DEPARTMENT OF TRANSPORTATION AND
ENVIRONMENTAL SERVICES

Alexandria, Virginia

***Holmes Run Trunk Sewer Capacity Study***

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Greeley and Hansen
August 2000

THE DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY
Washington, D.C.

# Combined Sewer System Long Term Control Plan
# Public Participation Program

## *Meeting Summary For*
## *Stakeholder Advisory Panel Meeting No. 1*
## *October 28, 1999*

## 1. INTRODUCTION

The District of Columbia Water and Sewer Authority (WASA) is in the process of developing a Long Term Control Plan (LTCP) for its Combined Sewer System (CSS). As part of this comprehensive effort, the first in a series of planned Stakeholder Advisory Panel meetings was held on Thursday, October 28, 1999 from 6:30-8:30 pm at the Martin Luther King Jr. Library. The purpose of the meeting was to organize the Stakeholder Advisory Panel (Panel), introduce the Panel to the LTCP development process, and to look ahead to future meetings.

## 2. GENERAL INFORMATION ON THE LTCP

WASA operates a wastewater collection system comprised of separate and combined sewers. Parts of the District are served by separate storm and sanitary sewers. In the combined sewer system (CSS), there is a single sewer to convey stormwater and sanitary wastes. The area served by combined sewers comprises about 12,640 acres (about 33 percent) of the District.

During dry weather, sanitary wastes collected in the CSS are conveyed to the District's wastewater treatment plant at Blue Plains (BPWWTP or the Blue Plains WWTP). During periods of rainfall, the capacity of a combined sewer may be exceeded and the excess flow, which is a mixture of stormwater and sanitary wastes, is discharged directly to the Anacostia River, Rock Creek or the Potomac River or tributary waters.

There are a total of 60 combined sewer overflow (CSO) outfalls listed in WASA's existing National Pollutant Discharge Elimination System (NPDES) Permit. The NPDES permit is issued and

administered by the U.S. Environmental Protection Agency (EPA). In addition to other conditions, the permit requires preparation of a Long Term Control Plan (LTCP) for the CSS.

The principal objective of the LTCP development process is to develop a plan and implementation schedule to control Combined Sewer Overflow (CSO) discharges to area waterways. Developing the LTCP will consist of the following principle elements:

- Establish Existing Conditions – identify CSO outfalls, hydraulic control points, and sewer system relationships.
- Characterize Systems – perform monitoring and modeling of receiving waters and sewer systems to assess the frequency and impact of CSOs.
- Identify and Evaluate Alternatives – identify and evaluate alternatives for controlling CSOs in terms of effectiveness, costs, impacts to the public and the environment.
- Select Plan – select the preferred alternative and develop an action plan and schedule for implementation.

## 3. NOTIFICATION AND INFORMATION AVAILABLE FOR STAKEHOLDER ADVISORY PANEL MEETING NO. 1

On September 13, 1999, a letter including background information was mailed to all Panel members informing them of the meeting. Additionally, each member was notified that an Information Document containing information on the LTCP had been placed on reserve at eight Public Information Depositories located in each District Ward. These Depositories are located at the following public libraries:

- Martin Luther King, Jr.: 901 G St, NW, Washingtoniana Room
- Capitol View: 5001 Central Avenue, SE
- Mount Pleasant: 31 16th Street, NW
- Northeast: 330 7th Street, NE
- Southeast: 403 7th Street, SE
- Shepherd Park: 7420 Georgia Avenue, NW
- Tenley-Friendship: 4450 Wisconsin Avenue, NW
- Washington Highlands: 115 Atlantic Street, SE

The Information Document included the following documents:

- "EPA Combined Sewer Overflow (CSO) Control Policy"
- "District of Columbia Combined Sewer System Long Term Control Plan (Draft Program Plan)"
- "Study Memorandum LTCP-5-1: Monitoring Plan for Sewer Systems and Receiving Waters (Draft)"
- "NPDES Permit"
- "CSO Abatement Program Final Report 1983"

## 4. MEETING PRESENTATION AND ATTENDANCE

Mr. Martin Sultan, P.E., Manager, WASA's Program Management Division**,** began the meeting with introductory statements. Mr. Lawrence Jaworski of Greeley and Hansen then described the purpose of the Stakeholder Advisory Panel and gave each Panel member an opportunity to introduce him/herself. Mr. Jaworski presented an overview of the LTCP process and highlighted several areas where input from the Stakeholder Panel would be especially helpful. He also solicited volunteers from the Panel to assess the practicality of a rain barrel demonstration project. Mr. Jaworski concluded the presentation by soliciting the Panel's ideas and feedback on the date, location, and tentative agenda of the next meeting.

A total of twenty-six (26) people, including the presenters noted above, attended the public meeting. The attendance list and the presentation handout are attached in Appendix A.

## 5. STAKEHOLDER ADVISORY PANEL QUESTIONS/COMMENTS

Question/Comment No. 1: How often are Water Quality Standards reviewed?

Response: Water Quality Standards are reviewed on a triennial basis (every 3 years) by the D.C. Department of Health (DOH). The water quality standards are not necessarily revised during each triennial review. The review does provide a mechanism and a timetable for reviewing the standards. At the present time, DOH is in the process of proposing revisions to the Water Quality Standards. Both the public and WASA have an opportunity to comment on proposed changes to the water quality standards during the triennial review.

Question/Comment No. 2: In reference to the "Water Quality is a Watershed Issue" slide, how do upstream people figure into the formulation?

Response: The water quality in the receiving waters is affected by activities throughout the watershed. For the Potomac River, the vast majority (over 99%) of the land area of the watershed is located outside the District. For the Anacostia River, about 83% of the land area of the watershed is located in Maryland. Thus, the activities in the watershed upstream of the District have a substantial impact on the quality of water entering the District at the Boundary. WASA has no direct control over the activities in the suburbs. However, the EPA has adopted a program called Total Maximum Daily Loads (TMDLs) that addresses the issue of water quality at the level of entire watersheds. For waters which do not meet water quality standards, a Total Maximum Daily Load is established for the pollutants of concern. The TMDL is the maximum amount of a specific pollutant that can be discharged to the water body from all sources, including CSOs, storm water, non-point sources, etc. The TMDL is established considering the need to meet water quality standards and it includes a safety factor. Once a TMDL is established, the allowable pollutant load is allocated to the pollutant sources in the watershed. DOH is currently working on establishing a TMDL for the Anacostia River in the District. The TMDL process will involve consideration of upstream loads.

Question/Comment No. 3: What is the designated use goal of the Anacostia River?

Response: The Anacostia River has a designated use consisting of Classes A, B, C, D, and E as follows:

- Class A – Primary contact recreation
- Class B – Secondary contact recreation, aesthetic enjoyment
- Class C – Protection/propagation of fish/wildlife
- Class D – Protection of human-related fish consumption
- Class E – Navigation

The current use of the Anacostia includes all classes except Class A.

Question/Comment No. 4: A commenter noted that Baltimore's Inner Harbor had a substantial amount of floating debris immediately after Hurricane Floyd. Within two days, the harbor had been cleaned. Can the Anacostia be cleaned up in a similarly prompt manner. Can the Army Corps of Engineers clean up the debris? What agency is responsible for cleaning floatables from the Anacostia?

Response: The U.S. Army Corps of Engineers is responsible for maintaining the Federal ship channel in the river. As such, they typically remove large objects, which can constitute a hazard to navigation. The Corps of Engineers representative at the Panel meeting reported that the Corps is restricted by law from going beyond the main channel to remove debris. WASA operates a skimmer boat program which is designed to pick up much of the smaller debris such as paper, cups, bags, etc. The size of the boats typically allow them to work closer to shore. Note that it is unlikely that CSOs are responsible for large debris such as large trees in the river. Improving or expanding WASA floatables program is one of the alternatives that can be evaluated as part of the Long Term Control Plan. Expansion of the Corps program for removal of larger debris outside of the main channel would require direct coordination with the Corps.

Question/Comment No. 5: What portion of the floatables in the Anacostia comes from Maryland?

Response: WASA has not conducted a study of the source of floatables and debris in the river. Robert Boone of the Anacostia Watershed Restoration Committee reported that he estimated roughly 40% of the floatables in the Anacostia come from Maryland.

Question/Comment No. 6: How much debris does WASA remove from the Anacostia?

Response: In the last 7.5 years, WASA has removed about 3,000 tons of debris from the Anacostia.

Question/Comment No. 7: Are there any cities that have replaced their combined sewers with separate sewers?

Response: Some cities have separated their combined sewer system into separate sanitary and storm water systems. The feasibility of separation depends on many site-specific factors such as size of area to be separated, cost, geography, layout of the sewer system, degree of urbanization, and other factors. Separation is one of the alternatives that will be considered as part of the LTCP.

Question/Comment No. 8: What are the "Presumption" and "Demonstration" approaches for developing Long Term Control Plans?

Response: The EPA CSO policy allows owners of combined sewer systems to select one of two approaches to meeting the policy. They are the "Presumption" and "Demonstration" approaches. Under the "presumption approach," the owner of the combined sewer system is presumed to meet the policy if a minimum level of control/treatment is implemented. Under the presumption approach, a control plan is presumed to meet the policy if 1). There are no more than an average of 4 overflow events per year, or 2). 85% by volume of CSO is eliminated or treated on a system-wide annual average basis, or 3). Removal of the mass of pollutants that would be conveyed in 85% of the volume. Under the "demonstration approach," the owner of the combined sewer system must show that the control plan is adequate to meet water quality standards unless these cannot be met due to background or pollutant sources other than CSO. If background pollution levels or other pollutant sources preclude attainment of water quality standards, the CSOs must be shown to not preclude attainment of the water quality standards. Under the "presumption" approach, the owner of a combined sewer system may be required to perform additional work in the system if subsequent water quality monitoring shows that water quality standards are not achieved. More detail about the two approaches is included in the CSO policy which was handed

out at the meeting and is included as Appendix B.

Question/Comment No. 9: Which approach is better?

Response: The merits of the different approaches have not been evaluated yet for WASA's system. The evaluations underway as part of the preparation of the LTCP will enable the selection of the best approach. The merits and implications of the different approaches as they apply to WASA will be topics of Panel meetings.

Question/Comment No. 10: Would the demonstration approach be better for Anacostia due to its unpredictable flow patterns?

Response: See the response to the question above.

Question/Comment No. 11: A request was made that a separate analysis be presented for each of the receiving waters (Rock Creek, Potomac River, Anacostia River).

Response: The results of the monitoring, predictions of CSO overflow frequencies, impacts to receiving waters and the alternatives evaluation will be presented separately for each water body. In the end, it will be necessary to bring together the results into a comprehensive long term control plan.

Question/Comment No. 12: In reference to the Rain Barrel Demonstration being offered to residents, is there a similar program for removing ground water pumpage which discharges to the combined sewer system.

Response: WASA has identified many of the major sources of groundwater pumpage which discharge to the combined sewer system. WASA is in the process of requiring the installation of meters so that that the owners may be charged for this service. In addition, WASA is identifying and implementing pilot projects for the removal of ground water pumpage where possible.

Question/Comment No. 13: Why can't WASA set a goal of zero CSOs? Why does WASA

presume that there must be CSOs?

Response: The only way to completely eliminate CSOs is to separate the sewer system. This is because no matter what size or type of facility is designed to control CSOs, nature will always produce a storm which exceeds the facility's capacity. Complete separation of the combined system is possible. However, it is likely to be very expensive and disruptive. Complete separation will be evaluated when alternatives are developed. At that time, WASA, in consultation with the Panel, the public, and regulatory agencies will consider the cost and benefits of separation compared to the other alternatives.

Also, Rebecca Hanmer of EPA noted that the agency no longer supports separation as the best solution. This is because separation does not address the pollutant loads from the separate stormwater system. In addition, it must be remembered that even under a complete separation, the storm water component of the CSO would still be discharged to the receiving water.

Question/Comment No. 14: Trash still seems to be a problem. How will we address this problem?

Response: See the response to commend #4. Additionally, WASA is implementing three demonstration projects for controlling solids and floatables from CSO. An end of pipe netting system will be installed on CSO 018 on the Anacostia near the marinas. In addition, a bar rock and baffle system will be installed at 2 outfalls to Rock Creek. WASA will report to the Panel on the effectiveness of these facilities as data becomes available.

Question/Comment No. 15: The public needs to be educated on not allowing trash to enter the sewer system.

Response: In the District, agencies such as WASA, the Department of Public Works, and the DC Department of Health have a number of public education programs (i.e. Clean City, Solid Waste Education and

Enforcement Program (SWEEP), and Helping Hand) underway which focus on pollution prevention.

Question/Comment No. 16: DC Department of Health received a $5 million grant from Congress to help clean up the Anacostia.

Response: Mr. James Collier of the DC DOH will give a brief presentation at the next meeting describing how this money will be spent.

**6. REQUESTS FOR ADDITIONAL INFORMATION/ACTION ITEMS**

Request No. 1: It was suggested that the Panel go on a field trip to review CSO facilities.

Response: WASA will develop a list of facilities, which could be visited by the Panel and will present these at the next meeting.

Request No. 2: What methods have other cities used to deal with the combined sewer system issues?

Response: Other municipalities have used a variety of technologies to address CSOs. WASA is currently researching the types of long term CSO controls which have been implemented in other Cities. When this is completed, it will be summarized at a panel meeting and will be made available for review. Preliminary information will likely be available at the next Panel meeting.

Request No. 3: How can copies of the discharge monitoring reports be obtained?

Response: Request for discharge monitoring reports should be forwarded to Dr. Mohsin Siddique as follows:

Dr. Mohsin Siddique
Program Manager
D.C. Water and Sewer Authority
5000 Overlook Avenue, S.W.
Washington, D.C. 20032
Tel: (202) 787-2424
e-mail: Mohsin_Siddique@dcwasa.com

Request No.4: We would like information on the costs, logistics, economic, and

social impacts that sewer separation projects have on the community. A request was made to research the cost, efficacy, and funding sources (i.e. rate payers, Federal funding, etc.) of previous sewer separation projects conducted in the District.

Response: Data on these topics can be provided. Given the short time frame between the 1st and 2nd panel meetings, complete data is unlikely to be available for the 2nd panel meeting. More complete report s will be available at subsequent meetings.

Request No. 5: What is the schedule for pilot projects for removing ground water from CSO/sanitary sewer system?

Response: A timetable for these projects will be presented at the next meeting.

Request No. 6: It was suggested that an article should be written in Washington Post on the issue of CSOs and that the article should include a map identifying each CSO Outfall.

Response: The WASA public relations department will investigate this possibility, and a response will be provided at the next meeting.

Request No. 7: It was suggested that the dots representing outfalls on the CSS map should be modified to reflect the magnitude of the CSO.

Response: The magnitude of the overflows at each CSO depends on the drainage area, the capacity of the interceptor sewers and diversion structures and other factors. Monitoring of the overflows is currently be conducted to assess the magnitude, frequency and duration of overflows. Until the monitoring data are collected and analyzed, definitive assessments of the magnitude of CSOs cannot be given. At the next meeting, WASA can, however, present the results of monitoring conducted in the 1980s'.

Request No. 8: It was suggested that a representative from the state of Maryland attend the meetings on a regular basis.

Response: Invitations will be sent to representatives of Maryland Department of the Environment.

Request No 9: It was requested that the recommendations of the EPA Special Panel on Wet Weather issues be handed out at the next meeting.

Response: A Copy of the Final Report of the Special Panel is attached to this meeting summary.

## 7. GENERAL DISCUSSION

Given the large amount of background material to review and the scope of CSO topics, the Panel agreed to convene another meeting in early December 1999. It was suggested that University of the District of Columbia, located at 4200Connecticut Avenue, NW or Metropolitan Washington Council of Governments, located at 777 North Capitol Street, NE be considered as alternate meeting sites and that a location near a Metro Station was preferred. However, the Panel agreed that the next meeting should take place at the Martin Luther King, Jr. Library. WASA will present any monitoring data that have been gathered to date, and a progress report on the implementation of the Nine Minimum Controls will be made. In addition, Mr. Robert Boone of the Anacostia Watershed Society was invited to make a presentation at one of the future meetings. The Panel agreed that meetings should be limited to about 2 hours.

## 8. MORE INFORMATION/CORRECTIONS

If there are any corrections to this document or if further information is needed, please contact the following:

Dr. Mohsin Siddique
Program Manager
D.C. Water and Sewer Authority
5000 Overlook Avenue, S.W.
Washington, D.C. 20032
Tel: (202) 787-2424
e-mail: Mohsin_Siddique@dcwasa.com

District of Columbia Water and Sewer Authority
Combined Sewer System Long Term Control Plan

# *INFORMATION BULLETIN*

**Stakeholder Advisory Panel Meeting No. 1**
**October 28, 1999**

## *What is a Combined Sewer?*

Many older cities in the United States are served by combined sewers. A combined sewer carries both sewage and runoff from storms. Modern practice is to build separate sewers for sewage and storm water. No new combined sewers have been built in the District since the early 1900's.

