. The two communities, Turtle Creek and Monroeville, seem to have worked it out. Tim asked which of the two communities is going to lead this this effort.

- T-18 includes Wilmerding (primarily) and North Versailles. Wilmerding is further evaluating their system. ALCOSAN still needs to have more discussion and information regarding this sewershed.

- Regarding T-25, future developable areas in North Versailles are being validated by the engineer. ALCOSAN needs to know what this future development will be. The other municipalities appear to be built out.

- Regarding T-26A-10, ALCOSAN does not have enough information to identify what future development would be in this sewershed. Penn Township does not currently contribute flow to this shed. ALCOSAN needs official documentation from Penn Township that they will not connect to T-26A-10 at any time in the future. Western Westmoreland and North Huntingdon need to provide peak flow rates to ALCOSAN. Andy Blenko stated that this watershed has topography that would impact development.

- Regarding T-29A-10, the Monroeville Municipal Authority has initiated additional flow monitoring and analysis in this sewershed. Future conditions predict high peak flow rates and volumes. ALCOSAN will wait for updates from Monroeville based on their additional evaluation.

5) Program Updates

Karen Brean of Brean Associates discussed the most recent municipal and public outreach items. She mentioned that the Customer Municipality Advisory Committee (CMAC) had met in August, 2011. There was an extensive presentation on the current status of the planning effort. Karen added that the Regional Stakeholder Group (RSG) also met in August and heard a similar program as the CMAC.

Karen mentioned that the annual Town Hall Meetings will be held in the October and November. She handed out a schedule of all of the scheduled Town Hall Meetings. The local meetings for the Turtle Creek Basin are scheduled for November 2 at the Turtle Creek Borough Building and

November 14 at Gateway Hall. Karen asked if anyone knows of a group that would be interested in hearing a presentation to let her know.

6) Regionalization Study

Tim Prevost discussed the ALCOSAN Regionalization Study. A Regionalization Review Panel has been formed and wants to meet more frequently. Bob Zischkau asked who the panel members are. Tim was not sure who all of the members were. Karen Brean said that the panel is assigned by the Allegheny Conference and includes some municipal members and some members with environmental, legal, industry, etc. backgrounds. Bob was just curious to know who they all were. [Update: A list of Regionalization Review Panel members was provided to Bob Zischkau on October 12.]

Tim reviewed some of the advantages and disadvantages of the different regionalization options.

7) Next Steps

Mike Harvey summarized the next steps associated with the TC Basin. He mentioned that the basin planners will continue to evaluate the system-wide alternatives, and the Basin Facilities Plan for the selected alternative is due to be submitted to ALCOSAN in January 2012. The municipalities will have the opportunity to review and provide comment on the Draft Wet Weather Plan when it is completed in July 2012. The Final Wet Weather Plan is due to the regulatory agencies in January 2013.

The most recent TC Basin Quarterly Report was ready and there were copies available at the meeting. They will also be distributed as normal. Mike asked if the group thought there is a need for future Basin Planning Committee meetings. He indicated that the basin planning process is nearing the end, and the schedule has been extended until the end of this year. John Capor asked what would be discussed if the meetings are to continue. Bob Zischkau said that there should be a specific reason if more meetings are held.

8) Questions/Discussion

The meeting ended with various questions. It was asked what role the Regionalization Review Panel will have on the wet weather planning process. The answer was that they probably will not have anything to do with the process.

It was asked, can all 83 municipalities implement individual long-term plans? The answer was, probably not.

Does ALCOSAN plan to take over everything? Tim answered, no.

It was mentioned that municipal representation at the RSG meetings has dropped off dramatically.

It was asked if PaDEP does not accept green technology, what is Plan B? Tim Prevost noted that although green technologies might help the municipalities reduce flows, it will not address the magnitude of ALCOSAN's CSOs.

Bob Zischkau considers the Regionalization Study as a very key study. If the wrong people are on the Review Panel, it may not be productive or worthwhile. Karen Brean said that it is being chaired by Dr. Cohen of CMU.

John Shannon of Baker Engineering asked if there is any progress with the affordability study. The agencies reviewed the study and are preparing their response. $2 billion is the affordability for this region. As a result, the project will probably have to be completed as a phased approach. John asked how the affordable portion is split between the municipalities and ALCOSAN. Tim answered that costs were input into the study but they are still waiting for some information from some communities/POCs. The municipal costs are being taken into consideration. The split of costs between ALCOSAN and the municipalities should be known in July 2012.

The meeting was adjourned.

Attachments

Sign-In Sheet
Agenda
Presentation Slides and Handouts

ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Turtle Creek
Meeting Purpose/Number: Basin Planning Committee Meeting Number 12
Date / Time: May 14, 2012, 1:30 PM
Location: Gateway Hall, Monroeville VFD No. 4

Municipal Attendees:

Municipality/Authority	Municipal Representative	Engineer or Other Person Representing the Municipality
Braddock Hills Borough		Gordon Taylor, Senate Engineering
Chalfant Borough		Robert Zischkau, Glenn Engineering
Churchill Borough		Mike Skinner, Gateway Engineers
East McKeesport Borough		Robert Zischkau, Glenn Engineering
East Pittsburgh Borough		Robert Zischkau, Glenn Engineering
Forest Hills Borough		Robert Zischkau, Glenn Engineering
Municipality of Monroeville		Rob Arnold, Chester Engineers
Monroeville Municipal Authority	Joe Storey John Capor James Hunter	Rob Arnold, Chester Engineers
North Braddock Borough		Robert Zischkau, Glenn Engineering
North Huntingdon Township	Andy Blenko	
North Huntingdon Township Municipal Authority	Katherine Petrosky	
North Versailles Township	Jack Gaffney	Robert Zischkau, Glenn Engineering
Penn Hills, Municipality of		Mike Skinner, Gateway Engineers
Penn Hills Water Pollution Control Dept.	Tom O'Grady	
Penn Township/Penn Township Sewage Authority	Stan Caroline	Vince Seyko, EADS Group
Trafford Borough		Robert Zischkau, Glenn Engineering
Turtle Creek Borough		Robert Zischkau, Glenn Engineering
Wall Borough		Robert Zischkau, Glenn Engineering
Western Westmoreland Municipal Authority		Tarun Sonkhya, Wade Trim
Wilkins Township	Ed Bruener	
Wilkinsburg Borough		Robert Zischkau, Glenn Engineering
Wilmerding Borough		Robert Zischkau, Glenn Engineering

Other Attendees:

Tim Prevost, ALCOSAN
Ed Kluitenberg, CDM Smith, ALCOSAN Program Manager
Dave Minard, AECOM
Paul Eiswerth, PADEP
Lauren Sprankle, Collective Efforts
Jerry Brown, 3 Rivers Wet Weather, Inc.
Karen Brean, Brean Associates
Mike Harvey, HDR, Inc.
Tom Kochaba, HDR, Inc.
John Shannon, Michael Baker Jr., Inc., Representing 3RWW

1) Welcome and Introductions

Mike Harvey of HDR, Inc. welcomed the attendees to Basin Planning Committee (BPC) meeting #12. He reviewed the agenda for this BPC meeting. He indicated that some of the maps provided in the handouts and presented on the projector may be difficult to read, so if anyone would like larger versions of the maps they could contact him and request them.

2) Review of BPC Meeting No. 11

Mike Harvey provided a review of BPC Meeting No. 11, held on October 2, 2011. In that meeting, a status of the Basin Facilities Plan was presented. Also discussed were the municipal planning status and information needs for basin planning. An update of the Regionalization Study, as well as updates on basin and regional community meetings, was also provided.

3) Basin Facilities Plan

Mike Harvey and Tom Kochaba of HDR, Inc. discussed the Basin Facilities Plan. Mike explained that the Basin Facilities Plan includes the updated basin alternative, an integration of municipal alternatives, and additional municipal information and updates that were received.

Tom indicated that the Draft Basin Facilities Plan was submitted in November. Since then, the analysis has progressed to regional alternative 3f Modified, with the basin wide plan still proceeding with a "convey all flows" scenario for municipal contributions. At this point, no source reduction has been identified by municipalities. The results of the analysis led to the following levels of control: 4-6 overflows/year for CSOs and 2-year control, including both summer and winter storms, for SSOs.

Tom presented a map (entitled "Figure 7-1: Turtle Creek Basin Systemwide Alternative 3f Modified, Basin Alternative BA-16A mod, November 2011"), which showed the basin plan for control. This map depicted areas of consolidated flows as well as four locations at which storage tanks are proposed. The four storage tanks are proposed to be located in the Trafford/Monroeville boundary area, in Pitcairn, at the Thompson/Turtle Creek interceptor junction, and on the RIDC property in East Pittsburgh. Tom then displayed a slide which graphically showed the layout of the proposed consolidation lines and storage tanks relative to known points of connection. This figure (entitled "Basin Alternative TT_BA16A Mod. Model Schematic – Turtle Creek Planning Basin") also indicated the required storage for each tank: Trafford/Monroeville (15.3 MG), Pitcairn (1.1 MG), Thompson/Turtle Creek interceptor (16 MG), and RIDC site (4.6 MG). All tanks are configured to be gravity flow in/pump out. These locations are all as had previously been discussed, but with some added refinement since the last presentation.

With regard to the integration of municipal alternatives, Tom indicated that ALCOSAN and the Basin Planner have continued meeting with communities in the Turtle Creek basin to discuss the planned municipal alternatives, which include re-delineating T-18 and T-22 and establishing T-16-02. Tom also reminded that the draft Feasibility Studies for complex sewersheds are due to ALCOSAN on July 31, 2012.

Finally, Tom reiterated the need for further coordination relative to the receipt of additional municipal information as it affects the Thompson Run Interceptor. For instance, although the base assumption is that flows are conveyed to Site 5, there exists an additional alternative with local storage upstream and conveyance to Site 5 downstream. This alternative will require inter-municipal coordination. Additionally, 3 Rivers Wet Weather, Inc. (3RWW) continues to evaluate potential projects for both T-04 and T-10.

4) Draft Wet Weather Plan

Ed Kluitenberg of CDM Smith provided an overview of the development schedule for the Wet Weather Plan for the years 2011 through 2013, identifying the responsibilities of both ALCOSAN and the Turtle Creek municipalities. He indicated that the regional integration, water quality assessment, and financial analysis have been completed to date. Since the onset of the project, the control strategy has evolved, was submitted, and will be completed by the end of June 2012. Other pending deadlines include submitting the Draft Wet Weather Plan for review and comment by the municipalities and the public in July 2012. After the municipal and public comment period, the Wet Weather Plan will be finalized and submitted to the regulatory agencies in January 2013.

Ed discussed how the development of the Wet Weather Plan began with an analysis of technologies and potential sites and routes. This review lead to the development of a number of site alternatives; which, when coupled with municipal planning information including source reductions, conveyance, storage, and treatment solutions, resulted in the creation of various basin alternatives. The basin based approach assumed no new conveyance would be installed and, as such, many new facilities were required. The basin alternatives were combined with regional alternatives, which considered new conveyance and fewer remote facilities. Through a series of iterative refinements, a hybrid of the two approaches resulted in the development of system-wide alternatives, which will ultimately compose the Wet Weather Plan. These iterations resulted in the development of 26 system-wide CSO and SSO control alternatives. Factors considered in the alternatives evaluation included: expanding the capacity of the ALCOSAN treatment plant; additional treatment plants; tunnel extents; the configuration, size, and cost efficiencies of facilities; the annual overflow volume; the percent of wastewater captured for treatment; the frequency of overflows; the water quality benefits; and the knee-of-the-curve cost performance.

Ed went on to describe the development of a preliminary control strategy for the region, which resulted in the following benefits: elimination of SSOs for the 2-year level of control, 95% capture of CSOs, reduction of annual overflow volume by 8 billion gallons, enhancing the control in sensitive areas, and meeting water quality requirements. This preliminary control strategy included municipal CSO and SSO controls and was estimated to cost $3.6 billion ($3.6B). Ed then presented a slide entitled “Preliminary Control Strategy, Benefits by Basin,” which depicted a breakdown of CSO and SSO volumes for both ALCOSAN and the municipalities for the present day, future baseline conditions, and the conditions with the implementation of Alternative 3f Modified. To varying degrees, all basins showed a reduction in CSO and SSO volumes for both

existing and future conditions to Alternative 3f Modified, with Main Rivers, Upper Allegheny, Upper Monongahela, and Chartiers Creek Basins showing the most significant results.

This led to a discussion of the cost and affordability of the preliminary control strategy. The graphic "Preliminary System-Wide Cost Performance Curves" identified the costs in billion dollars for various levels of control for the preliminary control strategy, all of which exceeded the affordability threshold of $2B established by ALCOSAN for the region. Ed stated that ALCOSAN calculated the $2B threshold through utilization of the EPA's guidance for affordability (the residential indictor), which considers annual wastewater costs exceeding 2% of the median household income for the region as "high burden" impacts.

In reviewing the projected $3.6B plan, the financial analysis considered three factors: affordability (analyzed in terms of the residential indicator), financial capability (analyzed in terms of annual debt service), and construction capacities (analyzed in terms of annual capital expenditures). A graph "Financial Projection, $3.6 Billion Plan through 2026" depicted these three factors and showed the total annual debt service to be $416 million ($416M), the inflated annual capital cost to be $677M, and the residential indicator as 2.7%. Ed then presented a similar slide that depicted the same analysis criteria, while keeping to ALCOSAN's $2B limit, which includes approximately $500M in municipal costs. This graph, "Financial Projection $2.0 Billion Plan through 2026," described the total annual debt service cost as $326M, the inflated annual capital cost as $397M, and the residential indicator as 2.1%.

Moving forward with analysis of the $2B Plan option, Ed indicated that although approximately 90% of the annual load comes from CSOs, the remaining 10% is attributed to SSOs, thus attainment is still greatly impacted by SSOs. Depending on which program elements and objectives are the focus, including SSO versus CSO control; water quality benefits to sensitive areas, tributaries, and the main rivers; and the capacity of economic/population growth, a variety of solutions could be developed. By making SSO control the priority, the system plan depicted on the slide "Affordable Alternative Focused on SSO Control Priority" was developed. This plan includes expanding treatment plant capacity to 480 MGD for primary treatment and 295 MGD for secondary treatment, relocating or controlling sensitive area outfalls, postponing the regional conveyance tunnel, the addition of two retention treatment basins on the Monongahela River and one retention treatment basin on Chartiers Creek, establishing a 2-year SSO level of control for the entire service area, and capturing 70-75% of CSOs.

Similarly, a plan focusing on water quality was developed and is depicted on the slide "Affordable Alternative Focused on Water Quality Priority." This plan includes expanding treatment plant capacity to 600 MGD for primary treatment and 295 MGD for secondary treatment, implementation of all municipal improvements, establishing sensitive area controls, construction of a regional tunnel on the Ohio and Allegheny Rivers, installation of a portion of the Monongahela Regional Tunnel, the addition of one retention treatment basins on the Monongahela River, establishing a 2-year SSO level of control for the Allegheny River, and capturing 85-90% of CSOs.

The two differing analyses were combined and fine-tuned to create a composite solution. Ed presented this on the slide "Affordable Alternative Focused on Balanced Priorities." This hybrid solution includes expanding treatment plant capacity to 480 MGD for primary treatment and 295 MGD for secondary treatment, implementation of all municipal improvements, sensitive area

controls, construction of the Ohio River and portions of the Monongahela and Allegheny Regional Tunnels, the addition of one retention treatment basin on Chartiers Creek, establishing a 2-year SSO level of control for Chartiers Creek, and capturing 75-80% of CSOs. A side-by-side comparison of the SSO Control Priority, Water Quality Priority, and Balanced Priorities Analyses for the various $2B plans is presented in the table "Comparison of Affordable ($2B) 2026 Alternatives."

As Ed's final discussion item, he described the municipal planning information that will be incorporated into the Draft Wet Weather Plan. In Section 7, a discussion of population growth will be included. In Section 9, the assumed municipal improvements and their associated costs will be presented. Sections 10 and 11 will discuss costs, both system-wide and by municipality. Lastly, the Appendix will include a description of the average annual flow contribution by point of connection (POC).

5) Update on Program Outreach

Karen Brean of Brean Associates discussed the most recent municipal and public outreach items. She mentioned that the Customer Municipality Advisory Committee (CMAC) met on March 30, 2012 and included a similar presentation as that being given at this BPC meeting. Their next meeting is scheduled for May 23, 2012. Karen added that the Regional Stakeholder Group (RSG) met on March 28, 2012 and will meet next week as well.

Karen identified the public outreach milestones for 2012 for the Turtle Creek Basin, which include: the release of the Draft Wet Weather Plan on July 31, the public comment period extending from July 31 through October 19, grassroots outreach continuing from present day through September, public meetings and hearings in August and September, and ALCOSAN's annual open house on September 15.

Karen encouraged people to visit ALCOSAN's website at www.alcosan.org and to advise her if they would like a presentation on the Draft Wet Weather Plan at their community group meeting, council meeting, etc.

6) Regionalization Study

Karen Brean provided an update on the Regionalization Study. The purpose of the Regionalization Study is to explore options, determine the pros and cons, and identify obstacles for regionalization of wastewater and stormwater collection, conveyance and treatment systems. The study will be implemented by a panel of 37, including Dr. Jared Cohen of Carnegie Mellon University. Six categories of criteria were identified for evaluation by the panel. These categories include the following concerns: financial, regulatory/legal, environmental, organizational, stakeholder acceptance, and operations and maintenance. The evaluation criteria have been tested and the panel will review the plan and act as a neutral body to analyze it during the summer and fall of 2012 based on these criteria. The results of their study will be available at the end of 2012.

7) Next Steps

Tim Prevost indicated that the municipalities will begin the review and comment period on the Draft Wet Weather Plan in July 2012. The Final Wet Weather Plan is due to be submitted to the Regulatory Agencies in January 2013.

Questions and Discussion

The meeting ended with various questions and follow-up discussion.

Stan Caroline of Penn Township Sewage Authority asked if the goal of the Wet Weather Plan was for a 90-95% capture of the 2-year storm and that the plan was projected to cost $3.6B. Tim Prevost clarified that the Wet Weather Plan represented a 95% capture for CSOs and 100% capture for SSOs during the 2-year storm using the 2003 Typical Year for analysis. Stan then questioned whether or not overflows would occur for storm events beyond the 2-year storm. Tim stated that this was unknown, but the solution was designed to meet the 2-year storm. Stan further questioned just what difference would be observed in the receiving waters after the program was complete and all of the money had been spent. Tim stated that ALCOSAN was doing what they could to not preclude non-attainment of water quality standards and to eliminate illegal discharges. Tim further indicated that through implementation of the plan, ALCOSAN and the municipalities will not contribute to water quality standards being exceeded. But, since the region does not have the $3.6B to spend, some decisions had to be made as to the best use for the $2B. The best scenario will be to address all CSOs and the Chartiers Creek SSOs. Once this solution has been implemented, ALCOSAN can come back to the table and work on a second phase of resolution.

Andy Blenko of North Huntingdon Township stated that the presentation slides make a distinction between ALCOSAN and municipal CSOs and asked for some clarification to this point. Tim indicated that the Wet Weather Plan Appendix A identified the CSOs for which ALCOSAN is responsible. All other CSOs not contained in this Appendix are the responsibility of the municipalities. Andy then asked if the source of the flows used in the study was from metering. Tim confirmed this and said the flows were also derived through modeling and from input provided after the municipal engineers' review. Tim went on to urge municipalities to review the Plan and provide comments as soon as they are able since all comments must be taken into consideration in the Final Wet Weather Plan with only a time span of approximately three months. Andy asked for clarification that it was up to the municipalities to either install pipes large enough to convey their flows to the interceptor line or to reduce flows such that the existing pipe capacities would not be exceeded. Tim stated that this was the sort of planning dialog between municipalities and ALCOSAN that had been occurring for the past two years. He went on to state that about 10% (48 out of 400) of the points of connection (POCs) are large ones. The remaining 90% of the POCs are smaller and not considered having an adverse impact on the Wet Weather Plan if information drastically changes from submittal of the wet weather plan to submittal of the municipal Feasibility Studies. Andy then asked whether or not the regulators would be satisfied as long as ALCOSAN spends the $2B toward resolving the issue. Tim stated that his intent was to convey the message that the $2B solution is what is affordable for this area. He further indicated that this residential indicator is a median and will not be felt equally by all municipalities. For instance, the sewage bill in Rankin may represent 6-7% of the residents' annual income; whereas in Fox Chapel, the sewage bill may only be ½-1% of the residents' annual income. Tim then asked Paul Eiswerth of the Pennsylvania Department of Environmental Protection (PADEP) if he would care to comment on whether or not PADEP would be satisfied with the expenditure of the $2B. Paul stated that PADEP's focus at this point is not on how much the Wet Weather Plan will cost. PADEP is concerned with eliminating SSOs and reducing CSOs consistent with the national CSO policy. The PADEP may determine that the $2B plan is reasonable and sustainable, but will review both plans ($2B and $3.6B) and make a determination at that point as to what is reasonable

to implement. Tim then indicated 20 years from now, after the $2B has been implemented, ALCOSAN will come back and work on Phase 2 of the solution.

Jerry Brown of 3RWW noted that based on the presentation, the Turtle Creek Basin and other outlying communities do not seem to get much benefit from the Wet Weather Plan. Tim stated that these communities will see benefits in the form of the hydraulic grade line in the ALCOSAN interceptor not rising, the sewers not discharging as much, and through the additional capacity of the conveyance pipes and the plant.

John Shannon of Michael Baker Jr., Inc. for the 3RWW Team asked if the Draft Wet Weather Plan available in July would provide projected rates. Tim stated that he did not know, but that he can say with certainty that the rates will go up. When and by how much are the unknowns at this time. Tim also stated that Black and Veach are in the process of completing a rate study.

Tim thanked all for their attendance at these 12 BPC meetings. He stated that he anticipated this would likely be the last BPC, to be followed up by the public meetings.

The meeting was adjourned.

Attachments

Sign-In Sheet
Agenda
Presentation Slides

Upper Allegheny Basin

ALCOSAN Basin Facilities Planning
Basin Planning Committee Meeting #1 Minutes

Basin: UA
Period: June 25, 2008

To:	Tim Prevost, Mike Lichte, Darby Neidig	**Date:**	July 15, 2008
CC:	All Attendees; Distribution List		
Copy:	File 9089003 (WBS 9.1.1)		
From:	Malcolm Pirnie, Inc.; KBC		
Re:	**UA Basin Planning Committee Meeting #1 Minutes**		
	Location/Time: Ross Township Municipal Building @ 9:30 AM June 25, 2008		

Attendance: Also See Attached Sign-in List

John Amend (MPI)	Tim Prevost (ALCOSAN)	Larry Seiler (Verona)	Don Waldorf (PWSA)
Tom Hartwig (MPI)	Mike Lichte (ALCOSAN)	William Youngblood (McCandless Township Sanitary Authority)	John Maslanik (PWSA)
Ruthann L. Omer (Gateway)	Darby Neidig (M&E)	Don Newman (Buchart Horn & MTSA & Etna)	Bill Gordon (Fox Chapel)
Skip Hudzema (Gateway)	Bill McKeever (Senate & Blawnox)	Bob Zischkau, Jr. (Glenn Eng. & Wilkinsburg, Sharpsburg, & Aspinwall)	Art Gazdik (Ross Township)
Elizabeth Wiegand (KBC)	Mary Ellen Ramage (Etna)	Ron Borczyk (Sharpsburg)	Mike Stupy (MTSA)
Rick Minsterman (Gateway/Penn Hills)	Dave Nichols (Indiana Township & Nichols and Slagle)	Andrew Maul (PWSA)	Dennis Blakley (MTSA)
Terry Van Horne (Penn Hills)	Chuck Steinert (O'Hara)	Dan Anderson (Indiana Township) did not sign in	

1. Introductions
   a. John Amend greeted the meeting participants and introduced the following people:
      (1.) Tim Prevost and Mike Lichte from ALCOSAN
      (2.) Darby Neidig from Metcalf & Eddy
      (3.) Ruthann Omer from Gateway Engineers and Tom Hartwig from Malcolm Pirnie. John made a point that Ruthann and Tom were selected specifically to work closely with the municipalities because of their life-long commitment to the area and their familiarity with local people and community concerns
   b. Tim Prevost greeted the meeting participants and made the following announcements:
      (1.) It is important that our planning work be a collaborative effort. This will help ensure the best solution(s) for everyone.

(2.) Moving forward, Mike Lichte will be the ALCOSAN Project Manager and point of contact for the UA basin

(3.) Due to the delineations, certain municipalities contribute flows to more than one basin and are therefore considered members of each of those basins. It was suggested that those municipalities might want to review the extent of their sewers in, and relative contribution of flow to, each basin and judge how best utilize their time for optimum BPC involvement

2. General Overview of Scope and Schedule
   a. John Amend discussed the purpose of this meeting and future BPC meetings:
      (1.) To introduce the municipalities to the basin planning approach and the project team
      (2.) To work collaboratively to assess the municipalities' future wet weather flow contributions to the ALCOSAN system and potentially the amount of flow that could be reduced or handled within the municipalities' systems
      (3.) To work together to determine the best locations (sites) for any wet weather flow handling facilities that may need to be located in the basin
      (4.) To determine the best and most cost effective method of meshing the municipalities' orders with the ALCOSAN Consent Decree
   b. The overall Wet Weather Planning process was discussed:
      (1.) ALCOSAN divided the region into seven sewer sheds or basins and selected a consultant for each basin.
      (2.) The Basin consultant will work with the basin communities to determine the design flows to be handled within the basin and a wet weather facilities plan for the Basin.
      (3.) Each of the seven basin plans will then be submitted to ALCOSAN and the Program Manager (CDM).
      (4.) Working with ALCOSAN, CDM will knit the seven separate basin plans together to form a regional Wet Weather Plan which will be submitted to DEP.
   c. The Upper Allegheny project team was introduced:
      (1.) Pirnie is the prime consultant.
      (2.) Gateway Engineers is the principle subconsultant on the project from the perspective of data collection, GIS and interface with the communities to obtain and check data.
      (3.) Collective Efforts and Brean Associates will assist with municipal and public outreach.
      (4.) Sci-Tek will help with the field data collection and geotechnical work
      (5.) K Bealer Consulting, LLC will assist with the subconsultant coordination, financial analysis and with meeting coordination and minutes
   d. A general description of the basin planning scope and activities was provided:
      (1.) Overall to identify the wet weather flows that need to be handled in the basin out to the design year of 2046 and to evaluate alternatives to cost effectively handle this flow.

(2.) This will involve extending the original model that was developed by CDM under the prior Wet Weather study, performing a data gap analysis, collecting any missing data and then calibrating the model

(3.) Using the calibrated model to help identify alternatives.

(4.) Once the alternatives have been identified, the BP will work with the municipalities to establish the most appropriate sites for any necessary facilities assess the feasibility of implementing the alternatives and evaluate the cost for implementing the alternatives. The recommended alternative(s) will be selected from this evaluation.

e. The general schedule and timeframe was discussed:

(1.) During 2008, most of the work conducted will involve the data gap analysis, collection of missing data, and model set up.

(2.) During 2009, most of the effort will be focused on modeling, identification of potential alternatives and site screening.

(3.) A feasibility report will be developed in early 2010 and 2011 and will be the final refinement of the basin plan.

(4.) The overall importance of coordinating the work being done to comply with municipal order schedules and the ALCOSAN basin plan was stressed

3. Basin Planning Committee

a. Tom Hartwig introduced himself and discussed the following:

(1.) The concept for the BPC meeting is to create a collaborative atmosphere to facilitate ALCOSAN, the BP's and municipalities working together to solve wet weather issues.

(2.) Ultimately, the solutions developed will benefit both the municipalities and ALCOSAN and impact wet weather issues.

(3.) The committee meetings will take place four or five times a year to exchange information and ideas, review and verify the data, determine how to capture the missing data and work together on system characterizations and alternatives.

(4.) The committee meeting core group is comprised of representatives from ALCOSAN, the Basin Coordinator from Metcalf & Eddy, BP project team, Program Manager from CDM and the municipality Managers and Engineers.

(5.) In the future, interested stakeholders will be included in the meetings.

(6.) Metcalf & Eddy will coordinate the BP's with ALCOSAN and CDM and ensure consistency.

(7.) A contact list will be distributed at the conclusion of the meeting.

(8.) Ruthann Omer and Tom Hartwig will be the primary points of contact between the Pirnie team and the municipalities to coordinate the BPC meetings and for data collection. The Municipalities can always feel free to contact ALCOSAN as well.

4. Status of On-Going Work/Consent Decree Check In

a. Ruthann Omer discussed the feasibility study:

(1.) Most of the municipalities have a Z agreement with ALCOSAN.

(2.) Municipalities are required to do flow monitoring and a feasibility study.

(3.) A sheet from the Mt. Oliver Consent Order which specifically addresses the feasibility study requirement for a Sanitary Sewer System was passed out. The purpose of the feasibility study is to determine what other improvements a municipality may need to make within their system.

(4.) The municipalities' feasibility studies will be due on March 31, 2013, six months after ALCOSAN's report is due.

b. Ruthann Omer discussed other municipality responsibilities:

(1.) The municipalities must also prepare an extensive O & M plan. It has been suggested that 3RWW create a template for the municipalities to utilize. Copies of the new dates for the O & M plans have been distributed to the municipalities.

(2.) According to the Consent Decree, all SSO's must be eliminated and CSO's reduction is negotiable; however, the goal will be approximately four to six overflows per year. Tim Prevost noted that water quality impacts will also be a determining factor in some cases.

c. Ruthann Omer discussed flow monitoring:

(1.) There is a flow monitoring working group that meets monthly and the meetings are open. Attendance is welcomed and encouraged

(2.) Short term meters will be placed June 30, 2008 and the long term meters will be in place until February of 2009.

(3.) To comply with the Consent Decree, 3RWW will be conducting the QA/QC on the flow monitoring data.

d. Ruthann Omer discussed mapping:

(1.) Individual meetings may be set up with the municipalities to review their mapping data in order to obtain the most accurate information to populate the model.

(2.) Regarding the mapping and physical surveys, Tim Prevost stated ALCOSAN has requested the municipalities allow the BP's access to their records and drawings to facilitate the data gap analysis and data collection.

(3.) The data gap analysis is being generated from the 3RWW information.

(4.) Every community will receive a map showing critical sewers, CSO's and SSO's as well as a data gap analysis report to determine the corrections that need to be made. There will also be an overall Basin map.

e. Concerns raised by the municipalities regarding the mapping included:

(1.) MTSA and Ross Township mentioned that 3RWW used a SNAP program on their maps and this created an issue with the delineations.

(2.) Ross Township suggested that the 3RWW maps may not be as accurate as the maps the communities are submitting to ALCOSAN. It was suggested that before

the BP's present the data gap analysis to the municipalities, they get the current mapping from ALCOSAN. Tim Prevost explained that in February, ALCOSAN sent to the municipalities a Critical Proportions and Regional Collection's System request. Matt Graham has been incorporating the information gathered from that request and updating the 3RWW maps.

(3.) Ross Township requested ALCOSAN provide easy access to the information for identifying manholes. Tim Prevost stated that ALCOSAN is attempting to provide the municipalities with the specific locations of the manholes utilizing graphics on the inspection forms.

(4.) When the municipalities have received maps from 3RWW, the identifiers 3RWW used are not consistent with the municipality's identifiers.

5. Information Exchange/Current and Upcoming Activities

a. Performing the data gap analysis and data collection plan was discussed:

(1.) In the next few months, the project team will be looking at the modeling and data gaps to establish the missing information. The primary data that the basin planner will be concerned with at this time will be the data needed to populate the hydraulic model and will include attributes such as invert elevations, rims, and sewer type and diameters.

(2.) Maps and data will be presented at the next meeting.

Next meeting is TBD for sometime in September 2008 in Shaler.

ALCOSAN Basin Facilities Planning
Basin Planning Committee Meeting #2 Minutes

Basin: UA
Period: November 6, 2008

To:	Mike Lichte, Darby Neidig	**Date:**	November 6, 2008
CC:	All Attendees; Distribution List		
Copy:	File 9089003 (WBS 9.1.1)		
From:	Malcolm Pirnie, Inc.; KBC		
Re:	**UA Basin Planning Committee Meeting #2 Minutes**		
	Location/Time: Shaler Municipal Building @ 9:30 AM November 6, 2008		

Attendance: Also See Attached Sign-in List

John Amend (MPI)	Mike Lichte (ALCOSAN)	Gary Koehler (Fox Chapel Borough)	Don Waldorf (PWSA)
Tom Hartwig (MPI)	Darby Neidig (AECOM)	Tim Rogers (Shaler)	Dan Anderson (Indiana Township)
John Ross (MPI)	Jim Protin (AECOM)	Kevin Creagh (Shaler)	Rick Minsterman (Gateway/Penn Hills)
Coreen Casadei (CE)	Karen Brean	Chuck Steinert (O'Hara)	Dan Slagle (Indiana)
Elizabeth Wiegand (KBC)	Bill McKeever (Senate & Blawnox & Verona)	Ron Borczyk (Sharpsburg)	
	Sherry Kordas (Blawnox)	Mary Ellen Ramage (Etna)	Bob Zischkau, Jr. (Glenn Eng. & Wilkinsburg, Sharpsburg, & Aspinwall)

1. **Introduction**
   a. Mike Lichte of ALCOSAN introduced himself and made the following comments:
      (1.) He is in charge of three Basins including the Upper Allegheny/Pine Creek, Saw Mill Run and Main Rivers Basins
      (2.) The purpose of the Basin Planning Committee (BPC) meetings is to convey the progress of the planning efforts, seek information and work collaboratively to find optimum wet weather solutions for the communities in the basin.
      (3.) The development of a Long Term Control Plan is truly a give and take situation that will require substantial cooperation.
      (4.) The first BPC meeting was at the end of June and the intention is to hold these meetings on a quarterly basis.
   b. Mike Lichte went over the meeting agenda

(1.) Karen Brean and Coreen Casadei will discuss the Customer Municipal Advisory Committee (CMAC) and the Regional Stakeholder Committee (RSC). Both committees are required by the ALCOSAN Consent Decree. The Basin Planner (BP) is seeking volunteers from the group for participation in the RSC.
(2.) John Ross will discuss the flow monitoring and modeling efforts as well as the information exchange and Existing Conditions Report.
(3.) Tom Hartwig will discuss the Regional Wet Weather Overflow Control Plan and Municipal Feasibility Study and schedule.

2. Customer Municipal Advisory Committee (CMAC)

a. Karen Brean and Coreen Casadei made the following comments about the CMAC:
(1.) The purpose of the CMAC is to engage the public.
(2.) Committee members were chosen by the County Executive and ALCOSAN.
(3.) The members have been chosen and are being contacted; however, the list has not been released to the basin planners and municipal officials.
(4.) The committee is comprised of fourteen members including one representative from each Basin and seven at large representatives.
(5.) The CMAC is required to meet before the end of 2008.

3. Regional Stakeholder Committee (RSC)

a. Karen Brean and Coreen Casadei made the following comments regarding the RSC:
(1.) The committee should be comprised of individuals who are thinking on the regional level. ALCOSAN is looking for the RSC to have a broad base of volunteers who can speak for the needs of the other communities in the basin as well as their own community's needs.
(2.) A list of participants is being generated.
(3.) The BP is looking for volunteers and/or suggestions from the group regarding people or organizations who should be included in the RSC. Contact Coreen Casadei to volunteer.
(4.) The first meeting of the RSC will not occur until 2009. The RSC will meet quarterly.
(5.) Tim Rogers from Shaler asked if he should wait to provide a suggestion until the participants in the CMAC are released. Mike Lichte said to go ahead and forward the name and ALCOSAN would cross reference it with the CMAC list.
(6.) Kevin Creagh from Shaler suggested including the Pine Creek Watershed Coalition.
(7.) Karen Breen indicated that a follow-up email will be sent to the UA BPC members to ask for volunteers and for everyone to please think about

volunteering themselves or to consider and suggest other people who would be good candidates.

4. Flow Monitoring

a. John Ross made the following comments regarding the flow monitoring:

(1.) Three Rivers Wet Weather (3RWW) flow monitoring with the short and mid-term meters has been completed and the meters have been removed.

(2.) The long term meters are expected to be removed in February 2009 assuming the data meets QA/QC requirements.

(3.) The municipalities can access the flow monitoring data via the 3RWW site.

(4.) The Flow Monitoring Workgroup is currently discussing the next steps to determine the most effective use of the data for both ALCOSAN and the municipalities.

(5.) John Ross suggested it may be beneficial for the municipalities to contact the Flow Monitoring Workgroup for information.

5. Modeling

a. John Ross briefly described hydraulic/hydrologic modeling and how it will be used to evaluate alternatives within the basin:

(1.) The hydraulic model will be a significant effort.

(2.) Hydraulic modeling is a computer representation of the hydraulic elements of the existing sewer system.

(3.) Hydrologic modeling includes a computer representation of the land attributes contributing to run-off.

b. John Ross made the following comments regarding the proposed Basin model extents:

(1.) Pirnie will be using SWMM software to accomplish the modeling.

(2.) For the last three months, Pirnie has been working closely with ALCOSAN to establish the model extents within the basin. The flow monitoring data was one of the criteria used to determine the model extents.

(3.) The exhibit of the model extents was presented. John indicated that the current model extent includes all of the "critical portions" of the ALCOSAN system plus upstream reaches of sewer extending into the various basin communities. ALCOSAN, CDM and AECOM will continue to review the model extents which may change as the model is developed.

(4.) The Program Manager will ultimately use each Basin's model to develop a regional model.

6. Information Exchange

a. John Ross stated the BPC meetings would continue to be a forum for the exchange of information.

b. John Ross made the following comments regarding missing and additional data required:

(1.) Pirnie has been meeting with the municipalities and the completeness of data received from the municipalities has been great and their efforts are appreciated.

(2.) As the model continues to develop, Malcolm Pirnie may need to contact the municipalities to fill in the data gaps.

(3.) Malcolm Pirnie may need to conduct site visits to collect some missing data. They have visited Penn Hills to look at the Equalization Basins and are scheduling a visit to Etna. ALCOSAN is being kept abreast of all site visits.

(4.) Pirnie anticipates field work will be required to gather data the municipalities are not required to provide but will be needed for the model. The field work will be performed by Sci-Tek. Malcolm Pirnie will coordinate with the municipalities to gain permission and schedule the field work.

c. John Ross made the following comments regarding ALCOSAN's Nine Minimum Controls (NMC):

(1.) As required by the Consent Decree, ALCOSAN provided their NMC to the municipalities for comment.

(2.) The municipalities had two to three months to comment on the NMC document. Comments were due back to ALCOSAN by October 23, 2008.

(3.) A meeting participant asked if any of the municipalities commented on the NMC. Mike Lichte answered yes; however, he did not have a list of whom.

7. Existing Conditions Report

a. John Ross made the following comments regarding the Existing Conditions Report:

(1.) Much of the information disclosed during the first meeting with the municipalities will be included in the report

(2.) The Existing Conditions Report is due in draft form to ALCOSAN in February of 2009.

(3.) ALCOSAN will provide a draft copy of the Existing Conditions Report to the municipalities for comment after they have reviewed the report. Any comments from the municipalities will be greatly appreciated as this is a team effort to create the best possible work products for the basin.

8. Regional Wet Weather Overflow Control Plans & Municipal Feasibility Study

a. Tom Hartwig made the following comments regarding the Regional Wet Weather CSO Control Plans and Municipal Feasibility Studies:

(1.) The municipalities' Control Plans and Feasibility Studies are due six months after ALCOSAN submits the Regional Wet Weather Overflow Control Plan to the EPA. However this time frame may be too long to wait for municipalities to begin developing their respective Plans.

(2.) What benefits ALCOSAN will also benefit the municipalities.

(3.) Solutions for ALCOSAN will dove tail into solutions for municipalities which suggests that an early start on the Feasablity Studies would be wise.

(4.) The BPC meetings are meant to be an interactive.

(5.) ALCOSAN will be developing a Regional Wet Weather Overflow Control Plan that will be melded with the other municipalities' plans.

(6.) Design flows will be a major factor in the Feasibility Study and in determining alternatives.

(7.) Cost will be a major issue for everyone and the municipalities should be evaluating their systems, planning for expenditures and developing their long term capital plans.

b. Each municipality was asked to characterize their system, develop a design flow and summarize wet weather overflow control efforts and the status of their feasibility study. The following comments were made:

(1.) Tim Rogers (Shaler):

a. Shaler is fully developed and a sanitary sewer only community
b. Shaler's dry weather flow is under control
c. One half of their SSOs have been eliminated; however, two SSOs will probably never be removed.
d. Shaler has been performing a lot of repair work and flow monitoring.
e. I/I has been a problem, particularly with french drains, and work is being done to correct it.
f. In-system storage is anticipated as a probable method to deal with excess wet weather flows.
g. Shaler has recently adjusted their rates.

(2.) Kevin Creagh (Shaler):

a. Shaler has five years worth of flow monitoring base line data.
b. Shaler is just beginning to tackle the design flow issue.
c. It was stated that the Flow Monitoring Implementation Team has been discussing design storms.
d. Shaler has done some of their own modeling.

e. There is a flow monitor on the Route 8 Interceptor at the boundary of Etna. This interceptor conveys 3 million gallons and has been problematic. The flow meter may need to stay in place longer to capture the needed data.

(3.) Mary Ellen Ramage (Etna):

a. Etna is a built-out CSO community.
b. There will be no new developments within the community but rather redevelopment
c. Etna is one of the lowest points in the system and experiences flooding and overflows with every rain event.

(4.) Gary Koehler (Fox Chapel Borough):

a. Fox Chapel has hired a consultant to analyze the flow data.
b. Fox Chapel has been performing I/I work and repairing the lines
c. Every house is dye tested.
d. The Borough charges $350/house to perform dye testing.

(5.) Don Waldorf (PWSA):

a. The PWSA Feasibility Study is almost complete and is expected to be released early next year.
b. Some of the recommendations made in the report include separation and retention at Washington Boulevard.
c. Because there are 25 municipalities whose flow is conveyed through the city's system, PWSA is looking to share costs with theses municipalities.

(6.) Chuck Steinert (O'Hara):

a. A new sewer line is being constructed in Saxonburg Boulevard.
b. 90% of homes failed dye testing.
c. O'Hara is working toward eliminating their I/I.
d. The Feasibility Study is still in the early stages.

(7.) Dan Slagle (Indiana Township):

a. Indiana Township is a sanitary sewer only community, located at the top of the watershed.
b. All problems identified by the dye testing have been remedied.
c. Future flows will be limited by Indiana's agreement with ALCOSAN.
d. Two additional flow meters are being installed at the Fox Chapel border.

e. The Township Engineer stated the Township's Feasibility Study will be easy to complete.
f. Dan Slagle asked if the flow monitoring is in compliance with the Consent Decree. Mike Lichte answered "Yes."
g. Dan Slagle asked if there were there sufficient rain events to use for the modeling. Dan Anderson answered "Yes."

(8.) Sherry Kordas (Blawnox):
a. Blawnox is 95 - 100% built-out.
b. Six houses failed dye testing.
c. Greater flows are not anticipated.
d. Blawnox's program is ahead of the game.

(9.) Ron Borczyk (Sharpsburg):
a. Sharpsburg is a built-out community with an old system.
b. Sharpsburg is a low point in the system and affected by flow from upstream communities. In other words, Sharpsburg's wet weather problems are influenced by flows from the upstream communities.

(10.) Bob Zischkau (Glenn Engineering representing Sharpsburg and Aspinwall):
a. Aspinwall is a built-out community.
b. Both Sharpsburg and Aspinwall are CSO communities.
c. Both communities are repairing significant deficiencies in the system.
d. The design of facilities is unlikely.
e. There is nothing to preclude the municipalities from sending flows to ALCOSAN.
f. Both communities are affected by stream inflow at Ravine Street and Delafield Road.
g. Stream inflow at Delafield Road causes 3 overflows in Aspinwall.
h. The Ravine Street Stream problem is most likely due to debris build-up.
i. Overflows occur with every rain event.

(11.) Bill McKeever (Senate Engineering for Blawnox):
a. Blawnox is 95 - 100% built-out.
b. Blawnox is an older sanitary sewer only community
c. Blawnox has not experienced any basement flooding in 3 years.
d. Surcharging occurs in the interceptor
e. Blawnox is 100% complete with the CCTV evaluations and cleanings.

f. Blawnox has completed 75 - 80% of the repairs indentified through CCTV inspections.
g. The ownership of one structure is unclear.
h. Tom Hartwig asked Mike Lichte if ALCOSAN had any comments about the stream inflow. Mike Lichte answered that ALCOSAN is looking in to it and it is really a cost issue.

(12.) Rick Minsterman (Gateway Engineers for Churchill):
a. Churchill is a separate sanitary sewer system.

(13.) Rick Minsterman (Gateway Engineers for Penn Hills):
a. Penn Hills is a separate sanitary sewer system.
b. Penn Hills was formerly under a Consent Decree with the Justice Department that required a significant amount of repairs to be completed.
c. Pursuant to that Consent Decree, Penn Hills installed 6 Equalization Basins and spent $60 million in Capital Improvement Projects.
d. Wet Weather flow is still not completely controlled.
e. Penn Hills has just recently signed a new Consent Order.
f. Penn Hills rates are $10.50/1,000 gallons and more than half of the revenue generated pays for debt service.
g. Penn Hills has identified sources of I/I and is in the process of repairing defects to reduce the quantity of I/I.
h. Penn Hills needs to develop design storms for the Feasibility Study.
i. When determining the best methods for handling flow within the municipalities, Penn Hills will be looking at ALCOSAN's treatment costs and whether ALCOSAN has a sliding scale.
j. Penn Hills would like to work with other communities to produce a plan for controlling flow.
k. The Feasibility Study analysis is premature although they have identified what data is missing.
l. In order to standardize the use of the flow monitoring data among the municipalities, it was suggested 3RWW develop flow monitoring analysis guidelines.

9. Schedule

a. Tom Hartwig reviewed the following upcoming dates which are important for the municipalities to know:

(1.) All flow monitoring data not collected by ALCOSAN is due by February 1, 2010.
a. Rick Minsterman asked "What does that mean?"

b. Tom Hartwig answered "If any additional contributing flow located downstream of the flow monitoring is identified or if something changes then it needs to be reported to ALCOSAN."
c. Rick Minsterman commented "It is inevitable something will change, particularly flows within the pipes."
d. Rick Minsterman asked "Is this required by the Consent Decree and if so how does the Consent Decree require the municipalities to do this."
e. Mike Lichte answered "ALCOSAN is required by the Consent Decree to report data from the municipalities."

(2.) All hydraulic capacity evaluations and system hydraulic characterizations are due by August 1, 2010.

(3.) All Sanitary Sewer Overflow Response Plans developed by the municipalities are due by August 31, 2009.
a. Rick Minsterman asked "What does the SSORP mean? Did ALCOSAN request this?"
b. Mike Lichte answered "Yes."

(4.) All LTCP's (Feasibility Studies) developed by the municipalities are due by August 1, 2010.

10. Next Steps

a. Tom Hartwig stated he trusted there was a good information exchange between ALCOSAN and the municipalities.
b. A second round of individual meetings will be scheduled with certain municipalities.
c. Field work will be scheduled to obtain missing or verify questionable information.
d. Mike Lichte made the following comments:
(1.) For upcoming Basin Planning Committee meetings, ALCOSAN is looking to design an exhibit demonstrating dry weather and wet weather flow and pipe sizes.
(2.) ALCOSAN pipes were designed as sanitary pipes and are not big enough to convey flow as specified by the regulatory community.

11. Questions/Discussion

a. Tom Hartwig opened the floor for questions and discussion and began by stating that at the last Basin Planning Committee meeting there were concerns raised regarding the numbering of manholes on maps. He asked if this issue was being resolved to the municipalities' satisfaction. The following comments and questions were made:
(1.) Mary Ellen Ramage of Etna stated the manhole numbering issue was not resolved but that was because of Etna and it is being corrected.

(2.) Rick Minsterman suggested the need for better coordination of the Basin Planning Committee meetings to prevent overlap between the Basins. He also suggested a spreadsheet should be developed to track the Basin Planning Committee meetings and posted to a website.

(3.) Dan Anderson from Indiana Township stated 3RWW misplaced Indiana Township's original maps and they would like them back.

(4.) Bill McKeever from Senate Engineering asked John Ross if the wrong numbering/identifications that were used for Blawnox had been fixed. John Ross stated Pirnie is working on the corrections.

(5.) Don Waldorf from PWSA stated they utilize a block and lot tile mapping system and suggested using this system for the municipalities' maps.

(6.) Bob Zischkau from Glen Engineering stated three different entities generated manhole identifiers and Matt Graham was going to develop either one numbering system or a way to cross reference the different identifiers. He asked about the progress of this. Tom Hartwig stated he would check. Mike Lichte stated ALCOSAN was looking at utilizing a regional identifier.

(7.) John Amend made the following comments:

a. There are upcoming meetings with Etna and Penn Hills.
b. Pirnie and their subconsultants are currently working on the Existing Conditions Report and will finish it by the end of '08 and submit to ALCOSAN in early '09.
c. John Amend asked the municipalities to prepare a one page summary of work completed to date. Bob Zischkau suggested reviewing the municipalities Semi-Annual Progress Reports.

(8.) Mike Lichte made the following comments:

a. Please sign the sign in sheet
b. Regulatory agencies have requested access to the Basin Planning Committee meetings so they may be present at future meetings.
c. Requested volunteers for the Regional Stakeholder Committee

(9.) Tom Hartwig stated he would send a reminder e-mail regarding volunteers for the Regional Stakeholder Committee

Next meeting is TBD for sometime in Early Spring 2

ALCOSAN Basin Facilities Planning
Basin Planning Committee Meeting #3 Minutes

Basin: UA
Period: February 26, 2009

To:	Mike Lichte, Darby Neidig	**Date:**	February 26, 2009
CC:	All Attendees; Distribution List		
Copy:	File 9089003 (WBS 10.1.1)		
From:	Malcolm Pirnie, Inc.; KBC		
Re:	**UA Basin Planning Committee Meeting #3 Minutes**		
	Location/Time: Indiana Township Town Hall @ 9:30 AM February 26, 2009		

Attendance: Also See Attached Sign-in List

Mike Lichte (ALCOSAN)	Jeff Ifft (MPI)	Don Newman (Etna)	Don Waldorf (PWSA)
Jerry Kleyman (MPI)	Darby Neidig (AECOM)	Sherry Kordas (Blawnox)	Dan Anderson (Indiana Township)
John Ross (MPI)	Jim Protin (AECOM)	Tom Flannigan (PA DEP)	Donna Davis (PA DEP)
Ruthann Omer (Gateway/Penn Hills)	Janie French (3RWW)	Chuck Steinert (O'Hara)	Mary Ellen Ramage (Etna)
Elizabeth Wiegand (KBC)	Anthony Catania (KBC)	Ron Borczyk (Sharpsburg)	Sam Glovick (Wade Trim/Fox Chapel)
Kaye Bealer (KBC)	Tom Schevtchuk (CDM/ALCOSAN)	Bob Zischkau, Jr. (Glenn Eng.& Sharpsburg, & Aspinwall)	

1. Introduction

a. Mike Lichte of ALCOSAN introduced himself and made the following comments:

(1.) He is the ALCOSAN Project Manager for the UA Basin.

(2.) This is the third Basin Planning Committee (BPC) meeting. The BPC meetings are designed to facilitate collaboration and will lead to the development of the LTCP to be submitted to the DEP in 2013. The overall goals are to achieve a same page mentality regarding planning efforts while simultaneously addressing concerns and accomplishing stakeholder acceptance of the plan.

(3.) This meeting has a full agenda and includes a recap of prior Basin Planner activities, discussion of the Financial Capability Assessment and the Feasibility Studies.

