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McGUIREWOODS

May 7, 2007

BY HAND Eurika Durr Clerk of the Board, Environmental Appeals Board Colorado Building 1341 G. Street, NW Suite 600 Washington, D.C. 20005

Re: Petition for Review NPDES Permit No. DC0021199

Dear Ms. Durr:

Enclosed for filing is the original and five copies of the District of Columbia Water and Sewer Authority's Petition for Review re NPDES Permit No. DC0021199. We ask that copy of the Petition be date-stamped and returned with the courier.

Thank you for your assistance.

Sincerely,

RECEIVED U.S. E.P.A.

2007 MAY -7 AN 11: 48

ENVIR. APPEALS BOARD

stleeth@mcguirewoods.com

W. Garage

cc: Avis M. Russell, General Counsel, D.C. Water and Sewer Authority (w/o enclosures) Donald S. Welsh, Regional Administrator, U.S. EPA Region III

Stewart T. Leeth

UNITED STATES ENVIRONMENTAL PROTECTION AGENER MAY -7 AM 11: 48 ENVIRONMENTAL APPEALS BOARD

ENVIR. APPEALS BOARD

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY,

Petitioner.

NPDES Permit Appeal No.

In re: NPDES Permit No. DC0021199

PETITION FOR REVIEW

Pursuant to 40 C.F.R. § 124.19, the District of Columbia Water and Sewer Authority (WASA) submits this Petition for Review (Petition) to contest certain conditions in the April 5, 2007 modification to the above referenced NPDES permit (Permit) issued to WASA for the Blue Plains Advanced Wastewater Treatment Plant (Blue Plains) and the District of Columbia's separate and combined sanitary sewer systems.

I. OVERVIEW AND BASIS FOR GRANTING REVIEW

WASA seeks review of a final determination by the United States Environmental Protection Agency, Region III (Region) to modify the Permit to substitute a total nitrogen effluent goal with a final total nitrogen effluent limit.

WASA submits that the issues raised in this appeal involve clearly erroneous determinations by the Region and involve important matters of policy that

warrant Board review.¹ As explained in Section III below, the Region adopted the Permit's final total nitrogen limit based entirely upon an allocation derived through an informal process established under an agreement among third parties. Neither this process nor the allocation has ever been the subject of public notice and comment. Rather than utilizing this allocation as a starting point for establishing a fair and equitable nitrogen limit for WASA, the Region concluded erroneously that it could not change the allocation irrespective of information presented by WASA which showed that the allocation process was flawed and that the allocation assigned to WASA was not fair and equitable. In so doing, the Region failed to address deficiencies in the allocation upon which it based WASA's final nitrogen limit, failed to undertake meaningful public notice and comment, and failed to respond to WASA's substantive comments. The Region also failed to provide WASA with a compliance schedule as required by the applicable regulations.

The Region initially proposed to modify the Permit on August 18, 2006 to make several changes to the "Phase II" CSO conditions added to the Permit when it was modified on December 16, 2004 and to add an interim total nitrogen effluent limit. WASA timely submitted comments to these proposed modifications on October 3, 2006.² Following the close of this first comment period, the Region withdrew its proposal to add an interim total nitrogen limit, and on December 16, 2006 issued notice of its intent to modify the Permit to replace the total nitrogen effluent goal with a final total nitrogen effluent limit. WASA timely submitted comments on this proposed modification on

¹ 40 C.F.R. § 124.19(a)(1) & (2); see In re Gov't of D.C. Mun. Separate Storm Sewer Sys., 10 E.A.D. 323, 341-43, 345-47, 357 (EAB 2002) (remanding portions of NPDES permit pursuant to section 124.19(a)). ² Exhibit A.

January 18, 2007.³ WASA incorporates both its October 3, 2006 and January 18, 2007 comments herein by reference as Exhibits A and B, respectively.

II. BACKGROUND

A basic understanding of WASA's wastewater collection and treatment system, WASA's existing CSO treatment obligations, WASA's voluntary efforts to reduce nitrogen, the combined impacts of treating large volumes of combined sewer flow while removing nitrogen to the limits of technology, and the Chesapeake Bay Program allocation process is needed in order to fully understand the Region's erroneous and unlawful decision to simply convert the allocation to a permit limit without considering comments submitted by WASA which showed that the allocation process was flawed and that the allocation was not fair and equitable.

A. WASA's Wastewater Collection and Treatment System

WASA is an independent authority of the Government of the District of Columbia. It was created in 1996 by the United States and the Government of the District of Columbia and provides drinking water to the residents of the District of Columbia and regional wastewater collection and treatment to citizens and businesses in the metropolitan Washington, D.C. area. Prior to 1996, both Blue Plains and the District's wastewater collection system were operated by the District of Columbia government.

WASA operates the wastewater collection and treatment system for the District of Columbia. WASA functions independently of the Government of the District of Columbia with respect to all matters related to upgrades to the wastewater collection and

³ Exhibit B.

treatment system, and has exclusive authority with respect to its regulatory obligations and the setting of rates for its services.

Blue Plains serves portions of the surrounding areas including suburban Virginia and Maryland in addition to the District of Columbia.⁴ The service area for Blue Plains covers approximately 735 square miles. Approximately one-third of the wastewater collection system in the District of Columbia consists of combined sewers, which convey both sanitary wastewater and storm water. The combined sewer system serves the central, older portions of the District and covers about 20 square miles. Approximately 66 percent of this area drains to the lower Anacostia River, with the remainder to the Potomac River and Rock Creek. There are 53 active CSO outfalls listed in the Permit. When the capacity of the combined sewer system is exceeded during storms, the combined excess flow, which is a mixture of wastewater and storm water, is discharged to the receiving streams through the CSO outfalls.

