

BEFORE THE ENVIRONMENTAL APPEALS BOARD
U.S. ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C.

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ENVIR. APPEALS BOARD

In the Matter of:

District of Columbia Water and Sewer Authority

NPDES permit No. DC0021199

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) NPDES Appeal Nos. 05-02, 07-10
) 07-11 and 07-12
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)
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**REGION III MOTION FOR LEAVE TO FILE SURREPLY TO REPLY OF FRIENDS
OF THE EARTH AND THE SIERRA CLUB TO THE RESPONSES BY THE REGION
AND BY WASA TO THE PETITION FOR REVIEW FILED BY FRIENDS OF THE
EARTH AND THE SIERRA CLUB**

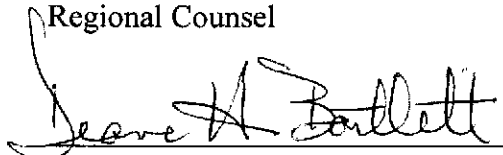
The United States Environmental Protection Agency, Region III (Region) hereby moves the Environmental Appeals Board (Board) for leave to file a Surreply to the Reply of the Friends of the Earth and the Sierra Club (FOE/SC) to the Responses of the Region and WASA concerning the petition for review filed by FOE/SC, designated Appeal No. 07-12. The Surreply is timely, as the Board's Order granting the FOE/SC Motion requesting leave to file the Reply was just granted on July 26, 2007 and will briefly address several of the arguments made by FOE/SC in an effort to clarify some of the issues before the Board. Filing of this Surreply will not prejudice any of the parties to the above-captioned proceedings.

The EAB Practice Manual does not address the issue of a Surreply, but the Region asks the Board to apply the same standards as it would to a request for leave to file a Reply. The Region has no desire to engage in endless rebuttal; simply to provide information

designed to aid the Board in its resolution of the issues in this matter.

Respectfully submitted,

William C. Early
Regional Counsel

A handwritten signature in cursive script, reading "Deane H. Bartlett", written over a horizontal line.

Deane H. Bartlett
Senior Assistant Regional Counsel
EPA, Region III

OF COUNSEL
Sylvia Horwitz
Office of General Counsel

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**REGION III SURREPLY TO REPLY OF FRIENDS OF THE EARTH
AND THE SIERRA CLUB TO THE RESPONSES BY THE REGION
AND BY WASA TO THE PETITION FOR REVIEW FILED BY
FRIENDS OF THE EARTH AND THE SIERRA CLUB**

The United States Environmental Protection Agency, Region III (Region) hereby responds to the Reply of the Friends of the Earth and the Sierra Club (FOE/SC) to the Region's Response to the FOE/SC Petition for Review, designated Appeal No. 07-12.

1. The Permit Contains Water Quality Based Effluent Limitations For CSO Discharges That Are Immediately Effective , and Therefore Are As Stringent as Those Previously Effective and a Logical Outgrowth the Proposed Provision

The Reply of FOE/SC creates the impression the final permit does not include water quality-based effluent limitations (WQBELs) that are immediately effective and require compliance with applicable water quality standards (WQS). On the contrary, the WQBELS, consisting of the Long Term Control Plan performance standards to meet water quality standards set forth in Part III. Section C. 2.A. 3-9 of the permit, are immediately effective, as is the requirement to implement and effectively operate and maintain the CSO controls identified in the LTCP set forth in Part III. Section C. 2. A. See Exhibit 2 to Region's

Response, at pages 38-45.¹ The District of Columbia Water and Sewer Authority (WASA) is thereby prohibited from discharging in violation of District of Columbia WQS. The Region has simply substituted specific WQBELs that are as stringent as necessary to meet the DC WQS for the WQBELs in the prior permit, which consisted of general language prohibiting discharges that cause excursions of District of Columbia's WQS. See Section III. C. 2. pages 43-45 of the Region's Response.

The Permit does not include a compliance schedule to meet this limits; rather, WASA is immediately prohibited under this permit from discharging except in accordance with the specified WQBELs.² Therefore, because these WQBELs provide the same level of protection as the previous limits and are immediately effective, they are not less stringent than the previous permit limits, and do not trigger the anti-backsliding prohibition under Clean Water Act Section 402(o).³

Likewise, the final WQBEL for CSOs is a logical outgrowth of the proposal. The deletion of the second sentence in the proposed Part III. Section E. of the Permit "Water Quality-Based Requirements for CSOs," which repeated the general language prohibiting discharges that cause excursions of water quality standards, simply removed language that was duplicative and less specific than the final WQBEL for CSOs in the permit.