## *CSO Facts*

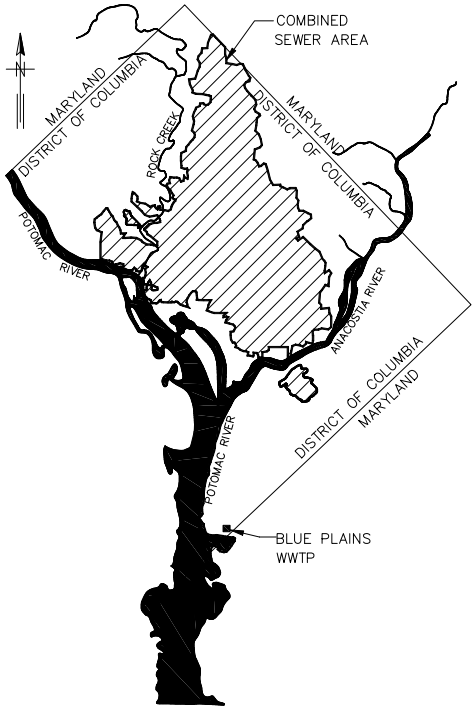
- "CSO" stands for Combined Sewer Overflow
- About 1/3 of the District is served by combined sewers
- Combined sewers have not been built in the District since the early 1900's
- Combined sewers overflow when rainfall exceeds their capacity

In a combined sewer system, the sewage from homes and businesses during dry weather conditions is taken to the District of Columbia Wastewater Treatment Plant at Blue Plains which is located in the southwestern part of the District on the east bank of the Potomac River. There, the wastewater is treated to remove pollutants before being discharged to the Potomac River.

When the capacity of a combined sewer is exceeded during storms, the excess flow, which is a mixture of sewage and storm water runoff, is discharged to the Anacostia and Potomac Rivers, Rock Creek and tributary waters. The excess flow is called Combined Sewer Overflow (CSO). There are a total of sixty (60) CSO outfalls listed in the District's existing permit from the United States Environmental Protection Agency (EPA).

## *What Is the Water and Sewer Authority (WASA)?*

The District of Columbia Water and Sewer Authority (WASA) operates the wastewater collection system for the District of Columbia and provides wastewater treatment for the District, as well as portions of Maryland and Virginia. Approximately 1/3 of the District (12,640 acres) is served by combined sewers, while the remaining area is served by separate sewers. The majority of the area served by combined sewers is in older developed sections of the District.

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***What Is the Long Term Control Plan (LTCP)?***

The District's National Pollution Discharge Elimination System (NPDES) permit issued by the EPA requires preparation of a LTCP. The LTCP is a plan with a schedule to control CSO discharges to area waterways. Developing the LTCP consists of the following principal elements:

- Establish Existing Conditions - identify CSOs, sewer systems, etc.
- Characterize Systems - perform monitoring of receiving waters and sewer systems to assess the frequency and impact of CSO overflows.
- Identify and Evaluate Alternatives - identify alternatives for controlling CSOs and evaluate them in terms of effectiveness, costs, impacts to the public and the environment.
- Select Plan - select the preferred alternative and develop a plan for implementation.

***Why is it Important to Participate in Public Meetings?***

The outcome of the LTCP process may be to develop capital projects, management approaches or operational changes to control CSOs. The programs could have a significant impact on water and sewer rates in the District. Public involvement in the process can help ensure that any plans developed are fiscally responsible and are consistent with community interests.

Since the primary goal of the LTCP is to control CSOs, participation in the process is a positive contribution to helping improve the environment of the District of Columbia.

***When will Public Meetings be Held?***

Public meetings will be held at intervals over the next two years, concluding with a Public Hearing to present the conclusions and recommendations of WASA's LTCP. Public Meetings will be held as progress is made in developing the LTCP. A tentative schedule for Public Meetings is as follows:

| Meeting No. and Topic | Date |
|---|---|
| No. 1 – Introduction to LTCP | June 7, 1999 |
| No. 2 – Monitoring & Modeling | Winter 2000 |
| No. 3 – Potential CSO Control Alternatives | Late Spring 2000 |
| No. 4 – Final CSO Control Alternatives | Winter 2001 |
| Public Hearing to select LTCP | Winter 2002 |

Meeting schedules may change depending on actual progress. WASA will provide updates in subsequent bulletins.

***More Information***

More information is available from the following sources:

- Write, call or e-mail WASA as follows:

  Dr. Mohsin Siddique
  Program Manager
  D.C. Water and Sewer Authority
  5000 Overlook Avenue, S.W.
  Washington, D.C. 20032
  Tel: (202) 787-2424
  e-mail: Mohsin_Siddique@dcwasa.com

- Review information relevant to the first public meeting, which has been placed on reserve at the following libraries: **Martin Luther King, Jr., Capitol View, Mount Pleasant, Northeast, Southeast, Shepherd Park, Tenley-Friendship, and Washington Highlands.** Ask for the "Information Document".

**WASA – EPMC-III**

**Action Plan**
**for**
**First Stakeholder Advisory Panel Meeting**

**Date and Time:** Thursday, October 28, 1999 from 6:30 p.m. to 8:30 p.m.

**Where:** Martin Luther King Library, Room A10
901 G Street, NW
Washington, D.C.

**Notification of Meeting:** A WASA approved letter (draft attached) will be sent to Panel members by September 15, 1999, thanking them for agreeing to participate on the Panel and informing them of the meeting. A list of the Panel members who have agreed to participate is attached.

**Subject of the Meeting:** General discussion of CSO issues—introduction to the CSO Long Term Control Plan Development Process, recap of the first public meeting, organization of the Stakeholder Advisory Panel, and look ahead to future meetings.

**Format:** Mixed Media Presentation to maintain public attention as follows:

Media
Power Point Presentation
Poster Boards
Large Aerial Photograph
Flip Charts
Take Home – Handouts

**Outline and Tentative Presenters:**

1. Introduction by **Jerry Johnson or Mike Marcotte or Leonard Benson or Martin Sultan**
2. Introduction of Stakeholder Advisory Panel (the Panel)
3. History of CSS, What is a CSO? Where and When Do They Occur?
4. Recap of First Public Meeting
5. Break – Light Refreshments* (15-20 minutes)
6. Discussion Items:
   - What constitutes a "successful" CSO control program?
   - Issues raised by Panel
7. Look Ahead
8. Questions

* *Light Refreshments include: sodas, juices, water, and cookies or donuts.*

Note: EPMC-III is prepared to present topics 3 through 8, but welcomes WASA to present any of these topics. Please notify us as to your selection of topics for WASA personnel presentation.

**Follow Up:** EPMC-III will prepare a brief summary in accordance with EPA requirements. The summary will include the following:

- Summary of meeting
- Attendance list
- Copy of handouts

The Summary will be placed in the Public Information Depositories and a copy will be mailed to Panel members.

**DISTRICT OF COLUMBIA**
**WATER AND SEWER AUTHORITY**

**COMBINED SEWER SYSTEM**
**LONG TERM CONTROL PLAN**

# STAKEHOLDER ADVISORY PANEL MEETING No. 2

**DATE:** Thursday December 9, 1999 6:30 p.m. to 8:30 p.m.

**LOCATION:** Metropolitan Washington Council of Governments
Conference Rooms 4 & 5 – First Floor
777 North Capitol, N.E.
Washington D.C.

**AGENDA:**

1. Introductions
2. Nine Minimum Controls – Update
3. Update on Monitoring and Sampling Program
4. Review of CSO Programs in Other Communities
5. Break – Light Refreshments* (15-20 minutes)
6. Discussion Items:
   Discuss New York City experience with CSO retention facilities
7. Look Ahead
8. Schedule Next Stakeholders Meeting
9. Questions

DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY
Washington, D.C.

# *Meeting Summary for Stakeholder Advisory Panel Meeting No. 2*

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Engineering Program Management Consultant - III
Program Manager - Greeley and Hansen
January 2000

THE DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY
Washington, D.C.

# Combined Sewer System Long Term Control Plan
# Public Participation Program

## *Meeting Summary For*
## *Stakeholder Advisory Panel Meeting No. 2*
## *December 9, 1999*

### 1. INTRODUCTION

The District of Columbia Water and Sewer Authority (WASA) is in the process of developing a Long Term Control Plan (LTCP) for its Combined Sewer System (CSS). As part of this comprehensive effort, the first in a series of planned Stakeholder Advisory Panel meetings was held on Thursday, December 9, 1999 from 6:30-8:30 p.m. at the Metropolitan Washington Council of Government. The purpose of the meeting was to update the Stakeholder Advisory Panel (Panel) on the Nine Minimum Controls, Monitoring and Sampling Program, and to look ahead to future meetings.

### 2. GENERAL INFORMATION ON THE LTCP

WASA operates a wastewater collection system comprised of separate and combined sewers. Parts of the District are served by separate storm and sanitary sewers. In the combined sewer system (CSS), there is a single sewer to convey stormwater and sanitary wastes. The area served by combined sewers comprises about 12,640 acres (about 33 percent) of the District.

During dry weather, sanitary wastes collected in the CSS are conveyed to the District's wastewater treatment plant at Blue Plains (BPWWTP or the Blue Plains WWTP). During periods of rainfall, the capacity of a combined sewer may be exceeded and the excess flow, which is a mixture of stormwater and sanitary wastes, is discharged directly to the Anacostia River, Rock Creek or the Potomac River or tributary waters.

There are a total of 60 combined sewer overflow (CSO) outfalls listed in WASA's existing National Pollutant Discharge Elimination System (NPDES) Permit. The NPDES permit is issued and administered by the U.S. Environmental Protection Agency (EPA). In addition to other conditions, the permit requires preparation of a Long Term Control Plan (LTCP) for the CSS.

The principal objective of the LTCP development process is to develop a plan and implementation schedule to control Combined Sewer Overflow (CSO) discharges to area waterways. Developing the LTCP will consist of the following principle elements:

- Establish Existing Conditions – identify CSO outfalls, hydraulic control points, and sewer system relationships.
- Characterize Systems – perform monitoring and modeling of receiving waters and sewer systems to assess the frequency and impact of CSOs.
- Identify and Evaluate Alternatives – identify and evaluate alternatives for controlling CSOs in terms of effectiveness, costs, impacts to the public and the environment.
- Select Plan – select the preferred alternative and develop an action plan and schedule for implementation.

## 3. NOTIFICATION AND INFORMATION AVAILABLE FOR STAKEHOLDER ADVISORY PANEL MEETING NO. 2

On November 22, 1999, a letter including the Report Summary of Meeting No. 1 and attachments was mailed to all Panel members informing them of the meeting. Additionally, each member was notified that an Information Document containing information on the LTCP had been placed on reserve at eight Public Information Depositories located in each District Ward. These Depositories are located at the following public libraries:

- Martin Luther King, Jr.: 901 G St, NW, Washingtoniana Room
- Capitol View: 5001 Central Avenue, SE
- Mount Pleasant: 31 16th Street, NW
- Northeast: 330 7th Street, NE
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- Washington Highlands: 115 Atlantic Street, SE

The Information Document included the following documents:

- "EPA Combined Sewer Overflow (CSO) Control Policy"
- "District of Columbia Combined Sewer System Long Term Control Plan (Draft Program Plan)"
- "Study Memorandum LTCP-5-1: Monitoring Plan for Sewer Systems and Receiving Waters (Draft)"
- "NPDES Permit"
- "CSO Abatement Program Final Report 1983"

## 4. MEETING PRESENTATION AND ATTENDANCE

Mr. Lawrence Jaworski of Greeley and Hansen began the meeting with introductory statements and gave each attendee an opportunity to introduce him/herself. He then presented an update on the Nine Minimum Controls and the results of the monitoring and sampling to date. Mr. Jaworski concluded the presentation by soliciting the Panel's ideas and feedback on the date, location, and tentative agenda of the next meeting.

A total of thirty-two (32) people, including the presenter noted above, attended the meeting. The attendance list and the presentation handout are attached in Appendix A and B.

## 5. STAKEHOLDER ADVISORY PANEL QUESTIONS/COMMENTS

Question/Comment No. 1: The 1983 CSO abatement report mentioned CSO discharge information. Are you finding different flow quantities?

Response: We don't know as yet since we are still collecting information.

Question/Comment No. 2: WASA's monthly monitoring reports don't show the amount of overflow for all CSOs

Response: That is correct. The monthly reports only report on overflows where existing flow monitors are in place.

Question/Comment No. 3: Was 1997 the first time the District implemented the Nine Minimum Controls (NMCs)?

Response: Yes, 1997 was the first time. Note that the CSO Policy, which requires implementation of the Nine Minimum Control, has only been in effect since 1994.

Question/Comment No. 4: Is there a phone number to call for problems?

Response: Yes, Dr. Mohsin Siddique at (202) 787-2424.

Question/Comment No. 5: Is there a number to call if there is a Dry Weather Overflow observed?

Response: Yes, the telephone number is (202) 612-3400. One of the Nine Minimum Controls is to improve public communications and public notification. We are working with WASA to provide a better system of communications by 1) documenting public notifications and 2) making sure the public is speaking to the appropriate person at WASA.

Question/Comment No. 6: When will the NMCs be completed?

Response: The Nine Minimum Controls is an ongoing process. They will never be completed because it's a constant process of assessing the condition of the combined sewer system and looking for opportunities to improve the efficiency of system.

Question/Comment No. 7: What does DSS stands for?

Response: WASA's Department of Sewer Services, which is responsible for the pipes underground and the skimmer boats.

Question/Comment No. 8: What water quality changes can be expected after implementing NMC based on other cities?

Response: Probably not a significant improvement of the water quality because the NMC are geared toward bringing the system up to a basic level of functionality and reliability. The resulting water quality improvement may not be measurable. The measurable improvements may come as a

part of the LTCP.

WASA is also proceeding with additional improvements that go beyond the scope of the Nine Minimum Controls. These improvements include the rehabilitation of several key pump stations in the combined sewer system.

Rebecca Hanmer with the EPA stated that EPA did not contemplate that between the Nine Minimum Controls and the Long Term Control Plan that there would be something called "Medium Term Improvements". An example would be the rehabilitation of the pump stations.

Question/Comment No. 9: Can you wait until East Side Interceptor is cleaned before monitoring for the Long Term Control Plan?

Response: No, if we waited, we would not be able to submit a draft LTCP by July 2001. In addition, the East Side Interceptor affects only a part of the combined sewer system, while the monitoring effort comprises representative portions of the entire combined sewer system.

Question/Comment No. 10: Several questioners asked why National Park Service approval is required to install signs at CSO outfalls. Can the stakeholder group send a letter to the Park Service about the signs? Are the signs in English only? How far into writing the Memorandum of Understanding are you?

Response: National Park Service (NPS) permission is necessary at the majority of outfall locations because the land on which the outfall is located is owned by the NPS. The stakeholder group is more than welcome to write a letter to the NPS concerning the signs. The signs are in English only. The NPS would most likely not be receptive to putting up a sign large enough to accommodate more than one language. Unless WASA can produce a document that shows that right-of-ways

for their sewers on NPS property exist, WASA must obtain a permit each time it performs work on NPS property.

WASA is also researching ways in which general permission can be obtained. This may include a Memorandum Of Understanding (MOU) with the NPS. Discussions regarding an MOU are in the preliminary stage.

Question/Comment No. 11: Will cleaning of the Eastside Interceptor include rehabilitation of sewer?

Response: After cleaning, an inspection will be done to see if any repairs are needed

Question/Comment No. 12: Where will the demonstration projects be constructed?

Response: The demonstration projects will be constructed at:

- CSO 041 (Bar rack) – Ontario Road and Rock Creek Parkway, NW
- CSO 0018 (end-of-pipe netting system ) Barney Circle and Pennsylvania Avenue, SE
- CSO 052 (Underflow baffle) – O Street and Rock Creek Parkway, NW

Question/Comment No. 13: How many dams are there?

Response: There are total of 12 inflatable dams at 8 control structures.

Question/Comment No. 14: How much water does the dams hold back when they are working, and how do they alleviate the CSO problem?

Response: Inflatable dams maximize storage in the existing interceptors by "backing up" flow and storing it in the existing sewer. This storage tends to reduce the magnitude and frequency of CSO overflows. The quantity of CSO stored depends on the amount of rain and the capacity of the existing pipe.

Question/Comment No. 15: Can you provide more details on the:

- Inflatable dams
- Main & O Street and Poplar Point Pump Station upgrades
- Does rehabilitation extend the life of pumps or increase its capacity?

Response: A list of all inflatable dam locations is included in Appendix C. Also included in Appendix C is a copy of the Executive Summary from the report on the Main and O Street Pump Station rehabilitation (*Facility Plan Report – Pumping Station Upgrade and Increase of Conveyance System Capacity*, Delon Hampton & Associates, 1998). Rehabilitation both extends the life of pumps and increases their capacities.

Question/Comment No. 16: I would like to see the Phase II increase of Main Pump Station capacity to 400 mgd in writing. The Pump Station must be rehabilitated such that it can be expandable to 400 mgd.

Response: The pumps at the Main Pump Station will be replaced. However, the future capacity of the Main Pump Station cannot be determined until the modelling is complete and the LTCP is prepared. The previous report also recommended that consideration be given to increasing the capacity of this pump station.

Question/Comment No. 17: The capacity in the Kingman Park area needs to be increased because the pump is pumping at a 1907 capacity, RFK was build in 1960 and there is an increase rate in density of population and water usage have also increased.

Response: The need for additional pumping capacity in the Northeast Boundary area will be evaluated as part of the LTCP evaluations.

