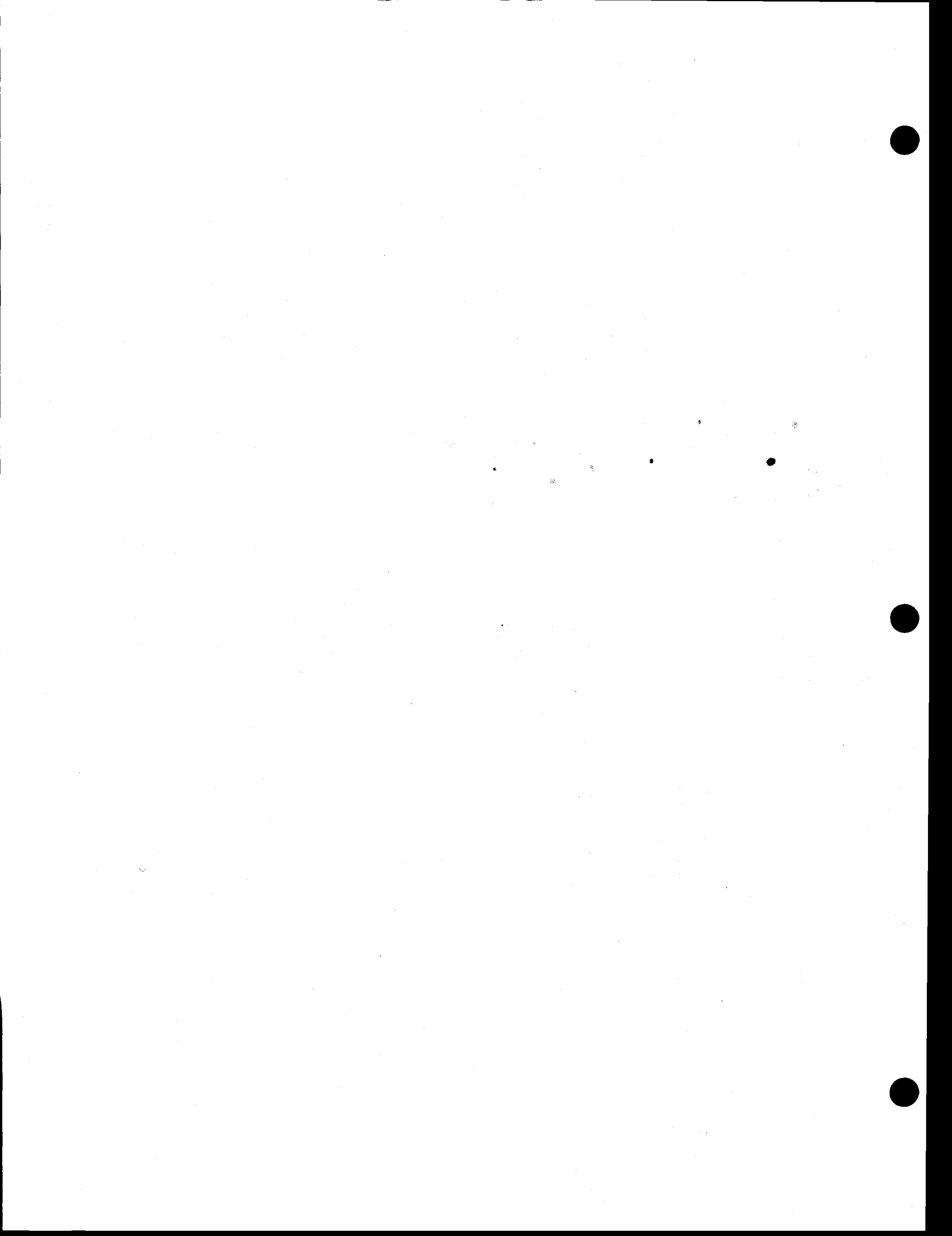


EXHIBIT 4



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

December 16, 2004

**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 certain issues raised by the permittee, as well as Friends of the Earth and the Sierra Club, each of which filed petitions with the Environmental Appeals Board requesting review of certain provisions of the January 24, 2003 permit. In addition, modifications are appropriate: 1) to reflect that the permittee has completed its long term CSO control plan (LTCP) and making this a Phase II permit under the 1994 CSO Policy by adding requirements for the permittee to immediately implement its LTCP; and, 2) reflecting the requirements of the District of Columbia total maximum daily load (TMDL) requirements for parameters in the Anacostia River and for Rock Creek and its Piney Branch tributary. 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).

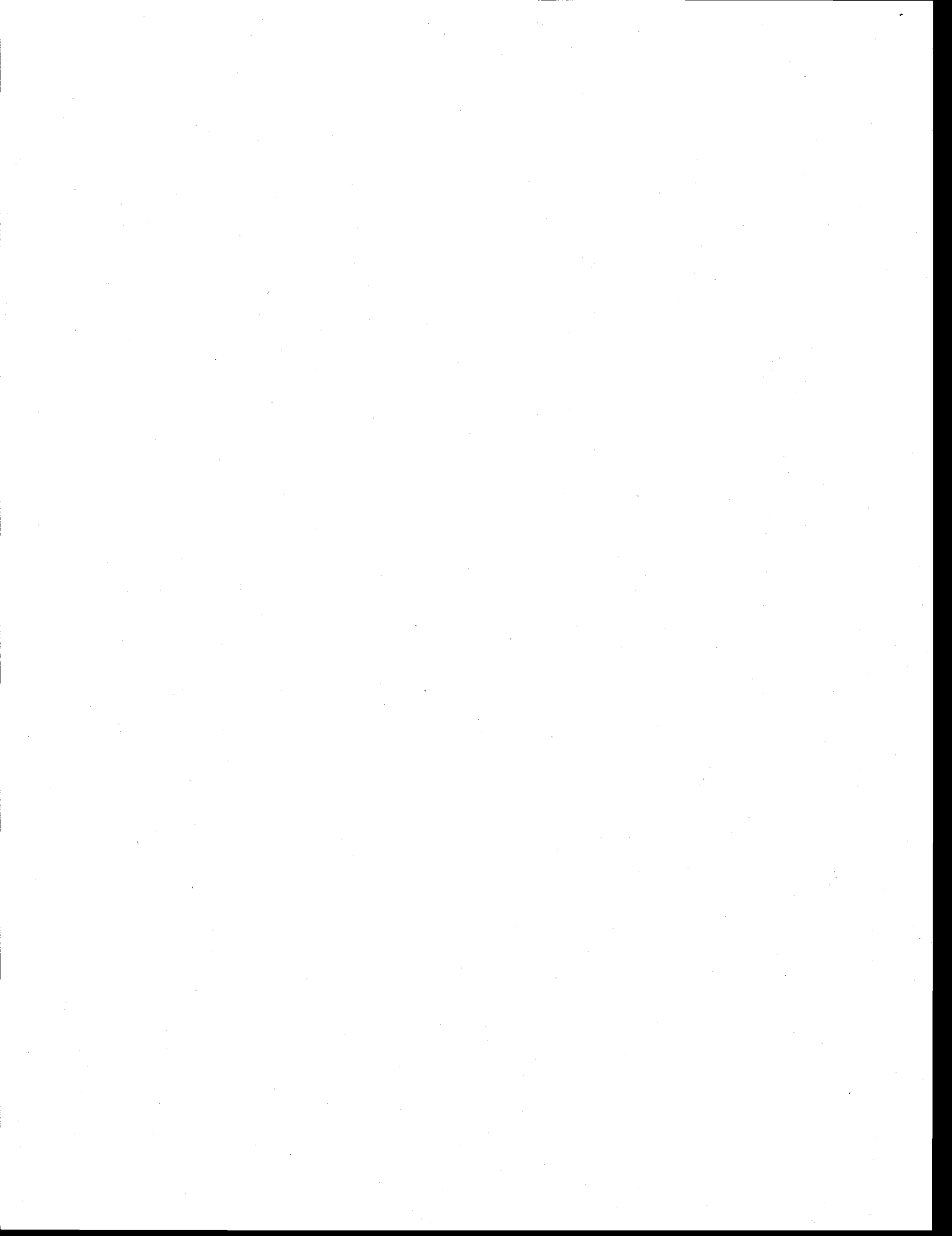
**2. PERMITTING AUTHORITY.**

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), MD/DC Branch.

**3. PERMITTEE.**

The applicant 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 30 days after the final determinations are made, unless a request for an evidentiary hearing is submitted within 30 days after receipt of the final determination. The modified permit shall expire on February 25, 2008.

## 5. PUBLIC NOTICE.

A modified draft permit was offered for a 30-day public comment on March 19, 2004, at which time EPA published notice in the *Washington Post*. At the conclusion of the comment period EPA had received comments from WASA, the Sierra Club and Friends of the Earth by EarthJustice, the Blue Plains Regional Committee and the State of Maryland.