¹Contrary to the Reply's suggestion, the permit also includes a general requirement that WASA properly operate and maintain its existing system. See Page 21 of the Permit for general operations and maintenance requirements and Pages 33 - 38 which set forth the nine minimum technology-based CSO controls for WASA and which include several specific operation and maintenance requirements. Exhibit 2 to the Region's Response.

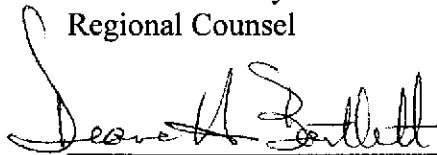
²It is understood that WASA is not now in compliance with DC WQS, which is why it is currently subject to a judicial Consent Decree containing the schedule for LTCP implementation. See Exhibit 13 to the Region's Response.

2. The LTCP In Fact Concludes That it Can Meet DC WQS

Again, the Reply is misleading, in that it argues that the LTCP acknowledges that it will not meet WQS. One needs to read beyond page 14-1 to the subsequent analyses of the water quality impact of the LTCP - and the ultimate conclusion that the remaining discharges after implementation of the LTCP will meet DC WQS. See pages 14-5 through 14-11 of the LTCP, and particularly page 14-9 ("The findings show that the Final LTCP can meet the D.C. water quality standards in accordance with the CSO Policy."), attached hereto and hereby made Exhibit 24 to the Region's Response. ⁴ As noted in the Region's Response to the Petitions, the analyses by the DC Department of Health and the Region finding that the LTCP controls are as stringent as necessary to meet DC WQS, even with the few remaining CSOs anticipated after implementation of the LTCP, is reflected in Exhibits 6, 7, 8, and 17 to the Response.

Respectfully submitted,

William C. Early
Regional Counsel



Deane H. Bartlett
Senior Assistant Regional Counsel
EPA, Region III

OF COUNSEL
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Office of General Counsel

⁴The entire LTCP can be downloaded at:
<http://www.dcwasa.com/education/css/Complete%20LTCP%For%20CD.pdf>. or the Region will be happy to provide a complete hard copy to the Board. The Region has not provided a complete copy at this time, as it is quite a large document.

CERTIFICATE OF SERVICE

I hereby certify that the foregoing 1) motion by the Region for Leave to File a Surreply to the Reply of Friends of the Earth and the Sierra Club to the Responses by the Region and WASA to the FOE/SC Petition for Review of the April 5, 2007 Final Modified Permit No. DC0021199, Appeal Nos. 07-10, 07-11 and 07-12, and 2) the Surreply, were served on this date as set forth below:

The original and five copies were mailed by Federal Express, and a copy telefaxed to:

Ms. Eurika Durr
Clerk of the Board, Environmental Appeals Board
U.S. Environmental Protection Agency
1341 G. Street, N.W., Suite 600
Washington, DC 20005

One copy was mailed by first class mail, postage prepaid to counsel for each of the Petitioners:

Chesapeake Bay Foundation:

Amy McDowell, Esquire
Jon A. Mueller, Esquire
Chesapeake Bay Foundation
Philip Merrill Environmental Center
6 Herndon Avenue
Annapolis MD 21403

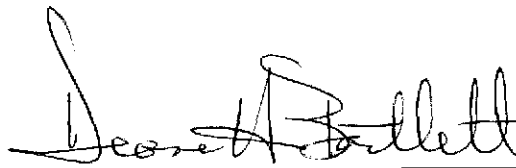
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Date: 8/2/07



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Exhibit 24

Water Quality Standards Review

14.4 SELECTED WATER QUALITY CONDITIONS

Water quality standards are, in general, designed for drought or low flow conditions in receiving waters under steady state and short term conditions. Combined sewer overflows are wet weather events and are, therefore, episodic in nature and will occur over a wide range of receiving water flow conditions.

The existing numeric water quality standards for dissolved oxygen and bacteria (fecal coliform) do not effectively describe the effects associated with combined sewer overflows. Other values have, therefore, been employed to evaluate CSO discharges. The existing numeric criteria and other values developed for evaluation of CSO discharges are summarized in Table 14-1:

Table 14-1
Evaluation Criteria for CSO Discharges

Item	Existing WQS	CSO Evaluation Criteria
Dissolved Oxygen-mg/l		
Minimum Daily Average	5.0	5.0
One hour minimum		
• March-June	5.0	5.0
• July-February	4.0	4.0
• Minimum Day	-	2.0
Fecal Coliform- #/100ml		
• Maximum 30 day Geometric Mean	200	-
• Daily Average Level	-	200 ⁽¹⁾