Question/Comment No. 18: To what extent is the ultimate capacity of the Main Pump Station limited by the hydraulic capacity of Blue Plains versus the capacity of

the existing force main?

Response: The limits on transferring additional CSO flow to Blue Plains need to be evaluated. Increasing the pumping capacity of Main Pump Station may not be sufficient to convey additional CSO flow to Blue Plains if the piping between the pump station and Blue Plains is not of adequate capacity. Even if there is sufficient pipe capacity going down to Blue Plains, Blue Plains may need to be modified to accommodate additional flows. Note that Blue Plains treats about 200-300 million gallons (mg) on a normal day and about 1,000 mg a day when there is a storm. In addition, the Blue Plains WWTP is very limited in space to expand to provide additional treatment capacity. The LTCP will need to evaluate all these factors to develop an overall plan.

Question/Comment No. 19: What is the annual estimate of flow going into the Anacostia?

Response: We will be able to provide a reliable estimate of that flow quantity after the completion of the monitoring program, and the development of the associated model of the combined sewer system.

Question/Comment No. 20: How long will sampling occur?

Response: The sampling program is scheduled for a 9-12 month period, depending on weather conditions.

Question/Comment No. 21: Will the flow meters be removed after you have gotten all the data?

Response: Flow meters are scheduled to be installed for the monitoring period only. They will be removed after completion of the monitoring.

Question/Comment No. 22: Will every sample be analyzed for the same thing? What are the analytical parameters?

Response: A table that summarizes the parameters to be sampled at each sampling location is included in Appendix C.

Question/Comment No. 23: Will the storm water be sampled for the same parameters as the CSO?

Response: Generally yes. A table that summarizes the parameters to be sampled at each sampling location is included in Appendix C.

Question/Comment No. 24: Are you doing DNA tracing?

Response: No. However, Montgomery County may be performing their own DNA tracing of pathogenic microorganisms.

Question/Comment No. 25: Are you doing TSS/sediment testing

Response: Yes, the Naval Research Laboratory (NRL) and Metropolitan Washington Council of Governments (MWCOG) are performing a study of the oxygen demand and nutrient fluxes associated with the sediment in the Anacostia.

Question/Comment No. 26: On page 2-20 of Study Memorandum LTCP-1-4: CSO Case Histories, why does case studies report conclude review of Water Quality Standards (WQS) is recommended. There is no basis in the report for that conclusion.

Response: EPA's National CSO Policy includes provisions for the reassessment of existing WQS's as part of a Long Term Control Plan.

Question/Comment No. 27: What data will the model produce?

Response: The model will allow us to simulate the sewer system's response to the variety of storm events, which constitute the average year condition. The results of this model will help us calculate the overflow quantities and the associated impact on receiving waters.

## 6. REQUESTS FOR ADDITIONAL INFORMATION/ACTION ITEMS

| | |
|---|---|
| Request No. 1: | Two requests were made for copies of the meeting minutes from the First Stakeholder Advisory Panel meeting. |
| Response: | Copies have been mailed as of the date of this meeting summary. |
| Request No. 2: | A copy of a map showing monitoring locations was requested. |
| Response: | A copy of the map is included in Appendix C |
| Request No. 3: | Can you find out how other utilities have dealt with the National Park Service concerning permit and signage? |
| Response: | This will be researched and the results summarized. |
| Request No.4: | Can you provide a matrix of sampling parameters vs. location. |
| Response: | Yes, WASA can provide a matrix. This matrix is included in Appendix C. |
| Request No. 5: | A request was made for a copy of the sewer system schematic. |
| Response: | A copy of the schematic is included in Appendix C. |
| Request No. 6: | Can you generate mass balance on flow and pollutants for the Anacostia River? |
| Response: | Collection of monitoring data and modeling is required to generate overall loadings. These will be available later in year 2000. |
| Request No. 7: | A copy of the letters sent to the National Park Service on signs at outfalls was requested by the Panel members. |
| Response: | A copy the letters are included in Appendix C. |

## 7. GENERAL DISCUSSION

As with the first Panel meeting, the time was not sufficient to complete all the items on the agenda, therefore, the Panel agreed to meet again in mid February at a location to be determined. Possible agenda items for the next meeting include: 1) Monitoring Results, 2) Equiflow, and 3) Field trip. Greeley and Hansen agreed to provide a questionnaire in reference to possible sites for the Field Trip.

## 8. MORE INFORMATION/CORRECTIONS

If there are any corrections to this document or if further information is needed, please contact the following:

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DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY
Washington, DC

**Combined Sewer Long Term Control Plan**
**Stakeholder Advisory Panel Meeting 2**
**December 9, 1999**

**Summary of CSO Case History Survey Information**

| | Cleveland, OH | Columbus, GA | Richmond, VA | Boston, MA | New York, NY | San Fran,. CA | Philadelphia, PA | King County, WA |
|---|---|---|---|---|---|---|---|---|
| **I. SYSTEM** | | | | | | | | |
| Combined Sewer System Drainage Area (x 1000 Acres) | 48 | 5.2 | 12 | 8.7 | 110 | 31.36 | 53.12 | 42 |
| Number of CSOs | 126 | 2 | 32 | 82 | 450 | 36 | 178 | 137 |
| Cost Per Acre (x 1 Million) | $3,708 | $18,269 | $38,333 | $59,080 | $10,000 | $35,077 | $1,017 | $5,476 |
| **II. PLAN SELECTED** | | | | | | | | |
| Description of Plan | CSO Tunnel (Mill Creek Basin) | | Conveyance & Treatment Off Line Storage | 25 Projects | | | | |
| Cost Estimate for the Plan (x 1 Million) | $178.00 | $95 | $460 | $514 | $1,400 | $1,100 | $54 to date | $230 (for CSO part) |
| Planned Overflows/Average Year | <5 | 2 | 1.7% SS Reduction | 4 or less | 10-20 | 20 | | 1 untreated per site |
| Was CSO Policy Approach Followed? | No | Yes | 79.7% BOD Reduction | | Yes | Not Applicable | | |
| Demonstrative | Could Not | | No | X | Yes | Not Applicable | 4 Watersheds | No |
| Presumptive | Could Not | | Yes | | No | | 1 Watershed | Yes |
| Will Standards be achieved after implementation | No | | Yes | In 11 of 14 CSO impacts | | | Expected | |

DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY
Washington, DC

**Combined Sewer Long Term Control Plan**
**Stakeholder Advisory Panel Meeting 2**
**December 9, 1999**

## Summary of CSO Case History Survey Information

| | Cleveland, OH | Columbus, GA | Richmond, VA | Boston, MA | New York, NY | San Francisco, CA | D.C. WASA | King County, WA |
|---|---|---|---|---|---|---|---|---|
| **I. SYSTEM** | | | | | | | | |
| Combined Sewer System Drainage Area (x 1000 Acres) | 48 | 5.2 | 12 | 8.7 | 110 | 31.36 | 12 | 42 |
| Number of CSOs | 126 | 2 | 32 | 82 | 450 | 36 | 60 | 137 |
| Cost/ Acre Treated | $11,885 | $18,269 | $38,333 | $59,080 | $10,000 | $46,939 | - | $5,476 |
| **II. PLAN SELECTED** | | | | | | | | |
| Description of Plan | CSO Tunnel (Mill Creek Basin) 31% of CSO Area | Separation Conveyance &Treatment | Conveyance & Treatment, Off Line Storage | Separation Storage Treatment | Storage Treatment Swirls | Storage Conveyance Treatment Deep Outfall | - | Separation Storage Treatment |
| Cost Estimate for the Plan (x 1 Million) | $178 | $95 | $460 | $514 | $1,400 | $1,472 | - | $230 |
| Planned Overflows/Average Year | 5 | 2 | 4 | 4 or less | 10-20 | 20 | - | 1 untreated per site |
| Was CSO Policy Approach Followed? | Yes | Yes | Not * Applicable | Yes | Yes | Not * Applicable | - | Yes |
| Demonstrative | No | Yes | N/A | Yes | Yes | N/A | - | No |
| Presumptive | Yes | No | N/A | No | No | N/A | - | Yes |
| Will Water Quality Standards be achieved after implementation? | Uncertain ** | No ** | Expected | No ** | No | Yes (bacteria) | - | Expected |

* Program developed prior to CSO Policy issuance, however it meets or exceeds the requirements of the CSO Policy.
** Receiving waters significantly impaired by stormwater or boundary conditions.

# Appendix C

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**WASA EPMC-III**
**Combined Sewer System Long Term Control Plan**

**Agenda**
**Stakeholder Advisory Panel – Meeting #3**
**Date: February 24, 2000**

1. Monitoring Results

2. CSO Control Technologies
   a. Overview of Technologies
   b. Tonight's focus: Conveyance Pipelines

3. Miscellaneous Items
   a. Field Trip
   b. EquiFlow
   c. Other Utilities Experience with National Park Service
   d. Rain Barrel Demonstration

4. Break

5. Discussion Items

DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY
Washington, D.C.

# *Meeting Summary for Stakeholder Advisory Panel Meeting No. 3*

## Table of Contents

Engineering Program Management Consultant - III
Program Manager - Greeley and Hansen
March 2000

THE DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY
Washington, D.C.

# Combined Sewer System Long Term Control Plan
# Public Participation Program

## *Meeting Summary For*
## *Stakeholder Advisory Panel Meeting No. 3*
## *February 24, 2000*

## 1. INTRODUCTION

The District of Columbia Water and Sewer Authority (WASA) is in the process of developing a Long Term Control Plan (LTCP) for its Combined Sewer System (CSS). As part of this comprehensive effort, the third in a series of planned Stakeholder Advisory Panel meetings was held on Thursday, February 24, 2000 from 6:30-8:30 p.m. at the Metropolitan Washington Council of Government. The purpose of the meeting was to update the Stakeholder Advisory Panel (Panel) on the monitoring results and CSO control technologies, and to look ahead to future meetings.

## 2. GENERAL INFORMATION ON THE LTCP

WASA operates a wastewater collection system comprised of separate and combined sewers. Parts of the District are served by separate storm and sanitary sewers. In the combined sewer system (CSS), there is a single sewer to convey storm water and sanitary wastes. The area served by combined sewers comprises about 12,640 acres (about 33 percent) of the District.

During dry weather, sanitary wastes collected in the CSS are conveyed to the District's wastewater treatment plant at Blue Plains (BPWWTP or the Blue Plains WWTP). During periods of rainfall, the capacity of a combined sewer may be exceeded and the excess flow, which is a mixture of stormwater and sanitary wastes, is discharged directly to the Anacostia River, Rock Creek or the Potomac River or tributary waters.

There are a total of 60 combined sewer overflow (CSO) outfalls listed in WASA's existing National Pollutant Discharge Elimination System (NPDES) Permit. The NPDES permit is issued and

administered by the U.S. Environmental Protection Agency (EPA). In addition to other conditions, the permit requires preparation of a Long Term Control Plan (LTCP) for the CSS.

The principal objective of the LTCP development process is to develop a plan and implementation schedule to control Combined Sewer Overflow (CSO) discharges to area waterways. Developing the LTCP will consist of the following principle elements:

- Establish Existing Conditions – identify CSO outfalls, hydraulic control points, and sewer system relationships.
- Characterize Systems – perform monitoring and modeling of receiving waters and sewer systems to assess the frequency and impact of CSOs.
- Identify and Evaluate Alternatives – identify and evaluate alternatives for controlling CSOs in terms of effectiveness, costs, impacts to the public and the environment.
- Select Plan – select the preferred alternative and develop an action plan and schedule for implementation.

## 3. NOTIFICATION AND INFORMATION AVAILABLE FOR STAKEHOLDER ADVISORY PANEL MEETING NO. 3

On January 21, 2000, a letter including the Report Summary of Meeting No. 2 and attachments was mailed to all Panel members informing them of the meeting. Additionally, each member was notified that an Information Document containing information on the LTCP had been placed on reserve at eight Public Information Depositories located in each District Ward. These Depositories are located at the following public libraries:

- Martin Luther King, Jr.: 901 G St, NW, Washingtoniana Room
- Capitol View: 5001 Central Avenue, SE
- Mount Pleasant: 31 16th Street, NW
- Northeast: 330 7th Street, NE
- Southeast: 403 7th Street, SE
- Shepherd Park: 7420 Georgia Avenue, NW
- Tenley-Friendship: 4450 Wisconsin Avenue, NW
- Washington Highlands: 115 Atlantic Street, SE

The Information Document included the following documents:

- "EPA Combined Sewer Overflow (CSO) Control Policy"
- "District of Columbia Combined Sewer System Long Term Control Plan (Draft Program Plan)"
- "Study Memorandum LTCP-5-1: Monitoring Plan for Sewer Systems and Receiving Waters (Draft)"
- "NPDES Permit"
- "CSO Abatement Program Final Report 1983"

## 4. MEETING PRESENTATION AND ATTENDANCE

Mr. Lawrence Jaworski of Greeley and Hansen began the meeting with introductory statements and gave each attendee an opportunity to introduce him/herself. He then presented an update of the monitoring results, CSO control technologies, and WASA's evaluation of the EquiFlow® System. Following Mr. Jaworski, Mr. Edward Graham of Metropolitan Washington Council of Governments (MWCOG) gave a brief presentation on the Anacostia Watershed Indicators and Restoration Targets. Mr. John Galli of MWCOG also gave a brief update on the Rain Barrel Demonstration. Mr. Jaworski concluded the presentation by informing the Panel of the May 4, 2000 date that was selected for Public Meeting No. 2 and by soliciting the Panel's ideas and feedback on the date of the next meeting.

A total of thirty-two (32) people, including the presenters noted above, attended the meeting. The attendance list and the presentation handout are attached in Appendix A.

## 5. STAKEHOLDER ADVISORY PANEL QUESTIONS/COMMENTS

Question/Comment No. 1: Gentry Davis of the National Park Service (NPS) indicated that NPS would propose a solution to the 2' square vs. 1' square signs to be posted at CSO outfalls by March 1,2000.

Question/Comment No. 2: Will WASA compile a report that summarizes the calls that the Consumer Services Division collect on Dry Weather Overflow's (DWO) and make it available to the public?

Response: WASA will look into methods for summarizing and making this information available.

Question/Comment No. 3: On the Preliminary CSO Flow Monitoring Results chart, why does Piney Branch, one of the largest watershed areas, have such small overflows?

Response: The CSO monitoring results are preliminary and will change as more data is collected and interpretations are made. One likely reason for the comparatively small overflow at Piney Branch is that the existing sewer system for that drainage basin has the apparent capacity to handle a portion of the wet weather flows.

Question/Comment No. 4: Why is there a big green bar for November but not December at B Street and New Jersey Avenue

Response: Again, please note that the CSO monitoring results are preliminary and will change as more data is collected and interpretations are made. It is likely that the overflows in November were more substantial than in December because the December storms were less intense (the rain occurred over a long period of time).

Question/Comment No. 5: How frequently does the monitoring equipment measure flow?

Response: Most flow monitors measure flow rate every 5 minutes. A few of the flow monitors measure the flow rate every 15 minutes.

Question/Comment No. 6: Where are the samplers for the Separate Stormwater System located? Are you aware that there is dredging on the Anacostia?

Response: The samplers are located in the system just before it goes into the river therefore, they are not subject to tidal influence or impacts of dredging. We are aware of the U.S. Army's dredging of the Slip Channel in the Ancostia. We will be looking for any potential impacts in the monitoring of the receiving waters.

Question/Comment No. 7: What does the water quality data for the Separate Stormwater System chart tell us if we cannot compare it to the standard?

Response: The Separate Stormwater System water quality gives an example of the water quality characteristics of storm water. Its shows that storm water is a contributor to the water quality conditions in the receiving waters.

Question/Comment No. 8: Is the fecal coliform standard for the Anacostia the same in the District as in Maryland?

Response: Jim Collier of D.C. DOH indicated that the standards were reasonably comparable.

Question/Comment No. 9: For comparison with storm water, what are typical values for TSS and $BOD_5$ for raw wastewater and CSO?

Response: For raw wastewater, TSS and $BOD_5$ levels are typically about 200 mg/L. For CSO, TSS and BOD levels will generally fall between the storm water and wastewater values, typically in the range of 30 – 200 mg/L.

Question/Comment No. 10: How is the East Side Interceptor cleaning coming along? When will it be completed?

Response: Three contractors have been prequalified for bidding. Bids are due in April, and WASA hopes to select one of the contractors and start the cleaning process by early summer 2000.

Question/Comment No. 11: Are the Nine Minimum Controls being conducted in tandem with the Long Term Control Plan? Could NMC overview be a standard part of the Stakeholder briefing?

Response: The Nine Minimum Controls are an ongoing process that WASA performs in accordance with its National Pollutant Discharge Elimination System (NPDES) Permit. A regularly scheduled update on the Nine Minimum Controls can be included in future agenda's for

the Stakeholder Panel.

Question/Comment No. 12: Are there plans to increase public education about floatables and trash? What about DPW?

Response: WASA operates and maintains the combined sewer system and the piping and catch basin portion of the storm water system. Street cleaning, trash and litter pickup, and other functions which affect the introduction of floatables into CSOs are performed by DPW. As part of its NMC action Plan, WASA is proposing greater cooperation with DPW.

Question/Comment No. 13: Are there examples of cities that have implemented public education and street cleaning to control floatables?

