IN THE CIRCUIT COURT FOR BALTIMORE CITY

STATE OF MARYLAND *
DEPARTMENT OF THE
ENVIRONMENT *
1800 Washington Boulevard
Baltimore, Maryland 21230, *

Plaintiff, *

v. *

MAYOR AND CITY COUNCIL *
OF BALTIMORE, MARYLAND
250 City Hall *
Baltimore, Maryland 21202 Case No: _____
*

Serve on:
James L. Shea, City Solicitor *
Baltimore City Solicitor's Office
Baltimore City Department of Law *
100 North Holliday Street, Suite 101
Baltimore, Maryland 21202, *

Defendant. *

* * * * * * * * * * * *

COMPLAINT FOR CIVIL PENALTIES AND INJUNCTIVE RELIEF

The Maryland Department of the Environment (the "Department"), by and through its attorneys, Brian E. Frosh, Attorney General, and Jonathan E.C. May and Nathan P. Short, Assistant Attorneys General, files this complaint against the defendant, the Mayor and City Council of Baltimore, Maryland ("Baltimore City"), and alleges as follows:

I. INTRODUCTION

1. The Department brings this civil action against Baltimore City to eliminate the unpermitted discharge of pollution into the waters of this State in violation of State and federal water pollution statutes and regulations, and for civil penalties.

2. Baltimore City owns and operates the two largest wastewater treatment plants in the State of Maryland: the Back River Wastewater Treatment Plant, located at 8201 Eastern Avenue, Baltimore, Maryland ("Back River WWTP"), and the Patapsco Wastewater Treatment Plant, located at 3501 Asiatic Avenue, Baltimore, Maryland ("Patapsco WWTP").

3. Baltimore City's operation of the Back River and Patapsco WWTPs and the unauthorized discharge of pollutants—including nitrogen and phosphorus—undermines the efforts by Maryland and the other states in the Chesapeake Bay watershed to restore clean water in the Chesapeake Bay and the region's streams, creeks, and rivers.[1]

II. WASTEWATER TREATMENT PLANTS

4. For the Back River WWTP, the Department issued Baltimore City, State

[1] The State of Maryland is responsible for reducing pollution that emanates from this State and travels to the Chesapeake Bay pursuant to the Chesapeake Bay Total Maximum Daily Load ("Chesapeake Bay TMDL"), which is a "pollution diet" intended to restore clean water in the Bay and the region's streams, creeks, and rivers. The Chesapeake Bay TMDL sets 2025 as the deadline for the State to achieve significant reductions of total nitrogen ("TN") and total phosphorus ("TP") discharges. To achieve these significant reductions, the Department issued Maryland's Phase III Watershed Implementation Plan to Restore the Chesapeake Bay by 2025 ("Phase III WIP"). This plan identifies Department-issued discharge permits for wastewater treatment plants as a tool to reduce TN and TP.

Discharge Permit Number 15-DP-0581A, NPDES Number MD0021555,[2] which became effective May 1, 2018 (the "Back River Discharge Permit"). The Back River Discharge Permit was modified on January 1, 2020, and expires on April 30, 2023. The Back River Discharge Permit is attached hereto as "Exhibit BR1."

5. The Back River Discharge Permit (a) details the actions that Baltimore City is required to take to operate the Back River WWTP, and (b) limits Baltimore City's discharges of pollutants to (i) Outfall 001A in the Back River, and (ii) Outfall 002A at Bear Creek, which flows into the Back River. The Back River then flows into the Baltimore Harbor which flows to the Chesapeake Bay, the largest estuary in the United States and among the most productive and valuable ecosystems in the world. The Back River and the Baltimore Harbor waters are designated as Use II waters protected for estuarine and marine aquatic life.

6. For the Patapsco WWTP, the Department issued Baltimore City, State Discharge Permit Number 15-DP-0580, NPDES Number MD0021601, which became effective October 1, 2017, and expires on September 30, 2022 (the "Patapsco Discharge Permit" or "2015 Patapsco Discharge Permit") (attached hereto as "Exhibit PT1").

7. The Patapsco Discharge Permit (a) details the actions that Baltimore City is

[2] The Federal Water Pollution Control Act (the "Clean Water Act"), 33 U.S.C. § 1251 *et seq.*, prohibits the discharge of pollutants into waters of the United States, unless the U.S. Environmental Protection Agency ("EPA") issues a National Pollutant Discharge Elimination System ("NPDES") permit. The EPA may delegate its NPDES authority to a state, 33 U.S.C. § 1342(b), and has done so here to the Department. The Department thus issues NPDES permits that authorize discharges under both federal and State law.

required to take to operate the Patapsco WWTP, and (b) limits Baltimore City's discharges of pollutants to Outfall 001A in the Patapsco River. The Patapsco River also flows to the Chesapeake Bay, and is designated as Use II waters protected for estuarine and marine aquatic life.

8. The Back River and Patapsco Discharge Permits contain requirements and limitations that are identified as "General Conditions" or "Special Conditions." General Conditions are those that are standard requirements in discharge permits issued by the Department, and Special Conditions are those that are tailored to a specific facility, here the Back River and Patapsco WWTPs.

9. Baltimore City has violated numerous General Conditions and Special Conditions contained in both Discharge Permits, including exceeding effluent limits, failing to report sampling results, failing to report discharge report non-compliance, failing to comply with effluent sampling and testing protocols, failing to maintain sampling equipment, failing to provide various required reports, failing to comply with stormwater discharge permit requirements, and failing to efficiently operate the plants and conduct necessary maintenance.

10. As a result of Baltimore City's responsibility to comply with the various permit requirements at both the Back River and Patapsco WWTPs and its liability for failing to do so, the Department seeks, and is entitled to recover from Baltimore City: (a) civil penalties; (b) pre- and post-judgment interest; and (c) attorneys' fees and costs.

11. The Department also seeks an injunction requiring Baltimore City to take all necessary and appropriate actions to immediately stop unpermitted discharges of pollutants from the Back River and Patapsco WWTPs into the waters of this State, and to take all necessary and appropriate actions to prevent future unpermitted discharges of pollutants from the Back River and Patapsco WWTPs into the waters of this State.

III. JURISDICTION & VENUE

12. This Court has subject matter jurisdiction under §§ 1-501 and 4-401 of the Courts and Judicial Proceedings Article.

13. This Court has personal jurisdiction by virtue of the Department's authority to obtain civil penalties and injunctive relief pursuant to §§ 9-322, 9-339, and 9-342 of the Environment Article and Maryland Rule 2-124(l).

14. This Court is the proper venue for this action under § 6-201 of the Courts and Judicial Procedures Article.

IV. PARTIES

15. Plaintiff is a State agency within the Executive Branch of the State of Maryland. The Secretary of the Environment is charged with the responsibility to regulate water pollution and to enforce the State's water pollution laws under Title 9, Subtitle 3 of the Environment Article.

16. Defendant Mayor and City Council of Baltimore City, Maryland is a body corporate and politic and authorized under the laws of Maryland.

V. STATUTORY & REGULATORY AUTHORITY

17. "[T]he quality of the waters of this State is vital to the public and private interests of its citizens and because pollution constitutes a menace to public health and welfare, creates public nuisances, is harmful to wildlife, fish and aquatic life, and impairs domestic, agricultural, industrial, recreational, and other legitimate beneficial uses of water." Envir. § 9-302(b).

18. "[I]t is State public policy to improve, conserve, and manage the quality of the waters of the State and protect, maintain and improve the quality of water for public supplies, propagation of wildlife, fish and aquatic beneficial uses." Envir. § 4-402; *see also id*. § 9-302(b).

19. "[I]t is State public policy to provide that no waste is discharged into any waters of this State without first receiving necessary treatment or other corrective action to protect the legitimate beneficial uses of this State's waters." Envir. § 4-402; *see also id*. § 9-302(b).

20. As such, "[no] person . . . may discharge any pollutant into the waters of this State" without obtaining authorization (i.e., a discharge permit) from the Department. *See* Envir. §§ 9-322, 9-323.

21. This State's waters are broadly defined to "include . . . surface and underground waters within the boundaries of this State subject to its jurisdiction . . ., the Chesapeake Bay and its tributaries, and all ponds, lakes, river, streams, storm drain

systems, public ditches, tax ditches, and public drainage systems within this State, other than those designed and used to collect, convey, or dispose of sanitary sewage." Envir. § 9-101(l).

22. Also broadly defined are the terms "pollutant," "pollution," and "discharge," *see id.* § 9-101(b), (g), & (h), the breadth of which echoes the public policy that the waters of this State are vital, and further provides the Department with expansive authority and a mandate to preserve the quality of the waters of this State.

23. Therefore, before any person may "construct, install, modify, extend, alter, or operate" a system for disposing of wastes in the waters of this State, that person must "hold a discharge permit issued by the Department." Envir. § 9-323.

24. Any discharge permit issued by the Department must "meet[] . . . [a]ll applicable State and federal water quality standards and effluent limitations." Envir. §§ 9-314(c), 9-324(a); *see* COMAR 26.08.01-04 (Maryland water quality standards and effluent limitations).

25. Additionally, "[t]he Department may make the issuance of a discharge permit contingent on any conditions the Department considers necessary to prevent violation of" Title 9, Subtitle 3, titled "Water Pollution Control." Envir. § 9-326(a).

26. The Department has established regulations governing the issuance of discharge permits for disposal systems. COMAR 26.08.04.

27. The Department may also require an "owner or operator of any source of a

discharge of pollutants" to keep records, report to the Department, adhere to monitoring standards, sample effluent, and provide the Department with information about pollutant discharges. Envir. § 9-331.

28. The Department is further empowered to administer and enforce a permittee's adherence to the requirements of a discharge permit issued under the Water Pollution Control Subtitle. Envir. § 9-319(a)(1).

29. Section 9-342(a) provides for the imposition of civil penalties of up to $10,000 for each violation of the Water Pollution Control Subtitle, or any regulation, permit, or order issued thereunder in a civil action.

30. Under § 9-339(a), the Department may seek injunctive relief to address violations of any rule, regulation, order, or permit issued pursuant to the Water Pollution Control Subtitle.

VI. FACTUAL ALLEGATIONS

Back River WWTP

31. On or about June 16, 2021, September 20, 2021, and December 29, 2021, the Department conducted inspections at the Back River WWTP. During these inspections, and as a result of reviewing information and materials submitted by Baltimore City before and after these inspections in accordance with the terms of the Permit, the Department observed extensive violations of General and Special Conditions contained in the Back River Discharge Permit.

A. Effluent Limit Exceedances

32. Special Conditions II(A)(1-2) of the Back River Discharge Permit, entitled "Effluent Limitations," are the conditions that limit the amount and characteristics of pollution that the Back River WWTP can discharge to the surface waters of the Back River and Bear Creek.

33. From May 2017 through November 2021, the Back River WWTP violated the Back River Discharge Permit's daily, weekly, monthly, quarterly, and annual Effluent Limitations, which include excess discharges of biochemical oxygen demand ("BOD"), E. coli, TN, TP, total suspended solids ("TSS"), and toxicity.

34. Attached hereto as Exhibit BR2 is a table of the Back River WWTP's daily, weekly, monthly, and quarterly effluent limit exceedances from May 2017 through November 2021, which total 131 total violations, and amount to 2,742 days in violation of the NPDES Permit.

35. Attached hereto as Exhibit BR3 is a table of the Back River WWTP's TSS, TN, and TP annual effluent limit exceedance for 2021, which total three violations and amounts to 696 days in violation of the Back River Discharge Permit. The data indicating the number of days in violation of the TN and TP effluent limits reflected in Exhibit BR3 are preliminary, as December 2021 effluent data have not yet been submitted to the Department. Upon receipt of TN and TP effluent data for December 2021, the Department will calculate the days in violation based on load data for all twelve months of 2021.

36. Effluent limit exceedances at the Back River WWTP are ongoing.

B. Failure to Report Effluent Limit Exceedances

37. General Condition III(B)(1) of the Back River Discharge Permit requires Baltimore City to notify the Department within 24 hours if the Back River WWTP cannot or will not meet "any permit condition."

38. From August 2020 through May 2021, Baltimore City failed to report effluent limit exceedances at the Back River WWTP 125 times.

39. Attached hereto as Exhibit BR4 is a table of these effluent limit exceedances from the Back River WWTP that Baltimore City did not notify the Department of within 24 hours.

C. Failure to Report Sampling Results

40. General Condition III(A) of the Back River Discharge Permit, entitled "Monitoring and Reporting," requires Baltimore City to take representative samples of the water being discharged from the Back River WWTP, to accurately analyze these samples and record the results, to create and submit certain reports (e.g., discharge monitoring reports ("DMRs"), monthly operating reports) to the Department, and to retain all records and information resulting from these monitoring requirements.

41. Special Condition II(B) of the of the Back River Discharge Permit, entitled "Minimum Monitoring Requirements," then fills in General Condition III(A) with the requisite what, how, how long, when of sampling and testing. After sampling and testing,

General Condition III(A)(2)(a) then requires Baltimore City to have "summarized and submitted electronically" the Back River WWTP sampling "results obtained during each calendar month" in a DMR.

42. On eight occasions, from January 2017 through June 2021, Baltimore City failed to submit sampling results for at least one parameter in its DMRs in violation of the Back River Discharge Permit. Failing to submit sampling results in a DMR is a violation for each day of the monthly or quarterly monitoring period; here, resulting in 420 days of violation.

43. Attached hereto as Exhibit BR5 is a table of the incomplete DMR sampling results that Baltimore City did not submit to the Department for the Back River WWTP.

D. PCB Testing and Reporting Failures

44. General Condition III(A) of the Back River Discharge Permit requires Baltimore City to follow appropriate testing protocols to ensure the accuracy of the sampling results.

45. To ensure the accuracy of PCB sampling results, Special Condition II(B)(1) n.16 of the Back River Discharge Permit requires Baltimore City to collect "rinsate blanks" to assess the adequacy of sampling equipment decontamination. After sampling equipment is decontaminated, a "rinsate" or "equipment" blank is obtained. A rinsate blank is a sample of uncontaminated water that has been poured over or through the sampling equipment. The rinsate blank results indicate whether the sampling equipment itself is

artificially introducing PCB contamination into the samples; for the Back River WWTP, rinsate blanks sample results may not exceed 600 pg/L.

46. Special Condition II(F)(4) of the Back River Discharge Permit requires the submission by Baltimore City of the PCB criteria and the sampling results for "method blanks" to ensure the accuracy of PCB sampling results. While rinsate/equipment blanks assess the adequacy of equipment decontamination, "method blanks" assess the artificial introduction of PCB contamination during sample preparation activities.

47. Special Condition II(F)(4) of the Back River Discharge Permit requires Baltimore City to submit Back River WWTP sampling results for the total concentration of both (a) Polychlorinated Biphenyls ("Total PCBs"), and (b) 12 extremely toxic individual, unique, well-defined PCB chemical compounds ("PCB Congeners").

48. From June 2018 through December 2020, 10 of the 11 quarterly reports that Baltimore City submitted to the Department for the Back River WWTP indicated that rinsate or method blank samples (a) were broken in transit, (b) not reported, or (c) exceeded the 600 pg/L concentration limit. In these same 11 reports, Baltimore City also failed to submit PCB sampling results, PCB method blank criteria and sampling results, or PCB Congeners results. These errors or omissions are in violation of the Back River Discharge Permit.

49. Errors or omissions in a quarterly report constitute a violation for each day of that quarter, here totaling 990 days of violation.

50. Attached hereto as Exhibit BR6 is a table of these errors and omissions which raise doubt regarding the validity and accuracy of Baltimore City's Back River WWTP PCB sampling results.

E. Failure to Conduct Confirmatory Whole Effluent Toxicity ("WET") Testing

51. Special Condition II(B)(1) of the Back River Discharge Permit requires Baltimore City to conduct quarterly acute and chronic Whole Effluent Toxicity ("WET") testing at the Back River WWTP.

52. If two consecutive WET tests show acute or chronic toxicity, Special Condition II(D)(10) of the Back River Discharge Permit requires Baltimore City to conduct a third confirmatory WET test within 30 days. Consecutive WET test results for February 25, 2021, and May 25, 2021, showed chronic toxicity at the Back River WWTP.

53. Baltimore City did not conduct a third confirmatory WET test within 30 days, which is a violation of the Back River Discharge Permit.

F. Failure to Maintain Sampling Equipment

54. General Condition III(A)(5) of the Back River Discharge Permit requires Baltimore City to "calibrate and maintain all monitoring and analytical instrumentation to ensure accuracy of measurements."

55. During a June 16, 2021 inspection, the Department observed a slight accumulation of solids on the automatic sampler container for Outfall 001 at the Back River WWTP. The accumulation of solids on this monitoring and analytical instrumentation is

a violation of the Back River Discharge Permit.

G. Failure to Efficiently Operate the Back River WWTP & Conduct Necessary Maintenance

56. General Condition III(B)(3)(a) of the Back River Discharge Permit requires Baltimore City to operate the Back River WWTP efficiently to minimize upsets and discharges of excessive pollution.

57. General Condition III(B)(3)(c) requires ongoing maintenance of equipment at the Back River WWTP necessary to avoid adverse effects on the quality of discharge water.

58. After the June 16, 2021 inspection of the Back River WWTP, Baltimore City informed the Department that the main centrifuge began malfunctioning in January 2021, reducing the Back River WWTP's dewatering capacity. However, the onset of effluent limit exceedances in August of 2020 indicates that the centrifuge may have begun malfunctioning earlier than January 2021.

59. The Department also observed throughout the Back River WWTP various broken and malfunctioning equipment that affects discharge water quality. The malfunctioning and broken equipment appeared to have not been properly repaired, replaced, or maintained.

60. The Department also learned that construction was conducted in the "Activation Area," an area of the Back River WWTP that affects discharge water quality.

61. The lack of preventative maintenance, replacement, and repair of equipment

at the Back River WWTP, which occurred concurrently with the onset of adversely affected discharge water quality and effluent limit exceedances, constitutes a violation of the Back River Discharge Permit.

H. Failure to Provide Adequate Operating Staff

62. General Condition III(B)(3)(b) of Back River Discharge Permit requires Baltimore City to adequately staff the Back River WWTP with sufficient qualified personnel.

63. The June 16, 2021 inspection revealed that only 2 of 76 certified operators at the Back River WWTP were permanently licensed; the remaining 74 had temporary licenses.