(1) This criterion is more stringent than a 200 count geometric mean

14.5 CSO CONTROL - GENERAL

Extensive mathematical modeling together with economic and water quality benefit comparisons have been conducted as part of development of the LTCP. These studies show that elimination (by complete separation) of combined sewer discharges to the receiving waters is not economically feasible for the District and has numerous technical and environmental drawbacks. One of the drawbacks of complete separation is the extensive disruption associated with the construction of essentially a new sewer system in the central one-third of the District. Additionally, the water quality conditions predicted for complete separation have been shown to be less beneficial as compared to control programs based on significant reductions and treatment of combined sewer overflows.

Since complete separation was found to be not cost effective and technically difficult with lower water quality benefits, the studies focused on long term controls that would reduce overflows and strike a balance between costs and benefits. The LTCP was selected as a plan that offers an effective combination of costs, benefits and environmental protection. However, although greatly reduced,

Water Quality Standards Review

CSO discharges will exist under the LTCP and water quality provisions will need to be adopted that accommodate wet weather discharges from the combined sewer system.

14.6 LTCP WET WEATHER WATER QUALITY CONDITIONS

Water quality conditions predicted in the receiving waters for the LTCP are summarized in Table 14-2 and Table 14-3.

Table 14-2
Predicted Conditions for Average Year In Receiving Waters

After Completion- LTCP		Predicted Condition for Average Year In Receiving Waters		
		Anacostia River	Potomac River	Rock Creek
1.	Location	Navy Yard	Memorial Bridge	At Zoo
2.	Annual Overflow Volume	All Outfalls	All Outfalls	All Outfalls
	• Percent Reduction	97.5%	92.5%	89.8%
3.	Fecal Coliform-Percent Time (Days) Less than 200/100ml, CSO Load Only			
	• Year Around	98.1%	98.9%	99.7%
	• May thru Sept.	96.7%	99%	99.3%
4.	Dissolved Oxygen-Number Days Less Than (CSO Load Only):			
	• 5.0 mg/l	0	0	(1)
	• 4.0 mg/l	0	0	(1)
	• 2.0 mg/l	0	0	(1)
5.	Dissolved Oxygen-Minimum Day Concentration-mg/l (CSO Load Only)	6.9	7.4	(1)

(1) Water quality standards met

Table 14-3
LTCP Wet Weather Water Quality Conditions

Item		Predicted Condition for Average Year In Receiving Waters		
		Anacostia River	Potomac River	Rock Creek
A.	Number of Annual Overflow Events			
	1. Location	Navy Yard	Mem Bridge	At Zoo
	2. No Phase I Controls	82	74	30
	3. After Completion, LTCP	2	4	4
B.	Annual Overflow Volume (mg/yr)			
	1. Location	All Outfalls	All Outfalls	All Outfalls
	2. No Phase I Controls	2,142	1,063	49
	3. After Completion LTCP	54	79	5
	4. Percent Reduction	97.5%	92.5%	89.8%

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Item	Predicted Condition for Average Year In Receiving Waters		
	Anacostia River	Potomac River	Rock Creek
C. Bacteria (As Fecal Coliform, No./ 100 ml)			
1. Location	Navy Yard	Mem Bridge	At Zoo
2. No. Mos. Class A Geo. Mean (200/100 ml) exceeded			
• All Loads (CSO, Upstream, D.C. Storm Water)			
* No Phase I Controls	11	3	12
* After Completion, LTCP	5	0	12
* Percent Reduction	55%	100%	0%
• CSO Loads Only			
* No Phase I Controls	9	0	0
* After Completion, LTCP	0	0	0
3. No. Days 200/100 ml exceeded (Year Round)			
• All Loads			
* No Phase I Controls	239	142	294
* After Completion, LTCP	182	106	294
• CSO Loads Only			
* No Phase I Controls	212	57	22
* After Completion, LTCP	7	4	1
4. No. Days 200/100 ml Exceeded (May thru Sep)			
• All Loads			
* No Phase I Controls	91	64	136
* After Completion, LTCP	61	43	119
• CSO Loads Only			
* No Phase I Controls	84	33	14
* After Completion, LTCP	5	3	1
5. Percent Time (Days) Bacteria Less than 200/100 ml			
• All Loads			
* No Phase I Controls	34.5%	61.1%	19.4%
* After Completion, LTCP	50.1%	70.9%	19.4%
• CSO Loads Only			
* No Phase I Controls	41.9%	84.4%	93.9%
* After Completion, LTCP	98.6%	98.9%	99.7%
D. Dissolved Oxygen			
1. Location	Navy Yard	Mem. Bridge	At Zoo
2. No. Days Less Than 5.0 mg/L			
• All Loads			
* No Phase I Controls	93	0	N/A ¹
* After Completion, LTCP	72	0	N/A
• CSO Loads Only			
* No Phase I Controls	0	0	N/A
* After Completion, LTCP	0	0	N/A
3. No. Days Less Than 4.0 mg/L			
• All Loads			
* No Phase I Controls	57	0	N/A
* After Completion, LTCP	35	0	N/A