Blue Plains is designed to provide advanced wastewater treatment (complete treatment) and excess flow treatment during combined sewer system flow (wet weather) conditions. Flow receiving complete treatment is discharged from Outfall 002 and flow receiving excess flow treatment is discharged from Outfall 001. These outfalls are located on the Potomac River, nearly 100 miles upriver from the main stem of the Chesapeake Bay.

The complete treatment facilities have the capacity to treat an average annual flow of 370 million gallons per day (mgd) and a four-hour peak rate of 740 mgd during wet

⁴ Blue Plains treats all of the wastewater generated in the District of Columbia, approximately 90 percent of the wastewater generated in Montgomery County, Maryland, approximately 50 percent of the wastewater generated in Prince George's County, Maryland, and approximately 15 percent of the wastewater generated in Fairfax County, Virginia.

weather conditions. After four hours of wet weather event peak flow, the complete treatment facilities have the capacity to treat 511 mgd. The excess flow treatment facilities comprise primary treatment and chlorination and dechlorination with a capacity of 336 mgd. Outfall 001 is a wet weather outfall and discharges only when wet weather conditions exist.

B. WASA's Long Term CSO Control Plan

With financial assistance from EPA, and after implementation of an extensive monitoring and modeling program that was endorsed by EPA, local regulators and representatives of the environmental community, WASA completed a Long Term CSO Control Plan (LTCP) Final Report in July 2002 and submitted it to EPA and the District of Columbia Department of Health in early August for these agencies' review and approval. Later, schedules for implementation of the selected CSO controls in the LTCP were established and incorporated into a consent decree between WASA and EPA which was entered on March 23, 2005 in *Anacostia Watershed Society, et al. v. District of Columbia Water and Sewer Authority, et al.*, Consolidated Civil Action No. 1:00-cv-00183-TFH.

The LTCP provides for the construction and operation of an extensive underground tunnel system that will capture combined excess flow during and following rainfall events. The LTCP also provides for the use of wet weather capacity at Blue Plains to treat excess flow not captured in the tunnels. As wet weather flow to Blue Plains begins to recede following rainfall, capacity at the plant will be used to empty the tunnels. Approximately \$860 million in treatment plant and system upgrades are currently under design or construction. When fully implemented, the selected controls in

the LTCP will reduce CSO discharges by approximately 96 percent over uncontrolled levels based on average annual wet weather conditions at an estimated cost of \$1.265 billion in 2001 dollars (over \$2 billion in current dollars). CSO discharges will continue following LTCP implementation, but they will be few and far between.

It is important to understand that the LTCP was developed before the final nitrogen limit now in the Permit was even proposed. As explained below, WASA will not be able to comply with the final total nitrogen limit efficiently and cost effectively without changes to its current LTCP and the March 23, 2005 consent decree.

C. WASA's Voluntary Nitrogen Reduction Efforts

WASA has been a leader in the Chesapeake Bay Program's efforts to achieve voluntary reductions in the discharge of nitrogen to the Chesapeake Bay watershed. WASA was one of the first municipal wastewater treatment plant operators in the Bay watershed to significantly reduce its discharge of nitrogen, and one of the few to achieve the Chesapeake Bay Program's 40 percent nutrient reduction goal by the December 31, 2000 target date. Since 1996, WASA has removed over 238 million pounds of nitrogen from the Blue Plains effluent at a total cost of over \$57 million.⁵

In 2004, EPA added a total nitrogen effluent goal of 8,467,200 pounds per year to the Permit. This goal was intended to reflect the Plant's capability to remove nitrogen utilizing excess nitrification system treatment capacity and methanol addition to the extent that it would not prevent WASA from meeting its permit conditions.⁶ Although

⁵ The Chesapeake Bay Program's nutrient reduction goals and standards include phosphorus in addition to nitrogen. Phosphorus is not an issue here because WASA has for many years consistently achieved phosphorus reductions greater than those required by the stringent phosphorus limit in its permit.

⁶ This goal represents a 40 percent nitrogen reduction from 1985 levels with the qualification that achieving the goal will not interfere with WASA's ability to meet the requirements of its permit.

this goal is not an enforceable limit, WASA has met the goal every year since it was established. Moreover, WASA continues to invest in facilities to control the discharge of nitrogen from Blue Plains. Soon after completing facilities to add methanol, which serves as a carbon source required for nitrogen removal, WASA initiated planning for additional improvements to the existing reactors and sedimentation tanks used for nitrogen removal. These internal improvements, which are scheduled for construction between 2007 and 2011, are necessary to maintain the current biological nutrient removal capability, and based on the bids that have been received, will cost in excess of \$130 million.

D. WASA's Combined Sewer Overflow Control Obligations Pose Unique Challenges to WASA's Efforts to Control the Discharge of Nitrogen at Blue Plains

Although the cost has been substantial, WASA has been able to meet the total nitrogen effluent goal in its Permit with moderate capital upgrades to Blue Plains. The new total nitrogen effluent limit, however, will require significant expenditures involving major plant upgrades to the limit of technology to control for nitrogen. WASA's dual obligations to (1) capture and treat massive amounts of wet weather flow from the District's combined sewer system, and (2) control nitrogen to levels approaching the limit of technology pose challenges faced by very few municipal wastewater utilities in the Bay watershed. If not accounted for in the design and construction of the upgrades, the large wet weather flows that WASA is required to treat at Blue Plains will significantly reduce the effectiveness of even the most sophisticated nitrogen control facilities, particularly during cold weather. Therefore, WASA must plan not just for nitrogen control to comply with the new limit, but for nitrogen control that will comply with the

limit and not prevent WASA from meeting its existing wet weather flow treatment obligations. As explained below, the cost and difficulty of meeting both of these obligations is dependent on EPA's approval of WASA's TN/Wet Weather Plan followed by modifications to WASA's existing wet weather flow treatment obligations.

