EXhibit 18

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION III 1650 Arch Street Philadelphia, Pennsylvania 19103-2029

JUL 2 8 2005

Mr. Jerry N. Johnson General Manager District of Columbia Water and Sewer Authority 5000 Overlook Avenue, S.W. Washington, D.C. 20032

Dear Mr. Johnson:

The Environmental Protection Agency (EPA) has carefully reviewed the proposals set forth in your letter of May 5, 2005 and clarified in Walter Bailey's e-mail of July 1, 2005. Provided below are EPA's initial comments and requests for further information. EPA cannot provide a final determination, either verbally or in writing, on whether any of these three proposals is acceptable to EPA until a formal, well documented, proposal is submitted to EPA and undergoes any necessary public review. The proposals may require a modification of the Consent Decree and/or of the NPDES permit.

Proposal 1: Reduce the peak flow factor at Blue Plains from 2.0 to 1.5 (740 million gallons per day (MGD) to 555 MGD).

The current Blue Plains Permit requires peak flows of up to 740 MGD for up to 4 hours to be treated by the full plant and discharged through Outfall 002. Excess flows are discharged through Outfall 001 as a CSO-related bypass. WASA proposes to reduce this requirement so that it needs only to treat peak flows up to 555 MGD for up to 4 hours through the full plant. Any flows above that amount would be directed through a minimum of primary treatment, chlorination and dechlorination, and then discharged through Outfall 001 as a CSO related bypass. WASA has identified the following potential benefits of this proposal:

- Greater operational stability;
- Improved treatment efficiencies;
- Improved adaptability of the Blue Plains facility to accommodate further total nitrogen controls: and
- Reduced cost.

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In order for EPA to fully evaluate this proposal, we need the following from WASA:

1. An analysis of how the increased discharge from Outfall 001 would qualify as a CSO-related bypass, in accordance with the CSO Policy;

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- 2. Information on the quantity and quality of these additional discharges through Outfall 001; and
- 3. An estimate of the total pollutant loading from the plant, if this proposal were adopted.

WASA provided a table of pollutant loadings to the Potomac River that analyzed loads at various peak flows and treatment scenarios. That table did not reflect tunnel pump-out. We would like to see that table expanded to include pollutant load estimates for tunnel pump-out as well.

Proposal #2: Use Enhanced Clarification as a substitute for conventional primary treatment in treating excess flows for discharge through Outfall 001.

The current Long Term Control Plan (LTCP) and the LTCP Consent Decree require the construction of four conventional clarifiers to treat the excess flow entering the Blue Plains Facility. WASA proposes substituting enhanced clarifiers for treatment of excess flows prior to discharge through Outfall 001. During dry weather, these enhanced clarifiers will also provide improved primary clarification of flows treated through the entire plant. WASA has identified the following potential benefits of this proposal:

- Moderate reductions (20-40%) in total nitrogen, total phosphorus, BOD, and TSS levels to the biological processes;
- Significant reductions (35-90%) in total nitrogen, total phosphorus, BOD, and TSS to Outfall 001; and
- Much improved disinfection of Outfall 001.

It would be helpful to receive a separate assessment of the pollutant load reductions expected under this proposal for both Outfall 001 and Outfall 002. EPA needs to assure that the enhanced clarification performs better than conventional primary treatment. Also, please confirm that WASA is proposing to use ballasted floc in its enhanced clarification.

Proposal#3: Direct the CSS tunnel pump out to the enhanced clarification facility and then to Outfall 001 instead of routing this wastewater through the entire biological plant.

The current LTCP requires that the after-storm pump out from the CSS tunnels be treated through the entire Blue Plains Plant and discharged through Outfall 002. WASA proposes to direct the pump out flow through the enhanced clarification facility (and chlorination and dechlorination) and then through Outfall 001. WASA has identified the following potential benefits of this proposal:

- The dilute tunnel wastewater could be treated by enhanced clarification to very low nutrient levels approaching 3 mg/l total nitrogen and 1 mg/l total phosphorus;
- Reduce stress, increase stability, and increase performance at the biological treatment units; and
- Reduced overflows during wet years due to quicker pump out of the tunnel.

