EXHIBIT D

FINAL FACT SHEET
NPDES PERMIT MODIFICATION
DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
WASTEWATER TREATMENT PLANT AT BLUE PLAINS
WASHINGTON, DC

April 5, 2007

NPDES Permit Number: DC0021199

1. NOTICE OF PERMIT MODIFICATION

The United States Environmental Protection Agency, Region III (EPA) has decided to modify the permit issued on January 24, 2003 to the District of Columbia Water and Sewer Authority (WASA), for the discharge of treated municipal wastewater from the Blue Plains Wastewater Treatment Plant and treated and untreated storm water through the District of Columbia's combined sewer system, as described in the permit application and herein. As discussed below, EPA finds modification to be appropriate in light of its review of the permit conditions, as well as certain issues raised by the permittee and by Friends of the Earth and the Sierra Club, each of which filed a petition with the Environmental Appeals Board (Board) requesting review of certain provisions of the December 16, 2004 modification of the January 24, 2003 permit.

On August 18, 2006, EPA offered for public comment a draft permit which contained several modifications to replace the former water quality based requirements for Combined Sewer Overflow (CSO) discharges found at Part III. Section E.1. In addition, EPA proposed to remove the numeric limits contained in Part III. E. 2. which had been derived from specific District of Columbia total maximum daily loads (TMDLs)for pollutants in the Anacostia River and for Rock Creek and its tributaries, along with the related monitoring and reporting requirements contained in Part III. Sections E. 3 and 4.

The August 18, 2006 draft permit modification also contained a proposed interim effluent limit for nitrogen, which took into account the Ambient Water Quality Criteria for the Chesapeake Bay and its Tidal Tributaries (EPA-903-R-03-002), which have been incorporated into the District of Columbia Water Quality Standards, as well as the water quality standards of the Commonwealth of Virginia and the state of Maryland. The August 18, 2006 draft modified permit also proposed a revised annual discharge goal for nitrogen.

EPA received comments from several interested parties, including WASA, the Blue Plains Regional Committee, the Chesapeake Bay Foundation, EarthJustice (for Friends of the Earth and the Sierra Club) and the Commonwealth of Virginia and the state of Maryland. The

comments questioned the technical basis for the specified interim limit and asserted that the nitrogen limit in the permit should reflect the final nitrogen allocation given to the facility as a result of the Chesapeake Bay Agreement. The Blue Plains allocation is 4.689 million pounds per year of total nitrogen. Having considered these comments, on December 14, 2006, EPA proposed a different modification to the nitrogen limit in the permit, incorporating an effluent limit consistent with the final Chesapeake Bay allocation: a total annual discharge of total nitrogen of no more than 4.689 million pounds. The affected permit provisions are: Part I. Section B., footnote 10 and Part IV. Section E. Comments on the December 14, 2006 draft modification were received from all of the parties who commented on the August 18, 2006 public notice, as well as the U.S. Fish and Wildlife Service and the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service.

All permit requirements are based on the Clean Water Act (33 U.S.C. § 1251 et seq.), hereinafter referred to as the Act, and NPDES regulations (40 C.F.R. Parts 122, 124 and 133).

2. PERMITTING AUTHORITY

The NPDES Permitting authority is: U.S. Environmental Protection Agency, Region III (EPA), Office of Watersheds (3WP13), 1650 Arch Street, Philadelphia, PA 19103. The permit writer is: Mary Letzkus (215-814-2087), NPDES Permits Branch.

3. PERMITTEE

The Permittee is: District of Columbia Water and Sewer Authority (WASA), Blue Plains Wastewater Treatment Plant, 5000 Overlook Avenue, Washington, DC 20032. The contact person is: Walter Bailey (202-787-4172).

4. EFFECTIVE DATES

The modifications to the permit will become effective **60** days after the final determinations are made, unless a petition for review by the Environmental Hearing Board request for an evidentiary hearing is filed within 30 days after receipt of the final determination. The modified permit shall expire on February 25, 2008.