WASA's existing wet weather flow treatment obligations are embodied in (1) the Permit, and (2) two consent decrees between WASA and EPA, one of which is the March 23, 2005 consent decree referenced above. Of these obligations, two are of particular significance to the new nitrogen limit. The first is the permit requirement to provide complete treatment⁷ (including nitrogen control) to peak wet weather flows up to 740 million gallons per day (mgd) for the first four hours after plant flows exceed 511 mgd. The second is the March 23, 2005 consent decree requirement to install four additional primary clarifiers to provide enhanced excess flow treatment.⁸ Based on its engineering studies, WASA has determined that it will cost more than an additional \$1.2 billion to meet the nitrogen limit with these existing requirements.⁹ WASA has also determined and informed the Region that it can meet the nitrogen limit and achieve greater overall nitrogen removal and other pollutant load reductions at a cost of approximately \$800 million if (1) the Permit is amended to reduce the peak wet weather flow requirement from 740 mgd to 555 mgd, and (2) the consent decree is modified to delete the four additional primary clarifiers and substitute enhanced clarification together with

⁷ Complete treatment at Blue Plains includes primary treatment, secondary treatment, nitrification, biological nutrient removal, post aeration, filtration, and disinfection followed by discharge from Outfall 002.

⁸ Excess flow treatment at Blue Plains includes primary treatment, and disinfection followed by discharge from Outfall 001.

⁹ The cost estimates continue to increase as project planning progresses. These increasing cost estimates reflect steep increases in the price of wastewater infrastructure experienced throughout the Chesapeake Bay watershed. *See, e.g.*, Bay Restoration Fund Advisory Comm., Annual Status Report, at 3 (Jan. 2006), *available at* <u>http://www.mde.state.md.us/assets/document/brf_annual_report_2006.pdf</u>.

conveyance facilities. The Region has for some time known of and been involved in development of the TN/Wet Weather Plan to establish the technical basis to support these changes to its wet weather treatment obligations.¹⁰ Instead of waiting to receive the Plan, the Region proceeded to modify the Permit to add the nitrogen limit without this critical information.

E. WASA's District Ratepayers are Disadvantaged Relative to Ratepayers in Neighboring Chesapeake Bay States

The burden of paying for the over \$2 billion (current dollars) CSO control program will fall primarily on the ratepayers in the District of Columbia because the combined system is located entirely within the District's boundaries. Rate projections currently indicate that even before the cost of nitrogen control is added, WASA's District ratepayers will experience steep rate increases during implementation of the CSO control program, with rates approaching 1.7 percent of median household income by 2024.¹¹ Without the changes to WASA's wet weather treatment obligations discussed above, the nitrogen limit will add an additional \$1.2 billion in capital cost (2006 dollars) and \$23 million in annual operating costs. District rates are projected to increase to more than 1.9 percent of median household income when the District ratepayer's share of these costs (approximately \$500 million and \$9 million, respectively)¹² is added to the current rate projections. Further, annual rate increases for District residents are projected to average more than 10 percent per year for at least the next 10 years during implementation of the nitrogen and CSO control programs.

¹⁰ See slides and correspondence attached to and incorporated into the January 18, 2007 comments as Attachment 1 (Exhibit B to this Petition).

¹¹ Assumes no other sources of funding.

¹² Based on the District's approximate 40 percent share in the annual average flow allocation at Blue Plains.

Few, if any, wastewater utilities in the watershed are facing the financial burden projected for WASA's District ratepayers. In contrast to the District's ratepayers, who will shoulder all of these steep rate increases, ratepayers in Virginia and Maryland benefit from State grant programs that pay a significant portion of the cost of the capital upgrades needed to meet their Chesapeake Bay-related nitrogen and phosphorus limits.¹³ These grant programs serve to spread the cost of nitrogen control among large state-wide populations, thereby significantly reducing the cost to individual ratepayers. The District's ratepayers, on the other hand, cannot benefit from a State grant program because the District's relatively small population is the only source of the revenue needed to fund the grants.

Also, Virginia's municipal wastewater utilities have the benefit of a nutrient credit exchange program which permits them to reduce or defer the cost of nutrient control by purchasing credits from other dischargers in the same watershed.¹⁴ In fact, the watershed general permit recently issued for all significant dischargers of nutrients to the Chesapeake Bay in Virginia offers each discharger the opportunity to comply with its nitrogen limit either by upgrading its treatment system or by trading for credits. WASA's ratepayers do not have the benefit of this option.¹⁵

F. The Process Used to Establish the Blue Plains Allocation

The Fact Sheet accompanying the permit modification, the Region's Response to Comments on the draft permit modification, and a December 2003 publication titled

¹³ Va. Code §§ 10.1-2117 *et seq.*; Md. Code [Envir.] § 9-1605.2.
¹⁴ Va. Code §§ 62.1-44.19:12 to -44.19:19.

¹⁵ 9 Va. Admin. Code §§ 25-820-10 to -70 (eff. Nov. 1, 2006), 23 Va. Reg. Regs. 231 (Oct. 2, 2006).

Setting and Allocating the Chesapeake Bay Basin Nutrient and Sediment Loads¹⁶ make clear that the allocation that is the basis for the nitrogen limit is based upon protecting water quality in the main stem of the Chesapeake Bay.

As explained in the December 2003 Publication, the principal elements of this Chesapeake Bay initiative include (1) EPA's adoption of water quality criteria and designated uses for the Bay, (2) adoption of water quality standards by the individual Bay states based upon the EPA criteria and uses, (3) establishment of Bay-wide nitrogen, phosphorus, and sediment load caps by the Bay program partners to achieve the standards, (4) a Bay program process for allocating the Bay-wide caps among the States and individual Bay tributaries, and (5) adoption of tributary strategies by the States which allocated the loads under each tributary cap first between point and non-point sources in the tributary and then allocated the point source nitrogen and phosphorus loads among the individual point sources within each tributary.