64. This staffing of mostly temporary licensed operators indicates that inadequate staffing likely contributed to plant-wide Back River Discharge Permit violations, and is itself a violation of the Back River Discharge Permit.

I. Industrial Stormwater Discharge Permit Violations

65. General Condition III(B)(19) of the Back River Discharge Permit requires Baltimore City to "maintain coverage under [Maryland's] 'General Permit for Discharges from Storm[w]ater Associated with Industrial Activities.'"

66. Baltimore City applied for, and the Department issued, industrial stormwater discharge permit coverage for the Back River WWTP under State Discharge Permit Number 12SW0630, NPDES Number MD000630 ("Back River Stormwater Permit"),

which became effective May 1, 2018, and expires February 13, 2022.

67. On June 16, 2021, the Department conducted an inspection of the Back River WWTP for Back River Stormwater Permit compliance. This inspection revealed that Baltimore City failed to:

a. conduct quarterly routine facility inspections, in violation of Part V(A)(1) of the Back River Stormwater Permit,

b. correct violations identified in its annual inspection report, in violation of Parts IV(C-D) and V of the Back River Stormwater Permit,

c. perform the visual inspections, in violation of Part V(A) of the Back River Stormwater Permit,

d. conduct at least one quarterly visual assessment during a snow melt, in violation of Part V(A)(4) of the Back River Stormwater Permit,

e. update its stormwater pollution prevention plan ("SWPPP"), in violation of Part II(C)(3) of the Back River Stormwater Permit,

f. provided stormwater pollution prevention training for all employees, in violation of Part III(B)(1)(b)(ix) of the Back River Stormwater Permit, and

g. maintain a SWPPP site map with required information, in violation of Part III(C)(2)(c) of the Back River Stormwater Permit.

68. Baltimore City's failure to comply with the Back River Stormwater Permit is a violation of the Back River Discharge Permit.

J. Failure to Minimize Adverse Impacts

69. General Condition III(B)(4) of the Back River Discharge permit requires Baltimore City to "take all reasonable steps to minimize any adverse impact to the waters of this State, human health or the environment."

70. Baltimore City's unauthorized discharge of pollutants from the Back River WWTP and other Back River Discharge Permit exceedances observed by the Department and detailed above violate General Condition III(B)(4), constitute significant violations of State and federal water pollution laws, and have contaminated the surface waters of Back River and Bear Creek and caused an adverse impact on the environment.

Patapsco WWTP

71. On or about May 6 through June 4, 2021, October 6 through 11, 2021, and on December 28, 2021, the Department conducted inspections at the Patapsco WWTP. During these inspections, and as a result of reviewing information and materials submitted to the Department by Baltimore City both before and after these inspections in accordance with the terms of the Permit, the Department observed extensive violations of General and Special Conditions contained in the Patapsco Discharge Permit.

A. Effluent Limit Exceedances

72. Special Conditions II(A)(1-2) of the Patapsco Discharge Permit, entitled

"Effluent Limitations," are the conditions that limit the amount and characteristics of pollution that the Patapsco WWTP can discharge to the surface waters of Patapsco River.

73. From January 1, 2020, through December 31, 2021, the Patapsco WWTP violated the Patapsco Discharge Permit's weekly, monthly, seasonal, and annual Effluent Limitations, which include excess discharges of BOD, enterococci, TN, TP, and TSS.

74. Attached hereto as Exhibit PT2 is a table of the Patapsco WWTP's weekly and monthly effluent limit exceedances from January 1, 2020, through November 30, 2021, which total 23 violations and amount to 575 days in violation of the Patapsco Discharge Permit.

75. Attached hereto as Exhibit PT3 are tables of the Patapsco WWTP's TN and TP seasonal and annual effluent limit exceedances from January 1, 2020, through November 30, 2021, which total eight violations and presently amount to 1,411 days in violation of the Patapsco Discharge Permit.

76. The data indicating the number of days in violation of the TN and TP effluent limits reflected in Exhibit PT3 are preliminary, as December 2021 effluent data have not yet been submitted to the Department. Upon receipt of TN and TP effluent data for May and December 2021, the Department will calculate the days in violation based on effluent data for all twelve months of 2021.

77. Effluent limit exceedances at the Patapsco WWTP are ongoing.

B. Failure to Report Sampling Results

78. General Condition III(A) of the Patapsco Discharge Permit, entitled "Monitoring and Reporting," requires Baltimore City to take representative samples of the water being discharged from the Patapsco WWTP, to accurately analyze these samples and record the results, to create and submit certain reports (e.g., DMRs, monthly operating reports) to the Department, and to retain all records and information resulting from these monitoring requirements.

79. Special Condition II(B) of the Patapsco Discharge Permit, entitled "Minimum Monitoring Requirements," then fills in General Condition III(A) with the requisite what, how, how long, when, of sampling and testing. After sampling and testing, General Condition III(A)(2)(a) then requires Baltimore City to have "summarized and submitted electronically" the Patapsco WWTP sampling "results obtained during each calendar month" in a DMR.

80. On 18 occasions, from June 2017 through August 2021, Baltimore City failed to submit sampling results for at least one parameter in its DMRs in violation of the Patapsco Discharge Permit. Failure to submit sampling results in a DMR is a violation for each day of that calendar month, here totaling 540 days of violation.

81. Attached hereto as Exhibit PT4 is a table of the incomplete DMR sampling results that Baltimore City did not submit to the Department for the Patapsco WWTP.

C. Sampling, Analysis, & Reporting Failures

82. Additionally with respect to General Condition III(A), entitled "Monitoring and Reporting," during an inspection and review of the Patapsco WWTP's operation from May 6 through June 4, 2021, the Department observed numerous violations of the Patapsco Discharge Permit associated with:

a. sample collection/holding time,

b. sample preservation/filtration,

c. laboratory analysis,

d. quality assurance sample collection,

e. total residual chlorine analysis,

f. 40 C.F.R. Part 136 sample preservation, and

g. the collection of rinsate and equipment blanks.

83. These broad operational deficiencies bring into question the accuracy of reported sampling data.

D. PCB Testing and Reporting Failures

84. General Condition III(A) of the Patapsco Discharge Permit requires Baltimore City to follow appropriate testing protocols to ensure the accuracy of the sampling results.

85. To ensure the accuracy of PCB sampling results, Special Condition II(B)(1) n.16 of the Patapsco Discharge Permit requires Baltimore City to collect "rinsate blanks"

to assess the adequacy of sampling equipment decontamination. After sampling equipment is decontaminated, a "rinsate" or "equipment" blank is obtained. A rinsate blank is a sample of uncontaminated water that has been poured over or through the sampling equipment. The rinsate blank results indicate whether the sampling equipment itself is artificially introducing PCB contamination into the samples.

86. Special Condition II(F)(4) of the Patapsco Discharge Permit requires the submission by Baltimore City of the PCB criteria and the sampling results for "method blanks" to ensure the accuracy of PCB sampling results. While rinsate/equipment blanks assess the adequacy of equipment decontamination, "method blanks" assess the artificial introduction of PCB contamination during sample preparation activities.

87. Special Condition II(F)(4) of the Patapsco Discharge Permit requires Baltimore City to submit Patapsco WWTP sampling results for the total concentrations of both (a) Total PCBs, and (b) PCB Congeners.

88. During an inspection and review of the Patapsco WWTP's operation from May 6 through June 4, 2021, the Department learned that PCBs sampling data was being inaccurately reported. Between October 2020 and May 2021, Baltimore City reported rinsate blank test results in the place of sample test results. And, additional Total PCB samples collected in January 2021 were neither reported nor used to calculate loading. Baltimore City also failed to (a) report the PCB Congeners, and (b) provide the method blank criteria and results.

89. Separately, the Patapsco WWTP's total PCB loading for 2020 (123.2 grams) was approximately four and a half times its permit effluent limit of 27.2 grams, in violation of Special Condition II(A)(1) n.4(b) of the Patapsco Discharge Permit.

E. Toxic Chemical Testing Failures

90. Special Condition II(B)(1) n.l6 of the Patapsco Discharge Permit requires Baltimore City to perform toxic chemical testing and monitoring.

91. Special Condition II(F)(4) of the Patapsco Discharge Permit requires Baltimore City to perform this "in accordance with 40 CFR Part 136" and the Department's Toxic Pollutant Monitoring Protocol and Reporting Requirements for Toxic Chemical Testing Analytical Data.

92. During an inspection and review of the Patapsco WWTP's operation from May 6 through June 4, 2021, the Department learned that

a. samples were not preserved as required by 40 C.F.R. Part 136:

i. the pH of the compound Acrolein was incorrectly adjusted, and

ii. by the time the sample was received by the City's primary contact laboratory, its temperature was measured at 8°C, which exceeded the 6°C maximum temperature;

b. rinsate blank results and chain of custody documentation indicated significant reporting and operational irregularities;

c. the requisite chain of custody documents was incomplete; and

d. the reporting limit used for Chromium VI was 10 µg/L, not the required 0.1 µg/L reporting limit.

F. Failure to Timely Submit Wastewater Capacity Management Plan

93. Special Conditions II(B)(2), II(B)(2) n.24, and II(C) of the Patapsco Discharge Permit require Baltimore City to submit to the Department an updated 2020 wastewater capacity management plan ("WCMP").

94. MDE's July 6, 2006 Guidance Document for Wastewater Capacity Management Plans, referred to in Special Condition II(C) of the Patapsco Discharge Permit, directs municipalities to "[s]ubmit the Wastewater Capacity Management Plan . . . to MDE for municipalities operating at 80% design capacity by January 31st based on the three year adjusted average flow."

95. Baltimore City submitted a 2017 WCMP on February 9, 2018. From 2018 through 2020, the Patapsco WWTP operated at or above 80% of its design capacity.

96. Baltimore City's subsequent submittal of a 2020 WCMP, on August 31, 2021, was seven months late, in violation of the Patapsco Discharge Permit.

G. Systemic Fat, Oil, & Grease ("FOG") Mitigation Failures

1. *2010 NPDES Permit Violations*

97. The Patapsco WWTP's previous discharge permit, State Discharge Permit Number 10-DP-0580, NPDES Number MD0021601, effective October 1, 2010, and expired September 30, 2015 (the "2010 Patapsco Discharge Permit"), prohibited the

"discharge of floating solids or visible foam other than trace amounts." Special Condition II(A)(1) n.1.

98. Since at least May 20, 2013, the Department has documented the "unauthorized discharges of floating solids, identified as fats, oil, and grease" in violation of Special Condition II(A)(1) n.1 of the 2010 Patapsco Discharge Permit.

99. In response to these persistent violations, the Department and Baltimore City entered into an administrative consent order, CO-16-2405, on June 7, 2016 (the "FOG Consent Order"), to cease these unauthorized discharges of FOG.

100. Section 5 of the FOG Consent Order required Baltimore City to "submit a plan and schedule for the repair of the skimmers at the Patapsco WWTP within 60 days."

101. On November 24, 2017, Baltimore City submitted a FOG Mitigation Plan. Shortly thereafter, Baltimore City submitted a FOG Mitigation Plan Revision ("Revised FOG Plan").

102. The Revised FOG Plan required Baltimore City to:

a. upgrade the pump and scum removal systems for all primary settling tanks ("PSTs"),

b. replace the flight plant brackets on PST nos. 2 through 6,

c. install scum trough (skimmer) with actuated adjustment rods in PST nos. 1 through 3,

103. During the May 6, 2021 inspection of the Patapsco WWTP, the Department

learned that Baltimore City did not complete any of this work, in violation of the Patapsco Discharge Permit. This Patapsco WWTP inspection also revealed that only five PSTs were in operation, not 18 as required by the Revised FOG Plan, again in violation of the Patapsco Discharge Permit.

2. *2015 NPDES Discharge Permit Violations*

104. Special Condition II(A)(1) n.2 of the 2015 Patapsco Discharge Permit prohibits the "discharge of floating solids or visible foam other than trace amounts."

105. Special Condition II(M)(d) of the 2015 Patapsco Discharge Permit requires Baltimore City to "report to the Department on an annual basis at the end of each calendar year all measures taken to comply with the [FOG Mitigation P]lan."

106. On or about May 4, 2021, Blue Water Baltimore[3] provided information to the Department that its staff had observed widespread FOGs in the water around the Patapsco WWTP's discharge pipe in violation of Special Condition II(A) n.1.

107. Baltimore City also failed to submit FOG mitigation plans to the Department in 2018, 2019, 2020, or 2021 in violation of Special Condition II(M) of the 2015 NPDES Discharge Permit.

H. Failure to Provide Adequate Operating Staff

108. General Condition III(B)(3)(b) of the Patapsco Discharge Permit requires Baltimore City to adequately staff the Patapsco WWTP with sufficient qualified personnel.

[3] Blue Water Baltimore is a 501(c)(3) nonprofit organization located in Baltimore.

109. On September 7, 2021, Baltimore City informed the Department that only five of its 45 certified operators or superintendents at the Patapsco WWTP were permanently licensed; the remaining 40 had temporary licenses.

110. This staffing of mostly temporary licensed operators is indicative of inadequate staffing that likely contributed to plant-wide Patapsco Discharge Permit violations, and is itself a violation of the Patapsco Discharge Permit.

G. Failure to Efficiently Operate the Patapsco WWTP & Conduct Necessary Maintenance

111. General Condition III(B)(3)(a) of the Patapsco Discharge Permit requires Baltimore City to operate the Patapsco WWTP efficiently to minimize upsets and discharges of excessive pollution. And General Condition III(B)(3)(c) requires ongoing maintenance of equipment at the Patapsco WWTP necessary to avoid adverse effects on the quality of discharge water.

112. The May 6, 2021 Patapsco WWTP inspection revealed systemic operational and maintenance failures that affected discharge water quality, including, but not limited to, deficient FOG Mitigation Plan implementation. The lack of preventative maintenance, replacement, and repair of equipment at the plant occurred concurrently with the onset of adversely effected discharge water quality and effluent limit exceedances and constitutes a violation of the Patapsco Discharge Permit.

I. Failure to Minimize Adverse Impacts

113. General Condition III(B)(4) of the Patapsco Discharge permit requires

Baltimore City to "take all reasonable steps to minimize any adverse impact to the waters of this State, human health or the environment."

114. Baltimore City's unauthorized discharge of pollutants from the Patapsco WWTP and other Patapsco Discharge Permit exceedances observed by the Department and detailed above violate General Condition III(B)(4), constitute significant violations of State and federal water pollution laws, and have contaminated the surface waters of Patapsco River and caused an adverse impact on the environment.

COUNT I
Violation of Envir. §§ 9-322 and 9-323
(Unauthorized Discharge of Pollutants from Back River WWTP)

115. The Department re-alleges and incorporates by reference the allegations of all prior paragraphs of this complaint.

116. Baltimore City has violated §§ 9-322 and 9-323 of the Environment Article by discharging unauthorized pollution from the Back River WWTP into the Back River in violation of the Back River Discharge Permit.

117. Unless enjoined by an order of the Court, violations of the Back River Discharge Permit and Title 9, subtitle 3 of the Environment Article are likely to continue.

118. Under § 9-342 of the Environment Article, a person who violates any provision of the subtitle or any rule, regulation, order, or permit adopted or issued under the subtitle is liable for a civil penalty not exceeding $10,000 to be collected in a civil action brought by the Department. Each day a violation occurs is a separate violation.

119. Under § 9-339 of the Environment Article, the Department may bring an action for injunctive relief against any person who violates any provision of Title 9, subtitle 3, on a showing that the violation is ongoing or about to occur.

COUNT II
Violation of Envir. §§ 9-326 and 9-331
(Failure to Comply with Conditions in the Back River Discharge Permit)

120. The Department re-alleges and incorporates by reference the allegations of all prior paragraphs of this complaint.

121. Baltimore City has violated §§ 9-326 and 9-331 of the Environment Article by failing to comply with several General and Special Conditions contained in the Back River Discharge Permit.

122. Unless enjoined by an order of the Court, violations of the Back River Discharge Permit and the Title 9, subtitle 3 of the Environment Article are likely to continue.

123. Under § 9-342 of the Environment Article, a person who violates any provision of the subtitle or any rule, regulation, order, or permit adopted or issued under the subtitle is liable for a civil penalty not exceeding $10,000 to be collected in a civil action brought by the Department. Each day a violation occurs is a separate violation.

124. Under § 9-339 of the Environment Article, the Department may bring an action for injunctive relief against any person who violates any provision of Title 9, subtitle 3, on a showing that the violation is ongoing or about to occur.

COUNT III
Violation of Envir. §§ 9-322 and 9-323
(Unauthorized Discharge of Pollutants from Patapsco WWTP)

125. The Department re-alleges and incorporates by reference the allegations of all prior paragraphs of this complaint.

126. Baltimore City has violated §§ 9-322 and 9-323 of the Environment Article by discharging unauthorized pollution from the Patapsco WWTP into the Patapsco River which flows into the Baltimore Harbor which flows into the Chesapeake Bay in violation of the Patapsco Discharge Permit.

127. Unless enjoined by an order of the Court, violations of the Patapsco Discharge Permit and Title 9, subtitle 3 of the Environment Article are likely to continue.

128. Under § 9-342 of the Environment Article, a person who violates any provision of the subtitle or any rule, regulation, order, or permit adopted or issued under the subtitle is liable for a civil penalty not exceeding $10,000 to be collected in a civil action brought by the Department. Each day a violation occurs is a separate violation.

129. Under § 9-339 of the Environment Article, the Department may bring an action for injunctive relief against any person who violates any provision of Title 9, subtitle 3, on a showing that the violation is ongoing or about to occur.

COUNT IV
Violation of Envir. §§ 9-326 and 9-331
(Failure to Comply with Conditions in the Patapsco Discharge Permit)

130. The Department re-alleges and incorporates by reference the

allegations of all prior paragraphs of this complaint.

131. Baltimore City has violated §§ 9-326 and 9-331 of the Environment Article by failing to comply with several General and Special Conditions contained in the Patapsco Discharge Permit.

132. Unless enjoined by an order of the Court, violations of Patapsco Discharge Permit and the Title 9, subtitle 3 of the Environment Article are likely to continue.

133. Under § 9-342 of the Environment Article, a person who violates any provision of the subtitle or any rule, regulation, order, or permit adopted or issued under the subtitle is liable for a civil penalty not exceeding $10,000 to be collected in a civil action brought by the Department. Each day a violation occurs is a separate violation.