5. PUBLIC NOTICE.

Draft modified permit conditions were offered for 30-day public comment on August 18, 2006 and December 14, 2006, at which times EPA published notices in the *Washington Times*. In addition to the notice in the *Times*, in accordance with the requirements found at 40 C.F.R. Section 124.10(c)(1), EPA mailed copies of each notice, draft permit modification and draft fact sheet to persons living in the District of Columbia and the surrounding area who are known to EPA to be interested in such matters

6. BRIEF DESCRIPTION OF THIS ACTION.

A. Background

On January 24, 2003 the Director of the Water Protection Division, EPA Region 3 made final determinations with respect to permit issuance and a final permit was issued to the permittee. Petitions to review certain provisions of the permit were timely filed with the Board by the permittee and jointly by Friends of the Earth and the Sierra Club. Following a period of negotiations, EPA published a notice of proposed modifications to the permit intended both to resolve the issues presented in the petitions for review, and to add provisions to the permit intended to conform to the Phase II permitting provisions of the 1994 CSO Policy. The final permit modification was issued on December 16, 2004. Both the permittee and Friends of the Earth and Sierra Club (jointly) filed timely petitions for review of certain of the CSO Phase II provisions of the modified permit, specifically to Part III. Sections E. 1 through 4. In addition, the permittee asserted that EPA should have included a compliance schedule for implementation of the Long Term Control Plan (LTCP) into the permit. There is a schedule of compliance for the LTCP included in a Consent Decree between EPA and the permittee.

In an effort to resolve the issues underlying the petitions for review, the parties engaged in negotiations, which were ultimately unsuccessful. However, based upon its own review of the provisions, as well as issues raised in the negotiations, EPA decided to propose modifications to the challenged provisions. Accordingly, on August 10, 2006, EPA withdrew the challenged permit provisions. The only issue remaining before the Board is the permittees request that the Board require EPA to include a compliance schedule for the LTCP in the permit. As described above, on August 18, 2006, EPA offered a draft modified permit for public comment which set forth proposed modifications to the Part III. Section E. 1.- 4.. In addition, at that time EPA proposed to modify the permit to include an interim total nitrogen discharge limit, and a revised total nitrogen discharge goal. Upon consideration of the comments on the proposed interim nitrogen discharge limit and the proposed nitrogen discharge goal, on December 14, 2006 EPA proposed a different draft permit modification to that included a final nitrogen discharge limit that reflects the Chesapeake Bay nitrogen discharge allocation for Blue Plains. EPA has prepared a Response to Comments received on both the August 18, 2006 and the December 14, 2006 proposals along with this final permit action.

B. Modifications to the Modified Final Permit.

EPA modified the following permit conditions:

1. Part III. Section E. 1. : Water Quality-Based Requirements for CSOs

EPA has revised this provision with a provision that provides that the Long Term

Control Plan (LTCP) performance standards contained in Part III. Sections C.2.A.3. through C.2.A.9. are the applicable water quality-based effluent limitations (WQBELs) for the CSO discharges that are authorized under the permit. Upon review of the comments as well as applicable law and policy, EPA has determined that the LTCP performance standards are the appropriate WQBELs for these discharges. The use of the LTCP performance standards as the WQBELs for CSO discharges is consistent with the CSO Policy, which requires *inter alia* that a Phase II permit include WQBELs "specifying at least one of the following....; or iv. performance standards and requirements that are consistent with II.C.4.b of the Policy (relating to use of the "demonstration" approach in the development of the LTCP, which is the approach the permittee elected for Blue Plains). See 59 FR 18696, columns 1 and 2. In addition to setting forth the performance standards in the permit (see Part III., Section C.2.A. 3 - 9), it is appropriate for EPA to indicate that these are the water quality-based effluent limits that apply to the discharges. Given that there are now specific WQBELs, EPA believes that a general requirement to comply with water quality standards is unnecessary, redundant and would not as clearly specify the permittee's obligations. Therefore, that portion of the proposed provision has been deleted.