## 6. BRIEF DESCRIPTION OF THIS ACTION.

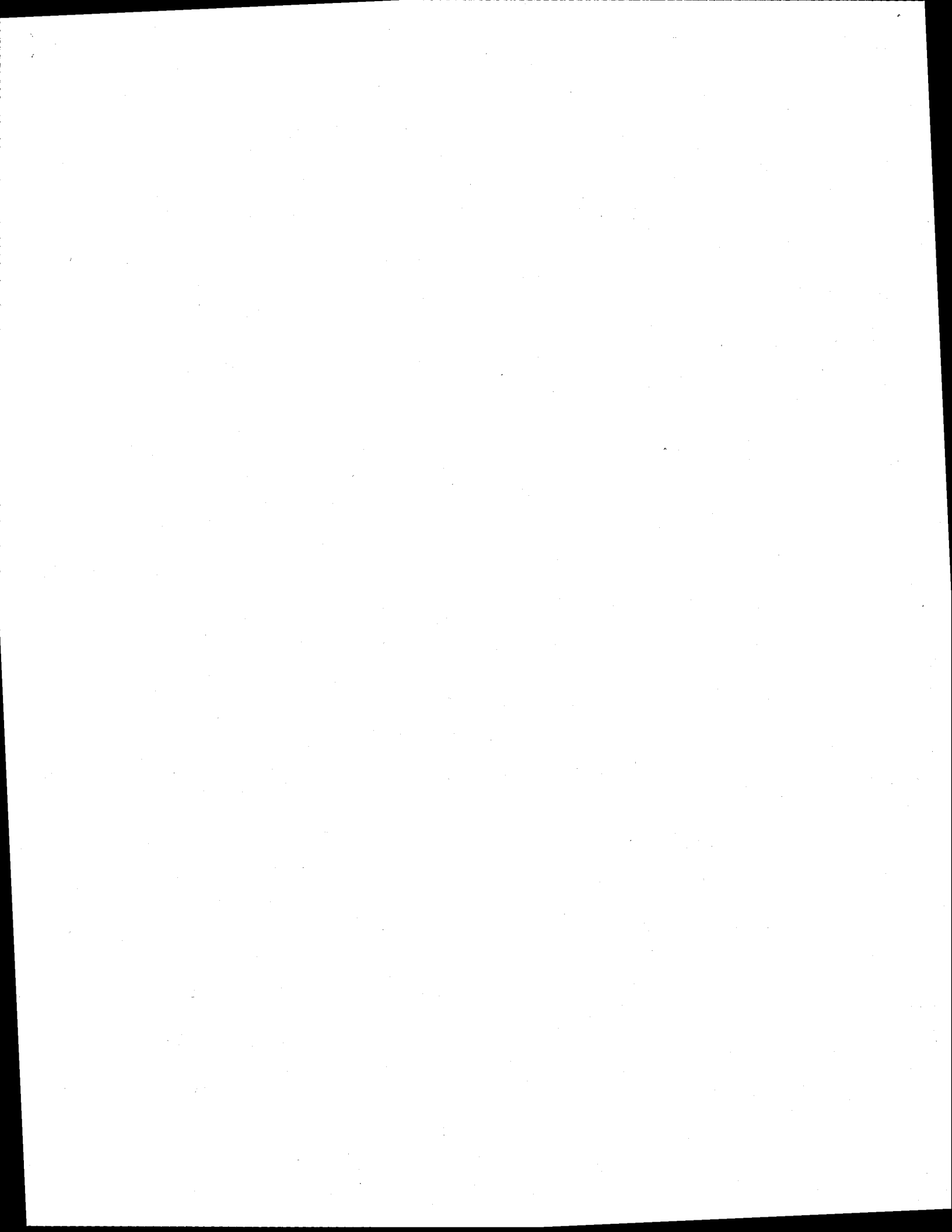
### A. Background

On January 24, 2003, the Director, Water Protection Division, made final determinations with respect to permit issuance and a final permit was issued to the permittee.

On February 24, 2003, WASA filed a petition for review of the Blue Plains permit with the Environmental Appeals Board (EAB). On March 3, 2003, the Friends of the Earth and the Sierra Club filed a joint petition for review of the Blue Plains permit with the EAB. In addition, by letter dated February 26, 2003, WASA requested that EPA make certain minor modifications of the permit to correct several items identified as errors.

As required by 40 C.F.R. §124.16, on March 21, 2003, EPA notified the EAB and the petitioners that the contested provisions of the permit were stayed pending final agency action on those provisions. Those portions of the permit which were stayed include: 1) Part I. Section A., requirement to monitor fecal coliform and enterococci at Outfall 001; 2) Part I, Section A. Footnote 7; 3) Part I. Section A., Footnote 8; 4) Part III. Section B. 1., 5) Part III. Section B. 1.a., 6) Part III. Section B. 1. d.(I); 7) Part III, Section B. 1. e.; 8) Part III.. Section B. 1. f.(iv); 9) Part III.. Section C.; 10) Part III. Section D.; 11) Part I. Section B. Footnote 10 and Part IV. Section E.; 12) Part I. Section B. footnotes (1a)b, (1b) and (1c), 13) Part III. Section B. 1. d., 12) Part I. Section C. footnote 6, and 13) Part III. Section B.1. c.(ii).

In addition, the stay notice identified the provisions of the permit which the permittee contends contain clerical errors: 1) certain references in the table and footnotes for Outfall 019 Part I. Section C. relating to sampling frequency requirements for fecal coliform, enterococci, nitrate, nitrogen and phosphorous; 2) reference to CSO Outfall 052 in Part III. Section B.1.(v) should be CSO Outfall 041; 3) record of material removed referenced in Part III. Section E.2. j. should refer to CSO Outfall 041 rather than CSO Outfall 052; and 4) total nitrogen sampling frequency in Part I. Section B. for Outfall 002 should be listed as daily rather than once every eight hours. EPA noted that all other provisions of the permit would continue to be in full force and effect.



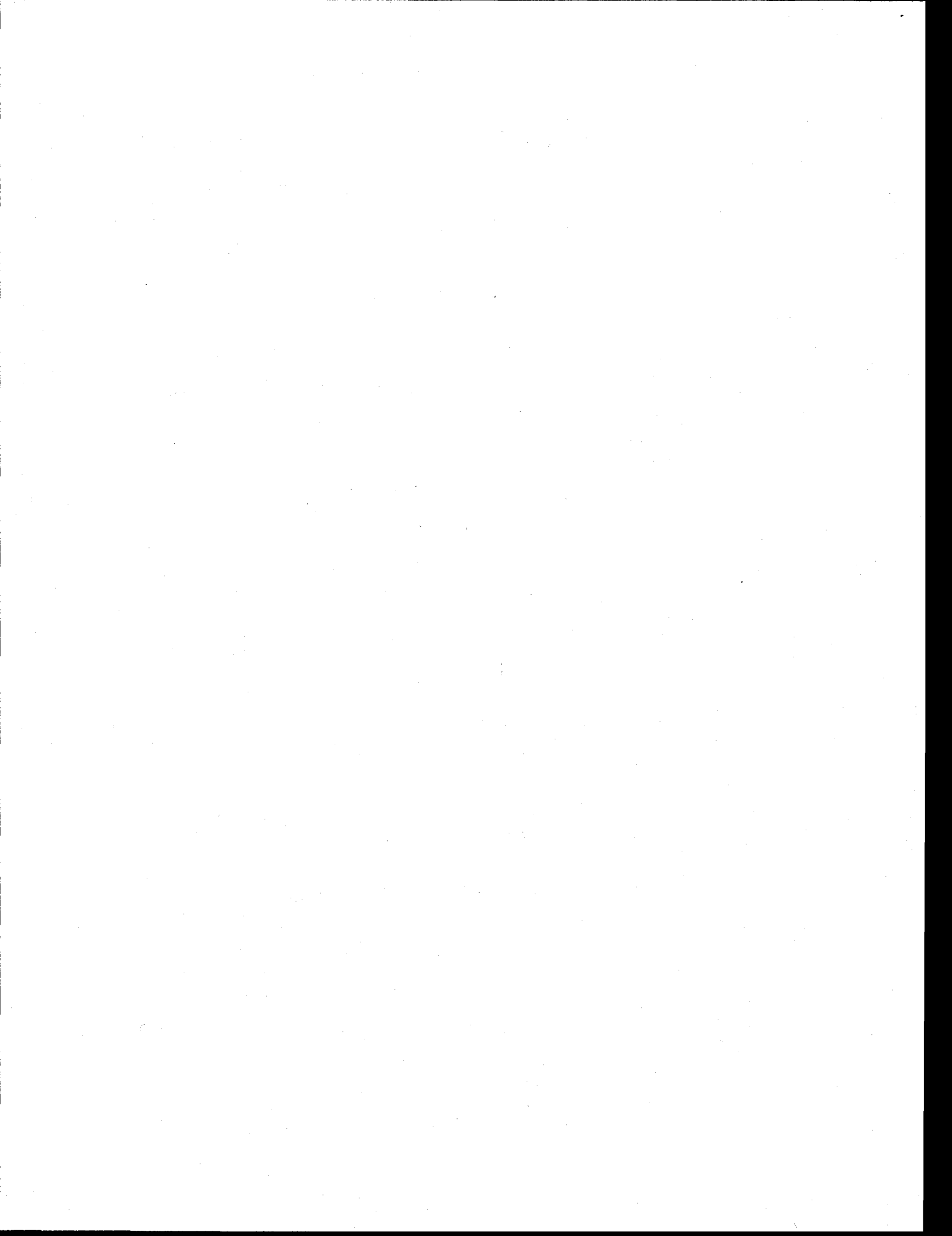
In order to provide an opportunity for the parties to resolve issues raised in their appeals, the parties requested, and the EAB granted, extension of EPA's deadline for filing a response to the petitions. Following a period of negotiations, on November 19, 2003, the EAB granted EPA's request to withdraw all of the contested permit conditions, except Part III.C., which was contested by the permittee. The EAB also granted the parties' request to stay the permit appeals in order to give the agency time to attempt to resolve the contested issues, except for Part III.C., through a permit modification. On May 28, 2004 EPA filed a status report with the Environmental Appeals Board, in which it notified the EAB that the Agency had proposed a draft modified permit. The Agency further notified the EAB that it was withdrawing Part III.C. of the permit, the only remaining contested provision that had not been withdrawn, as the Agency proposed modifications to this provision. On October 12, 2004, the EAB granted EPA's Motion on Consent to Dismiss the appeals, in that basis that there are no active matters before the Board.