Response: The City of New York has performed evaluations on the effectiveness of various methods of floatables control such as street cleaning, public education, and catch basins). Data on the New York Program is attached at the end of this meeting summary.

Question/Comment No. 14: Does the Nine Minimum Controls Action Plan take cost into consideration when doing the enhancements?

Response: The Nine Minimum Controls Program is intended to consist of low-cost, non-structural, operational changes which can be made to improve CSO control. High cost, capital-related items are considered part of the Long Term Control Plan.

Question/Comment No. 15: In reference to the Anacostia Restoration Indicators of Progress for Targets Restoration, how close are we to the goal of 200 acres of tidal wetlands?

Response: Two hundred acres is not the actual goal. Instead, it a number chosen as an example. The interim target for accomplishment by Spring 2000 is 41 acres. Other future wetland sites include:

- 32 acres at Kennelworth Marsh

- 41 acres at Kingman Lake
- 30 acres of fringe wetland creation at Kingman Lake
- 10 acres in Prince George's County between the Northeast and Northwest Branches
- 11 acres of tidal wetland across Dueling Creek in Prince George's County
- 30 acres of fringe wetland creation by demolishing a sea wall on the Anacostia

Question/Comment No. 16: Which waterways are targeted for fish passages improvements - is it the main stream of the Anacostia included?

Response: Fish passage improvements are targeted toward the side tributaries such as Sligo, Paint Branch, Little Paint Branch, not the Anacostia main channel.

Question/Comment No. 17: What does Green Infrastructure Plan mean?

Response: Green Infrastructure Plan means linking up green spaces between jurisdictions to have an integrated connected green way for recreation and wildlife.

Question/Comment No. 18: Illegal dumping of tires is a problem. There is no place to put the tires and they are very expensive to dispose of. There needs to be some type of law that requires tire companies to stamp their names on their tires so when the tires are dumped illegally, the companies share in the cleanup cost. Perhaps having dumpsters at strategic locations where dumping might occur will help in the clean up process.

Response: Trash cleanup and dumping is controlled by DPW, the police and the owners of the property on which materials are dumped. This issue might be an appropriate topic for the Anacostia Watershed Restoration Committee.

Question/Comment No. 19: Is there any thought to monitoring the water conservation aspects of

the rain barrel system?

Response: Water conservation is a side benefit to the rain barrel demonstration and several cities encourage this aspect of the barrels. WASA's demonstration is intended to evaluate the public acceptability of the rain barrels in terms of operation, ease of use, space to install, etc.

Question/Comment No. 20: What are your expectations of how well the system will work?

Response: The effectiveness of the rain barrels for CSO control will be evaluated via the CSO model.

Question/Comment No. 21: What is projected cost per household? Have you looked at downspout disconnection?

Response: The project cost per house is approximately $80-100. This demonstration project will not evaluate downspout disconnection.

Question/Comment No. 22: What is your target population?

Response: The target population is 6-10 sites, which will include a control site.

Question/Comment No. 23: How much CSO flow will be reduced if a lot of rain barrels are installed?

Response: Reference the response to Question 19.

Question/Comment No. 24: To what dimensions can the EquiFlow® system be constructed?

Response: EquiFlow® is somewhat modular and can be adjusted to accommodate the water body.

Question/Comment No. 25: What happens when the CSO overflow exceeds capacity of the Equiflow® system?

Response: When the CSO overflow exceeds the capacity of the Equiflow®, it overflows and is discharged into the receiving water.

Question/Comment No. 26: Where is the most comparable place that the EquiFlow® project was installed?

Response: An EquiFlow® system for CSO control was demonstrated (installed

and removed) at a CSO in Jamaica Bay, New York. Another EquiFlow® system for CSO control is currently under design for Lake Onondaga in Syracuse, NY.

## 6. REQUESTS FOR ADDITIONAL INFORMATION/ACTION ITEMS

Request No. 1: A request was made for a copy of the Nine Minimum Controls Action Plan.

Response: A copy of the Action Plan is included in Appendix C.

Request No. 2: A request was made for data on other cities that implemented public education and street cleaning programs.

Response: A copy of this information is included in Appendix C.

Request No. 3: A copy of the latest Monthly Operation Reports was requested.

Response: A copy is included in Appendix C.

Request No.4: A copy of the EquiFlow® Evaluation report was requested.

Response: This has been forwarded under separate cover.

Request No. 5: A request was make for a work plan for the Stakeholder Panel, which delineate the schedule for the work and the schedule for required decisions and input by the Stakeholder Panel.

Response: This will be provided at the next meeting.

Request No. 6: A request was made by the Panel for Jerry Johnson, General Manager of WASA, to attend one of the Panel Meetings to tell the group what he is interested in getting from them.

Response: An invitation will be extended to Jerry Johnson.

Request No. 7: The Panel requested that WASA inform the Mayor's Environmental Council of the existence of the Stakeholder Advisory Panel and request that there be increased coordination between.

Response: See the cover letter issued with the EquiFlow report.

## 7. GENERAL DISCUSSION

The Panel agreed to meet the first or second week of April 2000 to review the agenda for the Public Meeting No. 2, which is scheduled for May 4, 2000. Also, April was agreed upon for the Panel's field trip to visit the Northeast Boundary Swirl/outfall/netting facilities in the District. Greeley and Hansen will coordinate the field trip and inform the Panel on the logistics.

## 8. MORE INFORMATION/CORRECTIONS

If there are any corrections to this document or if further information is needed, please contact the following:

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# Appendix C

## Table of Contents

DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY
Washington, D.C.

# *Meeting Summary for Stakeholder Advisory Panel Meeting No. 4*

## Table of Contents

Engineering Program Management Consultant - III
Program Manager - Greeley and Hansen
April 2000

THE DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY
Washington, D.C.

# Combined Sewer System Long Term Control Plan
# Public Participation Program

## *Meeting Summary For*
## *Stakeholder Advisory Panel Meeting No. 4*
## *April 5, 2000*

### 1. INTRODUCTION

The District of Columbia Water and Sewer Authority (WASA) is in the process of developing a Long Term Control Plan (LTCP) for its Combined Sewer System (CSS). As part of this comprehensive effort, the fourth in a series of planned Stakeholder Advisory Panel meetings was held on Wednesday, April 5, 2000 from 6:30-8:30 p.m. at Martin Luther King, Jr. Library. The purpose of the meeting was to present a draft work plan for the Stakeholder Advisory Panel (Panel), to update the Panel on the Monitoring and Nine Minimum Controls programs, and to look ahead to future meetings.

### 2. NOTIFICATION AND INFORMATION AVAILABLE FOR STAKEHOLDER ADVISORY PANEL MEETING NO. 4

On March 13, 2000, a letter was mailed to all Panel members informing them of the meeting. Additionally, each member was notified that an Information Document containing information on the LTCP had been placed on reserve at eight Public Information Depositories located in each District Ward. These Depositories are located at the following public libraries:

- Martin Luther King, Jr.: 901 G St, NW, Washingtoniana Room
- Capitol View: 5001 Central Avenue, SE
- Mount Pleasant: 31 16th Street, NW
- Northeast: 330 7th Street, NE
- Southeast: 403 7th Street, SE
- Shepherd Park: 7420 Georgia Avenue, NW

- Tenley-Friendship: 4450 Wisconsin Avenue, NW
- Washington Highlands: 115 Atlantic Street, SE

The Information Document included the following documents:

- "EPA Combined Sewer Overflow (CSO) Control Policy"
- "District of Columbia Combined Sewer System Long Term Control Plan (Draft Program Plan)"
- "Study Memorandum LTCP-5-1: Monitoring Plan for Sewer Systems and Receiving Waters (Draft)"
- "NPDES Permit"
- "CSO Abatement Program Final Report 1983"
- Nine Minimum Controls Summary Report (Draft)
- Nine Minimum Controls Action Plan (Draft)
- Study Memorandum LTCP-1-3: Existing CSO Controls and Programs (Final)
- Stakeholder Advisory Panel Meeting Summary – Meetings No. 1 and 2

## 3. MEETING PRESENTATION AND ATTENDANCE

Mr. Lawrence Jaworski of Greeley and Hansen began the meeting with introductory statements and gave each attendee an opportunity to introduce him/herself. He then presented a draft work plan for the Panel and an update on the Nine Minimum Controls program. Following Mr. Jaworski, Mr. T.J. Murphy of the Metropolitan Washington Council of Governments (MWCOG) gave a brief presentation on the Monitoring program. Mr. Jaworski concluded the presentation by informing the Panel of the May 4, 2000 date that was selected for Public Meeting No. 2 and by soliciting the Panel's ideas and feedback on the date of the next meeting. He also extended an invitation to the ribbon-cutting ceremony for WASA's netting system scheduled for April 15, 2000.

A total of thirty-one (31) people, including the presenters noted above, attended the meeting. The attendance list and the presentation handout are attached in Appendix A.

## 5. STAKEHOLDER ADVISORY PANEL QUESTIONS/COMMENTS

Question/Comment No. 1: "Work Plan: Baseline Conditions" slide is missing ground water and tidal impact of the Potomac at the Anacostia.

Response: Ground water does contribute water volume to the receiving waters. However it typically does not contribute significant pollutant loads. The tidal action of the Potomac River does have a significant effect on the lower reaches of the Anacostia. Prior studies have shown that the Potomac can improve the water quality of the lower Anacostia. The impact of the Potomac will be taken into account in the LTCP.

Question/Comment No. 2: Is anything being done about assessing sediment oxygen demand?

Response: Yes. WASA has retained COG and the Naval Research Laboratory to perform a study to quantify the degree of sediment oxygen demand in the Anacostia River. The results of this study will be used to assess water quality impacts.

Question/Comment No. 3: Is the entire combined sewer system been incorporated onto GIS?

Response: GIS coverages are available for the land use, population density, outfall locations, and political boundaries in the District. The pipe network of the sewer system is not available on GIS.

Question/Comment No. 4: The draft Stakeholder Panel Work Plan is placing many activities late in the schedule. It appears that if the Panel does not start working on CSO alternatives and cost issues until the monitoring and modeling is completed, there may not be enough time to meet the July 2001 deadline for completion of the draft LTCP. Can we begin to look at preliminary alternatives earlier?

Response: The purpose of monitoring and modeling is to quantify the degree of CSO control needed, and the locations where this control is required. We can begin to look at preliminary alternatives. Please note, that the alternatives will be approximate in nature and subject to substantial change as the modeling results are obtained.

Question/Comment No. 5: What is the end product of the Stakeholders work?

Response: At the end of the process, it is recommended that the Panel produce a letter or memorandum to WASA, EPA, and D.C. DOH with its consensus opinion and recommendations regarding the proposed Long Term Control Plan. If consensus is not possible, a majority and

minority opinion could be prepared.

Question/Comment No. 6: When will the TMDL for the District be available? Can it feed into the Panel's work?

Response: The District's Department of Health plans on issuing a TMDL for dissolved oxygen by Oct. 1 2000. TMDLs for other parameters will be issued later.

Question/Comment No. 7: Please consider non-monetary benefits of CSO control alternatives (such as improvements to trees or wildlife) when evaluating CSO control alternatives.

Response: Non-monetary benefits will be considered.

Question/Comment No. 8: Mr. H. Harris of the Consumer Utility Board says he opposes any rate increase unless there are mitigating circumstances. He would like to see the federal government and commercial users be affected more than residential rates. He noted that WASA has increased rates 42% in the past few years.

Response: This has been noted for consideration.

Question/Comment No. 9: Can we figure out what the upper limit cost is for rate payers?

Response: Yes. There is an EPA Guidance Manual called "*Guidance for Financial Capability Assessment and Schedule Development*" (EPA, 1997) which considers a sewer bill equal to 2% of the median residential household income to be a high level of burden. The LTCP will utilize this figure to assess financial impacts of various LTCP alternatives.

Question/Comment No. 10: Can we estimate the possible Federal contribution to CSO control now so that a budget request can be placed into the 2002 budget (latest date is July 2000)? We know that the figure will not be accurate but we would have some amount allocated for the Long Term Control Plan.

Response: We can come up with a very rough estimate.

Question/Comment No. 11: Based upon the results of COG's monitoring program, are we concluding that the Swirl had a positive effect on water quality?

Response: COG indicated that the monitoring data tend to suggest that after the swirl was placed in operation, the dissolved oxygen level in the Anacostia improved. James Collier of D.C. DOH commented that

without actual data on the swirl effluent during the same time period, this conclusion could not be definitively drawn. It is also noted that the inflatable dams were made operational at about the same time and that these components could have had some impact as well.

Question/Comment No. 12: Can WASA put the monthly operation report on the WASA CSO web site?

Response: WASA is looking into doing this.

Question/Comment No. 13: How much did the netting system cost?

Response: The netting system cost approximately $300,000.

Question/Comment No. 14: How long will the netting system demonstration at CSO 018 last?

Response: The demonstration is scheduled for 1 year. After that, the system may be removed or may remain in place.

Question/Comment No. 15: The boats in the River cannot see the sign at CSO 011. WASA should consider putting a sign down near the River at eye level. There is too much pavement at CSO 011.

Response: A sign will be placed on the river retaining wall facing the river. In addition, a rehabilitation of the Main and O Street Pump Station is planned. At that time the surface treatment at the site will be addressed.

Question/Comment No. 16: Jim Sherald of the National Park Sevice(NPS) mentioned that the NPS will approve permits for posting of 2'x 2' signs at the Anacostia and Potomac outfalls and 1' x 1' signs on Rock Creek. The Park Service indicated the reason for the smaller size signs in Rock Creek was a concern for aesthetics in the park.

## 6. REQUESTS FOR ADDITIONAL INFORMATION/ACTION ITEMS

Request No. 1: A request was made for a copy of the Nine Minimum Controls Report.

Response: A copy of the report is included in Appendix C.

Request No. 2: A request was made for a list of possible alternatives with columns for cost, benefits, etc. recognizing that some of the columns may not be filled in at this time.

Response: This will be provided at the next meeting.

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|---|---|
| Request No. 3: | A request was made for an estimate of the Federal contribution to CSO. |
| Response: | Work will be started on this and a report will be made the next meeting |
| Request No. 4: | A request was made to place the monthly operation reports on the CSO web site. |
| Response: | This is being investigated and a report will be made the next meeting. |
| Request No. 5: | A request was made to post a CSO sign at Main and O Street Pump Station down near the water (on the river wall) so boaters may more easily see it. |
| Response: | The CSO signs, which meet the National Park Service requirements are being fabricated. A sign at the river wall will be posted when the other signs are placed at the other CSO outfalls. |

**7. GENERAL DISCUSSION**

Because of the conference room style layout of the meeting room at the Metropolitan Washington Council of Governments, the Panel agreed to convene all future meetings there rather than at Martin Luther King, Jr. Public Library. The Panel also agreed to schedule the next meeting for early in June 2000, at which time the information that was not covered at this meeting will be covered then. The Panel's field trip to visit various CSS facilities in the District is scheduled for May 18, 2000 from 2:00 – 7:00 p.m. DC WASA Blue Plains Treatment Plant parking lot was selected as the central point for the Panel to meet before the trip. It was requested that WASA consider an additional meeting place at a Metro stop. Greeley and Hansen will mail more detail information on the trip to all Panel members.

David J. Bardin handed out a memorandum to all stakeholders which contained a list of issues and questions for consideration. A copy is included in Attachment C.

## 8. MORE INFORMATION/CORRECTIONS

If there are any corrections to this document or if further information is needed, please contact the following:

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THE DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY
Washington, D.C.

# Combined Sewer System Long Term Control Plan
# Public Participation Program

## *Meeting Summary For*
## *Stakeholder Advisory Panel Meeting No. 5*
## *June 8, 2000*

### 1. INTRODUCTION

The District of Columbia Water and Sewer Authority (WASA) is in the process of developing a Long Term Control Plan (LTCP) for its Combined Sewer System (CSS). As part of this comprehensive effort, the fifth in a series of planned Stakeholder Advisory Panel meetings was held on Thursday, June 8, 2000 from 6:30-8:30 p.m. at the Metropolitan Washington Council of Governments. The purpose of the meeting was to present CSO Control Approaches, to update the Panel on the Monitoring, the Nine Minimum Controls, and the Rain Barrel programs, and to look ahead to future meetings.