Water Quality Standards Review

Item	Predicted Condition for Average Year In Receiving Waters		
	Anacostia River	Potomac River	Rock Creek
<ul style="list-style-type: none"> • CSO Loads Only * No Phase I Controls * After Completion, LTCP 	0	0	N/A
4. No. Days Less Than 2.0 mg/L	0	0	N/A
<ul style="list-style-type: none"> • All Loads * No Phase I Controls * After Completion, LTCP 	10	0	N/A
<ul style="list-style-type: none"> • CSO Loads Only * No Phase I Controls * After Completion, LTCP 	3	0	N/A
5. Min. Day Concentration-mg/L ²	0	0	N/A
<ul style="list-style-type: none"> • All Loads * No Phase I Controls * After Completion, LTCP 	0.5	5.6	N/A
<ul style="list-style-type: none"> • CSO Loads Only * No Phase I Controls * After Completion, LTCP 	2.5	5.6	N/A
<ul style="list-style-type: none"> * No Phase I Controls * After Completion, LTCP 	4.9	7.3	N/A
<ul style="list-style-type: none"> * After Completion, LTCP 	6.9	7.4	N/A

Notes:

1. Dissolved oxygen was not modeled for Rock Creek. Because of its free flowing nature, there is no evidence of dissolved oxygen problems.
2. Minimum day concentration in entire three-year period (1988-1990) as predicted by the model for the hydraulic conditions occurring in those three years.

Additional evaluations were made for the fecal coliform condition for the May through September period and are summarized in Table 14-4.

Table 14-4
Predicted Average Year LTCP Performance: Fecal Coliform - CSO Load Only

Receiving Water	LTCP Performance-CSO Load Only						Percent of Time Fecal Coliform Count Less Than 200/100 ml
	Number of Days Fecal Coliform Count is Predicted to Exceed 200/100 ml						
	May	June	July	August	September	Total	
Anacostia River at Navy Yard	1	1	2	1	0	5	96.7%
Potomac River at Memorial Bridge	0	0	1	1	1	3	98.0%
Rock Creek at Zoo	1	0	0	0	0	1	99.3%

Because fecal coliform levels are the principal concern for Class A use of the receiving waters, evaluations have been made for conditions beyond the average year. These evaluations have been made for the actual 51-year period of record for the years 1948 through 1998. The evaluations have

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been based on those rainfall events that are predicted to exceed the capacity of the Final LTCP and result in the occurrence of an overflow from the combined sewer system. The data have been summarized for the impacts from CSO loads only in Table 14-5.

**Table 14-5
Predictions for 51-Year Period of Record (1948-1998)**

<i>Item</i>	<i>Predicted Condition in Receiving Water For 51-Year Record</i>		
	<i>Anacostia River</i>	<i>Potomac River</i>	<i>Rock Creek (Piney Branch only)</i>
Total Number of Rainfall Events Resulting in a CSO	118	188	75
Average Number of CSOs per Year	2.31	3.69	1.47
Percent of Time Waters are Free From:			
• A CSO Occurrence	99.4 %	99.0 %	99.6 %
• A Fecal Coliform Level Greater Than 200/100ml ¹	98.1 %	98.0 %	99.6 %

NOTES:

1. Based on CSOs causing fecal coliform levels to exceed 200/100 ml the following number of days on average for each occurrence: Anacostia - 3 days, Potomac - 2 days, Rock Creek - 1 day.

The findings from the foregoing analyses of water quality conditions in the receiving waters for the LTCP have been summarized as follows:

- For CSO loads only in the average year and in accordance with the CSO Policy, the remaining overflows after implementation of the Final LTCP will meet the D.C. numerical water quality standards in all receiving waters.
- The D.C. standards at 1104.3 prohibit "discharges of untreated sewage". CSOs that remain after implementation of the LTCP will all have received some degree of treatment prior to discharge to the receiving waters. Generally, the treatment will be in the form of solid and floatables control. Under these conditions, the remaining CSOs would not be untreated and therefore, should meet the narrative D.C. water quality standards in all receiving waters.
- After implementation of the Final LTCP, all receiving waters are predicted to be free from average daily levels of fecal coliform (due to CSOs) greater than 200/100 ml between 98 and 99 percent of the time.
- Other pollution sources in the watersheds will have to be reduced to produce the same water quality improvements provided by the Final LTCP.