In addition to the permit appeals, compliance with the 1994 CSO Policy, including implementation of the Nine Minimum Controls and the LTCP are the subject of a citizen's lawsuit, Anacostia Watershed Society, et al. v. District of Columbia Water and Sewer Authority, et al., Civ. Action No: 1:00CV00183TFH, filed in the United States District Court for the District of Columbia on October 10, 2003. Further, on December 20, 2002, the United States filed a Complaint against WASA and the District of Columbia, alleging, *inter alia*, that the permittee has failed to fully implement the Nine Minimum Controls and violated Water Quality Standards. U. S. v. District of Columbia Water and Sewer Authority, et al., Civil Action No: 1:002CV02511 (Dist. Ct. D.C.). ( These matters have now been consolidated as Consolidated Civil Action No. 1: CV00813TFH.) On October 10, 2003, a Consent Decree among the United States, the Permittee and the citizen's groups was entered resolving a number of issues in the litigation, particularly those issues related to implementation of the nine minimum controls. The Consent Decree, to which WASA is obligated, includes CSO control requirements in addition to those contained in the permit. WASA is bound by the Consent Decree provisions regardless of whether they are also stated in the permit. The parties have reached agreement in principle on the remaining issues, including the appropriate schedule for implementation of the LTCP. The agreement has been set forth in a second Consent Decree, between the United States and WASA, and is expected to be lodged with the District Court shortly.

As a result of the discussions which took place during the stay of the permit appeals, certain revisions to the permit were agreed upon by the parties. The agreed upon terms were written into the draft modified permit and offered for public comment on March 19, along with the CSO LTCP requirements and the TMDL-derived water quality-based effluent limits. EPA received four sets of comments on the draft modifications. A Response to Comments was prepared and has been placed in the administrative record for this permit action.

#### B. Modifications to the Final Permit.

The modified provisions are designed to resolve issues raised by the permittee (EAB Appeal No. 03-01) and Friends of the Earth and the Sierra Club (EAB Appeal No 03-02) in their





respective appeals of the January 24, 2003 permit, to make the permit consistent with the 1994 CSO Policy requirements for Phase II permits and to add water quality-based effluent limits reflecting the requirements of TMDLS issued for the Anacostia River and Rock Creek.

This final permit modifies the following conditions:

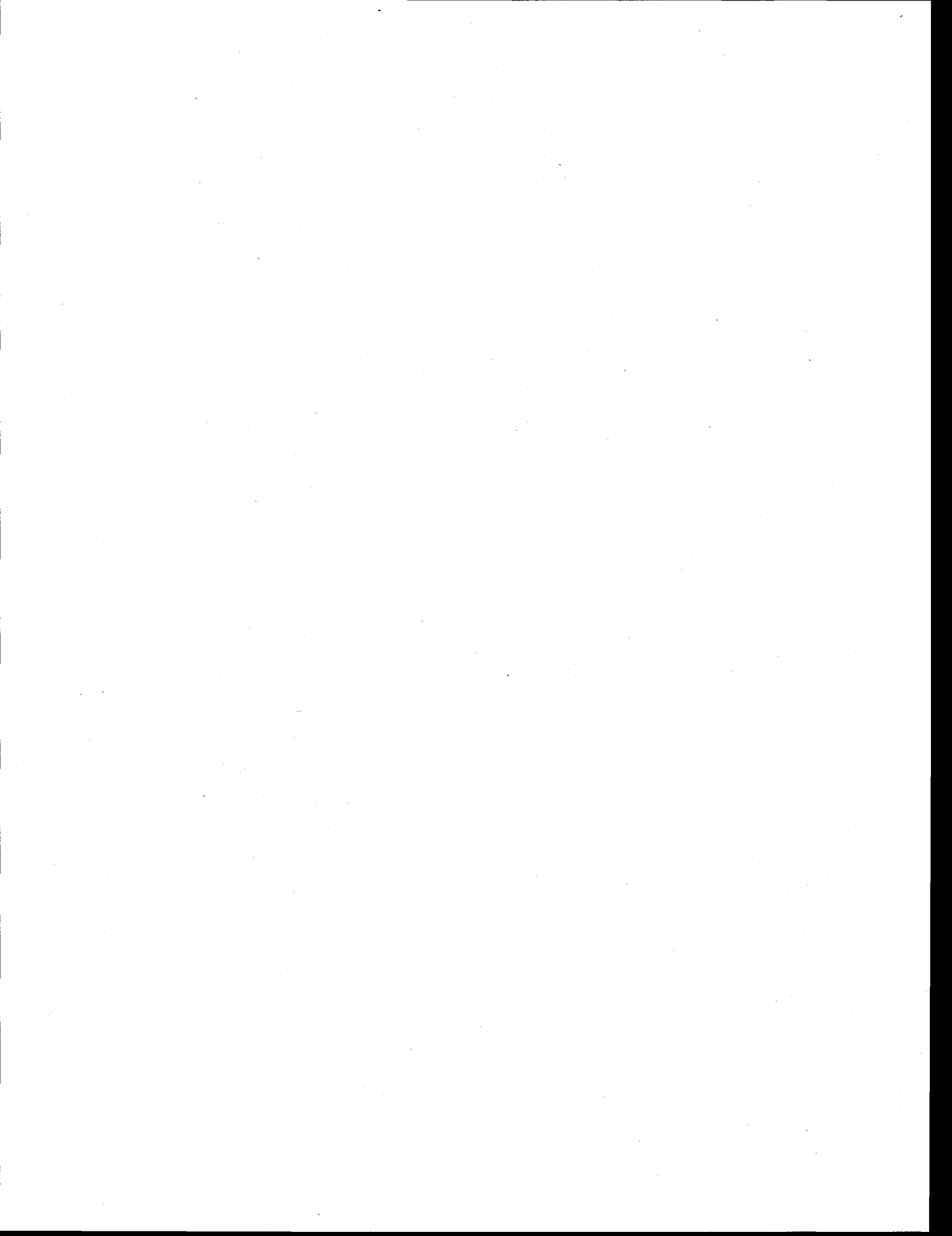
- Part I. A - the requirement to monitor fecal coliform and enterococci at Outfall 001 has been modified to require the first sample to be taken within 2 hours of the beginning of the discharge. The January 24 permit required the sample to be taken within 30 minutes of the beginning of the discharge. In addition, this requirement has been modified to clarify that the 2 hour delay does not apply to flow monitoring.
- Part I. A - Footnote 7, contained a typographical error, requiring the permittee to “report and substantiate” changes in the volume or character of pollutants introduced to the wastewater treatment plant. This provision was intended to read “report any substantial” changes. The provision has been modified to correct the typographical error, and to follow the language regarding CSO-related bypasses contained in the 1994 CSO Policy.
- Part I .B - The monitoring frequency for total nitrogen has been changed from every 8 hours to daily to conform to the 24-hour composite sample type.
- Part I. B - Footnote (1b)c. has been modified to clarify that any extension of the June 28, 2007 expiration date for the provisions of Part I.B.(1c)b can be for a period no longer than is justified by circumstances beyond the permittee’s control.
- Part I., B - Footnote 10, which requires the permittee to use best efforts to meet the nitrogen reduction goal under the Chesapeake Bay Agreement has been revised, however, the intent and effect remain the same. The word “section” following “as provided in” is not necessary and has been removed.
- Part I .C - the requirement to monitor fecal coliform and enterococci at Outfall 019 has been modified to require the first sample to be taken within 2 hours of the beginning of the discharge. The January 24 permit required the sample to be taken within 30 minutes of the beginning of the discharge. This modification is necessary to allow manual sampling.
- Part I. C. - Footnote 8 which described how composite samples should be taken for carbonaceous biological demand has been removed. The compositing protocol in Footnote 4 has replaced Footnote 8 for these samples.