134. Under § 9-339 of the Environment Article, the Department may bring an action for injunctive relief against any person who violates any provision of Title 9, subtitle 3, on a showing that the violation is ongoing or about to occur.

PRAYER FOR RELIEF

WHEREFORE, the Maryland Department of the Environment respectfully requests that this Court enter judgment in its favor against Baltimore City, granting the following civil penalties and permanent injunctive relief:

A. That the Court require Baltimore City to cease discharging any pollutants to waters of the State of Maryland from the WWTPs which are not authorized by a discharge

permit issued by the Department, and require Baltimore City to take all steps necessary to come into permanent and consistent compliance with the prohibition on unpermitted discharges and compliance with §§ 9-322 and 9-323 of the Environment Article;

B. That the Court assess civil penalties against Baltimore City of up to $10,000 per violation per day pursuant to § 9-342 of the Environment Article of the Maryland Code;

C. That the Court award such other relief as it deems just and equitable.

Respectfully submitted,

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TABLE OF EXHIBITS

Back River WWTP Exhibits

Patapsco Wastewater Treatment Plant Exhibits

Exhibit BR1

DISCHARGE PERMIT

NPDES Discharge Permit Number: MD0021555	**State Discharge Permit Number:** 15-DP-0581A
Effective Date: 05/01/2018	**Expiration Date:** 04/30/2023
Modification Date: 01/01/2020	**Reapplication Due Date:** 10/31/2021

Pursuant to the provisions of Title 9 of the Environment Article, Annotated Code of Maryland, and regulations promulgated thereunder, and the provisions of the Clean Water Act, 33 U.S.C. Section 1251 et seq., and implementing regulations 40 CFR Parts 122, 123, 124 and 125, the Department of the Environment hereby establishes conditions and requirements pertinent to the wastewater treatment plant and collection system and authorizes:

Mayor and City Council of Baltimore
City Hall, 100 North Holiday Street
Baltimore, Maryland 21202

TO DISCHARGE FROM: Back River Wastewater Treatment Plant

LOCATED AT: 8201 Eastern Boulevard, Baltimore County
Baltimore, Maryland 21224

THROUGH OUTFALL: 001A -- Facility Effluent to Back River
002A – Facility Effluent discharge to High Head Lake at the Sparrows Point, Trade Point Property, and from there, is pumped to the existing outfalls to Bear Creek

TO: the Back River and Baltimore Harbor, designated as Use II waters protected for Estuarine and Marine Aquatic Life; in accordance with the following special and general conditions and a map incorporated herein and made a part hereof.

I. DEFINITIONS

A. "Ambient temperature" of the effluent receiving stream means the water temperature that is not impacted by a point source discharge, and it shall be measured in areas of the stream representative of typical or average conditions of the stream segment in question.

B. "Bypass" means the intentional diversion of pollutants from any portion of a treatment or collection facility.

C. "BOD_5 (Biochemical Oxygen Demand)" means the amount of oxygen consumed in a standard BOD_5 test without the use of a nitrification inhibitor at 20 degree centigrade on an unfiltered sample.

D. "Clean Water Act" means the Federal Water Pollution Control Act, as amended, 33 U.S.C. Section 1251 et seq.

E. "CFR" means the Code of Federal Regulations.

F. "COMAR" means the Code of Maryland Regulations.

G. "Department" means the Maryland Department of the Environment (MDE).

H. Discharge Limits

1. "Daily *maximum* (or *minimum)*" limitation means the *highest* (or *lowest)* allowable the daily averages in a calendar month. The daily discharge expressed as concentration (in mg/l) shall be calculated by dividing total of measurement readings by number of sample collected during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge expressed as loading rate (in pounds/day) is calculated by using this formula {daily average concentration (mg/l) x the same day total flow (in million gallons) x 8.34}.

2. "Weekly average *(maximum* or *minimum)*" limitation means the *highest* or *lowest* allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week. Each of the following 7-day periods is defined as a calendar week: Week 1 is Days 1 - 7 of the month; Week 2 is Days 8 - 14; Week 3 is Days 15 - 21; and Week 4 is Days 22 - 28. *For weekly average maximum*, if the "daily discharge" on days 29, 30 or 31 exceeds the "weekly average" discharge limitation, MDE may elect to evaluate the last 7 days of the month as Week 4 instead of Days 22 - 28. *For weekly average minimum*, if the "daily discharge" on days 29, 30 or 31 is lower than the "weekly average" discharge limitation, MDE may elect to evaluate the last 7 days of the month as Week 4 instead of Days 22 - 28.

I. DEFINITIONS

3. "Monthly average *maximum* (or *minimum)*" limitation means the *highest* (or *lowest)* allowable monthly average concentration or waste load of a parameter over a calendar month. The monthly average is calculated as the sum of all daily discharges for a parameter sampled and/or measured in that calendar month divided by the number of days on which monitoring was performed.

4. "Minimum or maximum" limit means the lowest or highest allowable value measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling.

5. "Monthly loading rate (in pounds/month)" means the total load of a parameter calculated for that calendar month. It is calculated using this formula {(monthly average concentration in mg/l) x (Total monthly flow in Million Gallons) x 8.34}.

6. "Year-to-date cumulative load (pounds)" value means cumulative load of a pollutant in the effluent through each reporting month in a calendar year. It is calculated as a sum of the individual total monthly loads from January through the reporting month in a calendar year.

7. "Annual Maximum Loading Rate (in pounds/year)" limit means the maximum load allowed for a pollutant in the effluent to be discharged in a calendar year. The Year-to-date cumulative load (as defined above in Definition I.H.6) shall be used to determine the compliance status of this requirement.

8. "Monthly log mean (Monthly geometric mean)" limit means the highest allowable value calculated as the logarithmic or geometric mean of all samples taken in the calendar month. The geometric mean is the antilogarithm of the mean of the logarithms.

I. Discharge Monitoring

1. "Composite sample" means a combination of individual samples obtained at hourly or smaller intervals over a time period. Either the volume of each individual sample is proportional to discharge flow rates or the sampling interval (for constant volume samples) is proportional to the flow rates over the time period used to produce the composite.

2. "Grab sample" means an individual sample collected over a period of time not exceeding 15 minutes.

3. "Estimated flow" value means a calculated volume or discharge rate which is based on a technical evaluation of the sources contributing to the discharge including, but not limited to, pump capabilities, water meters, and batch discharge volumes.

I. DEFINITIONS

4. "Measured flow" value means any method of liquid volume measurement, the accuracy of which has been previously demonstrated in engineering practice, or for which a relationship to absolute volume has been obtained.

5. "Recorded flow" means any method of providing a permanent, continuous record of flow including, but not limited to, circular and strip charts.

6. "Monthly average flow" means the total flow for a calendar month divided by the number of days in the same month.

J. "i-s (immersion stabilization)" means a calibrated device immersed in the effluent or stream, as applicable, until the temperature reading is stabilized.

K. "NetDMR" means a nationally-available electronic reporting tool, initially designed by states and later adapted for national use by EPA, which can be used by NPDES-regulated facilities to submit discharge monitoring reports (DMRs) electronically to EPA through a secure Internet application over the National Environmental Information Exchange Network (NEIEN). EPA can then share this information with authorized states, tribes, and territories.

L. "NPDES (National Pollutant Discharge Elimination System)" means the national system for issuing permits as designated by the Clean Water Act.

M. "Nondetectable Level" for total residual chlorine means a residual concentration of less than 0.10 mg/l as determined using either the DPD titrimetric or chlorimetric method or an alternative method approved by the Department.

N. "Outfall" means the location where the effluent is discharged into the receiving waters.

O. "Overflow" means any loss of wastewater or discharge from a sanitary sewer system, combined sewer system or wastewater treatment plant bypass (as defined in I.B) which results in the direct or potential discharge of raw, partially treated wastewater into the waters of the State.

P. "Permittee" means an individual or organization holding the discharge permit issued by the Department.

Q. "POTW" means a publicly owned treatment works.

R. "Sampling Point" means the effluent sampling location in the outfall line(s) downstream from the last addition point or as otherwise specified.

S. "Sanitary Sewer Overflow (SSO)" means a discharge of untreated or partially treated sewage from a separate sewer system before the sanitary wastewater reaches the headworks of a wastewater treatment facility, pursuant to COMAR 26.08.10.01.

I. DEFINITIONS

T. "Significant Industrial User (SIU)" is defined as any industrial user (IU) that:

1. is subject to national categorical standards; and

2. any other IU that:

   a. discharges an average of 25,000 gallons per day or more of process wastewater (excluding sanitary, non-contact cooling and boiler blowdown wastewater); or

   b. contributes a process wastestream that makes up 5% or more of the average dry weather hydraulic or organic capacity of the POTW; or

   c. is designated as such by the POTW on the basis that the IU has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement; or

   d. is found by the POTW, the Department, or the Environmental Protection Agency (EPA) to have significant impact either individually or in combination with other contributing industries to the POTW, on the quality of the sludge, the POTW's effluent quality, or air emissions generated by the system.

U. "TKN (Total Kjeldahl Nitrogen)" means organic nitrogen plus ammonia nitrogen.

V. "TSS (Total Suspended Solids)" means the residue retained on the filter by an analysis done in accordance with Standard Methods or other approved methods.

W. "Upset" means the exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

II. SPECIAL CONDITIONS

A.1 Effluent Limitations, Outfall 001A [1] [2] [3]

The quality of the effluent discharged by the facility at a discharge point location- 001A shall be limited at all times as shown below:

	Maximum Effluent Limits					
Effluent Characteristics	**Monthly Average Loading Rate, Pounds/day**	**Weekly Average Loading Rate, Pounds/day**	**Daily Average Loading Rate, Pounds/day**	**Monthly Average Concentration, mg/l**	**Weekly Average Concentration, mg/l**	**Daily Average Concentratio mg/l**
BOD_5	11,000	16,000	N/A	10	15	N/A
TSS	11,000	16,000	N/A	10	15	N/A
Total Ammonia Nitrogen as N (5/1 - 10/31)	2,200	3,300	N/A	2.0	3.0	N/A
(11/ - 4/30)	5,529	N/A	N/A	5.1	N/A	N/A
Total Phosphorus	220	330	N/A	0.20	0.30	N/A

	Maximum Effluent Limits		
Effluent Characteristics	**Total Monthly Loading Rate, Pounds/Month**	**Annual Maximum Loading Rate, Pounds/Year**	**Monthly Average Concentration, mg/l**
TSS [4]a	REPORT	3,959,228 lbs/year	REPORT
Total Phosphorus-P [4] [6] [7] a (5/1- 10/31)	REPORT	6,652 lbs/month	REPORT
Total Phosphorus-P [4] [5] [6] [7] a	REPORT	79,277 lbs/year	REPORT
Total Nitrogen-N [4] [6] [7] a (5/1- 10/31)	REPORT	99,782 lbs/month	REPORT
Total Nitrogen-N [4] [5] [6] [7] a	REPORT	1,582,055 lbs/year	REPORT
Total Polychlorinated Biphenyls (tPCBs) [4] b	REPORT Grams/Quarter (Quarterly Average) REPORT Grams/Year (Annual Maximum)		REPORT ng/l (Quarterly Average) REPORT ng/l (Annual Average)

	Effluent Limits	
Effluent Characteristics	**Maximum**	**Minimum**
E. coli	126 MPN/ 100 ml monthly geometric mean	N/A
Total Residual Chlorine [8]	0.011 mg/l	N/A
pH	8.5	6.5
Dissolved Oxygen (All Year)	N/A	5.0 mg/l at anytime
(2/1 – 5/31)	N/A	6.0 mg/l weekly average
WET Acute Toxicity [9]	TUa < 1.00	N/A
WET Chronic Toxicity [9]	TUc < 1.02	N/A

An annual average flow of 130.0 million gallons per day (mgd) was used in waste allocation calculations (expressed as waste loading rate limit), and this unit shall be used when reporting on the Discharge Monitoring Report (DMR) as required by General Condition III.A.2. Notification is to be provided to the Department at least 180 days before the annual average flow is expected to exceed this flow level or when the sum of flows from outfall 001A and 002A is expected to exceed 180.0 mgd. The facility shall meet an annual load limit of 2,192,800 lbs/yr for total nitrogen, 109,600 lbs/yr for total phosphorus and 8,548,254 lbs/yr for total suspended solids for flows from outfall 001A and 002A combined together. The ENR limits into effect on the effective date of this permit.

II. SPECIAL CONDITIONS

A.2 Effluent Limitations, Outfall 002A [1][2][3]

The quality of the effluent discharged by the facility at a discharge point location- 002A shall be limited at all times as shown below:

	Maximum Effluent Limits					
Effluent Characteristics	Monthly Average Loading Rate, Pounds/day	Weekly Average Loading Rate, Pounds/day	Daily Average Loading Rate, Pounds/day	Monthly Average Concentration, mg/l	Weekly Average Concentration, mg/l	Daily Average Concentrati mg/l
BOD_5 (5/1-10/31)	8,340	12,520	N/A	20	30	N/A
BOD_5 (11/1- 4/30)	12,520	18,770	N/A	30	45	N/A
TSS	12,520	18,770	N/A	30	45	N/A
Total Ammonia Nitrogen as N (5/1 - 10/31)	830	1,250	N/A	2.0	3.0	N/A
(11/1- 4/30)	2,130	N/A	N/A	5.1	N/A	N/A
Total Phosphorus	83	125	N/A	0.20	0.30	N/A

	Maximum Effluent Limits		
Effluent Characteristics	Total Monthly Loading Rate, Pounds/Month	Annual Maximum Loading Rate, Pounds/Year	Monthly Average Concentration, mg/l
TSS [4]a	REPORT	4,589,026 See footnote 4(a)*	REPORT
Total Phosphorus-P [4][6][7] a (5/1-10/31)	REPORT	15,353 lbs total (5/1- 10/31)	REPORT
Total Phosphorus-P [4][5][6][7] a	REPORT	30,363 lbs/year	REPORT
Total Nitrogen-N [4][6][7] a (5/1-10/31)	REPORT	230,294 lbs total (5/1-10/31)	REPORT
Total Nitrogen-N [4][5][6][7] a	REPORT	610,748 lbs/year	REPORT
Total Polychlorinated Biphenyls (tPCBs) [4] c	REPORT Grams/Quarter (Quarterly Average) REPORT Grams/Year (Annual Maximum)		REPORT ng/l (Quarterly Average) REPORT ng/l (Annual Average)

	Effluent Limits	
Effluent Characteristics	Maximum	Minimum
E. coli	126 MPN/ 100 ml monthly geometric mean	N/A
Total Residual Chlorine [8]	N/A	N/A
pH	8.5	6.5
Dissolved Oxygen (All Year)	N/A	5.0 mg/l at anytime
(2/1 – 5/31)	N/A	6.0 mg/l weekly average

An annual average flow of 50.0 million gallons per day (mgd) was used in waste allocation calculations (expressed as waste loading rate limit), and this unit shall be used when reporting on the Discharge Monitoring Report (DMR) as required by General Condition III.A.2. Notification is to be provided to the Department at least 180 days before the annual average flow is expected to exceed this flow level or when the sum of flows from outfall 001A and 002A is expected to exceed 180.0 mgd. The facility shall meet an annual load limit of 2,192,800 lbs/yr for total nitrogen, 109,600 lbs/yr for total phosphorus and 8,548,254 lbs/yr for total suspended solids for flows from outfall 001A and 002A combined together. The ENR limits go into effect on the effective date of this permit.

II. SPECIAL CONDITIONS

Footnotes for limitations:

(1) When this permit is renewed, the new limitations may not be equal to the above limitations.

(2) There shall be no discharge of floating solids or visible foam other than trace amounts. See Special Condition II.M.

(3) The permit may also be reopened in accordance with the requirements of MDE's Watershed Permitting Plan under which all discharge permits in a watershed are issued the same year.

(4)(a) The Back River (basin number 02130901) has been identified on the 303(d) list as impaired by PCBs in both, sediment (1998) and fish tissue (2008), sediments (1996), chlordane (1996), nitrogen and phosphorus (1996), chlorides (2012), and sulfates (2012).
Following Waste Load Allocations (WLAs) have been assigned:

For Outfall 001A to Back River, per Back River TMDL for 130.0 mgd flow*:

Total Nitrogen = 99,782 lbs/month (5/1-10/31) and 1,582,055 lbs/year*
Total Phosphorus = 6,652 lbs/month (5/1-10/31) and 79,277 lbs/year*
tPCB = 48.5 g/year

For 50.0 mgd flow thru Outfall 002A to Baltimore Harbor per Chesapeake Bay TMDL*:

Total Nitrogen = 230,294 lbs/ season (5/1-10/31) and 610,748 lbs/year*
Total Phosphorus = 15,353 lbs/season (5/1-10/31) and 30,363 lbs/year*
tPCB = 18.66 g/year

* The facility shall meet an annual load limit of 2,192,800 lbs/yr for total nitrogen, 109,600 lbs/yr for total phosphorus and 8,548,254 lbs/yr for total suspended solids for flows from outfall 001A and 002A combined together. The ENR limits go into effect on the effective date of this permit.

This permit is in conformance with the "Chesapeake Bay TMDL for Nitrogen, Phosphorus and Sediment" established on December 29, 2010. When TMDLs for other remaining parameters are completed, limits may be imposed, after the public participation process, to incorporate any TMDL requirements. Until the facility's ENR upgrade to the treatment is complete and fully operational, the permittee is to operate the Biological Nutrient Removal (BNR) process on a year round basis. Total Nitrogen is the sum of ammonia-N, organic-N and (nitrite + nitrate)-N based on samples collected on the same day.

(4)(b) The TMDL for PCBs for Back River approved by the EPA on 10/1/2012, has included a tPCBs annual waste load allocation (WLA) of 48.5 grams/year (0.107 pounds/year) for Outfall 001A (that is based on the design flow of 130.0 mgd and the water column TMDL endpoint tPCBs concentration of 0.27 nanograms per liter (ng/l)).

(4)(c) The TMDL for the Baltimore Harbor approved by the EPA on 10/1/2012, included a tPCBs WLA of 18.66 g/year (0.0411 pound/year) for the Back River WWTP Outfall 002A (that is based on the design flow of 50.0 mgd and the water column TMDL endpoint tPCBs concentration of 0. 27 nanograms per liter (ng/l)).