The allocation process described above produced a total nitrogen cap load allocation of 2.4 million pounds per year (mpy) for the District of Columbia.¹⁷ The District of Columbia government then assigned 280,000 pounds per year of this allocation to the District's non-point sources, and 5,300 pounds per year to WASA's CSOs, leaving 2,115,000 pounds per year as the District's allocation for Blue Plains. Maryland allocated 1,993,000 pounds per year of its Potomac tributary nitrogen allocation to Blue Plains for the Maryland jurisdictions served by the Plant, and Virginia allocated 581,000 pounds per year of its Potomac tributary nitrogen allocation to Blue

¹⁶ U.S. Environmental Protection Agency, Region III, *Setting and Allocating the Chesapeake Bay Basin Nutrient and Sediment Loads*, EPA 903-R-03-007 (Dec. 2003) (hereafter "December 2003 Publication"), *available at* <u>http://www.chesapeakebay.net/pubs/doc-allocating-whole.pdf</u>.

¹⁷ December 2003 Publication, tbl. IV-7, at 102.

Plains for the Virginia jurisdictions served by the Plant. This produced a total Blue Plains nitrogen allocation of 4,689,000 pounds per year, which is the precise limit the Region added in the permit modification.¹⁸

WASA does not object to elements (1), (2), (3), and (5) above.¹⁹ For the reasons discussed below, however, the process used to arrive at the 2.4 mpy nitrogen allocation for the District of Columbia under element (4) as well as the allocation itself is arbitrary and capricious.

III. GROUNDS FOR REVIEW

A. The Nitrogen Limit Is Based Upon An Erroneous Allocation Developed by Third Parties Outside the Rulemaking and Permit Modification Process

The Bay Program partners utilized the following three "guiding principles" in allocating the Bay-wide load caps to the individual states and tributaries, which, as the Region notes in its Response to Comments, reflects the Bay Program's desire to be fair and equitable²⁰:

- 1. Basins that contribute the most to the problem must do the most to solve the problem.
- 2. States that benefit most from the Chesapeake Bay recovery must do more.

¹⁸ Draft Fact Sheet, at 5 (Dec. 14, 2006).

¹⁹ We note for the record, however, that the Bay-wide 175 mpy nitrogen load cap is not based on a scientific analysis which shows that the Bay's water quality will not be restored if the load cap is exceeded. Rather, it is the product of a stakeholder process which eventually determined that a 175 mpy nitrogen load cap together with the load caps for phosphorus and sediment, generally reflect the Bay Program's water quality objectives and are achievable. *See* Chesapeake Bay Program Principals' Staff Committee Issue Paper (Mar. 21, 2003) and attachment containing list of options, which was attached to and incorporated in WASA's January 18, 2007 comments as Attachment 2 (Exhibit B to this Petition). *See also* December 2003 Publication, at 83-99. WASA does believe that the relative nature of the Bay-wide nitrogen load cap is relevant to its position that the District's total nitrogen allocation is arbitrary and can be adjusted upward without adversely affecting the Bay water quality restoration effort.

²⁰ Response to Comments, at III.A.3.

 All reductions in nutrient loads are credited toward achieving final assigned loads.²¹

Having adopted principles to drive its decision making process, the Bay Program failed to follow them in arriving at the District's nitrogen allocation. To the contrary, the December 2003 Publication relied on by the Region to justify the limit indicates that the principles were not applied correctly to the District, resulting in a smaller nitrogen allocation for the District, and, in turn, the District's share of the Blue Plains allocation. The District's nitrogen allocation would have been larger had the principles been applied correctly.

The flaws in the allocation process are illustrated by a comparison of the nitrogen reductions and allocations for the District and Pennsylvania's Susquehanna River. A correct application of principles (1) and (2) above would have led to a larger percent nitrogen reduction requirement for Pennsylvania's Susquehanna River basin than the percent nitrogen reduction requirement for the District. However, the preliminary nitrogen allocation for Pennsylvania's Susquehanna River called for dischargers to that basin to achieve nitrogen reductions totaling 55.4 percent over the baseline²², while the District's nitrogen load reduction requirement was set at 61.6 percent.²³ Although correctly concluding under principle (1) above that the Susquehanna River has a "high" impact on Bay tidal water quality and that the Potomac River has a "moderate" impact, the Bay Program erroneously assumed under principle (2) above that as a "tidal"

²¹ December 2003 Publication, at 93.

²² The baseline was calculated based on the projected nitrogen load from human activity in the year 2010 without any point or non-point source controls in place. December 2003 Publication, at 94-95.

²³ December 2003 Publication, at 99-102.

jurisdiction, the District would benefit equally with Maryland and Virginia from the Bay's recovery.²⁴

Given its location at the headwaters of tidal influence, the District is marginally a tidal jurisdiction, but it was plainly wrong for the Bay Program to assume that the District would benefit equally with Maryland and Virginia from the Bay's recovery. The District places great value on the quality of its tidal waters, but keeping in mind that the nutrient reductions are driven largely by water quality in the main stem of the Bay, there can be no question that the benefits to the District from the Bay's recovery pale in comparison to the benefits to Maryland and Virginia. The District receives no more benefit from improved water quality in the main stem of the Bay than does Pennsylvania. Water quality in the main stem of the Bay, on the other hand, is of immense value to Maryland and Virginia.

The foregoing shows that the Bay Program arbitrarily failed to correctly apply its own allocation principles. This resulted in nitrogen allocations that call for a greater percent reduction for the District than the percent reduction required of Pennsylvania's Susquehanna River basin even though the District's discharges have less impact on the problem than Pennsylvania's Susquehanna dischargers and even though the District receives no greater benefit from water quality improvement in the main stem of the Bay than the benefit received by Pennsylvania.