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WASA has not provided the legal basis for less than full treatment for these flows. Based on information presented, this proposal would not be acceptable.

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## Other issues of concern

The Bay Partners, including Maryland, Virginia, and the District of Columbia, agreed to nutrient allocations for each jurisdiction to achieve the water quality objectives of the Chesapeake Bay. The Blue Plains Facility is already achieving the phosphorus NPDES permit limits (0.18mg/l 12 month average, 0.35mg/l 1 month average, and 1080 pounds per day 1 month average). While these limits were developed for the protection of the Potomac River, they also would appear to be adequate phosphorus controls for the protection of the Chesapeake Bay. Therefore, it is likely that the current phosphorus limits for Blue Plains will be retained.

Both Maryland and Virginia have identified their portion of Blue Plains as needing to achieve a total nitrogen loading equivalent to 4.0 mg/l for that jurisdiction's portion of the flow to the Blue Plains WWTP. In order to achieve the cap loading for total nitrogen assigned to the District of Columbia, EPA calculates the entire Blue Plains Facility's annual load to be 4.766 million pounds per year (EPA's analysis is enclosed). At a flow of 370 million gallons per day this loading equates to about 4.2 mg/l total nitrogen. EPA intends to place a total nitrogen annual loading limit of 4,766,000 pounds per year (rather than a concentration limit) in the permit to protect the Chesapeake Bay. This preliminary determination will be the subject of further review by the District of Columbia, downstream states and the public as a part of an official notice of the NPDES permit modification.

Further, based on the Chesapeake Bay Permitting Approach, developed by EPA and the Bay States, EPA intends to include nutrient limits for the protection of the Bay when the Blue Plains permit is reopened for any modification. This could occur before the scheduled 2008 renewal date of the permit.

I hope that the above information provides you with some insight on EPA's thoughts and needs with respect to each of these proposals. If you have any questions, please call me or have your staff contact Bob Koroncai at 215-814-5730.

Sincerely,

Jon M. Capacasa, Director Water Protection Division

cc:

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Robert Summers, MDE Ellen Gilinsky, VA DEQ James Collier, D.C. DOH

## BLUE PLAINS NITROGEN REQUIREMENTS TO MEET THE CHESAPEAKE BAY CAP LOAD

Summary: The Allocated Load to the Blue Plains facility (full flow) necessary to attain the nitrogen allocations for the Maryland, Virginia, and District of Columbia Portions of the Potomac River is 4,766,000 pounds/year.

## Total Nitrogen Loading Calculation:

1) Total Nitrogen Allocation to the District of Columbia: 2.4 Million pounds/year

2) Total Nitrogen Load Allocated to non-point sources (DC): 280,000 pounds/year

3) Total Nitrogen Load Allocated to CSO's (DC, after implementing the LTCP): 5,300 pounds/year

4) Total Nitrogen Load Allocated to Blue Plains (DC): 2,115,000 pounds/year

5) Maryland portion of Blue Plains Allocation: 2,070,000 pounds/year

6) Virginia portion of Blue Plains Allocation: 581,000 pounds/year

7) Total Blue Plains Allocated Load: 4,766,000 pounds per year total nitrogen

8) Total Blue Plains concentration equivalent: 4.2 mg/l

## Sources:

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1) April 28,2003 Memo from Tayloe Murphy to the Principals' Staff Committee

- 2) District of Columbia Nutrient and Sediment Strategy
- 3) District of Columbia Nutrient and Sediment Strategy
- 4) (1) (2) (3)

5) Md Trib Strategy: 4 mg/l x 8.34 x 170 MGD x 365 days/year

- 6) Virginia Water Quality Management Regulation
- 7) (4) + (5) + (6)
- 8) (7) / 8.34 /370 MGD /365 days/year