- Part I. C. - Footnote 4 has been modified to specify that grab samples be taken within 2 hours of the start of sampling. This modification is necessary to allow offsite personnel time to arrive at the site to begin sampling. In addition, the word "flow" has been added to clarify that the composite sampling is flow based.
- Part I. C. - Footnote 6 has been modified to clarify that samples are not required for discharges lasting less than two hours.
- Part II.A.2. - The CWA civil penalty provision has been adjusted upward for inflation from \$27,500 to \$32,500. This is in accordance with Federal Law which requires adjustments every four years.
- Part II.A.13, Reopener Provision has been modified to clarify that if the CSO controls fail to meet the District of Columbia's Water Quality Standards the permit may be reopened, and has generally been revised to provide more clarity. The reopener language in the permit is broadly written and provides that the permit may be reopened to cover a number of future conditions, including, but not limited to, the introduction of new TMDLs and to incorporate additional nutrient reduction for the Chesapeake Bay.
- Part III.B.1.a. Operation and Maintenance has been clarified; the intent remains the same.
- Part III.B.1.a.viii - A new provision has been added which requires the Main, "O" Street, Potomac, Poplar Point and Eastside pumping stations to be rehabilitated in accordance with the above referenced Consent Decree and to provide pumping capacities of 240 mgd, 45 mgd, 460mgd, 45 mgd and 45 mgd respectively. Clarifying language has been added specifying that operation and maintenance at these pumping capacities is expected following rehabilitation of the pumping stations as these capacities will not be achieved prior to rehabilitation.
- Part III.B.1.c (ii) - Pretreatment Program. A requirement has been added to conduct an annual inspection of significant industrial users and, if necessary establish procedures to control batch discharges into the combined sewer system during wet weather. Batch discharges are to be evaluated to determine whether or not they can be controlled during wet weather, considering such factors as volume, frequency, characteristics and the need to protect life and property.
- Part III.B.1.d - Maximize Flows to Blue Plains. Former (I) which stated that there shall be no combined sewer overflows when there is sufficient treatment capacity at Blue Plains has been deleted. This issue is addressed in the LTCP.

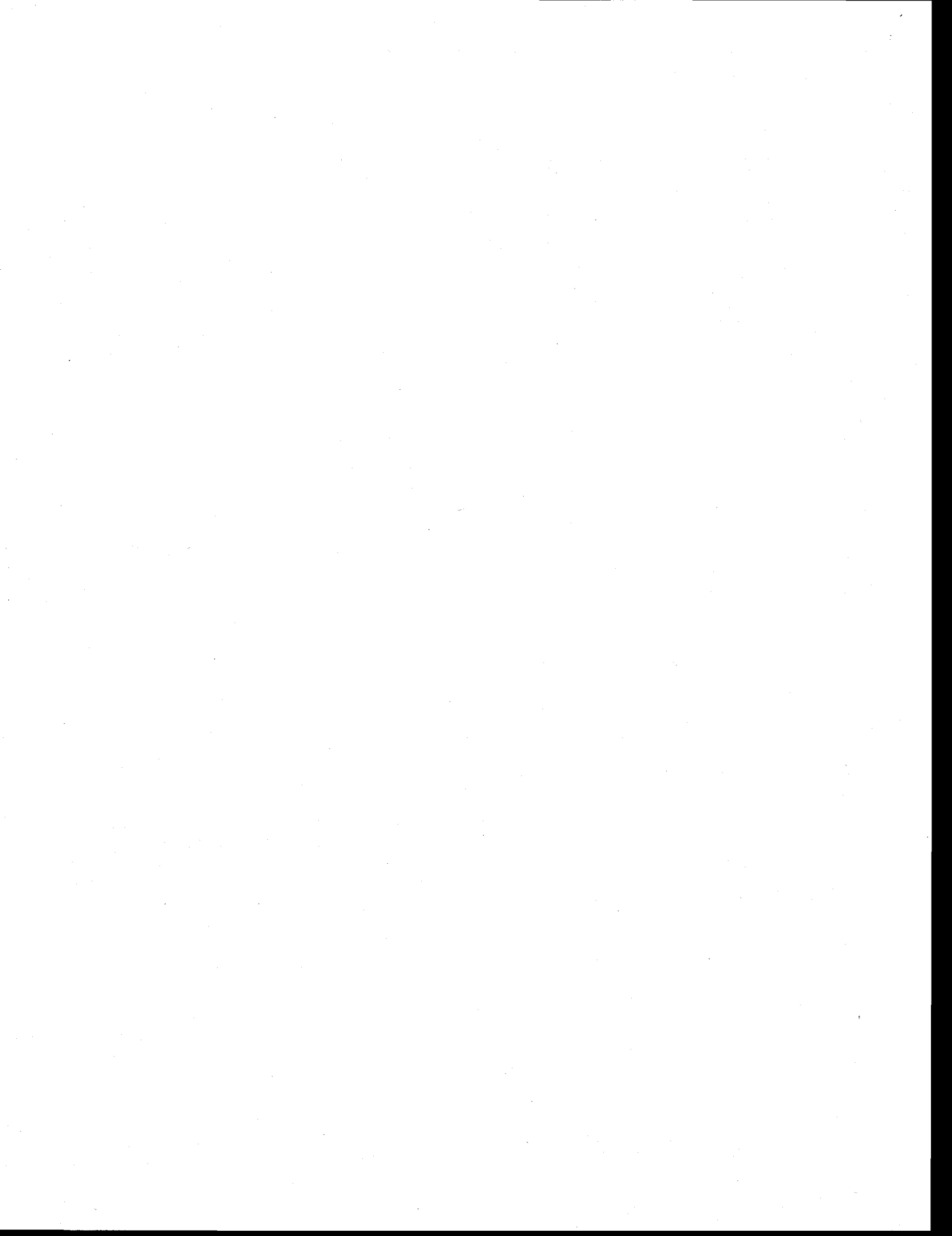


- Part III.B.1.e.i - Eliminate Dry Weather Overflows - the requirement to report all dry weather overflows immediately to the permitting authority has been eliminated because these requirements are redundant, given similar requirements found at III.B.1.e.iii.
- Part III.B.1.f.iv - language requiring cleaning of 100% of catch basins every 2 years has been modified to reflect the requirement in the above-referenced Consent Decree : cleaning of at least 85% of the catch basins at least annually.
- Part III.B.1.f.vi - is a new requirement providing that the permittee shall work with the Public Works Department and the National Park Service to maximize litter controls in the combined sewershed.
- Part III.B.1.f.vii - is a new requirement providing that the permittee shall institute a bi-lingual (English and Spanish) public education program to reduce litter.
- Part III.B.1.f.viii - is a modification of the previous Part III.B.1.iv in which the permittee is required to conduct four public education workshops each year.
- Part III.B.1.i.v - Reference to CSO Outfall 052 was corrected to reference the bar rack at Outfall 041.
- Part III.B.1.j has been added requiring CSS litter control meetings.
- Part III.C - In the January 24, 2003 permit this was: Water Quality Based Requirements for CSOs. It has become Part III.D in this modified permit. Part III.C is now Long Term Control Plan (LTCP).
- New Part III.C.1 has been added which states that the LTCP for the District of Columbia CSS is designed to control CSO discharges to meet the District of Columbia water quality standards in the Anacostia River, Rock Creek and its Piney Branch tributary, and the Potomac.
- New Part III.C.2 has been added which clarifies that the LTCP is the final report submitted July 2002.
- Part III.C.A. 1 - 9 - requires permittee to implement, operate and maintain the alternatives in the LTCP immediately upon the issuance of the modified permit. Clarifying language has been added to this section identifying the LTCP as the District of Columbia Water and Sewer Authority, Combined Sewer System Long Term Control Plan, Final Report, July 2002.
- Part III.C.A.1., second sentence has been modified to read, "The LTCP facilities



for controlling discharges to the above named receiving waters *include, among other things* diversion structures...”

- Part III.C.A.5., has been added which states, “All combined sewer flow stored in the Anacostia River, Rock Creek and Potomac River storage tunnels shall be emptied within 59 hours of the end of a wet weather event. If another wet weather event occurs before 59 hours has elapsed, the 59 hour period shall start from the end of the last wet weather event that occurred. A wet weather event occurs as a result of storm water runoff, including snow melt, entering into or being conveyed in the CSS. All flow stored in the storage tunnels and appurtenant structures shall be conveyed to Blue Plains for treatment.”
- Part III.C.A.7 Footnote 4 has been clarified to state that the diversion capacities from the referenced outfalls have been estimated based on computer modeling.
- New Part III.D, Post-Construction Monitoring for CSOs has been added. EPA has added clarifying language to III.D to specify that the placement in operation of the tunnels is sequential, and has revised minor wording as suggested by the permittee.
- Part III.D language has been modified to clarify that post-construction monitoring is the responsibility of the permittee, however, data obtained from other sources may be used.
- Part III.E, Water Quality Based Requirements was previously Part III.C in the January 24, 2003 permit. This part has been revised setting forth the District’s narrative WQS as specific permit conditions for CSOs.
- Part III.E.2 Has been rewritten to incorporate implementation of all EPA approved District of Columbia Total Maximum Daily Loads (TMDLs). The TMDL-based limits have been amended based upon information received during public comment. In the public noticed version of the draft permit, EPA had erroneously used the storm sewer TMDL allocations rather than the CSO allocations. TMDL-based effluent limits has been modified such that limits are presented in tabular form and are expressed as load allocations to CSOs. Compliance is immediate.
- Part III.E.3 Clarifying language has been added to specify that this monitoring, unlike the Post-Construction monitoring, is expected to begin immediately. The purpose of this monitoring is to determine the extent to which TMDL-based limits are being met now.
- Part III.E.3 requirement has been added which requires the permittee to provide





an estimated flow for each CSO discharge sampled.