It is understood that the permittee may not be able to comply with the performance standards until the LTCP is fully implemented. EPA and the permittee have entered into a Consent Decree in U.S. v District of Columbia Water and Sewer Authority, et al., Civil Action No: 1:002CV02511 (Dist. Ct. D.C.) (LTCP Consent Decree), which requires implementation of the LTCP, and which serves to place the permittee on a schedule to achieve compliance. Implementation of the LTCP is anticipated to result in compliance with water quality standards. If it is determined, based upon post-construction monitoring, that the LTCP controls fail to achieve WQS, then EPA intends, consistent with the CSO Policy and the CWA and its regulations, to require the permittee to take additional steps to achieve WQS and shall modify or reissue the permit accordingly and use an additional enforceable mechanism as necessary.

2. Part III. Section E. 2 through 4. : TMDL-Derived Limits

The final permit modification deletes the numeric effluent limits derived directly from the numeric wasteload allocations (WLAs) included in specific total maximum daily loads (TMDLs) that were previously included directly as effluent limits, as well as the monitoring and reporting requirements associated with those limits. Instead, based on 40 C.F.R. Section 122.44(d)(vii)(B), EPA is ensuring consistency with the applicable WLAs through the permit limitations and conditions requiring implementation of the LTCP according to the performance standards in Part III. Sections C.2.A.3 through C.2.A.9. Development and articulation of those performance standards took the WLAs into account and should achieve those WLAs, using the same modeling that EPA and/or the District of Columbia used to derive the WLAs for CSOs for the Anacostia River and Rock Creek (including its Piney Branch tributary) in applicable approved TMDLs. EPA intends to evaluate the post-construction monitoring required by the permit prior to re-issuance of the subsequently issued permit to ensure again, based on additional information, consistency between these permit controls and the assumptions and

requirements of the applicable TMDL WLAs. Over the duration of the LTCP implementation, additional "real world" data will be developed enabling the permittee, as well as EPA, to ensure the effectiveness of the performance standards and the validity of the modeling used to develop both the LTCP and the applicable TMDLs. If EPA determines that the LTCP performance standards do not ensure consistency with the assumptions and requirements of any applicable TMDL WLAs, EPA may require the permittee to develop and implement additional controls to ensure consistency with the assumptions and requirements of applicable WLAs. [1]

3. Part IV. Section E. and Part I, Section B. Footnote 10.: Total Nitrogen

In accordance with Chesapeake 2000 Agreement, EPA developed the Ambient Water Quality Criteria for the Chesapeake Bay and its Tidal Tributaries (EPA-903-R-03-002) (April 2003 - and periodic modifications) (EPA Bay Criteria) in order to achieve and maintain the water quality conditions necessary to protect the aquatic living resources of the Bay and its tidal tributaries. The EPA Bay Criteria represent the nutrient and sediment criteria expressed as dissolved oxygen (DO), water clarity and chlorophyll.

The existing permit contains a total annual nitrogen discharge goal of no greater than 8,467,200 pounds per year. The state of Maryland and the Commonwealth of Virginia and the District of Columbia recently adopted changes to their water quality criteria and refined aquatic life uses for tidal Chesapeake Bay waters and EPA has approved those changes as consistent with the Bay Criteria Guidance. Revisions to the Chesapeake 2000 Agreement establish a goal of achievement of the EPA Bay Criteria by 2010. By including the nitrogen limit in the Blue Plains permit, EPA is moving toward achievement of that goal, as well as toward compliance with the DC water quality standards and those of the other states affected by this discharge.