Further, after concluding that the reductions required by the preliminary allocations derived from the process described above would not be sufficient to meet the Bay-wide cap, the Bay Program compounded its erroneous application of its own principles by arbitrarily reducing the District's nitrogen allocation from 2.8 mpy to 2.4

²⁴ December 2003 Publication, at 94.

mpy in order to bring the allocations in line with the Bay-wide load cap.²⁵ Other nitrogen allocations were reduced as well, but it is clear from Table IV-7 of the December 2003 Publication that, on a percentage basis, the District's nitrogen allocation was reduced more than the nitrogen allocation for any other jurisdiction. Particularly significant is the relative percent nitrogen reductions required of the District compared to Pennsylvania's Susquehanna River basin. While acknowledging that, on a pound-for-pound basis, nitrogen reductions in the Susquehanna basin are a greater benefit to water quality in the Bay than nitrogen reductions in the Potomac basin, the Bay Program increased the percent reduction in the nitrogen allocation for the District from 61.6 percent to 67.2 percent (from 2.8 mpy to 2.4 mpy) while only increasing the percent reduction in the nitrogen allocation for the Susquehanna River basin from 55.4 percent to 57.1 percent (from 69.08 mpy to 67.58 mpy). The Bay Program offered no explanation or justification for these reductions.

B. The Region Failed to Acknowledge or Address Deficiencies in the Allocation and Allocation Process that are the Basis for the Nitrogen Limit in the Blue Plains Permit

In setting WASA's nitrogen limit, the Region did nothing more than simply assume that the District's 2.4 mpy nitrogen allocation developed by the Bay Program and the resulting 2,115,000 pounds per year District portion of the Blue Plains nitrogen allocation were a valid basis for establishing and imposing a nitrogen limit in the Blue Plains Permit.²⁶ Consequently, the Region has failed to fulfill its obligation as the

²⁵ December 2003 Publication, at 99-102.

²⁶ WASA has never been given the opportunity to comment either on the District's allocation or the District's portion of the Blue Plains allocation through a rulemaking process. Consequently, the proposed permit modification was WASA's first opportunity to formally comment on the allocation and the Region's intention to use it as the basis for a permit limit.

permitting authority to consider the implications of its decision, including, among other things, (1) the water quality benefit and fairness of the District's allocations derived from the wholesale process described above; (2) the extraordinary financial burden of WASA's CSO control obligations on District ratepayers; (3) the complexities and difficulties inherent in controlling nitrogen to levels approaching the limit of technology while treating massive volumes of wet weather flow from the District's combined sewer system; (4) grant funding for nitrogen control available to ratepayers in Virginia and Maryland, but not to ratepayers in the District; and (5) WASA's inability to trade for nitrogen credits to comply with the limit.

For example, the proposed nitrogen limit threatens to deprive the District's ratepayers of the opportunity to produce badly needed revenues from the sale of nitrogen credits to Virginia dischargers to the Potomac River basin. Legislation passed by the Virginia General Assembly in 2005 established a nutrient credit exchange program which, among other provisions, specifically authorizes Virginia dischargers to the Potomac to acquire credits generated by Blue Plains.²⁷ Credits are generated by discharging less nitrogen than authorized by the permit, with one credit generated for every pound of nitrogen below the limit. WASA plans to upgrade Blue Plains to control nitrogen to the limit of technology, which equates to about three milligrams per liter (mg/l) of nitrogen discharged on an annual average basis. The proposed limit reflects a discharge concentration of 4.7 mg/l at the District's 148 mgd reserved capacity in Blue Plains. While the difference between 3 mg/l and 4.7 mg/l will allow the District to generate some revenues from the sale of credits, the amount of these revenues is so small

²⁷ Va. Code §§ 62.1-44.19:12 to -44.19:19.

that they would do little to assist the District's ratepayers with the large financial burden imposed by the combined cost of CSO and nitrogen control.

Further, most other jurisdictions in the Potomac watershed have population growth rates that are greater than the District's growth rate. These jurisdictions will need to acquire additional allocations in the future to offset the nitrogen loads produced by population growth. A Blue Plains nitrogen limit based on a fair and equitable allocation for the District would also give WASA the opportunity to generate revenues by making a portion of its allocation available to other Potomac dischargers to accommodate population growth. Consequently, with a larger nitrogen allocation, WASA's financially hard-pressed District ratepayers could benefit from the revenues generated either by WASA's ability to sell credits to Virginia dischargers in the Potomac basin pursuant to the Virginia nutrient credit exchange legislation or by making a portion of the allocation available to Potomac dischargers serving faster growing jurisdictions.

Based on the above, WASA proposed in its comments that the District's total nitrogen allocation be modified to reflect the same percent reduction required of Pennsylvania's Susquehanna River basin. This would change the percent reduction required of the District from 67.2 percent to 57.1 percent, resulting in an increase in the District's nitrogen allocation from 2.4 mpy to 3.13 mpy. Although significant for the District, this increased allocation would represent less than one half of one percent of the total nitrogen load cap for the Bay, and, therefore, should have little, if any impact on standards attainment in the Bay's main stem. Further, to the extent EPA believes this 0.73 mpy increase would need to be offset, it should be subtracted from the 67.58 mpy allocation for Pennsylvania's Susquehanna River basin. The impact on individual

dischargers to the Susquehanna would be insignificant after the reduction was distributed among dischargers throughout the basin. Moreover, transferring this load reduction would have produced a net benefit to the Bay because, as pointed out above, the Bay Program has concluded that nitrogen discharged to the Susquehanna has a greater impact on the Bay than nitrogen discharged to the Potomac. WASA also proposed that the shares of the District's allocation assigned to non-point sources (280,000 pounds per year) and CSOs (5,300 pounds per year) remain unchanged, resulting in an increase in the District's portion of the allocation to 2,845,000 pounds per year, and an increase in the total Blue Plains allocation to 5,419,000 pounds per year.