The above stated WLAs of tPCBs included in the TMDL does not impose effluent limits for tPCBs in the discharge permit until the effluent tPCBs data collected after the completion of the ENR upgrade are evaluated by the Department. Upon completion of the ENR upgrade, if the facility's annual tPCBs load exceeds the WLA, the permittee shall submit a plan to the Department for approval to track the sources and Best Management Practice (BMP) implementation within 180 days of exceedence of the above stated annual load for tPCBs.

II. SPECIAL CONDITIONS

Footnotes for limitations, Continued:

(5) The permittee shall operate the ENR facility in a manner that optimizes the nutrient removal capability of the facility as stipulated in the Grant Agreement for ENR upgrade. The first exceedence of the permit limit shall be counted and reported as daily exceedences beginning from the first exceedance, determined to the nearest day, through December 31. In addition, after any such exceedence, the permittee shall demonstrate to the Department's satisfaction that the facility is optimizing its nutrient removal capability, and neither the arrival of the next calendar year nor the issuance of a permit renewal during a period of noncompliance shall obviate continuance of any noncompliance status related to treatment optimization requirements.

(6) At the end of each calendar year, the permittee shall comply with the *concentration-based* limitations for the Annual Maximum Loading Rate defined below or the *Tributary Strategy-based* loading rate limitation listed in above in the effluent limitations table, whichever is lower:

(a) TN Limitation (lbs/year): 4.0 mg/l x annual total flow (calendar year based in million gallons per year) x 8.34. To the extent that the permittee alleges that temperature levels of 12 degrees C or lower have diminished the treatment system's capability of complying with this *concentration-based* loading rate limitation for Total Nitrogen, the permittee shall provide notification beginning with the calendar year report under the "Upset" provision in Section III.B.6 of this permit. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

(b) TP Limitation (lbs/year): 0.20 mg/l x annual total flow (calendar year based in million gallons per year) x 8.34.

The details and results of all required annual calculations shall be submitted to the Department with the Discharge Monitoring Report for December. See Special Condition II.K for further details.

The *concentration-based* loading requirements may be revised if the limits are determined to be impracticable based on actual performance and the Department re-opens the permit as a major modification (which requires public participation) to impose (an) alternate effluent limitation(s) or revised schedule.

(7) The permittee may request that the permit be reopened and modified to include nutrient trading consistent with the most current "Maryland Policy for Nutrient Cap Management and Trading in Maryland's Chesapeake Bay Watershed" in effect at that time.

(8) When chlorine or any chlorine containing compound is used in the treatment work, the effluent directly discharged from the Back River WWTP into the receiving water shall be de-chlorinated to reduce effluent total residual chlorine concentration to the non-detectable level (see definition I.M.). This requirement for non-detectable chlorine does not apply to effluent sent to Tradepoint Atlantic (TPA) for reclamation usage through Outfall 002A.

(9) TUa is defined as 100 divided by the LC_{50} value resulting from the first 48 hours of a valid acute or chronic toxicity test. Compliance with the LC_{50} requirements shall be determined through testing performed in accordance with Special Condition II.D. TUc is defined as 100 divided by the IC_{25} value resulting from a valid chronic toxicity test. Compliance with the IC_{25} requirements shall be determined through testing performed in accordance with Special Condition II.D.

II. SPECIAL CONDITIONS

B.(1) Minimum Monitoring Requirements:

The effluent characteristics listed below in Table B(1) shall be monitored at the sampling point (Definition I.R). If the sampling point is other than the outfalls- 001A and 002A, the permittee shall ensure that the effluent samples are representative of the effluent quality being discharged at the outfalls 001A and 002A.

Effluent Characteristics	Monitoring Period	Measurement Frequency	Sample Type
BOD_5 [10]	All Year	One/day	24-hour composite
Total Suspended Solids [10]	All Year	One/day	24-hour composite
Total Ammonia Nitrogen as N [10][12]	All Year	One/day	24-hour composite
Total Phosphorus as P [10][13]	All Year	One/day	24-hour composite
Total Nitrogen as N [10][12][13]	All Year	One/day	Calculated
(Nitrite + Nitrate) as N [10][11][12]	All Year	One/day	24-hour composite
Organic Nitrogen as N [10][11][12]	All Year	One/day	24-hour composite
Orthophosphate as P [10][11]	All Year	One/week	24-hour composite
E. coli [10]	All Year	One/day	Grab
Total Residual Chlorine [10][14][15]	All Year	Three per day, One per shift	Grab
Dissolved Oxygen [10][15]	All Year	Three per day, One per shift	Grab
pH [10][15]	All Year	Three per day, One per shift	Grab
Cyanide, Free [10][16]	All Year	One/month	Grab
Chromium (Hex) [10][16]	All Year	One/month	Grab
Total Polychlorinated Biphenyls (tPCBs) [10][16]	All Year	One/quarter	24-hour composite
Whole Effluent Toxicity Acute and Chronic [10][17]	All Year	One/Quarter	24-hour composite
Flow [10][18][19]	All Year	Continuous	Recorded [19]
Total Monthly Flow [10][20]	All Year	Monthly	Calculated [20]

II. SPECIAL CONDITIONS

B (1) Minimum Monitoring Requirements:

Footnotes for the monitoring requirements, continued:

(10) "STORET" (short for STOrage and RETrieval) is a widely-used repository for water quality data reporting and monitoring. The STORET codes for the effluent characteristics described as limitations and/or monitoring requirements are: BOD_5 (00310), Total Suspended Solids (00530), Total Ammonia Nitrogen as N (00610), Total Phosphorus as P (00665), Total Nitrogen as N (00600), (Nitrite + Nitrate) as N (00630), Organic Nitrogen as N (00605), Orthophosphate as P (04175), E. coli (51040), Total Residual Chlorine (50060), Dissolved Oxygen (00300), pH (00400), Cyanide (Free) (00722), Chromium (Hex) (78247), tPCBs (79819), WET Acute Toxicity (TS000), WET Chronic Toxicity (TT000), Flow (50050), and Total monthly flow (82220).

(11) This parameter (without effluent limitations) must be monitored, and it shall be reported on the Monthly Operating Report (MOR) as individual results and on the Discharge Monitoring Report (DMR) as monthly average concentrations.

(12) Total nitrogen as N (in mg/l) is a calculated parameter as the sum of individual results for total ammonia nitrogen as N, organic nitrogen as N and (nitrite + nitrate) as N. All the nitrogen species must be sampled on the same day.

(13) The permittee shall also calculate and report on the DMR the TN and TP total monthly loads (Definition I.H.5) plus year-to-date cumulative loads (Definition I.H.6) for the calendar year in question for the outfalls- 001A and 002A.

For each calendar year, the year-to-date cumulative loads of TN and TP for the month of December shall represent the total annual loads, and they must be incorporated toward complying with the respective annual maximum load limits. Refer to Special Condition II.K for "Reporting TN and TP total annual loads for compliance to the Concentration-based maximum annual loading rate limits".

(14) The Minimum monitoring requirements of three per day (one per shift) grab samplings for total residual chlorine shall be applicable, when chlorine or any chlorine compound is used in any treatment process(es), including but not limited to disinfection, that could become a potential constituent of the effluent discharged from the Back River WWTP. The minimum level (quantification level) for total residual chlorine is 0.10 mg/l. The permittee may report all results below the minimum level as <0.10 mg/l. All results reported below the minimum level shall be considered in compliance.

(15) The monitoring of parameters (total residual chlorine, pH and dissolved oxygen) by three per day – grab samplings shall be distributed on a daily basis during the entire the staffed period in accordance with the representative sampling requirements as stated in the General Condition III.A1.

II. SPECIAL CONDITIONS

Footnotes for the monitoring requirements, continued:

(16) All toxic chemical monitoring required by this permit shall be performed in accordance with MDE's Water Management Administration Toxic Substance Analytical Protocol. This includes analytical methodology, detection levels, holding times, preservation methods, sample types and reporting.

The permittee shall measure and report tPCBs in picograms/L (pg/L). To incorporate the TMDL of PCBs for Back River approved by the EPA on 10/1/2012, the effluent tPCBs monitoring and annual totals PCBs reporting shall be initiated upon completion and beginning operation of the ENR upgrades at Back River WWTP. The permittee shall use the approved EPA testing Methods in accordance with MDE's protocol titled "Reporting Requirements for Total PCBs (PCB Congeners) by EPA Method 1668 C or A". The tPCBs monitoring shall be once per quarter for at least one year beginning the ENR operation. The quarter shall end on March, June, September and December. The annual average concentration for tPCBs shall be calculated using the following formula:

$$\text{Average Concentration (pg/l)} = 264172 \times \frac{\text{Total Annual Cumulative load discharged (Grams)}}{\text{Total Annual Flow (MG) at 001A and 001B}}$$

Based on the tPCBs monitoring results, the Department will determine whether to continue tPCBs monitoring or change the tPCBs monitoring frequency after the tPCBs sources are identified and eliminated through BMP as stated in footnote $4_{(b)}$. Any changes to the effluent tPCBs limits and/or monitoring requirements shall be addressed through the permit modification process.

(17) Whole Effluent Toxicity (WET) samples shall be collected quarterly , analyzed, and reported in accordance with the MDE Water Management Administration's "Effluent Biotoxicity Testing Protocol for Industrial and Municipal Effluents" and Special Condition II.D.

(18) Flows shall be reported in millions gallons per day (mgd) to at least the nearest 10,000 gallons per day. (Example: A flow of 1,524,699 gallons per day shall be reported as 1.53 mgd.). For each calendar month, flows shall be reported on the MOR as daily individual results and on the DMR as monthly average (mgd) and daily maximum (mgd).

(19) Continuous electronic flow measurement and recording which can produce a permanent record are acceptable to the Department.

(20) "Total monthly flow" is a calculated parameter equal to sum of the daily flow results in a calendar month. It shall be reported on the monthly DMR as Total monthly flow in millions gallons (MG) to at least the nearest 10,000 gallons. (Example: A flow of 1,524,699 gallons shall be reported as 1.53 MG).

II. SPECIAL CONDITIONS

B(2) Report Submittal Requirements

Report Description	Reporting Frequency	Report Submittal Deadline
Effluent Biomonitoring Study Plan and Toxic Chemical Testing Plan [21][22]	See footnote - 22	See footnote - 22
Effluent Biomonitoring Study Report [21][23]	See footnotes- 23 & 25	See footnote- 25
Effluent Toxic Chemical Testing Report [21][23][25]	See footnotes – 24 & 25	See footnote- 25
Wastewater Capacity Management Plan (WCMP) [21][26]	See footnote – 26	See footnote- 26
Flow Capacity Report (FCR) [21][27]	See footnote - 27	See footnote- 27

[21] If the permittee has selected a third party for submitting reports to the Department, the permittee must provide to the third party with a ***document of authorization for report submission*** which is required with the report.

[22] Within three months from the effective date of this permit, the permittee shall submit the Study Plans for effluent biomonitoring as well as toxic chemical testing and obtain approval from the Department. For further details, refer to Special Condition II.D.1 for Effluent Biomonitoring Study Plan and Special Condition II.F.1 for Effluent Toxic Chemical Testing Study Plan.

[23] After MDE's approval of the Effluent Biomonitoring Study Plan, the permittee shall perform the effluent biomonitoing study and submit the results in a comprehensive report to the Department as per requirements of the Special Condition II.D.

[24] After MDE's approval of the Effluent Toxic Chemical Testing Plan, the permittee shall perform the effluent toxic chemical testing and submit the results in a comprehensive report to the Department as per requirements of the Special Condition II.F.

[25] The reports (a) for each biomonitoring study test performed as per the Special Condition II.D.2 and (b) for each analytical testing for toxic chemicals performed as per Special Condition II.F.3 shall be submitted to the Department by a mail or attached and submitted to the Department along with DMR for the month during which the test was completed, using NetDMR tool no later than 28th of the month following the test completion month. (Example: If the test is completed in March, the comprehensive report shall be submitted with the March DMR no later than 28th April).

[26] Unless the permittee has previously submitted the WCMP to the Department; the permittee shall submit the WCMP ***one time*** within 90 (Ninety) days of the effective days of this permit.

[27] The permittee shall submit the FCR to the Department as per the Special Condition II.C. This report shall be submitted ***once per year*** along with the DMR for the month of December.

II. SPECIAL CONDITIONS

C. Wastewater Capacity Management

The permittee shall report the total cumulative flow for the each calendar year for the above referenced facility. The total cumulative flow shall be reported in million gallons for the entire calendar year to the nearest ten thousand gallons. The annual total cumulative flow determination shall be provided to the Department using NetDMR no later than January 28th of the following year.

Because the most recent three-year average flow for this facility is over 80% of its design capacity, unless it has already been submitted, a Wastewater Capacity Management Plan (WCMP) must be submitted to the Department using NetDMR no later than 90 days of the issuance date of this discharge permit.

In addition, the permittee shall also submit a "Wastewater Flow Capacity Report (WFCR)" and "worksheet for WFCR" for the previous calendar year to the Department using NetDMR tool no later than January 28th of each year. If the permittee has not previously submitted the WCMP or the annual WFCR, the first WFCR and "worksheet for WFCR" shall be submitted within 90 days from the effective date of this permit. The permittee can obtain the WCMP guidance document and forms from the Department's web site links listed below: (a) http://9nl.at/MD-CMPGuidance for WCMP guidance document, (b) http://9nl.at/MD-CMPFlowCapReport for WFCR, (c) http://9nl.at/MD-CMPWorksheet1 for WFCR's Worksheet # 1, and (d) http://9nl.at/MD-CMPWorksheet2 for WFCR's Worksheet # 2 (these links are case-sensitive).

If the permittee prefers to provide the above documents in hard copies, they shall be provided to the Department postmarked by January 28th of the following year to the address below:

Attention: Calendar Year Total Cumulative Flow
WSA – Wastewater Discharge Permits Program
Maryland Department of the Environment
1800 Washington Boulevard, STE-455
Baltimore, MD 21230-1708

The permittee is advised to notify the Department at the above address immediately upon electronic submission of reports through NetDMR tool.

II. SPECIAL CONDITIONS

D. Biomonitoring Program

1. Within three months of the effective date of the permit, the permittee shall submit to the Department for approval a study plan to evaluate wastewater toxicity at Outfall 001A by using biomonitoring. Flow from Outfall-002A is used by Tradepoint Atlantic, LLC (formerly known as Sparrows Point Terminal, LLC) as process water and then discharged under the terms and conditions in NPDES No. MD0001201. Since Tradepoint Atlantic, LLC is required to monitor at their outfalls and since wastewater at Outfall-002A has received same treatment as Outfall-001A at Back River WWTP, no biomonitoring requirements are set for Outfall-002A in the Back River WWTP discharge permit. Testing for Outfall-001A shall be initiated no later than three months following the Department's acceptance of the study plan or according to an approved schedule in the study plan. The study plan should include a discussion of:

   a. wastewater and production variability
   b. sampling & sample handling
   c. source & age of test organisms
   d. source of dilution water
   e. testing procedures/experimental design
   f. data analysis
   g. quality assurance/quality control
   h. report preparation
   i. testing schedule

2. The testing program shall consist of quarterly definitive chronic testing. This testing shall be initiated within the first quarter following the Department's acceptance of the study plan.

   Testing shall include the sheepshead minnow (*Cyprinodon* variegatus) or inland silverside (*Menidia beryllina*) larval survival and growth tests and mysid shrimp (*Americamysis bahia* AKA *Mysidopsis bahia)* survival, growth, and fecundity tests. Testing must include one vertebrate species and one invertebrate species. Test results shall be expressed as NOEC, LOEC, ChV, and IC_{25}.

3. The samples used for biomonitoring shall be collected at the same time and location as the samples analyzed for the effluent limitations and monitoring requirements for this outfall. For chlorinated effluents, samples shall be collected after dechlorination. The permittee shall collect 24-hour flow–proportioned composite samples unless the Department has given prior approval of an alternative sampling type.

II. SPECIAL CONDITIONS

4. The following EPA document discusses the appropriate methods:

   For Estuarine Receiving Stream: Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms Third Edition, EPA-821-R-02-014, October 2002

5. Test results shall be submitted to the Department within one month of completion of each set of tests.

6. Test results shall be reported in accordance with the Department's "Effluent Biotoxicity Testing Protocol for Industrial and Municipal Effluents, Appendix E, Reporting Requirements for Effluent Biomonitoring Data," 12/4/12.

7. As a minimum, the reported chronic results shall be expressed as NOEC, LOEC, ChV, and IC_{25}.

8. If a 50% mortality or greater occurs in one or more effluent concentrations during the first 48 hours of the chronic tests, 48-hour LC_{50}s shall be calculated and reported along with the chronic results

9. If testing is not performed in accordance with MDE-approved study plan, additional testing may be required by the Department.

10. If the test results of any two consecutive valid toxicity tests show acute or chronic toxicity (LC_{50} equal to or less than 100% for acute tests and an IC_{25} equal to or less than the in-stream waste concentration for chronic tests), the permittee shall repeat the test within 30 days to confirm the findings of acute or chronic toxicity. Intermittent toxicity or other concerns may require additional testing or limits. If acute and/or chronic toxicity is confirmed, the permittee shall:

    a. Eliminate the source of toxicity through operational changes as soon as possible but in any case not longer than within three months, or

    b. Perform a TRE. If the permittee repeats the toxicity testing as stated above and the results of the repeat test do not confirm the acute or chronic toxicity, the Department will require the permittee to repeat the toxicity testing as stated above to reconfirm a finding of no acute or chronic toxicity. After reconfirmation, the permittee shall complete any remaining quarterly testing required.

II. SPECIAL CONDITIONS

11. If the permittee completes a TRE in accordance with II.D.10.b and unacceptable toxicity is confirmed, the Whole Effluent Toxicity (WET) permit limit shall continue, and a compliance schedule will be required which shall become discharge permit conditions through a Department initiated permit modification or through a permit renewal.

12. When a WET test result shows reasonable potential for toxicity, unless it can be demonstrated that the source of toxicity has been eliminated, inappropriate test procedures were utilized, or the source has been controlled via a chemical specific permit limitation, WET limits shall continue. The permit may be modified to remove the WET limit if the six follow-up quarterly tests show no toxicity.

13. If plant processes or operations change so that there is a significant change in the nature of the wastewater, the Department may require the permittee to conduct a new set of tests.

14. If a significant industrial user locates within the service area so that significant change in the nature of the wastewater might be anticipated, MDE may require the permittee to conduct a new set of tests.