(4.) He asked everyone to introduce themselves to the group.

a. Jeff Ifft is with Malcolm Pirnie and is the Technical Leader for several of the project tasks for the UA Basin Planning team.
b. Jerry Kleyman is with Malcolm Pirnie and is the Planning Phase Technical Leader for the UA Basin Planning team.
c. John Ross is with Malcolm Pirnie and the GIS data and subconsultant coordinator for the UA Basin Planning team.
d. Ruthann Omer is with Gateway Engineers, representing Penn Hills and is part of the UA Basin Planning team.
e. Bob Zischkau is the Engineer for Sharpsburg and Aspinwall.
f. Ron Borczyk is the Manager for Sharpsburg.
g. Mary Ellen Ramage is the Manager for Etna.
h. Don Newman is the Engineer for Etna.
i. Donna Davis is with the PA DEP.
j. Sam Glovick of Wade Trim is part of the Regional Flow Monitoring Program.
k. Janie French is the Watershed Programs Manager for 3RWW.
l. Don Waldorf is the Director of Engineering for PWSA.
m. Dan Anderson is the Manager for Indiana Township.
n. Dan Slagle is the Engineer for Indiana Township.
o. Chuck Steinert is the Engineer for O'Hara Township.
p. Darby Neidig is with AECOM and is the Basin Coordinator for the UA Basin.
q. Jim Protin is with AECOM and leading the Regional Public Participation and Outreach effort.
r. Kaye Bealer of K Bealer Consulting, LLC is representing ALCOSAN and the Program Manager and will be presenting information regarding the Regional Financial Capability Assessment.
s. Tom Schevtchuk of CDM is representing ALCOSAN and the Program Manager and will be presenting information regarding the Regional Financial Capability Assessment.
t. Anthony Catania of K Bealer Consulting, LLC is representing ALCOSAN and the Program Manager and will assist with the Regional Financial Capability Assessment.
u. Elizabeth Yimin of K Bealer Consulting, LLC will be taking meeting minutes as part of the UA Basin Planning team

2. Status Update ALCOSAN/3RWW

a. Jeff Ifft made the following comments regarding the flow monitoring:

(1.) The Regional Flow Monitoring Program is essentially complete. All but twelve meters have been removed.

(2.) The UA team is in the process of utilizing the flow monitoring data in the H&H model.

(3.) Participants in the Regional Flow Monitoring Implementation Work Group are now meeting to as part of a Feasibility Study Work Group.

(4.) The final Flow Monitoring Data will be available on the 3RWW website within about two weeks.

b. Jeff Ifft made the following comments regarding the model extents:

(1.) The model extents have been modified based on field work and information gathered.

(2.) The model extents in Etna have been extended and refined based on a better understanding of the regulators and CSOs.

(3.) The model extents in O'Hara have been extended and refined based on a better understanding of regulators and SSOs.

(4.) A portion of PWSA upstream of CSOs has been streamlined.

c. Jeff Ifft made the following comments regarding the mapping:

(1.) The initial data has been reviewed and gaps have been identified within the model extents.

(2.) Field survey work is currently being completed this week within the municipalities to obtain data relevant to the data gaps within the model extents. Once the field survey work is complete, the one overall GIS will be updated.

(3.) The one overall GIS will be submitted to ALCOSAN to be merged with the other basin planners one overall GIS.

(4.) Ultimately, the one overall GIS will also be provided to 3RWW.

d. Jim Protin made the following comments regarding the Customer Municipality Advisory Committee (CMAC):

(1.) The purpose of the CMAC includes:

a. Creating a consensus-based process
b. Rallying support for the RLTWWCP
c. Provide feedback and information during the development of the RLTWWCP

(2.) The CMAC will meet with ALCOSAN on a quarterly basis to steer the development and acceptance of the RLTWWCP while adhering to the Consent Decree and Municipal Consent Orders.

(3.) The CMAC is comprised of 14 members including representatives from each of the 7 planning basins and region at-large members selected by ALCOSAN and the County Executive. The names of the 14 members were provided.

(4.) The CMAC will provide guidance to the Regional Stakeholder Committee. Feedback and information will be provided to the CMAC by the BPC. The information will help the CMAC gain understanding of the

RLTWWCP and assist them in providing guidance to the stakeholders during the development of the RLTWWCP.

(5.) The CMAC met for the first time on February 18, 2009 and were given the following two assignments:

a. Create a Consent Decree Booklet that provides an overview of the Consent Decree. The booklet will be disseminated to the Stakeholders for review and comment. The Consent Decree Booklet will eventually be sent to the ratepayers.
b. Determine the most effective method to contact elected officials with updates.

(6.) Jim Protin made the following comments regarding the Regional Stakeholder Group (RSG):

a. The purpose of the RSG is to engage the BPC and provide expertise, feedback and the perspective of the regional stakeholders at large. The RSG will assist the BPCs gain acceptance of the RLTWWCP among the municipalities and ratepayers.
b. The RSG will assist with the evaluation of control technologies and water quality improvements.
c. The RSG will funnel information back to the CMAC who has direct contact with ALCOSAN.
d. The RSG is comprised of approximately 50 representatives from academia, municipal officials, and land use planning departments, civic, charitable and environmental organizations.
e. The names of the RSG representatives will be released in a press release manner after the first meeting scheduled for March 11, 2009 has occurred.
f. Volunteers are welcome and if there are any suggestions regarding potential participants please let ALCOSAN know.
g. Mike Lichte stated if there are any suggestions regarding stakeholders such as sportsmen clubs or recreational organizations to let the Basin Planners know.

2. Information Exchange

a. Jim Protin made the following comments regarding the ALCOSAN municipal web-site:

(1.) ALCOSAN's municipal web-site (www.alcosan.org) has been updated and the municipalities and stakeholders are encouraged to post comments and suggestions to the site.

(2.) Mike Lichte stated the process is still evolving and any comments and feedback are welcome.

b. Jim Protin made the following comments regarding the data collection next steps:

(1.) The 3RWW Flow Monitoring Implementation Workgroup may morph into the Feasibility Study Workgroup.

(2.) They are collaborating with 3RWW to determine the best way to work with the municipalities.

3. Program Manager Presentation: Financial Data Collection

a. Kaye Bealer reviewed the agenda and made the following comments regarding the Financial Capability Assessment (FCA):

(1.) Kaye Bealer introduced the team members:

a. Tom Schevtchuk is with CDM and is the task leader for the FCA.

b. Kaye Bealer is with K Bealer Consulting, LLC and is the principal for the FCA.

c. Anthony Catania is with K Bealer Consulting, LLC and is the lead modeler for the FCA.

d. Elizabeth Yimin is with K Bealer Consulting, LLC and works with the team on the FCA.

(2.) Kaye Bealer provided an overview of the goals and status of the FCA:

a. The FCA is a two step process that includes the affordability and the financial capability. Affordability measures the ratepayer's ability to pay and the financial capability measures ALCOSAN and the municipalities' ability to pay for and maintain compliance.

b. The FCA looks at total wet weather costs including current and future costs. Current costs are calculated as ALCOSAN costs (O&M and debt) plus Municipal System Costs (O & M and debt). Future costs are also calculated as ALCOSAN costs plus Municipal System Costs and will include costs related to the feasibility studies and spot repairs.

c. The FCA is an element of the Wet Weather Plan and is required by the Consent Decree.

d. It provides a comprehensive understanding of the costs.

e. It will utilize an alternatives analysis tool and incorporate the cost of the alternatives the Basin Planners are developing.

f. It will maximize regulatory flexibility.

g. It will support the pursuit of Federal and State funding.

h. It will be utilized as a policy analysis tool.

i. It will assist in the development of a regional financing strategy.

b. Tom Schevtchuk discussed the Base Case:

(1.) The team reviewed data at the municipal and regional level to craft an analysis tool; the data will be divided accordingly.

(2.) The 1999 Median Household Income (MHI) within the region is between $14,000 and $150,000 with an expected approximate 30% increase since

1999. The team reviewed MHI by municipality and by census block data because the data is affected when it is looked at in different ways.

c. Kaye Bealer made the following comments regarding the EPA Financial Capability Framework:
    (1.) The Combined Sewer Overflows-Guidance for Financial Capability Assessment and Schedule Development (EPA CSO Guideline) is the guidance document for developing the FCA.
    (2.) The EPA CSO Guideline provides guidance to assess funds available for CSO control strategies and help ALCOSAN, EPA, PA DEP, ACHD and the municipalities define control options and a schedule for implementing these strategies.
    (3.) The FCA consists of two phases:
        a. Phase 1 is the Residential Indicator and measures the total annual wastewater cost per household (CPH) as a percentage of MHI.
            (1.) The EPA categorizes the Residential Indicator has having a low, mid-range or high financial impact on the ratepayers. Historically, the Residential Indicator usually equals 1.0 - 2.0 percent MHI and is considered to have a mid-range financial impact. However, the range the EPA considers acceptable may differ from what is acceptable for the region.
            (2.) Phase 1 requires the collection of financial data from the municipalities. The phase 1 data collection process has been divided into two tasks. The first task includes the collection of data from sources other than the municipalities directly such as municipal and state websites. The second task includes the collection of data from the municipalities directly.
        b. Phase 2 is the Financial Capability Indicators and measures the municipality's ability to afford wet weather associated costs.
            (1.) The Financial Capability Indicator considers the Permittee (ALCOSAN) Financial Indicators and includes debt, socioeconomic and financial management indicators.
            (2.) These indicators will be entered into the model.
    (4.) Kaye Bealer made the following comments regarding ALCOSAN's approach:
        a. ALCOSAN's approach is a collaborative approach between the Basins and the region.
    (5.) Kaye Bealer made the following comments regarding the 2009 Base Case:
        a. The characteristic residential costs for 2009 are predicted to be $560.

b. The MHI in Allegheny County is $48,700 and the MHI of ALCOSAN's service area ranges from $18,000 to $192,000.
c. Huge disparities in the region's MHI will be a challenge.
d. In order to perform the FCA, current affordability indicators are needed and include CIP and anticipated wet weather costs from the municipalities.
e. The team is developing a system characterization report to determine where the team is in the process.

(6.) Kaye Bealer made the following comments regarding the status of the data and model development:

a. A model has been developed for each municipality within the ALCOSAN service area. Each municipal model will be fed into the larger regional model.
b. The model is equipped to perform a sensitivities analysis. The costs associated with the alternative control strategies a municipality is considering can be entered into the model to assess the impact those strategies have on the ratepayers. This will be an iterative process and the team will work with the municipalities to determine if the information is correct.
c. An Information Request Prototype has been created for each municipality and will be distributed. The prototype will include information that has already been collected and information that is needed. The data that has already been collected will be entered into the prototype and each municipality will confirm if that information is accurate. If it is not correct, the municipalities are asked to please provide the accurate information or let the team know who to contact to get it.
d. Information that is needed from each municipality includes current municipal wastewater cost, near term cost, major capital improvements, brief description of the financial setup the municipal sewer system, capital project financing, municipal sewer rates and institutional information.
e. The team will maintain electronic and hard copies of the data received from the municipalities. The data will be collected, scanned, filed and stored. The team wants to ensure the municipalities are comfortable with the data collection process and assures confidentiality. The data the municipalities provide will be shared with ALCOSAN and the Program Management Team only; data from one municipality will not be shared with other municipalities.

(7.) Tom Schevtchuk made the following comments regarding coordination and logistics:

a. Tom Schevtchuk reviewed the time frame

(1.) During 2009 activities will include data collection, developing a baseline assessment and preparation of the Basin screening of preliminary alternatives and site report. The team has gone to great efforts to collect all available information from sources other than the municipalities; however, if the team requests information that is posted somewhere else please let them know and the team will collect the information from that source.

(2.) During 2010 activities will include preparing the Basin feasibility and present worth analysis report, integration of basin and regional alternatives, integration of alternatives into the financial capability model and an evaluation of the institutional and financial alternatives.

(3.) During 2011 activities will include identifying recommended regional alternatives, define the compliance strategy, develop basin facilities plans, prepare formal affordability/financial capability documentation and begin preparing the Wet Weather Plan.

(4.) During 2012 activities will include completing the draft of the Wet Weather Plan and finalize the Wet Weather Plan after a public comment and response period.

(5.) During 2013 the Wet Weather Plan will be submitted to the agencies.

b. Tom Schevtchuk reviewed the roles of the municipalities, Basin Planners and the Wet Weather Program Manager:

(1.) The municipalities will provide current and projected costs, financial and institutional information and will continue to participate in the planning process. Precision is not required in projecting future costs; the more detail a municipality can provide is better but not required.

(2.) The Basin Planners will assist with the data collection and develop basin alternatives and costs.

(3.) The Wet Weather Program Manager will assist with data compilation and management, develop the financial model and integrate basin alternatives, perform a policy analysis and incorporate wet weather program financial elements.

c. Tom Schevtchuk discussed next steps:

(1.) In March, ALCOSAN will send a letter to the municipalities to inform them of the need to collect financial information and the data collection process.
(2.) Following the letter, municipal information gathering templates will be sent to the municipalities.
(3.) In April, the team will follow-up with the municipalities and will be happy to meet with the municipalities on an individual basis.

4. Existing Conditions Report

a. Jeff Ifft made the following comments regarding the Existing Conditions Report:
   (1.) Two drafts of the Existing Conditions Report has been completed and submitted to ALCOSAN for review. The UA basin team is in the process of receiving feedback from ALCOSAN regarding the second draft of the Existing Conditions Report.
   (2.) The Existing Conditions Report includes a summary of the municipal collection systems and configurations.

b. Jeff Ifft made the following comments regarding the collection of data:
   (1.) The UA basin team is in the process of completing supplemental field survey work to refine the GIS data and complete the gap analysis.
   (2.) The UA basin team has been collecting Act 537 Plans, ACOs and COAs to summarize for the Existing Conditions Report.
   (3.) The UA basin team has collected municipal agreements with ALCOSAN; however, any agreements between the municipalities are also needed. Jeff Ifft asked to please forward any agreements a municipality has to Pirnie.
   (4.) The UA basin team had catalogued the CSOs and SSOs within the municipalities to ensure the structures are adequately reflected in the model.
   (5.) The UA basin team has preliminary population projections from the Southwestern Pennsylvania Planning Commission Report based on 1997 census data; however, each municipality will need to verify whether they agree or disagree with the projections. In addition, projections are only through 2035 while the consent decree requires the projections to be made through 2046.

c. Mike Lichte asked that if a municipality has any agreements with other municipalities regarding the construction and maintenance of sewer lines to please send them to the Basin Planners and ALCOSAN.

d. Ruthann Omer made the following comments regarding the Existing Conditions Report:
   (1.) The Existing Conditions Report will be updated to reflect a regional uniformity regarding structure and content. A draft copy of the municipal

section of the report will be distributed to each municipality for their review and feedback.

(2.) Accurate data and understanding of the municipal collection systems is critical to the planning process and so each municipality is asked to verify whether the information presented in the report is correct. Each municipality will be asked to specifically verify the following:

a. Sewer system characteristics
b. Catalog of CSOs and SSOs
c. Existing dry weather and wet weather flow
d. Understanding of municipal agreements with ALCOSAN and other municipalities
e. Areas for the potential siting of facilities and/or developments such as old Brownfield sites.
f. A map has been generated for each municipality to exhibit the population projections and will be handed out at the conclusion of this meeting. ALCOSAN needs to project what the future flows will be for the region and because flows are correlated to population, knowing projected populations will assist with flow projections. The UA basin team is asking each municipality to review the population projections for their community and verify whether they agree with the projections for the year 2035 and out to 2046. If they do not agree with the population projections mark their estimates on the map.

(3.) Mike Lichte stated the problem is that the population and flow projections will be used to determine sites and alternatives and inaccurate data could affect, for example, the size of pipes installed in an area.

5. Regional Wet Weather Overflow Control Plan & Municipal Feasibility Studies

a. Jerry Kleyman provided an overview of the topics of discussion to include:
   (1.) Understanding requirements and options
   (2.) Potential alternatives
   (3.) Level of control considerations
   (4.) Coordination with ALCOSAN planning

b. Jerry Kleyman made the following comments regarding feasibility study considerations:
   (1.) The municipalities have entered into a COA or ACO depending on whether the sewer system is a combined or sanitary system. Different control options are available depending on the type of collection system a municipality operates. Overall, there are three basic alternatives available to control municipal overflows including:
      a. The conveyance of all flows to ALCOSAN.

b. Remote treatment and/or storage at CSO/SSO outfall locations.
c. Source control which would entail I/I reduction for SSO communities and sewer separation for CSO communities.

(2.) The ultimate goal over the next year and half is to select the most cost effective control strategy for each municipality.

(3.) Only five communities within the UA Basin have CSOs or SSOs. The other communities will most likely choose source control through I/I reduction work and sewer repairs.

(4.) For communities considering the conveyance of all flow to ALCOSAN, the UA team will evaluate the critical sewers and consider the installation of larger pipes within the system. This will require input from the municipalities regarding contractual obligations with ALCOSAN.

(5.) For communities considering the remote treatment and storage option, the municipalities will take the lead for this option and the UA basin team will provide input regarding the current flow and the impact I/I has on the flow.

(6.) For communities considering source control close coordination between the UA basin team and the municipalities is required. It is often challenging to quantify the benefits and will require data to be incorporated in the hydraulic and hydrologic model. Furthermore, there will be a need to address private property because municipalities may not be able to use public money for repairs to sewer lines on private properties. This option may be best used as a supplemental option along with one of the aforementioned options.

(7.) The ALCOSAN Consent Decree requires the evaluation of 2 and 10 year storm events. Control levels for CSO communities are usually less than 1 year with a certain number of overflows usually allowed in a typical year. The amount of allowable CSO occurrences is based on factors such as water quality benefits and cost to implement in order to meet the presumptive approach. Control levels for SSO communities are usually stricter than for CSO communities.

(8.) A knee of the curve evaluation will be performed on each control option to determine the most cost effective alternative. An example regarding the SSO alternatives evaluation approach was presented and included balancing the conveyance, storage/treatment and I/I reduction. An initial level of control was established utilizing conveyance and storage/treatment options based on a knee of the curve evaluation. A subsequent I/I reduction impact evaluation resulted in an increased level of control.

(9.) In order to move together collectively, the UA basin team will have to look at municipal costs and plans along with ALCOSAN's costs and plans and determine the overall best plan.

6. Next Steps

a. Jeff Ifft made the following comments regarding next steps

(1.) The field survey work will be completed in the next couple of weeks

(2.) The structure of the H&H model will be completed.

(3.) Municipal verification of the population projections and information contained in the Existing Conditions Report

(4.) Program Manager development of the alternatives costing tool

(5.) Development of the alternatives screening process

(6.) BPC meeting #4 will most likely occur in early June followed by one in early Fall.

(7.) Coordination of the municipalities and ALCOSAN's schedules

7. Questions/Discussions

a. Mike Lichte stated that as the BPC moves forward, there is an anticipation that the meetings will be more workshop oriented and will include different sewershed representatives to discuss alternatives and to develop a costing tool.

Next meeting is TBD for sometime in Early June 2009

ALCOSAN Basin Facilities Planning
Basin Planning Committee Meeting #4 Minutes

Basin: Upper Allegheny / Pine Creek
Period: June 18, 2009

To:	Mike Lichte, Darby Neidig	**Date:**	June 18, 2009
CC:	All Attendees; Distribution List		
Copy:	File 9089003 (WBS 10.1.1)		
From:	Malcolm Pirnie, Inc.; KBC		
Re:	**UA Basin Planning Committee Meeting #4 Minutes**		
	Location/Time: Penn Hills Municipal Building @ 9:30 AM June 18, 2009		

Attendance: Also See Attached Sign-in List

Mike Lichte (ALCOSAN)	Elizabeth Yimin (KBC)	Don Newman (Buchart & Horn/Etna)	Tom Flanagan (PA DEP)
John Amend (MPI)	Darby Neidig (AECOM)	Mary Ellen Ramage (Etna)	John Shannon (Baker/3RWW)
Jerry Kleyman (MPI)	Jim Protin (AECOM)	Chuck Steinert (O'Hara)	Tom O'Grady (Penn Hills)
John Ross (MPI)	Dave Bingham (AECOM)	Moe Rayan (Penn Hills)	Art Gazdik (Ross)
Jeff Ifft (MPI)	Gary Koehler (Fox Chapel)	Rick Minsterman (Gateway/Penn Hills)	Kevin Creagh (Shaler)
Ruthann Omer (Gateway/Penn Hills)	Kevin Brett (Lennon, Smith & Souleret/Fox Chapel)	Andrew Maul (PWSA)	Tracy Schubert (3RWW)
Coreen Casadei (Collective Efforts)	Daniel Slagle (Nichols & Slagle/Indiana Township)	Bob Zischkau, Jr. (Glenn Eng. / Sharpsburg, & Aspinwall)	

1. **Introduction**
   a. Mike Lichte of ALCOSAN introduced himself and made the following comments:
      (1.) He is the ALCOSAN Project Manager for the UA Basin Planning team.
      (2.) He asked everyone to introduce themselves to the group.
         a. John Amend is the Project Manager for the UA Basin.
         b. Jerry Kleyman is with Malcolm Pirnie and is the Planning Phase Technical Leader for the UA Basin Planning team.
         c. John Ross is with Malcolm Pirnie and is the GIS data and subconsultant coordinator for the UA Basin Planning team.

d. Jeff Ifft is with Malcolm Pirnie and is the technical leader for the Existing Conditions Report and the Screening of Preliminary Alternatives and Sites Report.

d. Ruthann Omer is with Gateway Engineers and is part of the UA Basin Planning team assisting with the municipal coordination and collection of data.
e. Coreen Casadei is with Collective Efforts and is part of the UA Basin Planning Team and is assisting with the alternative site selection.
f. Moe Rayan is the interim Manager for Penn Hills.
g. Tom O'Grady is the Acting Director of the Penn Hills' Water Pollution Control Department.
h. Bob Zischkau is the Engineer for Sharpsburg and Aspinwall.
i. Mary Ellen Ramage is the Manager for Etna.
j. Don Newman is the Engineer for Etna.
k. Tom Flanagan is with the PA DEP.
l. Dan Slagle is the Engineer for Indiana Township.
m. Andrew Maul is with PWSA.
n. Art Gazdik is the Engineer for Ross Township.
o. John Shannon is with Michael Baker Corporation and is representing 3RWW.
p. Kevin Creagh is the Engineer for Shaler Township.
q. Rick Minsterman is the Engineer for Penn Hills.
r. Dave Bingham is a Project Manager for AECOM.
s. Darby Neidig is with AECOM and is the Basin Coordinator for the UA Basin Planning team.
t. Jim Protin is with AECOM and is leading the Regional Public Participation and Outreach effort.

(3.) An overview of the meeting's agenda was provided and includes a program update, discussion of technology and site screening, choosing control alternatives and development, Act 537 funding, ALCOSAN website, BPC meeting #5 and a questions and answer session.

(4.) This is an interactive process. ALCOSAN would like these meetings to include an open dialogue. The municipalities are encouraged to ask questions.

2. Overview of Basin Planning Status and Program Update

a. Jeff Ifft presented a project schedule flow chart and made the following comments regarding the UA Basin Planning Project Updates:

(1.) Task 3: Existing Information and Conditions Report is complete. Section 4 of the Existing Conditions Report was distributed to the municipalities for review and feedback.

(2.) The UA Basin Team is currently working on Task 4: Hydraulic Model & Calibration Report the Modeling and Task 5: Screening of Preliminary Alternatives & Site Report. The next BPC meeting will include a discussion of the results of the screening of alternatives, preliminary site identification and screening and the approach to the Feasibility Studies.

(3.) Task 6: Feasibility Report & Present Worth Analysis Submittal, Task 7: Draft Facilities Submittal and Task 8: Final Facilities Plan will be accomplished from 2010 to 2012.

(4.) The municipal, regional technical coordination task and public outreach program tasks are ongoing.

b. Jeff Ifft provided the following additional updates:

(1.) Meeting minutes from BPC meeting #3 are available on the table at the back of the room. The last BPC meeting concentrated on data collection, the status of the Existing Conditions Report, the flow monitoring program and model development.

(2.) The UA Basin Team is developing a quarterly newsletter to provide a summary of the activities being performed basin-wide. The first quarterly newsletter is expected to be sent out the 1st or 2nd week of July. The newsletter will be mailed and will also be available electronically.

c. Jim Protin made the following comments regarding the Customer Municipality Advisory Committee (CMAC) and Regional Stakeholder Group (RSG):

(1.) The CMAC met on May 12, 2009 and the RSG met on May 14, 2009. There was a great exchange of information at both meetings. Both the CMAC and RSG are in the education and overview process and are focusing on reaching out to the elected officials and obtaining feedback.

(2.) During the last meeting the CMAC was not able to address the entire agenda. They are tentatively scheduled to have follow-up meeting on Tuesday, June 23, 2009. Topics discussed during the CMAC meeting included:

a. A brief overview of the Wet Weather Program
b. Understanding basin planning
c. The Feasibility Study Working Group
d. Public Participation

(3.) Topics discussed during the RSG meeting included:

a. A brief overview of the Wet Weather Program
b. The Feasibility Study Working Group
c. Public Participation

(4.) The RSG is tentatively scheduled to have its third meeting on July 9, 2009.

(5.) Jim Protin stated that if anyone had any ideas, concerns or questions to please contact Mary Ellen Ramage and Tim Rogers who are the representatives from the UA Basin.

(6.) Updates will continually be provided as the CMAC and RSG are meeting iteratively to the BPC meetings.

d. Mike Lichte made the following comments regarding the EPA Financial Capability Assessment:

(1.) 3RWW is developing and implementing a regional asset database program to collect financial and institutional data that will be used to prepare the financial capability assessment and determine a baseline municipal and regional financial capability.

(2.) 3RWW is working with the Municipal Engineers to collect the data.

(3.) ALCOSAN will not request the information from the municipalities directly but will instead work with 3RWW to collect the data to avoid a duplication of requests and municipality effort.

(4.) ALCOSAN will follow-up with the municipalities for clarification on an as needed basis.

(5.) The municipalities will be sent a joint letter from ALCOSAN and 3RWW explaining the process.

(6.) The baseline financial capability and affordability analysis is expected to be complete in September or October.

e. Mike Lichte expects that because the geographic area covered by the program is very large the cost of compliance will be substantial. Affordability will be an important element of the planning process. Ultimately, it will come down to choosing the best plan for the best value. Developing the best plan requires stakeholder input. Ruthann Omer made the following comments regarding the Existing Conditions Report:

(1.) Over the last few months the UA Basin Team has been visiting with the municipalities and collecting data. The Existing Conditions Report is the basis for all other basin planning tasks.

(2.) The individual Existing Conditions Report municipal sections were sent to each municipality for review and feedback. The UA Basin Team has received comments from six of the twelve municipalities, four of which responded prior to development of the powerpoint presentation. The UA Basin Team realizes that the municipalities are very busy; however, comments are needed on the April 2009 Existing Conditions Report draft.

(3.) Some of the information used in the draft of the Existing Conditions Report came from other reports and it's understood that from talking with the municipalities, there are some inconsistencies. This is the municipality's opportunity to make sure that the data, (the population projections for example) are correct.

(4.) Any questions should be directed to Ruthann Omer with Gateway Engineers; the responses should be forwarded to John Ross.

(5.) Mike Lichte made the point that it will be critical as the BPs move forward with the calibration of the hydraulic model that the BPs are aware of any overflows that may exist within the municipalities as an unidentified overflow can affect the calibration of the hydraulic model. Furthermore, the BPs do not want to over or under estimate a municipality's flow.

f. John Ross made the following comments regarding the hydraulic model:
   (1.) The model extents have not changed since the last BPC meeting. The model extents are used to develop the hydraulic model.
   (2.) The development of the hydraulic model is nearly complete. The supplementary flow monitoring data in Penn Hills was collected to help validate the hydraulic model.
   (3.) The groundwater and base wastewater flow decomposition is complete including the allocation to subcatchments.
   (4.) Dry weather flow validation to make sure the model is predicting flow correctly is almost complete. Wet weather flow validation will begin this month.
   (5.) The municipalities have been very helpful in determining base flows and verifying pipe connectivity. The help they have provided is greatly appreciated.

g. John Ross made the following comments regarding the design storms and typical year:
   (1.) The design storms for SSO evaluations are based on the rainfall volumes generated for the 1-year, 2-year, 5-year and 10-year 24 hour storms.
   (2.) The typical year of events has been established as 2003 which will be used for the CSO evaluations.
   (3.) The design storms are being finalized by the Program Manager and the BPs are expected to receive them by the end of this month.
   (4.) Data for the typical year will be provided by the Program Manager and the BPs are expected to receive them by the end of July.
   (5.) The following questions were asked and answers provided regarding the hydraulic model:
      a. Question from John Shannon: Do you know what modeling information and in what form the data will be provided to the municipalities? Will hydrographs or Shapefiles be provided? Answered by Jerry Kleyman: Using data from about 60 flow meters. The flow has been segregated into dry weather flow, baseline flow and wet weather discharge, RTK values have been

developed for SSO municipalities. This information can be provided to the municipalities.

Answered by John Ross: A protocol has not yet been developed for providing information to the municipalities. It will be provided as the information is available if requested.

b. Question from John Shannon: The meters not used in the modeling are far upstream?

Answered by John Ross: Yes, those meters are not in the critical portion.

c. Question from Mary Ellen Ramage: Why 2003?

Answered by Mike Lichte: The Program Manager looked at both 2003 and 2005 data and determined that the distribution of rainfall in 2005 was not representative. They are interested in the 10- 15 largest storms and the set of storms from 2003 are better than the 2005 storms. The set of storms in 2003 will not require as much manipulation as the 2005 data. ALCOSAN has requested that the Program Manager run multiple years to make sure the facilities perform accurately.

Answered by Jerry Kleyman: Using the current computers and software, a typical year for most systems can usually be run in one day.

Answered by Mike Lichte: The typical year is used for planning and developing alternatives. Once the stakeholders become involved, the alternatives will be refined.

3. **Technology Screening**

a. Jerry Kleyman made the following comments regarding technology screening:

(1.) The Screening of Preliminary Alternatives & Site Report is due this October.

(2.) The primary tasks for the Screening and Sites Report include:

a. Define CSO and SSO control objectives
b. Estimate overflow frequency, volume and peak flows
c. Prioritize overflow locations for elimination
d. Identify and prescreen control technologies
e. Indentify and prescreen potential sites

(3.) Defining CSO control objectives includes evaluating planning control levels and frequencies and CSO discharge treatment requirements.

(4.) CSO control levels are defined as a certain number of overflow events in a typical year that would result in not meeting all the control objectives. The percent capture is also evaluated and a knee of the curve evaluation is performed.

(5.) Floatables control, primary treatment and disinfection utilizing a presumptive compliance approach and solids removal and disinfection utilizing water quality based objectives are required for CSO discharge treatment. Meeting the water quality objectives is the main focus and bacteria is a primary parameter of concern for the receiving streams in the ALCOSAN system.

(6.) SSO control objectives include the planning of control levels, evaluating the elimination of SSO discharges for each control level. Satellite treatment is generally not considered for SSO control unless secondary treatment can be feasible.

(7.) Higher control levels are generally required for SSOs rather than the typical year with CSOs.

(8.) The following questions were asked and answers provided regarding SSO control:

a. Question from Rick Minsterman: This is the first time I have heard about secondary satellite treatment as an option for SSOs, is that allowed?
   Answered by Mike Lichte: The Consent Decree says that secondary treatment is required for all sanitary flow and should be evaluated.

b. Question from Rick Minsterman: You are not talking about satellite treatment?
   Answered by Jerry Kleyman: You can provide satellite treatment. Regulatory agencies are pushing more for secondary treatment in SSO municipalities.

c. Question from Dan Slagle: Are you evaluating secondary treatment?
   Answered by Jerry Kleyman: We are looking at conveyance and treatment, and secondary treatment as an alternative option during the screening process. If it is not cost effective then it won't be recommended.
   Answered by John Amend: The secondary treatment alternatives do not usually make it through the screening process in the Northeast unless there are site specific drivers that help make satellite treatment attractive. For example, in the West water reuse opportunities help to drive the cost effectiveness of satellite treatment facilities in comparison to other technologies.

(9.) Because the model is not yet calibrated, a preliminary list of ten potentially problematic overflows was generated based on data from prior ALCOSAN and PWSA reports. The list was presented which identified outfall ID, type, owner, stream, frequency, volume and discharge duration. The list contained nine CSO outfalls and one SSO outfall.

(10.) Mike Lichte emphasized that the list is very preliminary.

(11.) The following comments, questions and answers were made regarding the preliminary overflow frequency, volumes and peak flows chart:

a. Question from Rick Minsterman: What is the unit for the CSO volume?
Answered by Jerry Kleyman: Total volume is in million gallons per year.

b. Comment/Question from Rick Minsterman: This is the first time he has seen anything regarding the identification of problematic overflows and he appreciates being able to see the information. Is there any information on dry weather overflow events?
Answered by Mike Lichte: Dry weather overflow events were corrected prior to the Consent Decree.
Answered by Jerry Kleyman: The model doesn't identify dry weather overflow events. Dry weather overflow events are usually due to maintenance-related blocked pipes and not deficient capacity.

c. Question from Dan Slagle: Is the volume of 877 million gallons for outfall A-42 for the entire year?
Answered by Jerry Kleyman: Yes - the information presented is preliminary and has not been validated by modeling – but for current planning purposes we know that A42 is a significant source of overflow and will be one of those locations where we should consider siting a facility.

(12.) A map was presented which showed the geographic location of the outfalls listed on the preliminary overflow frequency, volumes and peak flows table. Some of the outfalls are located close to one another and therefore the UA Basin team will be considering the consolidation of the overflow volumes associated with such locations when evaluating potential sites. The boundaries drawn around the outfall locations represent a reasonable distance from the outfalls and area within which a treatment or storage alternative may feasibly be sited.

(13.) Mike Lichte commented that the technologies that may be considered for these sites could be anything from a pipe to a facility or drop shaft.

(14.) Once sites have been preliminarily identified then the process of selecting control technologies can begin.

b. Jerry Kleyman made the following comments regarding potential CSO control technologies:

(1.) CSO control technologies include source control, conveyance, storage and treatment.

(2.) Source control includes land-based stormwater management through the implementation of green technologies such as rain gardens or porous pavement. Inflow/stream removal and sewer separation are also source control options.

(3.) Conveyance options include consolidation or sending more flow to the plant for treatment utilizing new and larger relief sewers and new and larger pump stations and forcemains.

(4.) Storage options include the construction of tunnels, tanks and in-line storage facilities.

(5.) Treatment technology options include retention treatment basins, high rate clarification, screening, vortex separation, disinfection, filtration, floatables control and chemically enhanced clarification.

(6.) The following questions and answers were made regarding CSO control options:

a. Question from Dave Bingham: Do you have estimates for the amount of stream inflow and where does the removal of stream inflow sources rank as a control option?
Answered by Jerry Kleyman: We are looking into that now.
Answered by Mike Lichte: ALCOSAN is having the BPs develop a cost effectiveness guideline for $1 per gallon removal to determine which projects may quickly be implemented.

b. Question from John Shannon: Will you drill down some of the green technologies in terms of cost effectiveness so the municipalities can have that information?
Answered by Mike Lichte: For now we are looking at larger sewersheds and then applying it to the smaller sewersheds and looking at the applicability.
Answered by Jerry Kleyman: Green technologies will be included.

c. Jerry Kleyman made the following comments regarding potential SSO control technologies:

(1.) SSO control technologies include source control, conveyance, storage and treatment.

(2.) Green technologies are not an effective SSO source control option because storm water shouldn't be in a sanitary system. Municipal I/I reduction and private I/I reduction are more likely options for sanitary systems.

(3.) Conveyance options include new and larger relief sewers and new and larger pump stations and force mains.

(4.) Storage options include the construction of tunnels, tanks and in-line storage facilities; however, these facilities are typically smaller in SSO systems than in CSO systems.

(5.) Treatment options include satellite secondary treatment.

d. Jerry Kleyman made the following comments regarding potential technology screening criteria:
    (1.) The technology screening criteria will be used to determine which alternatives are feasible.
    (2.) Typical technical, financial and regulatory criteria include the ability to meet control objectives, ease of operation, phasing and future expansion flexibility to account for regulatory and development changes, proven technical performance, potential capital costs and potential O&M costs. The criteria will be finalized through discussions with ALCOSAN.
    (3.) Local considerations include visual impacts, noise level, odor, safety and potential shared community space used if a facility is built above ground. Feedback will be needed from the municipalities and ALCOSAN regarding potential sites and the special local issues to consider when evaluating a site. There has to be a good fit between location and technology because certain sites will not work with certain technologies.
    (4.) Mike Lichte reiterated that ALCOSAN is very concerned with where facilities are built.
    (5.) The following questions and answers were made regarding the potential technology screening criteria:
        a. Question from Don Newman: How durable is the Consent Decree against changing regulatory requirements?
        Answered by Mike Lichte: It is a concern and ALCOSAN does not want to build something that will have to change in two years.
        Answered by Jerry Kleyman: We want to develop alternatives that will allow for expansion so an ideal site will meet the criteria that Coreen is going to speak about shortly and also have adequate area/site space for expanding the facilities in the future if expansion is ever necessary to achieve greater levels of control.
        b. Question from Dan Slagle: Have you settled on a presumptive or demonstrative approach yet?
        Answered by Jerry Kleyman: We are still exploring both approaches but the solution is usually a hybrid of both approaches.
        c. Comment by Dan Slagle: Hopefully the decision will be driven by cost effectiveness.

4. Site Screening

a. Coreen Casadei made the following comments regarding site screening:
    (1.) Preliminary site identification considerations include:
        a. Whether the site includes wetlands that are federally protected and require mitigation
        b. Whether the site is easily accessible

c. Geotechnical considerations such as whether the soil is viable for construction
d. Whether power is readily available
e. Avoidance and presence of critical infrastructure
f. Whether the site is an Allegheny Landtrust Greenway such as a park
g. Whether the site is an archaeological or historical site according to the PHMC and whether the site contains any endangered or threatened species according to the PNDI
h. Whether the site is zoned for future economic development
i. Whether the site is a brownfield and the possibility of pairing brownfield funding with sewage infrastructure funding

(2.) Feedback regarding site selection will be needed from the municipalities and ALCOSAN.

(3.) Coreen Casadei provided some examples of potential sites around outfalls CSO-041, CSO-042, CSO-068 and CSO-070 to 072 and described some of the issues affecting the suitability of each site.

(4.) Mike Lichte pointed out that A-41 and A-42 have been identified as major contributors. These two sites are relatively close to one another and in the future ALCOSAN will be looking at such sites to build a facility that will consolidate the two structures.

(5.) Coreen Casadei stated that choosing the sites will be an iterative process. For now the UA Basin team is trying to identify parcels of a minimum 2 acre that may have open space, be an available property or be abandoned structures and meet the aforementioned criteria.

(6.) The following comments, questions and answers were made regarding site selection:

a. Question from Kevin Creagh: Will the property for the sites be acquired through an appraiser or through private means?
Answered by Mike Lichte: Right now ALCOSAN is approaching the site selection from a planning process but when ALCOSAN is ready to purchase the sites there will be negotiations with various entities to acquire the property.
b. Comment by Jeff Ifft: The UA Basin team would like to meet with the municipalities over the next few weeks to preliminarily discuss good siting locations with the municipalities.
c. Comment by Mike Lichte: This is a process that requires working closely with the municipalities.
d. Question from Don Newman: When will ALCOSAN's schedule prioritize everything on a regional level?

Answered by Mike Lichte: The preliminary report is due in October. In March 2010, BPs will start narrowing down the alternatives and meet with the municipalities to finalize the alternatives and sites. The final UA basin facilities plan report is due in 2011.

e. Comment by Don Newman: The municipalities will need to know the schedule and priority for their Feasibility Studies.
Answered by Mike Lichte: ALCOSAN is working with John Shannon's group to mesh the municipalities' and ALCOSAN's schedules.

f. Comment by Don Newman: That milestone for the implementation of construction will be critical.

g. Comment by John Shannon: ALCOSAN's draft facilities plan is due in 2012 and he anticipates that this will include a schedule.

h. Comment by Mike Lichte: There is a lengthy review process after the submittal of the draft plan.

i. Question from Kevin Creagh: Should the sites be matched to the 2003 typical year?
Answered by Mike Lichte: Absolutely, the overflows will be based on the 2003 typical year.
Answered by Jerry Kleyman: The sites are preliminary. Once the model calibration is complete, the overflow statistics will be updated and the sites will be refined.

j. Comment by Don Newman: May be a good idea to prioritize based on the gross flows.

k. Comment by Mike Lichte: May need to increase the frequency of meetings.

(7.) Coreen Casadei discussed the Pittsburgh Zoo as a potential site. The zoo is currently redeveloping their parking lot area and it may be a good idea to piggy back with the zoo's redevelopment and use the parking area for a facility.

(6.) John Amend provided a screening example:

a. He reiterated that the screening of technologies and site selection will be an iterative process and that it will be necessary to couple the appropriate technology with the appropriate site. Local input is critical to first identify all potential sites within the areas previously discussed by Coreen and then to identify site specific technology screening considerations.

b. Example: A CSO with 200 MG volume generated by an event that reoccurs on average of once a month during the typical year. For this example, storage is not practical but treatment

technologies such as an underground retention treatment basin or vortex unit with chlorination may be possible. In this example, a treatment technology will require that certain critical infrastructure (access roads, utilities, etc) be available. Also the need for chlorination may trigger community specific concerns that will drive the site planning to certain sites.

5. Control Alternatives and Development

a. John Amend made the following comments regarding early action projects/multi-municipal projects:

(1.) There is new funding currently available through PennVest and RUS. ALCOSAN is interested in partnering with the municipalities to identify volume reducing, cost effective projects. Multi-community, big impact projects and/or green projects are preferred. A multi-community stream removal project would be a good candidate.

(2.) ALCOSAN will assist the municipalities with the funding applications.

(3.) If a municipality has a project that they would like to consider, contact Mike Lichte, Tom Hartwig at 724-934-4110 or Ruthann Omer.

(4.) Mike Lichte stated that sometimes funding and the readiness of projects do not always coincide and so ALCOSAN is exploring options with RUS and PennVest through their lobbyists.

(5.) The following questions and answers were made regarding the early action projects:

a. Question from Dave Bingham: Would areas with high I/I make good early action projects?
Answered by Mike Lichte: Absolutely
Answered by John Amend: One good example is the removal of the Ravine Street inflow stream.

6. Act 537 Funding

a. Mike Lichte made the following comments regarding Act 537 funding:

(1.) Once the LTCP is developed and finalized it will be submitted with the Feasibility Study as an updated Act 537 plan.

(2.) In the future, funding may be available to the municipalities for developing their Feasibility Studies. Mike Lichte recommends that the municipalities track any costs associated with developing their Feasibility Studies as they may be able to get some costs reimbursed.

(3.) Mike Lichte thinks that because the costs will be significant, he anticipates that state and federal funding will be critical to the local economy and hopefully will be substantial.

7. Basin Planning and Municipal Feasibility Studies Coordination

a. Mike Lichte made the following comments regarding basin planning and municipal Feasibility Studies coordination:
   (1.) A draft memo outlining the schedule for the municipal Feasibility Studies was distributed at the last Feasibility Study Workgroup meeting.
   (2.) Flow estimates for each CSO and SSO control level considered are due by March 2010.
   (3.) A schedule for Internal Municipal Alternatives and Integrated Municipal Alternatives is being discussed.
   (4.) John Shannon stated that ALCOSAN is requesting preliminary flow projections and design storm information for SSO communities by March.

8. Redesigned ALCOSAN Website

a. Mike Lichte and Jim Protin made the following comments regarding the ALCOSAN website:
   (1.) The ALCOSAN website has been redesigned to include easy to use interface features such as a menu-based navigation tool and easy access to the ALCOSAN public website.
   (2.) The website tracks navigation for easy movement between pages.
   (3.) The website includes an expanded Basin Planning Facilities section that will be regularly updated as information becomes available.
   (4.) The website provides a secure link between ALCOSAN and the municipalities through the Municipality Requests and Municipal Information section.
   (5.) For more information on the website, please contact Anne Murphy at 412-732-8036.
   (6.) Jim Protin stated that the website is still being worked on and if you haven't gone onto the website yet to please do so and provide comments.
   (7.) Coreen Casadei stated that the website does not include a map showing the different basins.
   (8.) Jim Protin stated a map will be part of Phase II which is to provide information at the Basin and municipal level.

9. Next Steps

a. Jeff Ifft made the following comments regarding next steps:
   (1.) Review and update of the municipal population projections by the municipalities
   (2.) Review and comment on the Existing Conditions Report. Mike Lichte stated that if the municipality did not have any comments to please let the BP know so they can finalize the section.
   (3.) Model calibration and validation.
   (4.) Deployment of the alternatives costing tool which will be made available to the municipalities in September.

(5.) Development of the alternatives screening process and meetings with the municipalities to identify potential sites and applicable local technology ranking considerations.

(6.) BPC Meeting No.5 in September which will include the results of the model calibration and the alternatives screening process.

(7.) The quarterly newsletter will be distributed in July.

(8.) Coordination of the municipalities and ALCOSAN's schedule over the next six months.

10. Questions/Discussion

a. The following questions/comments were made:

(1.) Question from Art Gazdik: Is there any coordination being done on the water quality model 3RWW is developing?
Answered by Mike Lichte: There is and that it is possible that the extent of construction that will be necessary for compliance might be reduced based on WQ considerations.

(2.) Question from Kevin Creagh: Can the Managers and Engineers stay after the meeting to start the discussion of preliminary flow projections?

(3.) A copy of the presentation will be sent out with the minutes.

Next meeting is TBD for sometime in September 2009

ALCOSAN Basin Facilities Planning
Basin Planning Committee Meeting #5
Minutes

Basin: UA
Period: October 9, 2009

To:	Mike Lichte, Darby Neidig	**Date:**	October 9, 2009
CC:	All Attendees; Distribution List		
Copy:	File 9089003 (WBS 10.1.1)		
From:	Malcolm Pirnie, Inc.; KBC		
Re:	**UA Basin Planning Committee Meeting #5 Minutes**		
	Location/Time: Shaler Township Municipal Building @ 9:30 AM October 9, 2009		

Attendance: Also See Attached Sign-in List

Mike Lichte (ALCOSAN)	Coreen Casadei (Collective Efforts)	Sherry Kordas (Blawnox)	Kevin Creagh (Shaler)
Dave Borneman (ALCOSAN)	Elizabeth Yimin (KBC)	Tim Rogers (Shaler)	John Shannon (Baker/3RWW)
Jan Oliver (ALCOSAN)	Darby Neidig (AECOM)	Chuck Steinert (O'Hara)	Art Gazdik (Ross)
Jerry Kleyman (MPI)	Janai Williams (Ebony Holdings)	William Weizhe (KLH Engineers/O'Hara)	Tom Flanagan (PA DEP)
John Ross (MPI)	Ron Borczyk (Sharpsburg)	Rick Minsterman (Gateway/Penn Hills)	Kevin Brett (Lennon, Smith & Souleret/Fox Chapel)
Karen Brean (Brean Associates)	Gary Koehler (Fox Chapel)	Randy Zischkau (Glenn Eng./Sharpsburg/Aspinwall)	Bob Zischkau, Jr. (Glenn Eng./Sharpsburg, & Aspinwall)

1. Introduction

a. Mike Lichte of ALCOSAN introduced himself and made the following comments:
   (1.) He is the ALCOSAN Project Manager for the UA Basin Planning team.
   (2.) He asked everyone to introduce themselves to the group.
      a. John Ross is with Malcolm Pirnie and is the GIS data and subconsultant coordinator for the UA Basin Planning team.
      b. Jerry Kleyman is with Malcolm Pirnie and is the Planning Phase Technical Leader for the UA Basin Planning team.
      c. Coreen Casadei is with Collective Efforts and is part of the UA Basin Planning Team and is assisting with the alternative site selection.
      d. Chuck Steinert is the Manager of O'Hara Township.
      e. Gary Koehler is the Manager of Fox Chapel

f. Karen Brean is with Brean Associates and is part of the UA Basin Planning Team.
g. John Shannon is with Michael Baker Corporation and is representing 3RWW.
h. Rick Minsterman is with Gateway Engineers and is the Engineer for Penn Hills.
i. Tom Flanagan is with the PA DEP.
j. Kevin Creagh is the Engineer for Shaler Township.
k. Kevin Brett is with Lennon, Smith, Souleret Engineers and b. is the Engineer for Fox Chapel.
l. Dave Borneman is ALCOSAN's Director of Engineering and Construction.
m. Janai Williams is with Ebony Holdings.
n. Jan Oliver is ALCOSAN's Director of Regional Conveyance.
o. Sherry Kordas is the Manager for Blawnox.
p. Art Gazdik is the Engineer for Ross Township.
q. Darby Neidig is with AECOM and is the Basin Coordinator for the UA Basin Planning team.
r. Randy Zischkau is with Glenn Engineering on behalf of Sharpsburg and Aspinwall.
s. Bob Zischkau is with Glenn Engineering and is the Engineer for Sharpsburg and Aspinwall.

b. Jerry Kleyman provided an overview of the meeting's agenda which included a technical data update, discussion of the sites and technologies screening and evaluation, break/site discussion, municipal/ALCOSAN coordination update, public participation schedule and update, next steps and a questions and answer session.

c. A review of topics discussed at BPC Meeting No.4 and progress made on those tasks was provided:

(1.) A Wet Weather Program update was provided:
a. The flow monitoring program has been completed.
b. The development of the H&H Model is nearly complete. The H&H Model validation is complete and the system characterization is nearly complete.
c. The Existing Conditions Report is complete.

(2.) An update on the technology screening process was provided.
a. A workshop was held in August to present preliminary results.

(3.) An update on the site screening process was provided.
a. A draft of the Preliminary Screening of Controls and Sites Report has been submitted to ALCOSAN.

(4.) The Public Participation Plan was discussed

a. More information will be provided during this meeting.

(5.) The Early Action Projects were reviewed.

a. Jan Oliver stated that workshops were conducted about six weeks ago to identify projects to existing systems that include multiple municipalities. ALCOSAN will assist with developing the applications.

b. The Delafield Stream Removal Project has received funding from the Army Corp of Engineers.

c. Mike Lichte stated that ALCOSAN wants to support these early action projects and carry them forward.

(5.) Jerry Kleyman presented a project schedule flow chart and made the following comments regarding the UA Basin Planning:

a. Task 3: Existing Information and Conditions Report is complete.

b. The UA Basin Team is currently working on Task 4: Hydraulic Model & Calibration Report and Task 5: Preliminary Screening of Controls and Sites Report. The draft of the Task 4 report will be completed as of October 16, 2009. The draft of the Task 5 report was submitted on September 18, 2009.

c. Task 6: Feasibility Report & Present Worth Analysis Submittal, Task 7: Draft Facilities Submittal and Task 8: Final Facilities Plan will be accomplished during 2010 through 2012.

d. The municipal, regional technical coordination task and public outreach program tasks are ongoing.

2. Technical Data Update

a. The flow monitoring data is available on the 3 Rivers MDS site

b. Design storms and typical year rainfall data has also been posted to the MDS website.

(1.) The typical year rainfall for CSOs is calendar year 2003.

(2.) 1, 2, 5 and 10 year design storms for SSOs are available.

c. Mike Lichte stated that he is in the process of reviewing the Preliminary Screening of Controls and Sites Report.

d. The draft of the H&H model and modeling report will be completed in the next couple of weeks.

e. Documents have been posted to the ALCOSAN secure municipal website.

f. Jan Oliver stated that most of the aforementioned items are rolled out through the 3RWW Feasibility Study Working Group but the information is also available on the ALCOSAN Municipal Website.

g. The Alternative Costing Tool is available.

h. Another Early Action Projects Workshop will be held with the municipalities selected by the end of the year to discuss funding sources.