### 2. NOTIFICATION AND INFORMATION AVAILABLE FOR STAKEHOLDER ADVISORY PANEL MEETING NO. 5

On April 26, 2000, a letter was mailed to all Panel members informing them of the meeting. Additionally, each member was notified that an Information Document containing information on the LTCP had been placed on reserve at eight Public Information Depositories located in each District Ward. These Depositories are located at the following public libraries:

- Martin Luther King, Jr.: 901 G St, NW, Washingtoniana Room
- Capitol View: 5001 Central Avenue, SE
- Mount Pleasant: 31 16th Street, NW
- Northeast: 330 7th Street, NE
- Southeast: 403 7th Street, SE
- Shepherd Park: 7420 Georgia Avenue, NW
- Tenley-Friendship: 4450 Wisconsin Avenue, NW

- Washington Highlands: 115 Atlantic Street, SE

The Information Document included the following documents:

- "EPA Combined Sewer Overflow (CSO) Control Policy"
- "District of Columbia Combined Sewer System Long Term Control Plan (Draft Program Plan)"
- "Study Memorandum LTCP-5-1: Monitoring Plan for Sewer Systems and Receiving Waters (Draft)"
- "NPDES Permit Application"
- "CSO Abatement Program Final Report 1983"
- Nine Minimum Controls Summary Report (Draft)
- Nine Minimum Controls Action Plan (Draft)
- Study Memorandum LTCP-1-3: Existing CSO Controls and Programs (Final)
- Stakeholder Advisory Panel Meeting Summary – Meetings No. 1 and 2

## 3. MEETING PRESENTATION AND ATTENDANCE

Mr. Lawrence Jaworski of Greeley and Hansen began the meeting with introductory statements and gave each attendee an opportunity to introduce him/herself. He then reviewed the follow-up items from previous meetings. Following Mr. Jaworski, Mr. John Galli of the Metropolitan Washington Council of Governments (MWCOG) gave a brief update on the Rain Barrel program. Mr. Jaworski then presented an update on the Monitoring and the Nine Minimum Controls programs. He then discussed CSO Control Approaches and concluded the presentation by soliciting the Panel's ideas and feedback on the date of the next meeting.

A total of twenty-four (24) people, including the presenters noted above, attended the meeting. The attendance list and the presentation handout are attached in Appendix A.

## 5. STAKEHOLDER ADVISORY PANEL QUESTIONS/COMMENTS

Question/Comment No. 1: In reference to the "Percent of Monitored Rain Events Which Caused CSO Overflow (Aug '99-Feb'00)" slide, is it correct that 40% of storm events bypassed the Swirl?

Response: During the monitoring period, approximately 41% of rain events caused an overflow which bypassed the swirl. Note that by volume, the vast majority of total CSO overflow from Northeast Boundary (about 85% during the monitoring period) passed through the swirl.

Question/Comment No. 2: How different is CSO overflow quality between the different CSOs.

Response: Based on the data collected so far, there does not appear to be a significant difference in quality between the CSO overflows. We will know more as additional storms are collected.

Question/Comment No. 3: Regarding "CSO Control Approaches" slide, Item No. 4 , storage, what is the size of the reservoirs in Chicago?

Response: The storage reservoirs envisioned and partially constructed in Chicago are extremely large. Note that the Chicago project not only dealt with combined sewer overflow but it also was intended to alleviate flooding problems.

Question/Comment No. 4: It was recommended that WASA invite Beryl Anthony to the Stakeholder Advisory Panel meetings since Mayor Williams just appointed him in charge of find money for the District.

Response: WASA has a briefing with Mr. Anthony scheduled for the end of June, and will take this opportunity to update him on CSO issues and the involvement of the Stakeholder panel.

Question/Comment No. 5: What kind of high cost CSO-related projects have received Federal contribution since the end of construction grants program?

Response: Some of the projects include the Boston Harbor clean-up, City of New York CSO program and Rochester, NY deep tunnel system

Question/Comment No. 6: When looking at alternatives, WASA should consider what other municipalities have done to control CSOs and the associated problems they have encountered. When considering storage, WASA should consider any impacts to the groundwater and aesthetic and public health concerns mosquitoes and malaria.

Response: WASA concurs with the comments.

Question/Comment No. 7: What is the status of the separation of Luzon Valley?

Response: Old records suggest that six houses and several connections on the grounds of Walter Reed Hospital remain. WASA has retained an engineer to investigate these properties and ascertain existing conditions. After confirmation of current conditions, separation will be performed.

Question/Comment No. 8: Did anyone from WASA attended the recent meeting that was held at the Office of Planning?

Response: WASA was unable to attend that meeting.

Question/Comment No. 9: Moving "O" Street Pumping Station was discussed a number of years ago. "O" Street Pump Station at it's current location is not going to complement the future plans for that area.

Response: Main and O Street pumping station are integral parts of WASA's combined sewer system. Relocation of the station will involve significant expense. This option will be considered as part of the Long Term Control Plan.

Question/Comment No. 10: An invitation was extended to the Stakeholder Panel to attend the Richmond field trip tentatively scheduled for June 30, 2000. Interested parties may call Dr. Mohsin Siddique at (202) 787-2424.

## 6. REQUESTS FOR ADDITIONAL INFORMATION/ACTION ITEMS

Request No. 1: A request was made for a list of problem Dry Weather Overflow sites to be addressed by Greeley and Hansen.

Response: A copy of the list is included in Appendix C.

Request No. 2: It was suggested that WASA brief the Office of Planning concerning Long Term Control Planning efforts.

Response: WASA will set up a briefing with the Office of Planning.

## 7. GENERAL DISCUSSION

The Panel agreed to schedule the next meeting for late July early August 2000.

## 8. MORE INFORMATION/CORRECTIONS

If there are any corrections to this document or if further information is needed, please contact the following:

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DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY
Washington, D.C.

# *Meeting Summary for Stakeholder Advisory Panel Meeting No. 6*

## Table of Contents

Engineering Program Management Consultant - III
Program Manager - Greeley and Hansen
August 2000

THE DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY
Washington, D.C.

# Combined Sewer System Long Term Control Plan
# Public Participation Program

## *Meeting Summary For*
## *Stakeholder Advisory Panel Meeting No. 6*
## *August 3, 2000*

### 1. INTRODUCTION

The District of Columbia Water and Sewer Authority (WASA) is in the process of developing a Long Term Control Plan (LTCP) for its Combined Sewer System (CSS). As part of this comprehensive effort, the sixth in a series of planned Stakeholder Advisory Panel meetings was held on Thursday, August 3, 2000 from 6:30-8:30 p.m. at the Metropolitan Washington Council of Governments. The purpose of the meeting was to present CSO Control Approaches, to update the Panel on the Monitoring program, the Nine Minimum Controls program, and to look ahead to future meetings.

### 2. NOTIFICATION AND INFORMATION AVAILABLE FOR STAKEHOLDER ADVISORY PANEL MEETING NO. 6

On June 27, 2000, a letter was mailed to all Panel members informing them of the meeting. Additionally, each member was notified that an Information Document containing information on the LTCP had been placed on reserve at eight Public Information Depositories located in each District Ward. These Depositories are located at the following public libraries:

- Martin Luther King, Jr.: 901 G St, NW, Washingtoniana Room
- Capitol View: 5001 Central Avenue, SE
- Mount Pleasant: 31 16th Street, NW
- Northeast: 330 7th Street, NE
- Southeast: 403 7th Street, SE
- Shepherd Park: 7420 Georgia Avenue, NW
- Tenley-Friendship: 4450 Wisconsin Avenue, NW

- Washington Highlands: 115 Atlantic Street, SE

The Information Document included the following documents:

- "EPA Combined Sewer Overflow (CSO) Control Policy"
- "District of Columbia Combined Sewer System Long Term Control Plan (Draft Program Plan)"
- "Study Memorandum LTCP-5-1: Monitoring Plan for Sewer Systems and Receiving Waters (Draft)"
- "NPDES Permit Application"
- "CSO Abatement Program Final Report 1983"
- Nine Minimum Controls Summary Report (Draft)
- Nine Minimum Controls Action Plan (Draft)
- Study Memorandum LTCP-1-3: Existing CSO Controls and Programs (Final)
- Stakeholder Advisory Panel Meeting Summary – Meetings No. 1 and 2

## 3. MEETING PRESENTATION AND ATTENDANCE

Mr. Lawrence Jaworski of Greeley and Hansen began the meeting with introductory statements and gave each attendee an opportunity to introduce him/herself. He then reviewed the follow-up items from previous meetings. Following Mr. Jaworski, Mr. David Bardin of ANC 3F04 handed out a copy of a letter he sent to John Simeon, Project Executive, Department of Transportation (DOT) Consolidation Project, General Services Administration in reference to Draft EIS (June 2000)—Department of Transportation Headquarters. A copy of the letter is included in appendix C.

Mr. Bardin indicated that DOT was considering alternative sites for relocating office space. Mr. Bardin indicated that CSO and storm water issues should be considered when evaluating the alternatives. Mr. Jaworski then presented an update on the Monitoring and the Nine Minimum Controls programs. He then discussed CSO Control Approaches and concluded the presentation by soliciting the Panel's ideas and feedback on the date of the next meeting.

A total of twenty-five (25) people, including the presenters noted above, attended the meeting. The attendance list and the presentation handout are attached in Appendix A.

## 5. STAKEHOLDER ADVISORY PANEL QUESTIONS/COMMENTS

Question/Comment No. 1: David Bardin described a circa 1940s apartment building on Connecticut Avenue which included a parking garage with a grass roof deck. Mr. Bardin noted that this example of Low Impact Development (LID) shows that it is feasible. The benefits of LID should be accounted for in the LTCP.

Response: LID will be evaluated as part of the LTCP using the combined sewer model. Note that it may take a generation or more to implement any feasible LID and its impact on water quality would thus be delayed.

Question/Comment No. 2: A commenter noted that the DC Department of Public Works may be buying high efficiency street sweeping equipment. We need to account for benefits from the new equipment in the LTCP.

Response: This has been noted for consideration as part of the LTCP

Question/Comment No. 3: Will the CSO signs be visible from both land and water?

Response: Along the Anacostia and Potomac Rivers, the signs will be installed on both sides of the post and thus will be visible from both land and water. Along Rock Creek, the National Park Service indicated they will only allow signs facing the land side.

Question/Comment No. 4: How far will the signs be visible?

Response: In accordance with the permit from the National Park Service, the signs on the Anacostia and the Potomac Rivers are 2'X2' and on the Rock Creek the signs are 1'X1'.

Question/Comment No. 5: Will any prior studies be available on the WASA web site?

Response: Prior studies are available in the Information Document at the eight Information Depositories in the District. WASA will consider placing those studies on its web site in the form of a PDF file in the near future.

Question/Comment No. 6: What type of trash has the netting system collected?

Response: Thus far, the netting system has collected litter such as paper, cups, etc. Evidence of sanitary waste has also been observed.

Question/Comment No. 7: Have we gotten any feedback from Fresh Creek, the contractor for the

netting system, in reference to the performance of the system?

Response: The system is working the way it was designed to work. As part of normal startup, they have been adjusting the system for optimum performance.

Question/Comment No. 8: Are we getting any public reactions on the netting system?

Response: No, we have not received reactions from the public on the netting system yet.

Question/Comment No. 9: What did we decide to do on Hickey Run?

Response: WASA is not planning on constructing facilities on Hickey Run. However, Jim Collier of the DC Department of Health indicated they are working with the National Arboretum in a joint venture to construct a netting system for floatables and oil/grease control. Mr. Collier indicated this will likely take place in the next few years.

Question/Comment No. 10: What are the locations of the Rock Creek floatables control?

Response: A bar rack will be demonstrated at CSO 040, which is located near the Park Police horse stable. An underflow baffle will be demonstrated at CSO 052, located near 26th and O Street, NW.

Question/Comment No. 11: Is it true that in a storm event CSO that normally overflows at one location can overflow at a different CSO?

Response: Yes. WASA's system is hydraulically interconnected such that certain drainage areas have multiple relief points.

Question/Comment No. 12: On the "Loads on Receiving Waters Example: Anacostia River" slide, you don't have ground water—must account for the effect of groundwater on water quality.

Response: WASA will investigate groundwater quality to determine if it is a significant load source.

Question/Comment No. 13: Why does one overflow last longer than another?

Response: The durations of overflows depend on many factors including spatial variation in rainfalls, the characteristics of the drainage area and associated pipe network, antecedent moisture conditions, and the conditions within the sewer system. Due to the complexity, a model to predict the magnitude, frequency, and duration of CSO overflows is being constructed.

Question/Comment No. 14: Is there any data on the efficiency of the swirl?

Response: A performance evaluation of the swirl was conduced in the early 1990s. That performance evaluation suggested that the swirl was working, but not up to the level of performance which had been expected. Recently, improvements to the Swirl were constructed by WASA. A second performance evaluation will assess the performance of the facility.

Question/Comment No. 15: What's the status on the fabri dams?

Response: WASA has retained an engineer to design replacements for the 12 dams. The design is underway.

Question/Comment No. 16: Why are you using 1988 – 1990 as the average year?

Response: Rainfall records from 1949-1998 for Reagan National Airport were reviewed to determine long-term average rainfall characteristics. The period 1988-1990 was found to represent long term average condition and was thus selected. In addition, the period provides a range of rainfall conditions in that one year is dryer than normal, one year is wetter than normal, and one year is average. This will allow evaluating the system response to a range of rainfall conditions.

Question/Comment No. 17: Will the model use constant imperviousness factors so we cannot change them?

Response: Impervious factors can be changed to reflect changes in land use such as low impact development.

Question/Comment No. 18: Why do you want a continuous 3-year period for modeling?

Response: A three-year modeling period allows evaluating the system response to a range of rainfall conditions. In addition, it will allow evaluating the effects of one year on subsequent years.

Question/Comment No. 19: Will the model take into account the effect of existing CSO controls?

Response: Yes, controls such as the inflatable dams and Northeast Boundary Swirl Facility will be included in the model

Question/Comment No. 20: Jim Collier invited the Panel to a Public Meeting that DOH intends to conduct as part of the TDML for dissolved oxygen. The date of the

meeting has not been set as yet. However, we will inform the Panel members when the date is set.

Question/Comment No. 21: What is the timetable for modeling?
Response: The goal is to have all models calibrated and operational by October 2000.

Question/Comment No. 22: Are you going to prioritize alternatives?
Response: Yes.

Question/Comment No. 23: One commenter requested that a tunnel between the CSO area and Blue Plain be evaluated and that the effect of making this tunnel the maximum size feasible be considered.
Response: Tunnel storage will be considered as part of the alternatives evaluation.

Question/Comment No. 24: What is the impact of Richmond CSO control on water quality?
Response: Those familiar with the river for a long period of time report that the river is noticeably cleaner and less polluted. In addition, there are fewer DO exceedances downstream of Richmond in the James River There are still bacteriological issues to work on.

Question/Comment No. 25: What has been the progress on separation of sewers within the Walter Reed Army Hospital?
Response: Old records suggest that six houses in the vicinity of Walter Reed and several connections on the grounds of Walter Reed Hospital remain. WASA has retained an engineer to investigate these properties and ascertain existing conditions. After confirmation of current conditions, separation will be performed.

WASA is having some difficulty finding the right people to talk to at Walter Reed.

## 6. REQUESTS FOR ADDITIONAL INFORMATION/ACTION ITEMS

Request No. 1: A request was made for a copy of the National Park Permit for the CSO signs.
Response: A copy of the permit is included in Appendix C.

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| Request No. 2: | A request was made for a copy of the Stakeholder Advisory Panel membership roster. |
| Response: | A copy of the membership roster is included in Appendix C. |
| Request No. 3: | A request was made for a copy of the netting system results as they become available. |
| Response: | A copy of the results will be made available to the Panel members after it is prepared. Note that the evaluation period is scheduled to last 9-12 months. |
| Request No.4: | A request was made for consideration of the effect of groundwater on loads to the Anacostia River. |
| Response: | The results of this will be reported at a subsequent meeting. |
| Request No.5: | A request was made for an overlay of Federal Facilities on the CSO area on the District. |
| Response: | This will be provided at the next meeting. |

## 7. GENERAL DISCUSSION

The Panel agreed to schedule the next meeting for mid to late October 2000.

## 8. MORE INFORMATION/CORRECTIONS

If there are any corrections to this document or if further information is needed, please contact the following:

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DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY
Washington, D.C.

# *Meeting Summary for Stakeholder Advisory Panel Meeting No.7*

## Table of Contents

Engineering Program Management Consultant - III
Program Manager - Greeley and Hansen
October 2000

THE DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY
Washington, D.C.

# Combined Sewer System Long Term Control Plan
# Public Participation Program

## *Meeting Summary For*
## *Stakeholder Advisory Panel Meeting No. 7*
## *October 26, 2000*

### 1. INTRODUCTION

The District of Columbia Water and Sewer Authority (WASA) is in the process of developing a Long Term Control Plan (LTCP) for its Combined Sewer System (CSS). As part of this effort, the seventh in a series of planned Stakeholder Advisory Panel meetings was held on Thursday, October 26, 2000 from 6:30-8:30 p.m. at the Metropolitan Washington Council of Governments. The purpose of the meeting was to present final sewer system and receiving water monitoring results, review the status of the computer models, outline preliminary tunnel alternatives, and to update the status of the nine minimum controls.