The Region responded to WASA's comments by stating, in effect, that it could not change the proposed limit even if it wanted to:

EPA was only one party to the allocation agreements, accordingly it cannot modify the agreement to benefit any one of the parties.²⁸

The Region's response confirms that the Region not only failed, but refused to correct the deficiencies in the allocation that is the basis for the nitrogen limit. In fact, it is clear from the Region's response that it refused to even consider WASA's request that the limit be increased to correct the deficiencies in the allocation process. Accordingly, EPA's decision should be vacated on that basis alone.²⁹

The Region's response suggests that it believes that its responsibilities under the Clean Water Act (CWA) are superseded by the informal agreement-driven process used to derive the allocation, which, as a permit limit, now has the force of law. WASA was not a party to that process and had no meaningful opportunity to comment on or

²⁸ Response to Comments at III.A.5.

²⁹ See Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983) (an agency decision is arbitrary if the agency "failed to consider an important aspect of the problem").

participate in the development of the allocation before the Region proposed to add it as a limit to WASA's permit. As a result, the Region exceeded its authority by adopting these allocations without notice and comment, without public participation, and without publication in the Federal Register or the Code of Federal Regulations.³⁰

Moreover, the one opportunity afforded to WASA to comment on the allocation during the permit modification process has now been shown to have been meaningless. As the permitting authority in this case, the Region is required by EPA's regulations³¹ to not only provide WASA with the opportunity to have meaningful input into the establishment of the nitrogen limit, but also to exercise its own independent judgment and discretion as to the validity of the limit.³² The Region cannot delegate that duty to the Bay Program partners. By its clearly stated refusal to even consider WASA's request to increase the allocation before imposing it as a permit limit, the Region has improperly pre-judged the outcome and denied WASA the opportunity to comment meaningfully on the limit before it was imposed as a legal obligation. Accordingly, these flaws render the Region's action unlawful and arbitrary and capricious.³³

In sum, the Region adopted and retained a nitrogen limit throughout the permit modification process without weighing the relevant evidence and coming to a measured

 ³⁰ 5 U.S.C. § 553; 44 U.S.C. § 1505(a). *Cf. Appalachian Power Co. v. EPA*, 208 F.3d 1015, 1028 (D.C. Cir. 2000) (striking down an EPA draft Clean Air Act guidance as a legislative rule promulgated without notice and comment); *Barrick Goldstrike Mines Inc. v. Browner*, 215 F.3d 45, 50 (D.C. Cir. 2000).
 ³¹ 40 C.F.R. § 124.10.

³² See, e.g., United States Satellite Broad. Co. v. FCC, 740 F.2d 1177, 1188 (D.C. Cir. 1984) (recognizing EPA must "respond[] in a reasoned manner to significant comments received"); Home Box Office, Inc. v. FCC, 567 F.2d 9, 35-36 & n.58 (D.C. Cir.), cert. denied, 434 U.S. 829 (1977). The dialogue between administrative agencies and the public "is a two-way street" and "the opportunity to comment is meaningless unless the agency responds to significant points raised." Home Box Office, 567 F.2d at 35-36 (footnote omitted).

³³ See Davis v. Mineta, 302 F.3d 1104 (10th Cir. 2002) (agency decision unlawful where agency's contract with consultant to prepare a Finding of No Significant Impact predated completion of agency process); *Int'l Snowmobile Mfrs. Ass'n v. Norton*, 340 F. Supp. 2d 1249 (D. Wyo. 2004) (agency decision unlawful where agency director's memorandum prohibiting snowmobiles in parks predated decision).

decision. The Region's decision requires a measured explanation that goes beyond merely parroting a number derived outside the rulemaking process.³⁴

C. The Region Failed to Respond to WASA's Significant Comment.

Aside from the now obvious fact that the Region never intended to consider WASA's comments on the proposed nitrogen limit, its response to comments is generally not responsive to WASA's comments and totally lacking in any rational justification for the limit. The Region does not even respond to WASA's comments regarding the relative contributions of Pennsylvania's Susquehanna River basin and the Potomac River basin to the Bay's nitrogen loads and resulting water quality impacts. This contravenes basic tenets of administrative law that an agency must respond to comments.³⁵ In response to WASA's comment that the Bay Program erroneously treated the District as a tidal jurisdiction, the Region suggests that the limit is intended to protect both the Bay and the Potomac when, in fact, the Bay Program's own documents show that the allocation is based on protecting water quality in the main stem of the Bay, not the Potomac River.³⁶ Further, the Region's response suggests that it was appropriate for the Bay Program to reduce the District's allocation from 2.8 mpy to 2.4 mpy because it was agreed to by the District of Columbia government. The Region fails to note that it is WASA's District ratepayers who would bear the burden of this reduction, and that WASA, not the District government, has exclusive authority and responsibility for assuming obligations affecting the District's ratepayers.

³⁴ See Natural Res. Def. Council, Inc. v. Thomas, 838 F.2d 1224, 1254 (D.C. Cir. 1988) (overturning EPA action for failure to provide a reasoned explanation to substantiate its "notion" regarding providing a regulatory exemption).

³⁵ See Louisiana Fed. Land Bank Ass'n v. Farm Credit Admin., 336 F.3d 1075 (D.C. Cir. 2003) (agency must respond to substantive comments); National Lime Ass'n v. EPA, 627 F.2d 416, 443 (D.C. Cir. 1980) (remanding standards based, in part, on EPA's failure to respond to significant comments).