3. Sites and Technologies Screening and Evaluation

a. Defined control objectives were previously presented at BPC meetings No. 3 and No. 4.
b. Estimated overflow frequency, volume and peak flows were also previously presented. This data was based on information compiled from ALCOSAN's Discharge Monitoring Reports. The overflow frequency, volume and peak flow statistics have since been revised based on the H&H model output. The model results are still undergoing QA/QC review and may be refined as necessary.
c. Major overflows have been ranked based on overflow volume and peak flow and overflows have been identified for possible consolidation.
d. Control technologies have been identified and prescreened.
e. Preferred potential sites and routes have been identified. Other sites may still be considered if the preferred sites do not work.
f. A shortlist of combined controls, sites and routes have been identified.
g. Jerry Kleyman presented a table and reviewed the preliminary top ten overflow statistics including frequency, volume and peak flows and made the following comments:
    (1.) The table has since been updated based on the H&H model.
    (2.) A-42 is the largest overflow in the UA Basin.
    (3.) Consolidation of overflows A-69 through A-74 will be considered due to their close proximity to each other.
    (4.) The data in the table represents the estimates based on the typical year 2003 of precipitation events.
    (5.) The Basin Planning team is currently double checking modeling results for A-68 and A-70 through A-73.
    (6.) Consolidation of the overflows was considered because it is not feasible to build a facility at every overflow location. The smaller overflows will likely be routed to a site in close proximity to one of the larger overflows.
    (7.) The following questions were asked and answers provided regarding the overflow frequency, volume and peak flows:
        a. Question from John Shannon: Is A-45 the only SSO in the UA Basin.
        Answered by Jerry Kleyman: No, but it is the most significant. May need to upsize pipes or potentially consider secondary treatment or storage for A-45.

b. Question from Kevin Creagh: The data on A-68 increased significantly.
Answered by Jerry Kleyman: A-68 was the overflow that was not updated by the Program Manager during their prior model development. The Basin Planning team is still looking at dry weather groundwater I/I allocation in this area based miles (length) and inch (diameter) of sewer to see how different allocations may impact the overflow.

(8.) Jerry Kleyman made the following comments regarding potential technology screening criteria:
   a. The technology screening criteria will be used to determine which alternatives are feasible.
   b. Typical technical, financial and regulatory criteria include; the ability to meet control objectives, ease of operation, phasing and future expansion flexibility to account for regulatory and development changes, proven technical performance and potential capital costs and potential O&M costs. Local considerations include visual impacts, noise, odor, safety and the potential for some portion of the site to be a shared community space.

(9.) Jerry Kleyman made the following comments regarding potential CSO control technologies:
   a. CSO control technologies include source control, conveyance, storage and treatment.
      1. Source control includes land-based stormwater management through the implementation of green technologies such as rain gardens or porous pavement. Inflow/stream removal and sewer separation are also source control options.
      2. Conveyance options include consolidation of outfalls or sending more flow to the plant for treatment utilizing new and larger relief sewers and new and larger pump stations and force mains.
      3. Storage options include the construction of tunnels, tanks and in-line storage facilities.
      4. Treatment technology options include retention treatment basins, high rate clarification, screening, vortex separation, satellite secondary treatment, disinfection, and floatables control.

(10.) Jerry Kleyman made the following comments regarding potential SSO control technologies:

a. SSO control technologies include source control, conveyance, storage and treatment.
    1. Green technologies are not an effective SSO source control option because storm water shouldn't be in a sanitary system by design. Municipal I/I reduction and private I/I reduction are more likely options for sanitary systems.
    2. Conveyance options include new and larger relief sewers and new and larger pump stations and force mains.
    3. Storage options include the construction of tunnels, tanks and in-line storage facilities; however, these facilities are typically smaller in SSO systems than in CSO systems.
    4. Treatment options include satellite secondary treatment and disinfection.

(11) Jerry Kleyman reviewed the potential source control options for CSOs and SSOs and made the following comments:
    a. Land based stormwater management options available to the municipalities to control CSOs include green roofs, porous pavement, biorention and rain gardens, mitigation of subsurface infiltration and downspout disconnection. The only land based stormwater management option that will be further evaluated for both CSOs and SSOs is rain barrels.
    b. Other source reduction options available to the municipalities to control CSOs include; sump pump discharge rerouting, footing drain disconnection, roof leader and private drain removal, surface stream removal and sewer separation. Surface stream removal can also be utilized by ALCOSAN to control CSOs.
    c. Private and municipal I/I reduction options available to the municipalities to control SSOs include service lateral repair and replacement, service lateral connection replacement, sump pump discharge rerouting, footing drain disconnection, roof leader and private drain removal and pipe and manhole rehabilitation. I/I reduction performed by the municipalities is most effective for controlling SSOs rather than CSOs. Pirnie will continue to work with the municipalities on assumptions and inputting data into the model to determine the impact I/I reduction will have on the system.

(12.) Jerry Kleyman reviewed the potential conveyance and storage options available:

a. Conveyance options available to ALCOSAN to control CSOs and SSOs include increased conveyance at pump stations and force mains and new or upsized relief sewers.
b. Storage options available to ALCOSAN to control CSOs include conventional tunnels, tanks and inline storage. Storage options available to ALCOSAN to control SSOs include conventional tunnels and tanks. Tanks are only applicable at certain sites based on space availability.

(13.) Jerry Kleyman reviewed the potential treatment options available:
a. Treatment options available to ALCOSAN to control CSOs include screening, high rate clarification, retention treatment basins, vortex separators, high rate disinfection and UV disinfection (only in conjunction with HRC). Treatment options available to ALCOSAN to control SSOs include satellite secondary treatment and disinfection. Because of capital and O&M costs, secondary treatment for controlling CSOs will very likely not be feasible.

(14.) Coreen Casadei made the following comments regarding site screening and initial criteria:
a. Initially, sites were identified with a minimum size of two acres where a CSO or SSO control measure could be located. This was performed for the ten overflows with the largest volumes and peak flows during the typical year.
b. Sites were generally limited to be within a half mile radius of each overflow. The exception was where overflows were consolidated.
c. The following sites were avoided:
    1. Sites containing critical infrastructure that are difficult and/or costly to displace.
    2. Areas included on the National Register of Historic Places.
    3. Sensitive areas such as a drinking water supply. Sensitive areas are specifically defined in the Consent Decree.
    4. Allegheny County Land Trust Greenways land.
d. Twenty three sites were initially indentified and visited to evaluate the site's suitability. Individual meetings were held with representatives from Aspinwall, Etna, O'Hara, Pittsburgh, Shaler, Sharpsburg and Verona to discuss each of the potential sites. A combined workshop was held on August 11, 2009 to present the findings of the preliminary site evaluations and the list of preferred sites that were going to be evaluated in further detail as part of the Feasibility and Present Worth Analysis.

e. A desktop study was completed for each site using the following criteria:
    1. Whether the site is easily accessible for truck deliveries and O&M access and whether there is public road access to the site.
    2. Land use criteria such as whether the land is vacant or occupied, if it is expandable, the number of property owners, if the site is a Brownfield or if it is in an Economic Development Zone.
    3. Avoidance or presence of critical infrastructure on the site such as power and major utilities or major roadways, railroads or bridges.
    4. Whether there are any public facilities nearby which may be an issue with aesthetics.
    5. Engineering and constructability criteria such as geotechnical suitability or fill slag, high groundwater, complex construction, steep slopes and location within 100-year floodplains.
    6. Historical and cultural resources such as whether there were any PHMC hits.
    7. Environmental resources criteria such as wetlands, threatened/endangered species, Allegheny Landtrust Greenways and any PNDI hits.
    8. Whether there is the potential for shared use of public facilities.

f. Coreen Casadei provided some examples of potential sites and described some of the advantages and disadvantages of each site.
    1. Site P-3 is in the City of Pittsburgh. It is a former asphalt plant at the intersection of Washington and Allegheny Boulevards. It is a level site, has a high probability that it may qualify as a Brownfield, it has easy accessibility, ALCOSAN sanitary sewer crosses the rear of the site, PWSA has various 8" lines, one 60" line and three 50" water mains located along the southern side of the site, and there are no known issues with engineering and constructability or public facilities. The Allegheny Land Trust has a walking trail on the site and there was one PNDI hit. There was no apparent fatal flaw with the site and it was carried forward as a preferred site.

2. Site P-5 was not considered further because of the large elevation difference of nearly 200 feet between the interceptor and the site grade. This would be a major technical issue and would be very costly to pump up to the location.

g. The following sites for CSOs A-69 through A-74 were carried forward: A-1, S-1 and S-2.

h. The following sites for CSO A-41 were carried forward: P-1 and P- 6.

i. The following sites for CSO A-42 were carried forward: P-3 and P-7.

j. The following sites for CSO A-68 were carried forward: E-1, E-4 and E-5.

k. The following sites for SSO A-45 were carried forward: V-2, V-3 and V-4.

l. Jerry Kleyman presented a slide showing the combined sites and technologies results.

1. Screening, high rate clarification, vortex separator, high rate disinfection, UV disinfection and conventional tunnels will be considered further for the CSO sites.
2. Retention treatment basins will be considered further for the CSO sites except P-1, P-6, P-3 and P-7.
3. Storage tanks or Secondary treatment followed by UV disinfection or high-rate disinfection will be considered further for the A-45 sites.
4. Conventional tunnels will not be further evaluated for the A-45 sites because it wouldn't be logical to extend the tunnel far up into the system just to capture the small volume from the A-45 overflow.
5. Tanks will be further evaluated for A-69 through A-74 sites.
6. Inline storage will be further evaluated for A-69 through A-74 and A-68 sites.

m. In summary, 13 out of 23 preliminary sites will be evaluated further. Some of the screened sites may be reconsidered as the Feasibility Study and Present Worth Analysis evolves.

n. Meeting participants were invited to look at each of the sites which were presented on display boards and ask questions.

o. Dave Borneman stated that once CSO and SSO control alternatives are identified within each of the Basins then all the alternatives

need to be looked at regionally considering the capacity of the plant. Right now the control alternatives are focused on CSO and SSO outfalls specific to the Basins; however, the ultimate alternative will be chosen based on regional suitability. Secondary treatment plant(s) to treat dry and wet weather flows for portions of the ALCOSAN system will be evaluated at the regional level.

5. Municipal/ALCOSAN Coordination

a. Janai Williams made the following comments regarding the Customer Municipal Advisory Committee:
   (1.) Tim Rogers, Anthony DeLuca and Mary Ellen Ramage are the CMAC representatives for the UA Basin
   (2.) The CMAC's focus has been on the Feasibility Studies, multi-municipal planning and ALCOSAN's impact on the municipalities.
   (3.) The next meeting is scheduled to occur on October 14, 2009.

b. Janai Williams made the following comments regarding the Regional Stakeholder Group:
   (1.) Charles Vogel, Ed Warchol and Ron Borczyk are the RSG representatives for the UA Basin.
   (2.) The RSG's focus has been on educating the general public.
   (3.) The next meeting is scheduled to occur on October 15, 2009.
   (4.) Tim Rogers reported that ALCOSAN has been very helpful and forthcoming.

c. Karen Brean stated that the next BPC meeting is scheduled to occur sometime in January.

d. Karen Brean made the following comments regarding the tentative Public Forum Meetings:
   (1.) The Public Forum Meetings will be an open house format from 7 pm to 9 pm.
   (2.) The purpose of the Public Forum Meetings is to reach out to stakeholders not already meeting as part of the BPC meetings, CMAC, RSG or Feasibility Studies Working Group.
   (3.) There will be a brief wet weather issues presentation presented at the meetings.
   (4.) Informational kiosks will be set-up to address specific topics.
   (5.) Three tentative locations and dates have been proposed.
      a. November 9, 2009 there will be a meeting at the Penn Hills Senior Center in Penn Hills. Its target audience is people within Penn Hills, Verona and Pittsburgh. This meeting will be a joint meeting with the Thompson Run/Turtle Creek Basin.

b. November 11, 2009 there will be a meeting at Parkview Social Hall in O'Hara Township. Its target audience is people within O'Hara, Fox Chapel and Blawnox. This meeting will be a joint meeting with the LOGR Basin.

c. November 18, 2009 there will be a meeting at the Sharpsburg Borough Building in Sharpsburg. Its target audience is people within Sharpsburg, Aspinwall, Etna and Shaler.

e. Karen Brean made the other following comments:

(1.) A database of stakeholders has been developed. If a particular group should be included, please let the UA Basin team know.

f. John Shannon made the following comments regarding the Feasibility Studies Working Group:

(1.) The FSWG is open to all. It meets the second and fourth Tuesday of the month.

(2.) A ten step process has been developed for the municipalities to use in developing their Feasibility Studies.

(3.) The last meeting focused on flow reductions and alternatives.

(4.) The next meeting will focus on the typical year and design storms. ALCOSAN will be presenting at this meeting.

(5.) The working group is working on intermunicipal agreements.

(6.) The O&M subcommittee is putting together a questionnaire for the municipalities to use to develop an O&M plan.

(7.) ALCOSAN has asked for certain information regarding preliminary flow estimates and plans for dealing with these flows. Budgets for dealing with these flows will need to be developed and included in the next year's municipal budgets.

(8.) The following questions were asked and answers provided regarding the Feasibility Studies Working Group:

a. Question from Art Gazdik: Are the documents the Feasibility Studies Working Group developing published on the website?
Answer provided by John Shannon: The documents will be published on the 3RWW website.

c. Question from Art Gazdik: Will an e-mail be sent out when the documents are available?
Answer provided by John Shannon: Yes

6. Next Steps

a. The following comments were made regarding next steps:

(1.) The Preliminary of Controls and Sites Report will be completed in October or November of 2009.

(2.) The UA H&H Modeling Report will be completed in October or November of 2009.

a. Dave Borneman stated that these dates refer to when the H&H report is due to ALCOSAN but the goal is to get the model back out to the municipalities before the end of the year for them to use.

(3.) The BQAR No. 2 will be distributed in October 2009.

(4.) The UA Basin will begin working on the Present Worth and Feasibility Study of the control alternatives.

(5.) The dates for future meetings include:

a. BPC Meeting No. 6 will occur in January 2010.

b. Public Participation Plan Workshop is scheduled to occur in the Fall of 2009.

d. The next CMAC meeting is scheduled for October 14, 2009.

e. The next RSG meeting is scheduled for October 15, 2009.

f. Tentative public meetings are scheduled on November 9th, 11th and 18th.

Next meeting is TBD for sometime in January 2010

ALCOSAN Basin Facilities Planning
Basin Planning Committee Meeting #6
Minutes

Basin: UA
Date: March 3, 2010

To:	Mike Lichte, Darby Neidig	**Date:**	March 3, 2010
CC:	All Attendees; Distribution List		
Copy:	File 9089003 (WBS 10.1.1)		
From:	Malcolm Pirnie, Inc.; KBC		
Re:	**UA Basin Planning Committee Meeting No. 6 Minutes**		
	Location/Time: Sharpsburg Borough Building @ 9:30 AM March 3, 2010		

Attendance: Also See Attached Sign-in List

Mike Lichte (ALCOSAN)	Coreen Casadei (Collective Efforts)	John Schombert (3RWW)	Kevin Creagh (Shaler)
Darby Neidig (AECOM)	Elizabeth Yimin (KBC)	Mary Ellen Ramage (Etna)	John Shannon (Baker/3RWW)
Jerry Kleyman (MPI)	Janette Campbell (Ebony Holdings)	Chuck Steinert (O'Hara)	Art Gazdik (Ross)
Jeff Ifft (MPI)	Don Waldorf (PWSA)	William An (KLH Engineers/O'Hara)	Tom Flanagan (PA DEP)
John Ross (MPI)	Ron Borczyk (Sharpsburg)	Kurt Todd (Gateway/Penn Hills)	Kevin Brett (Lennon, Smith & Souleret/Fox Chapel)
Laura McGinnis (MPI)	Gary Koehler (Fox Chapel)	Lisa Sorg (ACHD)	Bob Zischkau, Jr. (Glenn Eng./Sharpsburg & Aspinwall)

1. Introduction

a. Mike Lichte of ALCOSAN introduced himself and made the following comments:

(1.) He is the ALCOSAN Project Manager for the UA Basin Planning team.

(2.) This is the sixth meeting of the Upper Allegheny Basin Planning Committee.

(3.) He asked everyone to introduce themselves to the group.

a. John Ross is with Malcolm Pirnie and is the GIS data and subconsultant coordinator for the UA Basin Planning team.

b. Jerry Kleyman is with Malcolm Pirnie and is the Planning Phase Technical Leader for the UA Basin Planning team.

c. Jeff Ifft is with Malcolm Pirnie and is the technical leader for the Screening of Preliminary Alternatives and Sites Report.

d. Laura McGinnis is with Malcolm Pirnie and is the technical leader for the H&H model.
e. Coreen Casadei is with Collective Efforts and is part of the UA Basin Planning Team.
f. Chuck Steinert is the Manager of O'Hara Township.
g. Gary Koehler is the Manager of Fox Chapel
h. John Schombert is with 3RWW.
i. John Shannon is with Michael Baker Corporation and is representing 3RWW.
j. Kurt Todd is with Gateway Engineers and is the Engineer for Penn Hills and Churchill.
k. Tom Flanagan is with the PA DEP.
l. Kevin Creagh is the Engineer for Shaler Township.
m. Kevin Brett is with Lennon, Smith, Souleret Engineers and is the Engineer for Fox Chapel.
n. Art Gazdik is the Engineer for Ross Township.
o. Janette Campbell is with Ebony Holdings.
p. Mary Ellen Ramage is the Manager for Etna Borough.
q. Lisa Sorg is with the Allegheny County Health Department.
r. Ron Borczyk is the Manager of Sharpsburg Borough.
s. Darby Neidig is with AECOM and is the Basin Coordinator for the UA Basin Planning team.
t. William An is with KLH Engineers and is the Engineer for O'Hara Township.
u. Bob Zischkau is with Glenn Engineering and is the Engineer for Sharpsburg, Aspinwall and Wilkinsburg.
v. Don Waldorf is with PWSA.

(4.) 2010 will be a busy year for Basin Planning activities. The Basin Planners are completing their respective H&H models. A meeting with the Program Manager has been scheduled for Tuesday March 9, 2010 to conduct a final review of the H&H model. The intent is to distribute the H&H model to the municipalities the following week. The Customer Municipality Advisory Committee (CMAC) has met internally to review the H&H model distribution process.

Question from Kevin Creagh: Will the models and model documentation be provided at the same time?
Answered by Mike Lichte: Although both the models and model documentation are being completed at the same time, the models will be distributed first and the model documentation will be distributed shortly thereafter. The model documentation includes the

H&H model results including the typical year of events, design storms, model calibration and site validation plots.
Answered by Jerry Kleyman: The H&H Model report explains the model calibration process and results and not the instructions on how to use the model. Malcolm Pirnie is currently in the process of addressing comments received from the PM team.

(5.) This BPC meeting will include a discussion of the control alternatives including the costing out of the control alternatives and criteria weighting factors for ranking of control alternatives.

b. Jeff Ifft made the following comments:

(1.) There are four handouts at the back of the room.
   a. ALCOSAN technology outreach flyer
   b. The BPC Meeting No. agenda (The agenda and meeting minutes will also be posted to the ECM)
   c. The BPC Meeting No. 6 presentation (The presentation will be posted to the ECM)
   d. The Basin Quarterly Activities Report (The BQAR was sent out earlier this week)

(2.) An overview of the meeting's agenda was provided.

(3.) The project status on a task basis was provided:
   a. Task 1: Kickoff meeting, Task 2: Work Plan submittal and Task 3: Existing Information & Existing Conditions Report are complete,
   b. Task 4: Hydraulic Model & Calibration Report is nearly complete. Comments on the second draft of the report have been received.
   c. Task 5: Screening of Preliminary Alternatives & Sites Report is complete.
   d. Task 6: Feasibility Report & Present Worth Analysis submittal has started.
   e. Task 7: Draft Facilities Plan submittal and Task 8: Final Facilities Plan will be completed in 2010 and 2012 respectively.
   f. Task 10: Municipal Coordination is an ongoing task. The next BPC, the Regional Stakeholder Group (RSG) and CMAC meetings are planned for March.
   g. Task 11: Public Outreach: Public meetings were held in November and BQAR No.3 was distributed in March as part of the public outreach program.

(4.) A review of topics discussed at BPC Meeting No.5 and progress made on those tasks was provided:

a. The flow monitoring data is available on the 3 Rivers MDS site. Design storms and typical year rainfall data has also been posted to the MDS website. The typical year rainfall for CSOs is calendar year 2003. 1-year, 2-year, 5-year and 10-year design storms for SSOs are available. Preliminary model results were provided showing the top 10 UA Basin overflows by annual volume. The only change since BPC Meeting No. 5 is that overflow A-35 is predicted to be in the top ten. The screening process for identifying the feasibility of technologies for specific overflow control was reviewed. The preliminary site screening process was presented which resulted in 13 potential sites and included 6 overflow groupings. The plan and schedule for the public meetings conducted in November were shared. The Alternatives Costing Tool (ACT) was distributed for use and a revision is planned. This tool is an Excel workbook that can be used to generate costs for implementing a particular control alternative. In the revised version, green alternatives have been added. Mike Lichte stated that because of core flow and secondary treatment evaluation requirements, the ACT has also been updated to include secondary treatment costs.

2. H&H Modeling

a. Laura McGinnis reviewed the status of the H&H model. The first draft of the model was submitted to ALCOSAN in November 2009. Additional refinements were requested and performed and the second full draft of the model was submitted in late January 2010. The Basin Team is currently wrapping up the model review comments. The model is expected to be distributed by ALCOSAN to the municipalities in March.

b. Laura McGinnis stated that the H&H Modeling Report includes a summary of the model building process and an explanation of how information from the municipalities was incorporated, how external data such as flow metering data and 3RWW system attributes were used, how ALCOSAN's protocols were followed, the validation results and the identification of problematic areas, and the system characterization approach and results including what happens within the collection systems.

c. A map of the UA Planning Basin model extents was presented. The model extents have not been changed in over a year. The following questions were asked and answers provided:

Question from William An: What are the red lines?

Answered by Laura McGinnis: The red lines represent the model extents and the yellow lines represent the critical portions.

Question from William An: Were the metering sites modeled?
Answered by Mike Lichte: The catchments were modeled. The Basin Planners looked at metering data, rainfall data and used best knowledge to calibrate the model without remetering areas.
Answered by Jerry Kleyman: The model is a planning tool and is affected by variables such as flow metering data and physical presentations. There are also variables associated with the calibration.

Question from Art Gazdik: Does the model extend to ALCOSAN's wet well?
Answered by Mike Lichte: No, but the boundary conditions between basins are dictated by the wet well elevation. The wet well acts as a receptacle so that when the level rises a drop is seen in the HGL levels.

Question from Art Gazdik: So the data is based on boundary condition data?
Answered by Mike Lichte: The data was calibrated to the boundary conditions.

Question from Art Gazdik: How much is the interceptor affected by river overflows?
Answered by Laura McGinnis: Overflows from the interceptors are affected by the river elevations.
Answered by Jerry Kleyman; Flap gates at the overflows were built into the model so the river water doesn't inflow into the interceptors.

Question from William An: How were the critical portions determined?
Answered by Jerry Kleyman: The critical portions were defined by the Consent Decree. The model was further extended past the critical portions based on flow monitoring data. The flow monitoring data was analyzed to determine incidents of surcharging.

Question from Art Gazdik: Will different storm events and winter/summer scenarios be included in the model?
Answered by Mike Lichte: The typical year is included.

Question Art Gazdik: The typical year is for CSO systems, what about SSO systems?

Answered by Jerry Kleyman: Some areas are affected more by summer storms and others are affected more by winter storms. 5 and 10 year storm events will be evaluated for SSO systems. When looking at the system, SSO systems will be sized first and then the CSO systems will be sized using the typical year.

Question from Art Gazdik: Will a system-wide model be made available to the municipalities?
Answered by Jerry Kleyman: Basin Planners are only doing a basin-wide model. The Program Manager may compile this into a system-wide model.
Answered by Mike Lichte: A system-wide model may not be available to the municipalities. ALCOSAN hasn't really discussed this issue.

Question from Art Gazdik: Are you looking at the feasibility of implementing controls at the basin level only?
Answered by: Jerry Kleyman: The Basin Planners are tasked with determining the best control alternatives at the basin level. The basin level control alternatives will be used to come up with the regional control alternatives.

Question from Bob Zischau: Are the Ravine Street and Delafield Road direct stream inflows built into the model?
Answered by Mike Lichte: They are built into the model. Stream removal will be evaluated to determine if it is cost effective; not all stream removal projects are cost effective. Currently there are no projects to remove the stream inflows.

Question from Bob Zischau: The Delafield Road stream inflow has an adverse affect on the system. Is ALCOSAN still pursuing the grant for the stream inflow removal project?
Answered by Mike Lichte: ALCOSAN is still pursuing grant money. Funding has been available from the U.S. Army Corps of Engineers and they are working with Gannett Fleming on the Delafield Road stream removal project.

Question from Art Gazdik: The feasibility analysis for the control alternatives that the Program Manager is doing, is that only looking at the POC's or are they looking at problem areas within the municipalities?
Answered by Jerry Kleyman: The analysis is not being done at the municipal level.

Question by Art Gazdik: Will there be specific meetings between the municipalities and the Program Management team?

Answered by Mike Lichte: Yes, to discuss what options will be implemented. Statement from Art Gazdik: I would like to know the timeline for having the meetings to discuss the control alternatives at the POC's to ensure there is an integrated approach between the municipalities and the Program Management team.

Statement from Jerry Kleyman: The Basin Planners will meet with the municipalities in March to discuss the preliminary flow estimates. The first iteration of control alternatives based on the preliminary flow estimates will be presented at the next BPC meeting with the purpose to eliminate any control alternatives that the municipalities might be implementing within their systems.

Statement from Mike Lichte: This is an iterative process that involves the municipalities and their plans.

Statement from Art Gazdik: They already have a group that meets to discuss the Pine Creek Basin. I suggest the Basin Planners meet with this group rather than with the individual municipalities.

d. A snapshot of the model was presented to show what the model will look like when viewed by the municipalities. The model contains representations of a collection system's pipes and nodes and information such as pipe diameter and length. The model was generated using SWMM 5 software.

e. An example of the calibration results for an event monitored by meter A4200_-IM_-L-05_ was presented. The graph depicts the comparison between the monitored flow (represented by green line) and the simulated flow (represented by the red dashed line). The blue line represents the rainfall data. Laura McGinnis stated the graph shows that the flow peaks with rainfall and is affected by previous peaking events. Calibration plots were generated for every rainfall event at each of the 82 metering sites.

f. An example of the Systemwide Validation was presented to show the simulated versus observed event volumes for all sites. Laura McGinnis explained that each dot represents an event. The dots should be clustered around the best fit line. This validation plot demonstrates that the model is appropriately calibrated for predicting volume.

Question from William An: What tools and software program/computer language were used to generate these plots?

Answered by Jerry Kleyman: Excel and in-house data management tools were used. Data was analyzed in Excel and imported into in-house tools. Pirnie's IT group wrote programs to generate the plots.

g. An example of the HGL profile was presented. The HGL profile shows surcharging events and what happens further downstream from a surcharging event.

h. Typical year (2003) CSO/SSO statistics including annual overflow volume duration, peak flow and number of activations were presented for each ALCOSAN overflow located within the UA Basin.

i. Typical year (2003) overflow statistics for municipal CSO's and 10 year design storm statistics for municipal SSOs were presented. Jerry Kleyman stated that this is the first time the municipal overflow statistics have been presented. Municipalities should review the statistics to determine if the information presented matches their understanding of their system.

j. Full-size slides will be sent to all attendees as part of the meeting minutes.

3. Preliminary Flow Estimates

a. Jerry Kleyman made the following comments regarding the preliminary flow estimates:

(1.) In order to develop control alternatives, preliminary flow estimates are needed from the municipalities. It is anticipated that initial preliminary flow estimates will be the "highest flow-case" for the year 2046.

(2.) If the municipality provides their preliminary flow estimates, they will be used in the initial control alternative development. However, it's understood that the municipalities may want to only estimate their flows once or wait for the model release and use its results to predict their preliminary flow estimates. Pirnie can use the H&H model to estimate preliminary flow estimates for the initial control alternative development but eventually the initial model estimates and municipal preliminary flow estimates will need to be reconciled.

Question from Kevin Creagh: The timeframe originally given by ALCOSAN to the municipalities for developing their preliminary flow estimates was based on the H&H model being completed in October or November and given to the municipalities for them to estimate their preliminary flow estimates by April and refine in early fall 2010. Since the municipalities are not receiving the model until March, why not generate the preliminary flow estimates based on the H&H model and let the municipalities refine their flow estimates based on this information?

Answered by Jerry Kleyman: The H&H model can be used to generate preliminary flow estimates and meetings can be scheduled with the municipalities to discuss the control alternatives and preliminary flow estimates.
Statement by Art Gazdik: At the last FSWG, Tim Prevost suggested that the municipalities request ALCOSAN's preliminary flow estimates for the municipalities to use as a starting point in determining their own.

b. Jerry Kleyman stated that the municipalities need to decide upon their level of service and determine what level of surcharges the municipalities will accept as this will affect the type of control alternatives considered.

c. Municipal flow and control alternatives will have a significant impact on ALCOSAN's alternatives. The first preliminary flow estimate iteration will assume that the municipalities will convey all flows to ALCOSAN. Other conceptual outcomes for the municipalities to consider include maintaining baseline flows based on the typical year for CSO systems or 10 year design storm for SSO systems, increasing flows to ALCOSAN up to the existing interceptor capacity and implementing control alternatives to take care of excess flows or reducing flows conveyed to ALCOSAN. Outcomes are likely to be municipal system-specific.

d. When considering the "all flows to ALCOSAN" outcome, it is assumed that municipalities with permitted overflows would close off overflows and provide increased conveyance to ALCOSAN or the next downstream municipality through municipal interceptor upsizing or installation of a new relief pipe. Municipalities without permitted overflows would address their surcharging and flooding issues, as necessary, with increased conveyance to ALCOSAN or the next downstream municipality through municipal sewer upsizing or installation of a new relief pipe.

e. When considering the "Maintain existing (baseline) flows" outcome, it is assumed that municipalities with permitted overflows will address their overflows through a combination of source control (such as sewer separation, I/I reduction and green infrastructure), localized conveyance, treatment for CSO systems or storage for both CSO and SSO systems. This is a more likely outcome to consider for an overflow located far upstream from the ALCOSAN point-of-connection or proposed control facility. Municipalities without permitted overflows will address their surcharging and flooding issues with source control and localized conveyance.

f. When considering the "reduce flows to ALCOSAN" outcome, it is assumed municipal systems with no overflows will have to implement aggressive source control. Municipal systems with permitted overflows will have to implement aggressive source control along with increased storage and treatment. There are no strong regulatory drivers for this outcome. This outcome is most likely applicable to

those municipalities with no overflows and fewer surcharging and flooding issues. Information needed from the municipalities include preliminary flow estimates, future dry weather flows and population projections, maximum municipal interceptor capacity and the municipalities' plan to accommodate preliminary flow estimates, and the municipalities' plans for addressing their overflows and service issues.

g. Meetings with the municipalities will be scheduled in March to discuss the information needs.

Question from Art Gazdik: Does the model include future conditions?
Answered by Jerry Kleyman: For now it only includes the current conditions. Information such as flows based on 2046 population projections and revised boundary conditions based on the wet well will have to be built into the model. Another iteration of the model will be done to include early action projects completed by the municipalities.

Question from John Schombert: Is ALCOSAN still looking at a "pay to play" policy.
Answered by Mike Lichte: They do not know yet what the structure will be. A "pay to play" would require a re-working of the existing agreements that some municipalities have with ALCOSAN.

h. Jerry Kleyman stated that the UA BP team's focus is finding the most cost-effective engineering solution for the UA basin. Rate structure evaluations may be conducted, as necessary, by ALCOSAN in parallel to or after engineering evaluations. This approach is similar to what is done by other CSO communities.

4. Feasibility Report and Present Worth Analysis Guidance

a. Jeff Ifft stated that the definition of a "control (site) alternative" is a combination of a technology and site sized for a particular storm or wet weather event.

b. The UA Basin strategy for evaluation of control alternatives includes:
   (1) Identifying an array of preferred control (site) alternatives for each UA Basin overflow
   (2) Conducting post processing of model runs to determine the control levels based on design storms or number of overflows/year
   (3) Using the Alternatives Costing Tool to estimate the life cycle cost of the control alternatives and to eliminate high cost alternatives
   (4) Use criteria to rank control alternatives
   (5) Combine control alternatives into UA Basin Alternatives
   (6) Develop "knee of the curve" cost plots for each UA Basin Alternative.

ALCOSAN will use this information to determine each Basin's best alternative and select the recommended UA Basin Alternative that will be integrated with the other Basins' recommendations to develop the regional alternative.

c. Maps showing the 13 preliminary sites for CSO and SSO control locations were presented.

d. A table showing the preliminary list of feasible sites combined with feasible technologies was presented. The preliminary municipal flow estimates will help to determine if these alternatives are still viable.

e. A hypothetical example of a CSO Control Alternative was presented for overflow A-41 in Pittsburgh. A control alternative evaluation for this overflow would include two sites, three control technologies and five control levels so that in total 30 alternatives could be considered. The cost was calculated using the ACT assuming 4-6 overflows per year, site P-6, utilizing high rate clarification at a peak flow of 110 MGD and 1300 hours of operation.

   Question from Art Gazdik: What does control level mean?
   Answered by Jeff Ifft: In this example, 4-6 overflows per year is the control level and the 110 MGD and 1300 hours are the parameters that are driving the cost of this alternative. In this example the cost is $32.8 Million and is probably feasible; however, if the cost was $175 million then this alternative would probably not be evaluated at any other control levels. The first cut for eliminating control alternatives will be based on cost effectiveness.

f. Non-economical factors will also be considered when ranking control alternatives. ALCOSAN asked the Basin Planners to generate a list of criteria that the municipalities would want considered when developing the control alternatives. Preliminary ranking criteria established by ALCOSAN includes:

   (1.) Economic factors such as total present worth and predictability of cost
   (2.) Public factors such as community disruption, potential for nuisances, multiple benefit opportunities and environmental justice
   (3.) Water quality, public health and environmental impacts such as overflow volume reduction, bacteria discharge reduction, solids and floatables capture, BOD control, nutrient control, control of discharge to sensitive areas and impact to slopes, shoreline and wildlife
   (4.) Operational impacts such as ease of operation, ease of maintenance, reliability/redundancy and O&M consistency with existing practices. Implementation impacts such as constructability, ability to expand capacity and land acquisition
   Question from Kevin Creagh: What is environmental justice?

Answered by Jeff Ifft and Jerry Kleyman: An alternative should not further impact the property value of a low income economic area.

g. An example to show the comparison of alternatives based on criteria was presented.

h. Participants were provided with 10 dots that each had a value of 10%. The participants were asked to place the number of dots they felt best represents the weight that each category should have in the ranking of control alternatives. The results will be compiled and integrated with the other Basins', CMAC and RSG results and then used by the Basin Planners in weighting the control alternatives.

(1.) Mike Lichte stated that it is a simplified method of scoring.

(2.) Jerry Kleyman stated that the purpose of weighting the criteria is to prevent the choosing of an alternative based solely on cost.

(3.) Jeff Ifft presented the results of the ranking criteria weights:

- Economic Factors: 39%
- Public Factors: 17%
- Water Quality, Public Health and Environmental Impacts: 26%
- Operational Impacts: 12%
- Implementation Impacts: 5%

i. An example of a knee of the curve analysis was presented that showed how basin alternatives would be developed for a number of control levels. The control levels would be based on a combination of of SSO design storms and CSO control levels (events per year). The control levels would be plotted against the cost or net present worth to determine the most cost-effective control level which is typically where the curve "break" in its slope.

5. Municipal and Public Outreach

a. Janette Campbell made the following comments regarding the CMAC:

(1.) The fifth CMAC meeting was held on March 2, 2010. This meeting was originally scheduled to occur in February but was postponed because of the inclement weather. Tim Rogers, Anthony DeLuca and Mary Ellen Ramage are the CMAC representatives for the UA Basin.

(2.) The CMAC also weighted the ranking criteria for the control alternatives. The results of their ranking are as follows:

- Economic Factors: 24%
- Public Factors: 15%
- Water Quality, Public Health and Environmental Impacts: 24%
- Operational Impacts: 24%
- Implementation Impacts: 15%

b. Janette Campbell stated that the RSG meeting originally scheduled to occur in February has been rescheduled to March 16, 2010. RSG members will also participate in the weighting of the control alternatives ranking criteria. Charles Vogel, Ed Warchol and Ron Borczyk are the RSG representatives for the UA Basin.

c. Janette Campbell stated that key agenda items for 2010 include evaluating control (site) alternative ranking criteria weights, integrating feedback on site alternative screening and evaluation criteria, municipal advocacy and building public consensus for CSO/SSO solutions.

d. Public meetings were held in January and February 2010. The primary goal of the meetings was to provide an update on the Wet Weather plan. Key themes and questions included alternatives analysis and facility sites, the ALCOSAN Consent Decree, municipal coordination and public awareness and engagement.

6. Basin Outreach Meetings

a. Janette Campbell stated that three public meetings were held in November 2009 in Penn Hills, O'Hara Township and Sharpsburg in the UA Basin. The primary goal was to educate the public about the Wet Weather Plan and wet weather problems. Key themes and questions included the consent decree, municipal coordination, public health and public awareness and engagement.

Question from Jeff Ifft to Mike Lichte: How are the public meetings going to evolve.

Answered by Mike Lichte: There will be a need for more public meetings in the future to review the Basin Planners' alternatives once the alternatives are better defined. It is likely that in the future the meetings will occur on a basin level.

7. Financial Data Collection

a. The following comments were made regarding the financial data update:

(1.) The Alternatives Costing Tool is being revised to include satellite sewage treatment and will be posted to the municipal website.

(2.) Federal fiscal 2010 appropriations include $225,00 and federal fiscal year 2011 funding is being pursued. Mike Lichte will provide an update about the progress of obtaining 2011 funding at a later date.

(3.) There are low cost RUS and PennVest application workshops.

(4.) Refinement of the current conditions "Affordability" model is ongoing. Response to the 3RWW Municipal Asset data survey is about 75% complete. A committee has been established by 3RWW and has met twice to review the information collected.

a. John Schombert stated that the Municipal Asset data survey is being populated by the Managers and Engineers. The purpose of the survey is to capture economic data that the Program Manager can use. While collection of the data is still ongoing, analysis of some of the data has been started.

8. Next Steps

a. Next steps include:

(1.) The distribution of the H&H model to the municipalities
(2.) Iterative execution of the H&H Model based on preliminary municipal flow estimates
(3.) Sizing and cost of control alternatives based on H&H model results and Alternatives Costing Tool
(4.) Identification of criteria weights with municipal input
(5.) Ranking of control alternatives
(6.) Development of "knee of the curve" evaluations for each CSO and compiling that into a basin wide control alternative
(7.) Development of the Feasibility and Present Worth Report this fall

9. Questions /Comments

a. The following comments were made, questions asked and answers provided:

Question from Art Gazdik: What is the median household income of ALCOSAN's service area?
Answered by Mike Lichte: I don't know what the median household income is though someone at CDM probably knows the number. I will find out and email you the number. This topic has been discussed at the CMAC; it needs to be further considered so that we don't end up with a solution that no one can afford.

Comment from John Schombert: Tom Schevtchuk of CDM knows the median household income. It was determined as part of an early look at affordability.

Comment from Art Gazdik: It would be good to have an update on the financial affordability at the next BPC meeting.

Comment from Mary Ellen Ramage: It might be a good idea to determine the affordability prior to costing alternatives.

Comment from Jerry Kleyman: Some communities will look at a weighted MHI, whereas others will look at the municipality with the lowest MHI to calculate

affordability. NACWA suggested looking at the sewer and water portion of the water bill and not just the sewer bill.

Comment from John Schombert: Philadelphia did the financial affordability analysis first and determined that the water quality criteria could not be met in the timeframe.
Comment from Art Gazdik: Philadelphia is doing a good job of controlling costs by looking at affordability on an ongoing basis. The Third Party review of ALCOSAN's LTCP included a financial affordability analysis. Could ALCOSAN repost the Third Party Review on the ECM website? It would be a good idea to get the stakeholders and committees involved.

Comment from Mike Lichte: The CMAC and RSG are trying to cover the non-engineering aspects of the project.

Comment from Mike Lichte: Philadelphia underwent a similar approach. They are about five years ahead of ALCOSAN with their project.

Comment from Mary Ellen Ramage: The Financial Affordability was discussed at the last CMAC meeting. Other topics discussed at the CMAC meeting included:

- *To date, ALCOSAN has spent $19.6 million on consultants and the project is 47% complete.*
- *Green Initiatives: At the CMAC meeting, Arletta Williams stated that they are looking into green initiatives; however, they are not in a position to discuss at this time.*
- *H&H Model: There was discussion about when the municipalities will receive the model. If the model is not distributed to the municipalities until late March, will the date for determining their preliminary flow estimates be extended?*

Comment from Mike Lichte: The state of Oregon implemented a combination of gray and green infrastructure. ALCOSAN may take a similar approach.

Comment from Art Gazdik: Philadelphia is being very aggressive with the implementation of green infrastructure.

Comment from Jerry Kleyman: Philadelphia's plan is not yet approved and that the regulators do not yet know how to regulate green infrastructure. The Upper

Allegheny Basin Planning Team will bring examples of what has been done in other communities to the one-on-one meetings.

Comment from Mary Ellen Ramage: Etna is very interested in green initiatives.

Question from Art Gazdik: Is an analysis being done to determine the cost effectiveness of green versus gray infrastructure?

Comment from Jerry Kleyman: It is possible to do gray infrastructure at a lower control level and enhancing with green infrastructure.

Comment from Mike Lichte: There is a need to move forward with developing ordinances requiring developers to reduce the storm output footprint.

Comment from Jerry Kleyman: Initiatives undertaken by the private sector benefits the ratepayers by reducing the ratepayers' burden of cost.

Next meeting is TBD for sometime in the Summer of 2010

ALCOSAN Basin Facilities Planning
Basin Planning Committee Meeting #7
Minutes

Basin: UA
Period: June 23, 2010

To:	Mike Lichte, Darby Neidig	**Date:**	June 23, 2010
CC:	All Attendees; Distribution List		
Copy:	File 9089003 (WBS 10.1.1)		
From:	Malcolm Pirnie, Inc.; KBC		
Re:	**UA Basin Planning Committee Meeting #7 Minutes**		
	Location/Time: Sharpsburg Borough Building @ 9:30 AM June 23, 2010		

Attendance: Also See Attached Sign-in List

Mike Lichte (ALCOSAN)	Coreen Casadei (Collective Efforts)	Tracy Schubert (3RWW)	Kevin Creagh (Shaler)
Jan Oliver (ALCOSAN)	Tom Schevtchuk (CDM)	Martin Corbet (Senate Engineering/Verona & Blawnox)	Tom O'Grady (Penn Hills)
Darby Neidig (AECOM)	Elizabeth Yimin (KBC)	Don Newman (Buchart Horn/Etna)	John Shannon (Baker/3RWW)
John Amend (MPI)	Kaye Bealer (KBC)	Chuck Steinert (O'Hara)	Art Gazdik (Ross)
Jeff Ifft (MPI)	Andrew Maul (PWSA)	William An (KLH Engineers/O'Hara)	Tom Flanagan (PA DEP)
John Ross (MPI)	Ron Borczyk (Sharpsburg)	Rick Minsterman (Gateway/Penn Hills)	Kevin Brett (Lennon, Smith & Souleret/Fox Chapel)
Laura McGinnis (MPI)	Gary Koehler (Fox Chapel)	Lisa Sorg (ACHD)	Bob Zischkau, Jr. (Glenn Eng./Sharpsburg, & Aspinwall)
Tony Catania (KBC	Michelle B (ACHD)		

1. **Introduction**
   a. Mike Lichte of ALCOSAN introduced himself and made the following comments:
      (1.) He is the ALCOSAN Project Manager for the UA Basin Planning team.
      (2.) This is the seventh meeting of the Upper Allegheny Basin Planning Committee.
      (3.) This meeting will include a discussion of the preliminary flow estimates, control alternatives, financial data collection update and public participation plan.
   b. Jeff Ifft made the following comments:

(1.) An overview of the meeting's agenda was provided and will include the following topics:
   a. A brief review of the basin planning project status and a review of BPC meeting #6 topics.
   b Review of the H&H modeling including current assumptions being used for planning purposes and review of the "open model" approach which is being used for initial planning purposes in the absence of preliminary flow estimates from the municipalities
   c. Discussion of the UA Basin alternatives development and evaluation status
   d. A review of the preliminary financial capability evaluation presented by Tom Schevtchuk of CDM
   e. An update on municipal and public outreach
   f. An overview of the tools available including the ACT and municipal website
   g. Overview of the next steps
   h. Question and answer session

(2.) The Basin Planning project status was provided:
   a. Task 1: Kickoff meeting, Task 2: Work Plan submittal and Task 3: Existing Information & Existing Conditions Report and Task 4: Hydraulic Model & Calibration Report are complete.
   b. Task 5: Screening of Preliminary Alternatives & Sites Report: An addendum to the report has been developed to address several new sites. This addendum has been submitted to ALCOSAN and will be released to the basin Municipalities following review. Task 5 is complete pending Municipal review of the addendum.
   c. Task 6: Feasibility Report & Present Worth Analysis is currently in progress. ALCOSAN is conducting Feasibility Report Progress Meetings with the Basin Planners. To date, Pirnie has participated in two Feasibility Report Progress Meetings; the first on April 30, 2010 and the second on June 18, 2010. The third Feasibility Report Progress Meeting will be held on August 3, 2010.
   d. Task 7: Draft Facilities Plan submittal and Task 8: Final Facilities Plan will be accomplished during 2010 and 2012.
   e. As part of the municipal/ALCOSAN coordination task, BPC, RSG and CMAC meetings were held in Spring 2010.
   f. BQAR No.4 was distributed at the BPC Meeting and subsequently mailed as part of the public outreach program.

(3.) A review of topics discussed at BPC Meeting No.6 was provided. BPC Meeting No. 6 topics included:
   a. A Wet Weather Program update was provided
   b. The H&H modeling report and model calibration was submitted.

c. The purpose of the preliminary flow estimates was discussed and needs were defined.

d. The site alternative development process was presented and examples of control alternatives were provided. The site alternatives process is the development of a control alternative for a specific overflow whereas the Basin alternative process is the development of a control alternative for the entire Basin and would include a combination of the best site alternative(s) for the UA Basin.

e. Refinement of the preferred geographic sites for CSO and SSO controls were presented. This included the presentation of feasible and preferred sites.

f. The site alternative criteria weighting example was conducted to solicit feedback from the municipalities regarding which criteria the municipalities considered important when ranking the alternatives. The feedback from the municipalities was presented to ALCOSAN to decide on the ranking of the criteria.

g. The plans and schedule for the RSG and CMAC meetings were shared.

2. **H&H Modeling**

a. John Ross made the following comments regarding the future conditions and preliminary flow estimates:

(1.) During April and May, John Ross and Coreen Casadei met with 11 of the 12 municipalities within the UA Basin. The purpose of the meetings was to discuss projects that the municipalities are currently working on that may affect the future conditions and the corresponding UA Basin model runs. The meeting with PWSA has been postponed and will be rescheduled in the near future.

(2.) The following assumptions will be used for alternatives evaluation and do not necessarily represent permanent changes to the existing conditions model.

a. The model will be run with Ravine St. and Delafield Road stream flows “in the model”. This means that it is assumed that these DSI are still entering the ALCOSAN system. This assumption will provide a conservative approach in projecting overflow conditions. Ravine Street and Delafield Road stream flow contributions to the model can be “turned-off” in the future if the stream removal projects move forward.

b. Because Penn Hills is planning to continue to use the EQ tanks, their use has been included in the model under current operating conditions.

c. Because of a DSI detected along Lime Hollow Road, the use of the Lime Hollow Road metering data will be discussed with Penn Hills to determine how and if the DSI should be removed.

d. It has been determined that flows from Indiana Township septic tanks will not likely be routed to ALCOSAN. Therefore, septic contributions from this area will not be included in the model.

e. Currently, flows from the Hampton WWTP are not incorporated in the model. It is understood that in the future the WWTP may be routed to the UA Basin.

f. The model assumes sediment removal in the shallow cut interceptor based on direction from the Program Manager.

g. System modifications that have been or are in the process of being constructed in O'Hara and Etna have been incorporated. In O'Hara Township a pump station on the Fox Chapel border that pumps 80 homes into O'Hara, will be deactivated and the VA Hospital flow routed into a different subcatchments, System modifications within Shaler will be incorporated once details have been developed. The following questions were asked and answers provided:

Question from Jan Oliver: How are the streams included in the model?
Answered by John Ross: The flows have been included in the model as part of a specific flow file that can be turned on and off as needed.

Question from John Shannon: The list of updates that has been provided are all things that have been developed since the model was released?
Answered by Laura McGinnis: Yes. The model that was previously released was based on flow monitoring data, the model has since been updated to reflect future conditions.

Question from John Shannon: Will the revised model be released to the municipalities?
Question from Jan Oliver: What is not in the version of the model that was released to the municipalities?
Answered by John Ross: The system modifications that were made in O'Hara and Etna were not included in the model version that was released to the municipalities.

Comment and question from Jan Oliver: You would expect the municipalities to make those changes to their models. So this is merely a redelineation?
Answered by Laura McGinnis: There was one in O'Hara. There was a shift of where the flow from the VA Hospital was going to in terms of the POC.

Comment from Mike Lichte and Jan Oliver: The changes that are being made to the model are being done to develop an all flows to ALCOSAN approach and determine a worst case scenario.
Comment from John Shannon: It sounds as though improvements are being made to the model and it would be useful if the municipalities were working with the same version of the model.
Answered by Mike Lichte: A re-release of the model should not be ruled out but currently there is no plan to do so.

Comment from Jeff Ifft: The purpose of the meetings with the municipalities was to confirm in terms of flow what will and will not change.
Comment from Mike Lichte: For example, O'Hara is making changes to the pump station and this is information that will be needed to theoretically define the upper end of flow being sent to ALCOSAN and the future conditions.

Question from William An: Will the Basin Planner or municipalities be making the changes?
Answered by John Ross: The Basin Planner has made those changes to the model, as the municipalities make changes and improvements to their system they will have to make the changes to their models.
Comment from Jan Oliver: The Basin Planners need to begin incorporating controls in the model to determine which alternatives will be best for the Basin and subsequently the region; it would not be efficient to continually release new versions of the model as updates are being made.

(3.) Population projections were used in determining future conditions. Year 2046 population projections were extrapolated from TAZ population data using SPC 2035 population projections. Many of the municipalities felt that the SPC projections that were used to determine future populations

were too aggressive. Some municipalities felt that there would be no growth within the municipality or a decrease in population. 2035 SPC population projections were used for those municipalities that agreed with the growth projections. For those municipalities that either disagreed with the growth or projected a decrease in population, the populations were flat lined to the 2000 census data. Based on discussions with ALCOSAN and in an effort to be more conservative, the peak of the population projections will be used for O'Hara and Penn Hills.

Comment from Jeff Ifft: The population projections for O'Hara and Penn Hills were bell shaped with an increase followed by a decrease and so the peak population was used.
Comment from Jan Oliver: The control alternatives are being developed at the peak population.
Comment from Mike Lichte: If either Penn Hills or O'Hara does not agree with using the conservative population projection, then it is open for discussion.
Question from Tom O'Grady: You are using the 2030 number?
Answered by Mike Lichte: Yes
Comment from Rick Minsterman: It makes sense to use the conservative number if the control alternatives are based on the peak populations.

