



Stakeholder Advisory Committee Meeting Two Summary

I. OVERVIEW

The second meeting of the Clean Rivers Healthy Communities Stakeholder Advisory Committee (SAC) was held on Thursday, April 24, 2008. Seven committee members and nine Clean Rivers' staff and consultants attended the three-hour session. The meeting, which began at MSD headquarters, featured a seven-site tour of key district operations and CSO sites. Participants were able to:

- Experience overflows in residential and industrial areas to better understand the scale and complexity of the problem (it rained during the tour);
- Become more familiar with the unique challenges facing CSO receiving streams, including the River Des Peres and Mississippi River. For each of the waterways visited, Clean Rivers staff shared information on the estimated overflow volume, estimated number of overflows, designated waterway uses, outfall sewer size and characteristics, and specific CSO issues; and
- Learn more about MSD's sewer infrastructure, management and operations.

Gary Moore, Clean Rivers' project manager, began the tour by welcoming participants. Jon Bergenthal, of Jacobs Engineering, then followed Mr. Moore with a review of the tour's agenda, activities and collateral materials. The tour then commenced with visits to seven sites within MSD's combined sewer system. The questions and comments that arose during the site visits are summarized in the remainder of this document.

II. INITIAL QUESTIONS

SAC Member Description	Question Asked / Comment Made & MSD Response
<i>Municipal Official</i>	<ul style="list-style-type: none"> ■ Question: What do the numbers on the handouts mean? ■ Answer: All of the combined sewer outfalls have been numbered to make them easily identifiable.
<i>Regional Planning Official</i>	<ul style="list-style-type: none"> ■ Question: On the map, what is the green shaded area? ■ Answer: The green shaded area is the combined sewer area. It covers all of St. Louis City and part of St. Louis County, roughly 75 square miles.

SAC Member Description	Question Asked / Comment Made & MSD Response
<i>Regional Planning Official</i>	<ul style="list-style-type: none"> ■ Question: On the map, what does BP stand for? ■ Answer: BP stands for the Bissel Point drainage area. Other parts of the system drain to Lemay, which is noted as L.

III. SITE ONE – UNIVERSITY CITY

The first tour stop was in University City where SAC members got to see smaller CSOs in primarily residential neighborhoods. Mr. Moore explained that the waterways in this area were all part of the Upper River Des Peres watershed. Questions and comments are summarized below.

SAC Member Description	Question Asked / Comment Made & MSD Response
<i>Unidentified</i>	<ul style="list-style-type: none"> ■ Question: How much rain is necessary to make the system overflow? ■ Answer: This site has about 9 overflows per year. The District has about 100 rainfall events each year, but only about 50 or 60 of these are significant enough to generate overflows.
<i>Unidentified</i>	<ul style="list-style-type: none"> ■ Question: Are most of the downspouts connected to sewers in this area? ■ Answer: Yes. The inlets are also connected to the sewers.
<i>Unidentified</i>	<ul style="list-style-type: none"> ■ Question: What are the local residents’ perceptions of the CSO in their neighborhood? Do they even know what a CSO is? ■ Answer: Most probably do not know that there is an overflow right here. Some may know that CSOs are in their community, but not so close to their houses since the water is in a channel. Occasionally they may recognize a smell and this raises their awareness. But for many, the issue – just like the sewer infrastructure – is out of sight and out of mind. This is why MSD has to work hard to raise the public’s awareness and generate interest. Our work on reducing overflows is one of the largest infrastructure investments ever.

IV. SITE TWO – HEMAN PARK

The second tour stop was Heman Park, which is located in University City. Mr. Bergenthal informed SAC members that this site usually overflows 39-40 times per year. The site was discharging while he was talking because it was raining. He noted that the park’s stream had a gauge to detect how much water is flowing into the stream. The gauge assesses the stream’s height and volume to determine the amount of stormwater runoff that enters into the stream. There are 35 stream gauges in the area and all of them have been placed in partnership with the U.S. Geological Survey.

SAC Member Description	Question Asked / Comment Made & MSD Response
<i>Regional Planning Official</i>	<ul style="list-style-type: none"> ■ Comment: MSD needs to protect buffer zones so that the stream/river has sufficient room to expand given the heavy volumes of stormwater runoff. In part, this is a planning and zoning issue for municipalities. However, MSD still needs to take the lead on this to bring about consistent action and protection.
<i>Environmental Advocate</i>	<ul style="list-style-type: none"> ■ Comment: Buffer zones are a good idea, but I'm not sure that this can be done realistically given the costs and the challenges to municipal authority.

V. SITE THREE – CLAYTONIA CREEK

The third tour stop was Claytonia Creek. Like the first two stops, this one exposed SAC members to small overflows in primarily residential or recreational areas. Mr. Moore remarked that Claytonia Creek is part of the Black Creek system, which drains into the Deer Creek system. Deer Creek drains into the River Des Peres. There are about 43 CSOs in this area out of a total of 199. The surrounding community is a high-density residential area. In areas as dense as these, MSD's overflow remediation efforts are constrained by space restrictions and disruption concerns.

No questions or comments were provided.

VI. SITE FOUR – MACKLIND OUTFALL

The fourth tour stop was the Macklind outfall. Mr. Bergenthal explained that this is the largest CSO in MSD's system. Twenty-five percent of the District's annual overflow volume comes out of this site. Macklind is a concrete channel that is abutted by industrial uses. MSD has posted signs along the channel notifying the public about the presence of CSOs.