15. The biomonitoring program study plan, WET test results and related materials shall be submitted electronically to the Department if the permittee has already been approved for the NetDMR process. Otherwise, the permittee shall submit all pertinent physical documents to:

Attention: Whole Effluent Toxicity Coordinator
Compliance Program
Water and Science Administration
Maryland Department of the Environment
1800 Washington Blvd., Suite 420
Baltimore, MD 21230-1708

The permittee is advised to notify the Department at the above address immediately upon electronic submission of reports through NetDMR tool.

II. SPECIAL CONDITIONS

E. Toxicity Reduction Evaluation

The permittee shall conduct a Toxicity Reduction Evaluation (TRE) when a review of toxicity test data by the Department indicates unacceptable acute or chronic effluent toxicity. A TRE is an investigation conducted to identify the causative agents of effluent toxicity, isolate the source(s), determine the effectiveness of control options, implement the necessary control measures and then confirm the reduction in toxicity.

1. Within 90 days of notification by the Department that a TRE is required, the permittee shall submit for approval by the Department a plan of study, schedule and completion date for conducting a TRE. The permittee shall conduct the TRE study consistent with the submitted plan and schedule.

2. This plan shall follow the framework presented in Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants (EPA/833B-99/002) August 1999.

   Additional Guidance documents on the TRE process are shown below:

   - Methods for Aquatic Toxicity Identification Evaluations Phase I Toxicity Characterization Procedures Second Edition United States Environmental Protection Agency Office of Research and Development, Washington, DC 20460, EPA/600/6-9 l/003 February 1991

   - Methods for Aquatic Toxicity Identification Evaluations Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity, United States Environmental Protection Agency Office of Research and Development, Washington DC 20460, EPA/600/R-92/080 September 1993

   - Methods for Aquatic Toxicity Identification Evaluations Phase Ill Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity, United States Environmental Protection Agency Office of Research and Development, Washington DC 20460, EPA /600/R-92/08 1 September 1993

   - Clarifications Regarding Toxicity Reduction and Identification Evaluations in the National Pollutant Discharge Elimination System Program, March 27, 2001, U.S. Environmental Protection Agency, Office of Wastewater Management , Office of Regulatory Enforcement, Washington, DC 20460

II. SPECIAL CONDITIONS

3. Beginning 60 days from the date of the Department's acceptance of the TRE study plan and every 60 days thereafter, the permittee shall submit progress reports including all relevant test data to the Department. This shall continue until completion of the toxicity reduction confirmation.

4. Within 60 days of completion of the toxicity identification or the source identification phase of the TRE, the permittee shall submit to the Department a plan, schedule and completion date for implementing those measures necessary to eliminate acute toxicity, an LC_{50} greater than 100%, and/or eliminate chronic toxicity, an IC_{25} greater than the in-stream waste concentration (IWC). The implementation of these measures shall begin immediately upon submission of this plan.

5. Within 60 days of completing the implementation of the control measures to eliminate or reduce toxicity, the permittee shall submit to the Department for approval a study plan to confirm the elimination or reduction of toxicity by using biomonitoring.

6. If, for any reason, the implemented measures do not result in compliance with the Department's toxicity limitations, the permittee shall continue the TRE and a Whole Effluent Toxicity (WET) permit limit and a compliance schedule will be required.

7. All the TRE-related materials shall be submitted electronically to the Department if the permittee has already been approved for the NetDMR tool. Otherwise, the permittee shall submit all pertinent physical documents to:

Attention: Whole Effluent Toxicity Coordinator
Compliance Program
Water and Science Administration
Maryland Department of the Environment
1800 Washington Blvd., Suite 420
Baltimore, MD 21230-1708

The permittee is advised to notify the Department at the above address or via email at mde.biomonitoring@maryland.gov immediately upon electronic submission of reports through NetDMR tool.

II. SPECIAL CONDITIONS

F. Toxic Chemical Testing

1. Concurrent with the biomonitoring study plan, the permittee shall submit to the Department for approval, a study plan to perform analytical testing for toxic chemicals.

2. The toxic chemical testing study plan shall include a description of:

   a. sampling methods;

   b. analytical methods;

   c. practical detection levels; and

   d. quality control procedures.

3. Concurrently with the first biomonitoring toxicity test (Special Condition II.D.2), during the first four years of the permit cycle, the permittee shall perform analytical testing for the toxic chemicals identified in the Department's "Toxic Pollutant Monitoring Protocol and Reporting Requirements for Toxic Chemical Testing Analytical Data" (05/18/2011).

4. Toxic chemical testing shall be performed in accordance with 40 CFR Part 136 and the Department-approved toxic chemical testing plan. Also after completion and beginning operation of the ENR upgrades at the Back River WWTP, when analyzing effluent samples for Total Polychlorinated Biphenyls (total PCBs) using Method 1668 A or C, the total PCBs concentration is the summation of all individually measured congeners; and both the individual congeners and the total PCBs concentrations shall be reported. Grab samples must be used for cyanide, phenols, and volatile organic compounds. All other pollutants shall be collected using 24-hour flow–proportioned composite samples unless the Department has given prior approval of an alternative sampling type.

5. Substances other than those identified in Section 3 above may be detected in the effluent. If so, the permittee shall identify and quantify the ten present in highest concentration for those compounds for which standards are available.

6. Results of each toxic chemical test performed as per Sections II.F.3 and II.F.4 shall be submitted to the Department with results of the concurrent biomonitoring toxicity test.

7. Toxic chemical testing results shall be reported in accordance with the Department's "Toxic Pollutant Monitoring Protocol and Reporting Requirements for Toxic Chemical Testing Analytical Data" (05/18/2011).

II. SPECIAL CONDITIONS

8. If testing is not performed in accordance with the Department's approved study plan, additional testing may be required by the Department.

9. All the toxic chemical testing results and related materials shall be submitted electronically to the Department if the permittee has already been approved for the NetDMR tool. Otherwise, the permittee shall submit all pertinent physical documents to:

Attention: Toxic Chemical Testing Coordinator
Compliance Program
Water and Science Administration
Maryland Department of the Environment
Montgomery Park Business Center
1800 Washington Boulevard, STE 420
Baltimore, MD. 21230-1708

The permittee is advised to notify the Department at the above address or via email at mde.biomonitoring@maryland.gov immediately upon electronic submission of reports through NetDMR tool.

G. Pretreatment Program

The permittee shall operate and maintain the pretreatment program in accordance with COMAR 26.08.08, the General Pretreatment Regulations for Existing and New Sources of Pollution (40 CFR Part 403) and the approved pretreatment program submission as approved on August 7, 1985 by the Department. The program must be updated if needed to comply with COMAR 26.08.08 or 40 CFR Part 403 or modifications to the State of Maryland Publicly Owned Treatment Works (POTW) Pretreatment Delegation Agreement signed on March 18, 2002. The terms of the POTW Pretreatment Delegation Agreement are expressly incorporated herein as if set forth in full.

H. Protection of Water Quality

It is a violation of this permit to discharge any substance not otherwise listed under the permit's "Effluent Limitations and Monitoring Requirements" special conditions at a level which would cause or contribute to any exceedance of the numerical water quality standards in COMAR 26.08.02.03 unless the level and the substance were disclosed in writing in the permit application prior to the issuance of the permit. If a discharge regulated by this permit causes or contributes to an exceedance of the water quality standards in COMAR 26.08.02.03, including but not limited to the general water quality standards, or if the discharge includes a pollutant that was not disclosed or addressed in the public record for the permit determination, the Department is authorized to modify, suspend or revoke this permit or take enforcement action to address unlawful discharges of pollutants.

II. SPECIAL CONDITIONS

I. Reapplication for a Permit

No later than 18 months before the expiration date of this permit, unless permission for a later date has been granted by the Department, the permittee shall submit a new application for a permit or notify the Department of the intent to cease discharging by the expiration date. In the event that a timely and complete reapplication has been submitted and the Department is unable, through no fault of the permittee, to issue a new permit before the expiration date of this permit, the terms and conditions of this permit continue and remain fully effective and enforceable. The renewal application is required by that date in accordance with the requirements of MDE's Watershed Permitting Plan under which all discharge permits in a watershed should be issued in the same year.

J. Wastewater Discharges to Groundwater

This permit does not authorize the permittee to discharge any type or quantity of the wastewater to the groundwater of the State. The permittee must make every effort to prevent any type of leakage or discharges to the groundwater system from the wastewater treatment lagoon(s) and/or other conveyance system.

K. Reporting Nutrient Total Annual Loads to Comply with Concentration-based Annual Loading Rate Limits

The Permittee shall report the concentration-based (also known as Floating Cap) annual loading requirements for TN and TP on the December DMR designated "001-Z". The permittee shall submit to the Department the Discharge Monitoring Report for the month of December with this designation. For each calendar year, the permittee shall calculate the annual concentration-based loads for TN and TP as per the footnote- 6 of the Special Condition II.A, and report these loadings along with the total annual cumulative flow on the December month DMR in accordance with the General Condition III.A.2.a of this discharge permit. If the Back River WWTP discharges effluent at more than a single outfall, the total annual loads for TN, TP and total annual discharge flow shall be reported as a sum of the individual results from each outfall.

L. Combined Sewer Overflows (CSOs)

There are no known combined sewer overflows in the Back River wastewater collection system service areas at the time of issuance of this permit (last CSO Point Source # 013P, Forest Park area in Baltimore City area was eliminated on June 20, 2006). However, since parts of the Baltimore City's collection system are old and the system serves an urban area, there may be secluded and hidden CSOs, which are not known at this time. In order to address this potential, the following CSO reopener clause will apply to any CSO that subsequently comes to the knowledge of the Department. If a CSO is identified in the collection system contributing to this facility, this permit may be reopened to incorporate the CSO requirements developed in accordance with the National Combined Sewer Overflow Strategy promulgated in October 8, 2001 by the EPA.

III. GENERAL CONDITIONS

A. Monitoring and Reporting

1. Representative Sampling

Samples and measurements shall be taken at times that are representative of the quantity and quality of the discharge, and at evenly spaced intervals.

2. Monthly Monitoring Results

a. Discharge Monitoring Reports

Monitoring results obtained during each calendar month shall be summarized and submitted electronically using the NetDMR tool. Results shall be submitted to the Department via NetDMR no later than the 28th of the month following the end of the reporting month.

b. Monthly Operating Reports (MORs)

The permittee shall submit monthly operating reports on a form acceptable to the Compliance Program. For each calendar month, the permittee shall submit to the Department a signed original of the MOR as an attachment to Copy of Record (COR) via NetDMR in electronic format concurrently with the Discharge Monitoring Report submission postmarked no later than the 28th day of the month following the reporting month.

c. Toxic Chemical Reporting

Any data collected according to the Department's "Toxic Pollutant Monitoring Protocol and Reporting Requirements for Toxic Chemical Testing Analytical Data" (05/18/2011) being submitted to the Department, either in fulfillment of Special Conditions II.B or pursuant to the toxic chemical testing requirement, pretreatment requirements or toxic metals or organic data collected on a voluntary basis, must be accompanied by laboratory data reports. At a minimum, these reports shall include, the name of the facility, the date(s) of sampling, beginning and ending sample time,

III. GENERAL CONDITIONS

c. Toxic Chemical Reporting, continued

place of sampling collection, the sample type (grab, composite, etc.), the sample description (influent or effluent), the preservation method, the analytical method used for each parameter, the analytical method detection limit, the date of analysis, the name of person performing the analysis, the analytical result, and the name and address of the laboratory performing the analyses. Chain-of-custody forms shall also be submitted.

If the permittee prefers to submit hard copy of this information along with the supporting documentations instead of the electronic submission using NetDMR tool, they shall be submitted to:

Attention: Toxic Chemical Data
WSA – Compliance Program
Maryland Department of the Environment
1800 Washington Boulevard, STE 420
Baltimore, Maryland 21230-1708

3. Sampling and Analysis Methods

Analytical and sampling methods shall conform to test procedures for the analysis of pollutants as identified in 40 CFR Part 136 - "Guidelines Establishing Test Procedures for the Analysis of Pollutants."

4. Analytical Laboratory

Within 30 days after the effective date of this permit, the permittee shall submit to the Department the name and address of the analytical laboratory (including the permittee's own laboratory) which is used to perform the monitoring required by this permit.

If the laboratory changes during the effective period of this permit, the permittee shall notify the Department of the new laboratory within 30 days after the change.

III. GENERAL CONDITIONS

5. Monitoring Equipment Maintenance

   a. The permittee shall calibrate and maintain all monitoring and analytical instrumentation to ensure accuracy of measurements.

   b. Environment Article, Section 9-343 provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six months per violation, or by both.

6. Recording of Results

   For each measurement or sample taken pursuant to the requirements of the permit, the permittee shall record the following information:

   a. the date, exact place and time of sampling or measurement;

   b. the person(s) who performed the sampling or measurement;

   c. the dates analyses were performed;

   d. the person(s) who performed each analysis;

   e. the analytical techniques or methods used; and

   f. the results of such analyses.

7. Additional Monitoring by Permittee

   If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report. The increased frequency shall also be reported. The results of any other monitoring performed by the permittee shall be made available to the Department upon request.

8. Record Retention

   All data used to complete the permit application and all records and information resulting from the monitoring activities required by this permit, including all records of sampling and analyses performed, calibration and maintenance of instrumentation, and recordings from continuous monitoring instruments, shall be retained for a minimum of three years. This period shall be extended automatically during the course of litigation or when requested by the Department.

III. GENERAL CONDITIONS

B. General Requirements

1. Permit Noncompliance - Notification Requirements

All discharges authorized herein shall be consistent with the terms and conditions of this permit. If, for any reason, the permittee does not comply with or will be unable to comply with any permit condition, the permittee shall, within 24 hours, notify the Department by telephone at (410) 537-3510 during work hours or at (866) 633-4686 during evenings, weekends, and holidays. The permittee shall provide the Department with the following information in writing within five days of such oral notification.

a. a description of the noncomplying discharge including the name of the stream and the impact upon the receiving waters;

b. cause of noncompliance;

c. the duration of the period of noncompliance and the anticipated time the condition of noncompliance is expected to continue;

d. steps taken by the permittee to reduce and eliminate the noncomplying discharge;

e. steps to be taken by the permittee to prevent recurrence of the condition of noncompliance;

f. a description of the accelerated or additional monitoring to determine the nature and impact of the noncomplying discharge; and

g. the results of the monitoring described in f. above.

2. Change in Discharge

The permittee shall report any anticipated facility expansions, production increases, or process modifications which will result in new, different or an increased discharge of pollutants by submitting a new application at least 180 days prior to the commencement of the changed discharge except that if the change only affects a listed pollutant and will not violate the effluent limitations specified in this permit, by providing written notice to the Department. Following such notice, the permit may be modified by the Department to include new effluent limitations on those pollutants.

III. GENERAL CONDITIONS

3. Facility Operation and Quality Control

All waste collection, control, treatment and disposal facilities shall be operated in a manner consistent with the following:

a. Facilities shall be operated efficiently to minimize upsets and discharges of excessive pollutants.

b. The permittee shall provide an adequate operating staff qualified to carry out operation, maintenance and testing functions required to ensure compliance with this permit. Superintendents and operators must be certified by the Board of Waterworks and Waste Systems Operators located at Montgomery Park Business Center, 1800 Washington Boulevard, STE- 410, Baltimore, Maryland 21230 in accordance with Title 12 of Environmental Article, Annotated Code of Maryland, and Section 26.06.01 of the COMAR.

c. Facility maintenance work, which adversely affects or may adversely affect the discharge quality, shall be scheduled during non-critical water quality periods.

4. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to waters of this State, human health or the environment resulting from noncompliance with any effluent limitations specified in this permit, and must perform accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

5. Bypassing

Any bypass of treatment facilities is prohibited unless the bypass does not cause any violations of the effluent limitations specified in Special Condition II.A, and is for essential maintenance to assure efficient operation, or unless the permittee can prove that:

a. the bypass is unavoidable to prevent loss of life, personal injury, or substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources; and

b. there are no feasible alternatives to the bypass; and

III. GENERAL CONDITIONS

c. the Department receives notification pursuant to General Condition III.B.1 above. Where the need for a bypass is known (or should have been known) in advance, this notification shall be submitted to the Department for approval at least ten days before the date of the bypass or at the earliest possible date if the period of advance knowledge is less than ten days; and

d. the bypass is allowed under conditions approved by the Department to be necessary to minimize adverse effects.

6. Conditions Necessary for Demonstration of Upset

An upset shall constitute an affirmative defense to an action brought for noncompliance with technology-based effluent limitations only if the permittee demonstrates, through properly signed, contemporaneous operating logs, or other relevant evidence, that:

a. an upset occurred and that the permittee can identify the specific cause(s) of the upset;

b. the permitted facility was at the time being operated in a prudent and workman-like manner and in compliance with proper operation and maintenance procedures;

c. the permittee submitted a 24-hour notification of upset in accordance with the reporting requirements of General Condition III.B.1 above;

d. the permittee submitted, within five calendar days of becoming aware of the upset, documentation to support and justify the upset; and

e. the permittee complied with any remedial measures required to minimize adverse impact.

In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

7. Sewage Sludge Requirements

The permittee shall comply with all State and federal laws and regulations regarding Sewage Sludge Management, and with any regulations promulgated pursuant to Environment Article, Section 9-230 et seq. or to the Clean Water Act, Section 405 (d). A Sewage Sludge Utilization Permit is required for the collection, handling, burning, storage, treatment, land application, disposal, or transportation of sewage sludge, processed sewage sludge, or any product containing these materials in Maryland. If the sludge is hauled out of the State for disposal, a transportation permit must be obtained from the Department.

III. GENERAL CONDITIONS

8. Power Failure

The permittee shall maintain compliance with the effluent limitations and all other terms and conditions of this permit in the event of a reduction, loss or failure of the primary source of power to the wastewater collection and treatment facilities.

9. Right of Entry

In accordance with 40 CFR §122.41(i), the permittee shall allow the Secretary of the Department, the Regional Administrator of the Environmental Protection Agency, and their authorized representatives (including an authorized contractor acting as a representative), upon presentation of credentials and other documents as required by the law, to:

a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

10. Property Rights/Compliance with Other Requirements

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property, invasion of personal rights, or any infringement of federal, State or local laws or regulations.

11. Reports and Information

a. Upon request, the permittee shall provide to the Department, within a reasonable time, copies of records required to be kept by this permit. The permittee shall also furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit; or to determine compliance with this permit.

b. All applications, reports or information submitted to the Department shall be signed and certified as required by COMAR 26.08.04.01 and 40 CFR 122.22.