Question from Andrew Maul: What do the numbers on the table highlighted in blue represent?
Answered by John Ross: The populations that were selected to move forward with as a result of meeting with the municipalities.
Comment from Mike Lichte: The population projections are not yet finalized because we haven't met with the city but we do want to be conservative in our estimations.

(4.) The dates in the table shown on Page 8 represent the dates the preliminary flow estimates are due from the municipalities to ALCOSAN. The dates are taken from a summary table developed by ALCOSAN and are based on requested extensions. To date ALCOSAN has received preliminary flow estimates for the UA Basin communities of Fox Chapel Borough and O'Hara Township. The municipalities with due dates highlighted in yellow have due dates for developing their preliminary flow estimates after the Basin Planner's Feasibility Report is due; therefore, those municipalities preliminary flow estimates will not be reflected in the report or included in the early analysis.

Comment from Jan Oliver: It would be beneficial for all of the municipalities to submit their preliminary flow estimates so that they can be included in the early analysis otherwise we have to assume the worst case scenario which is the sending of all flows to ALCOSAN.
Comment from Andrew Maul: The due date for the City of Pittsburgh should be July 20, 2010.
Question from Jan Oliver: I thought we received the City's Preliminary Flow Estimates.
Answered by Mike Lichte: We have not received all of the City's Preliminary Flow Estimates, only those from certain Basins.

(5.) Jan Oliver asked that each municipality provide an update as to when they expect to have their Preliminary Flow Estimates completed:

- Bob Zischkau stated that Preliminary Flow Estimates for Aspinwall and Sharpsburg would be completed by this time next week.
- Martin Corbet stated that Preliminary Flow Estimates for Verona would be completed at the end of this month and Blawnox would be completed sometime in the middle of July.
- Don Newman stated that initial Preliminary Flow Estimates for Etna, Indiana, Ross and Shaler would be ready in 45 days.
- Rick Minsterman stated that Penn Hills is working with the City to develop a combined POC preliminary flow estimate and it will be completed by July 20, 2010.

Question from Jan Oliver: Will Pirnie update the table with the new due dates provided by the municipalities?
Answered by John Ross: Yes

Municipality	Original Due Date: PFE to ALCOSAN	H&H Model Posted	H&H Report Posted	Requested Extension Based on Model Post Date	Requested Extension Based on Report Post Date	PFE Due Date Based on Requested Extension	Anticipated Date to Receive PFE Based on Municipal/Consultant Statements at BPC#7	Municipal PFE Received
Aspinwall Borough	3/31/2010	3/25/2010	5/14/2010	60		5/24/2010	6/30/2010	
Blawnox Borough	3/31/2010	3/25/2010	5/14/2010	60		5/24/2010	7/16/2010	
Etna Borough	3/31/2010	3/25/2010	5/14/2010		150	10/11/2010	8/9/2010	
Fox Chapel Borough	3/31/2010	3/25/2010	5/14/2010					3/31/2010
Indiana Township	3/31/2010	3/25/2010	5/14/2010		150	10/11/2010	8/9/2010	
O'Hara Township	3/31/2010	3/25/2010	5/14/2010					3/25/2010
Penn Hills	3/31/2010	3/25/2010	5/14/2010	60		5/24/2010	7/20/2010	
Pittsburgh, City of	3/31/2010	3/25/2010	5/14/2010		60	7/13/2010	7/20/2010	
Ross Township	3/31/2010	3/25/2010	5/14/2010		150	10/11/2010	8/9/2010	
Shaler Township	3/31/2010	3/25/2010	5/14/2010		150	10/11/2010	8/9/2010	
Sharpsburg Borough	3/31/2010	3/25/2010	5/14/2010	60		5/24/2010	6/30/2010	
Verona Borough	3/31/2010	3/25/2010	5/14/2010				6/30/2010	

b. Laura McGinnis made the following comments regarding the Preliminary Flow Estimates:

(1.) The approach to developing the model based on 3RWW flow monitoring data included the development of a regression analysis tool, the development of a unit hydrograph from flow data, development of a synthetic unit hydrograph using available Shape program or SSOAP and the development of a full hydraulic model or extension of the ALCOSAN model.

(2.) In the absence of preliminary flow estimates from the municipalities, the goal of the open system model is to develop conservative estimates of municipal flow by assuming the elimination of all municipal CSOs and SSOs and successful conveyance of all flows to the ALCOSAN interceptors. This would require the upsizing, as necessary, of municipal pipes attributable to municipal SSOs and CSOs. Pipes within the sanitary sewersheds were upsized to convey the 10-year summer design storm. Pipes within the combined sewersheds were upsized to convey the peak wet weather event during the typical year.

Comment from Mike Lichte: This is consistent with what is required by the Consent Decree without information from the municipalities stating otherwise.

(3.) A table was presented summarizing the upsize requirements for municipal trunk sewers to achieve an open system. A range of theoretical upsized diameters for each sewershed in the UA Basin was presented. Laura McGinnis stated that the upsized diameters for A-68 in Etna ranged from 0.83 to 14 ft and while a pipe upsized to 14 ft was not logical, it did demonstrate the order of magnitude required to convey all flows to ALCOSAN.

(4.) Laura McGinnis explained the review process of municipal provided preliminary flow estimates. The UA Basin team will review the preliminary flow estimate documentation sheet for the analysis tools used, sewershed area, future population data source and assumptions, future collection system conditions including municipal trunk and interceptor upsizing assumptions and source reduction assumptions, months used to develop summer and winter preliminary flow estimates and concerns such as flow meter imbalance or disagreement with SPC population projections noted by the municipality.

(5.) The UA Basin reconciliation approach of municipal preliminary flow estimates includes a comparison of the preliminary flow estimates to the

UA H&H Model estimates. Any concerns will be documented and differences beyond an acceptable range of +/- 25% will be identified. Any concerns or unresolved PFEs will be discussed with ALCOSAN and, if necessary, followed by a discussion with the municipalities to reconcile the flows. The resolved preliminary flow estimates will then be incorporated into the UA H&H Model.

(6.) Examples of UA Basin preliminary flow estimates to municipal preliminary flow estimates was presented:

a. The first example shows how the preliminary flow estimates received from Fox Chapel (A-78-02) would react during a summer and winter 10 year design storms when compared with the preliminary flow estimates the UA H&H Model predicted. Both the municipal preliminary flow estimates and the UA H&H model preliminary flow estimates react similarly during the summer 10 year design storm. Therefore, the UA H&H Model estimate would be used since the preliminary flow estimate falls within the acceptable range of +/- 25%. However, there is a discrepancy in how the municipal and UA H&H Model preliminary flow estimates will react during the winter 10 year design storm. The municipal preliminary flow estimate is significantly lower than the UA H&H Model estimate. This is an example of when it would be necessary to resolve the preliminary flow estimates with ALCOSAN and the municipality to determine what changes the municipality made.

   Question from Jan Oliver: Does the example consider the location from which the preliminary flow estimates were derived?
   Answered by Laura McGinnis: Yes

(7.) The second example shows how the preliminary flow estimates received from O'Hara (A-7200) would react during a summer and winter 10-year design storms when compared with the preliminary flow estimates the UA H&H Model predicted. In this example both the DWF and WWF preliminary flow estimates vary when compared with the UA H&H Model estimates. The UA H&H Model is underestimating when compared to the municipal preliminary flow estimates. This is an example of when it would be necessary to discuss the preliminary flow estimates with ALCOSAN and the municipality.

Question from Bob Zischkau: In the previous slide, you mentioned reviewing Z agreements for consistency, what do you mean?

Answered by Laura McGinnis: Looking back at the Z agreements to make sure it commiserates with the amount of flow the municipalities can send to ALCOSAN.
Comment from Bob Zischkau: The Z agreements stipulate that ALCOSAN must take all the flow that the municipality sends to ALCOSAN.
Comment from Jeff Ifft: It may not be cost effective for the municipalities to send all flows to ALCOSAN.
Comment from Rick Minsterman: Penn Hills does not have a Z agreement; however, the Consent Decree says that ALCOSAN has to take all the flow sent by the municipalities so there is a conflict between the stipulations of the municipal agreements and the Consent Decree.
Comment from Lisa Sorg: The sanitary sewers were never designed to convey I/I so all flows to ALCOSAN isn't necessarily feasible.

3. UA Basin Alternatives Development

a. Jeff Ifft made the following comments regarding the alternatives development update:

(1.) In the following slides the areas highlighted in green, represent 2 acre sites that were developed in conjunction with the municipalities during a series of meetings. CSO and SSO controls will not be combined in the UA Basin because the SSOs and CSOs are not located near each other, thus making it non-feasible from an economic standpoint. Since BPC Meeting #6, the following additional sites for CSO and SSO controls have been identified:

- Site P-11 in Pittsburgh has been identified for CSO control
- Sites B-1, B-2 and B-3 in O'Hara/Blawnox have been identified for SSO control
- Sites O-1, O-2, O-3 and O-4 in O'Hara have been identified for SSO control

(2.) A map showing the revised control alternative groupings was presented. Initially, because of their close proximity to one another, SSOs A-82 and A-85 were identified for consolidation. However, it has since been determined that the consolidation of these overflows is more costly than potentially building two separate storage tanks. Therefore, SSOs A-82 and A-85 have been split. New control groupings identified include:

- The consolidation of A-69 through A-78 and is designated as CF-04 on the map

- The consolidation of A-35 through A-38 and is designated as CF-01 on the map
- The consolidation of A-40 & A-41 and is designated as CF-02 on the map

Site V-3 in Verona is now property that the Steel City Rowing Club will develop and will not be considered further as a potential site.

Comment from Chuck Steinert: Sites O2 and O3 in O'Hara are now slated for property development.

b. Jeff Ifft made the following comments regarding the SSO Basin Alternatives:

(1.) SSO basin alternatives include storage alternatives with consideration of source reduction and conveyance to the next downstream pump station for A-85 and A-82 and additional storage at A-45. The preliminary evaluation of source reduction is not a stand-alone basin alternative.

(2.) A matrix of SSO site alternatives under consideration was presented. The SSO alternative for A-45 is a storage tank at V-4. The SSO alternative for A-82 is a storage tank at B-3 and conveyance to B-3. The SSO alternative for A-85 is a storage tank at and conveyance to O-4.

(3.) Because peak flows are being driven by the summer design storm and storage and volume are being driven by the winter design storm, it is necessary to "mix and match" summer peak flow with winter volume to conservatively size alternatives.

(4.) A schematic of a tank storage as a SSO site alternative was presented. Tank sizes at 1, 2, 5 and 10 year control levels were summarized. Tank volumes for A-45 at site V-4 range from 780,000 Gal to 1,420,000 Gal. Tank volumes for A-82 at site B-3 range from 70,000 Gal to 240,000 Gal. Tank volumes for A-85 at site O-4 range from 130,000 Gal to 310,000 Gal.

(5.) SSO Basin alternative BA02 was presented. This example assumes a 2-year design storm, use of storage tanks and an influent pump station to each tank which is required due to the pipe depth.

- A-45 would require a 1,000,000 Gal storage tank, 2,940 LF of conveyance piping and an 11.2 MGD influent pump station.
- A-82 would require a 120,000 Gal storage tank, 1,310 LF of conveyance piping and a 5.3 MGD influent pump station.
- A-85 would require a 200,000 Gal storage tank, 140 LF of conveyance piping and a 0.5 MGD influent pump station.

Question from Jan Oliver: In your experience is it typical that with a pump station it would be gravity in and pump out?

Answered by Jeff Ifft: For the first cut, yes; however, cost effectiveness will need to be evaluated and it may be determined that the size of the force main will drive down the cost and pumping in may be more cost effective.
Question from Kevin Creagh: Did you do this for each storm?
Answered by Jeff Ifft: We have only evaluated it using the 2-year and 10-year design storms. For now we are just evaluating it at the extremes.
Comment from Mike Lichte: We are not just looking at storage alternatives, we are also evaluating the velocities in the force main.
Comment from Jeff Ifft: The alternative may be a combination of control alternatives.

(6.) SSO Basin alternatives BA01 to BA04 were presented. This example presents the knee of the curve analysis for tank storage. The knee of the curve evaluates the present worth cost versus the overflow frequency. The preliminary present worth cost with A-45 is driven by conveyance piping associated with a more remote site. The present worth cost with A-82 and A-85 was driven by consolidation piping if grouped; therefore, new sites were identified for two tanks. The knee of the curve will require iterations using the ACT and may result in more than one curve.

(7.) A source reduction evaluation based on a 2-year winter design storm was presented. Total R values were reduced by 10%, 20% and 30% and an open model was run for both a 2 and 10-year design storms during summer and winter periods. It may be feasible to reduce the size but not eliminate tanks.

Comment from Laura McGinnis: It is unlikely that you will experience the same change as depicted in the example. A 10-20% decrease for Shaler and O'Hara does not have enough of an impact on Etna.
Comment from Jan Oliver: This was the approach to the sensitivity analysis.

c. John Amend made the following comments regarding CSO Basin alternatives:

(1.) CSO Basin alternatives include tunnels, treatment for each site group and treatment with selective storage for each site group because storage is not feasible for all control levels. Because the UA Basin is the most northern basin in the ALCOSAN system, conveyance options are limited because interceptor capacity is used by those municipalities located downstream. Therefore, most technologies will be storage and tunnels rather than conveyance.

(2.) A matrix summarizing the CSO site alternatives under consideration was presented. The matrix included the preferred site for CF04, CF02, and CF01, A-42 and A-68 and the control alternatives being considered for each site. The control alternatives highlighted in pink represent those control alternatives that have been selected for further evaluation.

(3.) A table was presented summarizing the CSO alternative sizing for a retention treatment basin (RTB). The table showed the breakpoint ***peak flow*** that would need to be treated in order to achieve 0, 1, 2, 4, 12 and 20 overflows per year for CF01 (A-35 through A-38), CF02 (A-40 & A-41), CF04 (A-69 through A-78), A-42 and A-68. Based on a knee of the curve analysis the following breakpoint peak flows were determined:

- CF01: 4 overflows per year with a peak flow of 37 MGD
- CF02: 4 overflows per year with a peak flow of 110 MGD
- CF04: 12 overflows per year with a peak flow of 59 MGD
- A-42: 12 overflows per year with a peak flow of 138 MGD
- A-68: 12 overflows per year with a peak flow of 35 MGD

Question from John Shannon: What is the purpose of looking at control levels of 12 and 20? Based on guidance from ALCOSAN, the municipalities are looking at 0, 1, 2, 4, 6 and 10.
Answered by Mike Lichte: The 12 and 20 was used to develop the knee of the curve, the municipalities should still look at control levels of 0, 1, 2, 4, 6 and 10.
Comment from Jan Oliver: The municipalities are not evaluating at a control level of 12 and that is where the breakpoint is.
Comment from Jeff Ifft: This was used to develop a range. Right now we are looking at ranges.
Comment from John Amend: The control levels of 0, 1, 2, 4, 6 and 10 are the control levels that the municipalities are using to evaluate their overflows.

(4.) A table was presented summarizing the CSO alternative sizing for a retention treatment basin (RTB). The table showed the amount of breakpoint ***volume*** that would need to be treated in order to achieve 0, 1, 2, 4, 12 and 20 overflows per year for CF01 (A35 through A-38), CF02 (A-40 & A-41), CF04 (A-69 through A-78), A-42 and A-68. Based on a knee of the curve analysis the following breakpoint volumes were determined:

- CF01: 12 overflows per year with a peak flow of 0.9 MD
- CF02: 12 overflows per year with a peak flow of 8.9 MG
- CF04: 12 overflows per year with a peak flow of 5.3 MG

- A-42: 12 overflows per year with a peak flow of 11.7 MG
- A-68: 12 overflows per year with a peak flow of 7.8 MG

(5.) A schematic of a retention treatment basin as a CSO site control alternative was presented.

Comment from Jeff Ifft: This goes back to a previous question from Jan Oliver regarding the use of an influent gravity sewer to a pump station and pumping out rather than pumping in and utilizing a gravity sewer on the effluent. If the control alternative requires you to bury a 14 ft diameter pipe 20 ft deep to achieve an influent gravity sewer, it may be more cost effective to bury a smaller diameter force main 6 ft deep.
Question from Rick Minsterman: Is there ever a time when looking at physically moving the location of an outfall makes sense from a cost perspective?
Answered by Mike Lichte: Yes, if you are looking to consolidate overflows.

(6.) CSO Basin control alternatives BA11 through BA16 were presented. For each CSO group the size, surface area and number of tanks for a retention treatment basin was presented in order to achieve control levels of 0, 1, 2, 4, 12 and 20 overflows per year at a specific site. Maps were presented showing the layout of the retention treatment basins at each site. For the purposes of the following examples, a control level of 0 overflows per year was presented because it is the worst case scenario:

- CF04 at site S1 located at the center of Sharpsburg: This site alternative requires the storage of 236 MGD, a surface area of 59,000 and 12 tanks. This is an example of a site alternative that fits well with the location and will be carried forward for further evaluation.
- CF01 at site P-10 located at Butler Street and 57th Street: This site alternative requires the storage of 146 MGD, a surface area of 36,500 and 15 tanks.
- A-68 at site E-1 located within Etna: This site alternative requires the storage of 169 MGD, a surface area of 42,250 and 15 storage tanks. This is an example of a site alternative that fits ok with the location; however, construction may be difficult. This site alternative will be carried forward for further evaluation.
- CF02 at site P-1 is located adjacent to the Pittsburgh Zoo: This site alternative requires the storage of 494 MGD, a surface area of

123,500 and 21 tanks. This is an example of a site that is too congested for construction.

- A-42 at site P7: This site alternative requires the storage of 821 MGD, a surface area of 205,250 and 18 tanks. This is an example of a site alternative that may work at a control level of 4 overflows per year but at a control level of 0 overflows per year the site is too congested for construction.

(7.) A knee of the curve analysis was presented for CSO basin alternatives BA11 to BA16. The knee of the curve analysis showed that the breakpoint for retention treatment basins is around 12 overflows per year.

Question from Kevin Creagh: When is ALCOSAN anticipating hearing from the regulatory agencies regarding control levels?
Answered by Jan Oliver: We don't know the answer to that question yet. It is best to develop a plan and then look at the affordability of that plan to determine if the control levels are achievable. Some of the water quality criteria is already defined; however, it is not affordable at a regional level.
Comment from Mile Lichte: The goal is to develop a plan from the seven Basins separate plan and optimizing it for the region.

Question from Lisa Sorg: Will the affordability analysis be provided prior to the completion of the LTCP.
Answered by Jan Oliver: It will be a back tracking process.
Comment from Jeff Ifft: In regards to the site alternatives, if the alternative cannot fit at a 0, 1 or 2 control level at some point it is not feasible to use it.
Comment from Jan Oliver: Please keep in mind that this is all very preliminary.

Question from Kevin Creagh: Do you have an internal timeline for determining the control alternatives?
Answered by Mike Lichte: Yes, we want it to be an iterative process.

4. Financial Data Collection Update

a. Tom Schevtchuk made the following comments regarding the financial data collection update:

(1.) Tom Schevtchuk is with CDM and is the task leader for the FCA. Kaye Bealer is with K Bealer Consulting, LLC and is the principal for the FCA.

Anthony Catania is with K Bealer Consulting, LLC and is the lead modeler for the FCA.

(2.) The CSO Policy considers the permittee's financial capability. The financial capability assessment (FCA) is a two step process that includes the affordability and the financial capability. Affordability measures the ratepayer's ability to pay and the financial management indicators measures ALCOSAN and the municipalities' ability to pay for and maintain compliance. The EPA's intent is to allow for flexibility in schedule development and is applied to "selected alternatives"

(3.) The Residential Indicator measures the total annual wastewater cost per household (CPH) as a percentage of MHI. The EPA categorizes the Residential Indicator has having a low, mid-range or high financial impact on the ratepayers when CPH is < 1%, between 1% and 2 % or > 2% of household income respectively. The CPH is calculated from the annual wastewater cost and includes ALCOSAN costs (O&M and debt) plus Municipal System Costs (O & M and debt). Future costs are also calculated as ALCOSAN costs plus Municipal System Costs.

(4.) Total household water usage for 2009 is 17.5 million 'T-gallons" (thousand gallon units) consumed by ALCOSAN to residential user class annually. This has been steadily declining over the past 10 years. Quarterly household water usage is 4.4 million. There are approximately 302,000 ALCOSAN residential connections. This results in approximately 14.5 T-gallons per residential account per quarter.

(5.) The current typical household ALCOSAN costs include a commodity charge of $4.04 per thousand gallons, a quarterly service charge of $8.48 per quarter. Based on 14.5 T-gallons the current annual household ALCOSAN costs is $268.

(6.) Information was taken from the 3RWW rate study and K Bealer Consulting conducted their own rate study to determine the municipal collection system costs for a typical household, Because municipalities have different rate structures, a weighted average was calculated. Based upon a 14.5 T-gallon quarterly water usage the municipal collection system costs for a typical household was calculated to be $182. Therefore the ALCOSAN regional typical cost per household (ALCOSAN + Municipal) is $450 annually.

(7.) There is a wide range of incomes among the municipalities within the ALCOSAN service area to use in determining the regional MHI. The 2007 Median Household Income (MHI) for Allegheny County is $46,400, Pittsburgh's 2007 MHI is $32,300 and Pittsburgh MSA MHI is $45,600. For a majority of the municipalities within the ALCOSAN service area, the most recent MHI data available is from the 2000 census. Eleven

municipalities have 2007 MHI estimates provided by the census. In the absence of updated MHI data, the EPA recommends using the consumer price index to determine the income multiplier effect. Utilizing a 1.8% average weighted annual growth factor calculated from the 2000 census data and the 2007 estimates, the best reasonable estimate of the regional MHI is $43,200.

(8.) Using an Annual wastewater cost of $450 and a regional MHI of $43,200 the residential indicator is calculated to be 1.04% and is considered to have a mid-range financial impact on the region.

(9.) When the inter and intra municipal burdens are considered, the following is determined;

- Inter-municipal MHI varies between $16,500 to $174,000
- When considering census block groups in the City of Pittsburgh, the intra-municipal MHI varies between $8,000 to $182,000
- Current block group level residential indicators currently range from 0.13% of MHI to 5.15% of MHI

Question from Rick Minsterman: Why does it change so much when looking at census block groups versus the municipality?
Answered by Tony Catania: The income is lower in some block groups but the municipal costs stay the same so there are more households with lower incomes.

(10.) Future regional wastewater costs include the following factors: current ALCOSAN costs, current municipal costs, future ALCOSAN non-wet weather program costs, future ALCOSAN wet weather program costs, future municipal non-wet weather costs and future municipal wet weather costs. The following "affordable" number has to cover all of these costs.

(11.) Factors to be considered for the "Proxy Investment" Analysis include the control alternatives under development, range of future wastewater investments, aggregate ALCOSAN plus municipal costs, a uniform cost distribution between all households, the point in time when all costs hit simultaneously and unknown scheduling and inflation. The analysis will have to be expressed in current year dollars so it is important that costs are tracked going forward. Model assumptions used for the "Proxy Investment" Analysis include an interest rate on debt of 6%, a debt structure of 30-year bonds, annual O&M costs will equal 2% of total capital costs, a residential share of wet weather program costs of 72% (based upon ALCOSAN user class billed wastewater flow records) and that there are approximately 302,000 residential customers.

Question from John Shannon: Is the 72% figure ALCOSAN or Residential Share?
Answered by Tom Schevtchuk: It is the residential revenue.

(12.) For a $2 billion wastewater investment and a current regional household cost of $450, the proxy model output yields the following:

- Incremental burden per household of $431
- Total annual cost for a typical household of $881
- A residential indicator of 2.04%
- 201,900 households in >2% block groups

Question from Rick Minsterman: Does this represent conveyance and treatment?
Answered by Tom Schevtchuk: It represents ALCOSAN's ability to incur costs for new capital developments.
Question from Lisa Sorg: Does it include municipal upsizing?
Answered by Tom Schevtchuk: Yes.

(13.) The impacts of a $2.0 billion wastewater investment were presented. The current number of households in a < 1% block group MHI are 163,100 versus 17,800 at the $2,0 billion investment. The current number of households in between 1% and 2% block group MHI are 169,700 versus 140,900 at the $2,0 billion investment. The current number of households in a > 2% block group MHI are 27,900 versus 201,900 at the $2,0 billion investment. The current number of municipalities < 1% municipal MHI are 38 versus 7 at the $2,0 billion investment. The current number of municipalities between 1% and 2% municipal MHI are 45 versus 31 at the $2,0 billion investment. The current number of municipalities in a > 2% block group MHI are 0 versus 45 at the $2,0 billion investment. The current highest annual household costs based on 14,500 gallons billed water consumption is $789 versus $1231 at the $2.0 billion investment. The current highest residential indicator by census block group is 5.15% versus 10.65% at the $2.0 billion investment.

(14.) A sensitivity analysis with rates held to 2% MHI was presented. The sensitivity analysis centers on $2.0 billion investment.

(15.) Achieving an affordable wastewater investment will require the balancing of wastewater investment needs. An affordable wet weather program for ALCOSAN and the municipalities is likely to be less than $2 billion minus interim non-wet weather capital spending for ALCOSAN and the municipalities. In order to calculate this amount, the PM team will need to

know what the municipalities plan to spend on their wet weather plans over the next 5 to 10 years..

(16.) Next steps include:

- The integration of the evolving basin and regional estimates
- Incorporating the implementation schedule to determine cash flow and financing needs
- A trend analysis to include income growth, inflation, water usage, population and household numbers a 2010 census data
- Variable municipal costs per municipal feasibility study results
- Integrate financing strategies
- Integrate alternative cost allocation strategies as applicable.

Comment from Jan Oliver: The single most important point is that we need the anticipated costs from the municipalities.
Question from Lisa Sorg: The ACHD has received the municipal O&M plans and the ACHD is not going to approve the O&M plans without a budget. What did you use for the O&M cost information?
Answered by Tom Schevtchuk: This was rate driven and assumes implicitly that municipal rates and O&M costs are related.
Question from Lisa Sorg: What model did you use?
Answered by Tom Schevtchuk: The ALCOSAN rate model which is excel based.

Comment from Tracy Schubert: Municipal data is available online through the MDS site, it is in a printable form.

Question from Kaye Bealer: What is 3RWW percent complete for collecting the data from the municipalities?
Answered by Tracy Schubert: It is more than 50%.

Question from Kaye Bealer: Should we continue to wait for the municipalities to populate the 3RWW data sheets with the financial information or is this information not even available from the municipalities?
Answered by Bob Zischkau: When we populated the Asset Management Database the financial information was not available so it was populated with the best available information. Another key issue is that I am not aware of any municipality that bases their O&M costs strictly on user fees. Most of the budget for O&M comes from a fund.

Question from Rick Minsterman: Do you see this approach trickling down into the municipalities as some municipalities will have to more than others and will the municipalities be able to use that number as a way to negotiate with the regulators?
Answered by Tom Schevtchuk: Yes, I think that is a useful approach.

5. Municipal and Public Outreach

a. Coreen Casadei made the following comments regarding the CMAC and the RSG:

(1.) CMAC Meeting No. 6 was held on May 11, 2010.

(2.) The last RSG meeting was held on May 13, 2010.

(3.) Key agendas items for 2010 include:

- Evaluating control (site) alternative ranking criteria weights
- Integrating feedback on site alternative screening and evaluation criteria
- Municipal advocacy
- Trying to build public consensus for CSO/SSO solutions

(4.) The Basin Quarterly Report No. 4 was distributed on June 22, 2010. It provided a summary of the last BPC meeting, what had been accomplished since BPC meeting No. 6 and what will be accomplished in the future. Copies of the BQAR No. 4 are available at the back of the room.

6. Available Tools: ACT and Municipal Website

a. Jeff Ifft made the following comments regarding the Alternatives Costing Tool (ACT):

(1.) The updated ACT includes modifications to the secondary treatment elements. The revised version 2.0 has been posted to the municipal website. Standardized alternative process diagrams are being used. Guidance on the impact of replacement costs are provided. The ACT assumes the utilization of 15 minute disinfection.

Question from Jeff Ifft to Mike Lichte: Is the ACT available to the municipalities?
Answered by Mike Lichte: Yes, it has been posted to the ALCOSAN website. There is a meeting on June 24, 2010 with the municipalities regarding the ACT.

Comment from Mike Lichte: We do not anticipate many comments from the municipalities regarding storage, most of the comments have been about open cut costs and rehabilitation costs.

Comment from John Shannon: The goal is for the municipalities to use the ACT and determine if it can be updated so that the costs are relevant for the smaller communities.

b. The following comments were made regarding the ALCOSAN website:
   (1.) Jan Oliver stated that the models have been posted to the ALCOSAN website.

Question from Jan Oliver: Will the BPC Meeting Presentations be posted to the ALCOSAN website?
Answered by Jeff Ifft: The presentations are usually sent out in an email.

8. Next Steps

a. Next steps include:
   (1.) Refinement of the site control alternatives
   (2.) Sensitivity checks for source reduction
   (3.) Reconciliation of the municipal preliminary flow estimates
   (4.) Iterative execution of the H&H model based on future conditions and municipal preliminary flow estimates
   (5.) Sizing and cost of basin control alternatives based on H&H model results and ACT analysis
   (6.) Ranking of control alternatives
   (7.) Evaluation of the "knee of the curve" for municipal basin alternatives
   (8.) Development of the Feasibility and Present Worth Report

9. Questions /Comments

a. The following comments were made, questions asked and answers provided:

Question from Chuck Steiner: For the municipalities that are upsizing their pipes, is the model being updated to reflect their changes and will you be able to turn it on and off?
Answered by Jeff Ifft: Yes, for those that were very identifiable.

Next meeting is TBD for sometime in the Fall of 2010

ALCOSAN Basin Facilities Planning
Basin Planning Committee Meeting #8
Minutes

Basin: UA
Date: October 7, 2010

To:	Mike Lichte, Darby Neidig	**Date:**	December 3, 2010
CC:	All Attendees; Distribution List		
Copy:	File 9089003 (WBS 10.1.1)		
From:	Malcolm Pirnie, Inc.; KBC		
Re:	**UA Basin Planning Committee Meeting #8 Minutes**		
	Location/Time: Etna Borough Building @ 1:00 PM October 7, 2010		

Attendance: Also See Attached Sign-in List

Mike Lichte (ALCOSAN)	***Ryan Quinn (KBC)***	***Chuck Steinert (O'Hara)***	***John Shannon (Baker/3RWW)***
Joe Day (ALCOSAN)	***Andrew Maul (PWSA)***	***William An (KLH Engineers/O'Hara)***	***Bill Hixson (3RWW)***
Darby Neidig (AECOM)	***Gary Koehler (Fox Chapel)***	***Kurt Todd (Gateway/Penn Hills)***	***John Heyl (LSSE)***
Jerry Kleyman (MPI)	***Martin Corbet (Senate Engineering/Verona & Blawnox)***	***Kevin Creagh (Shaler)***	***Mike Scheer (ACHD)***
Laura McGinnis (MPI)	***Don Newman (Buchart Horn/Etna)***	***Tim Rodgers (Shaler)***	***Paul Eiswerth (PADEP)***
Coreen Casadei (Collective Efforts)	***Mary Ellen Ramage (Etna)***	***Art Gazdik (Ross)***	***Bob Zischkau, Jr. (Glenn Eng./Sharpsburg, & Aspinwall)***

1. **Introduction**

   a. Mike Lichte (ALCOSAN) introduced himself and made the following comments:

      (1.) He is the ALCOSAN Project Manager for the UA Basin Planning team.

      (2.) This is the eighth meeting of the Upper Allegheny Basin Planning Committee.

      (3.) This meeting will include a discussion of the preliminary flow estimates, control alternatives, and integration of alternatives into the Regional Plan.

   b. Jerry Kleyman (Malcolm Pirnie) made the following comments regarding current work status:

      (1.) In terms of the whole project, current work involves submitting the preliminary Feasibility Report on November 1.

(2.) The UA Basin Quarterly Activity Report #5 is published and available to be picked up at the meeting

2. **Program Update**

a. Coreen Casadei (Collective Efforts) made the following comments regarding Website postings and program meetings:

(1.) Version 2.1 of the Alternative Costing Tool (ACT) is available on the municipal website.

(2.) The most recent CMAC meeting was held on Aug 3.

Comment from Mary Ellen Ramage (Etna Borough): There was a discussion of what is meant by regional approach and whether that means by basin or the service area as a whole, and the 3RWW Regionalization RFP doesn't necessarily clarify it. Also, attendance at this meeting, similar to previous meetings, was low.

Comment from Tim Rodgers (Shaler Township): The RFP was much more expansive than we thought it would be and misstated our support.

Comment from Mike Lichte: You should use the CMAC meetings as a forum to state your comments about RFP.

Comment from Tim Rodgers: As far as attendance, reach-out has not been effective, so if people are not going. Representatives may need to be replaced.

(3.) John Shannon (Michael Baker Corp./3RWW) made the following comments about the activities of the FSWG:

1. The FSWG has approved a memorandum which identifies several issues and it will be distributed to CMAC members. It is intended to be utilized to request clarification and raise awareness of these issues with ALCOSAN. It will be coming out next week.

(4.) Regional Stakeholder Group (RSG) meeting #7 was held August 13, 2010 and included: (1) affordability analysis update, (2) preliminary alternatives development, and (3) water quality assessment.

(5.) RSG meeting #8 is to be held November 16, 2010.

(6.) There is a need to improve public participation and attendance for ALCOSAN community meetings. To help this, ALCOSAN is planning to

wrap in the annual meeting content that is held at the end of the year into these upcoming community meetings.

(7.) Two community meetings are being held for the UA basin: Coreen asked the audience to encourage their community members to attend.

1. Monday, 10/25 @ Clarence Fugh Memorial Hall
2. Wednesday, 11/10 @ Boyd Community Center

(8.) A regional meeting will be held 11/4, 10am-4pm at the Heinz History Center. To increase public attendance, ALCOSAN is planning to wrap into this meeting content typically presented at the end-of-year annual meeting.

Question from William An (KLH): Is there any difference between the content of the regional meeting and the basin specific community meetings?

Answer from Mike Lichte: The Regional meeting will talk about regional cooperation between basins, while the community meetings are more focused on that individual basin.

3. **Preliminary Flow Estimates**

a. Laura McGinnis (Malcolm Pirnie) made the following comments regarding the status of Preliminary Flow Estimates:

(1.) PFE discussion meetings were held with all municipalities in September. Feedback was gathered at these meetings regarding the general approaches to their PFE's. Most municipalities are planning to send all flows to ALCOSAN. The PFE's are under review and further discussions with the municipalities will be held as needed to reconcile the PFEs.

Question from Bob Zischcau (Glenn Engineering): When will you follow up on the differences?

Answer from Laura McGinnis: We are still working on the action items developed during the municipal meetings held in September to discuss PFEs.

(2.) Some municipalities have indicated that green infrastructure and source reduction are being considered but are not reflected in the latest municipal PFE numbers. Unless specifically identified by a municipality, source reduction was not incorporated into the UA Model. The UA team is still working to reconcile the PFEs based on the information learned during the

municipal meetings. The UA team will contact the municipalities with additional questions or outstanding issues as needed.

(3.) Guidance is being requested by CMAC regarding the billing rate basis.

Comment from Mike Lichte: We should go forward with the basis of billed water consumption, and not try to forecast what will happen in the future. We are trying to standardize our plan with this basis.

Comment from John Shannon: If ALCOSAN finds that costs are sky-high, then municipalities are going to have to reevaluate their flow strategies. To evaluate means to reduce the quantity of flows conveyed to ALCOSAN municipalities may have to rework their draft plans.

Comment from Kevin Creagh (Shaler Township): I feel the municipalities are comfortable going forward with the billed water basis.

Question from Gary Koehler (Fox Chapel): Will ALCOSAN's preferred billing rather basis be given to us in writing?

Answer from Mike Lichte: You'd have to work through the CMAC to get that answer.

Comment from Jerry Kleyman: Our focus is on finding the best overall technical approach for the basin.

(4.) The differences between the model-predicted flow rates and the PFEs are possibly due to differences in runoff area, RTK values and the inclusion of source reduction, such as planned stream removals, applied during PFE development. Differences are also dependent on which boundary condition is being applied (free discharge condition vs. ALCOSAN interceptor discharge condition).

(5.) PFE reconciliation is in progress with Ross, O'Hara, Fox Chapel, Aspinwall, Sharpsburg, and PWSA.

(6.) Review of recently submitted or updated PFE's is in progress for Etna/Shaler/Indiana, Penn Hills, Verona, and Blawnox.

(7.) The reasons for differences in results between the PFE's and the model are illustrated in the example of Ross Township. For the summer design storm, PFEs matched within reason. Significant differences were seen between the results for the 2-year and 10-year winter design storms. The total R value is higher in the model, but Ross Township applied a larger

area in the RTK tool. The selection of a winter month used for generating PFEs also plays a role due to differences in dry weather/ groundwater flows. The UA team used January 2009 and Ross Township used April 2009 as the winter month for evaluating the wet weather response. When the 2-year design storm is run in April 2009, the UA model does more closely match the PFE, but it appears the DWF component is missing from the PFE. Art Gadzik (Ross Township) was going to investigate.

Question from Paul Eiswerth (PADEP): Why is ALCOSAN using January 2009 for the winter design storm?

Answer from Laura McGinnis: We were asked to select the most representative month to best represent the winter storm.

Question from Paul Eiswerth: Municipalities have found that April may have higher R values, so isn't that approach more conservative?

Answer from Laura McGinnis: April, in this case, predicts a lower flow. We also had fewer storms in February/March to calibrate the model. While April would have been a good month, we found that for this basin January 2009 was more conservative. ALCOSAN is going to use a uniform design storm set in January 2003 for basin-wide evaluation.

Comment from Art Gadzik (Ross Township): We find that March and April are the months with greater ground influence.

4. **Site/Basin Alternatives Development Progress and Evaluation**

   a. Jerry Kleyman made the following comments regarding Alternatives development:

      (1.) There are several changes from the previous meeting. New boundary conditions for UA Basin were specified which have substantial impact on CSO flows and volumes. The sizing criteria for RTB was also revised which has an impact on the preferred alternative selection. These changes affected the CSO (and not as much SSO) control alternatives.

      (2.) Additionally, the UA team continued optimizing the existing sewer system to maximize the existing capacity and reduce the SSO activations without creating adverse conditions for the municipalities. The control alternatives were optimization for the SSO locations- A-85, A-82 and A-45, during a2-yr design storm. The next report will evaluate the 10-yr storm. The A-82 optimization resulted in eliminating the SSO discharge for a 2-year storm.

The optimization of A-85 required an increase of interceptor diameters (for approximately 2,300' length), or an I/I flow reduction of 20%.

Question from Tim Rodgers: Do you think 20% removal of I/I is realistic?

Answer from Jerry Kleyman: 20-25% can be realistic by implementing controls on public property, and to do more may be achievable by additionally implementing private property controls. For example, on a recent project in Wilmington, Delaware, some basins were able to achieve 50% I/I reduction by implementing private controls. System-wide reduction is usually less. 30% can be possible with public and some private source reduction without addressing service laterals, and 35-40% can be achieved with service laterals addressed. It is suggested to do pilot studies to evaluate I/I reduction efficiency under local conditions.

Question from Tim Rodgers: We are not seeing result from investment.

Answer from Jerry Kleyman: If you are not doing a catchment wide program, this is possible.

Question from Paul Eiswerth (PADEP): When you say doing private controls, are you referring to downspout removal?

Answer from Jerry Kleyman: Some separate sanitary areas may have downspout connections and eliminating them will have an impact. However, many municipalities have already addressed basic controls. Other sources are more expensive to remove such as foundation drains, sump pumps and service lateral replacement/lining.

For A-45, the optimization did not eliminate the need for a storage tank, but the tank size was reduced and also shallow open cut sewers were considered to convey overflows to the tank. Additionally pumped feed/gravity drain storage tank configuration was replaced by gravity feed/pumped drain, allowing for smaller pump station (0.15 MGD v. 6-7 MGD). All these measures resulted in reducing A-45 alternative costs.

All the ALCOSAN SSOs in the UA basin are hydraulically isolated by pump stations from the downstream ALCOSAN interceptors. The effected of the boundary conditions revisions do not affect the SSO control alternatives.

The SSO optimization results table shows the reduction in costs based on optimizations for each SSO location.

(3.) The impacts of the boundary condition revision on the CSOs control alternatives can be seen across all consolidation groups, specifically at the A-68 location. Unlike the SSOs, the revised boundary conditions do impact the CSOs. The peak flows at several CSO locations across the various levels of control were significantly impacted, some with greater than 50% increases in peak flows. The volumes for the various LOCs demonstrate an even greater impact due to the revised boundary condition. The control alternatives needed to be reevaluated and resized to meet the flow rates predicted at each CSO site location under the revised boundary condition.

(4.) Due to the increased CSO peak flows and changes in RTB sizing assumptions, the previously selected RTBs were replaced by Screening /Disinfection as a preferred site alternative for most CSO groupings.

Question from John Shannon: Can you review again the slides in regards to the difference in the boundary conditions?

Answer from Jerry Kleyman: Up until 2 months ago, we were told to assume a static boundary condition at the UA boundary with Main Rivers. Now the PM has been able to create a dynamic boundary condition, which represents flow and hydraulic grade line at the basin boundary interceptor locations. For the UA basin this has increased volumes and peak flows at most CSO locations.

Question from John Shannon: Are the boundary conditions fixed now?

Answer from Jerry Kleyman: There will be future iterations.

4. **Integration of Site Alternatives into Basin-wide Plan**

a. Jerry Kleyman made the following comments regarding the Basin Control Alternatives:

(1.) The Basin Alternatives have been refined based on the revised site alternatives. Consolidation piping to convey overflows to the treatment and/storage locations, which were discussed at previous meetings, have been refined to reflect the revised boundary condition. The model was developed to represent the targeted levels of control for each CSO location.

(2.) A table was presented that compares the percent capture and present worth costs for the evaluated Basin Alternative. At the 0 OF/YR LOC the projected present worth costs is $1.525B with effectively 100% capture.

Question from Paul Eiswerth: Are you referring to % capture as total flows including sanitary flows?

Answer from Jerry Kleyman: The PM had developed a tool for BPs to use. I'll have to check but believe it includes the sanitary flows. The US EPA policy is ambiguous, and the EPA has provided case study of doing it both ways, including and excluding sanitary flows. We have done it both ways on other projects and the percent capture difference is typically only a few percent.

Question from Paul Eiswerth: The Consent Decree does define what the requirement is, 1.5x core flow.

Answer from Jerry Kleyman: This is a slightly different concept that is also being addressed by the program manager. It deals with the secondary treatment provided to a volumetric equivalent of all sanitary flows and only the dry weather component (1.25x the dry weather flow for the average day) of combined flows.

Question from Kevin Creagh: What were the site locations based on, engineering efficiency or ease of acquisition?

Answer from Jerry Kleyman: The site selection process was conducted before and presented at previous BPC meetings. For these evaluations we used one or two preferred locations for each CSO grouping using the previously selected sites based on land use and potential ability to acquire land. Though there may have been better locations, they were not considered, if they were not available.

Comment from Mike Lichte: We may discover issues with these particular sites as screening progresses.

Question from Mary Ellen Ramage: What is shown for A-68? Is it based on an acquisition of industrial park?

Answer from Mike Lichte: Site availability assumptions may change as we move forward. The current boundary condition results in larger facilities and costs. A regional solution such as a tunnel may require less space and be more cost effective.

(3.) The knee of the curve analysis (benefit for the level of control versus cost) identifies the leading alternative. This analysis is consistent with EPA policy and assumes that there should be a deflection point where additional benefits are not justified by cost.

Question from John Shannon: Based on your national experience, what are the chances that the EPA will accept 7-12 overflows or 20, if the % capture requirement is met?

Answer from Jerry Kleyman: It typically depends on many factors such as affordability and being able to meet the water quality standards. One of the questions is '"Will the remaining overflows still cause an exceedance or preclude the attainment of the WQ standards?" This is a slightly different approach than just the presumptive standard. It ultimately depends on unique local factors and not a universal yes/no question. The EPA view is to have the most cost effective combination of grey and green solutions. For example, communities start by seeing what can be accomplished with the grey solution for certain overflow frequency, but then continue to progress with implementation of green infrastructure to increase the level of control in the future.

Question from Kevin Creagh: Is ALCOSAN prescribing a certain level of control for all basins or are they willing to consider basin by basin requirements?

Answer from Jerry Kleyman: It is possible and has happened in other communities, such as in Detroit, where different receiving streams have different needs and assimilative capacity. This may justify a difference.

Comment from Mike Lichte: Both are being reviewed right now.

Question from William An: Is there a formal definition for the knee of the curve analysis, to select a deflection point?

Answer from Jerry Kleyman: In this example, it is somewhat subjective, and will need to be reviewed in conjunction with affordability to decide what the appropriate point is and judge what is cost-effective.

(4.) For the proposed regional-based treatment alternative BA21- 4OF/YR, the evaluated alternative includes conveyance/storage tunnels along the north and south shore that convey flows of up to 50 MGD to the next downstream (Main Rivers) basin. Tunnel size varies according to the

LOC and how much water in excess of 50 MGD has to be stored. This is a first iteration of the conveyance/storage alternative and future iterations may use different flow rate assumptions. Pure storage tunnels were considered previously, but the volume of storage required was not feasible for pumping out and subsequent treatment in a 48-hour period after the storm. The table shows the regional based alternatives based on percent capture and the corresponding conveyance tunnel sizes. The alternative of 20 overflows / year corresponds to a south shore conveyance tunnel only. The same consolidation points would be used as with two tunnels.

Question: For control level of 7-12 overflows, the previous slide was $300M approximately, what is the costing for this set of alternatives?

Answer from Jerry Kleyman: It was substantially lower for the regional based approach. The costing is not complete, because of future iterations due to peak conveyance flow changes.

Question from John Shannon: How longs does it take to empty the tunnel?

Answer from Jerry Kleyman: One of our constraints is a 48-hr dewatering time, so that already is included in the alternatives analysis.

Question from Andy Maul (PWSA): Would the new tunnel be able to convey flow to ALCOSAN so that the interceptor can be rehabilitated:

Answer from Jerry Kleyman: Yes.

(5.) We will continue optimizing this alternative and evaluating the use of a single conveyance/storage tunnel on the south shore only with two connections across the river**.** The regional solution is approximately 30% cheaper based on very preliminary calculations.

5. **Next Steps**
   a. Next steps include:
      (1.) Finalize alternative technology selection
      (2.) Evaluate storage tunnel on south side only
      (3.) Confirm/revise conveyance/pump out rate for the conveyance tunnel (initially assumed 50 MGD but may need to revise based on the PM's feedback).
      (4.) Finalize tunnel operation strategy, to optimize the number of shafts vs. the amount of consolidation piping.
      (5.) Continue resolving PFEs
      (6.) Submit the draft Feasibility Reports by the November 1 deadline.

6. **Questions/Discussion**
    a. The following comments were made, questions asked, and answers provided:
    Comment from Mike Lichte: We hope that the PFE discussion will develop into a larger discussion of municipal plans. We must go through site- and basin-specific alternatives just to show regional solutions may be better.
    Comment from Jerry Kleyman: We have to evaluate our results in the context of the system as a whole as well to see which approaches are going to be used.

Next meeting is TBD for sometime in the Winter of 2010.

ALCOSAN Upper Allegheny Planning Basin
Draft Meeting Summary

Basin: Upper Allegheny
Meeting Purpose: Basin Planning Committee Meeting #9
Date / Time: February 22, 2011, 9:30 am
Location: Shaler Township Municipal Building

Attendees: Please see attached attendance list.

1. Discussion / Decision / Agreement Summary:

Mike Lichte (ALCOSAN) opened the meeting and mentioned that the UA BP has begun drafting the Facility Plan. Mr. Lichte asked for the municipal feasibility plans to be submitted in April and encouraged an open dialogue between the municipalities, ALCOSAN and the BP.

Jerry Kleyman (Malcolm Pirnie) discussed the agenda for the meeting. Mr. Kleyman reviewed the status of the major tasks and stated that Task 6 is now complete and the UA BP is working on Task 7. He reiterated the need for continued outreach and discussions with the municipalities to support the UA facilities plan

Joe Day (ALCOSAN) presented a summary of ALCOSAN's public outreach. Mr. Day discussed the Customer Municipal Advisory Committee (CMAC) meeting that was held November 3, 2010. Conversations included the basis of rates, scheduling design and a proposal that ALCOSAN presented to 3Rivers Wet Weather (3RWW) for a consolidation study. The next meeting is scheduled for March 1, 2011. The Regional Stakeholders Group (RSG) meeting was held on November 16, 2010. A primary discussion topic was green technologies. The next RSG meeting is scheduled to be held on March 17, 2011. Mr. Day also summarized the public meetings that were held in November 2010 regionally by ALCOSAN. Ten meetings were held with approximately 170-200 attendees. The presentation included an update on the CD activities and an update on the specific Basin activities. ALCOSAN will continue reaching out to the residents, and hopes to have greater participation in the future.

Mr. Lichte then discussed regionalization. There are many scenarios that could be considered with ALCOSAN including taking over municipal systems, interceptors, etc.

Jerry Brown (3RWW) stated that 3RWW had provided grants to several municipalities to look at consolidation of systems. 3RWW did not fund the ALCOSAN study – but they support it. The studies are due this summer from grantees looking for consolidation

opportunities. Mr. Lichte stated that this may put some options on the table for the municipalities and ALCOSAN.

John Shannon (Baker) stated that some municipalities are behind the curve. 3RWW has offered their assistance. 3RWW is assisting with nine more complex sewersheds, but they are not presenting the submission. 3RWW is doing this as a collaborative effort with hopes of helping the municipalities in meeting schedule/submittal goals.

Mr. Lichte stated that they are looking at what flows ALCOSAN can take and what are reasonable costs. Mr. Shannon asked if ALCOSAN is doing this for all of sewersheds. Mr. Lichte stated yes, ALCOSAN is looking at what flows they can take. They aren't looking at whole range; approximately 90 percent of the municipalities are looking at conveyance.

Mr. Kleyman said the current alternatives are based on the "All Flows to ALCOSAN" assumption and will be refined as the municipal feasibility plans are received. Mr. Kleyman said that the municipalities' final flow decisions will probably not change the overall outcome, but it will help them optimize the facilities so they aren't over-sized. Mr. Lichte hopes to share this information of Chapter 5 as it is developed. Mr. Shannon asked what Chapter 5 was. Mr. Lichte replied the Final Basin Facilities Plan where Chapter 5 describes the proposed municipal plans. Mr. Lichte also stressed that if the municipal feasibility plans are not received in a timely manner the BPs will have to make assumptions as to the municipal flows and required improvements.

Mr. Brown stated that a Manager's Meeting was held to try to get more managers involved, (many only sent their engineers). Approximately 40 managers attended. They also have parallel track with the solicitors.

Mr. Kleyman then provided an alternatives status update. The Feasibility and Present Worth report was submitted in November. The report included the 1st and 2nd preferred basin based alternatives and preliminary cost estimates. Comments from ALCOSAN have been received and are being incorporated. Since the submittal, Malcolm Pirnie has refined their consolidation piping to optimize routing along streets and to reduce the number and size of pump stations.