SAC Member Description	Question Asked / Comment Made & MSD Response
<i>CRHC Project Team Member</i>	<ul style="list-style-type: none"> ■ Question: How much of the flow currently running through the channel is from neighboring streams and how much is overflow? ■ Answer: Roughly half of the channels' volume is the result of overflows. However, this particular channel receives all of the stream flow from University City, the Forest Park area and portions of St. Louis City. So, a lot of stream flow drains through this site. <p>There is a 54-inch sewer that runs under the channel carrying sewage overflows to the Lemay treatment plant. However, the two 29-foot cannot possible carry all of that overflow volume.</p>

SAC Member Description	Question Asked / Comment Made & MSD Response
<i>Municipal Official</i>	<ul style="list-style-type: none"> ■ Question: How do we address the CSO problem? ■ Answer: The EPA provides guidance on CSO reduction and remediation. At present, MSD is considering four types of options. One option is source controls. These include things like pervious pavers, detention basins, rain gardens and rain barrels. Another option is storage controls. These types of controls store flow until neighboring treatment plants can accommodate it. A third option is treatment. MSD could put treatment plants at outfalls. This option could work in primarily industrial areas, but will likely be unacceptable in largely residential ones. The fourth major option is sewer separation. MSD could separate parts of the collection system so that stormwater and wastewater are handled independently of one another. The challenge with this is that MSD owns part of the sewer system, but the public owns the other part. The public's ownership extends to the pipes and plumbing in businesses and houses, so retrofitting these would be the public's responsibility. The cost would therefore be the public's to bear. The other issue here is that separating the sewers would reduce the amount of stormwater runoff that gets treated. Given the District's size and complexity, it is likely that it will have to pursue some combination of all of these options where appropriate.

VII. SITE FIVE – MACKENZIE CREEK

As SAC members rode along Mackenzie Creek, Mr. Bergenthal pointed out a number of CSO sites. He noted that all of the water currently in the channel was backwater from the Mississippi River, which creates a problem for the District. At least 20 feet of the channel's depth was backwater, which becomes stagnant and reduces the amount of dissolved oxygen in the creek. Backwater has an adverse affect on water quality.

Mr. Moore informed tour participants that the blue lights atop of the structures along the channel go off whenever an overflow is occurring. This is part of MSD's public notification efforts.

SAC Member Description	Question Asked / Comment Made & MSD Response
<i>Regional Planning Official</i>	<ul style="list-style-type: none"> ■ Comment: Great Rivers Greenway has just developed a new greenway in this area.

VIII. SITE SIX – LEMAY TREATMENT PLANT

Mr. Moore provided a brief overview of the Lemay Treatment Plant along with Neil Frankenberg, the plant’s manager. The plant is currently undergoing construction that will expand its capacity. MSD has six of these types of facilities to treat the region’s sewage. Lemay was opened in May 1968 and subsequently expanded in 1985. As a secondary treatment facility, it performs two types of treatment – physical and biological.

The plant was originally designed to handle 167 million gallons of sewage per day. Now, it treats 240 million gallons per day during wet weather events. The current construction effort will add an extra 100 million gallons per day of capacity during wet weather. This is part of the District’s CSO reduction initiative. The cost to add plant capacity is \$87 million.

No questions or comments were provided.

IX. SITE SEVEN – MILL CREEK PUMP STATION

SAC Member Description	Question Asked / Comment Made & MSD Response
<i>Environmental Advocate</i>	<ul style="list-style-type: none"> ■ Comment: If MSD has already classified the Mississippi River, then you have made up your mind about how we should use the river. Then, what is our (SAC) purpose? ■ Response: A few years ago the EPA forced Missouri to classify its streams and rivers. The State didn’t have the resources to conduct a scientific analysis, so they classified the Mississippi, along with other streams and rivers, as swimmable. However, the State said any community could submit a use attainable analysis (UAA), if they desired. MSD filed a UAA for the Mississippi. While our findings are that CSOs are not the major factor impacting water quality, due to upstream activities, this portion of the river is unsafe due to barge traffic and river velocity. We need your input and public feedback to help us prioritize the investment. For example, with limited funds should we invest in CSO reduction here (the Mississippi) or University City (River Des Peres)?
<i>Environmental Advocate</i>	<ul style="list-style-type: none"> ■ Question: What are the major contributors to water pollution in the Mississippi River? ■ Response: We need to change our behavior around pet waste and salt usage.
<i>Regional Planning Official</i>	<ul style="list-style-type: none"> ■ Comment: Deer Creek, Gravois Creek and Maline Creek should have use classifications so that they get greater levels of protection and restoration resources. A lot of urban streams that are accessible to the public are attractive to children for wading purposes. This should be a consideration when the District is thinking about prioritization of its CSO resources. ■ Response: The MO Department of Natural Resources has a work group that is addressing this issue right now. The purpose of the group is to determine the right level of classification along these and other waterways.

SAC Member Description	Question Asked / Comment Made & MSD Response
<i>Business Representative</i>	<ul style="list-style-type: none"> ■ Question: How will the improvements be funded? ■ Response: Mostly from user rates. Bonds will help us to complete construction at a faster pace.

X. NEXT STEPS

The next SAC meeting will be held on Thursday, July 10 from 1:30 pm until 3:30 pm at MSD headquarters. At this meeting, members will learn about the impacts of CSOs on receiving streams' water quality. They will also be given an overview of the environmental considerations that MSD and the public must take into account when deliberating upon overflow remediation options.

Appendix – SAC Meeting Two Attendees

SAC Members

- Chris King
- Marjorie Melton
- Mark Vogel
- Kathleen Strout
- Mike Nelson
- David Wilson
- Todd Antoine

Clean Rivers Project Team Members

- Gary Moore
- Jon Bergenthal
- Randy Hayman
- Lance LeComb
- George Tyhurst
- Jessica Perkins
- Lurna Godwin
- Leann Smart
- Rebeccah Bennett
-