III. GENERAL CONDITIONS

c. Except for data determined to be confidential under COMAR 26.08.04.01, all data shall be available for public inspection at the Department and the Office of the Regional Administrator of the Environmental Protection Agency. Effluent data shall not be considered confidential.

d. Environment Article, Section 9-343 provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, shall upon conviction be punished by a fine of not more than $10,000 or by imprisonment for not more than six months or by both.

12. Transfer of Ownership or Control

In the event of any change in ownership or control of facilities from which the authorized discharge emanates, the permit may be transferred automatically to another person only if:

a. the current permittee notify the Department, in writing, of the proposed transfer at least 30 days prior to the proposed transfer date;

b. the notice includes a written agreement between the existing permittee and a new permittee containing the specific date of proposed transfer of permit coverage, and of responsibilities and liabilities under the permit; and

c. neither the current permittee nor the new permittee receive notification from the Department, within 30 days of the Department's receipt of the agreement, of its intent to modify, revoke, reissue or terminate the existing permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph 12(b) above.

13. New Effluent Standards

This permit shall be revoked and reissued or modified to meet any effluent standard, water quality standard or prohibition established under the Environment Article, the Clean Water Act, or regulations promulgated thereto. and the permittee shall be so notified.

III. GENERAL CONDITIONS

14. Industrial Users

The permittee shall require all industrial users of the wastewater treatment facility to comply with user charges as established by the permittee, pursuant to Section 9-326(a)(i) of the Environment Article.

15. Noncompliance

Nothing in this permit shall be construed to preclude the institution of any legal action for noncompliance with State, federal or local laws and regulations.

16. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action against the permittee or to relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Clean Water Act or under the Environment Article.

17. Waterway Construction and Obstruction

The permit does not authorize the construction or placing of physical structures, facilities, debris, or the undertaking of related activities in any waters of this State including the 100 year flood plain.

18. Construction Permit

This permit is not a permit to construct. For a new facility, in order to make this permit valid, a construction permit shall be obtained to meet the requirements of COMAR 26.03.12.03(A) and Environment Article, Section 9-204(d).

19. Storm Water Pollution Prevention

(a) The permittee shall maintain coverage under the "General Permit for Discharges from Storm Water Associated with Industrial Activities" in accordance with Part II A of the State NPDES Permit No. MDR0000, and

(b) Industrial storm water is not authorized under this individual permit.

20. Severability

If any provision of this permit shall be held invalid for any reason, the remaining provisions shall remain in full force and effect, and such invalid provisions shall be considered severed and deleted from this permit.

III. GENERAL CONDITIONS

C. Wastewater Collection System

This permit shall not authorize discharges from the wastewater collection system for this facility.

1. Reporting Requirements

Pursuant to Environment Article Sub title 9-331.1, the permittee must report sanitary sewer overflows (SSOs) which result in the direct or potential discharge of raw or diluted sewage into the surface waters or ground waters of the State to the Water and Science Administration's Compliance Program. Concurrently, the permittee shall also notify the local health department. Such reports must be made via telephone as soon as practicable, but no later than 24 hours after the time that the permittee became aware of the event. Reportable SSOs include, but are not limited to, overflows into the surface of the ground, into waterways, storm drains, ditches or other manmade or natural drainage conveyances to surface or ground waters which are reasonably likely to reach waters of the State. Overflows that are wholly contained within buildings and not likely to discharge to waterways need not be reported. Treatment plant bypasses shall be reported under General Condition III.B.1. Telephone reports shall be made to (410) 537-3510 on weekdays between 8:00 a. m. and 5:00 p.m. After hours telephone notification shall be made to emergency response number at (866) 633-4686.

III. GENERAL CONDITIONS

C. 1. Reporting Requirements, Continued

When the incident is reported to the Department, the following information needs to be included:

a. the location of the overflow, including city or county,

b. the name of the receiving water, if applicable;

c. an estimate of the volume of sewage discharged;

d. a description of the sewer system or treatment plant component from which the overflow was released (such as manhole, crack in pipe, pumping station wet well or constructed overflow pipe);

e. an estimate of the overflow's impact upon public health and to waters of the State;

f. the cause or suspected cause of the overflow;

g. the estimated date and time when the overflow began and stopped or the anticipated time the overflow is expected to continue;

h. if known at the time of reporting, the steps taken or planned to reduce, eliminate and prevent reoccurrence of the overflow and a schedule of major milestones for those steps; (if unknown at the time the telephone report is made, the steps must be included in the written reports submitted under general conditions III.C.2).

i. if known at the time of reporting, measures taken or planned to mitigate the adverse impact of the overflow and a schedule of major milestones for those steps (if unknown at the time the telephone report is made, the steps must be included in the written reports submitted under general conditions III.C.2); and

j. whether there has already been a notification to the public and other City or County Agencies or Departments and how notification was done.

III. GENERAL CONDITIONS

C. 2. Written Reports

Within 5 calendar days following telephone notification of the event, the permittee shall provide MDE with a written report regarding the incident that includes, at a minimum, the information cited above. The permittee shall maintain copies of all overflow records and reports, work orders associated with investigation of overflows, a list and description of complaints from customers or others related to overflows (including backups of sewage in to houses or businesses), and documentation of performance and implementation measures for minimum period of three years and shall make this information available to MDE for review upon written request.

This wastewater collection system provision may be superseded by a general permit for collection systems, when such a permit is issued by MDE and the permittee have been accepted for registration under the permit.

3. Other Requirements

The permittee, as directed by the State or local health department, shall also be responsible for posting notification in close proximity to the affected area/stream and for conducting appropriate water quality sampling as deemed necessary.

D. Permit Expiration, Modification, or Revocation

1. Expiration of Permit

This permit and the authorization to discharge shall expire at midnight on the expiration date of the permit unless the permittee has submitted a timely and complete reapplication pursuant to Section II.I.

2. [Reserved.]

3. Permit Modification - Request of Responsible Permittee

A permit may be modified by the Department upon the written request of the permittee and after notice and opportunity for a public hearing in accordance with the provisions set forth in COMAR 26.08.04.10.

4. Permit Modification, Suspension, Revocation - Violation of Laws

A permit may also be modified, suspended or revoked by the Department, in the event of a violation of the terms or conditions of the permit, or of State or federal laws and regulations and in accordance with the provisions set forth in COMAR 26.08.04.10. This permit may be suspended or revoked upon a final, unreviewable determination that the permittee lacks, or is in violation of, any federal, state, or local approval necessary to conduct the activities authorized by this permit.

IV. CIVIL AND CRIMINAL PENALTIES

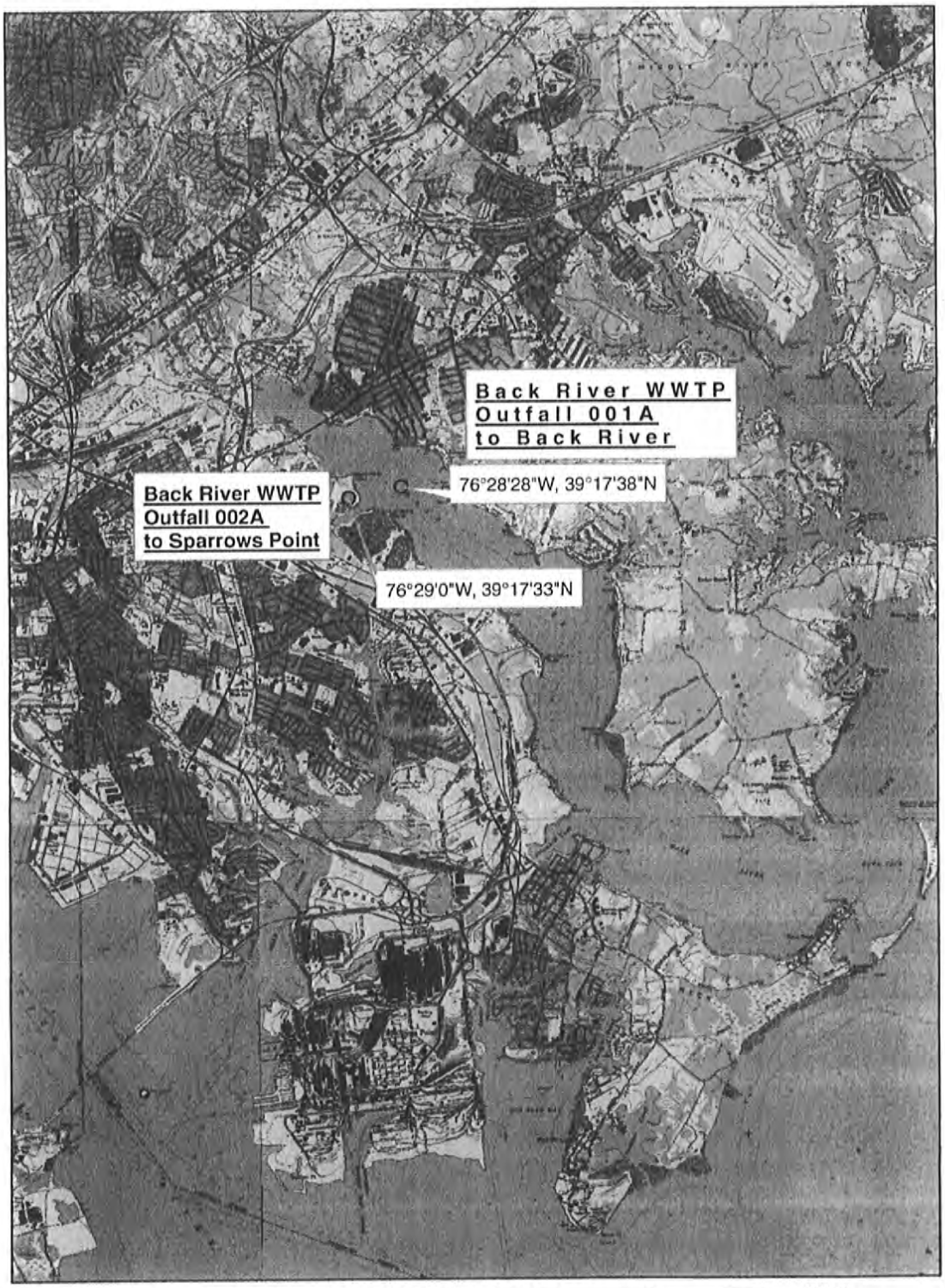
A. Civil Penalties for Violations of Permit Conditions

In addition to civil penalties for violations of State water pollution control laws set forth in Section 9-342 of the Environment Article, Annotated Code of Maryland, the Permittee shall be subject to civil penalty set forth in 33 U.S.C. § 1319 (d) of the Clean Water Act as adjusted for inflation according to 40 CFR, §19.4.

B. Criminal Penalties for Violations of Permit Conditions

In addition to criminal penalties for violations of State water pollution control laws set forth in Section 9-343 of the Environment Article, Annotated Code of Maryland, the Permittee shall be subject to criminal penalty set forth in 33 U.S.C. § 1319 (c).

V. MAP SHOWING DISCHARGE POINT LOCATION



VI. NPDES PROGRAM

On September 5, 1974, the Administrator of the U.S. Environmental Protection Agency approved the proposal submitted by the State of Maryland for the operation of a permit program for wastewater discharges pursuant to Section 402 of the Clean Water Act.

Pursuant to the aforementioned approval, this discharge permit is both a State of Maryland discharge permit and an NPDES permit.

D. Lee Currey, Director
Water and Science Administration

Exhibit BR2

Back River Wastewater Treatment Plant

Daily, Weekly, Monthly, and Quarterly Effluent Limit Exceedances

May 2017 through November 2021

	Monitoring Period End Date	Perm Feature ID	Limit Set Designator	Monitoring Location Code	Limit Season ID	Parameter Code	Parameter Desc	Statistical Base Short Desc	Limit Unit Short Desc	Limit Value	DMR Value	Percent Exceedance	Quarterly Violations	Monthly Violations	Weekly Violations	Daily Violations
1	5/31/17	001	A	1	1	00600	Nitrogen, total [as N]	MO TOTAL	lb/mo	99,782	223,215	124		1		
2	5/31/17	001	A	EG	1	00600	Nitrogen, total [as N]	TOTAL	lb/mo	99,782	223,215	124				
3	6/30/17	001	A	1	1	00600	Nitrogen, total [as N]	MO TOTAL	lb/mo	99,782	192,425	93		1		
4	6/30/17	001	A	EG	1	00600	Nitrogen, total [as N]	TOTAL	lb/mo	99,782	192,425	93				
5	7/31/17	001	A	1	1	00600	Nitrogen, total [as N]	MO TOTAL	lb/mo	99,782	194,026	94		1		
6	7/31/17	001	A	EG	1	00600	Nitrogen, total [as N]	TOTAL	lb/mo	99,782	194,026	94				
7	4/30/18	002	A	1	0	50060	Chlorine, total residual	MAXIMUM	mg/L	0.01	0.10	809				1
8	4/30/18	001	A	1	0	00665	Phosphorus, total [as P]	MX WK AV	lb/d	330	393	19			1	
9	5/31/18	001	A	1	1	00600	Nitrogen, total [as N]	MO TOTAL	lb/mo	99,782	112,513	13		1		
10	7/31/18	001	A	1	1	00600	Nitrogen, total [as N]	MO TOTAL	lb/mo	99,782	103,650	4		1		
11	9/30/18	001	A	1	0	51040	E. coli	MX MO GMN	MPN/100mL	126.00	146.00	16		1		
12	9/30/18	001	A	1	1	00600	Nitrogen, total [as N]	MO TOTAL	lb/mo	99,782	120,550	21		1		
13	3/31/19	002	A	1	0	51040	E. coli	MX MO GMN	MPN/100mL	126.00	242.00	92		1		
14	3/31/19	001	A	1	0	00665	Phosphorus, total [as P]	MX MO AV	lb/d	220	240	9		1		
15	3/31/19	001	A	1	0	00665	Phosphorus, total [as P]	MX WK AV	lb/d	330	468	42			1	
16	4/30/19	001	A	1	0	00665	Phosphorus, total [as P]	MX WK AV	lb/d	330	335	2			1	
17	4/30/19	001	A	1	0	00665	Phosphorus, total [as P]	MX WK AV	mg/L	0.30	0.40	33			1	
18	6/30/19	001	A	1	0	00310	BOD, 5-day, 20 deg. C	MX MO AV	lb/d	11,000	54,761	398		1		
19	6/30/19	001	A	1	0	00310	BOD, 5-day, 20 deg. C	MX WK AV	lb/d	16,000	229,865	1,337			1	
20	6/30/19	001	A	1	0	00310	BOD, 5-day, 20 deg. C	MX MO AV	mg/L	10	56	460		1		
21	6/30/19	001	A	1	0	00310	BOD, 5-day, 20 deg. C	MX WK AV	mg/L	15	233	1,453			1	
22	10/31/19	001	A	1	1	00600	Nitrogen, total [as N]	MO TOTAL	lb/mo	99,782	123,187	23		1		
23	12/31/19	001	A	1	0	00310	BOD, 5-day, 20 deg. C	MX WK AV	mg/L	15	17	13			1	
24	12/31/19	002	A	1	0	50060	Chlorine, total residual	MAXIMUM	mg/L	0.01	1.50	13,536	*			
25	8/31/20	001	A	1	1	00600	Nitrogen, total [as N]	MO TOTAL	lb/mo	99,782	105,102	5		1		
26	9/30/20	001	A	1	1	00600	Nitrogen, total [as N]	MO TOTAL	lb/mo	99,782	108,392	9		1		
27	10/31/20	001	A	1	1	00600	Nitrogen, total [as N]	MO TOTAL	lb/mo	99,782	142,303	43		1		
28	12/31/20	001	A	1	0	00665	Phosphorus, total [as P]	MX MO AV	lb/d	220	298	35		1		
29	12/31/20	001	A	1	0	00665	Phosphorus, total [as P]	MX WK AV	lb/d	330	712	116			1	
30	12/31/20	001	A	1	0	00665	Phosphorus, total [as P]	MX WK AV	mg/L	0.30	0.40	33			1	
31	12/31/20	001	A	1	0	00530	Solids, total suspended	MX WK AV	lb/d	16,000	22,704	42			1	
32	1/31/21	001	A	1	0	00665	Phosphorus, total [as P]	MX MO AV	lb/d	220	241	10		1		
33	1/31/21	001	A	1	0	00530	Solids, total suspended	MX WK AV	lb/d	16,000	17,426	9			1	
34	1/31/21	001	A	1	0	00530	Solids, total suspended	MX WK AV	mg/L	15.00	16.00	7			1	
35	2/28/21	001	A	1	0	00310	BOD, 5-day, 20 deg. C	MX MO AV	lb/d	11,000	26,044	137		1		
36	2/28/21	001	A	1	0	00310	BOD, 5-day, 20 deg. C	MX WK AV	lb/d	16,000	50,488	216			1	
37	2/28/21	001	A	1	0	00310	BOD, 5-day, 20 deg. C	MX MO AV	mg/L	10	20	100		1		
38	2/28/21	001	A	1	0	00310	BOD, 5-day, 20 deg. C	MX WK AV	mg/L	15	35	133			1	
39	2/28/21	001	A	1	0	00665	Phosphorus, total [as P]	MX MO AV	lb/d	220	773	251		1		
40	2/28/21	001	A	1	0	00665	Phosphorus, total [as P]	MX WK AV	lb/d	330	1,668	405			1	
41	2/28/21	001	A	1	0	00665	Phosphorus, total [as P]	MX MO AV	mg/L	0.20	0.60	200		1		
42	2/28/21	001	A	1	0	00665	Phosphorus, total [as P]	MX WK AV	mg/L	0.30	1.10	267			1	
43	2/28/21	002	A	1	0	00665	Phosphorus, total [as P]	MO AVG	mg/L	0.20	0.80	300		1		
44	2/28/21	001	A	1	0	00530	Solids, total suspended	MX MO AV	lb/d	11,000	54,768	398		1		
45	2/28/21	001	A	1	0	00530	Solids, total suspended	MX WK AV	lb/d	16,000	102,949	543			1	
46	2/28/21	001	A	1	0	00530	Solids, total suspended	MX MO AV	mg/L	10.00	40.00	300		1		
47	2/28/21	002	A	1	0	00530	Solids, total suspended	MX WK AV	mg/L	45.00	52.00	16			1	
48	2/28/21	001	A	1	0	00530	Solids, total suspended	MX WK AV	mg/L	15.00	70.00	367			1	
49	3/31/21	001	A	1	0	00310	BOD, 5-day, 20 deg. C	MX MO AV	lb/d	11,000	25,757	134		1		
50	3/31/21	001	A	1		00310	BOD, 5-day, 20 deg. C	MX WK AV	lb/d	16,000	49,153	207			1	
51	3/31/21	001	A	1	0	00310	BOD, 5-day, 20 deg. C	MX MO AV	mg/L	10	21	110		1		
52	3/31/21	001	A	1	0	00310	BOD, 5-day, 20 deg. C	MX WK AV	mg/L	15	36	140			1	
53	3/31/21	001	A	1	0	00665	Phosphorus, total [as P]	MX MO AV	lb/d	220	940	327		1		
54	3/31/21	001	A	1	0	00665	Phosphorus, total [as P]	MX WK AV	lb/d	330	1,920	482			1	
55	3/31/21	001	A	1	0	00665	Phosphorus, total [as P]	MX MO AV	mg/L	0.20	0.80	300		1		
56	3/31/21	001	A	1	0	00665	Phosphorus, total [as P]	MX WK AV	mg/L	0.30	1.50	400			1	