Mr. Kleyman described the Basin-Based Alternatives that Malcolm Pirnie is currently reviewing for the UA Basin:

- Basin-based control strategy – nearly complete
- Regional-based control strategy – tunnel parallel to existing deep tunnel

- Complete sewer separation – costed complete separation
- 85% capture by basin – evaluates the components of the basin-based plan that are necessary to meet the 85% capture goal
- 85% capture by receiving stream with additional conveyance – will evaluate based on receiving stream, not by Basin.
- Additional alternatives considered

William An (KLH) asked what is a "receiving stream"? Mr. Kleyman said it includes three Main Rivers and other creeks as defined in the Consent Decree. Mr. Kleyman also stated that if applied uniformly to all CSOs for the UA Basin, 85% capture roughly constitutes approximately 20-25 overflows per year per CSO

Mr. An asked how you determine the final flows if you haven't received flows from the municipalities. Mr. Kleyman replied that they are using the "All flows to ALCOSAN" scenario to evaluate alternatives. This assumes all structural and non-structural CSOs and SSOs are conveyed to ALCOSAN. It is anticipated that the municipal input will not change technologies selected for each alternative, but the size and estimated cost are likely to decrease. If they receive the municipal FFEs in time, they will be incorporated into the final reports – if not, then they will assume most conservative. Mr. An stated that most conservative may be too expensive. Mr. Kleyman stated that is why the municipalities need to get us their information as soon as possible.

Mr. Kleyman then recapped the SSO alternative configuration which includes system optimization and conveyance improvements for the 2-year design storm. For the 10-year design storm, storage will likely be required at A-85, but the 10-year design storm alternative evaluation was not required for the UA Feasibility and Present Worth report; it will be evaluated for the Facilities Plan. Mr. Kleyman also noted that the UA SSOs are independent of the CSO system and are therefore the recommended alternatives do not vary with the various CSO alternatives.

Kevin Creagh (Shaler) asked if Malcolm Pirnie had completed the knee of curve analysis. Mr. Kleyman stated not yet for SSOs and only for basin-based alternatives for CSOs. For basin-based CSO alternatives, they are looking at five screening and disinfection sites at A-68, A-42, CF-01, CF-02, and CF-04. Mr. Kleyman then provided an overview of these sites.

Mr. An asked if stream removal was considered in the model. Mr. Kleyman stated that the streams are considered to be already removed. Mr. An asked why they were not included on the map. Mr. Kleyman stated that Malcolm Pirnie assumed that this was common to all alternatives and included in the baseline alternative. Mr. An asked who

will pay for stream removal. Mr. Kleyman stated that that was a good question. Mr. Lichte replied that they are continuously looking for funding. Tim Rodgers (Shaler) stated that they are hoping to have ALCOSAN pay for it. There is a Stakeholders Meeting in the third week in March for the Ravine Street stream removal. Mr. An asked if they had evaluated cost of stream removal. Mr. Lichte replied that this had been done under previous studies (Baker – Ravine Street). Mr. An asked if the costs should be included in Feasibility Study. Mr. Kleyman and Mr. Lichte stated that eventually all of the costs (even municipal) will be included in overall costs for compliance. Paul Eiswerth (PADEP) asked if ALCOSAN was leaving it up to the municipalities. Mr. Kleyman stated not yet, but they just haven't figured out how to put into the report yet. Mr. Lichte agreed to include costs of stream removal in ALCOSAN's report for the UA Basin along with municipal costs. Mr. Kleyman and Mr. Lichte stated that the costs for the five alternatives (excluding municipal costs) ranged from $250 million to $1.5 billion, so the costs of stream removal will be negligible.

Mr. Kleyman then discussed the Regional Control Alternatives. Malcolm Pirnie has assumed the construction of a deep tunnel from A-42 to A-35 with new consolidation piping and two new river crossings. They have not sized tunnel yet, due to an undefined withdrawal rate from ALCOSAN. Generally tunnels are cheaper than the basin – based alternatives for large municipalities. The PM is currently costing the tunnel and associated shafts; the BPs are responsible for costing the conveyance piping to the drop shafts. The BPs are also siting the shafts and conveyance routes. This alternative is still ongoing.

Andrew Maul (PWSA) asked for definition of dots on the drawings. Mr. Kleyman replied, the red line is the tunnel, the dotted lines equal consolidation piping, and the orange lines are also consolidation piping.

Mr. Eiswerth asked if the tunnel is for storage. Mr. Kleyman replied that the tunnels are for storage and conveyance. The sizing depends on the amount of flow that the plant can take. Mr. Eiswerth asked what are the comparable costs. Mr. Kleyman stated that based on initial evaluations the UA tunnels are approximately $200-300 million, and the basin-based alternatives are approximately $400 million. The tunnel costs don't include pump stations. Mr. Kleyman stated that there are potential issues with phasing tunnels to make them more affordable. Mr., Kleyman noted that tunnels provide redundancy for the existing tunnel, but also require an upfront commitment where as the basin based alternatives provide more flexibility.

Mr. Maul asked if there are concerns about tunnels and flat areas for debris collection. Mr. Kleyman stated that the tunnel alternative will take this into consideration. Mr.

Lichte stated that tunnels have a smaller footprint, for example, there may be resistance to a facility in the zoo parking lot. He also mentioned that tunnels require less maintenance than storage and treatment facilities

Mr. Kleyman then discussed complete sewer separation. In this analysis, Malcolm Pirnie assumed new storm sewers; they took away stormwater runoff, but added rainfall dependent inflow and infiltration (RDII). With this analysis, the CSO activations at some locations did not decrease as expected, but the annual volume and peak flows were significantly reduced. Mr. An asked how they are quantifying the RDII. Laura McGinnis (Malcolm Pirnie) stated that they looked at neighboring areas and the age of communities when selecting RTK values to apply to the newly separated areas.

April Winklmann (Aspinwall) asked why you wouldn't consider the removal of roof drains. Mr. Kleyman stated that they assumed a percentage would still be in, to be conservative. Mr. Kleyman discussed two potential separation approaches- building new sanitary or new storm sewers. For this evaluation, the UA basin used new storm sewers. As an example, the Lansing, Michigan system where new sanitary pipes were installed for the sanitary sewer and the existing sewer pipes were used for storm sewers and now they have sanitary sewer overflows. Mr. Kleyman stated that separation, as a systems-wide alternative, is too costly with either approach.

Mr. Eiswerth stated your separation alternative assumed building new storm sewers and keeping the existing sanitary sewers. Mr. Eiswerth said PADEP would consider new sanitary sewers and would not approve using existing sewers. April Winklmann stated that she would rather see a new "sealed" sanitary system rather than new storm system. Mr. Lichte stated that the costing is currently being developed at a $/acre level, and typically the costs associated with removing the footing drain is about $15,000 per house. The UA basin had agreed to look into evaluating new sanitary sewers.

Gordon Taylor (Blawnox/Senate) discussed a separation project that they conducted in New Bethlehem 10 to15 years ago. They separated approximately ¾ of the town at a cost of $5 million. It was difficult and costly and he didn't think should waste too much time on this alternative, but it made a significant difference.

Ms. McGinnis went over the 85% capture alternative. To meet the 85% capture goal by basin within the UA Basin, the A-41, A-42 and A-68 CSOs require treatment at the 7-12 overflow level of control. Ms. McGinnis went on to say the remaining CSOs would not be treated under this scenario. Mr. Kleyman stated that they are looking at this as first affordable step. Mr. Eiswerth asked if there would be no other treatment at other CSOs. Mr. Kleyman responded no, that they are looking at this as the first affordable step. Mr.

Eiswerth asked if there are stream effects at these three facilities. Ms. McGinnis stated that the streams at Ravine St. and Delafield St. would be removed.

Mr. Shannon stated that this becomes significant if ALCOSAN determines that they can't afford total treatment. How will the Fox Chapel, O'Hara, etc. feel if they are spending money to have nothing done at their points of connection? Mr. Lichte stated that they are considering this. Others are doing a phased approach, and it allows for ALCOSAN to continuously review and evaluate the work that has been done and how well it is doing.

Mr. Shannon asked if the draft Wet Weather Plan give a blueprint for your phasing. Mr. Kleyman stated that it would and the municipalities will have a year to review it.

Mr. Shannon stated showing two year storm control, what are your thoughts on two year being approved by the regulatory agencies. Mr. Lichte stated he does not know, all things need to be considered, affordability, etc. Mr. Kleyman stated that if money was not a problem, they could do a ten year control, but with costs, we need to find the best approach for the best cost.

Mr. Eiswerth asked how the sanitary flows are being handled for this alternative. Mr. Kleyman replied that they should comply with the Consent Decree for core flows. ALCOSAN's project manager is providing 85% and core flow calculations.

Ms. McGinnis stated that they have developed interim reconciliations for each of the preliminary flow estimates (PFE's). Discussions with the municipalities have occurred, as needed. A criteria of +/- 25% was applied to peak flow comparisons. If the peak flow was in that range, then Malcolm Pirnie recommended the UA model continued to be used to represent the peak flows. In almost all cases, the UA model was recommended. In O'Hara the PFEs for A-83 and A-84 will be applied and additional discussions with the Pine Creek municipalities and PWSA will occur.

Ms. Winklmann stated that for Combined Users, they are using UA model and that A-78 is a PWSA outfall. PWSA and Aspinwall will discuss the labeling of this CSO at a later date.

Ms. McGinnis presented the I/I reduction evaluation and noted that the SSOs cannot be completely eliminated through I/I reduction (up through 30% reduction) alone. Ms. McGinnis said this information was provided to show the potential benefit for reducing the SSO volume and the associated facilities or system optimizations.

Ms. McGinnis then went through the slides on combined areas. Source reduction was simulated by applying varying degrees of runoff reductions. Ms. McGinnis mentioned that inflow reductions of about 50% or better are required to see significant reductions in CSO volumes.

Municipal Reports. John Ross led the discussions asking for municipal input. Mr. Ross stated the goal was to understand the current intentions of each municipal and start a dialogue for incorporating the municipal feasibility plans into the UA facilities report.

Shaler. Kevin Creagh stated that they have started to do the cost analysis for tanks for the Butler Plank SSO and storage at the Autumnwood SSO. They are working with Ross and looking at upsizing pipes or parallel pipes using the costing tool.

Etna. Don Newman stated that they have looked at Malcolm Pirnie's estimates of flows and taken an independent look at the flows. Flows with RTK are looking very good comparably. For Phase I, they are taking estimates, routing and looking at what they need to do for different levels of control. They have not completed costing yet. They are looking at storage and options with trunk line. There are four communities in Pine Creek working together. Mr. Kleyman asked what they were considering. Mr. Newman stated that they are looking at source reduction with green streets grant (319 grant). They are in the early phases, but they are looking at storage and consolidation. Mr. Lichte asked if there would be any objections if we priced out conveyance for you. Don Newman asked to continue the discussion after the meeting.

Pittsburgh. Andrew Maul stated that PWSA intends to send flows to ALCOSAN. They are considering some storage along Frankstown Road. They are also looking at a storage tank at the Nine Mile Run CSO and will dewater back to A-42. (Not stated in PFEs). They have another outfall west of A-42 but it does not show more than four overflows per year, so they are planning nothing. (At zoo - CFO2 – ALCOSAN will pick up my CSO where they plan a facility.). Mr. Maul also stated that new construction in the City requires green technology and separation. Mr. Maul thinks they will meet the schedule.

Aspinwall and Sharpsburg. Mr. Jonnet stated that they plan to convey all the flows. At A-78, they are possibly considering some green technology and some separation. There is some discussion with PWSA owning the CSO, but most of the flow comes from upstream communities. They also plan to have some relief pipes where conveyance is a problem.

Mr. Eiswerth stated that ALCOSAN must be aware that there should be no backups – no boundary conditions due to ALCOSAN backup. CSO policy is four overflows per year with the possibility of six, but you still need to look at water quality.

Verona. Gordon Taylor stated that they are meeting with 3RWW and Penn Hills; they may not end up conveying all the flow. They are looking at source control and I/I reduction. They hope to have something to Malcolm Pirnie/ALCOSAN as soon as possible.

Blawnox. Mr. Taylor stated that all flows will be going to ALCOSAN. They are still trying to understand the model, and how the outfalls work. They will be calling Malcolm Pirnie for assistance.

O'Hara. Mr. An stated that they are considering storage and doing some modeling work with costing to decide. They are also considering I/I reduction, but it is hard to quantify, so they are only considering it, but not working it into the model. They are focusing on A-72 and A-85.

John Ross discussed the proposed table for "Section 5". He will be sending a copy of this table to each municipality and will be meeting to discuss and fill out completely. A copy of the table is also attached to the minutes.

Mr. Taylor asked in costing, for replacement – what is the turnaround time? Mr. Lichte stated that they are using 20 years, but it is more geared toward facilities. Initial guidelines state approximately 40 to 50 years for pipes. Mary Ellen Ramage (Etna) stated that not planning for pipe replacement was what got us into this problem.

Mr. Eiswerth asked if ALCOSAN will be discussing phasing with the other municipalities. Mr. Lichte stated yes, this is a tough issue to iron out. Mr. Eiswerth feels that it's important to keep the municipalities advised to ALCOSAN's implementation schedule. The schedule will be a part of the municipal consent orders.

Mr. Kleyman wrapped up the meeting with the following reminders and next proposed steps. They include the following.

Municipalities
• FFEs and draft municipality feasibility concepts - provide in April

Basin Alternatives
• Finalize cost revisions for Basin Based Alternative
• Complete evaluation of 85% capture alternatives

Regional Conveyance/Storage Tunnel
• Complete evaluating tunnel and shaft alternatives (ALCOSAN's PM)

Feasibility Plan Report
• Finalize PFEs and review FFEs
• Understand municipal intentions and plans
• Evaluate inter-basin consolidation options
• Coordination of facilities near A-35
• Size and cost municipal alternatives as necessary

Mr. Creagh asked if is there a chance that this is a hybrid between regional and basin-based alternatives. Mr. Kleyman replied that CDM is working on other alternatives including a tunnel to A-35 for increased capacity with a few potential satellite facilities (A42?).

Ms. Ramage asked that when ALCOSAN begins to reach out to property owners of potential facilities, can the municipalities be included in this process. Mr. Lichte stated yes, but ALCOSAN has not decided when this will happen. It will most likely be when they are close to final alternative selection. Ms. Ramage has a relationship with property owner and does not want him to be shocked. What footprint do you need for tunnel? Mr. Kleyman answered that for a drop shaft, approximately 1-2 acres is needed during construction. Post construction approximately ½ or less is required for access.

Mr. An asked if there were any proposed facilities near A-72. Mr. Kleyman replied yes for basin-based alternatives.

Mr. An asked what is planned for A-85 system. Mr. Kleyman said the current alternative includes system optimization and conveyance improvements with source control in "back pocket". At least a 20 percent reduction in I/I is needed to avoid a facility. For a 10-year storm a storage tank will most likely be required.

Ms. Winklmann stated that there are a group of citizens working with Friends of the Riverfront to buy the marina. Need $2.3 million to purchase. She doesn't think they are far in their funding, but they are planning trails and wetlands. ALCOSAN should be aware of this initiative.

2. **Next Meeting:** The next basin planning committee meeting exact date, time and location to be determined. It is anticipated that the next meeting will be held in May or June.

3. **Attachments:**

- Meeting Agenda
- Presentation Slides
- Attendance List

ALCOSAN Upper Allegheny Planning Basin
Meeting Summary

Upper Allegheny Basin
Planning Committee Meeting #10
May 24, 2011, 9:30 am
Location: Shaler Township Municipal Building

Attendees: Please see attached attendance list.

1. **Discussion / Decision / Agreement Summary:**

   Mike Lichte (ALCOSAN) opened the meeting with introductions and a brief program update. He provided a quick overview of the municipal flow estimates review process and asked for all municipalities to review the summary table to be provided during the meeting and provide feedback. He reiterated that ALCOSAN is trying to document if costs were submitted, if different alternatives were evaluated and if a preferred alternative was identified. Mr. Lichte understood that the municipal feasibility studies are still a work in process and final alternatives and costs are not yet available.

   John Ross (Malcolm Pirnie) presented the agenda for the meeting.

   Mr. Ross then went over the introduction and discussed program updates. He stated that the BP is currently working through Task 7 – Draft Facilities Plan Submittal and that Sections 1 through 4 of the Feasibility and Present Worth report have been completed and submitted for the Draft Facilities Plan (November 1st submittal). ALCOSAN has provided comments on the report and Malcolm Pirnie is currently incorporating those comments into these sections.

   Mr. Ross then discussed the "Status Update" slide that outlined various portions of the project and their completeness.

   - April Winklmann (Manager, Aspinwall) asked if the term CSO treatment meant solids separation and chlorine disinfection would be included. Mr. Ross replied yes. Ms. Winklmann then asked what would be done to control the formation of trihalomethanes (THMs). Mr. Lichte replied that this is an issue related to overall water quality, and that ALCOSAN has just started to look at water quality. Mr. Lichte also stated that THM formation is dependent upon the concentration of organics in the water receiving chlorine and that wet weather discharges will be significantly reduced and discharged to a large water body where some assimilation will occur (Note: THMs are not listed as a regulated water quality

criteria in the 25 PA Code Chapter 93 – Water Quality Standards). He also emphasized that ALCOSAN is planning to consider this as part of the upcoming water quality evaluations that will be conducted by the PM. Paul Eiswerth (PADEP) stated that PADEP is also interested in the outcome of the water quality evaluations and that each wet weather discharge will have to be permitted by PADEP.

Control strategies evaluated by the UA team for CSOs and SSOs were discussed. For SSOs, using a two-year storm, only one storage tank will be anticipated in the UA basin. When ALCOSAN evaluates larger storms, additional tanks may be required.

- John Shannon (Baker) asked if, with either the basin-based or regional-based alternatives, will there be overflows that are not addressed? Mr. Ross responded that they will all be "picked up" via consolidation piping by both the basin based and regional based alternatives, but there will still be some untreated overflow activations depending on the level of control selected.
- William An (KLH Engineers) asked what a "CF" was. Mr. Ross replied that it is a consolidated flow grouping.
- Glenn Jonnet (Glenn Engineering) asked if this proposed work would be phased. If so, how will the priorities be established? Mr. Amend replied that as Malcolm Pirnie and the other Basin Planners complete the basin level planning, all of the information will be provided to ALCOSAN and the Program Manager. They will then assimilate all of the information from all of the basin planners and then do additional evaluations to establish the preferred regional solution. Phasing of the work will be handled at that level.
- Mr. Jonnet asked what design storm was used for the tunnel alternative. Mr. Lichte replied that the "typical year" was used.
- Mr. Jonnet stated that the application of mixed-shed runoff criteria is not coming into play for the tunnel. ALCOSAN is not using the same design criteria for the tunnel that the municipalities are using for the flow going into the tunnel. The tunnel design is using a "typical year" and the municipalities are using a "10-year design storm". Mr. Lichte replied that they are treating the mixed flows as a CSO. Mr. Jonnet asked if there will be more than four to six overflows per year at the CSOs because there will be a higher peak flow at the POC due to the sanitary sewersheds being evaluated at a 10-yr design storm. Mr. Lichte replied that all of the inflows are fed into the computer model and as long as the trunk sewers have capacity, there shouldn't be a problem. Mr. Lichte stated that under the core flow requirements, a designated volumetric equivalent of the sanitary flows from the municipalities will have to be captured and treated through each viable alternative.

- Mr. Jonnet re-stated that the municipalities submitted a mixed-shed design for two to ten year storms and ALCOSAN's tunnel seems to be designed for a typical year. This discussion continued with many engineers and regulators voicing opinions. Mr. Lichte stated that he understands that ALCOSAN will have to take all flows delivered to them from tributary municipalities.
- Dave Bingham (AECOM) stated that in the model, a "typical year" is a little bit less than a two-year design storm. Mr. Bingham stated that the mixed-shed approach will be discussed with PADEP and the regulators.

Mr. Ross then discussed the interbasin coordination that had been occurring with the Upper Allegheny Basin.

- Mr. Shannon asked what the time frame was for the regional integration process. Mr. Amend stated that it is currently ongoing and will continue through next spring. Mr. Shannon asked if the results will not be conveyed until the release of the ALCOSAN WWP. Mr. Lichte stated that they will probably present the available results at the next Basin Planning Committee (BPC) Meeting. Mr. Amend added that ALCOSAN is still looking at how water quality and construction phasing issues would affect the process.
- Mr. Shannon asked "For the 10-year, 2-year and typical year storms, what are you evaluating?" Mr. Bingham replied that to demonstrate a knee-of-the-curve plot for the costs, they needed to have a storm event that was under a two-year storm.
- Jerry Brown (3RWW) stated that if all the stakeholders attend the BPC meetings, then there should be no surprises to the municipalities when ALCOSAN's WWP is distributed for comments. Mr. Lichte stated that though there is still a lot of work in progress, the basin-based scenario alternatives appear to be more costly and labor intensive.
- Mr. An asked if the tunnel would also function as storage. Mr. Lichte replied yes.
- Mr. Eiswerth asked if the facilities being proposed by the BPs would be operated by ALCOSAN. He also asked whether or not ALCOSAN was analyzing how they will handle the release of dewatering flows from municipal storage systems? Mr. Lichte stated that everything will be coordinated between the municipalities and ALCOSAN as both ALCOSAN and the municipalities refine their plans.
- Mr. Eiswerth asked if ALCOSAN is collecting separate sanitary sewer flows, putting them into a combined sewer or a storage tunnel that also collects combined flows, and is then considering the blended flows to be "combined". Mr. Lichte replied yes.
- Kevin Brett (Lennon Smith Souleret Engineers) asked if the tunnel could take the 10-year flow from the municipalities. Mr. Lichte stated yes, if necessary.
- Mr. Jonnet stated that they have their separate sanitary flows tied independently (from the combined flows) to the point-of-connection.

- Mr. Brett asked if the storage facilities shown on the slides were all ALCOSAN facilities. Mr. Ross replied yes.

Mr. Ross presented the approach to simulating basin wide sewer separation. A "tight" new sanitary system (meaning very little I/I influence) was considered with additional private source controls (such as sump disconnects and new service laterals) and has a $984M price tag. This estimate is nearly double that of the individual basin based and regional based alternatives.

Mr. Ross also discussed the content and status of the Feasibility Report, including the new sections on the Integration of Municipal Controls and Regional Integration. Along with reviewing the topics of the various sections that will make up the report, Mr. Ross again stressed the importance of the municipalities providing as much information as possible for inclusion in Section 5 – Integration of Municipal Alternatives in order for this section to represent the actual plans of the municipalities as opposed to the assumptions of the BPs.

Mr. Amend then discussed the regional-based tunnel alternative and the necessary integration between municipal controls, basin controls and system wide controls. Mr. Amend presented the overall basin based scenario alternative and the regional based scenario alternative. He identified that under the basin based alternative, over 40 facilities were proposed by the various Basin Planners, including storage tanks, screening and disinfection facilities and RTBs. Under the regional scenario approach a tunnel stretched into most of the basins and significantly reduced the number of stand-alone facilities needed. Mr. Amend also discussed the various regional hybrid solutions that the PM will be evaluating including partial separation, satellite WWTP and various tunnel extents.

Mr. Amend presented the regional cost curves as developed by the PM. He noted that the regional based alternative has a lower cost than the basin based alternative at higher levels of control. The higher cost for the regional based alternative for the 13-20 overflow level of control is primarily due to the tunnel construction methods required for a small diameter tunnel. The ACT costs smaller tunnels using the microtunneling equations as opposed to the storage tunnel equations used for the larger tunnels.

- Mr. Eiswerth questioned the curve (graph shown on Page 8 of the presentation handouts). He asked if the curve represented all of the basins and if the costs were current or future dollars. Mr. Amend replied that the curves included costs for the flows that needed to be captured for each level of control for all of the basins out to the 2046 planning year as required by the CD and that the curves were displayed in today's dollars

Mr. Amend then discussed the ALCOSAN Consent Decree requirements regarding municipal input. This includes a forecast, by the municipalities, of total flow each POC will contribute to the ALCOSAN system and a characterization of these contributing flows. Also that similar requirements are spelled out in the municipal orders.

Laura McGinnis (Malcolm Pirnie) discussed the contents of Section 5 in more detail and reiterated that municipal input is necessary to properly represent the intentions of each municipality. This municipal information, to be included in Section 5, includes FFEs, flow control strategies to eliminate SSOs and control CSOs and proposed improvements and costs. Ms. McGinnis also presented a partially complete table of municipal costs that all municipalities have been asked to populate. The BP will continue to populate this table with the information received from the FFE submittals.

Ms. McGinnis then presented the municipal FFE summary spreadsheet and noted that FFEs had been received from all the UA municipalities. She asked all municipalities to review the information in the table and report any inconsistencies or discrepancies based on the information submittal. Ms. McGinnis walked through the table and identified the key points ALCOSAN is initially focusing on to develop Section 5: 1) What did the municipalities evaluate? 2) What levels of control were evaluated? 3) Do we have enough information to incorporate this into the model? Ms. McGinnis stated that if the municipalities used a model, the UA team would like to have a copy of it to facilitate the incorporation of the municipal alternatives into the UA model. Ms. McGinnis acknowledged that, not knowing the preferred alternatives for several of the municipalities, the municipal alternative evaluation is still in progress and final feasibility study information is not yet available. She said she is available to talk one-on-one with each municipality.

- Mr. Lichte stated that they are not getting good matches in the comparison of BP flow estimates to municipal flow estimates at a few of the POCs. ALCOSAN does not want to critique the municipal models, just understand them.
- Mr. Jonnet asked where the specific troubles were located. Mr. Lichte stated that that would be better addressed one-on-one.
- Mr. Eiswerth asked when ALCOSAN is planning on weaning off of the Basin Planning Consultants. Mr. Lichte replied that it would occur over the next nine months. Mr. Eiswerth indicated that Tim Prevost (ALCOSAN) had led him to believe at another meeting that it would be by the end of summer. Mr. Lichte replied that the consolidation and understanding of the basin alternatives is taking longer than originally anticipated.

- Mr. Eiswerth asked if ALCOSAN had already looked at sites (conducted Environmental Site Assessments). Mr. Lichte replied yes for ALCOSAN sites, but not for municipal sites.

Ms. McGinnis stated that ideally she would like to have any new information from the municipalities by the end of the week to meet an internal June 15th deadline.

- Mr. Eiswerth asked what the "new information" was. Ms. McGinnis stated a "regional based alternative model submittal". Mr. Eiswerth indicated that he has concerns that the regional model will only contain preliminary information from the municipalities. He asked how the final municipal data would be worked into the model submittal.
- Mr. Jonnet stated that they could not meet an early June deadline.
- Mr. Lichte replied that there will be rounds and rounds of iterations of the regional optimization.
- Mr. Eiswerth was still concerned and would like to have a separate meeting to discuss.

Joe Day (ALCOSAN) presented a summary of ALCOSAN's public outreach. Mr. Day discussed the Customer Municipal Advisory Committee (CMAC). Recent discussions included municipal coordination, green technologies and regionalization/consolidation. The next CMAC meeting will be held on August 2, 2011. There had been some attendance problems, so new members have recently been appointed.

The Regional Stakeholders Group (RSG) meeting was also discussed. Discussion topics included stream removal projects, green technologies, wet weather plan sites, and upcoming public outreach. Mr. Dave Borneman (ALCOSAN) presented an update on proposed facilities and sites at this meeting. The next RSG meeting is scheduled to be held on August 18, 2011.

Mr. Day also reminded the group that the ALCOSAN Open House is scheduled for Saturday, September 17, 2011 and that ALCOSAN will be holding community meetings in the fall of 2011.

Dave Bingham stated that the Allegheny Conference is looking at regionalization and consolidation. Historically, ALCOSAN has taken over interceptors (i.e., Saw Mill Run). They are looking at options from individual cases to taking over entire sewer systems.

Mr. Lichte discussed the program schedule out to July 2013.

Mr. Ross discussed the proposed next steps and asked the audience for questions.

- Ms. Winklmann brought up the issue of THMs again, stating that sodium bisulfate will not remove THMs. She is concerned that ALCOSAN will be sending THMs

to the rivers for the drinking water plants to remove. Mr. Eiswerth stated that this is an issue that needs to be studied and that we don't have all of the answers yet.

- Mr. An asked if ALCOSAN had room to expand their plant. Mr. Lichte stated that ALCOSAN is reviewing this issue. They are also looking at ballasted floc and other treatment technologies that can be utilized at the plant.

2. **Action Items:** Continue open dialog with municipalities to refine proposed municipal alternatives. Follow-up with Paul Eisworth regarding a possible meeting to discuss such items as incorporation of final municipal alternatives into the ALCOSAN evaluation.

3. **Next Meeting:** The next basin planning committee meeting exact date, time and location to be determined. It is anticipated that the next meeting will be held in August or September 2011.

4. **Attachments:**

   - Meeting Agenda
   - Presentation Slides
   - Municipal Planning Information Summary Table
   - Attendance List

ALCOSAN Upper Allegheny Planning Basin
Meeting Summary

Basin: Upper Allegheny
Meeting Purpose: Basin Planning Committee Meeting #11
Date / Time: October 11, 2011, 1:30 pm
Location: Shaler Township Municipal Building

Attendees: Please see attached attendance list.

1. Discussion / Decision / Agreement Summary:

Mike Lichte (ALCOSAN) opened the meeting with introductions.

John Ross (Malcolm Pirnie) presented the agenda for the meeting and provided a recap of BPC #10 and a schedule update.

- Since the May 24th BPC Meeting, the Basin Based Control Strategy, the Interbasin Coordination, the Complete Sewer Separation and the 85% Capture by Basin evaluations have been completed. The Regional Based Control Strategy and the Ranking and Assessment Tool evaluation have been nearly completed.
- The Feasibility Study report was submitted in July and a revised version was submitted in August.
- The enhanced Alternative Ranking Tool resulted in slight changes to the Preferred Basin Based Alternative. At the lower levels of control (7-12 & 13-20 OF/yr), the RTB alternatives ranked higher than the SD due to the smaller facilities having a smaller cost differential.
- The UA's Basin and Regional SSO Alternatives for the 2yr design storm was compared with the recently developed Alternatives for the 10yr design storm. The differences include an upsized proposed storage facility at the Verone Pump Station and a newly proposed storage facility at A-85.
- The Program Manager's Regional Integration efforts were reviewed and the System-Wide Basin Based and Regional Based Control Strategy maps were reviewed.
- Mr. Ross then introduced Jerry Kleyman (Malcolm Pirnie).

Mr. Kleyman explained some specifics regarding the updated regional based control strategies.

- The CF04 consolidation along the north shore has been revised to include an upsized replacement of the interceptor from the A72 crossing to the A78 regulator instead or the originally proposed parallel interceptor. This will improve operations and maintenance of the proposed sewers,

A discussion commenced on the existing conditions of the ALCOSAN system and the assumptions in the current evaluation:

- Tim Rodgers (Shaler) asked if on the city side has there been consideration to moving the tunnel closer to the point. Mr. Kleyman replied that the tunnel section does continue all the way to the Plant.
- Glenn Jonnet asked what were used as boundary conditions. Mr. Kleyman answered that there were a couple of iterations using different boundary conditions. The first iteration had free discharge into the proposed tunnel; the second iteration utilized boundary conditions generated by ALCOSAN's project management team. Both iterations assumed the current or nearly current boundary conditions in the existing ALCOSAN's interceptors. Free discharge will not happen in real life: sewers cannot be sized to contain all storms. Mr. Jonnet asked if using boundary conditions rather than "free discharge" will cause backups into municipal sewers. All of municipal submissions that his firm prepared utilized free discharge when they were performing their calculations. William An stated that he used the same parameters as ALCOSAN for his basins (maintaining the downstream system and boundary conditions). Mr. Lichte answered that based on your alternatives, ALCOSAN is evaluating this in their model and will get back to the municipalities. Some pipes may need to be upsized.
- Mr. Rodgers asked where does flow from the City side of river meet with our flow. Mr. Kleyman stated that there would be a new connection at A-68 and one at CF-04 (grouping). Both new crossings would go to the new deep regional tunnel. Mary Ellen Ramage (Etna Borough) said that lack of capacity in ALCOSAN's system makes back up in their system. Will there be storage on the City side or will it just dump to a bigger tunnel? Mr. Lichte answered that they are trying to minimize flooding and maximize treatment. ALCOSAN is in iterations to determine what they will need. There will be more details provided as this process moves along.
- Tim Rodgers stated that A-68 is often surcharged during wet weather events. Ms. Ramage discussed an instance of having an ALCOSAN inspector viewing the interceptor site during a surcharge event. Mr. Rodgers asked if the plant can take all this extra water that they are sending to the plant. Jan Oliver (ALCOSAN) stated that there are plans to upsize plant to 600 mgd.

Mr. Kleyman explained that the design is currently for four overflows per year for a "typical year". A new tunnel will act as a storage/equalization/conveyance. He then discussed additional components of facilities plan. The draft basin facilities plan is due on November 11, 2011 and the final basin facilities plan is due on January 20, 2012.

- Kevin Creagh (Shaler) asked if all basins are operating with the same levels of control. Jerry Kleyman answered that all basins are using 4-6 overflows per year except in sensitive areas which allows for no overflows per year.

Laura McGinnis (Malcolm Pirnie) provided a municipal update. Pirnie has received the Pine Creek model and an updated consolidation report, new proposed improvements from Penn Hills, and information from Blawnox regarding a request for a new point of connection. Pirnie has also received additional information on the location and extents of the proposed relief sewers in Sharpsburg and O'Hara to support model evaluations. Laura McGinnis explained that most municipalities are proposing relief sewers, with Ross and Shaler proposing a shared storage facility.

- Paul Eiswerth (PADEP) asked if this is the most conservative approach. Ms. McGinnis answered that to convey all municipal flows to the system and using the 2-year storm is the approach that was used, which was considered more conservative for sizing the ALCOSAN's alternatives than limiting municipal flows. She also said that if any municipalities have any changes to the drawing (11x17 handout provided at meeting) to please red-line it and send it to her.
- Mr. Rodgers asked if there was consideration to relief sewers, storage, etc. in the costs that ALCOSAN calculated for the regional solution. Mr. Lichte answered that yes, the costs of relief sewers were considered for affordability analysis. It does not include ownership. Ms. Oliver added that 2% of the median household income is $2 billion. Mr. Lichte added that current costs are around $5 billion. Mr. Rodgers asked how far along is ALCOSAN from finding an end product. Ms. Oliver answered that they are close to knowing what they have to construct. Mr. Rodgers then asked if there is anything that we don't know about. He discussed being "hit" with TMDLs for Pine Creek. Ms. Oliver answered that ALCOSAN did not know about the TMDLs. ALCOSAN's lab was analyzing samples collected by citizens. Mr. Rodgers stated that one of ALOCSAN's BPs was working on TMDLs and the North Hills communities were not aware of it. Mr. Rodgers stated that there are 14 communities that are now close to another Consent Decree due to TMDLs. There was discussion between ALCOSAN, Etna, Shaler and PADEP as to whether notification was provided.
- Mr. An said that there is a section of relief sewer missing for O'Hara Township on the drawing. Mr. Jonnet said there is an issue with A-72 that he will mark up and return to Ms. McGinnis.
- Laura McGinnis summarized UA team's assumptions for evaluating and reconciling municipal alternatives including allowing some surcharge under a 2-yr design storm as long as 8-ft freeboard is provided.

- Mr. An said that eight feet of freeboard does not work for all manholes. Some manholes are not eight feet deep. Ms. McGinnis stated that then flow is designed to stay in the pipe. The eight feet of freeboard also depends on where manholes are located in the system.
- Mr. Eiswerth stated that the eight feet is a rule of thumb. Mr. Kleyman added that it is typically used in municipal designs in urban areas.
- Mr. Jonnet asked if there are any changes upstream in O'Hara that will affect Sharpsburg. Ms. McGinnis answered that they are starting upstream and working their way downstream. They should be evaluating Sharpsburg within one week.
- 3Rivers Wet Weather has basement elevations, but there is no GPS data on approximate lateral elevations. Ms. Oliver asked what the concern with eight feet is. Is it that eight feet may not be big enough and that flow will go into basements? Mr. Lichte said that they are still studying similar issues in Saw Mill Run.
- Mr. Eiswerth said that Part II applications will most likely not be approved if they have surcharging. He cautioned the engineers to talk to PADEP on a case by case basis.
- Mr. Kleyman responded that the 8-ft rule can be still applied to the existing sewers with no proposed improvements if municipalities are willing to live with it. Mr. Lichte added that ALCOSAN will consider keeping flows within the pipe for new sewers.
- Mr. Rodgers asked if main tunnels will be open cut. Mr. Lichte answered that the tunnel will be rock bored and is up to 150 feet deep; they are still working on size, but it could be 14 to 20 feet in diameter. Mr. Lichte said that surcharging in the tunnel will always occur because it's so deep. Also, during the 4-6 events that exceed the proposed level of CSO control, the tunnel capacity will be fully utilized.
- Mr. Kleyman said that the HGL in municipal sewers under the largest 4-6 events will be driven by river elevations since overflows will activate in order to relieve sewers. High river stages will impact the HGL in municipal sewers. Mr. Jonnet said that his system may get surcharged during high river/water events. He submitted both "no overflows per year" and "four overflows per year" levels of control. ALCOSAN used municipal costs for four overflows but if municipalities choose no overflows in the future, this may drive up costs.

Ms. McGinnis suggested that everyone look at the table (provided as an 11x17 handout) and make any changes and then return it to her. Mr. Lichte asked when Ms. McGinnis anticipates finishing the analysis and speaking with Sharpsburg and Aspinwall. She answered that she hopes to do it this week. She wants everyone to be comfortable with the flows.

- Mr. Lichte discussed the ALCOSAN's request for complex sewershed studies. All complex sewershed municipalities will receive a letter from ALCOSAN in the next few weeks.
- Mr. Eiswerth asked if a municipality does not want to discharge CSOs to small streams verses conveying to ALCOSAN to discharge into the bigger rivers, how will the municipality be incorporated. Are you requesting advance plans from some municipalities? If ALCOSAN requests information and a municipality does not comply, ALCOSAN can charge a municipality for time and costs to revise their model. He recommends that all municipalities submit their information to ALCOSAN as soon as possible.
- Mr. Eiswerth is concerned if ALCOSAN is prepared to take all flows, especially if zero overflows per year is used. Mr. Eiswerth added that all municipalities should get their flows to ALCOSAN or eliminate them, but do not keep dumping to the small receiving streams. Mr. Rodgers said if we have TMDLs it is better to have overflows in the main rivers and that will get the discharges out of our streams.
- Ms. Ramage. said that we are spending large amounts of money to study and develop things we can't afford to implement. She would rather spend the study money on actual improvements.
- Mr. Rodgers asked if any municipality owes ALCOSAN any additional information. Mr. Lichte answered no, but they would like an upfront copy of the municipal feasibility study by next July, even though they are not due until July 31, 2012. He wants the municipal representatives to put their proposed alternatives in front of councils, boards, just to have an acknowledgement to accept the draft Feasibility Plan.
- Mr. Eiswerth asked how this information from the municipal Feasibility Plans is to be incorporated when you ask for information at the same time that the report is due from ALCOSAN. Mr. Lichte said that we are in iterations. He feels that he has a good feeling about what his basins are doing. Mr. Eiswerth said that municipal reports were supposed to be due in the spring, he is very concerned that municipal information will not get in final Feasibility Report. Mr. Creagh said that the municipalities are tweaking their designs and it really doesn't affect ALCOSAN's overall model. .

Karen Brean (Brean Associates) presented a summary of ALCOSAN's public outreach. Joe Day (ALCOSAN) discussed the Customer Municipal Advisory Committee (CMAC). The Regional Stakeholders Group (RSG) meeting was also discussed.

Ms. Brean also reminded the group that the ALCOSAN Town Hall Meetings are scheduled in October and November.

Ms. Oliver spoke about the Regionalization Study. A panel including Mr. Creagh and Ms. Ramage with Dr. Cohen from CMU has been formed.

Mr. Ross asked if there were any additional questions.

- Mr. Jonnet asked if the stormwater was taken into account in the affordability analysis. Mr. Eiswerth answered no, that stormwater is not included in the affordability analysis. Stormwater will be an additional cost unless there is a combined system.
- Mr. An asked how you define a complex sewershed. Mr. Lichte said that it is usually the larger, multiple municipal sewersheds that are considered complex and the letter is currently being drafted.
- Mr. Jonnet asked who the final author of the letter will be. Mr. Litche answered that most likely it will be Tim Prevost. ALCOSAN is looking for municipal commitment. Mr. Lichte added that they are developing a template for municipal Feasibility Studies. Mr. An asked if the simple sewersheds need to provide a Feasibility Study. Mr. Lichte said no, but you can submit one if you want.

2. **Action Items:** Continue open dialog with municipalities to refine proposed municipal alternatives.

3. **Next Meeting:** The next basin planning committee meeting exact date, time and location is still to be determined. It is anticipated that there will be another meeting held in spring/summer 2012.

4. **Attachments:**

- Meeting Agenda
- Presentation Slides
- BQAR #8
- Figure 5-1 Proposed Municipal Improvements
- Table – Upper Allegheny/Pine Creek – Municipal CSO or SSO Control and Cost Summary for Each POC
- Attendance List

ALCOSAN Upper Allegheny Planning Basin
Meeting Summary

Basin: Upper Allegheny
Meeting Purpose: Basin Planning Committee Meeting #12
Date / Time: May 8, 2012, 1:30 pm
Location: Shaler Township Municipal Building

Attendees: Please see attached attendance list.

1. Discussion / Decision / Agreement Summary:

Mike Lichte (ALCOSAN) opened the meeting with introductions.

John Ross (Malcolm Pirnie) presented the agenda for the meeting and provided a recap of Basin Planning Committee (BPC) Meeting #11 and a schedule update. These recap items included the following:

- Regional Based Control Strategy – Complete
- Comments from ALCOSAN on the Feasibility Report – Addressed
- Incorporation of Municipal Planning Information – Up to Date
- Draft UA Basin Facility Plan (BFP) – Submitted December 2011
- Comments on BFP from ALCOSAN – 80% complete.

He then introduced Jerry Kleyman (Malcolm Pirnie).

Mr. Kleyman went over the UA Basin Facility Plan stating that there were not many changes from the version presented at the last BPC meeting in terms of proposed improvements for the ALCOSAN CSOs and SSOs within the UA basin. The CSO improvements include the following:

- Replacing the existing interceptor in Sharpsburg/Aspinwall area with upsized interceptor (approximately 10,400 lf of pipe – 30" to 66" diameter at CSOs A-69 through A-78)
- Construction consolidation sewer in the Stanton Heights/Morningside area of Pittsburgh (approximately 2,800 lf of pipe – 18" to 60" diameter at CSOs A-36, A-37, A-37z and A-38).
- Constructing dropshaft connections to a regional tunnel and/or river crossings at various CSO locations in Etna, Sharpsburg and Pittsburgh (CSOs A-35, A-40, A-41, A-42, A-68, and A-72).

The proposed SSO improvements included replacing the existing interceptor in Blawnox/O'Hara area with upsized interceptor at SSO A-82 and A-85 and constructing a new relief sewer and 0.3 MG storage facility at the Verona Pump Station for SSO A-45.

ALCOSAN did modify the alignment of the proposed tunnel to more closely follow the existing deep tunnel alignment. The UA BP did reevaluate the conveyance to the tunnel and drop shaft locations; minor adjustments (minor revisions to some drop shaft locations; alignment changes to adits, etc.) were made to facilitate the new tunnel alignment.

Glenn Jonnet (Glenn Engineering/Aspinwall, Sharpsburg) asked if these projects were going to be phased or were to be one big project. Mr. Kleyman replied that the SSO improvements can be implemented earlier because they are not dependent on the construction of the regional tunnel, but to remember that this is the Basin Plan – not the Regional Plan. Mr. Kleyman discussed potential phasing of the interceptor replacement on the north side of Allegheny River as well.

Laura McGinnis (Malcolm Pirnie) discussed the municipal coordination efforts that had occurred since BPC Meeting #11.

- Malcolm Pirnie has met with Aspinwall, Blawnox, Penn Hills, Pine Creek (Etna, Ross and Shaler), Sharpsburg and Verona since the last BPC meeting to further discuss their proposed municipal improvements and the reconciliation efforts.
- Malcolm Pirnie has not received any substantial changes from the municipalities since December 2011, with the exception of PWSA (a new proposed relief pipe in the A-42 sewershed) which Malcolm Pirnie is currently reviewing if the proposed relief pipe meets the freeboard/surcharge criteria (used for reconciliation of all municipal improvements in the UA basin). The UA BP will incorporate the pipe and other improvements (if necessary to meet the criteria) into the final Alternative 3f-modified model.
- Ms. McGinnis discussed an 11x17 (UA Basin Municipal Planning Information Summary) handout that summarized information provided by the municipalities. She asked that the municipalities please review the handout and let her know if there are any changes by May 31st. The UA will review and try to incorporate the municipal changes received by that date in the final UA Basin Facilities Plan report due to the ALCOSAN on June 29, 2012.

Penn Hills inquired about the potential for new point of connection downstream of A-42A. Ms. McGinnis suggested a separate meeting with Penn Hills and ALCOSAN to discuss further and a formal submission from Penn Hills is anticipated. Mr. Lichte is looking for optimization of the SCADA system at Penn Hills and stated that nothing is off the table at this point. Jerry Kleyman said that any minor changes by the municipalities would not affect ALCOSAN's final plan for the UA basin. Ms. McGinnis also mentioned that the UA BP and the Pine Creek municipalities were meeting tomorrow to continue discussing the Pine Creek feasibility plan.

A question was asked regarding the O'Hara stream removal. Mr. Lichte stated the Ravine Street DSI removal is currently being evaluated and the estimated cost is about $1.5 million. Jan Oliver (ALCOSAN) stated that estimated cost of the Delafield Avenue stream removal project may be more expensive than originally considered and at this time the consideration is only for sediments and solids removal. Jerry Kleyman pointed out that both Ravine and Delafield stream removals are included in the UA basin evaluations since at the time of the alternatives evaluation the projects were considered imminent Dave Borneman (ALCOSAN) reiterated to the group that ALCOSAN is just presenting what their understanding is as of today.

Mr. Jonnet stated that the Delafield project should be a stream removal project. Jan Oliver (ALCOSAN) said that grit is filling up the sewers at Delafield and they are currently looking at grit removal with Army Corps of Engineers and Gannett Fleming.

Paul Eiswerth (PADEP) asked if O'Hara was building the grit removal system. Chuck Steinert (O'Hara) replied that it is not just O'Hara Township, but a group of municipalities.

Mr. Ed Kluitenberg (CDM) then discussed the Wet Weather Plan. He stated that the Preliminary Control Strategy was initially based on the best technical alternative (without affordability considerations) and assumes that everything will be completed by 2026 at a cost of $3.6 billion. This alternative reduces annual overflow volumes by 8 billion gallons (BG) and meets water quality requirements. Mr. Kluitenberg reviewed the Wet Weather Plan Development Schedule with the draft plan submitted and out for public comment mid July 2012. He then discussed the plan development which included screening technologies and sites, developing basin-based alternatives and finally integrating the seven basins into system-wide alternatives. Some of the items evaluated included additional treatment plants, treatment plant capacities, annual overflow volumes, water quality benefits and knee of the curve cost performance. Mr. Kluitenberg reviewed the Preliminary Control Strategy which eliminates SSOs (for a 2-year storm), includes 95% CSO capture, includes municipal CSO and SSO controls, reduces annual overflow volume by 8 BG, provides enhanced control to sensitive areas, and meets water quality requirements. He stated that the estimated capital cost of this strategy is $3.6 Billion. He then discussed the Preliminary Control Strategy Benefits by Basin. The next item discussed was affordability, with a total system-wide cost of $2 billion shown as the most the region can afford based on the US EPA affordability guidelines. Mr. Kluitenberg continued with a discussion of the implementation considerations. He discussed affordability, financial capability, and construction capacities.

Bob Zischkau (Glenn Engineering/Aspinwall, Sharpsburg) asked if the affordability evaluations assumed that costs would be averaged across the whole system. Mr. Kluitenberg replied yes. Mr. Zischkau stated that this is a problem when you have one municipality with an average annual income of $100,000 and another with an average annual income of $14,000, which is a shortcoming of the US EPA methodology.

Mr. Kluitenberg then discussed competing needs. CDM has identified and developed three affordable ($2B) alternatives.

- SSO Control Priority – which includes treatment plant expansion (295 MGD secondary and 480 MGD primary, all municipal improvements, sensitive area outfall relocation controls, regional conveyance tunnel postponed, and two retention basins on the Monongahela and one on Chartiers Creek. This will provide 70 to 75% CSO capture and 2-year SSO for the entire service area (including the SSO improvements in the UA Basin).
- Water Quality Priority- which includes treatment plant expansion (295 MGD secondary and 600 MGD primary, all municipal improvements, sensitive area controls, Ohio and Allegheny Regional Tunnel, portion of Monongahela regional tunnel and one retention basin on the Monongahela. This will provide 85 to 90% capture and 2-year SSO for the Allegheny River (including the SSO improvements in the UA Basin).
- Balanced Priorities which includes treatment plant expansion (295 MGD secondary and 480 MGD primary, all municipal improvements, sensitive area controls, Ohio River and portions of the Monongahela and Allegheny regional tunnels, and one retention treatment basin on Chartiers Creek. This will provide 75 to 80% CSO capture and 2-year SSO for Chartiers Creek.

Mr. Kluitenberg discussed each of these alternatives and the associated system improvements which are summarized in the table below.

Mr. Kluitenberg reviewed the overflow volume slide and discussed a comparison of the three affordable alternatives Mr. Kluitenberg also discussed what municipal information would be included in the Draft WWP. This included the following:

- Section 7 will include the assumed population growth (percent by municipality) and the assumed growth in the area served
- Section 9 will include a table and map of the preferred/assumed municipal improvements and the total capital cost of municipal improvements (system-wide total)
- Sections 10 and 11 will include the system-wide total O&M and R&R costs and the capital, O&M and R&R costs by municipality will be used to estimate the residential indicator, by municipality, but not reported explicitly

- The Appendix will contain the average annual flow contribution by POC

A question was asked as to whether the two-year storm was used for the SSOs. Mr. Kluitenberg replied that that had been their assumption. Ms. Oliver said that some municipalities may have selected a 10-year storm if they have basement backups. Mr. Borneman said they looked at the 10-year storm for the ALCOSAN SSOs, but that it was too expensive. Mr. Kleyman said that they have included recommended levels of control provided by the municipalities into the UA model. For the municipalities who did not make recommendations, a 2-year storm was used.

Mr. Joe Day (ALCOSAN) discussed municipal and public outreach. CMAC Meeting #13 was held on March 20, 2012 and covered a wet weather planning update and the Regionalization Study. The next CMAC meeting is to be held on May 23, 2012. RSG Meeting #13 was held on March 28, 2012. This meeting also discussed updates to the wet weather planning and the Regionalization Study. The next RSG meeting is to be held on May 24, 2012. Mr. Day then discussed the Public Outreach Milestones that include the following:

- Draft Wet Weather Plan Release – July 31, 2012
- Public Comment Period – July 31, 2012 through October 19, 2012
- Grassroots Outreach – May through September 2012
- Public Meetings and Hearings – August through September 2012
- ALCOSAN Open House - September 15, 2012.

ALCOSAN plans to have a Draft Wet Weather Plan released by July 31st for public comment.

Ms. Oliver discussed Regionalization and options that are available to the area. The purposes of the Regionalization Evaluation include the following:

- Region faces large expenditures for wet weather pollution control
- Respond to municipal requests for greater ALCOSAN involvement
- Explore regionalization options (nine have been identified)
- Determine the pros and cons and identify obstacles.