### 2. NOTIFICATION AND INFORMATION AVAILABLE FOR STAKEHOLDER ADVISORY PANEL MEETING NO. 7

On September 6, 2000, a letter was mailed to all Panel members informing them of the meeting. Additionally, each member was notified that an Information Document containing information on the LTCP had been placed on reserve at eight Public Information Depositories located in each District Ward. These Depositories are located at the following public libraries:

- Martin Luther King, Jr.: 901 G St, NW, Washingtoniana Room
- Capitol View: 5001 Central Avenue, SE
- Mount Pleasant: 31 16th Street, NW
- Northeast: 330 7th Street, NE
- Southeast: 403 7th Street, SE
- Shepherd Park: 7420 Georgia Avenue, NW
- Tenley-Friendship: 4450 Wisconsin Avenue, NW
- Washington Highlands: 115 Atlantic Street, SE

The Information Document included the following documents:

- "EPA Combined Sewer Overflow (CSO) Control Policy"
- "District of Columbia Combined Sewer System Long Term Control Plan (Draft Program Plan)"
- "Study Memorandum LTCP-5-1: Monitoring Plan for Sewer Systems and Receiving Waters (Draft)"
- "NPDES Permit Application"
- "CSO Abatement Program Final Report 1983"
- Nine Minimum Controls Summary Report (Draft)
- Nine Minimum Controls Action Plan (Draft)
- Study Memorandum LTCP-1-3: Existing CSO Controls and Programs (Final)
- Stakeholder Advisory Panel Meeting Summary – Meetings No. 1, 2, 3, 4, 5, and 6

## 3. MEETING PRESENTATION AND ATTENDANCE

Mr. Lawrence Jaworski of Greeley and Hansen began the meeting with introductory statements. He then reviewed the follow-up items from previous meetings. Following Mr. Jaworski, Mr. John Cassidy of Greeley and Hansen gave an update on the CSO and SSWS final monitoring results. Following Mr. Cassidy, T.J. Murphy of COG reported on the receiving water final monitoring results.

Mr. Jaworski then discussed the status of computer models, the LTCP schedule, and reviewed preliminary tunnel alternatives. The meeting was concluded with an update on the Nine Minimum Controls program and with the selection of a timeframe for the next meeting.

A total of twenty-eight (28) people, including the presenters noted above, attended the meeting. The attendance list and the presentation handout are attached in Appendix A.

WASA handed out a copy of public notice regarding two public meetings to discuss WASA's proposed FY2002 budget. A copy is included in Appendix B.

## 5. STAKEHOLDER ADVISORY PANEL QUESTIONS/COMMENTS

Question/Comment No. 1: In reference to the "Federal Facilities Land Area" slide, would the Mall contribute to CSO?

Response: Portions of the Mall are in the CSO area, while other portions are in the separate sewer area.

Question/Comment No. 2: What accounts for the variations in the "Proposed Event Mean Concentrations" slide?

Response: The concentrations of pollutants in CSO can differ between outfalls for a variety of reasons. Examples include variations in the nature and characteristics of the drainage area, variations in the spatial distribution of rainfall, variations in the sanitary component of the CSO overflow and other factors. Since the field monitoring showed that concentrations varied by CSO outfall, the event mean concentrations (EMCs) will also be varied by outfall to more accurately reflect actual conditions.

Question/Comment No. 3: Do the coliform and e-coli numbers for the Swirl tell us that the chlorine is not effective?

Response: The sample results suggest that the Northeast Boundary Swirl significantly reduces coliform and e coli concentrations in the treated CSO, but that the disinfection performance is not as effective as typical wastewater treatment plants such as Blue Plains.

Question/Comment No. 4: Please comment on the storm water number. Did you see a lot of variability?

Response: The storm water sample results showed a level of variability comparable to the CSO results.

Question/Comment No. 5: In the "Proposed Event Mean Concentrations" slide, does the value for CSO No. 12 represent more than one storm and did you calculate total mass and total flow then divide?

Response: The EMC for CSO 012, Tiber Creek, was calculated based on sampled collected during four CSO events. Multiple samples were collected during each event. The EMC was calculated dividing the total mass of pollutants over all sample event by the total volume of overflow at all sampled events.

Question/Comment No. 6: Is there a difference in concentration between small storms and large

storms?

Response: No repeatable pattern was observed in the pollutant concentrations for "small" storms vs. "large" storms. Part of the reason for this is that the CSO concentrations depend on more factors than total rainfall. These factors include antecedent dry time, rain fall intensity, spatial variation in rainfall over the drainage area, the diversion capacity of the combined sewer system, and operational conditions in other parts of the combined sewer system.

Question/Comment No. 7: Did you perform separate storm water monitoring; where were they taken?

Response: Sampling was conducted at two storm water sites as follows: at the Hickey Run storm sewer near the Arboretum and at the Suitland Parkway storm sewer near the Anacostia Metro Station.

Question/Comment No. 8: In reference to "How will EMCs be used" slide, how will you account for mixing between the segments?

Response: The receiving water models divide each waterway into segments. The model assumes each segment is completely mixed and concentrations are uniform within the segments. Mixing between the segments is calculated by the model using hydrodynamic equations.

Question/Comment No. 9: Once completed, will the models be made available to the public?

Response: The results of the models and the documentation on their development and use will be made available to the public.

Question/Comment No. 10: On the "Preliminary List of CSO Control Alternatives" slide, when will we receive a draft of B1 (Flow reduction/pollutant management technologies)?

Response: WASA is currently in the process of developing alternatives, including those related to flow reduction/pollutant management. Completion of the development of these alternatives is expected in the winter/spring 2001.

Question/Comment No. 11: With complete separation, will storm water run to the river?

Response: Yes. For the sewer separation alternative, the rain which falls in the existing combined sewer area will become storm water which discharges to the receiving waters.

Question/Comment No. 12: In reference to the "Preliminary Tunnel Concepts" slides, is this tunnel for transport of CSO to Blue Plains or for storage or both?

Response: The preliminary tunnel concepts envision tunnels which are used to both convey CSO flow to Blue Plains and to store CSO flow in the tunnel.

## 6. REQUESTS FOR ADDITIONAL INFORMATION/ACTION ITEMS

Request No. 1: A request was made for raw data on e-coli and BOD.

Response: This is included in Appendix C.

Request No. 2: A request was made for a draft of B1 (flow reduction/pollutant management technologies) from the preliminary list of CSO control alternatives slide.

Response: This will be provided at the next meeting.

## 7. GENERAL DISCUSSION

The Panel agreed to schedule the next meeting for January 2001. A date will be determined.

## 8. MORE INFORMATION/CORRECTIONS

If there are any corrections to this document or if further information is needed, please contact the following:

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DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY
Washington, D.C.

# *Meeting Summary for Stakeholder Advisory Panel Meeting No.8*

## Table of Contents

Engineering Program Management Consultant - III
Program Manager - Greeley and Hansen
February 2001

THE DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY
Washington, D.C.

# Combined Sewer System Long Term Control Plan
# Public Participation Program

## *Meeting Summary For*
## *Stakeholder Advisory Panel Meeting No. 8*
## *February 7, 2001*

### 1. INTRODUCTION

The District of Columbia Water and Sewer Authority (WASA) is in the process of developing a Long Term Control Plan (LTCP) for its Combined Sewer System (CSS). As part of this effort, the eighth in a series of planned Stakeholder Advisory Panel meetings was held on Wednesday, February 7, 2001 from 6:30-8:30 p.m. at the Metropolitan Washington Council of Governments. The purpose of the meeting was to present initial CSO overflow predictions and a sensitivity analysis on the effect of load reduction on receiving water quality.

### 2. NOTIFICATION AND INFORMATION AVAILABLE FOR STAKEHOLDER ADVISORY PANEL MEETING NO. 8

On January 3, 2001 a letter was mailed to the Panel Members informing them of the meeting scheduled for January 19, 2001. That meeting was cancelled, however, due to the Presidential Inaugural activities. On January 19, 2001, a second letter was mailed to all Panel members informing them of the meeting rescheduled date of February 7, 2001. Additionally, each member was notified that an Information Document containing information on the LTCP had been placed on reserve at eight Public Information Depositories located in each District Ward. These Depositories are located at the following public libraries:

- Martin Luther King, Jr.: 901 G St, NW, Washingtoniana Room
- Capitol View: 5001 Central Avenue, SE
- Mount Pleasant: 31 16th Street, NW
- Northeast: 330 7th Street, NE
- Southeast: 403 7th Street, SE
- Shepherd Park: 7420 Georgia Avenue, NW

- Tenley-Friendship: 4450 Wisconsin Avenue, NW
- Washington Highlands: 115 Atlantic Street, SE

The Information Document included the following documents:

- "EPA Combined Sewer Overflow (CSO) Control Policy"
- "District of Columbia Combined Sewer System Long Term Control Plan (Draft Program Plan)"
- "Study Memorandum LTCP-5-1: Monitoring Plan for Sewer Systems and Receiving Waters (Draft)"
- "NPDES Permit Application"
- "CSO Abatement Program Final Report 1983"
- Nine Minimum Controls Summary Report (Draft)
- Nine Minimum Controls Action Plan (Draft)
- Study Memorandum LTCP-1-3: Existing CSO Controls and Programs (Final)
- Stakeholder Advisory Panel Meeting Summary – Meetings No. 1, 2, 3, 4, 5, 6, and 7

## 3. MEETING PRESENTATION AND ATTENDANCE

Mr. Lawrence Jaworski of Greeley and Hansen began the meeting with introductory statements. He then reviewed the follow-up items from previous meetings, presented initial CSO overflow predictions for the year 1990, and reviewed a sensitivity analysis on the effect of load reduction on receiving water quality.

The meeting was concluded with an update on the Nine Minimum Controls program and with the selection of a timeframe for the next meeting.

A total of twenty-seven (27) people, including the presenters noted above, attended the meeting. The attendance list and the presentation handout are attached in Appendix A.

## 4. STAKEHOLDER ADVISORY PANEL QUESTIONS/COMMENTS

Question/Comment No. 1: What is the internal system monitoring point at Piney Branch?
Response: This monitoring point measures the diverted flow that is captured

within the system (i.e. dry weather flow).

Question/Comment No. 2: At the Swirl, are you saying that 17 of 52 of the events were so large that they bypassed?

Response: For 1990, the initial prediction is that 53 rain events were large enough to activate the swirl. Of these 53 events, 17 were so large that the flow exceeded the capacity of the swirl necessitating a bypass.

Question/Comment No. 3: Could you clarify the difference between BOD loads and the bacterial loads?

Response: BOD load represents organic matter that uses oxygen as it decays. Bacterial load is number of bacterial organisms.

Question/Comment No. 4: Are there portions of the Anacostia River that are different classes?

Response: No, all of the Anacostia River has a designated use of Class A in the D.C. Water Quality Standards. The current use of the river is Class B.

Question/Comment No. 5: What is the difference between Class A and Class B use?

Response: Class A uses comprise primary contact recreation such as swimming. Class B uses comprise secondary contact recreation and aesthetic enjoyment such as boating.

Question/Comment No. 6: When you talk about reducing loads, do you mean contaminants or flow or both?

Response: For the initial sensitivity analysis, load reduction has been performed by reducing the mass of pollutants in a particular source. Flow volume has remained the same.

Question/Comment No. 7: Can this data be reorganized to more clearly show Maryland's impact? Can the data be simplified to make it more understandable?

Response: WASA is available to work with stakeholders to simplify presentation of data.

Question/Comment No. 8: Are you modeling all CSOs?

Response: All CSOs are modeled. Initial overflow predictions have been made for each CSO.

Question/Comment No. 9: Is the SOD (sediment oxygen demand) static over time?

Response: If load sources decrease, the sediment oxygen demand will exhaust

itself over time. This is being evaluated in the modeling.

Question/Comment No. 10: Can we look at Maryland meeting Water Quality Standards?
Response: Scenarios showing the downstream effect of Maryland meeting water quality standards at the DC/MD boundary have been run and are included in the presentation.

Question/Comment No. 11: Where is the CSO area in the Anacostia River?
Response: The effective CSO area is below RFK stadium. There is one CSO above RFK Stadium, but it is not predicted to overflow at all during the 1990 screening year.

Question/Comment No. 12: Is Maryland storm water worse than DC storm water?
Response: Maryland is 80% of the drainage area so it is providing more flow. DC is providing 20% of flow. Storm water loads are probably similar but we do not have specific data on that.

Question/Comment No. 13: Are the data presented averages or peaks? Did you model fecal coliform peaks?
Response: The models are set up to predict data on a daily average basis. Predictions on a finer time scale are not available.

Question/Comment No. 14: Do we have data on the dissolved oxygen in the Potomac?
Response: In addition to historical data, the Metropolitan Washington Council of Governments collected water quality samples for 9 months along the river to calibrate the models. Dissolved oxygen was collected.

Question/Comment No. 15: Do the two months the Potomac does not meet the dissolved oxygen standard occur in the summer?
Response: Yes.

Question/Comment No. 16: What does upstream mean in the Potomac?
Response: Upstream is at the DC/Maryland boundary near Chain Bridge.

Question/Comment No. 17: Why is the prediction of dissolved oxygen levels in the Potomac River at Blue Plains Waste Water Treatment Plant so low?
Response: We are investigating if this is a correct prediction and will report on it at the next meeting.

Question/Comment No. 18: You are modeling Luzon Valley like a CSO for the CSS model. Is it treated like that for the receiving water model?

Response: Luzon Valley is modeled as a CSO in the combined sewer system model. However, the vast majority of the sewershed is separated and only a few buildings on the Walter Reed Medical Center are believed to have sanitary connections to the combined sewer. As a result, the load from this drainage area is treated as a storm sewer in the receiving water model.

Question/Comment No. 19: Is there no dissolved oxygen data for Rock Creek?

Response: Dissolved oxygen is not being modeled in Rock Creek. Data collected in Rock Creek over the nine month calibration period did not show any dissolved oxygen violations because the water is well aerated by turbulence as it flows through Rock Creek.

Question/Comment No. 20: Can water conservation be a CSO control?

Response: WASA has a water conservation and flow reduction program in place geared toward reducing average annual dry weather flow in the system. Since CSOs are primarily driven by rain, small changes in the dry weather flow will not have a measurable affect on CSO.

Question/Comment No. 21: Comments were made regarding not discounting LID without first performing an analysis of its benefits.

Response: LID will be modeled to ascertain benefits.

Question/Comment No. 22: Does this study address flooding on the Anacostia?

Response: River flooding due to the Anacostia overtopping its banks is not part of the CSO study.

Question/Comment No. 23: It's useful to communicate costs and benefits of CSO control to the public.

Response: Yes, that's what we plan to do and will report on preliminary results at the next meeting.

Question/Comment No. 24: Do you still want a majority and minority report from the Stakeholders?

Response: We support that the end product of the Stakeholder Panel's work would be a document conveying the stakeholder's opinion on the proposed LTCP. If a single opinion cannot be agreed upon, then a

majority and minority opinion could be prepared.

## 5. REQUESTS FOR ADDITIONAL INFORMATION/ACTION ITEMS

Request No. 1: Can you run a scenario that shows 85% (or other) reduction in CSO and a 20% (or other) reduction is storm water? This would be indicative of the benefit of controlling District sources.

Response: This scenario will be run as part of our further evaluation of alternatives.

Request No. 1: Mr. Mandel of ICPRB requested that a coy of the January 31, 2001 letter from Mr. Cummins of ICPRB to Mr. Marcotte of WASA be included as part of the record of this meeting.

Response: The letter is included in Appendix B.

## 6. GENERAL DISCUSSION

The panel agreed to schedule the next meeting for March 29, 2001.

## 7. MORE INFORMATION/CORRECTIONS

If there are any corrections to this document or if further information is needed, please contact the following:

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DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY
Washington, D.C.

# *Meeting Summary for Stakeholder Advisory Panel Meeting No.9*

## Table of Contents

Engineering Program Management Consultant - III
Program Manager - Greeley and Hansen
April 2001

THE DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY
Washington, D.C.

# Combined Sewer System Long Term Control Plan
# Public Participation Program

## *Meeting Summary For*
## *Stakeholder Advisory Panel Meeting No. 9*
## *March 29, 2001*

### 1. INTRODUCTION

The District of Columbia Water and Sewer Authority (WASA) is in the process of developing a Long Term Control Plan (LTCP) for its Combined Sewer System (CSS). As part of this effort, the ninth in a series of planned Stakeholder Advisory Panel meetings was held on Thursday, March 29, 2001 from 6:30-8:30 p.m. at the Metropolitan Washington Council of Governments. The purpose of the meeting was to present a description of alternatives, preliminary results of the alternatives evaluation, and to develop a procedure for stakeholders to present their opinion on the proposed LTCP to WASA.

### 2. NOTIFICATION AND INFORMATION AVAILABLE FOR STAKEHOLDER ADVISORY PANEL MEETING NO. 9

On March 2, 2001 a letter was mailed to the Panel Members informing them of the meeting. Additionally, each member was notified that an Information Document containing information on the LTCP had been placed on reserve at eight Public Information Depositories located in each District Ward. These Depositories are located at the following public libraries:

- Martin Luther King, Jr.: 901 G St, NW, Washingtoniana Room
- Capitol View: 5001 Central Avenue, SE
- Mount Pleasant: 31 16th Street, NW
- Northeast: 330 7th Street, NE
- Southeast: 403 7th Street, SE
- Shepherd Park: 7420 Georgia Avenue, NW
- Tenley-Friendship: 4450 Wisconsin Avenue, NW
- Washington Highlands: 115 Atlantic Street, SE

The Information Document included the following documents:

- "EPA Combined Sewer Overflow (CSO) Control Policy"
- "District of Columbia Combined Sewer System Long Term Control Plan (Draft Program Plan)"
- "Study Memorandum LTCP-5-1: Monitoring Plan for Sewer Systems and Receiving Waters (Draft)"
- "NPDES Permit Application"
- "CSO Abatement Program Final Report 1983"
- Nine Minimum Controls Summary Report (Draft)
- Nine Minimum Controls Action Plan (Draft)
- Study Memorandum LTCP-1-3: Existing CSO Controls and Programs (Final)
- Stakeholder Advisory Panel Meeting Summary – Meetings No. 1, 2, 3, 4, 5, 6, and 7

## 3. MEETING PRESENTATION AND ATTENDANCE

Mr. Lawrence Jaworski of Greeley and Hansen began the meeting with introductory statements. John Cassidy of Greeley and Hansen then presented a description of various alternatives. Mr. Jaworski followed Mr. Cassidy in presenting the preliminary results of alternatives evaluation—performance and effect on receiving water quality. The Panel discussed the schedule and procedure for conveying their opinion on the LTCP to WASA. WASA offered to type and assemble stakeholder comments. The Panel concluded that another meeting prior to the May 8, 2001 Public/Panel meeting would be beneficial.