The findings show that the Final LTCP can meet the D.C water quality standards in accordance with the CSO Policy. The findings also show that on average, and based on the 51 year record of rainfall events, the LTCP would be protective of the beneficial uses of the receiving waters. Because fecal coliform levels due to CSOs are predicted to be greater than 200/100 ml about 1 to

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two percent of the time, there would be minimal disruption from CSOs to public use of the waters for full body contact.

Additionally, the findings show that pollution sources other than discharges from the combined sewer system cause impairment to the receiving waters. The other pollution sources in the watershed include separate storm water systems and nonpoint source discharges. These watershed-wide sources would have to be substantially reduced to reach the equivalent degree of protection that can be achieved by WASA's LTCP. The sources of the contaminants that comprise the other pollution sources have not been completely identified or documented.

Cost effective and reliable technical programs to effectively reduce the impact of the other pollution sources may not be available for the foreseeable future. Besides the technical uncertainties of reduction of the other pollution sources, a significant component of these sources originate in political jurisdictions outside the District. Given the history and experience of dealing with diverse pollution sources and other political jurisdictions, the results of future efforts to control these sources cannot be predicted with any degree of certainty. The CSO studies have shown that the benefits of the Final LTCP are reliable and implementable. As WASA and the District develop provisions to implement the LTCP, consideration should be given to formation of a watershed based forum to reduce the other pollution sources.

In view of the complex and technically difficult situation regarding control of diverse and undocumented pollution sources, consistent "fishable and swimmable" water quality conditions for District waters receiving CSO discharges may not be achievable, particularly during wet weather. Certainly, the studies show that the LTCP will be a fundamental component to an eventual watershed solution. As a component of an ultimate watershed solution, the LTCP will control CSO discharges in the three receiving waters for the average year to:

- Reduce the annual volume of uncontrolled CSO discharges by approximately 96 percent,
- Meet the D.C. narrative and numeric water quality standards; and
- Reduce the exceedance of a 200 per 100ml fecal coliform count to no more than about 3% of the time during the recreational season (May thru September) due to CSOs alone, if no other loads were present,

Under the conditions that are predicted for the LTCP, the District's use of "fishable-swimmable" for its waters should not need to be revised. As with many public use waters (beaches, streams), there are situations which render such waters unavailable to the public at certain times and locations. Such situations may include:

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- Unsafe high surf at an ocean beach
- Storms or temperature conditions
- Low flow or exposed rocks
- High flow (raging waters) conditions
- Nuisance aquatic life

Based on examination of the 51-year record, some of the natural conditions such as stormy weather would be expected to occur at the same time as CSOs. Overall, therefore, CSOs would not always add to those situations when waters might not be available for full body contact.

In any case, the LTCP would provide the foundation to work towards "fishable-swimmable" conditions. To such an end, the LTCP would accomplish the following:

- A situation whereby the "fishable" component of the "fishable-swimmable" use designation would be achieved. In this regard, fishing could be practiced whether or not a CSO discharge was occurring.
- A situation wherein full body contact might not be available at all times. However, there would be few occurrences throughout the warm weather recreational period when the public might occasionally be precluded from full body contact by CSO discharges.

WASA has developed a comprehensive CSO Control LTCP that can serve as a foundation for "fishable-swimmable" conditions in District waters which minimize the periods when full body contact should be avoided without inconveniencing the public use. Controls for other pollution sources would also be needed to support the protection that can be achieved under the LTCP.

14.7 WET WEATHER DISCHARGE CONDITIONS

WASA has developed a LTCP that supports public use of District waters receiving CSO discharges. Substantial financial commitments will be required by District ratepayers and by those providing financial assistance in support of LTCP implementation.

Wet weather discharge provisions need to be provided to accommodate LTCP implementation. The wet weather discharge provisions need to recognize that there will be CSOs when the capacity of the LTCP control facilities is exceeded.

WASA has been in discussions with the D.C. Department of Health and EPA regarding the nature of such provisions. The discussions have not been finalized and alternative approaches are still being considered. Under some approaches, the LTCP would be accommodated without changing the water quality standards. These approaches may involve the interpretation by regulatory agencies that the