Based upon the EPA Bay Criteria Guidance and prospective state water quality standards, EPA and the Bay states (Virginia, Maryland, Delaware, New York, Pennsylvania and the District of Columbia) established cap loadings for the major basins for each of the states for nitrogen, phosphorous and sediment. The states were to develop tributary strategies to achieve the agreed to allocations. The process used to develop the allocations is set forth in *Setting and Allocating the Chesapeake Bay Basin Nutrient and Sediment Loads*, (EPA 903-R-03-007),

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[1]The applicable TMDLs are those for total suspended solids (TSS) and biochemical oxygen demand (BOD). The TMDLs were challenged, based largely on EPA's establishment of annual, rather than strict daily allocations. A Court of Appeals ruling, reported as Friends of the Earth v. EPA, 446 F.3d. 140 (D.C. Cir. 2006) overturned the District Court's November 29, 2004 decision favorable to EPA regarding these TMDLs. The Court of Appeals found that the Anacostia TMDLs did not comply with the CWA requirements to contain daily loads of pollutants. Based on that finding, the Court remanded the TMDLs. The District Court has currently stayed the vacature of the TMDLs until July 15, 2007 (TSS) and June 2008 (BOD), so these TMDLs remain in effect while EPA is in the process of redoing them. If the ultimate revisions to the TMDLs result in significant differences in the wasteload allocations for the Blue Plains facility, this will be addressed in subsequent permitting actions.

December 2003(Bay Allocation Document).

To achieve the EPA Bay Criteria, the Bay-wide annual nutrient loading goals are 175 million pounds of nitrogen and 12.8 million pounds of phosphorus. The District of Columbia's portion of the Bay allocation is divided among non-point sources, WASA and CSOs. Blue Plains is the largest waste water treatment plant (WWTP) on the Bay and is the only WWTP located in the District of Columbia. The state of Maryland and the Commonwealth of Virginia also allocated some of their nitrogen and phosphorus cap loading to the Blue Plains Facility. Together these cap allocations assigned to the Blue Plains facility yield a total nitrogen Bay allocation of 4.689 million pounds per year. The calculations for total nitrogen are as follows:

a. Total nitrogen allocation to the District of Columbia: 2.4 million pounds/year
b. Total nitrogen load allocation to non-point sources (DC): 280,000 pounds/year
c. Total nitrogen load allocated to CSO's (DC after implementation of the LTCP): 5,300 pounds/year
d. DC portion of the Blue Plains allocation: 2,115,000 pounds/year
e. Maryland portion of Blue Plains allocation: 1,993,000 pounds/year
f. Virginia portion of Blue Plains allocation: 581,000 pounds/year
g. Total Blue Plains allocated load 4,689,000 pounds/year total nitrogen
h. Total Blue Plains concentration equivalent: 4.2 mg/l

Based upon this formula, the final mass load limit for Blue Plains equates to an annual average effluent concentration of 4.2 mg/l or a total mass load of 4,689,000 pounds per year for total nitrogen, which is the new permit limit. EPA understands that the Blue Plains facility is not currently designed to achieve the limit on a consistent basis. In order to do so, it is anticipated that new and/or retrofitted treatment technologies must be installed at the Blue Plains facility. Therefore, EPA intends to establish a schedule for compliance with the nitrogen limit in a separate enforceable document. One means of achieving this is through a modification to the Consent Decree between EPA and the permittee in U. S. v District of Colombia Water and Sewer Authority, et al., Civil Action No: 1:002CV02511(Dist Ct. D.C.), which would incorporate a schedule and criteria for compliance with the nitrogen limit.

In addition to meeting the EPA Bay criteria, the modification to the total nitrogen limit complies with 40 CFR Section 122.4(d) and 122.44(d) (compliance with water quality standards for all the affected states). It can be concluded that an annual nitrogen load at Blue Plains which exceeds the 4.689 million pounds per year mass load has a reasonable potential to cause or contribute to an exceedance of the state water quality standards.

Compliance with the final limit will be determined based on a calendar year beginning with January 1 and ending on December 31 each year.

7. FACILITY DESCRIPTION.

The Blue Plains Wastewater Treatment Plant is the largest advanced waste water treatment plant in the world. It covers 150 acres, has a design capacity of 370 million gallons per day (mgd), and a peak capacity of 1.076 billion gallons per day. The collection system includes 1,800 miles of sanitary and combined sewers, 22 flow-metering stations, nine off-site wastewater pumping stations and 16 storm water pumping stations within the District. Separate sanitary and storm sewers serve approximately two-thirds of the District. In older portions of the system, such as the downtown area, combined sanitary and storm sewer systems are prevalent.