A total of thirty five (35) people, including the presenters noted above, attended the meeting. The attendance list and the presentation handout are attached in Appendix A.

## 4. STAKEHOLDER ADVISORY PANEL QUESTIONS/COMMENTS

Question/Comment No. 1: Projects such as aeration of the Anacostia or pumping Blue Plains effluent are not strictly CSO controls.

Response: These alternatives do not reduce the volume or frequency of CSO discharges. However, they can improve water quality and are thus being considered in conjunction with technologies that reduce the

magnitude and frequency of CSO discharges.

Question/Comment No. 2: Is the condition of regulators being studied?

Response: Regulators are inspections monthly by WASA. Based on these inspections and on other data, WASA has a program underway to improve selected regulators to reduce the potential for dry weather overflows.

Question/Comment No. 3: Concern was raised about the reliability of the inflatable dams, given the past problems with rats eating the dams.

Response: Past problems with the inflatable dams were due to manufacturing defects that have been resolved. In addition, other CSO cities are installing dams in sewers as part of CSO control.

Question/Comment No. 4: WASA needs to seriously consider Low Impact Development (LID) as a way of controlling CSO.

Response: WASA is considering LID as a CSO control. The later part of the presentation includes an assessment of how LID can be applied and the potential benefits it might provide. Note that much of the implementation of LID is outside the scope of WASA's control. In addition, LID can take 30 years or more to implement. WASA will most likely need to develop a CSO plan that accomplishes controls within a much shorter time frame. LID should be encouraged, but WASA may not be able to count on the benefits it provides as part of the LTCP.

Question/Comment No. 5: In the slide entitled "Alternative C3-11: Side Stream Aeration," this aeration system may harm a whole ecosystem through the pumping of the water.

Response: The intake velocity can be limited to 1 ft/sec so as not to draw in wildlife. Other communities have installed such systems without harming the environment.

Question/Comment No. 6: Could the water that is pumped by the Side Stream Aeration be disinfected?

Response: Theoretically, yes, though it would also need to be disinfected.

Question/Comment No. 7: Have you abandoned the NEB Swirl for a tunnel?

Response: One of the many scenarios we are examining includes such an option.

Question/Comment No. 8: Is there opportunity for storage at the U.S. Soldier's Home?

Response: Yes, we have identified approximately 160 acres of separate storm water drainage area than can potentially be offloaded at the Soldier's Home.

Question/Comment No. 9: Would a Piney Branch storage tunnel help reduce overflows at the CSO at the Kennedy Center (CSO 021)?

Response: It could if the tunnel is sized to capture more than the overflow volume at Piney Branch. As it is, the tunnel is sized just for the Piney Branch overflow.

Question/Comment No. 10: Could we locate a high rate physical treatment facility further upstream?

Response: We have evaluated the potential for satellite treatment, particularly at Northeast Boundary. Siting such a facility is difficult.

Question/Comment No. 11: What is the capacity of Blue Plains and at what level are we operating at?

Response: Blue Plains can provide full treatment for up to 740 mgd for the first four hours of a storm event, then 511 mgd after the first four hours. The plant can treat an additional 336 mgd through the excess flow treatment train which includes primary treatment, disinfection, and dechlorination. The total plant capacity is thus 1076 mgd for the first four hours, and 847 mgd thereafter.

Question/Comment No. 12: Can we increase the capacity of Blue Plains?

Response: Not practically. There is very little land available at Blue Plains for additional treatment facilities.

Question/Comment No. 13: In the calculations, is WASA including room for projected growth in DC and the surrounding metropolitan area?

Response: The analyses have been performed with the counties and the District at their flow allowances as provided for in the Intermunicipal Agreement (IMA). Current average flows at Blue Plains are about 330 mgd. The IMA specifies an annual average flow of 370 mgd for Blue Plains. This provides the allowance for growth and redevelopment.

Question/Comment No. 14: Does the list presented tonight constitute the final list of alternatives?

| | |
|---|---|
| Response: | No. We are still in the process of evaluating the alternatives using the computer model. Please advise WASA if any other alternatives should be considered. |
| Question/Comment No. 15: | Jim Collier with DC Department of Health mentioned that the District has required hydraulic retention for new construction since 1987. |
| Response: | This has been noted. |
| Question/Comment No. 16: | Does this include Federal facilities? |
| Response: | Mr. Collier indicated that, to his knowledge, it does not. |
| Question/Comment No. 17: | In the "Preliminary Results of Alternatives Evaluation" matrix slide, what is the present day real world scenario? |
| Response: | The current situation is similar to scenario C2, except that 6 of the 12 inflatable dams are not functional. WASA has a design in progress to replace all 12 inflatable dams. |
| Question/Comment No. 18: | How long will it take to get to scenario C3? |
| Response: | At least 6-10 years. |
| Question/Comment No. 19: | How can you control 40% of the pollutant load from stormwater? Is this a reasonable goal? |
| Response: | We need to show that improvements in water quality depend on measures that affect the entire watershed, rather than simply on the combined sewer system. Control of 40% of the storm water is an ambitious goal that will likely be difficult to achieve. |
| Question/Comment No. 20: | Have you considered dry weather overflows from the combined sewer system in the model? |
| Response: | No, the model has been prepared assuming that there are no dry weather overflows. |
| Question/Comment No. 23: | Monthly geometric means are not helpful in determining risk associated with exposure. How will WASA evaluate actual exposure to fecal coliforms? |
| Response: | WASA is looking at ways to address this issue, such as single sample maximums. |

## 5. REQUESTS FOR ADDITIONAL INFORMATION/ACTION ITEMS

Request No. 1: A request was made for costs associated with the alternatives.
Response: This material is attached to this document.

## 6. GENERAL DISCUSSION

The Panel desires to meeting again prior to the Stakeholder/Public Meeting scheduled for May 8, 2001. WASA agrees to give the Stakeholders cost data in early April.

## 7. MORE INFORMATION/CORRECTIONS

If there are any corrections to this document or if further information is needed, please contact the following:

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THE DISTRICT OF COLUMBIA
WATER AND SEWER AUTHORITY
Washington, D.C.

# Combined Sewer System Long Term Control Plan
# Public Participation Program

## *Meeting Summary For*
## *Stakeholder Advisory Panel Meeting No. 10*
## *April 26, 2001*

### 1. INTRODUCTION

The District of Columbia Water and Sewer Authority (WASA) is in the process of developing a Long Term Control Plan (LTCP) for its Combined Sewer System (CSS). As part of this effort, the tenth in a series of planned Stakeholder Advisory Panel meetings was held on Thursday, April 26, 2001 from 6:30-8:30 p.m. at the Metropolitan Washington Council of Governments. The purpose of the meeting was to present the control plan evaluation criteria, detailed alternatives evaluation, conceptual control plan alternatives, and financial capability.

### 2. NOTIFICATION AND INFORMATION AVAILABLE FOR STAKEHOLDER ADVISORY PANEL MEETING NO. 10

On April 6, 2001 a letter was mailed to the Panel Members informing them of the meeting. Additionally, each member was notified that an Information Document containing information on the LTCP had been placed on reserve at eight Public Information Depositories located in each District Ward. These Depositories are located at the following public libraries:

- Martin Luther King, Jr.: 901 G St, NW, Washingtoniana Room
- Capitol View: 5001 Central Avenue, SE
- Mount Pleasant: 31 16th Street, NW
- Northeast: 330 7th Street, NE
- Woodridge: 18th & Rhode Island Avenue, NE
- Southeast: 403 7th Street, SE
- Shepherd Park: 7420 Georgia Avenue, NW
- Tenley-Friendship: 4450 Wisconsin Avenue, NW
- Washington Highlands: 115 Atlantic Street, SE

The Information Document included the following documents:

- "EPA Combined Sewer Overflow (CSO) Control Policy"
- "District of Columbia Combined Sewer System Long Term Control Plan (Draft Program Plan)"
- "Study Memorandum LTCP-5-1: Monitoring Plan for Sewer Systems and Receiving Waters (Draft)"
- "NPDES Permit Application"
- "CSO Abatement Program Final Report 1983"
- Nine Minimum Controls Summary Report (Draft)
- Nine Minimum Controls Action Plan (Draft)
- Study Memorandum LTCP-1-3: Existing CSO Controls and Programs (Final)
- Stakeholder Advisory Panel Meeting Summary – Meetings No. 1, 2, 3, 4, 5, 6, 7, 8 and 9

## 3. MEETING PRESENTATION AND ATTENDANCE

Mr. Ronald Bizzarri of Greeley and Hansen began the meeting with introductory statements. John Cassidy of Greeley and Hansen then presented the control plan evaluation criteria, a detailed evaluation of alternatives for the Anacostia, Potomac and Rock Creek CSOs, conceptual control plan alternatives, and a financial capability assessment.

A total of thirty (30) people, including the presenters noted above, attended the meeting. The attendance list and the presentation handout are attached in Appendix A.

## 4. STAKEHOLDER ADVISORY PANEL QUESTIONS/COMMENTS

Question/Comment No. 1: Is there storage at the Northeast Boundary Swirl? Why consider abandoning it?

Response: The Swirl is a treatment facility and has minimal storage volume. Abandonment of the Swirl is being considered because alternate CSO control technologies are being evaluated which would provide a better water quality benefit than trying to retain the Swirl facility.

Question/Comment No. 2: Several comments were made asking for an explanation of "Baseline"

condition.

Response: Three conditions that represent baseline scenarios were modeled as follows:

- Scenario B1- Prior to Phase I CSO Controls – This was the configuration of the CSS prior to implementation of the Phase I CSO controls in the early 1980's. No inflatable dams were present and the Northeast Boundary Swirl Facility did not exist.

- Scenario C2 – Phase I CSO Controls – This was the system configuration after the Phase I CSO controls were completed in 1991. It includes the addition of the inflatable dams for in-system storage and the Northeast Boundary Swirl Facility.

- Scenario C3 – Phase I CSO Controls and Pump Stations Rehabilitation – This scenario includes the Phase I CSO controls and rehabilitation of Main and Potomac Pumping Stations to achieve firm pumping capacities of 240 and 460 mgd, respectively.

As of the date of the stakeholder meeting, the configuration of the system is between scenarios B1 and C2. This is because 6 of the 12 inflatable dams are not operational. WASA has a contract underway to replace all inflatable dams.

Question/Comment No. 3: A request was made to show the water quality results for e. coli as well as for fecal coliforms.

Response: This will be included in the LTCP.

Question/Comment No. 4: Bacteria impacts in the warm season when recreation is likely are more important that impacts during cold weather.

Response: This has been noted for inclusion in the LTCP.

Question/Comment No. 5: The LTCP should indicate that control of storm water and upstream loads is required in addition to CSO control to meet water quality standards.

Response: This will be included in the LTCP.

Question/Comment No. 6: A comment was made that there needs to be something mentioned in the Long Term Control Plan that touches on the other public policy issues that are coming along— storm water control, control of upstream sources, TMDLs, etc.

Response: This will be included in the LTCP.

Question/Comment No. 7: It was noted that costs associated with control of storm water will be borne by District residents as well as costs for CSO control.

Response: Comment acknowledged.

Question/Comment No. 8: Please consider zero overflow events per year.

Response: The only CSO plan that achieves zero overflow events under all conditions is separation, and this has been considered. WASA will also consider alternatives that achieve zero overflows in each of the three years in the forecast period (1988-1990). Note that this will not achieve zero overflows under all conditions. More severe climate conditions not represented in the three year forecast period will still cause overflows.

Question/Comment No. 9: When did the "extreme" rain events occur in the model runs?

Response: The largest rain events occurred in May and July. This is important to know for assessing seasonal impacts.

Question/Comment No. 10: What does capital cost mean?

Response: Capital cost means the cost of construction plus engineering, construction management, contingencies, fiscal, legal, and administrative fees.

Question/Comment No. 11: It was noted that separation can actually result in worse water quality than a high degree of CSO control because the storm water that is captured in the combined sewer system would be discharged directly to the receiving waters without treatment.

Response: This is correct.

Question/Comment No. 12: We need to explain that the tunnels would be so deep that they will not impact surface development. The public may not understand this so we need to explain that those alternatives cause low disturbance.

Response: This has been noted for inclusion in the LCTP.

Question/Comment No. 13: Explain clearly in the LTCP what LID is and what types of measures are applicable.

Response: This will be included in the LTCP.

Question/Comment No. 14: Jim Collier of DC Department of Health pointed out that some soils in the District may be not be suitable for LID measure that involve infiltration.

Response: This has been noted.

Question/Comment No. 15: One commenter suggested that the Department of Public Works should implement LID as part of street redevelopment.

Response: This has been noted.

Question/Comment No. 16: One commenter suggested that WASA should try nonstructural controls in Rock Creek and Potomac while moving forward with the structural controls for the Anacostia River.

Response: This has been noted for consideration.

Question/Comment No. 17: In the LTCP, have we considered what Maryland will do to meet water quality standards?

Response: Like other states, Maryland has a TMDL process set up with a goal of achieving water quality standards. However, WASA cannot control the quality of water in Maryland. As a result, CSO controls were evaluated assuming two conditions: 1) existing water quality conditions at the boundary, and 2) assuming that water quality at the boundary met current standards.

Question/Comment No. 18: What is the expected lifespan of the tunnels?

Response: In excess of 50 years.

Question/Comment No. 19: How big would the Potomac tunnel be?

Response: Tunnel diameter would depend on the degree of CSO control provided. Diameters in the 20'-30' range are typical.

Question/Comment No. 20: How far upstream would the Potomac tunnel go?

Response: A little upstream of the Key Bridge to CSO 029.

Question/Comment No. 21: Does the "Potomac River-Costs and Benefits" graph include the cost of improvements to the Potomac Pumping Station?

Response: Yes.

Question/Comment No. 22: A comment was made that we need a mathematical model to predict benefits of LID.

Response: This has been presented previously and will be summarized in the LTCP.

Question/Comment No. 23: Consider combinations of alternatives such as tunnel with LID and real time control.

Response: This will be included in the LTCP.

## 6. GENERAL DISCUSSION

The Panel will meet again at the Stakeholder/Public Meeting scheduled for May 8, 2001. David Bardin, WASA Board member, invited everyone to the May 15, 2001 WASA CSO/Storm Water Subcommittee meeting.

## 7. MORE INFORMATION/CORRECTIONS

If there are any corrections to this document or if further information is needed, please contact the following:

Dr. Mohsin Siddique
Program Manager
D.C. Water and Sewer Authority
5000 Overlook Avenue, S.W.
Washington, D.C. 20032
Tel: (202) 787-2634
e-mail: Mohsin_Siddique@dcwasa.com

**PLEASE RETURN COMPLETED QUESTIONNAIRE**
**TO MOHSIN SIDDIQUE OF WASA**
**NO LATER THAN MONDAY MAY 7, 2001**

# DC WATER AND SEWER AUTHORITY
# COMBINED SEWER SYSTEM
# LONG TERM CONTROL PLAN

## QUESTIONS TO STAKEHOLDERS GROUP

1. Do you have any suggestions as to how the Stakeholder process could be improved?
   YES _____ No _____
   COMMENTS*:

2. Is there any additional information you would like to receive to understand the basis for the various alternatives being proposed?
   YES _____ No _____
   COMMENTS*:

3. Do you have any specific questions on the information that has been presented?
   YES _____ No _____
   COMMENTS*:

4. Do you believe that WASA has evaluated a sufficient range of structural and non-structural alternatives?
   YES _____ No _____
   COMMENTS*:

5. Is there any additional information you need in order to make a recommendation as to a preferred alternative?
   YES _____ No _____
   COMMENTS*:

*Please attach additional sheets with comments. You can use 2 additional sheets if you use the enclosed stamped and addressed envelop.

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6. Do you believe there are other alternatives that should be considered?
   YES _____ No _____
   COMMENTS*:

7. Based on the information you have been provided, please identify those alternatives that you believe should be recommended for implementation as part of the LTCP?
   COMMENTS*:

8. Considering the projected improvements in water quality versus the cost associated with those alternatives you have selected, would you support the increased water rates associated with implementing these alternatives?
   YES _____ No _____
   COMMENTS*:

9. What do you believe the reaction of the rate-payers will be to the recommendations of the LTCP?
   COMMENTS*:

10. Considering the projected improvements in water quality versus the cost associated with those alternatives you have selected, would you support a revision to the existing water quality standards associated with implementing these alternatives?
    YES _____ No _____
    COMMENTS*:

*Please attach additional sheets with comments. You can use 2 additional sheets if you use the enclosed stamped and addressed envelop.