One option is to develop basin-based authorities. Other options range from ALCOSAN taking over some sewers through ALCOSAN taking over all sewers including storm sewers. The Regionalization Evaluation is looking at these alternatives. The Regionalization Review Panel is conducting this evaluation. The panel is comprised of 37 members representing various sectors and is chaired by Dr. Jared Cohon – the President of Carnegie Mellon University. There is no preferred alternative, just pros and cons for each option. Ms. Oliver discussed the six evaluation categories, including financial, regulatory/legal, environmental, organizational, stakeholder acceptance, and

operation and maintenance that had been identified. Six Review Panel subcommittees have been developed to review and refine these categories. The subcommittees met twice during March and April. AECOM will be drafting a final report.

Tracy Schubert (3RWW) pointed out that in the end there may be fewer than nine options. Jan Oliver replied that some options may merge.

Mr. Kevin Creagh (Shaler) asked when ALCOSAN will be making a selection. Ms. Oliver replied that they are not going to make a selection. Mr. Borneman explained that the report will be a product of where to move forward, but will not affect the regional municipal responsibilities. Mr. Creagh stated that their final Feasibility Study will have many caveats. Mr. Borneman replied that this study will hopefully prod municipalities or that politicians will realize that this is the way to go. Ms. Oliver stated that she could meet with Mr. Creagh to discuss further.

Mr. Jonnet asked how ALCOSAN was going to address the affordability issue. Ms. Oliver replied that they will submit the $3.6 Billion to comply with the Consent Decree, but will provide arguments of what can be provided at $2 Billion. Mr. Jonnet replied that regionalization will not provide any benefit by Consent Decree deadlines.

Kevin Brett (Lennon Smith Souleret/Fox Chapel) pointed out that he doesn't know if affordability is an argument for separate sewer communities.

Mr. Eiswerth (PADEP) explained that separate sewer communities cannot look at affordability as an excuse. The Consent Decree says to remove all SSO's; ALCOSAN can't afford to do this. Mr. Eiswerth indicated he, when asked, has advised municipalities to look at the 10-year design storm although he acknowledged many municipality plans are currently looking at the 2-year design storm.

Tom Flanagan (PADEP) asked if the $2 billion does include costs to upgrade the plant. Jan Oliver replied that the evaluation included costs for upgrading the plant along with $550 million for municipal upgrades necessary to convey all of the flow to ALCOSAN, which came out (cost-wise) close to what ALCOSAN originally estimated.

Don Newman (Buchart Horn/Etna) asked if the municipalities should look at the draft plan for $3.6 billion or use the $2 billion sub-options. Mr. Borneman stated that the municipalities should submit their Feasibility Studies based on total compliance. Mr. Newman stated that they are trying to balance POC view versus the upstream view. Kevin Creagh pointed out that there is a time value of money. He stated that it would be prudent to expedite the solutions, not waste years of bond money available.

Mike Lichte stated that this was the last BPC meeting and thanked the UA team for their work on the UA Facilities Plan.

2. **Action Items:**

3. **Next Meeting:**

4. **Attachments:**

- Meeting Agenda
- Presentation Slides
- BQAR #9
- Table – Upper Allegheny Basin Municipal Planning Information Summary
- Attendance List

Upper Monongahela Basin

ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Upper Monongahela
Meeting Purpose: Kick-off Basin Planning Committee Meeting
Date / Time: July 30, 2008/9:30 AM
Location: Munhall Municipal Building

Attendees:

Please refer to the attached sign-in sheet

1. Discussion / Decision / Agreement Summary:

a. Introduction (Tim Prevost - ALCOSAN)

- The meeting began with Tim Prevost introducing himself as the ALCOSAN representative responsible for the oversight for the activities conducted in Upper Monongahela Planning Basin (UMPB) for producing ALCOSAN's Wet-Weather Plan (WWP) as required by its Consent Decree (CD). It was indicated that the purpose of this meeting was to introduce the concept of Public Participation/Municipal Coordination/Information Exchange between the municipalities and the Upper Monongahela Facilities Planning (UMFP) Team. A component of this process is the Basin Planning Committee (BPC). This meeting serves as the kick-off meeting for the UMBPC.
- Tim provided an overview to the ALCOSAN Consent Decree and the approach that will be taken to produce ALCOSAN's WWP. This involved the review of a map depicting the seven planning basins that the ALCOSAN service area has been divided into for the purpose of performing facilities planning. This map was followed by a map highlighting the UMPB.
- The ALCOSAN Wet Weather Planning Team Organizational Chart was reviewed with the attendees. Beginning at the top is ALCOSAN (Tim Prevost); followed by the Program Manager, CDM; the Basin Coordinator, Metcalf & Eddy (Dave Minard) and then the UMFP Team.
- Next Tim provided an overview of the framework for the Public Participation/Municipal Coordination component. This consists of a Regional Stakeholder Group, which is responsible for ensuring that key regional entities are provided an opportunity to provide input during the development of the WWP. A representative from each BPC is a part of the Regional Stakeholder Group. Municipalities have an opportunity to be involved in the facilities planning process and provide input through the Basin Planning Committee, the Customer Municipal Advisory Committee and the 3 Rivers Wet Weather Demonstration Program. It is intended to involve the municipalities throughout the entire process.

- The eight consulting firms that make up the UMFP Team were introduced to the group.

b. Overview (Curt Courter – UMFP Team)

- The UMFP Team goal of fulfilling ALCOSAN's and the regions legal and regulatory mandates by identifying the best practical engineering solution to produce a WWP was stated to the group.
- It was stated that not only is public participation and municipal coordination required by the ALCOSAN CD and the municipal Administrative Consent Orders (ACOs)/Consent Order and Agreements (COAs), it is also necessary to achieve the UMFP Team's goal.
- ALCOSAN's interim milestone deliverable schedule was shared with the group. Tim Prevost interjected that ALCOSAN's deadline for submittal of the WWP is January 30, 2013. The CD requires that the plan is provided to the municipalities 6 months prior to the due date for comment.
- It was emphasized that public participation/municipal coordination is required throughout the development of the WWP. It is not ALCOSAN's intent to provide a copy of the WWP to municipalities blindly without any previous discussions. The key forum to keep the municipalities involved is the Basin Planning Committee.
- It was reviewed with the group that both the municipalities and ALCOSAN have a contractual agreement to have shared responsibilities in the development of plans to address wet-weather flows throughout the region. The BPC is a composition of those entities who share those responsibilities.
- Once again it was emphasized that during completion of the UMFP Team identified tasks, public participation/municipal coordination will play a key role in each task.

c. Update (Tim Prevost – ALCOSAN)

- An update on the regional flow monitoring program was provided. It was highly encouraged that every municipality review and understand the flow monitoring data being gathered within its municipal boundaries. ALCOSAN sent letters out with a user name and password to each municipality to gain access to the website. This website contains very useful information that every municipality should review.
- A sample map of Edgewood Borough was reviewed with the group. This map was produced by the UMFP Team from data that was obtained in 2007 on the critical portions of the regional collection system (CPRCS) by ALCOSAN. ALCOSAN was required to obtain the CPRCS information by its CD. 28 of the 83 communities in the ALCOSAN service area contain CPRCS.
- The UMFP Team will review this data and perform a data "gap analysis" identifying areas where data is missing. In turn the UMFP will request this missing data from the municipalities as part of its targeted municipal coordination/information exchange process.
- It was emphasized that it is not the responsibility of the UMFP Team to fill in the gaps. Rather it is the responsibility of the municipality to provide that information to ALCOSAN and the UMFP Team.

d. Municipal Coordination and Information Exchange (Dan Gilligan – UMFP Team)

- Those present at this meeting were provided with an overview of the UMFP Team's approach to facilitating municipal coordination and information exchange. It was emphasized that basis for the UMFP Team's approach is the ALCOSAN CD and the municipal ACOs/COAs. Each of these legal documents requires the production and sharing of certain information.
- The UMFP Team's approach involves conducting one-on-one meetings with each municipality within the UMPB. The UMFP Team envisions that the Municipal Manager, Public Works Director and Municipal Engineer would all be present at these meetings. It was emphasized that the municipalities should not rely solely on its engineer. At these meetings there will be items that will be discussed that require direct input from the municipality, such as funding mechanisms, facility siting, future development, etc.
- The UMFP Team's approach at these meetings is to provide each municipality with a map of its sewer system tributary to the ALCOSAN system and a series of checklists that will identify information needs relevant to the facilities planning. The agenda for the initial meeting was reviewed.
- There are 4 checklists, A-D and an additional checklist that is specific to the municipal sewer map. Checklist A contains information that each municipality is required to complete per its ACO/COA. Checklists B and C contain information that ALCOSAN is required to obtain from each municipality per the CD. Checklist D is a list of additional information that the UMFP feels is necessary to complete its own tasks for producing a wet weather facilities plan.
- Again it was emphasized that the UMFP Team will not be policing the municipalities for compliance with their ACOs/COAs, and is just interested in information that is pertinent to the UMPB facilities planning work.

e. Next Steps (Dan Gilligan – UMFP Team)

- Based on feedback gained through meetings with representatives of several UMPB municipalities, ALCOSAN is proposing that the UMBPC be subdivided into 5 subareas to better focus basin planning activities occurring outside of the one-on-one meetings. These subareas would group municipalities by common conditions (common interceptor, geographic location, prior multi-municipal wet-weather related initiatives, such as the Streets Run Watershed Association, etc.). A map depicting these subareas was displayed at the BPC meeting. The proposed groupings are designated as follows: 1. Hazelwood/Becks Run sewersheds, 2. Streets Run Sewershed, 3. Waterworks/Steel Valley, 4. Nine Mile Run, and 5. Mon Valley. The subarea concept will be further discussed during the one-on-one meetings with each municipality.
- It was noted that subarea BPC meetings would be held as needed, and that the whole group would get together at least once a year over the planning horizon. The group was asked to think about if the current location (Munhall Municipal Building) worked for meetings or if there were any other ideas for meeting locations, especially for subarea meetings, and to provide alternatives to the UMFP Team.

- The group was asked to stop in the back after the meeting concluded to schedule the initial one-on-one meeting if they could, otherwise scheduling flyers were made available to take away for later scheduling.

f. Questions and Discussion

- QUESTION: Curt Ferguson (Edgewood Borough) – Curt expressed a concern that since his municipality does not have an ACO/COA, the ALCOSAN CD will just add an additional layer of bureaucracy, which could cause additional conflicting direction from the regulators. It has been his experience that depending on which regulatory agency is providing direction, the direction changes. It was suggested that the regulators be involved in these meetings.
- ANSWER: Tim Prevost replied that he has no control over what message the regulators are providing. This process shouldn't be another layer onto what Edgewood is already doing but rather an opportunity to address issues within its system within the larger planning framework. It was recommended that Edgewood work with ALCOSAN to address any issues.
- QUESTION: Dave Minard (M&E) – Questioned the UMFP Team when they plan on scheduling meetings with the municipalities so as to not fall behind.
- ANSWER: Dan Gilligan replied that the first meeting with West Mifflin was scheduled after the BPC meeting and that UMFP Team was prepared to schedule additional one-on-one meetings at the conclusion of the BPC meeting.

2. Items Distributed:

a. PowerPoint slides of the presentation

b. At the conclusion of the meeting each municipality was provided with a packet of information specific to the municipality that included a map of the municipality's sewers tributary to ALCOSAN, Checklists A through D, mapping questionnaire and agenda for first one-on-one meeting.

3. Action Items:

a. Schedule initial one-on-one meeting.

4. Next Meeting:

a. No date was set for the next BPC meeting or subarea BPC meetings.

5. Attachments:

a. The agenda, a copy of the presentation slides, and the meeting sign-in sheet are attached.

ALCOSAN Basin Facilities Planning
Meeting Minutes (Final)

Basin: Upper Monongahela
Meeting Purpose: Basin Planning Committee Meeting No. 2
Date / Time: November 7, 2008/10:00 AM
Location: Brentwood Library Community Room

Attendees: Please see the sign-in sheet (Attachment C).

Attendance Summary: 15 municipalities or authorities were represented by their elected officials, managers, public works staff, or consulting engineering firms. Munhall and Rankin were not represented. The following municipalities did not attend because they participate in other BPCs: Churchill, Forest Hills, Penn Hills, Pleasant Hills, and North Versailles.

1. Discussion / Decision / Agreement Summary:

a. Introduction and Overview of Meeting (Curt Courter – Hazen and Sawyer)

- The meeting began with Curt Courter inviting all attendees to introduce themselves.
- The meeting agenda was distributed (see Attachment A). Curt Courter explained that the purpose of this meeting was to continue communication among the municipalities, authorities, ALCOSAN, and the Upper Monongahela Facilities Planning (UMFP) Team about the wet weather planning process. This is the second Basin Planning Committee (BPC) meeting for the Upper Monongahela (UM) Basin. The meeting was intended to be a round table discussion and the slides presented (see Attachment B) were intended to foster discussion among the group.
- Curt Courter distributed the final meeting minutes of the first UM BPC meeting held on 7/30/08. The draft minutes had been distributed to all attendees of that meeting, and there were no comments or revisions expressed by those who had received the draft.

b. Public Participation and Stakeholder Involvement (Tim Prevost - ALCOSAN)

- Tim provided the organizational framework for the Public Participation and Stakeholder Involvement (PPSI) effort (see Attachment B, slide 3). The PPSI plan is intended to involve the municipalities throughout the entire wet weather planning process. This includes a Regional Stakeholder Group (RSG), which is planned to be a diverse group responsible for ensuring that representatives from the entire region have an opportunity to provide input during the development of the Wet Weather Plan (WWP). The RSG will include ALCOSAN, 3 Rivers Wet Weather Inc. (3RWW), two representatives from each of the seven ALCOSAN planning basins, academic and County representatives, and environmental groups. If anyone has interest or knows of anyone who might be interested in being a representative on the RSG for the Upper Monongahela Planning Basin, please contact Tim Prevost. Municipalities have opportunities to be involved in the facilities planning process and provide input through the BPC, the RSG, and the Customer

Municipal Advisory Committee (CMAC). (Jim Hannan (West Mifflin Sanitary Sewer Municipal Authority [WMSSMA]) volunteered for the RSG after the meeting.)

- The CMAC consists of 14 public officials from throughout the service area, and the members have been selected, but it is not known at this time who has accepted.
- Tim Prevost emphasized that ALCOSAN wants open communication and municipal input throughout the facilities planning process, and doesn't want anyone to be surprised with the findings when the UMFP is distributed.
- Tim Prevost asked attendees for their opinion regarding the planning process to date. Jim Hannan (WMSSMA) stated that all was going well, but explained that WMSSMA is not technically a customer of ALCOSAN because the customer is West Mifflin Borough. Therefore, he is not getting information from ALCOSAN in a timely manner because it goes to the Borough first. Mr. Hannan would like direct communications from ALCOSAN.
- 3RWW will continue their program during the wet weather planning process.
- Tim Prevost said that the function of the BPC is to provide a forum for the exchange of information among the committee members. The UM BPC will split into subbasin groups when analyses become more specific to subareas of the UM Basin. For example, representatives in the Nine Mile Run area would not need to attend a meeting that would focus on Streets Run issues.
- Tim Prevost displayed maps illustrating two possible delineations for subbasins in the UM Basin (see Attachment B, slide 4), and asked for feedback and any additional ideas for subbasin configurations. Option 1 showed five subbasins, which were also displayed at UM BPC Meeting No. 1, and Option 2 showed four subbasins, with the City of Pittsburgh portions appearing mostly in the Becks Run/Hazelwood/Streets Run subbasin. Andy Maul (PWSA) expressed a preference for Option 2 because more of Pittsburgh's area is within one subbasin. No decision was made about subbasin delineations at this meeting.
- Curt Courter said that BPC subbasin meetings would not be needed for about six to 12 months as the UMFP Team continues to utilize the Municipal Coordination / Information Exchange process to exchange detailed information with each municipality on a one-on-one basis.

c. Municipal Coordination and Information Exchange (Curt Courter – Hazen and Sawyer)

- The UMFP Team has reviewed available and recently obtained data, including information gained through the first round of one-on-one municipal meetings, and has developed a "data gap analysis" identifying areas where data is missing. The UMFP Team is attempting to track down this information from existing sources, but additional interaction with the municipalities will be necessary. As such, the UMFP Team is now in the second round of effort for its targeted Municipal Coordination / Information Exchange process. Beginning after the first round of meetings, these efforts are primarily through phone calls and e-mails to request input and missing data from the municipalities, where other sources have been determined not to exist.

- All of the meeting minutes from the UMFP Team's one-on-one meetings with municipalities were completed by the end of September and were distributed to the meeting attendees and to each Council President.

d. Flow Monitoring (Tim Prevost - ALCOSAN)

- Tim Prevost strongly encouraged the municipalities to have their engineers analyze the flow monitoring data, now and into 2009. Tim Prevost encouraged municipal representatives to provide sufficient budget for engineering review and analyses of flow data in their 2009 budgets. An understanding of peak flows and flow patterns is critical, because it is a foundation of the Municipal Feasibility Studies.
- QA/QC'd flow monitoring data are available on the 3RWW website (www.3riverswetweather.org) and the ALCOSAN website (www.alcosan.org).
- Flow monitoring, which began in February 2008, is scheduled to be completed in February 2009. One criterion, a minimum of two storms with rainfall greater than 1 inch, was achieved last spring. However, another criterion, total annual rainfall of 30.9 inches, has not been achieved yet. Tim Prevost stated a concern with achieving required precipitation in the 3rd and 4th quarters of 2008.
- ALCOSAN will work with anyone who feels that they need more monitoring data, although those requesting more monitoring will have to show a need for it.

e. Hydrologic and Hydraulic (H&H) Modelling (Curt Courter – Hazen and Sawyer)

- Curt Courter explained the criteria for the extent of the H&H modelling: outfalls and the portions of the collection system downstream of the outfalls, and any other portions of the regional collection system that are necessary for hydraulic loading, as required by ALCOSAN's Consent Decree (see Attachment B, slide 6). The upstream extents of the model will not reach to most municipal flowmeter sites.
- Curt Courter displayed a map of the currently proposed H&H modelling extents (see Attachment B, slide 7). One recent change has been to include a previously unreported SSO in the Streets Run area. An additional change has been adding stub limits (nominal sewer lengths) at upstream hydraulic load points to develop boundary conditions.
- The H&H Modelling Task will be active for the next 11 months. The Hydraulic Model and Calibration Report is due in September 2009.
- Jim Hannan (WMSSA) asked how the model will handle intermittent flows at pump stations, such as the Homeville Pump Station. Tim Prevost answered that the modellers will need to determine and simulate the relationship of flows with pump station activation. Mr. Hannan said there is historical data available such as pump station run times that will help with this analysis. The UMFP Team will likely request this type of data as the modelling task continues to develop.

f. Regional Wet Weather Plan (Curt Courter – Hazen and Sawyer)

- Curt Courter showed a slide with key deliverables and due dates for the UMFP (see Attachment B, slide 8). Current efforts are on the Existing Conditions Report and the H&H Modelling task.

- Tim Prevost explained that each municipality's Feasibility Study will have to include flow projections to the year 2046 because facilities need to be designed for that future condition. The year 2046 is 20 years after the scheduled completion of wet weather facilities' construction. This means that undeveloped land, changes in zoning, population changes, etc. need to be taken into account. Curt Courter said that measures for reduction of stormwater runoff, including new rules and regulations, should be considered in every community too.

- Tim Prevost said that for each Basin Facility Plan, ALCOSAN needs to know what peak flows each municipality is planning to send downstream to ALCOSAN facilities. Each municipality needs to start addressing flow issues, to develop peak flows, and to make decisions about I/I source reduction and how they intend to eliminate SSOs and manage CSO flows (see Attachment B, slide 9). Municipalities must decide whether they will increase conveyance capacities to move the flows down to the point of connection with ALCOSAN's system, or address these issues locally and provide this information to ALCOSAN so they can plan accordingly.

- Tim Prevost reported that ALCOSAN's deadline for submittal of the Regional WWP is January 2013, and the municipalities' Feasibility Studies are due six months later, in July 2013. However, a significant amount of analyses has to be completed prior to these dates. Individual Planning Basin Facilities Plans are due to ALCOSAN in June 2011. Upon completion of all seven Basin Facilities Plans, ALCOSAN will integrate and analyze all seven basins together for the Regional WWP. ALCOSAN will send a draft Regional WWP to the municipalities in July 2012.

- Tim Prevost suggested that potential benefits may be realized with consolidation of municipal Feasibility Study efforts.

- Dan Gilligan (LSSE) said that shared responsibility already exists where more than one municipality uses a trunk sewer or interceptor, such as in the case of Streets Run Interceptor where four municipalities have already established cooperative agreements, and suggested that the determination of flows to be conveyed to ALCOSAN will require a coordinated alternatives analysis. The municipalities need to interact together to work out the hydraulic issues for the Feasibility Studies. Tim Prevost said that he believes DEP would look favorably if these communities would propose to pool resources and work jointly on a single Feasibility Study. It makes sense to do a Feasibility Study jointly because flows are inter-dependent. Once there is a greater understanding of flow contributions, perhaps Inter-Municipal Agreements may be updated as well.

- Andy Maul (PWSA) said he is concerned about decisions from upstream municipalities to push flows downstream and favors source reduction within the municipalities because many of the pipes are at or near capacity at the upstream end of PWSA lines. In addition, the ALCOSAN interceptors crossing into Pittsburgh are already in chronic surcharge conditions. He believes the ACHD Plumbing Code Article XV, which says that all stormwater must go into combined and/or storm sewers, needs to be changed. Mr. Maul indicated that Code change is needed so environmentally beneficial projects incorporating DEP Stormwater Best Management Practices can be the default stormwater management option without County variances or a burdensome approval process.

- Tim Prevost said that in situations where a municipality that does not have a direct point of connection with ALCOSAN is sending flows to another municipality, and the downstream community cannot handle the peak flows, the communities will have to work together to figure out a solution.

g. Next Steps – Curt Courter (Hazen and Sawyer)

- The UMFP Team will continue information exchange efforts with municipalities and authorities where there are data gaps.
- UM BPC meetings will be held quarterly. It is anticipated that one UM BPC meeting will be scheduled for at least the next two quarters. When necessary, subbasin meetings will be scheduled in lieu of a single meeting to focus the discussion on specific areas, watersheds, or interceptors.
- If there is any topic that municipalities want addressed or discussed at the next BPC meeting, let the UMFP Team know.

2. Items Distributed:

a. Meeting Agenda

b. Copy of the presentation slides

c. Final Meeting Minutes of UM BPC Meeting No. 1 held on 7/30/08. Those who didn't attend the meeting on 11/7/08 received this document on 12/11/08.

3. Action Items:

a. The UMFP Team will continue information exchange efforts with municipalities and authorities where there are data gaps.

b. Interested people should contact Tim Prevost for involvement with the RSG.

c. The UMFP Team will prepare and distribute meeting minutes for this meeting.

d. ALCOSAN will prepare an acknowledgement letter regarding Jim Hannan's assignment to the RSG.

4. Next Meeting:

a. No date was set for the next UM BPC meeting.

5. Attachments:

a. Attachment A - Meeting Agenda

b. Attachment B - Copy of the presentation slides

c. Attachment C - Meeting Sign-In Sheet

ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Upper Monongahela
Meeting Purpose: Basin Planning Committee Meeting No. 3
Date / Time: February 27, 2009/10:00 AM
Location: Brentwood Library Community Room

Attendance Summary: 19 municipalities and 3 authorities were represented by their elected officials, managers, public works staff, or consulting engineering firms. Rankin was not represented.

- Braddock Hills, Edgewood, North Braddock, Pittsburgh, West Mifflin, and Whitaker were represented by municipal or authority employees.
- Braddock, Homestead, Swissvale, and Wilkinsburg were represented by two attendees from Glenn Engineering.
- Brentwood, Churchill, Mt. Oliver, Penn Hills, and Whitehall were represented by one attendee from Gateway Engineers.
- Baldwin and Munhall were represented by one attendee from Chester Engineers.
- Pleasant Hills was represented by one attendee from LSSE.
- West Homestead was represented by one attendee from Sieg & Associates.

Attachment A provides the meeting sign-in sheet.

1. Discussion / Decision / Agreement Summary:

a. Introductions

- The meeting began with Tim Prevost/ALCOSAN inviting all attendees to introduce themselves.

b. Agenda

- Curt Courter/Hazen and Sawyer provided a brief overview of the meeting and distributed the agenda (see Attachment B). A copy of the presentation slides was also provided (see Attachment C). He explained that the purpose of this meeting was to continue communication among the municipalities, authorities, ALCOSAN, the Upper Monongahela Facilities Planning (UMFP) Team, 3RWW, and the regulators about the wet weather planning process. This is the third Basin Planning Committee (BPC) meeting for the Upper Monongahela (UM) Basin.

c. Status Update - ALCOSAN and 3RWW

- Tim Prevost reported that flow monitoring is substantially completed. Flow monitoring data are available for the municipal meters on the 3RWW MDS site (www.3riverswetweather.org), and for the ALCOSAN meters on the ALCOSAN website

(www.alcosan.org). The Flow Monitoring Working Group (FMWG) held their last meeting yesterday, and appreciation for their work was expressed.

- A new group, the Feasibility Study Working Group (FSWG) will be forming soon and will be facilitated by 3RWW. People with various skill sets will be needed for this new group, and Municipal Managers should be told that municipalities' attendance, participation, and input are needed for this group. It is 3RWW's intent for the FSWG to meet every two weeks. For more information, contact Tim Prevost or John Schombert/3RWW
- AECOM is working with 3RWW to identify mapping updates. 3RWW is pulling together information to continue to periodically update the overall GIS map. The latest version was produced at the end of January, and is available on the MDS site.

d. Hydrologic and Hydraulic (H&H) Modelling

- Curt Courter reported that the UM H&H model limits have been extended since the last BPC meeting, to address issues such as newly identified SSOs or flooding problems. Tim Prevost explained that the H&H models are used to assess pipe deficiencies with a variety of flow and weather scenarios. Curt also added that in later tasks of the facility planning, the H&H model will be used to assess the performance of alternatives for wet weather controls. ALCOSAN's intention is to share the calibrated H&H model with the municipalities for use with their Feasibility Studies. However, the H&H model does not have complete coverage of the municipalities' sewers, only those portions up to CSOs, SSOs, or identified flooding problems. A map was displayed showing the sewers that are intended to be included in the model (see Attachment C). The UMPB Team offered to provide additional detail on why a particular extension was made if anyone wanted to discuss it at the end of the meeting. No one requested further information.

e. Public Participation

- Janai Williams/Ebony reported that the first meeting of the Customer Municipality Advisory Committee (CMAC) was held on February 18. Members of this group that are in the UM area are listed in Attachment D. The formation of the CMAC was required by the Consent Decree, and the group's purpose is to provide public participation and guidance for the development of the Wet Weather Plan.
- The first meeting of the Regional Stakeholder Group (RSG) will take place on March 11. This group has a large cross-section of stakeholders, who will share insights and concerns with ALCOSAN. From the UM area, Jim Hannan, Pat Schaeffer, and Michael Terrick have volunteered to be on the RSG (see Attachment D).

f. Information Exchange

- Tim Brett/LSSE said the UMFP Team has gathered most of the needed data related to the sewer system, but there are some attribute data gaps, such as manhole rim and invert data, which the UMFP Team still needs. A representative from the UMFP Team will be contacting the municipalities next week with a list of missing data.
- Tim Prevost said that ALCOSAN has updated its municipal website, and each municipality has its own user name and password. There is abundant information on the website about the Consent Decree requirements and relevant reports.

g. Financial Data Collection

- Tom Schevtchuk/CDM and Kaye Bealer/K. Bealer provided information about the efforts underway for the Financial Data Collection task. Affordability and financial capability are critical components of the Wet Weather Plan, and the analyses will incorporate current and future costs. Slides and handouts were presented to elaborate about this topic (handouts are in Attachment E). The regulatory resource for this analysis is EPA's CSO Guidance for Financial Capability. Representatives from ALCOSAN's Program Manager Team will be sending a letter to the municipalities in March (and will follow up with each municipality in April) seeking relevant financial information and to confirm and verify information already obtained. The municipalities were asked to let them know if this material had already been submitted to 3RWW, Basin Planners, or DEP because the municipalities shouldn't have to re-generate this data. The data will be entered into the Municipal Financial Capability Assessment (MFCA) model to portray financial capability and affordability, and an Existing (Financial) Conditions Report will be submitted at the end of this year.

h. Existing Conditions Report

- Curt Courter noted that the report will be submitted to ALCOSAN in early March and that the UMFP Team had requested that the municipalities review the respective municipal write-ups by February 27th to confirm that they are accurate and complete. So far more than half of the 20 municipalities have responded with review comments on Chapter 5 of the Draft Existing Conditions Report. Curt indicated that the UMFP Team will extend the deadline to Wednesday, March 4th and asked that any municipalities who hadn't responded to please do so.

i. Regional Wet Weather Plan

- Tim Prevost explained that ALCOSAN needs critical information from each municipality *before* July 2013, when municipal Feasibility Studies are due; for example, ranges of flows that the municipalities intend to send to ALCOSAN are needed in one year. The Feasibility Studies need to start now, and not next year.

- In two weeks, 3RWW is initiating the FSWG, and municipalities need to participate. John Schombert said that the municipal managers and elected officials need to be in the loop, not just the technical staff. In addition, Pat Schaeffer/Edgewood said that elected officials need to be engaged, and impress upon them the importance of compliance and the need to seek funding. She also noted the importance of keeping records of all findings and conclusions because of the inevitable turnover of elected officials, and offered that ALCOSAN's attendance at Council meetings occasionally would be helpful. Tim Prevost said to let ALCOSAN know of any critical meetings when it will be beneficial for ALCOSAN to attend. Dan Gilligan/LSSE described the UMFP Team's plans to produce Quarterly Progress Reports that will be distributed to all municipalities in the UMPB, which will provide a synopsis of progress and action items. Pat agreed that this would be very helpful. Dan suggested that municipalities include the Wet Weather Plan on each Council meeting agenda, and therefore, discussion and conclusions will become part of public records. Tim Prevost said that wet weather controls will be a huge investment for every entity, so it needs attention and education for the public as well as decision-makers.

- Donna Davis/PaDEP will provide guidance on developing Feasibility Studies, tentatively called a Work Plan (scope, format, content, and timeline that is coordinated with ALCOSAN's planning effort), for municipalities and 3RWW. Tim Prevost said that ALCOSAN would be available to "bounce ideas off" and/or review the draft report that any municipality prepares.
- Michelle Buys/Allegheny County Health Department (ACHD) asked about what types of data are needed in terms of flow ranges, which led to a discussion about the need for each municipality to evaluate local flow controls within the municipality versus transferring flows to ALCOSAN. Michelle also expressed concern about the need for interaction of ALCOSAN and the municipalities at future FSWG meetings. She would like a representative from each planning basin to attend the FSWG meetings to ensure communication and consistency. Tim Prevost said that the FSWG will include the ALCOSAN project managers and one representative from each planning basin.
- Curt Courter gave an update about the costing tool that is being developed by the Program Manager to provide a consistent costing basis for development of the alternatives in the Wet Weather Plan. The tool will be available for use by the Basin Planners and the municipalities. 3RWW has participated in the costing tool development meetings and has offered to coordinate the use of the tool with the municipalities. John Schombert indicated that this has also been discussed at earlier 3RWW meetings.
- Jim Hannan/West Mifflin SSMA asked about the status of ALCOSAN's overflow control facility planned for Homestead Run in Munhall. Tim Prevost answered that for the Munhall and Allegheny projects, public meetings have occurred, there were some siting and technology issues, and estimated costs have come in higher than expected. It is a lengthy process, and if the facilities cannot be developed in time to demonstrate the technology, the work completed to date will be incorporated in the Wet Weather Plan.
- Curt Courter noted that in addition to the Existing Conditions Report, other reports to be prepared this year by the UMFP Team are the H&H Modelling and Calibration Report and the Screening of Controls and Sites Report.

j. Next Steps

- The UMFP Team will continue information exchange efforts with municipalities and authorities where there are data gaps.
- UM BPC meetings will be held quarterly. When necessary, subbasin meetings will be scheduled in lieu of a single meeting to focus the discussion on specific areas, watersheds, or interceptors.
- Contact Tim Prevost or Curt Courter if there is a specific topic of interest for the next BPC meeting.

2. Items Distributed:

a. Meeting Agenda

b. Copy of the presentation slides

c. List of CMAC members and RSG members from the Upper Mon Basin

d. Four handouts about the Financial Data Collection process

3. Action Items:

a. The UMFP Team will continue information exchange efforts with municipalities and authorities where there are data gaps.

b. The UMFP Team will prepare and distribute meeting minutes for this meeting.

4. Next Meeting:

a. No date was set for the next UM BPC meeting but it will likely occur in mid to late May.

5. Attachments:

a. Attachment A – Meeting Sign-In Sheet

b. Attachment B - Meeting Agenda

c. Attachment C - Copy of the presentation slides

d. Attachment D – List of CMAC members and RSG members from the Upper Mon Basin

e. Attachment E - Handouts about the Financial Data Collection process

ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Upper Monongahela
Meeting Purpose: Basin Planning Committee
Meeting No. 4
Date / Time: June 9, 2009/9:30 AM
Location: Brentwood Library Community Room

Attendance Summary: 16 municipalities and 3 authorities were represented by their elected officials, managers, public works staff, or consulting engineering firms. Rankin was not represented. A tabulated list of the attendees is provided below. The sign-in sheet is available upon request.

Municipal Attendees:

Municipality or Authority	Municipal or Authority Representative	Engineer or Other Person Representing the Municipality or Authority
Baldwin Borough	Timothy Little	Greg Scott & Francis Okafor/Chester Engineers
Braddock Borough		Robert Zischkau, Jr. & Randy Zischkau/Glenn Engineering
Braddock Hills Borough	Dave Checchio	Corbet Martin/Senate Engineering
Brentwood Borough	George Zboyovsky, Robert Mackewich	Justin Wagner/Gateway Engineers
Churchill Borough	*participates in another BPC*	
Edgewood Borough	Larry Guerriero, Warren Cecconi	Jason Stanton/LSSE
Homestead Borough		Robert Zischkau, Jr. & Randy Zischkau/Glenn Engineering
Mt. Oliver Borough		Justin Wagner/Gateway Engineers
Munhall Borough	Rebecca Wehrer, Rick Votedian	Greg Scott & Francis Okafor/Chester Engineers
Munhall Sanitary Sewer Municipal Authority		Greg Scott & Francis Okafor/Chester Engineers
North Braddock Borough		Robert Zischkau, Jr. & Randy Zischkau/Glenn Engineering
Penn Hills Borough	*participates in another BPC*	
City of Pittsburgh		John Maslanik/Chester Engineers
Pittsburgh Water and Sewer Authority		John Maslanik/Chester Engineers
Pleasant Hills Borough	*participates in another BPC*	
Rankin Borough		
Swissvale Borough		Robert Zischkau, Jr. & Randy Zischkau/Glenn Engineering
West Mifflin Borough	Jim Hannan	
West Mifflin Sanitary Sewer Municipal Authority	Jim Hannan	

Municipal Attendees:

Municipality or Authority	Municipal or Authority Representative	Engineer or Other Person Representing the Municipality or Authority
West Homestead Borough	Glenn Guckes	Karl Sieg/Sieg & Associates
Whitaker Borough	Jean Warren	
Whitehall Borough		Justin Wagner/Gateway Engineers
Wilkinsburg Borough		Robert Zischkau, Jr. & Randy Zischkau/Glenn Engineering

Non-Municipal Attendees:

Curt Courter/Hazen and Sawyer
Debbie Healey Langley/Hazen and Sawyer
Roy Rudolph/Hazen and Sawyer
Dan Gilligan/LSSE
Tim Brett/LSSE
Tammi Halapin/Collective Efforts
Tim Prevost/ALCOSAN
David Borneman/ALCOSAN
Dave Minard/AECOM
Jim Protin/AECOM
Michelle Buys/Allegheny County Health Department
Tom Flanagan/PA Department of Environmental Protection
Cindy Hasenjager/3RWW
John Shannon/Baker Engineers, representing 3RWW
Joan Cleary/Allegheny County Council #6

1. Discussion / Decision / Agreement Summary:

a. Welcome and Introduction

- The meeting began with Curt Courter/Hazen and Sawyer inviting all attendees to introduce themselves.
- Curt Courter distributed the agenda (**Attachment A**) and a copy of the presentation slides (**Attachment B**) to all attendees. He explained that the purpose of this meeting was to continue communication among the municipalities, authorities, ALCOSAN, the Upper Monongahela Facilities Planning (UMFP) Team, 3RWW, and the regulators about the wet weather planning process. This is the fourth Basin Planning Committee (BPC) meeting for the Upper Monongahela Planning Basin (UMPB).

b. Program Update

- Tim Prevost/ALCOSAN reported that flow monitoring is substantially completed, and there are fewer than 10 flowmeters remaining in the system. John Shannon/Baker, speaking on behalf of the 3RWW PM Team, said that all municipal flow data (deconstructed hydrographs) will be posted on the 3RWW MDS site (www.3riverswetweather.org) by June 15.

- Roy Rudolph/Hazen and Sawyer described the three phases of model development: model construction, dry weather calibration, and wet weather calibration (see **Attachment B**), currently in progress for Hydrologic and Hydraulic (H&H) Modelling in the UMFP Basin. A map was displayed illustrating the model extents within the UMFP Basin. The original model extents required by ALCOSAN's Consent Decree were distinguished from the expanded model extents, which ALCOSAN has agreed to perform. Roy Rudolph offered to provide additional detail about the model extents, and no one requested further information. Once the dry weather and wet weather calibration phases are completed, the H&H model will be used to simulate a variety of conditions and to generate flow rates, volumes, and depths resulting from specified scenarios.

  Analyses and simulations for a variety of wet weather conditions will be expected, specifically 1-, 2-, 5-, and 10-year frequency SCS Type II design storms, and a "typical year" condition using data from year 2003. ALCOSAN will distribute documentation for these specific wet weather conditions, such as intensity and duration of storms, to all basin planners soon: design storm data by the end of June, and year 2003 data by the end of July. Tim Prevost said that municipalities can request this data, and are encouraged to use these criteria for their wet weather analyses, for consistency throughout the region. Both current and future conditions will need to be identified in each municipality. Future conditions should take into account projected growth and development to the year 2046. Dave Borneman/ALCOSAN clarified that the Consent Decree specifies the future condition as 20 years beyond completion of wet weather facilities construction in 2026. John Shannon asked whether use of population data from the Southwestern Planning Commission (SPC), 2009 Update was acceptable. The answer was yes.

- Jim Protin/AECOM gave an update of the recent Customer Municipality Advisory Committee (CMAC) and Regional Stakeholder Group (RSG) Meetings. The last CMAC meeting was held on 5/12/09, and the next one is 6/23/09. Joan Cleary, who was in attendance, was recognized as a representative from the UMPB participating on the CMAC. The last RSG meeting was held on 5/14/09, and the next one is 7/14/09. Jim Hannan, who was in attendance, was recognized as a representative from the UMPB participating on the RSG.

- Dan Gilligan/LSSE described the *Upper Monongahela Basin Quarterly Activity Report* (UM QAR), which is a new communication tool being distributed to municipal managers or municipal secretaries, authority managers or executive directors, elected officials, authority board members, solicitors, public works directors or supervisors, engineers, and planning commission members to provide program updates, key milestones, and action items related to the UMPB wet weather planning process. ALCOSAN has asked the municipal managers or municipal secretaries to submit the UM QAR to their municipal councils via the manager, engineer, or public works report to increase communication about the program.

  A key milestone will occur in March 2010, when ALCOSAN needs the preliminary estimates of flow ranges that each municipality intends to send to ALCOSAN. A significant amount of engineering and analyses needs to be completed by that date, such as flows from individual municipalities, flows in interceptors receiving flows from multiple municipalities, multi-municipal coordination, and review and possible modifications to inter-municipal agreements. Dave Borneman emphasized the importance of this

preliminary flow data because ALCOSAN will use the data provided in 2010 to develop a first cut at wet weather solutions and associated costs.

c. Screening of Controls and Sites; Control Alternatives and Development

- Curt Courter/Hazen and Sawyer presented information about the process underway for screening of wet weather controls and sites. He described the planning objectives, identification of problem areas in the UM Basin, and a qualitative screening approach for technologies and sites. He provided a comprehensive review of types of wet weather control technologies for source reduction, conveyance, storage, and treatment, with several examples of facilities in Detroit, Philadelphia, and other locations (see **Attachment B**).
- Curt Courter also discussed wet weather facility siting considerations, and illustrated two examples in the UMPB to compare storage and treatment technologies with regard to potential area ("footprint") required for varying capacities or volumes (see **Attachment B**). For a given problem area, the area required for wet weather storage would be greater than the area required for wet weather treatment, conversely other factors such as O&M requirements would be greater for treatment. These issues along with owner preference, available land, and other factors, drive the need for a case-by-case analysis for each problem area. Curt also pointed out that removing or treating excess flows in an upstream location may be more cost effective than conveying excess flows downstream to a regional treatment or storage facility, where the conveyance cost may be greater than the savings from economy of scale on a regional facility.

d. Early Action Projects and Act 537 Funding

- Curt Courter said that ALCOSAN and 3RWW are offering to assist the municipalities with obtaining RUS and PennVest funding for early action projects. Encouragement was given to act on projects with potential for a large benefit relative to cost. Three areas within the UMPB where potential early action projects may have a large benefit relative to cost were illustrated during the presentation (see **Attachment B**).
- Dave Borneman/ALCOSAN said he is asking each Basin Planner to identify potential "Early Action Projects" that may be applicable for grant assistance. ALCOSAN can assist with review of grant applications.
- Dave Borneman also noted that ALCOSAN will be pursuing reimbursement of certain eligible planning tasks under the PA Act 537 reimbursement guidelines and that more definitive information should be available at future BPC meetings.

e. Coordinated Schedule – Basin Planning and Municipal Feasibility Studies

- Approximately six Feasibility Study Working Group (FSWG) meetings have been held so far, and work is continuing to coordinate deadlines and milestones in the Consent Decree, ACOs, and COAs to ensure that the ultimate 2012 deadline is met. 3RWW is administering this effort, with participation by DEP, ACHD, ALCOSAN, municipal engineers, and the 3RWW PM Team. Certain data such as preliminary estimates of flow needs to be submitted to ALCOSAN by March 2010, which is earlier than the date for Feasibility Study completion stated in the COAs and ACOs. A coordinated schedule is being developed by the FSWG and will be distributed to the municipalities when it is completed.

- Cindy Hasenjager/3RWW said that the FSWG meetings are open to all. Meetings are held at the Greentree municipal building at 9:00 a.m. on the second and fourth Thursdays of the month.
- Dave Borneman said that along with the data needed by March 2010 (estimates of flow to be conveyed to ALCOSAN) it would be beneficial if the municipalities shared their plans about flow reduction, managing wet weather flows, and types of control as early as possible. Discussion continued about wet weather flow analyses. Dave Borneman said the expectation is for the municipalities to each set their level of service and determine how to manage their flows. The FSWG is working on identifying the range of design storms and the typical year proposed for simulation and analyses, for consistency in municipal analyses. Tim Prevost said the H&H model will be available to the municipalities in September or October. It was pointed out that the model is not being extended to every meter and that municipalities will need to complete their ACO/COA obligations for the other meters (either on their own or utilizing 3RWW) to define their flows and complete their feasibility studies. John Shannon stressed the need for upstream and downstream neighboring municipalities to coordinate their planning.

f. ALCOSAN's Municipal Intranet Website

- Tim Prevost said that ALCOSAN has a new, more user-friendly website, and the same user name and password should be used. The municipal log-in tab is http://municipalities.alcosan.org/portal/site/Municipalities.

g. Financial Information Update

- Tim Prevost provided an update about the financial data collection and baseline financial capability assessment. ALCOSAN has given the financial data collected to date to 3RWW, who is now coordinating the financial data collection as part of the Regional Asset Database program. A timeline was presented (see **Attachment B**), showing that 3RWW will begin working with municipal engineers in July to populate the database, and ALCOSAN will integrate the municipal financial data into its Financial Capability Model beginning in mid-August.

h. Next Steps

- The UMFP Team will continue information exchange efforts with municipalities and authorities as necessary for time-sensitive and municipality-specific information needs.
- UM BPC meetings will be held quarterly. When necessary, sub-basin meetings will be scheduled in lieu of a single meeting to focus the discussion on specific geographic areas, watersheds, or interceptors.
- Attendees were encouraged to identify topics to be covered in future meetings. ALCOSAN and the UMFP Team would like to transition the BPC meetings to as much of a workshop format as possible with contribution and discussion by as many representatives as is warranted. Contact Tim Prevost or Curt Courter if there is a specific topic of interest for the next BPC meeting.

2. Items Distributed:

a. Meeting Agenda

b. Copy of the presentation slides

c. *Upper Monongahela Basin Quarterly Activity Report* package to Municipal or Authority Managers who were in attendance

3. Action Items:

a. The UMFP Team will continue information exchange efforts with municipalities and authorities where there are data gaps.

b. The UMFP Team will prepare and distribute meeting minutes for this meeting.

c. The UMFP Team will mail *Upper Monongahela Basin Quarterly Activity Report* packages to Municipal or Authority Managers who did not attend this meeting.

4. Next Meeting:

a. No date was set for the next UM BPC meeting, but it will likely occur in September.

5. Attachments:

a. Attachment A – Meeting Agenda

b. Attachment B – Copy of the presentation slides

ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Upper Monongahela
Meeting Purpose: Basin Planning Committee Meeting No. 5
Date / Time: October 2, 2009/9:30 AM
Location: Brentwood Library Community Room

Attendance Summary: 14 municipalities and 2 authorities were represented by their elected officials, managers, public works staff, or consulting engineering firms. Edgewood, Rankin, West Mifflin Borough, and West Mifflin Sanitary Sewer Municipal Authority were not represented. A tabulated list of the attendees is provided below. The sign-in sheet is available upon request.

Municipal Attendees:

Municipality or Authority	Municipal or Authority Representative	Engineer or Other Person Representing the Municipality or Authority
Baldwin Borough		Greg Scott/Chester Engineers
Braddock Borough		Robert Zischkau, Jr. & Randy Zischkau/Glenn Engineering
Braddock Hills Borough	Dave Checchio	Corbet Martin/Senate Engineering
Brentwood Borough	Robert Mackewich	Justin Wagner/Gateway Engineers
Churchill Borough	*participates in another BPC*	
Edgewood Borough		
Homestead Borough		Robert Zischkau, Jr. & Randy Zischkau/Glenn Engineering
Mt. Oliver Borough		Justin Wagner/Gateway Engineers
Munhall Borough		Greg Scott/Chester Engineers
Munhall Sanitary Sewer Municipal Authority	Mike Terrick	Greg Scott/Chester Engineers
North Braddock Borough		Robert Zischkau, Jr. & Randy Zischkau/Glenn Engineering
Penn Hills Borough	*participates in another BPC*	
City of Pittsburgh	Andy Maul	
Pittsburgh Water and Sewer Authority	Andy Maul	
Pleasant Hills Borough	*participates in another BPC*	
Rankin Borough		
Swissvale Borough		Robert Zischkau, Jr. & Randy Zischkau/Glenn Engineering
West Mifflin Borough		
West Mifflin Sanitary Sewer Municipal Authority		
West Homestead Borough	Glenn Guckes	Karl Sieg/Sieg & Associates
Whitaker Borough	Jean Warren	
Whitehall Borough		Justin Wagner/Gateway Engineers

Municipal Attendees:

Municipality or Authority	Municipal or Authority Representative	Engineer or Other Person Representing the Municipality or Authority
Wilkinsburg Borough		Robert Zischkau, Jr. & Randy Zischkau/Glenn Engineering

Non-Municipal Attendees:

Curt Courter/Hazen and Sawyer
Debbie Healey Langley/Hazen and Sawyer
Dan Gilligan/LSSE
Tim Brett/LSSE
Tammi Halapin/Collective Efforts
Tim Prevost/ALCOSAN
Jan Oliver/ALCOSAN
Dave Minard/AECOM
Janai Williams/Ebony Holdings
Michelle Buys/Allegheny County Health Department
Tom Flanagan/PA Department of Environmental Protection
John Schombert/3RWW
John Shannon/Baker Engineers, representing 3RWW

1. Discussion / Decision / Agreement Summary:

a. Welcome and Introduction

1. The meeting began with Curt Courter/Hazen and Sawyer inviting all attendees to introduce themselves.
2. Curt Courter distributed the agenda (**Attachment A**) and a copy of the presentation slides (**Attachment B**) to all attendees. He explained that the purpose of this meeting was to continue communication among the municipalities, authorities, ALCOSAN, the Upper Monongahela Facilities Planning (UMFP) Team, 3RWW, and the regulators about the wet weather planning process. This is the fifth Basin Planning Committee (BPC) meeting for the Upper Monongahela Planning Basin (UMPB).

b. Coordinated/Shared Planning

1. Tim Prevost/ALCOSAN reported on updates to information posted on ALCOSAN's municipal website. Most recently, design storm and typical year rainfall documentation and the Alternatives Costing Tool (ACT) were added to the website. Contact Anne Murphy/ALCOSAN for log-in codes (user name and password). Curt Courter said that the Alternatives Costing Tool is a tool that basin planners will be using to assist in developing planning level cost estimates. "Planning level" is generally accepted to mean a cost range of -30% to +50%. Municipalities should use the ACT too, so that cost estimates are developed on a consistent basis and comparable.

2. Curt Courter gave an update about the Hydrologic and Hydraulic (H&H) Modelling of the UMPB. Calibration - comparison of flow monitoring data to simulations - of the expanded UMPB model is complete, and the draft Hydrologic & Hydraulic Model Validation and Characterization Report was submitted to ALCOSAN this week. The modelling report and the model will be available to the municipalities later this year via either posting on the municipal website or distribution of CDs. The modelling software is SWMM5, which is publicly available. Tim Prevost noted that municipalities who intend to use the model and interpret modelling results should obtain the services of an experienced modeller.

3. Tim Brett/LSSE displayed a map illustrating the model extents within the UMFP Basin. The original model extents required by ALCOSAN's Consent Decree were distinguished from the expanded model extents. The basin planning team's investigation of the flow monitoring data led to the discovery of additional overflow locations or hydraulic issues, thus warranting extension of the model to include these additional locations.

4. Jan Oliver/ALCOSAN asked about population projections. The Feasibility Study Working Group (FSWG) has a committee involved with making a request to the Southwestern Planning Commission (SPC) to develop population projections through the year 2046, which would be consistent with the time period that will be used for designing wet weather facilities. John Shannon/Baker noted that municipalities should apply local knowledge to the information developed by SPC.

5. Jan Oliver provided an update of the Financial Data Analysis. ALCOSAN is in the process of developing an Existing Rates model that will utilize data from the municipalities. Data collection by 3RWW is ongoing. A financial capability/affordability assessment will be conducted when the model and data input are complete.

6. Curt Courter said that ALCOSAN is offering to assist the municipalities with obtaining funding for early action projects, which are projects that can be implemented relatively early in the planning process, which can be fast-tracked or result in high impact on flow reduction. An example project within the UMPB is the Tassey Hollow area, where Tassey Hollow stream flows enter the combined sewer system. Jan Oliver gave an update on funding assistance. If municipalities identify improvements that need to be done, ALCOSAN will assist in identifying funding sources. ALOCSAN has already hosted a funding workshop sponsored by Congressman Doyle and will be hosting another funding workshop at the WWTP later this year. John Schombert/3RWW said that data about resources and assets, such as backhoes, will also be helpful.

7. Four communities in the Streets Run area are planning to share the scope of work related to development of a Feasibility Study. Greg Scott/Chester noted that Baldwin has passed a resolution supporting a joint feasibility study, and he will send information to ALCOSAN when it is available. The Streets Run communities have planned a meeting with PWSA in October to discuss coordination for the Streets Run Interceptor.