³⁶ December 2003 Publication, at 82, 83.

Finally, the Region points to the equivalent nitrogen concentration in the allocation to assert that, if anything, the District's allocation may have been too large in relation to the allocations given to Virginia and Maryland. This assertion is plainly without merit. The nitrogen concentration reflected the allocation is meaningful in this context only to the extent that it affects the cost of compliance. It is of little consolation to WASA's District ratepayers that the Blue Plains nitrogen limit reflects a higher equivalent nitrogen concentration than the equivalent nitrogen concentrations established for the Maryland and Virginia plants when their rates are double those charged to ratepayers served by these plants. The Region's failure to consider important aspects of the problems identified by WASA renders its decision invalid.³⁷

D. The Region's Imposition of the Nitrogen Limit was Premature

The Region has known for some time that WASA is developing a Total Nitrogen/Wet Weather Plan that will address critical issues related to WASA's ability to cost-effectively comply with the proposed nitrogen limit while meeting its existing wet weather CSO control obligations.³⁸ Among the issues that will be addressed in the Plan are those discussed above related to the present 740/511 mgd peak wet weather flow complete treatment requirement in the Permit and the consent decree requirement to install primary clarification for excess flow treatment. Unless these issues are resolved and (1) the Permit is amended to incorporate a 555/511 mgd peak wet weather flow complete treatment requirement, and (2) the consent decree is modified to provide for enhanced clarification in lieu of primary clarification for excess flow treatment, WASA

³⁷ See Motor Vehicle Mfrs., 463 U.S. at 43.

³⁸ See correspondence attached to and incorporated into the January 18, 2007 comments as Attachment 1 (Exhibit B to this Petition).

will be forced to spend hundreds of millions of dollars more than necessary to comply with the proposed nitrogen limit.

The Region's response to WASA's comments offers no rational justification or explanation for proceeding to include the limit in the Permit before WASA completed and submitted its Plan. First, the Region's comments suggest that it was under no obligation to wait for the Plan because it involves costs and costs are not appropriate considerations in establishing water quality-based effluent limits.³⁹

This response totally misses the point. In arguing that EPA should have waited for the Plan before adding the limit to the Permit, WASA was not arguing that the Plan would affect the limit, but that it would provide the basis for modifications to the Permit and the March 23, 2005 consent decree that could save WASA's hard-pressed ratepayers approximately \$400 million in construction costs. Adding the nitrogen limit before these critical issues are resolved violated the fundamental premise of fairness and equity underlying the allocation process that is the basis for the proposed limit.

The Region's response further states that while it has been and will continue to work with WASA to resolve issues related to the Plan, it is committed to moving ahead with the goals of the Bay Agreement.⁴⁰ The foregoing plainly is not responsive to the comment and reflects a callous disregard for consequences of the Region's actions. In its Response to Comments, the Region points to fairness and equity as the Bay Agreement's guiding principles, yet it refuses to even consider the financial impacts of its actions and the opportunity to save hundreds of millions of dollars in costs. As discussed above, it is incumbent upon the Region to "respond[] in a reasoned manner to significant comments

⁴⁰ Id.

³⁹ Response to Comments at III.A.6.

received." ⁴¹ These procedural requirements are intended to assist judicial review as well as to provide fair treatment for persons affected.⁴² Therefore, the Region's failure to respond to WASA's comments violates EPA's regulations and renders its action arbitrary and capricious. Because the Region failed to respond to WASA's comments, its decision to retain the same allocation must be reversed.⁴³

E. The Region Erroneously failed to Include Nitrogen Limit Compliance Schedule in the Permit

In its comments on the proposed nitrogen limit, WASA pointed out that the Region's failure to provide a schedule in the Permit, or provide a rational justification or legally defensible basis for failing to do so, violates the agency's own regulations, and arbitrarily puts WASA at significant risk of non-compliance with its NPDES permit. Further, WASA pointed out that the absence of a schedule in the Permit would leave WASA as the only discharger in the Chesapeake Bay watershed without a permit schedule to meet a nitrogen limit based on the Bay Program's nutrient water quality criteria.

In issuing the permit modification without a schedule, the Region confirmed its intention to include a schedule in the March 23, 2005 consent decree rather than the Permit. In so doing, the Region contends that it is under no obligation to include a schedule in the Permit and that including schedules in permits is wholly discretionary on its part. WASA submits that based on the facts of this case the Region had a non-

⁴¹ United States Satellite Broad.Co. v. FCC, 740 F.2d 1177, 1188 (D.C. Cir. 1984).

⁴² See Portland Cement Ass'n v. Ruckelshaus, 486 F.2d 375, 393-94 (D.C. Cir. 1973), cert. denied, 417 U.S. 921 (1974).

⁴³ See also National Lime Ass'n v. EPA, 627 F.2d 416, 443 (D.C. Cir. 1980) (remanding standards based, in part, on EPA's failure to response to significant comments).

discretionary legal obligation to include a schedule in the Permit, and that even if it had the discretion not to include a schedule in the Permit, it abused that discretion and acted arbitrarily and capriciously.

Further, all of the relevant criteria governing the establishment of compliance schedules in permits are satisfied in this case. First, the regulations limit the circumstances under which a permit for a new discharger can include a schedule of compliance.⁴⁷ Since this is not a new discharge, these limitations do not apply. Second, the Permit may not allow for compliance at a date later than the applicable statutory deadline under the CWA.⁴⁸ The statutory deadlines are contained in CWA §

⁴⁴ 40 C.F.R. § 122.43(a) (emphasis added).

 ⁴⁵ See In re Gov't of D.C. MS4, NPDES Appeal Nos. 00-14 & 01-09, 2002 EPA App. LEXIS 1, at *87 (EAB Feb. 20, 2002).
 ⁴⁶ 40 C.F.R. § 122.47(a)(1).