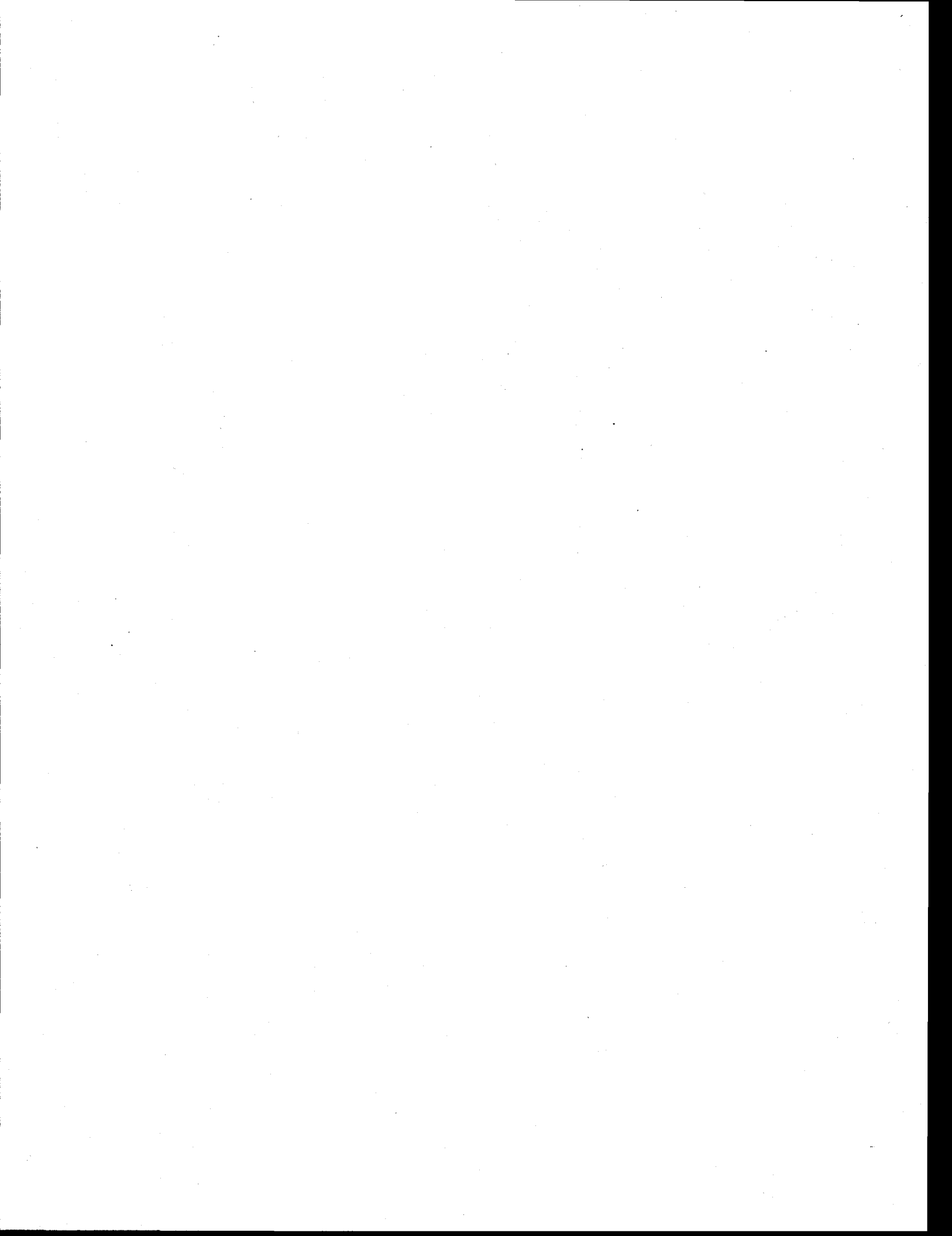
- Part III.F, CSO Status Reports and Schedules was previously Part III.E in the January 24, 2003 permit.
- Part III.F.1. has been revised to include a requirement for reporting progress to EPA on the Nine Minimum Controls program and the LTCP.
- Part IV.A.1.b.(I) has been added requiring that the Annual Report contain an updated industrial listing and a summary of Significant Industrial Users (SIU).
- Part IV.A.1.b.vii has been added to require the annual pretreatment report to include results of inspection, identification and evaluation of batch discharges to the CSOs during wet weather.
- Part IV.E has been modified to include the requirement that best efforts to meet the nitrogen goal require optimal operation of the nitrogen removal technology to the extent such operation does not preclude permittee's ability to meet other permit conditions.

## **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 waste water 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 discharges to the Potomac River, receives primary treatment, disinfection and dechlorination. For the purpose of this permit, 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.

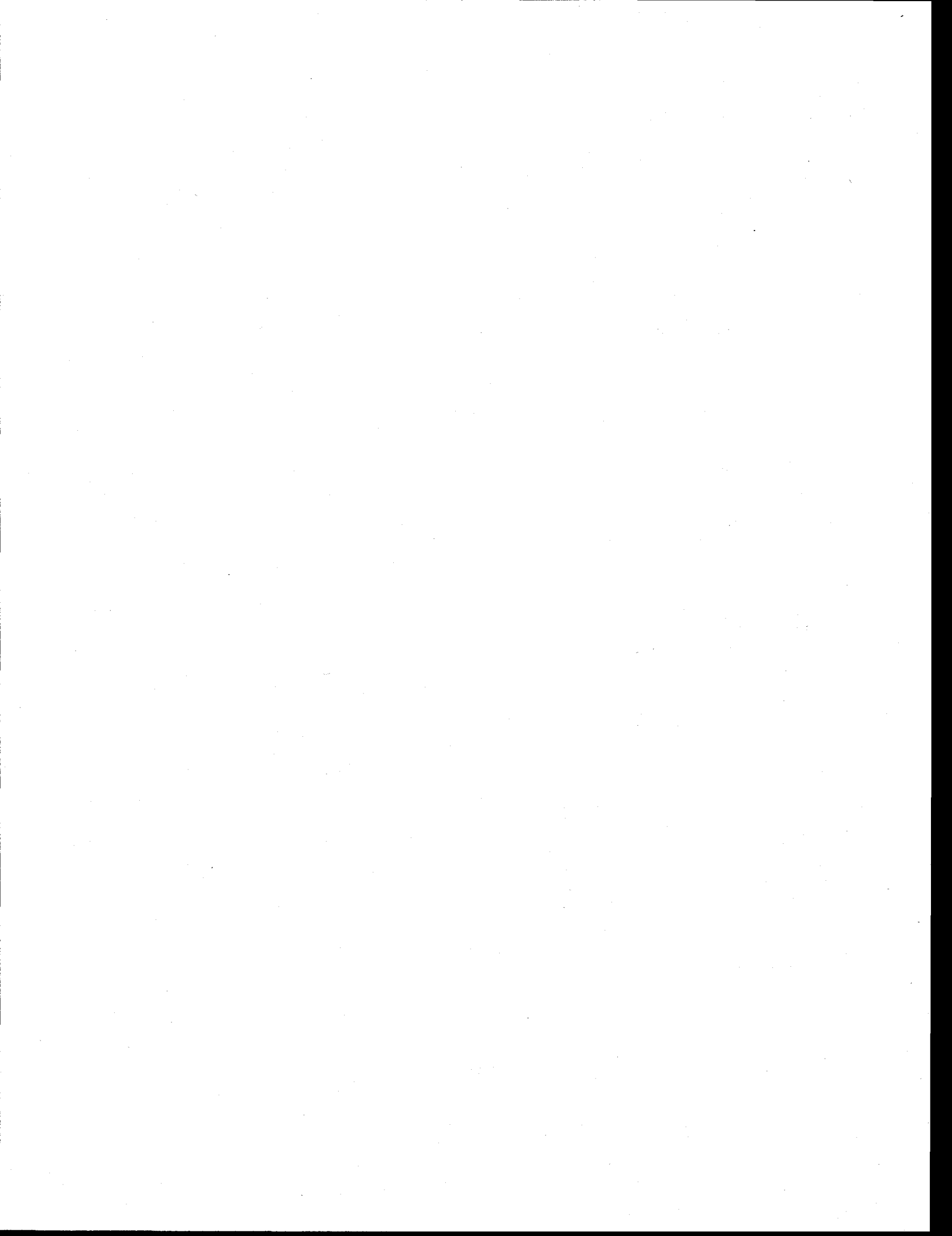
The permittee operates a Combined Sewer Overflow system which has a total of 62 outfalls. There are 15 CSOs which discharge to the Anacostia, 13 CSOs on the Potomac, and 30 CSOs that discharge to Rock Creek. This system is designed to convey waste to the treatment plant and to prevent wet weather flow 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% 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* - 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 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 clarifiers. This condition is often the cause of rising sludge observed in secondary clarifiers 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 following reflect the proposed modifications to the existing permit conditions. All other conditions remain the same:

A. Outfall 002 - This is the primary outfall for treated wastewater from the Blue Plains WWTP. The Potomac River is the receiving water for the effluent from Outfall 002.

Total Nitrogen. The January 24 permit established a nitrogen goal of not greater than 8,467,200 lbs per year for Blue Plains. This goal is intended to be sufficiently stringent to comply with the Bay narrative standards and is to be achieved by operating the Biological Nitrogen Reduction (BNR) process at the facility on a limited year round basis. The modified permit changes the monitoring frequency from every 8 hours to daily, which is consistent with the other sampling requirements in the permit.

B. Outfall 001 - Outfall 001 is a discharge point on the Potomac River which functions as an excess flow conduit and is used to avoid hydraulic overloads to the plant during wet weather. At Blue Plains, excess flows receive primary treatment, chlorination and dechlorination prior to discharge. Depending upon the amount of rainfall in a given year, Outfall 001 generally discharges approximately 3 - 4 times per year.