8. Tim Prevost noted that a letter was mailed recently to the municipalities in which ALCOSAN's outlined a schedule of what is needed to analyze flows and initiate development of solutions:

- Preliminary flow estimates from each municipality by March 2010; specifically, how much flow each is planning to send to ALCOSAN. Worst case scenario of sending all flows to ALCOSAN is acceptable, but if a municipality is developing a strategy for reducing flows, ALCOSAN requests that this also be communicated. The UMPB Team will then compare their own flow estimates to each municipality's estimate.
- If multiple municipalities contribute to an ALCOSAN point of connection (POC), this is a more complex situation, and discussions are needed among the involved municipalities to coordinate planning of wastewater flows.

c. **Municipal Coordination and Public Participation Update**

1. Janai Williams/Ebony gave an update of the recent Customer Municipality Advisory Committee (CMAC) and Regional Stakeholder Group (RSG) Meetings. The last CMAC meeting was held on 6/23/09, and the next one is 10/14/09. The CMAC has discussed the municipal Feasibility Studies and multi-municipal funding. CMAC representatives from the UMPB area are Denise Edwards, John Fetterman, Michael Kenney, and Deneen Swartzwelder.

   The last RSG meeting was held on 7/11/09, and the next one is 10/15/09. The RSG has discussed ways to engage the public. RSG representatives from the UMPB area are Jim Hannan, Pat Schaefer, and Michael Terrick.

2. Dan Gilligan/LSSE covered the second issue of Upper Monongahela Basin Quarterly Activity Report (UM QAR), which was mailed out this week. This QAR was distributed to municipal managers, elected officials, and engineers to provide program updates, milestones, and action items about the UMPB wet weather planning process. ALCOSAN recommends that the municipal managers discuss the QAR with their municipal councils and include the QAR and key points under the Manager, Engineer, or Public Works agenda items at their regular monthly Council meetings.

3. Curt Courter announced that the first round of Public Meetings will be held in November throughout the region. In the UMPB, a public meeting will be held at 7:00 p.m. on November 19th at the Courtyard Marriott at The Waterfront in West Homestead.

4. The Feasibility Study Working Group (FSWG) meetings have continued to be held at the Greentree municipal building at 9:00 a.m. on the second and fourth Thursdays of the month. John Shannon gave an update about FSWG activities:

   a. He said that municipalities should be budgeting costs for conducting Feasibility Studies next year.

   b. The FSWG has developed a 10-step process for conducting the Feasibility Studies. Municipalities need to complete steps 3 and 4 to arrive at flows for the March 2010 submittal to ALCOSAN.

   c. A subcommittee has been formed to address inter-municipal agreements, and some municipalities have been meeting about their shared sewers.

d. Operation and maintenance plans for separate sewer systems should be submitted to ACHD in March. Michelle Buys/ACHD said that the O&M manual is seen as a critical milestone in the planning process, and municipalities may have separate orders in the future for implementing improvements identified under their current orders.

e. The next FSWG meeting is October 8, when the focus will be on flow reduction.

d. **Preliminary Sites and Technologies Screening and Evaluation**

1. Curt Courter presented information about the process underway for screening of wet weather technologies and sites. He described the qualitative screening approach for technologies and sites. The full range of available types of wet weather control technologies for source reduction, conveyance, storage, and treatment were presented on boards at the meeting and are described in the draft Screening of Controls and Sites Report, to be submitted to ALCOSAN at the end of October. Over the next 4 to 5 months, the UMFP Team will be developing alternatives.

2. Curt Courter and Tim Brett explained the site screening approach and process (see **Attachment B**). No controls or site preferences have been selected at this time. At each point of connection, the UMFP Team developed peak flow rates or volumes, and from this analysis, problem areas were identified. At each problem area, GIS-level screening was used as a first step to identify open area, land uses, and distance to the POC. Any land with residential use or existing buildings was not considered. Using the initial screening criteria, multiple sites were identified for most POCs. Field visits were then made to each site to confirm site conditions and to identify other possible sites. The next step in the evaluation process is to work directly with the municipalities where sites are identified to confirm the availability and applicability of the identified sites. Tim Prevost asked municipalities to let ALCOSAN know if there is available land along the ALCOSAN interceptor.

e. **Next Steps**

- The UMFP Team will be contacting municipalities and authorities to arrange information exchange meetings to discuss flow estimates and potential sites, likely to be held in December.
- UM BPC meetings will be held quarterly, and the next one will likely be in January.
- Attendees were encouraged to identify topics to be covered in the next BPC meeting or in the Public Meeting to be held at 7:00 p.m. on November 19 at the Courtyard by Marriott at The Waterfront in West Homestead. Contact Tim Prevost or Curt Courter if there is a specific topic of interest for either meeting.

f. **Questions and Discussion**

- Discussion among several attendees occurred about municipal decision makers' understanding of the magnitude of the sewer work and potential costs involved with wet weather control. Discussion included the following:

- Questioned whether municipalities have the incentive to spend or budget local money for reducing extraneous flows within their sewers, when ALCOSAN has the responsibility to transport and treat the flows that reach the Points of Connection. Some engineers are having a difficult time convincing the municipal councils to allocate money for evaluating and developing alternatives for reducing flows in the sewer system.
- Information about preliminary costs of wet weather control for planning purposes should be communicated to municipal decision makers.
- Reduction of extraneous flows within the municipally-owned sewers will certainly reduce transport and treatment costs collectively for the region. Each municipality needs to perform a cost analysis to evaluate reduction of extraneous flows versus possibly expanding conveyance capacity, conveying flows downstream, and treatment at ALCOSAN.
- It is the municipalities' responsibility for the cost to transport flows to the interceptor, to eliminate an SSO, and the cost associated with removal of excess inflow.
- The possibility of implementation orders was noted, giving some communities the incentive to be proactive to avoid such orders. Each municipality will have to assess the present worth costs for alternatives to manage the wet weather flows within their community.

- ALCOSAN's rates are based on water consumption, not based on flows conveyed by each municipality to ALCOSAN's facilities. Jan Oliver said that the CMAC requested that ALCOSAN evaluate the rate structure.

2. Items Distributed:

a. Meeting Agenda

b. Copy of the presentation slides

3. Action Items:

a. The UMFP Team will continue information exchange efforts with municipalities and authorities.

b. The UMFP Team will prepare and distribute meeting minutes for this meeting.

4. Next Meeting:

a. No date was set for the next UM BPC meeting, but it will likely occur in January 2010.

5. Attachments:

a. Attachment A – Meeting Agenda

b. Attachment B – Copy of the presentation slides

ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Upper Monongahela
Meeting Purpose: Basin Planning Committee Meeting No. 6
Date / Time: February 26, 2010/9:30 AM
Location: Brentwood Library Community Room

Attendance Summary: A total of 16 municipalities and two authorities were represented by their elected officials, managers, public works staff, or consulting engineering firms. Rankin was not represented. A tabulated list of the attendees is provided below. The sign-in sheet is available upon request.

Municipal Attendees:

Municipality or Authority	Municipal or Authority Representative	Engineer or Other Person Representing the Municipality or Authority
Baldwin Borough	Timothy Little	Larry Souleret/LSSE
Braddock Borough		Robert Zischkau, Jr. & Randy Zischkau/Glenn Engr.
Braddock Hills Borough	Dave Checchio	
Brentwood Borough		Justin Wagner/Gateway Engineers
Churchill Borough	*participates in another BPC*	
Edgewood Borough	Warren Cecconi	
Homestead Borough		Robert Zischkau, Jr.& Randy Zischkau/Glenn Engr
Mt. Oliver Borough		Justin Wagner/Gateway Engineers
Munhall Borough		Jessica Antell & Shawn Rosensteel/Chester Engineers
Munhall Sanitary Sewer Municipal Authority		Jessica Antell & Shawn Rosensteel/Chester Engineers
North Braddock Borough		Robert Zischkau, Jr.& Randy Zischkau/Glenn Engr
Penn Hills Borough	*participates in another BPC*	
City of Pittsburgh	Andy Maul/PWSA	
Pittsburgh Water and Sewer Authority	Andy Maul/PWSA	
Pleasant Hills Borough	*participates in another BPC*	
Rankin Borough		
Swissvale Borough		Robert Zischkau, Jr. & Randy Zischkau/Glenn Engr
West Mifflin Borough	Jim Hannan/WMSSMA	
West Mifflin Sanitary Sewer Municipal Authority	Jim Hannan/WMSSMA	
West Homestead Borough	Glenn Guckes	Karl Sieg/Sieg & Associates
Whitaker Borough	Jean Warren	
Whitehall Borough		Justin Wagner/Gateway Engineers
Wilkinsburg Borough		Robert Zischkau, Jr. & Randy Zischkau/Glenn Engr

Non-Municipal Attendees:

Curt Courter/Hazen and Sawyer
Debbie Healey Langley/Hazen and Sawyer
Dan Gilligan/LSSE
Tim Brett/LSSE
Tammi Halapin/Collective Efforts
Tim Prevost/ALCOSAN
Dave Minard/AECOM
Janai Williams/Ebony Holdings
Michelle Buys/Allegheny County Health Department
Lisa Sorg/ Allegheny County Health Department
Paul Eiswerth/ PA Department of Environmental Protection
Tom Flanagan/PA Department of Environmental Protection
Jerry Brown/3RWW
John Shannon/Baker Engineers, representing 3RWW

1. Discussion / Decision / Agreement Summary:

a. Welcome and Introduction

1. Debbie Healey Langley/Hazen and Sawyer distributed the agenda (***Attachment A***) and a copy of the presentation slides (***Attachment B***) to all attendees.
2. Curt Courter/Hazen and Sawyer explained that the purpose of this meeting was to continue communication among the municipalities, authorities, ALCOSAN, the Upper Monongahela Facilities Planning (UMFP) Team, 3RWW, and the regulators about the Wet Weather Program. This is the sixth Basin Planning Committee (BPC) meeting for the Upper Monongahela Planning Basin (UMPB).

b. Program Update

1. Curt Courter reported on the status of current and recent technical tasks:
   - UMPB Hydrologic and Hydraulic (H&H) Modelling – Revised report completed in February 2010, and the final report will be completed in March 2010;
   - UMPB Screening of Controls & Sites – Revised report completed in February 2010;
   - UMPB Alternatives Analysis is in progress, with a report to be generated in the fourth quarter 2010;
   - Regional river and stream water quality monitoring completed in September 2009;
   - Regional recreational use survey completed in October 2009;
   - With regard to data available for use in flow projections, Jerry Brown/3RWW and John Shannon/Baker said that winter design storm data were posted to the MDS website this week.
2. Janai Williams/Ebony gave an update of the Customer Municipality Advisory Committee (CMAC) and Regional Stakeholder Group (RSG) Meetings. The next CMAC meeting

will be held on 3/2/10. The CMAC has discussed municipal advocacy and site screening criteria. The next RSG meeting will be held on 3/16/10. The RSG has discussed CSO control and alternatives technologies, site screening criteria, and comparative analysis criteria.

3. Debbie Healey Langley spoke about the third edition of Upper Monongahela Basin Quarterly Activity Report (QAR), which was mailed this week. In addition, past QARs (#1 and #2) were mailed to all new municipal representatives in January 2010. ALCOSAN recommends that the Municipal Managers discuss the QARs with their municipal councils, and include the QAR's key points in the Manager, Engineer, or Public Works agenda items at their regular monthly Council meetings.

4. Debbie Healey Langley summarized the Basin Public Outreach Meetings that were held in November throughout the region, with the goal of educating and engaging the public about the wet weather issue. In the UMPB, the public meeting was held on 11/19/09 at The Waterfront in West Homestead. A total of 30 residents from eight municipalities attended.

5. Recent public outreach also occurred at ALCOSAN's Annual Customer Information Meetings. Janai Williams said that these meetings were held in five locations in the region in January and February 2010 to provide an update on the status of the Wet Weather Program.

6. Tim Prevost/ALCOSAN provided a financial data update. ALCOSAN is in the process of refining the current conditions scenario of the "Affordability Model". Jerry Brown said that responses to the Municipal Asset Data Survey conducted by 3RWW are slightly above 50%. Michelle Buys/ACHD asked how the data will be analyzed. Jerry Brown answered that 3RWW has established a committee to review the data and determine which approach to use for analysis. Tim Prevost also added that federal funding is being pursued by 3RWW, and ALCOSAN is seeking loans.

c. **H&H Modelling**

1. Curt Courter provided an update about the H&H modelling for the UMPB. Prior to model distribution, ALCOSAN will make a presentation about the models at a Feasibility Study Working Group meeting. The models will be saved on CD and sent to Municipal Managers, and the Modelling Report will be posted on the municipal secure website in March.

2. Tim Brett/LSSE displayed maps illustrating the expansion of model extents within the UMPB (see ***Attachment B***). The original model extents required by ALCOSAN's Consent Decree were distinguished from the current expanded model extents. The model was significantly expanded to include overflow locations and hydraulic issues discovered during the UMFP Team's work. Major piping in the UMPB is included in the model, although most of the smaller diameter pipes in the Basin are not, and the model does not extend to every municipality in the Basin.

d. **Preliminary Flow Estimates**

1. Tim Prevost discussed the need for preliminary flow estimates (PFEs), which ALCOSAN has requested from each municipality by March 31, 2010. Tim also said, however, that ALCOSAN recognizes that some municipalities may need to use the H&H model for their

flow estimates. Tim said that after the model is distributed, ALCOSAN will be asking the municipalities to notify them when the PFEs can be completed. Tim also said that the municipalities should explain how their system is being characterized, such as the worst case scenario (all flows sent downstream to ALCOSAN), or with an assumption that specific wet weather controls and sewer system improvements will be implemented.

2. Jim Hannan/WMSSMA asked how the municipal improvements will affect the feasibility alternative eventually recommended, and said that improvements should reduce the facility size requirements. For example, Munhall plans to install lining material within the Homestead Run sewer, which will reduce extraneous flows and thus result in reduced overflows at M-49. Tim Prevost said that ALCOSAN is willing to install flowmeters to assess flow reduction after municipal improvements are made. Curt Courter described how the H&H modelling approach handles future improvements. First, the "Existing Conditions" model has been established, then a second version of the model (the "Future Conditions" model) will be developed, which will incorporate future sewer improvements, projected growth, and anticipated buildout conditions. Tim Prevost asked the municipal representatives to inform ALCOSAN of planned or anticipated sewer system improvements.
3. Andy Maul/PWSA asked if flow estimates through the year 2046 will be needed. Tim Prevost replied that population estimates through the year 2035 are available now, and were prepared by the Southwestern Planning Commission (SPC). These data should be used until the population data through 2046 is available. Jerry Brown said that he has asked the SPC to expedite the population projections through 2046.

e. **Feasibility and Present Worth Analysis**

1. Curt Courter described the components of the feasibility and present worth analysis, which is currently underway. Feasibility Reports will be developed by each Basin Planner, and will include alternatives and evaluation development strategy, H&H modelling of alternatives, and cost and performance analyses. One of the first steps will be to narrow down the number of potential alternatives that were identified in the Screening of Controls and Sites Report into a smaller number of Basin alternatives, each of which will be a group of projects across the Basin. Other factors will be considered in addition to cost and performance when evaluating alternatives. ALCOSAN has developed a procedure for this, which weighs various relevant factors.
2. In order to assist ALCOSAN with screening of wet weather control alternatives, attendees at the meeting were invited to participate in developing the relative weights (percentages) of these factors. Criteria and characteristics of each category were discussed and are listed in ***Attachment B***. Michelle Buys noted that "Sensitive Areas" (part of the Water Quality, Public Health, and Environmental Impacts category) are defined in the Consent Decree as recreational areas and drinking water intakes.

   Participants individually identified the weight (as a percentage) that they would give each of the five factors. The participants' responses were then tabulated during the meeting. The results are included in ***Attachment C*** and the average weightings for each factor are summarized as follows:

- Economic Factors, 30.3%;
- Public Factors, 22.5%;
- Water Quality, Public Health, and Environmental Impacts, 29.1%;
- Operational Impacts, 8.8%;
- Implementation Impacts, 9.3%.

Tim Prevost said that these results will be compiled with the results from the Turtle/Thompson BPC meeting and will be considered in the screening process. Additional input will likely occur again at future BPC meetings, as more information is developed about effectiveness, impacts, and costs of various alternatives.

f. **Screening of Controls and Sites**

1. Curt Courter presented information about the Screening of Controls and Sites Report, which includes descriptions of available wet weather control technologies and evaluation of potential facility sites and conveyance routes. Examples of types of wet weather control technologies for source reduction, conveyance, storage, and treatment were presented on display boards at the meeting.
2. Tim Brett explained the process used for screening of potential sites and conveyance routes. Using modelling and peak flow assumptions, the UMFP Team developed peak flow rates or volumes at each of the 30 points of connection (POC). At the individual POC locations, GIS-level screening was used as a first step to identify open area, land uses, and distance to the POC. Using the initial screening criteria, multiple sites were identified for most POCs. Field visits were made by the UMFP Team to each site to confirm site conditions and to identify other possible sites.

   Tim Brett explained that the UMFP Team has since met directly with some of the appropriate municipalities and other stakeholders to discuss potential sites and routes. Meetings have occurred with RAAC, RIDC, PWSA/City of Pittsburgh, Munhall Sanitary Sewer Municipal Authority/Munhall Borough, Homestead, Baldwin Borough, and West Homestead. Meetings will also be held with Swissvale, Rankin, and Braddock. Some of the findings gleaned from the meetings held to date are:

   - A number of facilities are proposed by the various Basin Planners at riverfront locations in the City of Pittsburgh.
   - Consolidation of POCs for Homestead Run, Waterfront, and Streets Run is favored. The preferred site is in Streets Run near M-42.
   - According to RAAC, there may be small parcels available at each end of the Carrie Furnace site.
   - According to RIDC, a portion of the LTV site may be available.
3. Other steps in the screening process were to evaluate sub-areas (groupings of POCs), then to evaluate basin-wide controls (consolidating sub-areas) using storage tunnels. At the meeting, examples were provided for site identification, site evaluation, consolidation evaluation, and storage tunnel evaluation, all shown in ***Attachment B***.

g. **Next Steps**

- ALCOSAN will make the Modeling Report and the Screening of Controls and Sites Report available in March. They will distribute the H&H model to Municipal Managers in March. ALCOSAN may also make the Existing Conditions Report available soon. This was the first deliverable created by the UMFP Team, and each municipality has previously reviewed and commented on their specific sections.
- The UMFP Team will continue to contact municipalities, authorities, and stakeholders to arrange meetings to discuss flow estimates and potential sites and routes as necessary.
- UM BPC Meeting #7 will be held in the second quarter of 2010.

h. **Questions and Discussion**

Questions and discussion topics among the attendees involved storage tunnels and flow estimates, and included the following:

- A question was asked about the cost-effectiveness of storage tunnels. Curt Courter said that tunnels have been shown to be cost-effective in other areas of the country. Tunnels can offer flexibility by reaching a wide geographical area, so they will also be evaluated as a regional alternative in handling flows from all seven basins.
- A question was asked about the volume of wet weather flow in the UMPB. Curt Courter said that the estimated annual overflow volume in the UMPB is approximately 1.6 billion gallons per year, and of that amount, 500 million gallons per year overflows at M-59. Bob Zischkau offered to provide information with regard to a potential stream intrusion tributary to M-58, M-60, or M-61.
- Michelle Buys asked about tunnel sizing affecting municipalities' facilities. Curt Courter said the H&H model run that was used for screening was set up to assume that all capacity-deficient pipes upstream of the POCs would be upsized to accommodate wet weather flows, thus eliminating municipal overflows. The pipes that needed to be upsized were identified using the model. Modelling in this way is similar to what has been requested from the municipalities as PFEs, except that the analysis has included only existing conditions. As the municipalities characterize their system and determine whether local controls or conveyance will be utilized, this will be incorporated into future model runs. Tim Prevost said that meetings with the municipalities will continue, particularly once they have submitted their PFEs. Any differences in projected flows between the UMFP Team's and the municipalities' estimates will be discussed so a consensus can be reached.
- A question was asked about the number of flowmeters used in calibrating the model. Curt Courter said data were used from most flowmeters in the UMPB from the Regional Flow Monitoring Program. In addition, the UMFP Team supplemented this data when necessary with 2004 flow data, PWSA flow data, and 2000 flow data.
- John Shannon asked what ALCOSAN needs from the municipalities in the next six months. Curt Courter replied that the UMFP Team will be setting up meetings with municipalities to resolve differences in flow estimates, and seeking information about

future flows. If municipalities haven't determined their flow strategy until later this year, there will still be time to adjust the model then.

2. Items Distributed:

a. Meeting Agenda

b. Copy of the presentation slides

3. Action Items:

a. The UMFP Team will continue information exchange meetings with municipalities and authorities.

b. The UMFP Team will prepare and distribute meeting minutes for this meeting.

4. Next Meeting:

a. No date was set for the next UM BPC meeting, but it will occur in second quarter of 2010.

5. Attachments:

a. Attachment A – Meeting Agenda

b. Attachment B – Copy of the presentation slides

c. Attachment C – Category Weighting Results from Attendees' Input

ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Upper Monongahela
Meeting Purpose: Basin Planning Committee Meeting No. 7
Date / Time: June 25, 2010/9:30 AM
Location: Brentwood Library Community Room

Attendance Summary: A total of 15 municipalities and three authorities were represented by their elected officials, managers, public works staff, or consulting engineering firms. Rankin and Whitaker were not represented. A tabulated list of the attendees is provided below. The sign-in sheet is available upon request.

Municipal Attendees:

Municipality or Authority	Municipal or Authority Representative	Engineer or Other Person Representing the Municipality or Authority
Baldwin Borough		John Heyl/LSSE
Braddock Borough		Robert Zischkau, Jr./Glenn Engr.
Braddock Hills Borough		Corbet Martin/Senate Engineering
Brentwood Borough	George Zboyovsky, Frank Kenny	Emily Gaspich/Gateway Engineers
Churchill Borough	*participates in another BPC*	
Edgewood Borough	Warren Cecconi	
Homestead Borough		Robert Zischkau, Jr./Glenn Engr
Mt. Oliver Borough	Deana Wienschel	Emily Gaspich/Gateway Engineers
Munhall Borough		Jessica Antell/Chester Engineers
Munhall Sanitary Sewer Municipal Authority		Jessica Antell/Chester Engineers
North Braddock Borough		Robert Zischkau, Jr./Glenn Engr
Penn Hills Borough	*participates in another BPC*	
City of Pittsburgh	Andy Maul/PWSA	
Pittsburgh Water and Sewer Authority	Andy Maul/PWSA	
Pleasant Hills Borough	*participates in another BPC*	
Rankin Borough		
Swissvale Borough		Robert Zischkau, Jr./Glenn Engr
West Mifflin Borough	Jim Hannan/WMSSMA	
West Mifflin Sanitary Sewer Municipal Authority	Jim Hannan/WMSSMA	
West Homestead Borough		Karl Sieg/Sieg & Associates
Whitaker Borough		
Whitehall Borough		Emily Gaspich/Gateway Engineers
Wilkinsburg Borough		Robert Zischkau, Jr./Glenn Engr

Non-Municipal Attendees:

Curt Courter/Hazen and Sawyer
Debbie Healey Langley/Hazen and Sawyer
Tim Brett/LSSE
Karen Napoli/Collective Efforts
Tim Prevost/ALCOSAN
Jan Oliver/ALCOSAN
Dave Minard/AECOM
Tom Schevtchuk/CDM
Anthony Catania/Kaye Bealer
Janai Williams/Ebony Holdings
Lisa Sorg/ Allegheny County Health Department
Tom Flanagan/PA Department of Environmental Protection
Jerry Brown/3RWW
John Shannon/Baker Engineers, representing 3RWW

1. Discussion / Decision / Agreement Summary:

a. Welcome and Introduction

1. All attendees received a copy of the agenda (***Attachment A***), the Upper Monongahela Planning Basin (UMPB) presentation slides (***Attachment B***), and the slides for the Financial Capability Assessment update (***Attachment C***).
2. Curt Courter/Hazen and Sawyer explained that the purpose of this meeting was to continue communication among the municipalities, authorities, ALCOSAN, the Upper Monongahela Facilities Planning (UMFP) Team, 3RWW, and the regulators about the Wet Weather Program. This is the seventh Basin Planning Committee (BPC) meeting for the UMPB.
3. Debbie Healey Langley/Hazen and Sawyer provided a brief summary of BPC Meeting #6 held on 2/26/10, which emphasized the process and criteria used in the screening of technologies and potential sites and routes.

b. Modelling and Preliminary Flow Estimates (PFEs)

Curt Courter/Hazen and Sawyer provided an update of the efforts involved with the Modelling work:

1. In March, ALCOSAN posted the Upper Monongahela Hydrologic and Hydraulic (H&H) Modelling Report on the municipal secure website, and distributed the H&H model to each municipal manager within the UMPB. This model represents existing conditions. To date, no questions have been received on either the model or the report. Model additions or simulations should be performed by an engineer or modeller who has experience with SWMM software.
2. The UMPB Team has developed the Future Conditions model, which will be used for estimating future wastewater flows and to size potential wet weather controls. As they

become available, municipalities' plans for extraneous flow reduction, sewer improvements, and/or wet weather control strategies should be communicated to ALCOSAN so that this information can be incorporated into the planning of alternatives.

3. To estimate future flows for 2046, ALCOSAN is currently using a surrogate data set based upon 2035 Southwestern Planning Commission projections. John Shannon/Baker asked if certain values from the 2035 data set will be used if they are lower than current population values. Curt said he would have to check with his team. After the meeting Curt confirmed that very few areas within the UMPB are projected to have population declines and that these projections were used as provided.

4. Six communities have submitted preliminary flow estimates (PFEs) to ALCOSAN. These estimates cover all but three of the 30 points of connection (POCs) in the Basin. The UMPB Team will continue to evaluate PFEs as they are submitted, and will contact and coordinate with the municipalities if further clarification or information is needed.

c. Basin Planning Update

1. Curt Courter reported on the status of recent UMPB technical tasks:

   - Existing Information and Conditions Report will be posted soon to the municipal secure website.
   - Screening of Controls and Sites Report (SCSR) was completed and will be posted to the municipal secure website in the near future.
   - H&H Modelling, Existing Conditions – Calibrated model distributed to municipal managers in March 2010, and final report posted in March 2010;
   - H&H Modelling, Future Conditions – Model developed and work is in progress;
   - Alternatives Analysis is in progress, with a report to be generated in the fourth quarter 2010;
   - Coordination with municipalities will continue through the BPC and with direct meetings as needed or requested.

2. Curt Courter explained the recent work for the development and evaluation of site and basin alternatives. Analysis began with the potential sites and technologies identified in the SCSR, then evaluations have proceeded with greater levels of detail to narrow down the number of alternatives. The Basin Planning Team developed and evaluated site-specific treatment or storage controls, outfall consolidation alternatives, and deep tunnel storage alternatives. Tunnels typically require less surface land footprint compared to other alternatives. The assumed tunnel depth for this analysis is approximately 150 feet. At this time, the type of treatment or storage facility has not been determined.

   Evaluations led to the development of five "base" alternatives, with 10 overall alternatives. The additional five alternatives incorporate controls at M-59 in Braddock. The strategy for M-59 is also dependent upon the basin planner's findings for the upstream Thompson Run/Turtle Creek Basin.

These alternatives incorporate combinations of shallow-cut consolidations, site-specific and consolidated storage and treatment facilities, and deep tunnel storage alternatives. Five potential solutions are illustrated in the maps in **Attachment B**, and are summarized as follows. The range of the tunnel lengths for each Potential Solution 2 through 5 represent whether or not flows at M-59 are captured and conveyed.

a. Potential Solution 1: Three shallow cut consolidations, four CSO treatment facilities, and a potential fifth facility at M-59.

b. Potential Solution 2: Four shallow cut consolidations, 2.5 to 3.4 miles of deep storage tunnel, and one or two CSO treatment facilities.

c. Potential Solution 3: Three shallow cut consolidations, 2.5 to 3.4 miles of deep storage tunnel, and one CSO treatment facility.

d. Potential Solution 4: Three shallow cut consolidations and 5.4 to 6.3 miles of deep storage tunnel.

e. Potential Solution 5: Three shallow cut consolidations, 3.8 to 4.7 miles of deep storage tunnel, and one CSO treatment facility.

3. Curt Courter described the evaluation strategies currently underway. The range of control levels include: annual frequency of overflows (20, 7-12, 4-6, 1-3, 0); reduction of annual average CSO volume (51% to 100%); development of costs and "knee of the curve" analyses, with evaluation of incremental costs with increasing levels of control. Additional current evaluations include secondary treatment, optimization alternatives such as stream inflow removal, and inflow removal versus conveyance.

4. Curt Courter presented information about the sensitivity analysis conducted to determine the potential benefits of implementing green storm water infrastructure (GSWI) or inflow reduction in the UMPB. The results showed that although GSWI would reduce some conveyance costs, inflow reduction alone will not eliminate the need for conveyance upsizing and has limited impact on CSO volume basinwide as follows:

- 10% reduction in imperviousness and RDII results in 5.4% CSO reduction;
- 30% reduction in imperviousness and RDII results in 16.5% CSO reduction;
- 50% reduction in imperviousness and RDII results in 27.4% CSO reduction.

In addition, potential flow reductions were modelled to determine whether GSWI and/or inflow reduction may be able to eliminate the overflow at ALCOSAN POCs, and several POCs were identified where this may be achievable (see chart in **Attachment B**).

d. Program Update

1. The UMFP Team met directly with municipalities and other stakeholders to discuss the identified potential sites and routes. Meetings have occurred with RAAC, RIDC, PWSA/City of Pittsburgh, Munhall Sanitary Sewer Municipal Authority/Munhall Borough, Homestead, Baldwin Borough, West Homestead, Swissvale, Rankin, and Braddock.

2. The fourth edition of Upper Monongahela Basin Quarterly Activity Report (QAR) was mailed in June 2010. ALCOSAN suggests that the Municipal Managers discuss the

QARs with their municipal councils, and include the QAR's key points in the Manager, Engineer, or Public Works agenda items at their regular monthly Council meetings.

3. Free technology outreach "webinars" have been hosted by ALCOSAN, and all municipal representatives are welcome to attend. Webinars are held at the Training Building at the ALCOSAN WWTP. The webinars are produced quarterly by the National Association of Clean Water Agencies (NACWA). The next webinar, with a focus on stormwater infrastructure and green technologies, will be held on 9/8/10. Jan Oliver/ALCOSAN plans to send the webinar invitation to 3RWW for distribution to the municipalities.

4. Janai Williams/Ebony gave an update of the Customer Municipality Advisory Committee (CMAC) and Regional Stakeholder Group (RSG) Meetings. The next CMAC meeting will be held on 8/3/10. In its previous meeting on 5/11/10, the CMAC discussed affordability and members decided to send letters to peers to encourage participation.

   The next RSG meeting will be held on 8/12/10. At the most recent meeting on 5/13/10, the RSG discussed affordability, disparity of low income customers, and factors influencing wet weather control programs in other areas of the country (Washington, DC area, Boston area, Portland, Oregon, and northern Kentucky). Factors included costs, water quality, green infrastructure, and multi-municipal involvement.

5. The revised version (2.0) of the Alternatives Costing Tool (ACT) has been posted on the municipal secure website. Municipal construction cost data for small-scale projects will be added in the next update if this is found to be useful. 3RWW has formed a subcommittee of the Feasibility Study Working Group to collect local costs for projects that the municipalities might be likely to undertake. As CDM develops the cost curves, they will consider costs of large city projects versus small municipal projects in their applicability to the program.

6. Regarding ALCOSAN's municipal secure website, any required updates to posted reports will be made by short technical memorandum addendums.

e. Financial Capability Assessment

Tom Schevtchuk/CDM presented an update of the Financial Capability Assessment, which is in progress. The slides are shown in **Attachment C**. EPA typically considers a mid-range residential indicator for wastewater and wet weather fees to be 1% to 2% of median household income, and a reasonable range in scheduling and phasing of construction for CSO selected alternatives. CDM has been evaluating ALCOSAN and municipalities' current and future wastewater and wet weather costs, as well as household income data for the 83 municipalities in ALCOSAN's service area, with the aim of computing a regional residential indicator.

Tom said that it is very important for municipalities to accurately account for all costs related to wastewater and wet weather systems, and communicate this information to 3RWW. Jerry Brown/3RWW remarked that municipalities need to improve their tracking of these sewer system and employees' costs. He said that the municipalities' revenue data are often incomplete. Jerry also said that the MDS website has reports of financial data collected for each community, and municipal managers should print out the report and review it. George Zboyovsky/Brentwood noted that elected officials need to be educated about the fees used for actual sewer needs and to budget for future needs.

Tom explained that with the data currently available, the current regional residential indicator is about 1.04%, which is the low end of the mid-range. He reiterated that municipalities should review their sewer system costs, and send updates to 3RWW, and then the financial capability analyses can be revised.

CDM conducted an analysis using an assumed scenario with regard to bond criteria and O&M costs, to determine the investment that would represent a regional residential indicator of 2%. The computed amount is $2.0 billion of wastewater and wet weather investment, which would include both ALCOSAN's and municipalities' costs. Jan Oliver said that the EPA Guidance does allow for phased approaches when the residential indicator approaches or exceeds 2%. She also said that the residential indicator values could influence level of control as well as phasing, and will be discussed with EPA during negotiations to arrive at a reasonable affordable solution. Jim Hannan/WMSSMA said that it appears that many facilities will be proposed along the river, with several in lower income areas, and perhaps this could also be discussed during negotiations. Jan Oliver said that environmental justice will be one of the factors included in evaluations.

f. Next Steps

- Alternatives analyses work will continue through Fall 2010.
- The UMFP Team will contact or meet with municipalities, authorities, and stakeholders as necessary to discuss preliminary flow estimates and potential sites and routes.
- UM BPC Meeting #8 will be held in the third quarter of 2010, likely in September 2010.
- The second series of public meetings will be held in October 2010.

g. Questions and Discussion

Questions and discussion among the attendees occurred throughout the presentation of the slides.

2. Items Distributed:

a. Meeting Agenda

b. Copy of the UMPB presentation slides

c. Copy of the presentation slides for the Financial Capability Assessment update

3. Action Items:

a. The UMFP Team will continue information exchange with municipalities and authorities.

b. The UMFP Team will prepare and distribute meeting minutes for this meeting.

4. Next Meeting:

a. No date was set for the next UM BPC meeting, but it will occur in third quarter of 2010, likely in September 2010.

5. Attachments:

a. Attachment A – Meeting Agenda

b. Attachment B – Copy of the UMPB presentation slides

c. Attachment C - Copy of the presentation slides for the Financial Capability Assessment update

ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Upper Monongahela
Meeting Purpose: Basin Planning Committee (BPC) Meeting No. 8
Date / Time: October 8, 2010/10:00 AM
Location: Brentwood Library Community Room

Attendance Summary: A total of 17 municipalities and three authorities were represented by their elected officials, managers, public works staff, or consulting engineering firms. A tabulated list of the attendees is provided below. The sign-in sheet is available upon request.

Municipal Attendees:

Municipality or Authority	Municipal or Authority Representative	Engineer or Other Person Representing the Municipality or Authority
Baldwin Borough		Larry Souleret/LSSE
Braddock Borough		Robert Zischkau, Jr. & Randy Zischkau/Glenn Engr.
Braddock Hills Borough	Charles Arthrell, Dave Checcio	Corbet Martin/Senate Engineering
Brentwood Borough	George Zboyovsky, Frank Kenny, Janice Boyko, Carol Wirth	Emily Gaspich/Gateway Engineers
Churchill Borough	*participates in another BPC*	
Edgewood Borough		Jason Stanton/LSSE
Homestead Borough		Robert Zischkau, Jr. & Randy Zischkau/Glenn Engr
Mt. Oliver Borough		Emily Gaspich/Gateway Engineers
Munhall Borough		Shawn Rosensteel & Rob Arnold/Chester Engineers
Munhall Sanitary Sewer Municipal Authority		Shawn Rosensteel & Rob Arnold/Chester Engineers
North Braddock Borough		Robert Zischkau, Jr. & Randy Zischkau/Glenn Engr
Penn Hills Borough	*participates in another BPC*	
City of Pittsburgh	Bob Hutton/PWSA	
Pittsburgh Water and Sewer Authority	Bob Hutton/PWSA	
Pleasant Hills Borough	*participates in another BPC*	
Rankin Borough		Robert Zischkau, Jr. & Randy Zischkau/Glenn Engr
Swissvale Borough		Robert Zischkau, Jr. & Randy Zischkau/Glenn Engr
West Mifflin Borough		John Balewski/Chester Engineers
West Mifflin Sanitary Sewer Municipal Authority		John Balewski/Chester Engineers
West Homestead Borough	Glenn Guckes	Karl Sieg/Sieg & Associates
Whitaker Borough	Jean Warren	Robert Zischkau, Jr. & Randy Zischkau/Glenn Engr
Whitehall Borough		Emily Gaspich/Gateway Engineers
Wilkinsburg Borough		Robert Zischkau, Jr. & Randy Zischkau/Glenn Engr

Non-Municipal Attendees:

Curt Courter/Hazen and Sawyer
Debbie Healey Langley/Hazen and Sawyer
Tim Prevost/ALCOSAN
Joe Day/ALCOSAN
Dave Minard/AECOM
Mike Scheer/Allegheny County Health Department
Tom Flanagan/PA Department of Environmental Protection
Jerry Brown/3RWW
Harry Geis/3RWW
John Shannon/Baker Engineers, representing 3RWW

1. Discussion / Decision / Agreement Summary:

a. Welcome and Introduction

1. All attendees received the meeting agenda (***Attachment A***), a copy of the Upper Monongahela Planning Basin (UMPB) BPC meeting presentation slides (***Attachment B***), and ALCOSAN's 2010 Community Meeting schedule (***Attachment C***).
2. Curt Courter/Hazen and Sawyer explained that the purpose of this meeting was to continue communication among the municipalities, authorities, ALCOSAN, the Upper Monongahela Facilities Planning (UMFP) Team, 3RWW, and the regulators about the Wet Weather Program. This is the eighth Basin Planning Committee meeting for the UMPB.
3. Curt provided a brief summary of BPC Meeting #7 held on 6/25/10, which emphasized an explanation of the development of the Potential Basin Solutions and an update of the Financial Capability Analysis.

b. Modelling and Preliminary Flow Estimates (PFEs)

Curt Courter provided an update of the efforts involved with the Modelling work:

1. ALCOSAN and the UMFP Team have received PFEs representing all 30 points of connection (POCs) within the UMPB, from communities in the Basin. The UMFP Team is comparing the municipal PFEs against the hydrologic and hydraulic (H&H) modelling results. Differences in these flow values are anticipated, because different tools and methods are used in evaluating peak flows. The Team has met, or is planning to meet, with municipal representatives to discuss and understand the differences. Meetings have been held with Glenn Engineering and Chester Engineers, and will be held with PWSA on 10/15 and with many of the municipal representatives on 10/25. Tim Prevost/ALCOSAN said he would also like to meet with Sieg & Associates.
2. The UMPB Team is also using the H&H model to represent future characteristics in the service area. Work is underway on the "Future Conditions" model, which will be used for estimating future wastewater flows and to size potential wet weather controls. It represents service area conditions in 2046 (the ultimate planning year), which includes greater

population generating more wastewater, and additional land development generating more runoff during rainfall events. Anticipated or obvious near-term collection system improvements, such as installation of ALCOSAN outfall flap gates, will be included in the Future Conditions model.

c. Feasibility Report and Present Worth Analysis

1. Curt Courter reported with an update about Basin Alternatives Development. Evaluations have continued with developing alternatives consisting of: shallow cut consolidations, site-specific and consolidated storage and treatment facilities, and deep tunnel storage and/or conveyance. The goal is to develop the lowest cost, best alternative for the UMPB. A draft report on the feasibility and present worth of alternatives developed thus far will be submitted to ALCOSAN in November 2010.

   These evaluations have led to the development of two preferred alternatives, which are illustrated in the two maps in ***Attachment B***, and are outlined as follows.

   a. Planning Basin Based Alternative (BA01A through E): Shallow cut consolidations, a pump station, and five CSO treatment facilities identified as: Hazelwood Consolidation Facility (the LTV site is a possibility, and coordination with RIDC is in progress); Streets Run Consolidation Facility; M-47 Individual Facility; Mon Valley Consolidation Facility (in the vicinity of M-51 near Rankin Bridge); and, M-59 Individual Facility.

   b. Regional Basin Based Alternative (BA04A through E): Shallow cut consolidations, seven drop shafts, and deep storage tunnel. This alternative aims to minimize facilities region-wide with fewer or smaller above-ground sites.

   Jason Stanton/LSSE asked about the configuration of the consolidation pipes. Curt explained that the consolidation pipes are planned to intercept CSO near the diversion chambers, and the consolidation pipes vary in size depending on the level of control, but in many cases are larger than 36 inches in diameter. He also said that modelling runs are underway to determine whether increasing the consolidation pipes' diameters would produce smaller size RTBs and minimize costs.

   Karl Sieg/Sieg & Associates asked about the goals of the retention/treatment basins (RTBs) relative to total suspended solids (TSS) removal. Curt answered that RTBs are primarily aimed at bacteria reduction, but also remove settleable solids. Depending on the design, operation of an RTB can result in 30% to 35% TSS removal.

2. The UMFP Team has met directly with eight municipalities and two regional stakeholders to discuss the identified potential sites and routes. In some cases, the municipalities suggested viable sites.

3. Curt Courter described the evaluation strategies currently underway. The range of control levels include: annual frequency of overflows (20, 7-12, 4-6, 1-3, 0), and reduction of annual average CSO volume (90% to 100% capture). Curt displayed a chart titled "Alternatives – Percent Capture" (in ***Attachment B***) that lists the predicted performance of the two alternatives through various levels of CSO frequency, overflow volume reduction, and CSO percent capture. With no overflow control, there are 1.4 billion gallons of CSO

discharged in the Basin in a typical year. The alternatives show a significant reduction of overflow volume. The zero overflow scenario shown in the chart, showing a relatively small amount of overflow volume remaining, represents a few overflow locations that are being evaluated for green infrastructure methods or regulator modifications.

The UMFP Team is also working on development of cost estimates and "knee of the curve" analyses, with evaluation of incremental costs with increasing levels of control.

Additional evaluations include optimization alternatives at each POC, which could potentially downsize the proposed facilities. For its regional conveyance and treatment system, ALCOSAN is evaluating additional conveyance and storage, operational and maintenance strategies related to the Woods Run WWTP capacity, and the cleaning of the Deep Tunnel Interceptor.

d. ACT and Municipal Website Update

1. Tim Prevost reported that release #2 of the Alternatives Costing Tool (ACT) has been posted on the municipal secure website. He also said that Mike Lichte is ALCOSAN's representative on 3RWW's Feasibility Study Working Group. John Shannon/Baker said the ACT has been revised to include four municipal cost curves to better represent municipal construction costs, and the program is very user-friendly.
2. Tim Prevost said ALCOSAN's municipal secure website includes each Basin's H&H Model and Report, and the Existing Information and Conditions Report, which includes the municipalities' review feedback. The draft Screening of Controls and Sites Report has not been posted yet, and it includes the five proposed solutions that were presented at the BPC Meeting #7 in June, and feedback from stakeholders. Tim said ALCOSAN welcomes any ideas for sites, and all ideas will be considered.

e. Municipal Feasibility Study Work

1. Tim Prevost said that ALCOSAN is interested in hearing about the municipal feasibility studies and where they are heading, especially in terms of plans for flow reduction and degree of conveying wastewater flows downstream. Meetings will be held on 10/25 with ALCOSAN and municipal representatives to discuss targeted sewersheds in the UMPB. Six sewersheds in particular are more complex, because of multiple municipalities contributing flows to the ultimate POCs. Tim said a meeting with PWSA will be held on 10/15 to discuss their PFEs submitted in June. There are also disparities with Streets Run and Nine Mile Run flow estimates, and work is needed to gain consensus. Tim asked Bob Hutton/PWSA if he could provide the comments from the upstream communities when the PFEs were developed. ALCOSAN wants to be aware of discussion, conclusions, and plans related to municipalities' flows because they can significantly affect the Wet Weather Plan. Jason Stanton/LSSE said the upstream communities are interested in being included in the meeting with PWSA. Tim noted that the meeting on 10/15 is specific to PWSA's PFE submission, and it was ALCOSAN's hope that upstream municipalities already provided their comments and input to PWSA's PFEs. Tim also noted that the meeting on 10/25 to discuss broader topics will include PWSA and upstream municipalities.

f. Outreach

1. The fifth edition of Upper Monongahela Basin Quarterly Activity Report (QAR) was mailed to municipal councils and representatives in early October 2010.
2. Three free technology outreach "webinars" have been hosted this year by ALCOSAN, and the meetings were open for all municipal representatives to attend. The webinars are produced quarterly by the National Association of Clean Water Agencies (NACWA). John Shannon would like to be notified when future webinars are scheduled.
3. UMPB Planning Workshops will be conducted on 10/25 at ALCOSAN. These meetings will include the municipalities that contribute flow to the six most complex POCs, and the goal will be to resolve PFEs and modelled flows, detail the current status of ALCOSAN planning, and gain an understanding of the current state of municipal feasibility planning.
4. Joe Day/ALCOSAN gave an update of the Customer Municipality Advisory Committee (CMAC) and Regional Stakeholder Group (RSG) Meetings. The next CMAC meeting will be held on 11/9/10. In its previous meeting on 8/3/10, the CMAC discussed communication with elected officials and the 3RWW Regionalization RFP. Jerry Brown/3RWW said that 11 proposals have been received in response to this RFP.

   The next RSG meeting will be held on 11/16/10. At the most recent meeting on 8/13/10, the RSG discussed the affordability analysis, preliminary alternatives development, and water quality assessment.
5. ALCOSAN has scheduled nine Community Meetings from 10/18 through 11/10 to provide information to the public about progress on planning efforts, and a 2010 Customer Information Update. A flier with all of the scheduled Community Meetings (***Attachment C***) was distributed to all attendees. The UMPB Community Meeting will be held on 10/21 at Carnegie Library in Munhall from 5:30 to 8:00 PM, with a scheduled presentation at 6:30 PM. In addition, a Regional Public Meeting will be held on 11/4 at the Heinz History Center from 10:00 AM to 4:00 pm. Debbie Healey Langley said a pdf file of the Public Meeting schedule (***Attachment C***) is available for sending this information via email, and Joe Day said ALCOSAN has created Facebook and Twitter postings.

g. Next Steps

- Alternatives analyses work will continue into 2011.
- ALCOSAN's Community Meetings will be held between 10/18 through 11/10 throughout the service area. The UMPB Community Meeting will be held on 10/21 at the Carnegie Library in Munhall.
- The UMFP Team will meet with PWSA to discuss their submitted preliminary flow estimates on 10/15.
- The UMFP Team will meet with municipalities and authorities to discuss regional feasibility planning on 10/25.
- UM BPC Meeting #9 will be held in January 2011.
- Coordination with specific municipalities and stakeholders about sites and routes will continue.

h. Questions and Discussion

Questions and discussion among the attendees occurred throughout the presentation of the slides.

2. Items Distributed:

a. Meeting Agenda

b. Copy of the UMPB presentation slides

c. ALCOSAN's Public Meeting schedule

3. Action Items:

a. The UMFP Team will continue information exchange with municipalities and authorities.

b. The UMFP Team will prepare and distribute meeting minutes for this meeting.

4. Next Meeting:

a. No date was set for the next UM BPC meeting, but it will likely occur in January 2011.

5. Attachments:

a. Attachment A – Meeting Agenda

b. Attachment B – Copy of the UMPB presentation slides

c. Attachment C - ALCOSAN's Public Meeting schedule

ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Upper Monongahela
Meeting Purpose: Basin Planning Committee (BPC) Meeting No. 9
Date / Time: February 18, 2011/9:30 AM
Location: West Homestead Borough Building

Attendance Summary: A total of 18 municipalities and three authorities were represented by their elected officials, managers, public works staff, or consulting engineering firms. A tabulated list of the attendees is provided below. The sign-in sheet is available upon request.

Municipal Attendees:

Municipality or Authority	Municipal or Authority Representative	Engineer or Other Person Representing the Municipality or Authority
Baldwin Borough		Jason Stanton/LSSE
Braddock Borough		Randy Zischkau/Glenn Engineering
Braddock Hills Borough	Charles Arthrell, Dave Checcio	Corbet Martin/Senate Engineering
Brentwood Borough	Janice Boyko, Robert Mackewich	Mike Skinner/Gateway Engineers
Churchill Borough	*participates in another BPC*	
Edgewood Borough		Jason Stanton/LSSE
Homestead Borough		Randy Zischkau/Glenn Engineering
Mt. Oliver Borough		Mike Skinner/Gateway Engineers
Munhall Borough	Mike Terrick/MSSMA	Shawn Rosensteel/Chester Engineers
Munhall Sanitary Sewer Municipal Authority	Mike Terrick/MSSMA	Shawn Rosensteel/Chester Engineers
North Braddock Borough		Randy Zischkau/Glenn Engineering
Penn Hills Borough	*participates in another BPC*	
City of Pittsburgh	Andy Maul/PWSA	
Pittsburgh Water and Sewer Authority	Andy Maul/PWSA	
Pleasant Hills Borough	Dennis Kunkel	
Rankin Borough		Robert Zischkau, Jr./Glenn Engineering
Swissvale Borough		Robert Zischkau, Jr./Glenn Engineering
West Mifflin Borough		Shawn Rosensteel /Chester Engineers
West Mifflin Sanitary Sewer Municipal Authority		Shawn Rosensteel /Chester Engineers
West Homestead Borough	Glenn Guckes	Karl Sieg/Sieg & Associates
Whitaker Borough	Jean Warren	Robert Zischkau, Jr./Glenn Engineering
Whitehall Borough		Mike Skinner/Gateway Engineers
Wilkinsburg Borough		Robert Zischkau, Jr./Glenn Engineering

Non-Municipal Attendees:

Curt Courter/Hazen and Sawyer
Debbie Healey Langley/Hazen and Sawyer
Tim Prevost/ALCOSAN
Joe Day/ALCOSAN
Dave Minard/AECOM
Michelle Buys/Allegheny County Health Department
Jerry Brown/3RWW
Beth Dutton/3RWW
John Shannon/Baker Engineers, representing 3RWW

1. Discussion / Decision / Agreement Summary:

a. Welcome and Introduction

1. All attendees received the meeting agenda (***Attachment A***) and a copy of the Upper Monongahela Planning Basin (UMPB) BPC meeting presentation slides (***Attachment B***).
2. Curt Courter/Hazen and Sawyer explained that the purpose of this meeting was to continue communication among the municipalities, authorities, ALCOSAN, the Upper Monongahela Facilities Planning (UMFP) Team, 3RWW, and the regulators about the Wet Weather Program. This is the ninth Basin Planning Committee meeting for the UMPB.
3. Curt provided a brief summary of BPC Meeting #8 held on 10/8/10, which emphasized an explanation of the development of the Basin Alternatives Development, and the meetings planned with municipal representatives about plans for flow reduction and conveyance of flows downstream.

b. Draft Feasibility Report and Present Worth Analysis

Curt Courter reported with an update about Basin Alternatives Development. The Basin Planning Team submitted the *Draft Feasibility Report and Present Worth Analysis* to ALCOSAN in November 2010. This report summarizes all alternatives evaluated to date, and identifies two preferred alternatives: the Basin-based Alternative and the Regional-based Alternative. In this document, present worth costs versus benefit are presented for a range of control levels: annual frequency of overflows of 20, 7-12, 4-6, 1-3, and 0, which relate to 91%, 95%, 98%, 99% and 100% reduction of annual average CSO volume, respectively.

c. Basin Alternatives

Curt Courter explained the features of the two preferred alternatives (shown in ***Attachment B***), and are outlined as follows.