⁴⁷ 40 C.F.R. § 122.47(a)(2).

⁴⁸ 40 C.F.R. § 122.47(a)(1).

301(b)(1)(C) which provides that "not later than July 1, 1977, any more stringent limitation, including those necessary to meet water quality standards" must be achieved.⁴⁹ This Board, in the leading case on this issue, found that for post-July 1, 1977 water quality standards, "EPA may add a schedule of compliance to a permit."⁵⁰ The water quality standards which are the basis for the proposed nitrogen limit were adopted only recently. Therefore, EPA is not precluded from including a schedule in the permit based on the date that the standards were established. Third, this Board has held that a schedule can be included in a permit issued by EPA only "if the State has laid the necessary groundwork in its standards or regulations."⁵¹ The fact sheet accompanying the proposed permit amendment states that the proposed total nitrogen limit is based on the water quality standards of the District of Columbia, the Commonwealth of Virginia and the State of Maryland.⁵² Each of these jurisdictions has authorized the use of compliance schedules in permits to meet water quality based effluent limitations.⁵³ Moreover, D.C. Code *requires* that a schedule of compliance be included in a permit for any new water guality standard-based effluent limitation.⁵⁴ In its certification of the draft permit, the District's Department of the Environment stated that the Region should include a compliance schedule for the nitrogen limit in the Permit.⁵⁵

- ⁵⁴ See D.C. Mun. Reg. tit. 21, § 1105.9.

⁴⁹ 33 U.S.C. § 1311(b)(1)(C).

⁵⁰ In re Star-Kist Caribe, Inc., 3 E.A.D. 172, 176-77 (EAB 1990).

⁵¹ Id.

⁵² See Draft Fact Sheet, at 1 (Dec. 14, 2006).

 ⁵³ See D.C. Mun. Reg. tit. 21, § 1105.9; Md. Code Regs. 26.08.04.02(C); 9 Va. Admin. Code § 25-260-186;
 9 Va. Admin. Code § 25-31-250.

⁵⁵ Certification letter from Corey Buffo, Interim Director, D.C. Dep't of the Env't, Jan. 29, 2007.

As WASA meets all of the criteria noted above, EPA must provide a rational basis for failing to include a schedule of compliance in the amended permit.⁵⁶ EPA has failed to provide a reasoned basis for not including a schedule in the Permit, stating only that it will provide a schedule of compliance in a separate enforceable document. Even if the Region is correct in its assertion that it has the discretionary authority not to include a schedule in the Permit, it must still provide a rational basis for its action. Clearly, the Region has failed to do so in this case, stating only that it has the discretion to include the schedule in the consent decree rather than the Permit. This is not a justification for the Region's action, only a statement of what it did.

Aside from EPA's legal obligation, equity requires that a reasonable schedule of compliance be included in the Permit. Neighboring states have begun the process of issuing NPDES permits to add nitrogen limits for dischargers in the Chesapeake Bay watershed. In every instance, these dischargers have been or will be granted compliance schedules in their permits with EPA's knowledge and approval.⁵⁷ WASA should be accorded the same consideration.⁵⁸

⁵⁸ While WASA will require a schedule of compliance longer than five years, nothing in the EPA regulations or the CWA limits the duration of a compliance schedule to the five-year permit term. Instead, EPA regulations only require that compliance be achieved "as soon as possible." 40 C.F.R. § 122.47(a)(1). In addition, D.C. regulations allow compliance schedules beyond three years if the permittee can "demonstrate that a longer compliance period is warranted." D.C. Mun. Reg. tit. 21, § 1105.9. In addition, neither Maryland's nor Virginia's regulations restrict the time period of a compliance schedule beyond the requirement that compliance be as soon as possible. See 9 Va. Admin. Code § 25-31-250(A)(1); 9 Va. Admin. Code § 25-260-186(B); Md. Code Regs. 26.08.04.02(C)(2)(a)(ii).

⁵⁶ See Motor Vehicle Mfrs., 463 U.S. at 57 ("[A]n agency changing its course must supply a reasoned analysis.") (quoting Greater Boston Television Corp. v. FCC, 444 F.2d 841, 852 (D.C. Cir. 1979) (footnote omitted)), cert. denied, 403 U.S. 923 (1971)).

 ⁵⁷ See, e.g., 9 Va. Admin. Code § 25-820-40, 23 Va. Regs. Reg. 231, 237 (Oct. 2, 2006) (providing compliance schedules for all holders of individual VPDES permits that discharge or propose to discharge nitrogen or phosphorus to the Chesapeake Bay or its tributaries); Approach for Managing Nutrient Caps for Point Sources in Maryland's Chesapeake Bay Watershed (Preliminary Discussion Draft – April 7, 2006), which is attached to and incorporated into these Comments as Attachment 3 of January 18, 2007 comments (Exhibit B to this Petition).
 ⁵⁸ While WASA will require a schedule of compliance longer than five years, nothing in the EPA

IV. CONCLUSION

For the forgoing reasons, WASA seeks the Board's review of the Region's final decision modifying the Permit to substitute a total nitrogen effluent goal with a final total nitrogen effluent limit and requests that the nitrogen limit be vacated and remanded to the Region.

Dated: May 7, 2007

Respectfully submitted,

District of Columbia Water and Sewer Authority

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CERTIFICATE OF SERVICE

I hereby certify that a true copy of the foregoing Petition for Review before the Environmental Appeals Board was mailed, first-class, postage pre-paid, this 7th day of May, 2007 to the following:

> Donald S. Welsh Regional Administrator U.S. Environmental Protection Agency, Region III 1650 Arch Street Philadelphia, PA 19103-2029

- fulls

Stewart T. Leeth