In addition to the existing requirements for discharge from Outfall 001, the modified permit requires the permittee to take a first sample for fecal coliform and enterococci within 2 hours of the beginning of the discharge. The January 24 permit required the sample to be taken within 30 minutes of the beginning of the discharge. This change was made because the permittee requested the additional time to facilitate manual sampling, since personnel responsible for taking the samples may travel from distant locations or late at night. The two hour delay does not apply to flow monitoring.

Footnote 7, in the existing permit contains a typographical error. It read that the permittee must "report and substantiate" changes to the pollutants introduced to the POTW. It was intended to read "report any substantial" changes. That provision has now been modified to track the requirements of the 1994 CSO Policy and reads: "Authorization of CSO-related bypasses under this provision may be modified or terminated when there is a substantial increase in the volume or character of pollutants being introduced into the POTW" and reflects the Agency's original intent. The permittee will have to note any changes in the influent to the plant when it seeks permit renewal.

C. Outfall 019 - Outfall 019 is located at the south end of the RFK Stadium parking lot, on the west bank of the Anacostia River and adjacent to the East Side Pump Station. The purpose of this facility is to achieve maximum diversion of flow at the Structure 24 dams on the Northeast Boundary Sewer, and to concentrate the pollutants in that flow to a smaller flow which can be handled by the available capacity of the Eastside Pump Station. The Northeast Boundary Swirl Concentrator Facility provides treatment and disinfection for up to 400 mgd of combined sewer overflow before it discharges to the Anacostia River at Outfall 019.

The Northeast Boundary Sewer (NEB) is a combined sewer which serves 4,250 acres and is the largest drainage area in the District. The amount of flow necessary to trigger the Northeast Boundary Swirl is 15 mgd. Treatment at this facility includes mechanical screening of combined sewage influent, concentration of solid materials in the three swirl concentrator tanks, disinfection of the treated influent and dechlorination.

Monitoring requirements continue to be imposed upon Outfall 019 to assess the impact of the discharge on the receiving stream and the effectiveness of the swirl treatment system. The monitoring requirements have been modified as follows:

- Part I. C - the requirement to monitor fecal coliform and enterococci at Outfall 019 has been modified to require the first sample to be taken within 2 hours of the beginning of the discharge. The January 24 permit required the sample to be taken within 30 minutes of the beginning of the discharge. This change was made because the permittee has stated that personnel responsible for taking the samples may travel from distant locations or late at night.
- Part I. C. - Footnote 8, which described how composite samples should be taken



for carbonaceous biological demand has been removed. The compositing protocol in Footnote 4 is more explicit and has replaced Footnote 8 for these samples. This modification provides greater clarity to personnel taking samples and greater conformity in sample technique.

- Part I.C. - Footnote 4 has been modified to specify that grab samples be taken within 2 hours of the start of sampling. This modification is necessary to allow offsite personnel time to arrive at the sampling site to begin sampling.
- Part I.C. - Footnote 6 has been modified to clarify that samples are not required for discharges lasting less than two hours. This is simply intended to make the language more clear. The two hour delay does not apply to flow monitoring which is continuous.

## **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.

Part II Section A paragraph 13, Reopener Provision has been modified to specify that if the CSO controls fail to meet the District of Columbia's Water Quality Standards the permit may be reopened. This was intended, but not specified in the existing permit. The reopener provision has been revised to provide more clarity. All other provisions of Part II are carried over from the January 24, 2003 permit.

## **10. COMBINED SEWER SYSTEM PERMIT CONDITIONS.**

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

A. Nine Minimum Controls (NMC) - require permittees to immediately implement technology-based requirements. They are achieved through best available technology economically achievable (BAT)/best conventional pollutant control technology (BCT), as determined on a best professional judgement (BPJ) of the permitting authority. The permittee's NMC program is ongoing and all of the requirements contained in the January 24, 2003 permit remain in effect.

The modifications to the January 24, 2003 permit are as follows:

- Part III.B.1.a.viii, Operation and Maintenance, requires that the Main, "O", Potomac, Poplar Point and Eastside pumping stations be operated and maintained and establishes firm pumping capacities for each. These requirements are based on BCT and BPJ and reflect requirements in the Consent Decree.

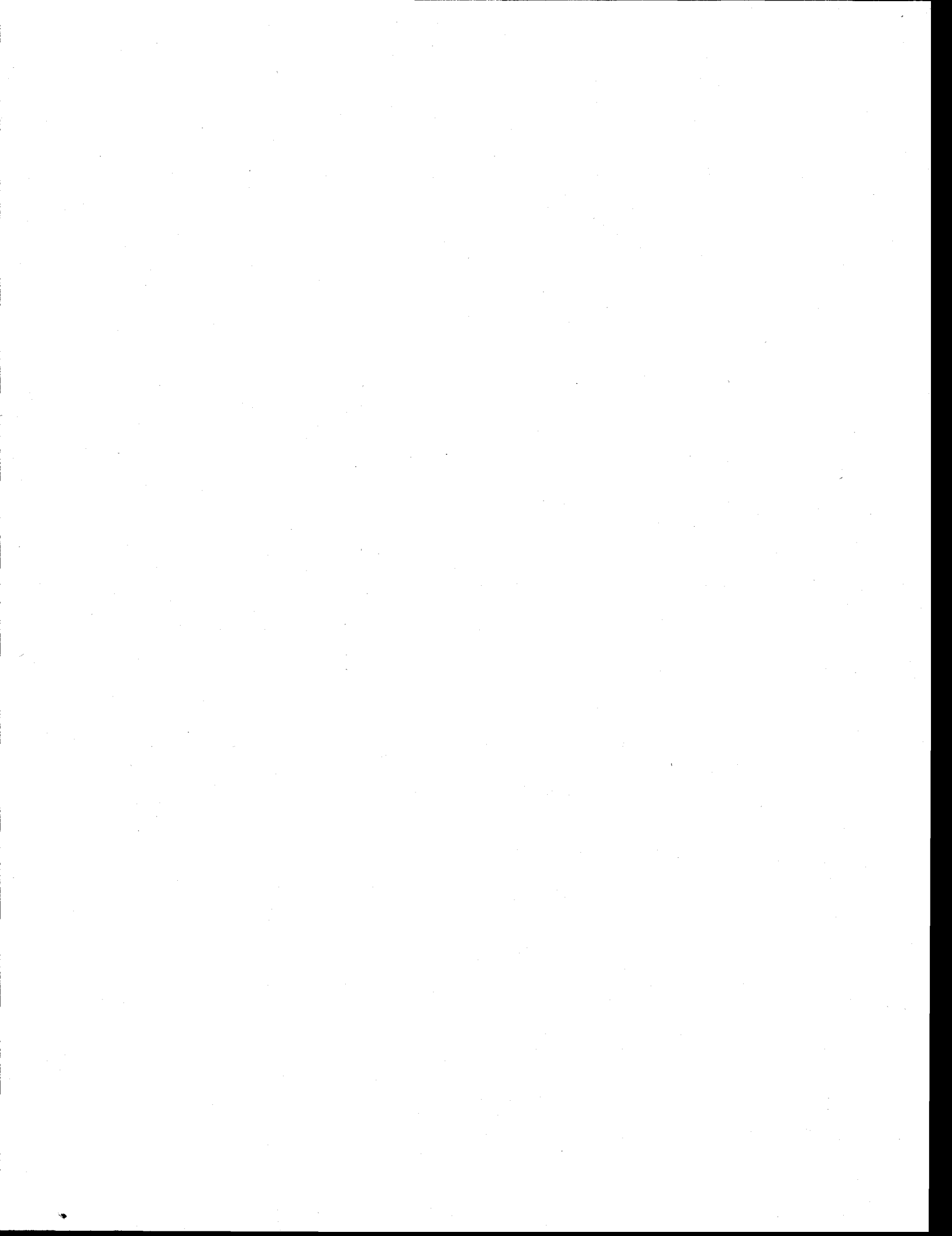


- Part III.B.1.c - Pretreatment Program, requires the permittee to conduct an annual inspection of significant industrial users and establish procedures as necessary to control batch discharges into the combined sewer system during wet weather. This requirement is based on BPJ.
- Part III.B.1.d - Maximize Flows to Blue Plains. Former (I) which stated that there shall be no combined sewer overflows when there is sufficient treatment capacity at Blue Plains has been deleted. Measures to maximize flow to Blue Plains are required in the above-referenced Consent Decree and are also addressed in the LTCP. This requirement is BPJ.
- Part III.B.1.e.i - Eliminate Dry Weather Overflows - the requirement to report all dry weather overflows immediately to the permitting authority has been eliminated because this requirement is already stated at III.B.1.e.iii. This requirement is BPJ.
- Part III.B.1.f.iv - language requiring cleaning of 100% of catch basins within 2 years has been modified to require cleaning of 85 percent of the 8200 basins at least annually, paralleling requirements of the Consent Decree. This requirement is based on BPJ.
- Part III.B.1.f.vi - is a new requirement providing that the permittee shall work with the Public Works Department and the National Park Service to maximize litter controls in the combined sewershed. This requirement is based on BPJ.
- Part III.B.1.f.vii - is a new requirement providing that the permittee shall institute a bi-lingual (English and Spanish) public education program to reduce litter. This requirement is based on BPJ.
- Part III.B.1.f.viii - is a modification of the previous Part III.B.1.iv in which the permittee is required to conduct four public education workshops each year. This requirement is based on BPJ.