	Monitoring Period End Date	Perm Feature ID	Limit Set Designator	Monitoring Location Code	Limit Season ID	Parameter Code	Parameter Desc	Statistical Base Short Desc	Limit Unit Short Desc	Limit Value	DMR Value	Percent Exceedance	Quarterly Violations	Monthly Violations	Weekly Violations	Daily Violations
57	3/31/21	002	A	1	0	00665	Phosphorus, total [as P]	MO AVG	mg/L	0.20	0.70	250		1		
58	3/31/21	001	A	1	0	00530	Solids, total suspended	MX MO AV	lb/d	11,000	53,975	391		1		
59	3/31/21	001	A	1	0	00530	Solids, total suspended	MX WK AV	lb/d	16,000	118,355	640			1	
60	3/31/21	002	A	1	0	00530	Solids, total suspended	MX MO AV	mg/L	30.00	36.00	20		1		
61	3/31/21	001	A	1	0	00530	Solids, total suspended	MX MO AV	mg/L	10.00	43.00	330		1		
62	3/31/21	002	A	1	0	00530	Solids, total suspended	MX WK AV	mg/L	45.00	64.00	42			1	
63	3/31/21	001	A	1	0	00530	Solids, total suspended	MX WK AV	mg/L	15.00	89.00	493			1	
64	3/31/21	001	A	1	0	TT000	Toxicity, Chronic	MAXIMUM	tox chronic	1.02	1.20	18	1			
65	4/30/21	001	A	1		00310	BOD, 5-day, 20 deg. C	MX MO AV	lb/d	11,000	22,155	101		1		
66	4/30/21	001	A	1	0	00310	BOD, 5-day, 20 deg. C	MX WK AV	lb/d	16,000	29,777	86			1	
67	4/30/21	001	A	1	0	00310	BOD, 5-day, 20 deg. C	MX MO AV	mg/L	10	22	120		1		
68	4/30/21	001	A	1	0	00310	BOD, 5-day, 20 deg. C	MX WK AV	mg/L	15	28	87			1	
69	4/30/21	001	A	1	0	51040	E. coli	MX MO GMN	MPN/100mL	126.00	152.00	21		1		
70	4/30/21	002	A	1	0	51040	E. coli	MX MO GMN	MPN/100mL	126.00	341.00	171		1		
71	4/30/21	001	A	1	0	00665	Phosphorus, total [as P]	MX MO AV	lb/d	220	964	338		1		
72	4/30/21	001	A	1	0	00665	Phosphorus, total [as P]	MX WK AV	lb/d	330	1,355	311			1	
73	4/30/21	001	A	1	0	00665	Phosphorus, total [as P]	MX MO AV	mg/L	0.20	0.90	350		1		
74	4/30/21	001	A	1	0	00665	Phosphorus, total [as P]	MX WK AV	mg/L	0.30	1.40	367			1	
75	4/30/21	002	A	1	0	00665	Phosphorus, total [as P]	MO AVG	mg/L	0.20	0.80	300		1		
76	4/30/21	001	A	1	0	00530	Solids, total suspended	MX MO AV	lb/d	11,000	41,100	274		1		
77	4/30/21	001	A	1	0	00530	Solids, total suspended	MX WK AV	lb/d	16,000	60,228	276			1	
78	4/30/21	001	A	1	0	00530	Solids, total suspended	MX MO AV	mg/L	10.00	41.00	310		1		
79	4/30/21	001	A	1	0	00530	Solids, total suspended	MX WK AV	mg/L	15.00	64.00	327			1	
80	5/31/21	001	A	1	0	00610	Nitrogen, ammonia total [as N]	MX MO AV	lb/d	2,200	2,450	11		1		
81	5/31/21	001	A	1	0	00610	Nitrogen, ammonia total [as N]	MX WK AV	lb/d	3,300	3,658	11			1	
82	5/31/21	001	A	1	0	00610	Nitrogen, ammonia total [as N]	MX MO AV	mg/L	2	2.70	35		1		
83	5/31/21	002	A	1	0	00610	Nitrogen, ammonia total [as N]	MX MO AV	mg/L	2	3.20	60		1		
84	5/31/21	001	A	1	0	00610	Nitrogen, ammonia total [as N]	MX WK AV	mg/L	3	4.20	40			1	
85	5/31/21	002	A	1	0	00610	Nitrogen, ammonia total [as N]	MX WK AV	mg/L	3	4.40	47			1	
86	5/31/21	001	A	1	1	00600	Nitrogen, total [as N]	MO TOTAL	lb/mo	99,782	168,255	69		1		
87	5/31/21	001	A	1	0	00665	Phosphorus, total [as P]	MX WK AV	lb/d	330	423	28			1	
88	5/31/21	001	A	1	0	00665	Phosphorus, total [as P]	MX MO AV	lb/d	220	504	129		1		
89	5/31/21	001	A	EG	1	00665	Phosphorus, total [as P]	MO TOTAL	lb/mo	6,652	14,709	121		1		
90	5/31/21	001	A	1	0	00665	Phosphorus, total [as P]	MX MO AV	mg/L	0.20	0.50	150		1		
91	5/31/21	001	A	1	0	00665	Phosphorus, total [as P]	MX WK AV	mg/L	0.30	0.50	67			1	
92	5/31/21	002	A	1	0	00665	Phosphorus, total [as P]	MO AVG	mg/L	0.20	0.60	200		1		
93	5/31/21	001	A	1	0	00530	Solids, total suspended	MX MO AV	lb/d	11,000	15,867	44		1		
94	5/31/21	001	A	1	0	00530	Solids, total suspended	MX WK AV	lb/d	16,000	18,600	16			1	
95	5/31/21	001	A	1	0	00530	Solids, total suspended	MX MO AV	mg/L	10.00	17.00	70		1		
96	5/31/21	001	A	1	0	00530	Solids, total suspended	MX WK AV	mg/L	15.00	21.00	40			1	
97	6/30/21	001	A	1	0	00310	BOD, 5-day, 20 deg. C	MX MO AV	lb/d	11,000	13,267	21		1		
98	6/30/21	001	A	1	0	00310	BOD, 5-day, 20 deg. C	MX WK AV	lb/d	16,000	35,654	123			1	
99	6/30/21	001	A	1	0	00310	BOD, 5-day, 20 deg. C	MX MO AV	mg/L	10	12	20		1		
100	6/30/21	001	A	1	0	00310	BOD, 5-day, 20 deg. C	MX WK AV	mg/L	15	25	67			1	
101	6/30/21	001	A	1	0	00610	Nitrogen, ammonia total [as N]	MX MO AV	lb/d	2,200	3,538	61		1		
102	6/30/21	001	A	1	0	00610	Nitrogen, ammonia total [as N]	MX WK AV	lb/d	3,300	4,329	31			1	
103	6/30/21	001	A	1	0	00610	Nitrogen, ammonia total [as N]	MX MO AV	mg/L	2	3.80	90		1		
104	6/30/21	002	A	1	0	00610	Nitrogen, ammonia total [as N]	MX MO AV	mg/L	2	4.30	115		1		
105	6/30/21	001	A	1	0	00610	Nitrogen, ammonia total [as N]	MX WK AV	mg/L	3	4.70	57			1	
106	6/30/21	002	A	1	0	00610	Nitrogen, ammonia total [as N]	MX WK AV	mg/L	3	5.10	70			1	
107	6/30/21	001	A	1	1	00600	Nitrogen, total [as N]	MO TOTAL	lb/mo	99,782	203,420	104		1		
108	6/30/21	001	A	1	0	00665	Phosphorus, total [as P]	MX MO AV	lb/d	220	674	206		1		
109	6/30/21	001	A	1	0	00665	Phosphorus, total [as P]	MX WK AV	lb/d	330	1,963	495			1	
110	6/30/21	001	A	EG	1	00665	Phosphorus, total [as P]	MO TOTAL	lb/mo	6,652	15,368	131		1		
111	6/30/21	001	A	1	0	00665	Phosphorus, total [as P]	MX MO AV	mg/L	0.20	0.60	200		1		
112	6/30/21	001	A	1	0	00665	Phosphorus, total [as P]	MX WK AV	mg/L	0.30	1.30	333			1	

	Monitoring Period End Date	Perm Feature ID	Limit Set Designator	Monitoring Location Code	Limit Season ID	Parameter Code	Parameter Desc	Statistical Base Short Desc	Limit Unit Short Desc	Limit Value	DMR Value	Percent Exceedance	Quarterly Violations	Monthly Violations	Weekly Violations	Daily Violations
113	6/30/21	002	A	1	0	00665	Phosphorus, total [as P]	MO AVG	mg/L	0.20	0.50	150		1		
114	6/30/21	001	A	1	0	00530	Solids, total suspended	MX MO AV	lb/d	11,000	27,839	153		1		
115	6/30/21	001	A	1	0	00530	Solids, total suspended	MX WK AV	lb/d	16,000	95,672	498			1	
116	6/30/21	001	A	1	0	00530	Solids, total suspended	MX MO AV	mg/L	10.00	21.00	110		1		
117	6/30/21	002	A	1	0	00530	Solids, total suspended	MX WK AV	mg/L	45.00	51.00	13			1	
118	6/30/21	001	A	1	0	00530	Solids, total suspended	MX WK AV	mg/L	15.00	63.00	320			1	
119	7/31/21	001	A	1	1	00600	Nitrogen, total [as N]	MO TOTAL	lb/mo	99,782	129,076	29		1		
120	7/31/21	001	A	1	0	00665	Phosphorus, total [as P]	MX MO AV	lb/d	220	298	35		1		
121	7/31/21	001	A	1	0	00665	Phosphorus, total [as P]	MX WK AV	lb/d	330	491	49			1	
122	7/31/21	001	A	EG	1	00665	Phosphorus, total [as P]	MO TOTAL	lb/mo	6,652	9,165	38		1		
123	7/31/21	001	A	1	0	00665	Phosphorus, total [as P]	MX MO AV	mg/L	0.20	0.40	100		1		
124	7/31/21	001	A	1	0	00665	Phosphorus, total [as P]	MX WK AV	mg/L	0.30	0.60	100			1	
125	7/31/21	002	A	1	0	00665	Phosphorus, total [as P]	MO AVG	mg/L	0.20	0.50	150		1		
126	7/31/21	001	A	1	0	00530	Solids, total suspended	MX MO AV	mg/L	10.00	11.00	10		1		
127	7/31/21	001	A	1	0	00530	Solids, total suspended	MX WK AV	mg/L	15.00	17.00	13			1	
128	7/31/21	002	A	1	0	00530	Solids, total suspended	MX WK AV	mg/L	45.00	49.00	9			1	
129	8/31/21	001	A	1	1	00600	Nitrogen, total [as N]	MO TOTAL	lb/mo	99,782	133,628	34		1		
130	9/30/21	001	A	1	1	00600	Nitrogen, total [as N]	MO TOTAL	lb/mo	99,782	147,437	48		1		
131	9/30/21	001	A	1	0	00665	Phosphorus, total [as P]	MX MO AV	mg/L	0.20	0.21	5		1		
132	9/30/21	002	A	1	0	00665	Phosphorus, total [as P]	MO AVG	mg/L	0.20	0.21	5		1		
133	10/31/21	002	A	1	0	51040	E. coli	MX MO GMN	MPN/100mL	126	138.00	10		1		
134	10/31/21	001	A	1	1	00600	Nitrogen, total [as N]	MO TOTAL	lb/mo	99,782	144,023	44		1		
135	10/31/21	002	A	1	0	00665	Phosphorus, total [as P]	MO AVG	mg/L	0.2	0.26	30		1		
												Total	1	76	53	1

Violations

Quarterly	Monthly	Weekly	Daily	**Total**
1	76	53	1	131

Days of Violations

Quarterly	Monthly	Weekly	Daily	**Total**
90	2,280	371	1	2,742

*no longer a limit at Outfall 002 per permit modification effective 5/1/18.

Exhibit BR3

2021 Annual Exceedances						
	Total Suspended Solids		**Total Nitrogen**		**Total Phosphorous**	
Month	Monthly Load (lbs/month)	Cumumlative Load (lbs/year)	Monthly Load (lbs/month)	Cumumlative Load (lbs/year)	Monthly Load (lbs/month)	Cumumlative Load (lbs/year)
January	300,653	300,653	140,305	140,305	6,681	6,681
February	1,345,676	1,646,329	205,216	345,520	20,185	26,866
March	1,556,626	3,202,954	271,505	617,025	28,960	55,827
April	1,251,637	4,454,592	244,222	861,247	27,475	83,302
May	467,236	4,921,828	164,907	1,026,153	13,742	97,044
June	586,772	5,508,599	198,385	1,224,538	16,765	113,809
July	282,064	5,790,663	128,211	1,352,749	10,257	124,066
August	212,160	6,002,823	131,953	1,484,702	5,175	129,240
September	245,206	6,248,029	141,675	1,626,377	5,449	134,689
October	135,020	6,383,050	143,122	1,769,498	5,401	140,090
November *	60,384	6,443,433	82,122	1,851,620	3,381	143,472
December †		6,443,433		1,851,620		143,472
Total Annual Load		6,443,433		1,851,620		143,472
Annual Load Limit		3,959,228		1,276,480 ‡		63,824 ‡
Annual Load Exceedance		2,484,205		575,140		79,648
Annual Exceedance Date		4/19/21		7/13/21		4/9/21
Annual Limit Violations		1		1		1
Annual Violation Days		257		172		267

* Monthly TSS concentration below detection limit (<5 mg/L). Assumes 2.5 mg/L (1/2 of DL) in the calculation.
† Monthly load amount not yet submitted.
‡ Concentration based annual load limit.

2021 Annual Limit Violations	3
2021 Annual Violation Days (incomplete)	696

Exhibit BR4

	Date	Parameter	Result	Permit Limitation
1	August, 2020	Total Nitrogen	105,102 lbs./Month	99,782 lbs./Month
2	August, 2020	Total Nitrogen	108,392 lbs./Month	99,782 lbs./Month
3	August, 2020	Total Nitrogen	143,203 lbs./Month	99,782 lbs./Month
4	September, 2020	Total Nitrogen	108,392 lbs./Month	99,782 lbs./Month
5	October, 2020	Total Nitrogen	142,303 lbs./Month	99,782 lbs./Month
6	December 15-21,	Total Suspended Solids	22,704 lbs./Week.	16,000 lbs. lbs./Week.
7	December 22-28,	Total Suspended Solids	18,278 lbs./Week.	16,000 lbs. lbs./Week.
8	December 15-21,	Total Phosphorous	0.42 mg/L	0.3 mg/L
9	December, 2020	Total Phosphorous	298 lbs./Month	220 lbs./Month
10	December 15-21,	Total Phosphorous	712 lbs./Week	330 lbs./Week
11	December 22-28,	Total Phosphorous	481 lbs./Week	330 lbs./Week
12	January 8-14, 2021	Total Suspended Solids	17,426 lbs./Week	16,000 lbs./Week
13	January 8-14, 2021	Total Suspended Solids	16 mg/L/Week	15 mg/L
14	January, 2021	Total Phosphorous	241 lbs./Month	220 lbs./Month
15	February, 2021	BOD5	26,044 lbs./Month	11,000 lbs./Month
16	February 8-14, 2021	BOD5	18,077 lbs./Weekly Av.	16,000 lbs./Week
17	February 15-21,	BOD5	25,746 lbs./Weekly Av.	16,000 lbs./Week
18	February 22-28,	BOD5	50,488 lbs./Week Av.	16,000 lbs./Week
19	February, 2021	BOD5	16.6 mg/L/Weekly Average	15 mg/L/Weekly Average concentration
20	February, 2021	BOD5	19.2 mg/L/Weekly Average	15 mg/L/Weekly Average
21	February, 2021	BOD5	35.3 mg/L/Weekly Average	15 mg/L/Weekly Average
22	February, 2021	BOD5	20 mg/L/Monthly Average Concentration	10 mg/L/Monthly Average Concentration
23	February 8-14, 2021	Total Phosphorous	0.48 mg/L/Weekly Average Concentration	0.3 mg/L/Weekly Average Concentration
24	February 15-21 2021	Total Phosphorous	0.41 mg/L/Weekly Average Concentration	0.3 mg/L/Weekly Average Concentration
25	February 22-28,	Total Phosphorous	1.1 mg/L/Weekly Average Concentration	0.3 mg/L/Weekly Average Concentration
26	February 1-7, 2021	Total Phosphorous	369 lbs./Weekly Average Loading	330 lbs./Weekly Average Loading
27	February 8-14, 2021	Total Phosphorous	524 lbs./Weekly Average Loading	330 lbs./Weekly Average Loading
28	February 15-21,	Total Phosphorous	530 lbs./Weekly Average Loading	330 lbs./Weekly Average Loading
29	February 22-28,	Total Phosphorous	1668 lbs./Weekly Average Loading	330 lbs./Weekly Average Loading
30	February, 2021	Total Phosphorous	0.6 mg/L/Monthly Average Concentration	0.2 mg/L/Monthly Average
31	February, 2021	Total Phosphorous	1.1 mg/L/Weekly Average Concentration	0.3 mg/L/Weekly Average Concentration
32	February, 2021	Total Suspended Solids	54,768.0 lbs./Monthly Average Loading	11,000 lbs./Monthly Average Loading
33	February 8-14, 2021	Total Suspended Solids	18,077 lbs./Week	16,000 lbs./Weekly Average
34	February 15-21,	Total Suspended Solids	25,746 lbs./Week	16,000 lbs./Weekly Average
35	February, 2021	Total Suspended Solids	40 mg/L/Max. Monthly Average	10 mg/L/Monthly Average
36	February 8- 14, 2021	Total Suspended Solids	28.9 mg/L Weekly Average Concentration	15 mg/L/Weekly Average
37	February 15-21,	Total Suspended Solids	47.3 mg/L/Weekly Average Concentration	15 mg/L/Weekly Average
38	February 22-28,	Total Suspended Solids	70.1 mg/L/Weekly Average Concentration	15 mg/L/Weekly Average