The Blue Plains Wastewater Treatment Plant serves the District of Columbia, Montgomery and Prince Georges Counties in Maryland and Fairfax and Loudoun counties in Virginia. Waste water capacity for the District of Columbia is allocated at 153 mgd; the Washington Suburban Sanitary Commission (which serves Montgomery and Prince Georges Counties in Maryland), has an allocation of 169.6 mgd; Fairfax County, Virginia, has an allocation of 31 mgd; Loudoun County has an allocation of 16.4 mgd; and other Potomac interceptor users share an allocation of 16.4 mgd.

During wet weather, the plant flow capacity varies depending upon whether or not the peak flow occurs for greater than or less than four (4) hours. The plant has two discharge points, Outfalls 001 and 002.

Outfall 002, which also discharges to the Potomac River, is the principle discharge point. Treatment for this outfall includes primary treatment, secondary treatment, nitrification, biological nitrogen removal, filtration, disinfection and dechlorination. Outfall 001 functions as an excess flow conduit and is used to avoid hydraulic overloads to the plant during wet weather. Effluent from Outfall 001, which also discharges to the Potomac River, receives primary treatment, disinfection and dechlorination. Outfall 001 has been characterized as a CSO-related by-pass, pursuant to the 1994 Combined Sewer Overflow Policy ("CSO Policy").

The treatment plant and sewer system discharge to the Potomac and Anacostia Rivers, Rock Creek and tributary waters. In its Water Quality Standards (WQS), the District of Columbia has designated these streams for primary contact recreation, aesthetic enjoyment, aquatic life, water oriented wildlife, raw water source for industrial water supply and for navigational use.

The permittee operates a CSO system which has a total of 62 outfalls. There are 15 CSOs which discharge to the Anacostia, 13 CSOs on the Potomac, and 30 CSOs that discharge to Rock Creek. This system is designed to convey waste to the treatment plant and to prevent wet weather flow from exceeding the hydraulic capacity of the sewers and/or the treatment plant. EPA requested an accounting of all outfalls in the CSO system. Included among the outfalls identified in the permit are Outfalls 004, 008, 061 and 062, which are emergency relief points at pump stations. They are not authorized to discharge.

During the life of this permit, the waste water treatment plant will undergo a program of improvement and rehabilitation, which will affect most of the treatment processes at the plant. The construction has been divided into seven major phases which necessitates the removal of significant process tankage from service. During the construction period, as significant plant facilities will be out of service in nearly every plant process, an estimated 25 percent reduction will be required in the amount of wet weather peak flows receiving full treatment and the wet weather peak flows receiving primary/disinfection treatment.

The Blue Plains Waste Water Treatment Plant consists of the following treatment technologies:

Primary Treatment - a waste water treatment process that allows particles which float or settle to be separated from the water being treated. At Blue Plains, this process includes the following processes: raw wastewater pumping; grit removal; grease separation and primary sedimentation. Solids removed from the process are treated by digestion, elutriation and dewatering.

Secondary Treatment - is a waste water treatment process used to convert dissolved or suspended materials into a form which can be separated from the water being treated. This process usually follows primary treatment by sedimentation. At Blue Plains, secondary treatment is accomplished by means of a modified-aeration step-feed activated sludge process. The secondary treatment facilities are comprised of aeration basins, secondary sedimentation basins, sludge return and wasting systems, the secondary blower facilities with associated blowers and diffusers and pumping stations. At Blue Plains carbon is reduced by use of coarse bubble diffused aeration and the plant uses chemical precipitation for phosphorus removal.

Biological Nitrogen Removal (BNR) - a process whereby ammonia nitrogen is converted to nitrate nitrogen. The process also includes denitrification facilities for nitrogen removal, filtration for effluent polishing and chlorination for effluent disinfection. Blue Plains retrofitted existing facilities to enable full plant BNR operation in the spring of 2000.