1. Planning Basin-Based Alternative:

a. Hazelwood (Consolidated flows to CSO treatment facility): Shallow cut consolidation pipelines, influent pump station, and a CSO treatment facility. The former LTV site is the preferred site for this facility. ALCOSAN and the UMFP Team have had meetings with RIDC, and RIDC is agreeable to making an area available for this facility in their conceptual plan/approach.

b. Streets Run (Consolidated flows to CSO treatment facility): Shallow cut consolidation pipelines, influent pump station, and a CSO treatment facility. Three sites are currently under consideration for this facility.

c. Nine Mile Run (Individual CSO treatment facility): Influent pump station and a CSO treatment facility or a storage tank. A storage tank would avoid discharging disinfected effluent from a CSO facility to Nine Mile Run. Two sites are under consideration. The first is next to Commercial Street just south of the Parkway, which the Parks Department is open to. The other is the parking lot at the trailhead down near the Monongahela River; however this site is too small for a facility of the size likely needed. Andy Maul/PWSA asked about looking further upstream. Curt said that the site area just north of the Parkway is where the wetlands were recently restored. Andy also said that upstream flow retention within the upstream communities should be considered too. Bob Zischkau/Glenn Engineering said that some of these communities are evaluating upstream storage. Curt agreed that handling wet weather flows farther upstream could be the most cost effective alternative, because downstream storage may also require additional or expanded conveyance in addition to the cost of the storage.

d. Rankin (Consolidated flows to CSO treatment facility): Shallow cut consolidation pipelines, influent pump station, and a CSO treatment facility. An 8-acre site next to the bridge was identified by municipal representatives.

e. Braddock (Individual CSO treatment facility): Influent pump station and a CSO treatment facility. There are several vacant sites near the M-59 connection to the interceptor that were identified by municipal representatives.

2. Regional Basin Based Alternative: Shallow cut consolidation pipelines, drop shafts, and regional deep storage tunnel.

d. Integration of Alternatives into Regional Plan

1. Curt Courter explained that the next step is the integration of the preferred alternatives from each of the seven Planning Basins into a set of regional control alternatives, through a process of Regional Optimization. The developed set of regional alternatives will be evaluated based on suitability of sites and locations, the level of improvement they provide compared with Basin Alternatives, and the relative increase in operational performance across the seven Basins.

2. Combinations of control facilities to achieve a variety of control levels, along with phasing of control facilities, are also being evaluated. For example, in the Upper Monongahela Basin, the Streets Run Consolidation Facility and the Braddock Individual Facility together could achieve 85% reduction of annual CSO volume from the Upper Monongahela Planning Basin. This could be considered as part of a staged approach if affordability influences the scheduling of control implementation. Tim Prevost/ALCOSAN said that the number of stages or phases has not been determined.

3. Curt Courter said that the next step with regard to coordinating for the regional plan is to conduct a water body-wide analysis for the Monongahela River, and the UMFP Team will work on this with the Main Rivers basin planners.

e. Coordination with Municipal Feasibility Studies

1. Eight meetings with ALCOSAN, municipal representatives, and stakeholders have occurred since the last BPC meeting to coordinate ALCOSAN's and the municipalities' planning efforts. Meeting topics covered: flow estimates; informational needs; alternatives under consideration, including plans for flow reduction and degree of conveying wastewater flows downstream; and potential for green solutions.

2. Curt Courter displayed a chart showing status to date of six complex points of connections (POCs) in the UMPB, obtained during meetings with the upstream municipalities. The chart summarizes recognized municipal system issues and potential municipal solutions (see ***Attachment B***).

3. Curt discussed the types of information that ALCOSAN needs to better understand the municipalities' plans for wet weather flow control. These data will directly influence the CSO control facilities that ALCOSAN is planning. He displayed a chart (in ***Attachment B***) listing the types of data needed for each POC sewershed, such as CSO control technology to be utilized, CSO control level, capital costs, operation and maintenance (O&M) costs, and similar data for SSO controls. Tim Prevost said that it would be helpful if O&M costs were divided up by municipality, and also noted that O&M costs should not be zero. Bob Zischkau said he would give that data to Tim for the POCs he is analyzing, and also noted that he used the alternatives costing tool (ACT) to develop the O&M costs. Other municipalities have said they will give these types of information to ALCOSAN in late April.

   Tim said that this table was shown at 3RWW's Feasibility Study Working Group (FSWG) meeting, and the "Renew & Replace" category has been added since then. ALCOSAN will distribute this revised chart, upon request, to all municipal representatives. Tim said these types of data are needed for each POC. The Planning Information is needed by April 30, and can be refined until July 1. The data received by July 1 will be reported in an update to ALCOSAN's *Draft Feasibility Report*. If there is any incomplete data, ALCOSAN will have to make assumptions.

   The chart shown was completed for seven POCs, with data provided by Glenn Engineering. The chart shows no CSO controls proposed for seven POCs, and CSO control data listed for M-51 Option 2. Bob Zischkau said that "None" means that the existing system has the capacity to convey all flows to ALCOSAN.

   John Shannon/Baker asked about the levels of overflow control shown in the chart. Curt answered that the "0, 4" in the chart referred to information provided for these municipalities at 0 and 4 overflows per year. Tim said that for SSO control, ALCOSAN has suggested analyses for the 2-year and 10-year design storms for now, although eventually, the range will be 1-, 2-, 5-, and 10-year design storms.

   John Shannon asked if the levels of control have been decided yet. Tim Prevost said that this hasn't been decided, so in the *Draft Feasibility Report*, a range of 0 to 20 CSO overflows per year has been evaluated.

f. Regionalization Options

Tim Prevost discussed a proposed ALCOSAN analysis to study the feasibility of regionalization options in the future. ALCOSAN is hoping to obtain some funding from

outside sources for this study to show that it is regionally supported. In response to a question, Tim anticipated that this study would not be completed for at least a year, because funding has not yet been secured. The possible regionalization options to be considered are for ALCOSAN to:

- Build, operate, and maintain wet weather control facilities;
- Build, operate, and maintain select inter-municipal trunk sewers;
- Contract operate and maintain municipality sewers and facilities;
- Build, operate, and maintain sewage and stormwater facilities in service area; or
- Own, operate, and maintain County sewage and stormwater infrastructure

Some of the tasks in this study will involve review of existing legal agreements, review of case studies, and evaluating future investments that will be needed for sewer improvements in each municipality. Michelle Buys/ACHD said that ACHD receives semi-annual updates from each municipality listing the repairs made.

Several attendees discussed the timing of this study, with a concern that some municipalities may think that they can avoid having to perform needed upgrades by turning their assets over to ALCOSAN, but it was emphasized that the municipalities must continue with their alternatives analysis and wet weather control plans, because the study will not be completed until next year, and in addition, it will be several years before construction of wet weather facilities begins. Curt also noted experience with other authorities where municipalities were required to make a payment to the regional authority equivalent to the anticipated cost of any upgrades that would be required to bring the infrastructure into compliance at the time of transfer. As such, it would be beneficial for municipalities to make necessary repairs to their system, even if they anticipate transferring ownership to another entity.

g. Municipal and Stakeholder Outreach

1. Joe Day/ALCOSAN provided an update of the Customer Municipality Advisory Committee (CMAC) and Regional Stakeholder Group (RSG) Meetings held in November 2010. The next CMAC meeting will be held on 3/1/11. The next RSG meeting will be held on 3/17/11.
2. ALCOSAN hosted nine Community Meetings and one Regional Public Meeting in October and November 2010 to provide information about the basin alternatives development process, potential basin solutions, and an annual Customer Information Update for 2010. The UMPB Community Meeting was held on 10/21/10 at Carnegie Library of Homestead in Munhall.
3. The sixth edition of *Upper Monongahela Basin Quarterly Activity Report* (QAR) was mailed to municipal councils and representatives in February 2011.

h. Next Steps

- Alternatives analyses work will continue into 2011.
- UM BPC Meeting #10 will be held around May 2011.
- Coordination with specific municipalities and stakeholders about sites, flow estimates, and potential municipal solutions will continue.

i. **Questions and Discussion**

Questions and discussion among the attendees occurred throughout the meeting.

2. **Items Distributed:**
   a. Meeting Agenda
   b. Copy of the UMPB presentation slides

3. **Action Items:**
   a. The UMFP Team will continue information exchange with municipalities and authorities.
   b. The UMFP Team will prepare and distribute meeting minutes for this meeting.

4. **Next Meeting:**
   a. No date was set for the next UM BPC meeting, but it will likely occur in May 2011.

5. **Attachments:**
   a. Attachment A – Meeting Agenda
   b. Attachment B – Copy of the UMPB presentation slides

ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Upper Monongahela
Meeting Purpose: Basin Planning Committee (BPC) Meeting No. 10
Date / Time: May 20, 2011/9:30 AM
Location: West Homestead Borough Building

Attendance Summary: A total of seventeen municipalities and two authorities were represented by their elected officials, managers, public works staff, or consulting engineering firms. A tabulated list of the attendees is provided below. The sign-in sheet is available upon request.

Municipal Attendees:

Municipality or Authority	Municipal or Authority Representative	Engineer or Other Person Representing the Municipality or Authority
Baldwin Borough		John Heyl/LSSE
Braddock Borough		Randy Zischkau/Glenn Engineering
Braddock Hills Borough		Corbet Martin/Senate Engineering
Brentwood Borough	Robert Mackewich	Mike Skinner/Gateway Engineers
Churchill Borough	*participates in another BPC*	
Edgewood Borough		Jason Stanton/LSSE
Homestead Borough		Randy Zischkau/Glenn Engineering
Mt. Oliver Borough		Mike Skinner/Gateway Engineers
Munhall Borough	Mike Terrick/MSSMA	
Munhall Sanitary Sewer Municipal Authority	Mike Terrick/MSSMA	Lindsey Jewart/Chester Engineers
North Braddock Borough		Randy Zischkau/Glenn Engineering
Penn Hills Borough	*participates in another BPC*	
City of Pittsburgh	Don Waldorf/PWSA	
Pittsburgh Water and Sewer Authority	Don Waldorf/PWSA	
Pleasant Hills Borough		Jason Stanton/LSSE
Rankin Borough		Robert Zischkau, Jr./Glenn Engineering
Swissvale Borough		Robert Zischkau, Jr./Glenn Engineering
West Mifflin Borough		
West Mifflin Sanitary Sewer Municipal Authority		
West Homestead Borough	Glenn Guckes	Karl Sieg/Sieg & Associates
Whitaker Borough	Jean Warren	Robert Zischkau, Jr./Glenn Engineering
Whitehall Borough		Mike Skinner/Gateway Engineers
Wilkinsburg Borough		Robert Zischkau, Jr./Glenn Engineering

Non-Municipal Attendees:

Curt Courter/Hazen and Sawyer
Debbie Healey Langley/Hazen and Sawyer
Tim Prevost/ALCOSAN
Joe Day/ALCOSAN
Dave Minard/AECOM
Dave Bingham/AECOM
Lisa Sorg/Allegheny County Health Department
Mike Scheer/Allegheny County Health Department
Tom Flanagan/PA DEP
Beth Dutton/3RWW
John Shannon/Baker Engineers, representing 3RWW
Dan Gilligan/LSSE

1. Discussion / Decision / Agreement Summary:

a. Welcome and Recap of Previous BPC Meeting

1. Curt Courter/Hazen and Sawyer explained that the purpose of this meeting was to continue communication among the municipalities, authorities, ALCOSAN, the Upper Monongahela Facilities Planning (UMFP) Team, 3RWW, and the regulators about the Wet Weather Program. This is the tenth Basin Planning Committee meeting for the Upper Monongahela Planning Basin (UMPB). All attendees received:
   a. Meeting agenda (***Attachment A***);
   b. Copy of the UMPB BPC meeting presentation slides (***Attachment B***);
   c. Table entitled "Summary of Municipal Alternatives Information Provided to Date" (***Attachment C***);
   d. Upper Monongahela Basin *Quarterly Activity Report* #7 (***Attachment D***);
   e. Booklet of ALCOSAN presentation from the Allegheny League of Municipalities spring conference on April 8, 2011.
2. Curt provided a brief summary of BPC Meeting #9 held on 2/18/11, in which the following highlights were discussed:
   - Types of data ALCOSAN needs to understand the municipalities' plans for wet weather control;
   - Features of the two preferred alternatives (Planning-Based and Regional Basin-Based);
   - Process of integrating preferred alternatives from the seven basins into a set of regional alternatives;
   - Analysis of regionalization options through 3RWW and by ALCOSAN.

b. Basin Facilities Plan

1. Curt Courter reported updates to Basin Alternatives Development, specifically the Planning Basin-Based Alternative. The UMFP Team is continuing to analyze options in

the Nine Mile Run area where there is limited site availability near the point of connection (POC) to the ALCOSAN interceptor at M-47. The UMFP Team is evaluating a site just south of I-376 along Nine Mile Run. Assuming that the municipalities convey all flow to ALCOSAN, a storage tank at this location could reduce overflows at the POC to 4 to 6 overflows per year. However, if higher control levels are necessary (zero to 3 overflows per year), a retention treatment basin (RTB) would still be needed near M-47. Two maps were displayed illustrating the two sites under evaluation, Site N-2 and Site N-5 (see Attachment B).

2. Curt presented two preliminary planning-level cost curves (see Attachment B) for the preferred UMPB Planning Basin-Based alternative that were included in the November 2010 Draft Feasibility Report:

   - Present Worth Cost versus Overflow Frequency showing preliminary present worth costs for levels of control from 20 overflows per year (about $160 million) through zero overflows per year (about $480 million).
   - Present Worth Cost versus Percent Capture showing preliminary present worth costs for percent overflow capture from about 85% (about $120 million) through 99% (about $490 million). At 97% capture, representing a level of control of 4 to 6 overflows per year, the estimated present worth of ALCOSAN facilities in the UMPB is approximately $300 million.

   These cost estimates, which currently assume all flows are sent to ALCOSAN, don't include costs for land acquisition for ALCOSAN facilities or for the municipalities' wet weather projects. These performance and cost estimates will be updated in 3 months.

3. Curt displayed a map showing the Regional-Based Alternative currently being analyzed (see Attachment B). This alternative consists of a regional tunnel, and in the UMPB, there would be seven drop shafts, two work shafts, and several shallow cut consolidation conduits. The Program Manager, CDM, is examining a number of alternatives including, among other things, extents of tunnel upstream along the Allegheny and Monongahela Rivers and scenarios to increase the wastewater treatment plant capacity.

4. Integrating the municipal alternatives will be a key component of ALCOSAN's revised Basin Facilities Plan. Curt explained the reasons why the municipal planning data are important:

   - Need to understand the municipalities' plans for wet weather control in each of the POC sewersheds – the municipalities' plans affect all the downstream ALCOSAN facilities.
   - Information will be integrated into the ALCOSAN model, influence ALCOSAN'S planning strategies, and be incorporated into the *Basin Facility Plan*.

   Some of the more complex sewersheds were discussed, using data presented in slides with "Municipal Planning" headings (see Attachment B) that included ALCOSAN's understanding of current municipal planning:

   - M-34: ALCOSAN needs the PWSA information coordinated with the data from upstream municipalities, and is requesting an updated version of the municipal hydrologic and hydraulic (H&H) model and planning context information. ALCOSAN would like to discuss municipal alternatives once coordinated planning information is

received from PWSA. Jason Stanton/LSSE said that Baldwin should be included in discussions.

- M-42: ALCOSAN would like to know the status of 3RWW's complex sewershed analysis, whether PWSA planning data have been coordinated with this analysis and/or other municipalities. ALCOSAN is requesting an updated H&H municipal model and planning context information, and would like to meet to discuss this the week of June 6. Don Waldorf/PWSA said that PWSA is submitting information. Tim Prevost/ALCOSAN said that total flows from all contributing communities are needed, along with pipe sizes and lengths, and locations of relief or control facilities. Curt also said that more details from the municipalities' models are needed.
- M-44: ALCOSAN would like to know the status of inter-municipal coordination, and is requesting an updated municipal H&H model and planning context information. Potential meeting dates to discuss this information are the week of June 6. Karl Sieg/Sieg & Associates said that the two slides related to M-44 represent what West Homestead is planning.
- M-47: ALCOSAN would like to know whether PWSA planning information has been coordinated with the 3RWW analysis and/or other municipalities. ALCOSAN is requesting an updated municipal H&H model and planning context information, and would like to meet to discuss this by the week of June 6. Bob Zischkau/Glenn Engineering said that during the Inter-Municipal Coordination Meetings, discussion included the consideration of possible new storage tanks and a new interceptor(s) in Edgewood and Wilkinsburg, and it was agreed to evaluate these alternatives during the planning process. Jason Stanton/LSSE said that municipal submittals to ALCOSAN need to be coordinated.
- M-49: ALCOSAN is requesting an updated municipal H&H model and planning context information, and would like to meet to discuss this the week of June 6.
- M-51: ALCOSAN would like to confirm municipal plans for removing Tassey Hollow. Curt said he believed that conveyance capacity in the trunk sewer is not an issue, and therefore there are currently no municipal plans for removing Tassey Hollow. Bob Zischkau explained that an alternative for stream removal for a 2-year storm was considered, but agreed that there is conveyance capacity and that there is currently no plan for stream removal.
- Curt referred to the handout that is a summary of municipal alternatives information provided to date (see Attachment C). ALCOSAN had previously said that this planning information is needed by April 30, and can be refined until July 1. Municipal H&H models and contextual information used in the development of the Planning Information submission are also requested so that the Basin Planner can incorporate municipal thinking into the analysis. The data received will be incorporated in an update to ALCOSAN's Draft Feasibility Report. ALCOSAN understands that the municipalities likely do not have their wet weather control plans finalized, but is requesting their best estimates to date. John Shannon/Baker commented that some municipalities may think that if they give their H&H models to ALCOSAN, then ALCOSAN will QA/QC their models. Tim Prevost said ALCOSAN will not do this. The data is needed to update the

Basin Planner's model from the previously assumed municipal scenario of "convey all flows", which is not considered to be realistic in some cases.

c. Systemwide Alternatives Development

Curt Courter provided an update about alternatives development throughout the seven-basin regional system. Individual planning basin alternatives analysis, regional integration and systemwide alternatives analysis, along with municipal controls and future flow estimates, will all contribute to the *Wet Weather Plan.*

A map of the seven basins' preferred Basin-Based Control alternatives (shown in Attachment B), was shown. The Basin-Based alternative would result in a multitude of ALCOSAN facilities and several facility types, such as storage tanks, retention treatment basins, and screening and disinfection stations, which will require significant O&M efforts. Regional-Based Control (shown in Attachment B), consisting of a regional tunnel system alternative, is predicted to require less O&M, and ALCOSAN workers may be more familiar with tunnel maintenance because of existing tunnels in use. Many other alternatives and control strategies, such as hybrid combinations of remote treatment and storage with tunnels, varying tunnel extents, and sewer separation, are also being analyzed.

Curt presented preliminary cost curves comparing capital and present worth costs for Basin-Based and Regional-Based Alternatives (see Attachment B). At a control level of 4 to 6 overflows per year, the Regional-Based Alternative becomes more cost effective than the Basin-Based Alternative.

d. Planning Schedule

An updated Program Schedule was presented (see Attachment B). Tim Prevost said that Draft *Basin Facilities Plans* are scheduled for November 2011. By then, the range of alternatives should be narrowing. By November, ALCOSAN needs another update from municipalities before the *Facilities Plans* are drafted.

e. Regionalization

Dave Bingham/AECOM discussed the Regionalization Study, an 18-month study that will begin in June. The study is being initiated because of the acknowledgement that future wet weather control costs will be high, both for ALCOSAN and the municipalities; from results of 3 Rivers Wet Weather's previous "sub-regionalization" studies; and, some municipalities cannot afford to maintain their sewer systems. Advantages and disadvantages of several options, from local to regional, will be analyzed. This study will be separate from the *Wet Weather Plan*, and it won't be complete before the *Wet Weather Plan* due date in 2012. The stakeholder process for this study will be coordinated by the Allegheny Conference. The CMAC will be involved too.

f. Municipal and Stakeholder Outreach

Joe Day/ALCOSAN provided an update of the Customer Municipality Advisory Committee (CMAC) and Regional Stakeholder Group (RSG) Meetings held in May 2011. The next CMAC meeting will be held on 8/2/11. The next RSG meeting will be held on 8/18/11. ALCOSAN's annual Open House will be held on September 17, 2011.

The seventh edition of *Upper Monongahela Basin Quarterly Activity Report* (QAR) was available as a handout to BPC attendees (see Attachment D), and will be mailed to municipal councils and representatives the week of May 23.

g. Next Steps

- Alternatives analyses work will continue through December 2011.
- UM BPC Meeting #11 will be held around August or September 2011.
- Coordination with specific municipalities and stakeholders about potential municipal solutions will continue.

h. Questions and Discussion

Questions and discussion among the attendees occurred throughout the meeting.

Jason Stanton asked whether the basis for sewer rates will be changed. Tim Prevost said he didn't have any information about this.

Dan Gilligan/LSSE asked whether there has been discussion about affordability possibly not being achieved. Tim said this is directly related to the level of control and one of the options is to consider phasing beyond the 20-year implementation period. ALCOSAN will need the regulatory agencies to provide guidance about the level of control. ALCOSAN staff will be attending a coordination meeting with the regulatory agencies. Tom Flanagan/PA DEP said that ALCOSAN has requested regularly scheduled meetings with the regulatory agencies.

2. Items Distributed:

a. Meeting Agenda

b. Copy of the UMPB BPC presentation slides

c. Summary of Municipal Alternatives Information Provided to Date

d. Upper Monongahela Planning Basin *Quarterly Activity Report* #7

e. Booklet of the ALCOSAN presentation at the Allegheny League of Municipalities spring conference on April 8, 2011

3. Action Items:

a. The UMFP Team will continue information exchange with municipalities and authorities.

b. The UMFP Team will prepare and distribute meeting minutes for this meeting.

4. Next Meeting:

a. No date was set for the next UM BPC meeting, but it will likely occur in August or September.

5. Attachments:

a. Attachment A – Meeting Agenda

b. Attachment B – Copy of the UMPB BPC presentation slides

c. Attachment C – Summary of Municipal Alternatives Information Provided to Date

d. Attachment D - Upper Monongahela Planning Basin *Quarterly Activity Report* #7

ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Upper Monongahela
Meeting Purpose: Basin Planning Committee (BPC)
Meeting No. 11
Date / Time: October 13, 2011/9:30 AM
Location: West Homestead Borough Building

Attendance Summary: A total of sixteen municipalities and two authorities were represented by their elected officials, managers, public works staff, or consulting engineering firms. A tabulated list of the attendees is provided below. The sign-in sheet is available upon request.

Municipal Attendees:

Municipality or Authority	Municipal or Authority Representative	Engineer or Other Person Representing the Municipality or Authority
Baldwin Borough		John Heyl/LSSE
Braddock Borough		Randy Zischkau/Glenn Engineering
Braddock Hills Borough	Charles Arthrell	Corbet Martin/Senate Engineering
Brentwood Borough		Kurt Todd/Gateway Engineers
Churchill Borough	*participates in another BPC*	
Edgewood Borough	Warren Cecconi	Jason Stanton/LSSE
Homestead Borough		Robert Zischkau, Jr./Glenn Engineering
Mt. Oliver Borough		Kurt Todd/Gateway Engineers
Munhall Borough		Shawn Rosensteel/Chester Engineers
Munhall Sanitary Sewer Municipal Authority		Shawn Rosensteel/Chester Engineers
North Braddock Borough		Randy Zischkau/Glenn Engineering
Penn Hills Borough	*participates in another BPC*	
City of Pittsburgh	Jeff Lenner/PWSA	
Pittsburgh Water and Sewer Authority	Jeff Lenner/PWSA	
Pleasant Hills Borough		Jason Stanton/LSSE
Rankin Borough		Robert Zischkau, Jr./Glenn Engineering
Swissvale Borough		Robert Zischkau, Jr./Glenn Engineering
West Mifflin Borough		
West Mifflin Sanitary Sewer Municipal Authority		
West Homestead Borough		Karl Sieg/Sieg & Associates
Whitaker Borough	Jean Warren	Robert Zischkau, Jr./Glenn Engineering
Whitehall Borough		
Wilkinsburg Borough		Randy Zischkau, Jr./Glenn Engineering

Non-Municipal Attendees:

Curt Courter/Hazen and Sawyer
Debbie Healey Langley/Hazen and Sawyer
Tim Prevost/ALCOSAN
Joe Day/ALCOSAN
Dave Borneman/ALCOSAN
Jan Oliver/ALCOSAN
Dave Minard/AECOM
Lisa Sorg/Allegheny County Health Department
Tom Flanagan/PA DEP
Beth Dutton/3RWW
Karen Brean/Brean Associates

1. Discussion / Decision / Agreement Summary:

a. Welcome and Recap of Previous BPC Meeting

1. Curt Courter/Hazen and Sawyer explained that the purpose of this meeting was to continue communication among the municipalities, authorities, ALCOSAN, the Upper Monongahela Facilities Planning (UMFP) Team, 3RWW, and the regulators about the Wet Weather Program. This is the eleventh Basin Planning Committee meeting for the Upper Monongahela Planning Basin (UMPB). All attendees received:
   a. Meeting agenda (***Attachment A***);
   b. Copy of the UMPB BPC meeting presentation slides (***Attachment B***);
   c. Upper Monongahela Basin *Quarterly Activity Report* #8 (***Attachment C***);
   d. Schedule of ALCOSAN's upcoming Town Hall Meetings (***Attachment D***);
   e. List of members on the Sewer Regionalization Study Review Panel (***Attachment E***).
2. Curt provided a brief summary of BPC Meeting #10 held on May 20,2011, in which the following highlights were discussed:
   - The need for ALCOSAN to integrate municipal alternatives into the *Basin Facilities Plan*, and the current municipal planning for wet weather control for complex sewersheds;
   - Updated information about the two preferred alternatives (Basin-Based and Regional-Based Alternatives), including preliminary present worth and performance estimates;
   - Description of the 18-month Regionalization Study beginning this year.

b. Facility Plan Development

1. Curt Courter reported that the *Updated Feasibility Report and Present Worth Analysis* was submitted to ALCOSAN on August 1, 2011. This document was an update to the previous *Draft Report* submitted in November 2010. The updates submitted in August include:
   a. Revisions to the Basin-Based and Regional-Based Alternatives;

b. Evaluation of System-Wide Alternatives considering three alternative scenarios: meeting water quality standards and addressing sensitive areas; meeting water quality standards; and, 85% capture by receiving stream;

c. An initial description of the current status of municipal planning.

2. Curt displayed maps showing the alternatives under consideration (see ***Attachment B***):

   a. The Basin-Based Alternative involves more than 40 facilities (such as tanks or retention/treatment basins [RTBs]) in the ALCOSAN service area. A present worth estimate was included in the *Updated Feasibility Report*. Operation and maintenance (O&M) costs would be substantial for the number of facilities involved with this alternative.

   b. The Regional-Based Alternative consists of a tunnel system and 5 facilities in the service area. This alternative requires less O&M cost than the Basin-Based Alternative because of the tunnel system and the fewer number of facilities. Jason Stanton/LSSE asked about the size of the envisioned tunnel. Tim Prevost/ALCOSAN said that the tunnel could be approximately 14 feet in diameter and 150 feet deep, although the diameter and depth have not been finalized.

   c. System-Wide Alternative 3F would meet criteria for both water quality and sensitive areas, and includes a tunnel system and 8 facilities in the service area. Maps were also shown of the facilities that would be in the UMPB (see ***Attachment B***):

      - Consolidation conduits along the shore of the Monongahela River. Sizing of these conduits is being analyzed to consider the cost-effectiveness of in-system storage.
      - Seven drop shafts near the river shore, approximately near the following POCs: M-33, M-34, M-40, M-42, M-47, M-49, M-51;
      - Two work shafts in the Waterfront and Braddock areas.

   d. System-Wide Alternative 8A addresses water quality standards. This alternative does not include a new conveyance tunnel all the way up to the UMPB and therefore in the UMPB, the alternative would involve three consolidation conduits, each routed to an RTB in the Hazelwood, Streets Run, and Mon Valley areas, along with two stand-alone facilities in the Nine Mile Run and Braddock areas.

      Meetings have been held with stakeholders to discuss site options in the Nine Mile Run area. Due to a lack of available land near the point of connection near Nine Mile Run, an upland site in Frick Park is being evaluated. An underground storage tank is being considered at the upland site to leave the surface open for public use and to minimize discharges of treated effluent to Nine Mile Run. Tank sizing will depend upon municipal plans for addressing flows from upstream contributing municipalities (PWSA, Edgewood, Swissvale, and Wilkinsburg). Specifically, the size will be affected by the combination and magnitude of upstream relief sewers and flow reduction (storage or inflow reduction).

   e. System-Wide Alternative 5 would accomplish 85% capture by receiving stream. Within the UMPB, this alternative assumes that no additional regional conveyance will be provided. Therefore the facilities necessary would be 2 RTBs with a smaller

capacity than the other alternatives. These facilities would be located in the Streets Run and the Braddock areas.

3. Curt explained that the *Updated Feasibility Report* has a section that describes the understanding of municipal planning progress as of August 2011. Information had been confirmed with municipal representatives at BPC Meeting #10 and through subsequent meetings in June and July. Presently, municipal plans are being incorporated into the Basin hydrologic and hydraulic (H&H) modelling as details become available. These data will be used for simulations of alternatives and will influence ALCOSAN'S planning strategies.
4. Curt provided an update regarding the schedule. The *Draft Basin Facility Plan* is due in mid-November. It will include an update to information presented in the *Feasibility Report*, including updates and integration of municipal planning information, recent System-Wide Alternatives evaluation, and additional details for the preferred Regional Plan. ALCOSAN will review the document through December, and then the *Final Basin Facility Plan* will be submitted at the end of January 2012.

c. Municipal Planning

1. Curt reviewed the types of municipal planning information that ALCOSAN has previously requested: preferred technologies, CSO and SSO control levels, capital, O&M, and renew and replace costs, anticipated future flow rates conveyed to ALCOSAN's interceptors, existing facilities affected, and updated H&H models. These data will affect decisions about ALCOSAN's planning strategies, and the sizes of ALCOSAN's downstream facilities.
2. Curt discussed how municipal planning information has been incorporated into the development of the *Basin Facility Plan* and highlighted the point of connection (POC) areas where reconciliation of planning information and detailed municipal information is still needed. Where no municipal issues have been identified, planning is based on the existing collection system configuration. In sewersheds where conveyance issues have been identified by municipalities, their alternatives are being incorporated into the UMPB models using either the updated municipal model, or detailed information provided by each municipality such as cross-connection locations, pipe sizes and slopes, target control levels, etc. The areas tributary to most POCs have been reconciled except for a few complex areas where some reconciliation is still needed. These areas are as follows (see also ***Attachment B***):

    a. M-42 (Streets Run): Information was provided by PWSA and through the 3RWW Complex Sewershed Analysis. The relief pipes from the PWSA model have been incorporated into the UMPB model as agreed upon during municipal coordination. Reconciliation items include municipalities providing any updates to the relief pipe configuration and costs based on specific municipal plans.

    b. M-47 (Nine Mile Run): Information was provided by PWSA and through the 3RWW Complex Sewershed Analysis. The relief pipes and storage tank from the PWSA model have been incorporated into the UMPB model as agreed upon during municipal coordination. Jason Stanton said two storage tanks are being evaluated in Edgewood and Wilkinsburg. He also requested that ALCOSAN confirm their intent to go with

Basin-Based or Regional-Based alternatives before July, because he believes it will influence municipal evaluations. Jan Oliver/ALCOSAN noted that both municipal and ALCOSAN evaluations influence each others' decisions to some extent, which is why ALCOSAN has continued to communicate the current Basin Facility Planning process through numerous venues. Curt indicated that in almost all locations the ALCOSAN facilities are near the POC, and in those cases have almost no impact on up-system municipal planning. Reconciliation items include municipalities providing any updates to relief pipe configurations, info on new storage alternatives, and costs based on specific municipal plans.

c. M-52 and M-60 (Braddock area): Braddock is planning relief sewers that extend upstream of the ALCOSAN model extents. The municipal relief pipes have been added to the UMPB model only up to its extents.

d. M-43 (Waterfront area): West Homestead is evaluating pipe upsizing and sewer separation. Until municipal planning information is available, UMPB modelling is based on existing conditions municipal pipes. Reconciliation items are for West Homestead to provide details and costs for the proposed municipal plan.

e. M-44 (West Run): Karl Sieg confirmed that West Homestead has identified improvements required to convey full flows. Munhall is considering a pump station to relocate flow from upstream to another POC. Doing so would change the West Homestead alternatives. Until coordinated municipal planning information is available, UMPB modelling includes upsized pipes to convey all flows to the ALCOSAN POC. Reconciliation items include the municipalities coordinating their proposed improvements, and providing specific municipal planning information for the proposed alternative and costs to be accounted for in the ALCOSAN planning.

f. M-49 (Homestead Run): Municipal planning is on hold until the effects of a recently completed re-lining project along the Homestead Run Interceptor have been quantified. ALCOSAN has offered to provide monitoring to evaluate the effectiveness of the project. Jan Oliver said there is a contract with Chester Engineers to install ALCOSAN's flowmeters for this purpose. Until municipal planning information is available, UMPB modelling includes upsized pipes to convey all flows to the ALCOSAN POC. Reconciliation items include Munhall conducting post-construction monitoring to determine the flow reduction achieved from installing lining, and then completing planning to address any remaining wet weather issues and providing details and costs to ALCOSAN.

g. M-58 (Braddock area): Glenn Engineers has indicated that the system is adequately sized for the 4 overflow per year level of control. UMPB modelling is based on existing conditions municipal pipes and there are no additional reconciliation items for this POC.

3. Tim Prevost/ALCOSAN talked about the four complex sewersheds in the UMPB: M-42, M-44, M-47, and M-49. These sewersheds, because of their significant flows, have a major impact on ALCOSAN's Facilities Plan. Because of this impact, ALCOSAN is sending a letter to the Council President or Authority Board Chairperson of each of the municipalities or authorities that contribute flow in these sewersheds. The letter will request that a single Draft Feasibility Study per POC be submitted, with approval in

concept by all contributing municipalities and Boards, by July 31, 2012. Tim said this is being requested because a unified concept and approach are necessary in each of these sewersheds. He said that this approach is supported by the regulatory agencies. The Draft Feasibility Studies should include an overall detailed cost estimate, but individual municipal cost allocations are not needed.

Bob Zischkau/Glenn Engineers asked that copies of the letters be sent to municipal Managers, Secretaries, and engineers.

Jason Stanton asked how the municipalities will know if the Basin-Based or Region-Based Alternative is preferred. Tim Prevost answered that has not been determined, and if the municipalities feel it affects their planning they should evaluate alternatives for both scenarios. Curt Courter pointed out that Nine Mile Run (M-47) is the only sewershed where municipal planning would be impacted by the approach taken by ALCOSAN, and the only impact is whether or not additional municipal relief sewers would be necessary from Frick Park down to the M-47 POC.

Jason Stanton indicated his support for additional meetings with ALCOSAN to discuss these sewersheds. Tim indicated that ALCOSAN would be happy to host additional meetings. It was agreed that the municipalities should get together before meeting again with ALCOSAN to work through inter-municipal issues and move the planning forward.

d. Program Updates

1. Curt Courter said that municipal coordination is continuing, with emphasis on incorporating municipal planning information. In addition, the eighth edition of *Upper Monongahela Basin Quarterly Activity Report* (QAR) was mailed to municipal councils and representatives this week, and was distributed to BPC attendees (***Attachment C***).

2. Karen Brean/Brean & Associates provided an update of the Customer Municipality Advisory Committee (CMAC) and Regional Stakeholder Group (RSG) Meetings held in August 2011. The next CMAC meeting will be held on November 10, 2011. The next RSG meeting will be held on November 9, 2011.

3. ALCOSAN is hosting Town Hall Meetings open to the public, and the content will include an annual Customer Information Update as well as a Basin Alternatives update. Attendees received a schedule of these meetings (***Attachment D***). There are two meetings scheduled in the UMPB: at the Brentwood Library on October 24, and at the Waterfront on November 3. In addition, there are two Region-wide meetings in Pittsburgh on November 9 and November 15 that will include representatives from all seven Basins.

e. Regionalization Study

Jan Oliver/ALCOSAN discussed the Regionalization Study, an 18-month study that began in June and will be completed in December 2012. The study was initiated because it is acknowledged that wet weather control costs will be high, both for ALCOSAN and the municipalities. The Regionalization Review Panel was coordinated by the Allegheny Conference and had a recent meeting on September 26, 2011. The Panel members are listed in ***Attachment E***, and it includes representatives from municipalities, academia, and business.

Advantages and disadvantages of several sewer infrastructure options, from local to regional, will be analyzed. Evaluations will include regulatory compliance, flow management, cost-effectiveness, asset management, affordability, and phased approaches.

f. Next Steps

- Coordination with specific municipalities and stakeholders about potential municipal solutions will continue.
- Alternatives analyses will continue through November 2011.
- Integration of municipal planning information will continue through December 2011.
- UM BPC Meeting #12 will be scheduled around January 2012.
- Final Facilities Plan will be submitted in early 2012.

g. Questions and Discussion

Two additional points were made besides the questions and discussion that occurred throughout the meeting:

- Karl Sieg asked what safety factor is being used in the tunnel planning to prevent surcharging. Tim Prevost replied that 80% flow capacity is being used.
- Tim Prevost said that ALCOSAN is not going to request the Draft Feasibility Studies for the other POCs besides the four complex sewersheds in the UMPB: M-42, M-44, M-47, and M-49 (reference to 1.c.3 above).

2. Items Distributed:

a. Meeting Agenda
b. Copy of the UMPB BPC presentation slides
c. Upper Monongahela Planning Basin *Quarterly Activity Report* #8
d. Schedule of ALCOSAN's upcoming Town Hall Meetings
e. Sewer Regionalization Study Review Panel

3. Action Items:

a. The UMFP Team will continue information exchange with municipalities and authorities.
b. The UMFP Team will prepare and distribute meeting minutes for this meeting.
c. Municipal planning reconciliation items listed under Items 1.C.2.a-f.
d. Tributary municipalities will meet to further their plans before having another round of POC specific meetings with ALCOSAN.

4. Next Meeting:

a. No date was set for the next UMPB BPC meeting, but it will likely occur in January 2012.

5. Attachments:

a. Attachment A – Meeting Agenda

b. Attachment B – Copy of the UMPB BPC presentation slides
c. Attachment C – Upper Monongahela Planning Basin *Quarterly Activity Report* #8
d. Attachment D - Schedule of ALCOSAN's upcoming Town Hall Meetings
e. Attachment E - Sewer Regionalization Study Review Panel

ALCOSAN Basin Facilities Planning
Meeting Minutes

Basin: Upper Monongahela
Meeting Purpose: Basin Planning Committee (BPC)
Meeting No. 12
Date / Time: May 11, 2012/9:30 AM
Location: West Homestead Borough Building

Attendance Summary: A total of seventeen municipalities and two authorities were represented by their elected officials, managers, public works staff, or consulting engineering firms. A tabulated list of the attendees is provided below.

Municipal Attendees:

Municipality or Authority	Municipal or Authority Representative	Engineer or Other Person Representing the Municipality or Authority
Baldwin Borough		John Heyl/LSSE
Braddock Borough		Randy Zischkau/Glenn Engineering
Braddock Hills Borough	Charles Arthrell	Gordon Taylor/Senate Engineering
Brentwood Borough		Kurt Todd/Gateway Engineers
Churchill Borough	*participates in another BPC*	
Edgewood Borough	Warren Cecconi	Jason Stanton/LSSE
Homestead Borough	Ian McMeans	Robert Zischkau, Jr./Glenn Engineering
Mt. Oliver Borough		Kurt Todd/Gateway Engineers
Munhall Borough	Mike Terrick/MSSMA	Jessica Antell/Chester Engineers
Munhall Sanitary Sewer Municipal Authority	Mike Terrick/MSSMA	Jessica Antell/Chester Engineers
North Braddock Borough		Randy Zischkau/Glenn Engineering
Penn Hills Borough	*participates in another BPC*	
City of Pittsburgh	Jeff Lenner/PWSA	
Pittsburgh Water and Sewer Authority	Jeff Lenner/PWSA	
Pleasant Hills Borough		Jason Stanton/LSSE
Rankin Borough		Robert Zischkau, Jr./Glenn Engineering

Swissvale Borough		Robert Zischkau, Jr./Glenn Engineering
West Mifflin Borough		
West Mifflin Sanitary Sewer Municipal Authority		
West Homestead Borough	Glenn Guckes Robert Mackewich	Karl Sieg/Sieg & Associates Mark Brashear
Whitaker Borough	Jean Warren	Robert Zischkau, Jr./Glenn Engineering
Whitehall Borough		Mike Skinner/Gateway
Wilkinsburg Borough		Randy Zischkau, Jr./Glenn Engineering

Non-Municipal Attendees:

Curt Courter/Hazen and Sawyer
Debbie Healey Langley/Hazen and Sawyer
Tim Prevost/ALCOSAN
Ed Kluitenberg/CDM Smith
Dave Minard/AECOM
Tom Flanagan/PA DEP
John Shannon/Baker, representing 3RWW
Karen Brean/Brean Associates
Merritt Bussiere/Clean Rivers

1. Discussion / Decision / Agreement Summary:

a. Welcome and Recap of Previous BPC Meeting

1. Curt Courter/Hazen and Sawyer explained that the purpose of this meeting was to continue communication among the municipalities, authorities, ALCOSAN, the Upper Monongahela Facilities Planning (UMFP) Team, 3RWW, and the regulators about the Wet Weather Program. This is the twelfth Basin Planning Committee meeting for the Upper Monongahela Planning Basin (UMPB). All attendees received:
   a. Meeting agenda (***Attachment A***);
   b. Copy of the UMPB BPC meeting presentation slides (***Attachment B***).
2. Curt provided a brief summary of BPC Meeting #11 held on October 13, 2011, in which the following highlights were discussed:
   a. Additional analyses and evaluation that was included in the Updated Feasibility Report and Present Worth Analysis;
   b. Updated information about the evaluation of System-Wide alternatives under consideration;
   c. Updates about municipal plans for wet weather control in several sewersheds upstream of points of connection to the ALCOSAN system, so that municipal alternatives may be integrated into the Basin Facilities Plan.

b. Basin Facilities Plan

1. The Basin Planners and ALCOSAN are working on finalizing the seven *Basin Facilities Plans*. Key elements of the UMPB Plan include:

   a. Updates to the Basin-Based and Regional-Based Alternatives;

   d. Evaluation of System-Wide Alternatives considering three alternative scenarios including one focused on SSOs, one focused on water quality that would include a regional tunnel ending short of the UMPB, and a balanced approach that addresses some SSOs, while using a tunnel to address CSOs and improve main rivers water quality.

   e. Levels of control evaluated are 2-year frequency for SSOs (although there are no ALCOSAN SSOs in the UMPB), and 4- to 6-year frequency for CSOs. Knee of the Curve analyses have also been updated.

   f. The current understanding of municipal plans for wet weather control.

2. Curt described the updated Basin Alternatives, and displayed maps showing the alternatives under consideration in the Hazelwood area; the area near M-38, M-39, and M-40; Streets Run area; the M-49 area in Munhall; and the Mon Valley area. (see ***Attachment B***).

3. Curt explained the integration of municipal plans into the ALCOSAN analysis. Preferred municipal plans were discussed at the BPC #11 meeting, and since then additional information was gained through meetings with municipal representatives. In some cases, not enough detail has been provided to be able to include the municipal plans into the ALCOSAN hydrologic and hydraulic model.

   The draft Municipal Feasibility Studies are due in July. Curt discussed the municipal plans that were provided to ALCOSAN:

   a. relief sewers in the Streets Run area;

   b. raised manhole, relief sewers, and microtunnel in the West Run area;

   c. storage and relief/consolidation sewers in the Nine Mile Run area;

   d. replacement of the Homestead Run Interceptor in Munhall. Mike Terrick/MSSMA said that West Mifflin has decided to stay connected to the Homestead Run Interceptor, for conveying excess flows from Homeville Pump Station.

c. Draft Wet Weather Plan

4. Ed Kluitenberg/CDM Smith presented an update of the Wet Weather Plan (WWP) development.

   a. He outlined the key dates in the schedule through 2013 (see schedule in ***Attachment B***).

      - Final Basin Facilities Plans are due at the end of June 2012.
      - ALCOSAN's Draft Wet Weather Plan is due at the end of July 2012.
      - Draft Municipal Feasibility Studies are due in July 2012.

- During August and September 2012, a municipal and public comment period will occur.
- The Regionalization Study will conclude at the end of December 2012.
- ALCOSAN will finalize the WWP in January 2013, followed by regulatory review through the end of 2013.
- Municipal Feasibility Studies will be due in July 2013.

b. Ed presented a flow chart illustrating the steps in the Alternative Evaluation process (see ***Attachment B***). Iterative refinements have been needed, for example, to apply different levels of control, water quality goals, and cost and performance factors. Initially, the approach was to convey all flows from upstream areas, but changes have occurred, and reduction of upstream wet weather flows and some degree of overflows have been incorporated as planned by tributary municipalities.

c. Twenty-six Systemwide Alternatives for CSO and SSO control have been developed. The Preliminary Control Strategy addressed elimination of SSOs to a 2-year frequency and CSO capture of 95%. The estimated capital cost of this alternative is $3.6 billion. The municipal portion is estimated at $530 million for CSO and SSO controls. Ed displayed the cost performance curves comparing four alternatives (in ***Attachment B***), which showed the Preliminary Control Strategy is the preferred alternative on the basis of cost and performance.

d. Ed explained the conclusions drawn from the Affordability Analysis completed by ALCOSAN. Using a mid-range financial impact and a residential indicator of 2% of median household income, the affordability threshold for the service area is $2 billion of new capital expenditure. This includes approximately $530 million estimated for municipal costs. ALCOSAN compared the financial projection of the $3.6 billion alternative with a yet-undefined $2 billion alternative, assuming a 12-year construction period from 2014 through 2026. The annual debt service would be significantly higher with the $3.6 billion alternative.

e. The next step in the Alternatives Evaluation process was to develop alternatives that would have a cost of approximately $2 billion, and examine their performance. Ed described the competing needs of the Wet Weather Program, such as CSO versus SSO control, water quality benefits, and sensitive areas, while needing to adhere to the specified schedules outlined in the Consent Decree (implementation by 2026) and the Pennsylvania Environmental Defense Fund settlement for elimination of SSOs in Chartiers Creek by 2019.

f. ALCOSAN then developed three alternatives that would have an estimated capital cost of $2 billion and would be constructed by 2026:

- Affordable Alternative Focused on SSO Control Priority – Features include SSO control to a 2-year frequency for the entire service area; 70% to 75% CSO capture; eight wet weather facilities (storage tanks or retention/treatment basins); postponement of regional conveyance tunnel; and, expansion of treatment plant to 295 MGD for secondary and 480 MGD primary.

- Affordable Alternative Focused on Water Quality Priority – Features include SSO control to a 2-year frequency for the Allegheny River Basin; 85% to 90% CSO capture; two wet weather facilities (storage tank and retention/treatment basin); regional conveyance tunnel along Ohio and Allegheny Rivers and a portion of the regional tunnel along the Mon River; and, expansion of treatment plant to 295 MGD for secondary and 600 MGD primary. Ed showed a graphic (in ***Attachment B***) that displayed the results of the recreational use survey (locations of primary and secondary contact) along with the facilities that are included with this Alternative. The locations of these proposed facilities correspond very well with the locations of recreational use.
- Affordable Alternative Focused on Balanced Priorities – Features include SSO control to a 2-year frequency for the Chartiers Creek Basin; 75% to 80% CSO capture; one retention/treatment basin; regional conveyance tunnel along Ohio River and portions of the regional tunnel along the Mon River and Allegheny River; and, expansion of treatment plant to 295 MGD for secondary and 480 MGD primary.

g. Ed showed a graphic (in ***Attachment B***) that compared the overflow volume remaining for each of the affordable alternatives. The Water Quality Priority Alternative results in the lowest untreated annual volume of the affordable alternatives. He also showed a chart comparing the elements of the three affordable alternatives. Analysis and evaluation of the three alternatives is continuing. The Draft WWP will include two recommendations: a recommendation for facilities to be completed by 2026, and a recommendation for facilities for the entire program (through 2026 and beyond).

h. Ed presented a list (in ***Attachment B***) of municipal planning information that will be included in the Draft WWP.

d. Update on Program Outreach

1. Karen Brean/Brean & Associates said the ninth edition of *Upper Monongahela Basin Quarterly Activity Report* (QAR) was mailed to municipal councils and representatives the previous week.
2. Karen provided an update of the Customer Municipality Advisory Committee (CMAC) and Regional Stakeholder Group (RSG) Meetings held in March 2012. The next CMAC meeting is planned for May 23, 2012. The next RSG meeting is planned for May 24, 2012.
3. Karen outlined public outreach milestones:
   a. Draft WWP release is July 31, 2012.
   b. Municipal and public comment period is July 31 through October 19, 2012.
   c. Grassroots outreach period is May through September 2012. ALCOSAN is looking for opportunities to present information to any community groups.
   d. Public Meetings and Hearings will take place from August through September 2012.
   e. ALCOSAN Open House is on September 15, 2012.

e. Regionalization Study

Karen Brean outlined the four purposes of the Regionalization Evaluation (see ***Attachment B***) that is progressing and will be completed in December 2012. Nine regionalization options have been identified, and pros and cons will be evaluated in the summer and fall of 2012. Six evaluation criteria have been identified: financial, regulatory/legal, environmental, organizational, stakeholder acceptance, and operations and maintenance. The Review Panel is composed of 37 members representing various sectors within the service area, and is managed by the Allegheny Conference on Community Development.

f. Next Steps

Final Basin Facilities Plan will be submitted to ALCOSAN in June 2012. Draft WWP release and starting availability for municipal and public review is July 31, 2012. Public comment period ends on October 19, 2012.

g. Questions and Discussion

Questions and answers discussed at the meeting are as follows:

1. Jason Stanton/LSSE asked about the percent capture term used as a CSO performance measure. Ed Kluitenberg replied that this measures runoff captured during wet weather and not reduction in CSO volume and includes sanitary baseflow. The EPA benchmark is 85% capture.
2. Karl Sieg/Sieg & Associates asked what happens to M-43 in the Balanced Affordable Alternative. Curt Courter replied that CSO from M-43 through M-45 will be intercepted and conveyed to a new large sewer, which will function as in-line storage. Then, this combined sewage will be dewatered to the dry weather connection to the ALCOSAN interceptor system when capacity is available.
3. Ed Kluitenberg said that the presumed CSO control strategy is 4 to 6 overflows per year. Karl Sieg commented that perhaps ALCOSAN should consider the use of the Mon River near Sandcastle Water Park, which has been identified as a sensitive area, during the summer and recreational use season. Ed pointed out that even the affordable alternative (plant expansion and tunnel) yields benefits upstream of the tunnel extent, because of improved interceptor available capacity.
4. Jason Stanton asked about the upstream extent of the tunnel in the Preliminary Control Strategy. Ed Kluitenberg said it extends to the area near the Rankin Bridge.

2. Items Distributed:

a. Meeting Agenda

b. Copy of the UMPB BPC presentation slides

3. Action Items:

a. The UMFP Team will prepare and distribute meeting minutes for this meeting.

4. Next Meeting:

a. ALCOSAN will continue communications about the Wet Weather Program through CMAC meetings, RSG meetings, grassroots meetings, Public Meetings, and the Open House.

5. Attachments:

a. Attachment A – Meeting Agenda

b. Attachment B – Copy of the UMPB BPC presentation slides