#### B. Long Term Control Plan

Consistent with the 1994 CSO Policy, the modified permit requires implementation of the LTCP immediately upon issuance of this permit.

In accordance with Section 301(b)(1)(C) of the Act, 42 U.S.C. §1311(b)(1)(C), publicly-owned treatment works (POTWs), were required to control their discharges to the extent necessary to protect state water quality standards by no later than July 1, 1977. Where that has not occurred, the 1994 CSO Policy, incorporated into the Act with the addition of Section



402(q) through the Wet Weather Water Quality Control Act of 2000, provides a framework for POTWs to achieve compliance, including the development and implementation of a Long Term CSO Control Plan (LTCP). Accordingly, this permit reflects the requirement that the permittee has a present duty to comply with water quality standards by immediately implementing its LTCP.

As noted in the January 24, 2003 permit, the permittee submitted to EPA a proposed LTCP, using the "demonstration" approach, which was made available to the public for review and comment, in accordance with the 1994 CSO Policy. EPA and members of the public submitted comments on the proposed LTCP to the permittee. The permittee submitted a revised LTCP to EPA in July of 2002. The selected controls include, among other things, construction of diversion structures, a system of underground storage tunnels, upgrading and expansion of pump stations, consolidation of certain outfall structures, as well as some sewer separation and low impact development.

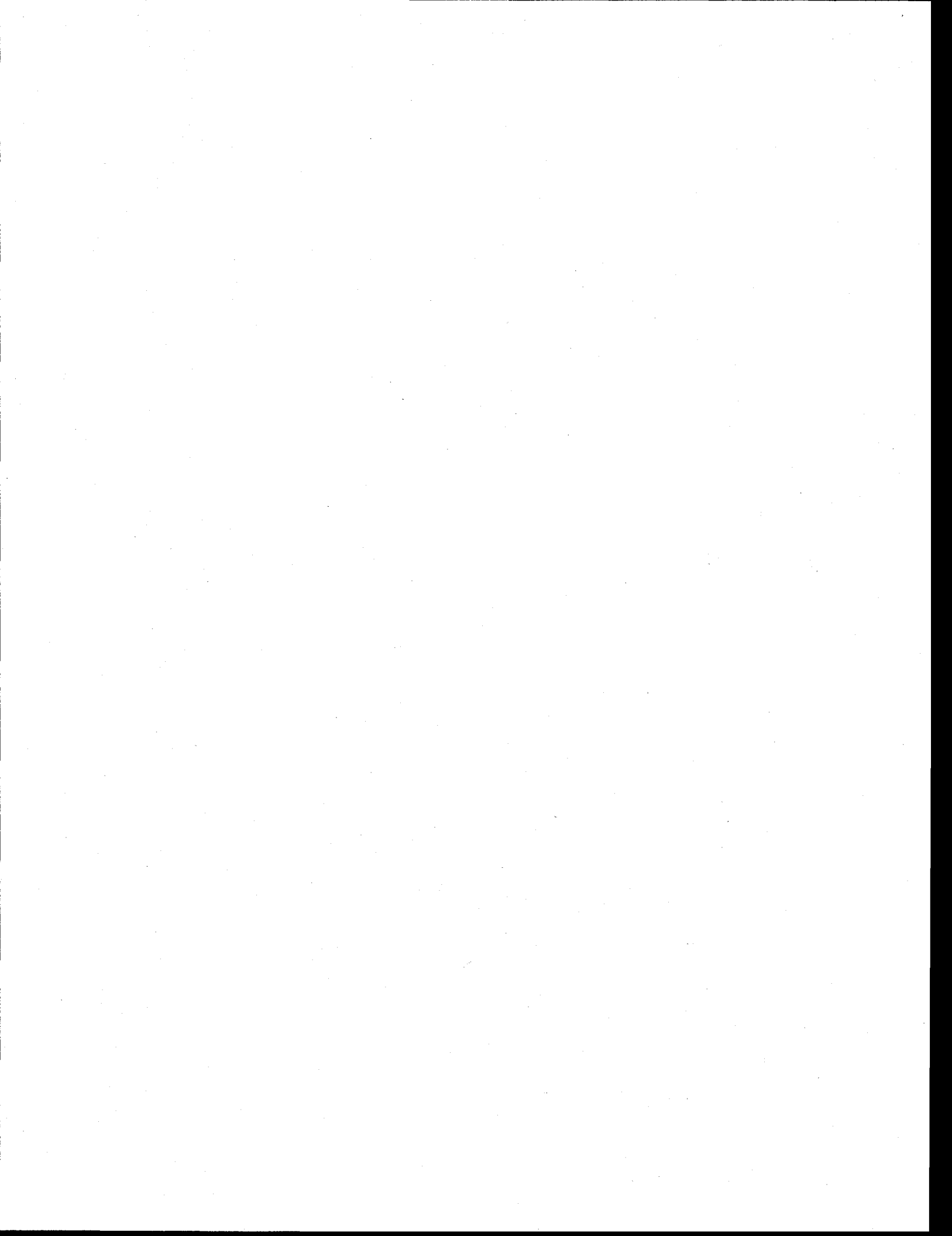
By letter dated August 28, 2003, the DC Department of Health stated that the CSO discharges remaining after implementation of the LTCP will meet the WQS for all receiving waters. EPA has determined that based upon current information, including but not limited to, documentation in the LTCP and the DC DOH's analysis and interpretation of its WQS, WASA has demonstrated, pursuant to Section II.C.4.b of the 1994 CSO Policy, that the CSO control program will not preclude the attainment of WQS or the receiving waters designated uses or contribute to their impairment. This is subject to post-construction monitoring adequate to verify compliance with water quality standards, in accordance with Sections II.C.4.b. and II. C. 9. of the 1994 CSO Policy.

The 1994 CSO Policy provides, since implementation schedules for compliance deadlines which have passed may not generally be included in permits, that the Phase II permit reflecting the requirements of the LTCP will be accompanied by a separate enforceable mechanism- in the case of a major facility, a judicial order - containing compliance dates on the fastest practicable schedule. The LTCP has now been finalized, and, as noted above, the schedule is set forth in a Consent Decree which is expected to be lodged with the District Court. In accordance with applicable regulations, the Consent Decree is subject a thirty (30) day public comment period prior to entry by the Court.

Section III. C., D. and F. of the revised permit set forth the narrative requirements which insure that the selected CSO controls are implemented, operated and maintained as described in the LTCP, as required by Section IV B. 2.b. of the 1994 CSO Policy. As the LTCP controls are implemented, during the life of this and subsequent permits, the treatment of wet weather flows will increase.

#### C. Water Quality-Based Requirements.

Part III.E, Water Quality-Based Requirements for CSOs was previously Part III.C of the





January 24, 2003, permit. This section has been modified to reflect that the permit is now a Phase II permit under the 1994 CSO Policy, including the water quality based effluent limits for a Phase II permit. In addition, this part has been revised to set forth the applicable narrative conditions of the DC WQS.

Section IV.B.2 c. of the CSO Control Policy provides that Phase II permits should contain "Water quality-based effluent limits under 40 C.F.R. 122.44(d)(1) and 122.44(k), requiring, at a minimum, compliance with, no later than the date allowed under the State's WQS, the numeric performance standards for the selected CSO controls, based upon average design conditions..." Where a permittee has elected to pursue the "demonstration" approach under the policy, the limits are to reflect performance standards and requirements consistent with Section II.C.4.b. of the Policy. That section of the Policy, which outlines the "demonstration" approach, provides for the use of total maximum daily loads (TMDLs) and wasteload allocations in establishing performance standards.

On December 14, 2001, EPA approved the District of Columbia's Total Maximum Daily Loads (TMDLs) for BOD and on March 1, 2002, EPA issued a TMDL for TSS. Both of these TMDLs were for the Anacostia River. These TMDLs were challenged in Friends of the Earth v. EPA, No. 04-0092 (D.D.C.). On November 29, 2004 the Court granted EPA's motion for summary judgment in the TMDL challenge, upholding EPA's approval of the District of Columbia's TMDLs for BOD and TSS. Friends of the Earth v. EPA, Memorandum Opinion, November 29, 2004