Nitrification - an aerobic process in which bacteria change the ammonia and organic nitrogen in waste water into oxidized nitrogen (usually nitrate). The second stage biological oxygen demand (BOD) is sometimes referred to as the "nitrification stage," first stage BOD is called the "carbonaceous stage." Blue Plains employs sparged air turbines for oxygenation.

Denitrification - an anaerobic process that occurs when nitrite or nitrate ions are reduced to nitrogen gas and bubbles are formed as a result of this process. The bubbles attach to the biological flocs and float the flocs to the surface of the secondary clarifers. This condition is often the cause of rising sludge observed in secondary clarifers or gravity thickeners. At Blue Plains, the denitrification facilities are able to treat the entire plant flow under limited conditions of process load and temperature.

Filtration and Disinfection and Dechlorination - includes multimedia filtration of nitrified effluent and disinfection of the filtered effluent by chlorination and dechlorination prior to discharge.

Solids Process - includes gravity thickening and anaerobic digestion of primary sludges, air flotation thickening of waste activated and chemical sludges, vacuum filtration of the thickened and digested sludges and direct off-site disposal of the vacuum filter cake.

Chemical Addition - Chemicals may be employed in the liquid stream treatment operations for a variety of functions. The chemicals employed and the treatment application are described briefly below.

Odor Control - Chlorine may be applied at raw wastewater pumping station numbers 1 and 2 and to the effluent from the grit removal facilities.

Settleability Enhancement - Polyelectrolytes (polymers) may be added as follows: Influent to primary sedimentation; Influent to secondary sedimentation; and Influent to nitrification sedimentation

Phosphorus Removal - Iron salts including ferric chloride, ferrous sulfate and liquid alum may be added to the unit process as follows: primary sedimentation, secondary treatment; nitrification and effluent filtration.

Metal Salts - are used for the precipitation of phosphorus and as an aid in enhancing Settleability of sludges and mixed liquors.

pH - Lime is applied to the effluent to nitrification in order to maintain an adequate pH level for the nitrification process.

Foam Control - Commercial defoamant compounds can be added to secondary treatment and nitrification as needed.

Disinfection - the process used to kill most microorganisms in wastewater including essentially all disease causing bacteria. At Blue Plains, chlorine is used to disinfect effluent discharged from both plant outfalls.

Dechlorination - as noted above, chlorine is used to disinfect effluent discharged at both plant outfalls; however, excess chlorine is removed from the effluent by the addition of sulfur dioxide.

Solids Processing - Polymers are used in the dissolved air floatation thickening process as stabilization along with ferric chloride for aiding dewatering during vacuum filtration and at the centrifuges as a dewatering aid.

8. PERMIT EFFLUENT LIMITS.

The permit effluent limits remain the same, except for the nitrogen limit referenced above.

9. GENERAL PERMIT CONDITIONS.

General conditions are requirements that must be incorporated into every permit, in accordance with 40 C.F.R. Sections 122.41 and 122.42. These requirements delineate the legal, administrative and procedural requirements of the permit. No provisions of this part have been modified from the December 16, 2004 permit.

10. COMBINED SEWER SYSTEM PERMIT CONDITIONS.

These conditions are designed to comply with the 1994 CSO Policy.

11. SPECIAL CONDITIONS.

The Special Conditions remain unchanged from the January 24 permit with the exception of the following:

- Part IV.E has been modified to include a revised total limit of 4.689 million pounds per year of total nitrogen.

12. Public Notice Publication Date: August 18, 2006 and December 14, 2006.

13. DC 401 Certification Received: October 31, 2006 and January 29, 2007.

14. Commonwealth of Virginia Comments Received: October 5, 2006 and December 22, 2006.

15. State of Maryland Comments Received: September 27, 2006 and January 12, 2007. The State of Maryland does not object to the final total nitrogen limit of 4.689 million pounds per year, however, it withholds final comment until it has had an opportunity to review the compliance schedule.

16. NMFS Comments Received: January 23, 2007.