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11. Do you have any other comments or suggestions as to how WASA can improve the public participation process for the CSS LTCP?
    YES _____ No _____
    COMMENTS*:

SUBMITTED BY:
Name: _____

Organization: _____

Address: _____

Tel #: _____

***PLEASE USE THE ADDRESSED AND STAMPED ENVELOPE TO MAIL THIS TO***
***MOHSIN SIDDIQUE, DC WASA, 5000 Overlook Ave., SW, Washington DC 20032***
***BY MAY 7, 2001***

***!!THANK YOU FOR YOUR HARD WORK ON THIS PROJECT!!***

*Please attach additional sheets with comments. You can use 2 additional sheets if you use the enclosed stamped and addressed envelop.

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# DC WATER AND SEWER AUTHORITY
# COMBINED SEWER SYSTEM
# LONG TERM CONTROL PLAN

## QUESTIONS TO STAKEHOLDERS GROUP
## SUMMARY OF RESPONSES

RESPONSES RECEIVED

QUESTIONAIRES RECEIVED FROM:

| | |
|---|---|
| Doug Curtis | National Park Service |
| Jack Nelson | Citizens Advisory Committee-Chesapeake Bay Program |
| Steven Richard | General Services Administration |
| Larry Robertson | District resident |
| Ross Brennan | USEPA Headquarters (District resident) |
| Lara Day | Earth Conservation Corps |

ADDITIONAL WRITTEN COMMENTS RECEIVED FROM:

Letter of May 7, 2001 from: Natural Resources Defense Council; EarthJustice Legal Defense Fund; Friends of the Earth; Damon Whitehead (Anacostia RiverKeeper); The Committee of 100 on the Federal City; Sierra Club; Anacostia Watershed Society; and Audubon Naturalist Society.

While not directly related to responses to the questionaire, these additional comments have been received:
Letter dated April 26, 2001 from EarthJustice Legal Defense Fund
Letter dated April 23, 2001 from EarthJustice Legal Defense Fund

# SUMMARY OF RESPONSES TO SPECIFIC QUESTIONS

1. Do you have any suggestions as to how the Stakeholder process could be improved?
   YES ____3_____ No _____3_____
   COMMENTS*:
   1. Ask for stakeholder preferences on options presented
   2. I generally think WASA and Greeley & Hansen struck the right balance in providing enough information. In my experience this effort has gone beyond what I've observed in most other major CSO cities. Two thoughts, in hindsight:
      a. It would have been helpful to establish an e-mail or internet listserve process to facilitate additional stakeholder discussion. WASA and Greeley and Hansen might also have made more use of e-mail or the web in disseminating more detailed technical and financial information.

*Please attach additional sheets with comments. You can use 2 additional sheets if you use the enclosed stamped and addressed envelop.

b. It would have been helpful to have one or two longer "work" sessions where interested members of the stakeholder committee could really focus on the model runs and the data analysis. The regular stakeholder meetings are simply too short to do anything but provide the most superficial conclusions. Although that may be appropriate for many stakeholders with limited time, others would probably have appreciated a more detailed review (and ended up trusting and "buying into" the results more).

2. Is there any additional information you would like to receive to understand the basis for the various alternatives being proposed?
   YES _____2_____ No _____4_____
   COMMENTS*:
   1.Presentation for superintendents of the NPS Rock Creek, national Capitol Parks Central and East, C&O Canal, and national Capitol Region HQ.
   2. I met with some DCWASA people about groundwater pumping at the federal triangle. They did not have numbers for flow. In your briefing you indicated 8.6 mgd. Where did that number come from?
   3. Not at this point, but I would expect that the long-term control plan or its appendices would contain more detailed information -- which I would like to review once it's drafted. I thought the draft Table 1, listing the alternatives and the cost/performance information, was surprisingly clear considering the volume of information being presented.

3. Do you have any specific questions on the information that has been presented?
   YES _____3_____ No _____3_____
   COMMENTS*:
   1. Did you model the financial and technical considerations from combining the "hard" engineering controls (separation, tunnels) with the "softer" controls (e.g., LID, inflow controls)? The approaches listed as "combinations" appear to only be combinations of hard controls.
   Did you consider partial separation, or just "all or none"? My understanding is the separation of certain parts of the sewershed would be cost-effective. For example, I thought WASA was evaluating prospects for separating the isolated part of the CSS in downtown Anacostia.

4. Do you believe that WASA has evaluated a sufficient range of structural and non-structural alternatives?
   YES _____4_____ No _____1____ No Reply: 1
   COMMENTS*:
   1. There may be more options but you covered enough
   2. I was pleased at the number of alternatives considered, including some that were highly creative. But I was disappointed to see less consideration of "mixing and matching" hard and soft controls, per my response to #3 above. It should have been fairly straightforward to continue the modeling to look at more combinations of alternatives.

*Please attach additional sheets with comments. You can use 2 additional sheets if you use the enclosed stamped and addressed envelop.

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5. Is there any additional information you need in order to make a recommendation as to a preferred alternative?
   YES _____3_____ No _____1_____ No Reply: 2
   COMMENTS*:
   1. the cost of the alternatives which is being sent. I believe more time is needed to evaluate alternatives.
   2. I would like to see the answers you provide in response to the questions from Earthjustice Legal Defense Fund, which I thought were excellent (although I disagreed with some).

6. Do you believe there are other alternatives that should be considered?
   YES ___3_____ No _____1____ No Reply: 1 Don't Know: 1

   COMMENTS*:
   1. What about storage in existing systems such as those mentioned in the April 26, 2001 EarthJustice letter?
   2. Aeration proposal assumed to mean the side-stream aeration option).
   3. Yes -- see answers to #3 and 4.

7. Based on the information you have been provided, please identify those alternatives that you believe should be recommended for implementation as part of the LTCP?
   COMMENTS*:
   1. Combinations such as a Capital tunnel project together with low impact development concepts, system rehabs, satellite storage, etc
   2. Can't say.
   3. D14 -- a combination of "hard" engineering practices that appears to achieve four overflows per year at the least cost -- seems the most attractive of the options presented.

8. Considering the projected improvements in water quality versus the cost associated with those alternatives you have selected, would you support the increased water rates associated with implementing these alternatives?
   YES _____2_____ No _____0____ Not Sure: 2
   COMMENTS*:
   1. As you know the citizens can only pay so much.
   2. Only after all federal and local funding sources have been exhausted
   3. I didn't see any cost-per-household information presented, though I might have missed it. Serious consideration needs to be given to the federal government contributing its fair share toward CSO remediation in the District, particularly in the Federal Triangle area that contributes significant storm flow to the combined system.

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9. What do you believe the reaction of the rate-payers will be to the recommendations of the LTCP?
   COMMENTS*:
   1. Many people will protest but it is necessary to improve water quality.
   2. Very negative
   3. I assume you will get a lot of input
   4. Probably negative
   5. Again, need to see cost-per-household info. Ratepayers will observe that rates have already increased dramatically, but there is also strong public support for water quality improvements in the Anacostia. It will be important, however, not to over-sell the water quality benefits – roughly speaking, the number of water quality violations looks like it will decrease only by 20-35% percent even under the most aggressive controls.

10. Considering the projected improvements in water quality versus the cost associated with those alternatives you have selected, would you support a revision to the existing water quality standards associated with implementing these alternatives?
    YES ____1_____ No _____5_____
    COMMENTS*:
    1. The Environmental Health Administration should have been conducting a review of water quality standards attainability in parallel with the development of the long-term control plan. It is time for a serious evaluation of the attainability of WQS in the District. My hope is that the data developed for the LTCP can help drive this process. EPA is developing guidance to foster better coordination of LTCP development and WQS review/revision.

11. Do you have any other comments or suggestions as to how WASA can improve the public participation process for the CSS LTCP?
    YES _____3_____ No ___1_____ No Reply: 2
    COMMENTS*:
    1. Offer incentives to thiose who will actively participate in reducing stormwater runoff.
    2. I did not have time to keep coming to meetings – is there a website with up-to-date information on the process and a timeline of action.

SUBMITTED BY:
Name: _____

Organization: _____

Address: _____

Tel #: _____

*Please attach additional sheets with comments. You can use 2 additional sheets if you use the enclosed stamped and addressed envelop.

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***BY MAY 7, 2001***

***!!THANK YOU FOR YOUR HARD WORK ON THIS PROJECT!!***

## GENERAL COMMENTS FROM STAKEHOLDERS

1. I have only attended the meetings sporadically, so I've probably missed a lot of the discussions. However, I have found that the meetings sometimes digress and, consequently, I get lost between a mix of technical/historical issues along with conversation that is not always focused. These issues are new to me, so I am already at a disadvantage and would like to keep the discussion within context. Also, some of the participants delve too long on tangential issues that take the focus away from the agenda. I suspect we would reach closure sooner if the discussions stay on task.
Assuming we are nearing the end of the process and so much time has passed thus far, it would help me to receive an overview of the issue/purpose of the group; basic decisions that we have to make; and the financial, technical, and environmental impact of each option that we should consider. Going through this at a future meeting will help me filter out information that is not critical to the decisions we have to make.
I have found the presentations and discussions led by Greeley and Hansen staff helpful when they are allowed to follow their agendas.

*Please attach additional sheets with comments. You can use 2 additional sheets if you use the enclosed stamped and addressed envelop.

**Stakeholder Advisory Panel Summary**
**Long Term Control Plan**

At the request of the public during the first public meeting, a stakeholder advisory panel was formed. Panel meetings were held over the course of the study to provide an opportunity for public input and consultation on the LTCP development process at more frequent intervals than that afforded by the general public meetings.
The panel consisted of representatives from government agencies, regulatory agencies, citizens' groups, and environmental advocacy groups that are concerned about water quality issues within the District. The panel meetings were typically held every six to eight weeks, and all the meetings were open to the public. The organizations that were represented by each type of group are listed in Table10-2.

**Table 10-2**
**Stakeholder Advisory Panel Members**

| *Group* | *Organization* |
|---|---|
| Business | • PEPCO |
| Citizen Groups | • ANC 3F04<br>• Chesapeake Bay Project Office Citizen's Advisory Committee<br>• Kingman Park Civic Association |
| Federal Government | • U.S. Army Corps of Engineers<br>• General Services Administration (GSA)<br>• National Park Service (NPS)<br>• National Zoological Park<br>• Naval District- Washington<br>• U.S. Soldiers' and Airmens' Home |
| Interest Groups | • Anacostia Watershed Society<br>• Audubon Naturalist Society<br>• Earth Conservation Corps<br>• Sierra Club<br>• Natural Resources Defense Council<br>• Earth Justice Legal Defense Fund<br>• District Yacht Club |
| Local/Multijurisdictional Government Agencies | • Montgomery County Dept. of Environmental Services<br>• D.C. Office of Planning<br>• Interstate Commission on the Potomac River Basin (ICPRB)<br>• Metropolitan Washington Council of Governments (MWCOG) |
| Regulatory Agencies | • U.S. Environmental Protection Agency (EPA)<br>• D.C. Department of Health |

Panel Meeting No. 1: October 28, 1999
Panel Meeting No. 2: December 9, 1999
Panel Meeting No. 3: February 24, 2000
Panel Meeting No. 4: April 4, 2000
Panel Meeting No. 5: June 8, 2000
Panel Meeting No. 6: August 3, 2000
Panel Meeting No. 7: October 26, 2000
Panel Meeting No. 8: February 7, 2001
Panel Meeting No. 9: March 29, 2001
Panel Meeting No. 10: April 26, 2001

Presentation topics and comments received from stakeholders are presented in Table 10-3.

**Table 10-3**
**Summary of Stakeholder Advisory Panel Meetings**

| Panel Meeting No. | No. of Attendees[1] | Presentation Topics | Stakeholder Feedback |
|---|---|---|---|
| 1 | 31 (9) | • What is a CSO?<br>• WASA's Combined Sewer System<br>• EPA's CSO Policy<br>• Water quality is watershed issue<br>• Progress on developing a long term control plan<br>• Rain barrel demonstration program | • The panel requested a field trip to view WASA's CSO facilities<br>• Public must be educated concerning litter and trash entering sewers<br>• Invite representative from Maryland to attend meetings on a regular basis<br>• Consider the experience of other CSO cities when evaluating controls<br>• Consider and quantify the pollutant contribution from upstream sources<br>• Trash and floatable debris in the Anacostia are important considerations |
| 2 | 32 (10) | • Update on Nine Minimum Control projects, particularly BMP demonstration projects<br>• Monitoring program update<br>• Equiflow system evaluation<br>• Review of CSO programs in other cities | • The Equiflow system is aesthetically unattractive and does not seem to provide major benefits.<br>• Consider expanding the pumping capacity at Main and O Street Pumping Stations<br>• Investigate how other utilities work with the National Park Service.<br>• Present data on location and type of samples being collected in combined sewer overflows |
| 3 | 32 (10) | • Preliminary monitoring program results<br>• CSO control technologies<br>• Examples of CSO controls from Richmond, VA<br>• Anacostia Restoration - Indicators of Progress<br>• Rain Barrel Program | • Make a Nine Minimum Controls update a standard part of the stakeholder agenda<br>• DOT should act to control solids and floatabels in storm water and CSO. Each agency needs to do their fair share.<br>• Look at what other CSO cities are doing in terms of public education |

| Panel Meeting No. | No. of Attendees[1] | Presentation Topics | Stakeholder Feedback |
|---|---|---|---|
| 4 | 31 (9) | • Stakeholder Panel Draft Work Plan<br>• Receiving water monitoring update<br>• Preliminary storm water and CSO analytical data<br>• Update on Eastside Interceptor cleaning and end-of-pipe netting system installation | • Consider the impact of tide on the Anacostia River.<br>• Assess the impact of the sediments on oxygen demand in the Anacostia River<br>• Significant rate increases to fund CSO controls would be viewed unfavorably<br>• Estimate the maximum amount that rate payers can afford for CSO control<br>• Consider the non-monetary benefits of CSO control |
| 5 | 24 (9) | • Rain barrel demonstration project update<br>• Presentation of overflow volumes and rainfall depths from monitoring program<br>• Preliminary observations concerning monitoring data<br>• CSO control options and degree of control<br>• Nine Minimum Control program update | • Consider how other municipalities controlled CSOs and obtained federal funding.<br>• Consider coordinating with the Mayor's appointee on CSO control issues<br>• Consider the potential negative impacts of CSO storage including impacts on groundwater, aesthetics and public health<br>• Look into relocating the "O" Street pump station |
| 6 | 25 (8) | • Nine Minimum Control program update<br>• Presentation of overflow volumes and rainfall depths August 99 – June 00<br>• How monitoring data will be input into the computer model<br>• Preliminary list of CSO control alternatives | • Make sure signs at CSO outfalls are visible from both land and water.<br>• In the modeling, take into account the effect of existing CSO controls.<br>• Describe the performance of the floating end of pipe netting system.<br>• Show the locations of Federal Facilities in the CSO area<br>• Consider Low Impact Development Retrofit as a CSO control<br>• Consider a tunnel between Main and O and BPWWTP for CSO control.<br>• Effect of groundwater and street sweeping on CSO's |
| 7 | 28 (11) | • Final CSO and storm water monitoring results<br>• Proposed CSO and Storm water event mean concentrations<br>• Receiving water monitoring results<br>• Feasibility of tunnels<br>• Nine Minimum Control program update | • When separation is evaluated, make sure the pollutants in the new storm water are included.<br>• Flow reduction and pollutant management technologies are of interest to stakeholders |
| 8 | 27 (9) | • Model calibration results<br>• Results of model runs for Year 1990 conditions: flow and water quality<br>• Sensitivity analysis on effect of load reductions on receiving waters<br>• Review of CSO control technologies<br>• Stream diversion<br>• Nine Minimum Control program update | • Evaluate Anacostia River conditions with Maryland meeting water quality standards at the District Boundary<br>• Evaluate Anacostia River conditions with load reductions for both the DC/Maryland Boundary and District storm water.<br>• Compare costs and benefits for CSO control alternatives<br>• Consider Low Impact Development Retrofit |
| 9 | 35 (8) | • Description of alternatives<br>• Preliminary results of the alternatives evaluations<br>• Procedure for stakeholders to present their opinion on the proposed LTCP | • Projects such as aeration of the Anacostia and flow augmentation of the Anacostia will not reduce CSOs . If they are considered further, they must be coupled with CSO controls<br>• Stakeholders concerned about reliability of inflatable dams<br>• Consider storage upstream in the system such as at Soldier's Home or McMillan Reservoir |

| Panel Meeting No. | No. of Attendees[1] | Presentation Topics | Stakeholder Feedback |
|---|---|---|---|
| | | | • Look at some other measure of receiving water quality other than the geometric mean for fecal coliform<br>• Present information by water body to allow them to select various alternatives |
| 10 | 30 (17) | • Description of final alternatives<br>• Preliminary results of final alternatives evaluations<br>• A survey to obtain comments was distributed | • Fecal coliform impacts during the warm season are more important than year round. Present results in this manner<br>• In the LTCP, include a discussion about the degree of storm water and upstream load reductions required to meet water quality standards<br>• Consider alternatives that combine structural projects with Low Impact Development Retrofit, real time control and others |

[1]Number in parentheses indicate number of staff associated with development of LTCP (WASA, Greeley and Hansen LLP and subconsultants, and in some cases, MWCOG employees)