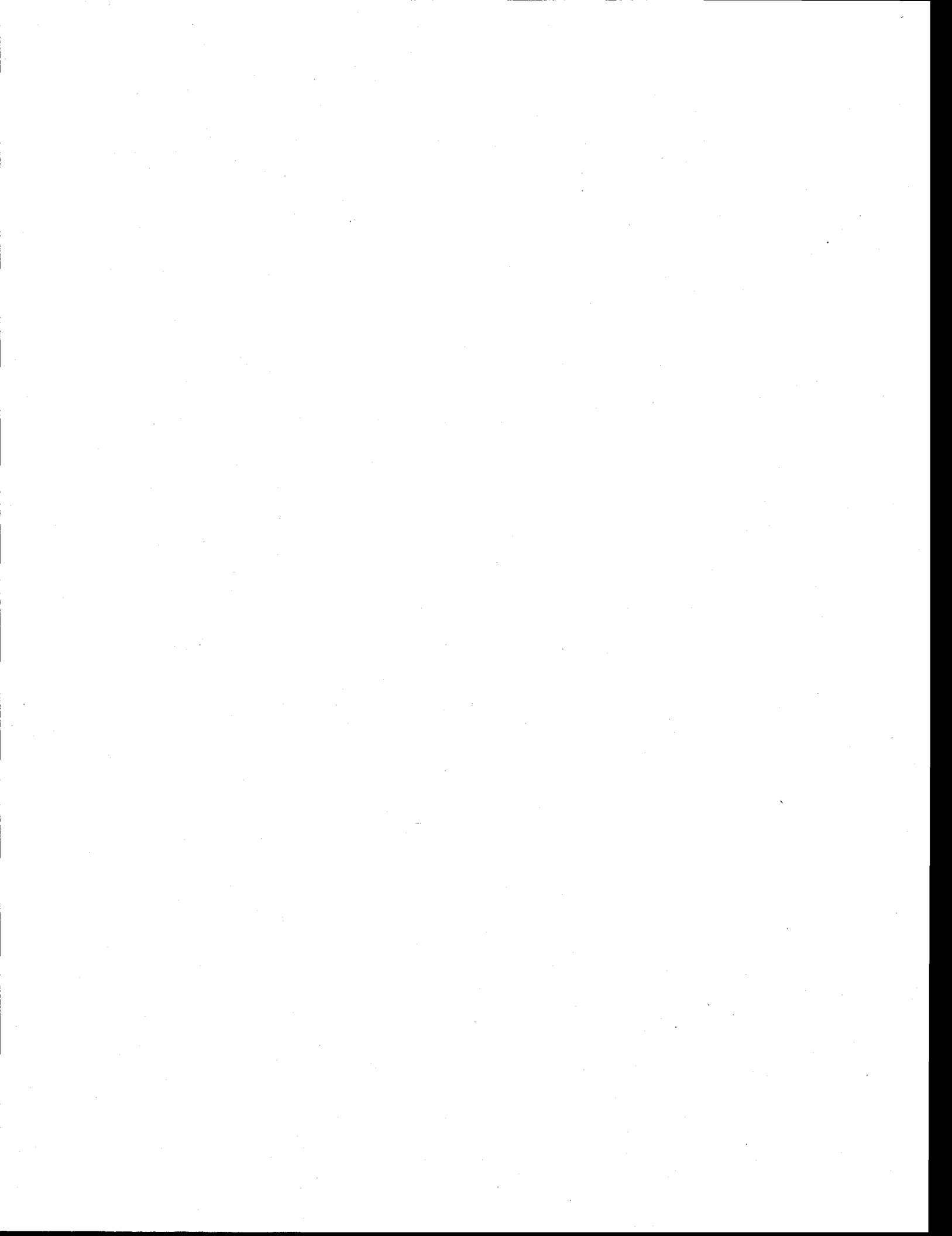
On August 28, 2003, EPA approved the District of Columbia's TMDL for bacteria. On October 31, 2003, EPA approved the District of Columbia's TMDL for oil and grease, and on August 29, 2003, EPA approved the District's TMDL for organics and metals. All of these TMDLs were for the Anacostia River.

On February 27, 2004, EPA approved the District of Columbia's TMDLs for organics and metals for Piney Branch.

On February 27, 2004, EPA approved the District of Columbia's TMDLs for organics, bacteria and metals for Rock Creek.

The effluent limits set forth in Part III. E. reflect the TMDLS which have been adopted for the Anacostia River and Rock Creek and its Piney Branch Tributary. The modeling for the TMDLs, as for the LTCP was conducted based upon the average rainfall years of 1988 (dry), 1989 (wet) and 1990 (average).

For the Potomac River, the permittee may not discharge any pollutant at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above District of Columbia water quality standards, including numeric or narrative criteria for water quality. The narrative DC WQS have been set forth in the permit. The Potomac is further protected by the



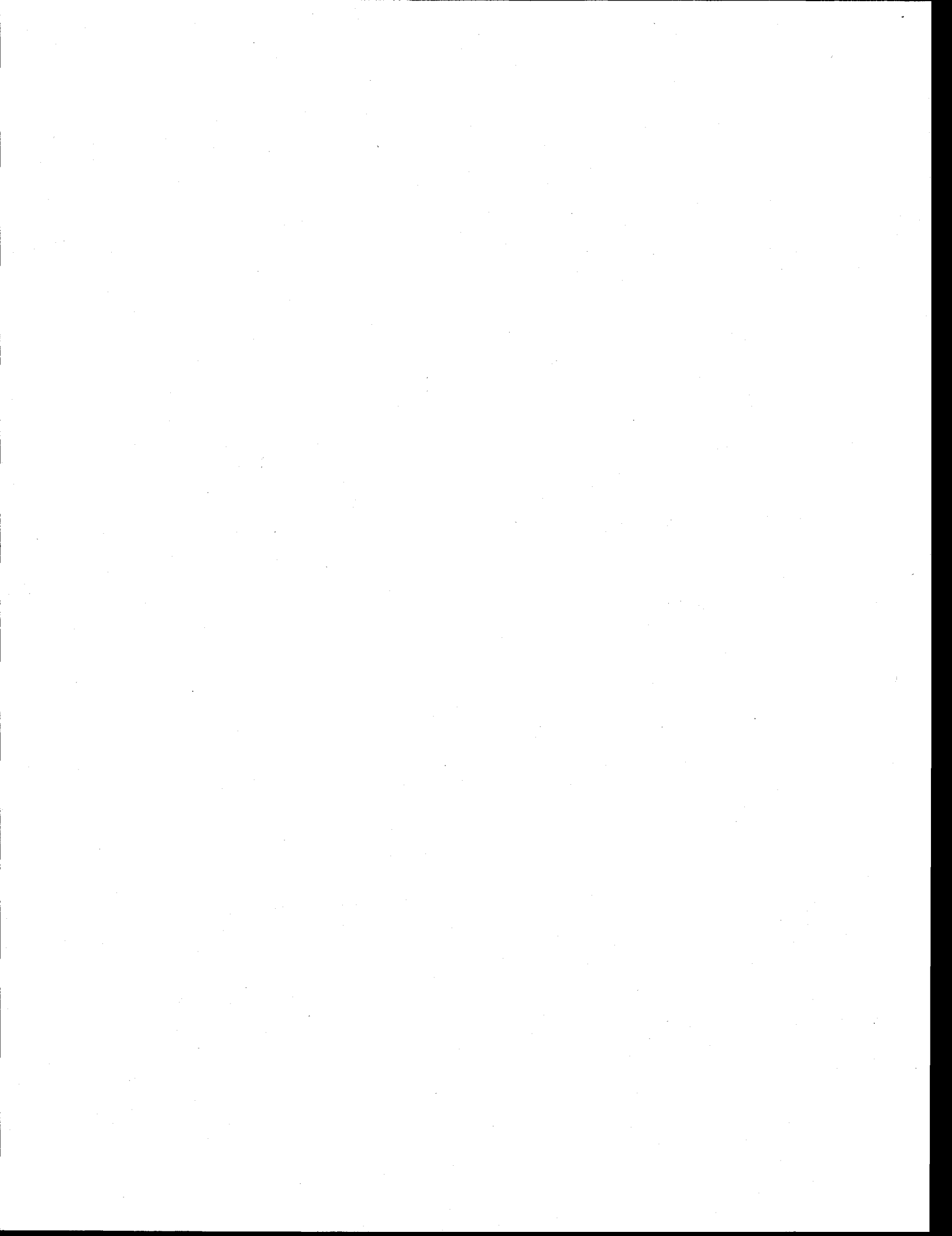
NMCs and the LTCP requirements.

## 11. SPECIAL CONDITIONS.

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

- New Part IV.A.1.b.(I) has been added to the Pretreatment requirements and requires that the Annual Report contain an updated industrial listing and a summary of Significant Industrial Users (SIU). This requirement is based upon BPJ.
- New Part IV.A.1.b.(vii) has been added to the pretreatment requirements and specifies that the annual pretreatment report include results of inspection, identification and evaluation of batch discharges to the CSOs during wet weather. This requirement is based upon BPJ.
- Part IV.E has been clarified to reflect that the requirement that “best efforts” to meet the nitrogen goal requires optimal operation of the nitrogen removal technology to the extent that such operation does not impair the permittee’s ability to meet other permit conditions. The District of Columbia, as a signatory to the 1987 Chesapeake Bay Agreement and subsequent amendments to that agreement, supports the goal of reducing nutrients to the mainstem of the Chesapeake Bay and to that end has installed and operated a biological nitrogen reduction (BNR) process at the Blue Plains facility. Operation of BNR at Blue Plains is essential to the health of the Chesapeake Bay. The clarification language in this permit does not relax the nitrogen removal expectations included in the January 2003 permit. It simply acknowledges that under limited circumstances during hot weather, operation of the BNR process would require the addition of so much phosphorous that it could result in a violation of the phosphorous discharge limit set forth in the permit.
- The phosphorous limit is based upon the Potomac Strategy Management Commission Agreement and EPA’s Best Professional Judgement. It is also intended to be protective of the Chesapeake Bay. The permit requirement is that the permittee will operate the BNR process to the maximum extent possible, except in the limited circumstances where it would lead to a violation of the phosphorous limit.

12. Public Notice Publication Date, *Washington Post*: March 19, 2004



13. DC 401 Certification Received: December 15, 2004
14. Commonwealth of Virginia Comments Received: July 27, 2004
15. State of Maryland Comments Received: April 19, 2004
16. NMFS Comments Received: May 3, 2004