	Date	Parameter	Result	Permit Limitation
39	February 8- 14, 2021	Total Suspended Solids	31,571 lbs./Week	16,000 lbs./Week
40	February 15-21,	Total Suspended Solids	70,938 lbs./Week	16,000 lbs./Week
41	February 22-28,	Total Suspended Solids	102,949 lbs./Week	16,000 lbs./Week
42	February 22-28,	Total Suspended Solids Outfall 002	52 mg/L/Weekly Average	45 mg/L/Weekly Average
43	March 1-7, 2021	Total Suspended Solids	26.4 mg/L/Weekly Average	15 mg/L/Weekly Average
44	March 15- 21, 2021	Total Suspended Solids	32.6 mg/L/Weekly Average	15 mg/L/Weekly Average
45	March 22- 28, 2021	Total Suspended Solids	89.4 mg/L/Weekly Average	15 mg/L/Weekly Average
46	March 1-7, 2021	Total Suspended Solids	38,616 lbs./Week	16,000 lbs./Week
47	March 15-21, 2021	Total Suspended Solids	35,020 lbs./Week	16,000 lbs./Week
48	March 22-28, 2021	Total Suspended Solids	118,355 lbs./Week	16,000 lbs./Week
49	March, 2021	Total Suspended Solids	43 mg/L/Max. Monthly Average	10 mg/L/Monthly Average
50	March, 2021	Total Suspended Solids	53,075 lbs./Monthly Average Loading	11,000 lbs./Monthly Average Loading
51	March 22-28, 2021	BOD5	36.2 mg/L/Weekly Average	15 mg/L/Weekly Average
52	March, 2021	BOD5	21 mg/L/Monthly Average Concentration	10 mg/L Monthly Average Concentration
53	March, 2021	BOD5	22,757 lbs./Month	11,000 lbs./Month
54	March 1-7, 2021	BOD5	19,321 lbs./Weekly Av.	16,000 lbs./Week
55	March 8-14, 2021	BOD5	16,725 lbs./Weekly Av.	16,000 lbs./Week
56	March 22-28, 2021	BOD5	49,153 lbs./Weekly Av.	16,000 lbs./Week
57	March 1-7, 2021	Total Phosphorous	0.61 mg/L/Weekly Average Concentration	0.3 mg/L/Weekly Average Concentration
58	March 8-14, 2021	Total Phosphorous	0.52 mg/L/Weekly Average Concentration	0.3 mg/L/Weekly Average Concentration
59	March 22-28, 2021	Total Phosphorous	1.52 mg/L/Weekly Average Concentration	0.3 mg/L/Weekly Average Concentration
60	March 1-7, 2021	Total Phosphorous	870 lbs./Weekly Average Loading	330 lbs./Weekly Average Loading
61	March 8-14, 2021	Total Phosphorous	598 lbs./Weekly Average Loading	330 lbs./Weekly Average Loading
62	March 15-21, 2021	Total Phosphorous	368 lbs./Weekly Average Loading	330 lbs./Weekly Average Loading
63	March 22-28, 2021	Total Phosphorous	1,920 lbs./Weekly Average Loading	330 lbs./Weekly Average Loading
64	March 2021	Total Phosphorous	0.8 mg/L/Monthly Average Concentration	0.2 mg/L/Monthly Average
65	March 2021	Total Phosphorous	940 lbs./Month	220 lbs./Month
66	March 22-28, 2021	Total Suspended Solids Outfall 002	64 mg/L/Weekly Average	45 mg/L/Weekly Average
67	March, 2021	Total Suspended Solids Outfall 002	36 mg/L/Max. Monthly Average	30 mg/L/Monthly Average
68	March, 2021	Total Suspended Solids Outfall 002	*	
69	March, 2021	BOD5 Outfall 002	*	
70	April 1-7, 2021	Total Suspended Solids	43 mg/L/Weekly Average	15 mg/L/Weekly Average
71	April 8-14, 2021	Total Suspended Solids	36.6 mg/L/Weekly Average	15 mg/L/Weekly Average
72	April 15-21, 2021	Total Suspended Solids	27.6 mg/L/Weekly Average	15 mg/L/Weekly Average
73	April 22-28, 2021	Total Suspended Solids	64.4 mg/L/ Weekly Average	15 mg/L/Weekly Average
74	April 1-7, 2021	Total Suspended Solids	48,626 lbs./Week	16,000 lbs./Week
75	April 8-14, 2021	Total Suspended Solids	38,258 lbs./Week	16,000 lbs./Week
76	April 15-21, 2021	Total Suspended Solids	25,652 lbs./Week	16,000 lbs./Week

	Date	Parameter	Result	Permit Limitation
77	April 22-28, 2021	Total Suspended Solids	60,228 lbs./Week	16,000 lbs./Week
78	April, 2021	Total Suspended Solids	41 mg/L/Max. Monthly Average	10 mg/L /Monthly Average
79	April, 2021	Total Suspended Solids	41,100 lbs./Monthly Average Loading	11,000 lbs./Monthly Average Loading
80	April 1-7, 2021	BOD5	19.4 mg/L/Weekly Average	15 mg/L/Weekly Average
81	April 8-14, 2021	BOD5	28.3mg/L/Weekly Average	15 mg/L/Weekly Average
82	April 22-28, 2021	BOD5	27.5 mg/L/Weekly Average	15 mg/L/Weekly Average
83	April 1-7, 2021	BOD5	21,833 lbs./Weekly Av.	16,000 lbs./Week
84	April 8-14, 2021	BOD5	29,777 lbs./Weekly Av.	16,000 lbs./Week
85	April 22-28, 2021	BOD5	26,343 lbs./Weekly Av.	16,000 lbs./Week
86	April, 2021	BOD5	22 mg/L/Monthly Average Concentration	10 mg/L/Monthly Average Concentration
87	April, 2021	BOD5	22,155 lbs./Month	11,000 lbs./Month
88	April 1-7, 2021	Total Phosphorous	0.93 mg/L Weekly Average Concentration	0.3 mg/L/Weekly Average Concentration
89	April 8-14, 2021	Total Phosphorous	0.88 mg/L/Weekly Average Concentration	0.3 mg/L/Weekly Average Concentration
90	April 15-21, 2021	Total Phosphorous	0.57 mg/L/Weekly Average Concentration	0.3 mg/L/Weekly Average Concentration
91	April 22-28, 2021	Total Phosphorous	1.4 mg/L/Weekly Average Concentration	0.3 mg/L/Weekly Average Concentration
92	April 1-7, 2021	Total Phosphorous	1,065 lbs./Weekly Average Loading	330 lbs./Weekly Average Loading
93	April 8-14, 2021	Total Phosphorous	922 lbs./Weekly Average Loading	330 lbs./Weekly Average Loading
94	April 15-21, 2021	Total Phosphorous	548 lbs./Weekly Average Loading	330 lbs./Weekly Average Loading
95	April 22-28, 2021	Total Phosphorous	1,355 lbs./Weekly Average Loading	330 lbs./Weekly Average Loading
96	April, 2021	Total Phosphorous	0.9 mg/L/Monthly Average Concentration	0.2 mg/L/Monthly Average
97	April, 2021	Total Phosphorous	964 lbs./Month	220 lbs./Month
98	April, 2021	E. coli	157 MPN/100 ML monthly Geomean	126 MPN/100 ML monthly maximum Geomean
99	April 2021 Outfall	E. coli	341 MPN/100 ML monthly Geomean	126 MPN/100 ML monthly maximum Geomean
100	May 1-7, 2021	Total Suspended Solids	21.4 mg/L/Weekly Average	15 mg/L/Weekly Average
101	May 15-21, 2021	Total Suspended Solids	15.9 mg/L/Weekly Average Concentration	15 mg/L/Weekly Average
102	May 1-7, 2021	Total Suspended Solids	18,600 lbs./Week	16,000 lbs./Week
103	May, 2021	Total Suspended Solids	17 mg/L/Max. Monthly Average	10 mg/L/Monthly Average
104	May, 2021	Total Suspended Solids	15,867 lbs./Monthly Average Loading	11,000 lbs./Monthly Average Loading
105	May, 2021	Total Suspended Solids	5,251,859 lbs. cumulative total to date	3,959,228 lbs./year maximum annual cumulative total loading
106	May, 2021	Total Nitrogen	168,255 lbs. monthly total	99,782 lbs. Monthly total
107	May 1-7, 2021	Ammonia	3.34 mg/L/Weekly Average Concentration	3 mg/L/Weekly Average
108	May 22-28, 2021	Ammonia	4.2 mg/L/Weekly Average Concentration	3 mg/L/Weekly Average Concentration
109	May, 2021	Ammonia	2,450 lbs./Monthly Average Loading	2,200 lbs./month maximum weekly average loading
110	May, 2021	Ammonia	2.7 mg/L/Monthly Average Concentration	2 mg/L/Monthly Average Concentration
111	May 1-7, 2021	Total Phosphorous	423 lbs./Weekly Average Loading	330 lbs./Weekly Average Loading
112	May 8-14, 2021	Total Phosphorous	336 lbs./Weekly Average Loading	330 lbs./Weekly Average Loading
113	May 15-21, 2021	Total Phosphorous	421 lbs./Weekly Average Loading	330 lbs./Weekly Average Loading
114	May 22-28, 2021	Total Phosphorous	351 lbs./Weekly Average Loading	330 lbs./Weekly Average Loading

	Date	Parameter	Result	Permit Limitation
115	May 1-7, 2021	Total Phosphorous	0.47 mg/L/Weekly Average Concentration	0.3 mg/L/Weekly Average Concentration
116	May 8-14, 2021	Total Phosphorous	0.39 mg/L/Weekly Average Concentration	0.3 mg/L/Weekly Average Concentration
117	May 15-21, 2021	Total Phosphorous	0.50 mg/L/Weekly Average Concentration	0.3 mg/L/Weekly Average Concentration
118	May 22-28, 2021	Total Phosphorous	0.40 mg/L/Weekly Average Concentration	0.3 mg/L/Weekly Average Concentration
119	May, 2021	Total Phosphorous	0.5 mg/L/Monthly Average Concentration	0.2 mg/L/Monthly Average
120	May, 2021	Total Phosphorous	504 lbs./Month	220 lbs./Month
121	May, 2021	Total Phosphorous	14,709 lbs. monthly total	6,652 lbs. Monthly total
122	May, 2021	Total Phosphorous	97,797 lbs. cumulative total to date	79,277 lbs./year maximum annual cumulative total loading
123	May 1-7, 2021	Ammonia Outfall 2	4.41 mg/L/Weekly Average Concentration	3 mg/L/Weekly Average
124	May 22-28, 2021	Ammonia Outfall 2	4.14 mg/L/Weekly Average Concentration	3 mg/L/Weekly Average Concentration
125	May, 2021	Ammonia Outfall 2	3.2 mg/L/Monthly Average Concentration	2 mg/L/Monthly Average Concentration

Violations	125

* Sample collected March 12, 2021; not analyzed by laboratory.

Exhibit BR5

Monitoring Period End Date	Perm Feature ID	Monitoring Location Code	Limit Season ID	Parameter Code	Parameter Desc	Statistical Base Short Desc	Limit Unit Short Desc	Limit Value	DMR Value	NODI Code	Violation Code	Incomplete Monthly DMR	Incomplete Quarterly DMR
4/30/18	001	1	0	78247	Chromium, hexavalent tot recoverable	MO AVG	mg/L				D80	1	
6/30/18	001	1	0	79819	Polychlorinated biphenyls [PCB] pg/L	QRTR AVG	g/qtr				D80		1
9/30/18	001	1	0	79819	Polychlorinated biphenyls [PCB] pg/L	QRTR AVG	g/qtr				D80		1
12/31/18	002	1	0	78247	Chromium, hexavalent tot recoverable	MO AVG	ug/L				D80	1	
6/30/19	002	1	0	50060	Chlorine, total residual	MO	mg/L	.011			D90	1	
12/31/19	002	1	0	TS000	Toxicity, Acute	QTRTOTAL	tox acute				D80		1
3/31/21	001	1	0	79819	Polychlorinated biphenyls [PCB] pg/L	QRTR AVG	g/qtr			E	D80		1
6/30/21	002	1	0	TS000	Toxicity, Acute	QTRTOTAL	tox acute			E	D80		1
											Totals	3	5

Violations

Quarterly	Monthly	**Total**
3	5	8

Days of Violations

Quarterly	Monthly	**Total**
270	150	420

Exhibit BR6

	Sample Date	Outfall 001	Rinsate Blank	Outfall 002	Rinsate Blank	Method Blank
1	6/30/18	744	73.9	No Smpl.		NR
2	10/3/18	590	159	658	136	NR
3	12/12/18	799	174	770	113	114
4	2/28/19	397	107	448	118	NR
5	6/13/19	1,760	994†	1,010	174	NR
6	9/18/19	1,810	615†	1,500	1,190†	141
7	12/18/19	1,090	BIT	988	234	111
8	2/27/20	1,070	222	873	681†	NR
9	6/2/20	706	818†	555	319	73
10	9/2/20	1,310	147	1,480	174	NR
11	12/2/20	909	1,920†	753	1,190†	NR

Violations	**11**
Days of Violations	**990**

* All measurements in pg/L
† Exceeds 600 pg/L concentration limit
No Smpl.: No Sample Collected
NR: Not Reported
BIT: Sample Broken in Transit

Exhibit PT1

DISCHARGE PERMIT

NPDES Discharge Permit Number:	**MD0021601**
State Discharge Permit Number:	**15-DP-0580**
Effective Date:	**10/01/2017**
Expiration Date:	**09/30/2022**
Modification Date:	**(Not applicable)**
Reapplication Due Date:	**03/31/2021**

Pursuant to the provisions of Title 9 of the Environment Article, Annotated Code of Maryland, and regulations promulgated thereunder, and the provisions of the Clean Water Act, 33 U.S.C. Section 1251 et seq., and implementing regulations 40 CFR Parts 122, 123, 124 and 125, the Department of the Environment hereby establishes conditions and requirements pertinent to the wastewater treatment plant and collection system and authorizes:

Mayor and City Council of Baltimore
600 Abel Wolman Municipal Building
200 N. Holiday Street
Baltimore, Maryland 21202

TO DISCHARGE FROM: Patapsco Wastewater Treatment Plant

LOCATED AT: 3501 Asiatic Avenue
Baltimore, Maryland 21226

THROUGH OUTFALL: 001A (WWTP Effluent)

TO: the Patapsco River, designated as Use II waters protected for Estuarine and Marine Aquatic Life; in accordance with the following special and general conditions and a map incorporated herein and made a part hereof.

I. DEFINITIONS

A. "Ambient temperature" of the effluent receiving stream means the water temperature that is not impacted by a point source discharge, and it shall be measured in areas of the stream representative of typical or average conditions of the stream segment in question.

B. "Bypass" means the intentional diversion of pollutants from any portion of a treatment or collection facility.

C. "BOD_5 (Biochemical Oxygen Demand)" means the amount of oxygen consumed in a standard BOD_5 test without the use of a nitrification inhibitor at 20 degree centigrade on an unfiltered sample.

D. "Clean Water Act" means the Federal Water Pollution Control Act, as amended, 33 U.S.C. Section 1251 et seq.

E. "CFR" means the Code of Federal Regulations.

F. "COMAR" means the Code of Maryland Regulations.

G. "Department" means the Maryland Department of the Environment (MDE).

H. Discharge Limits

1. "Daily *maximum* (or *minimum)*" limitation means the *highest* (or *lowest)* allowable the daily averages in a calendar month. The daily discharge expressed as concentration (in mg/l) shall be calculated by dividing total of measurement readings by number of sample collected during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge expressed as loading rate (in pounds/day) is calculated by using this formula {daily average concentration (mg/l) x the same day total flow (in million gallons) x 8.34}.

2. "Weekly average *(maximum* or *minimum)*" limitation means the *highest* or *lowest* allowable average of "daily discharges" over a calendar week, calculated as the sum of all "daily discharges" measured during a calendar week divided by the number of "daily discharges" measured during that week. Each of the following 7-day periods is defined as a calendar week: Week 1 is Days 1 - 7 of the month; Week 2 is Days 8 - 14; Week 3 is Days 15 - 21; and Week 4 is Days 22 - 28. *For weekly average maximum*, if the "daily discharge" on days 29, 30 or 31 exceeds the "weekly average" discharge limitation, MDE may elect to evaluate the last 7 days of the month as Week 4 instead of Days 22 - 28. *For weekly average minimum*, if the "daily discharge" on days 29, 30 or 31 is lower than the "weekly average" discharge limitation, MDE may elect to evaluate the last 7 days of the month as Week 4 instead of Days 22 - 28.

I. DEFINITIONS

3. "Monthly average *maximum* (or *minimum)*" limitation means the *highest* (or *lowest)* allowable monthly average concentration or waste load of a parameter over a calendar month. The monthly average is calculated as the sum of all daily discharges for a parameter sampled and/or measured in that calendar month divided by the number of days on which monitoring was performed.

4. "Minimum or maximum" limit means the lowest or highest allowable value measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling.

5. "Monthly loading rate (in pounds/month)" means the total load of a parameter calculated for that calendar month. It is calculated using this formula {(monthly average concentration in mg/l) x (Total monthly flow in Million Gallons) x 8.34}.

6. "Annual Maximum Loading Rate (in pounds/year)" limit means the highest allowable year-to-date cumulative load of a parameter for a calendar year. It is calculated as the sum of the individual Total Monthly Loading Rates from January through December of the current calendar year.

7. "Year-to-date Cumulative load (pounds)" value means cumulative load of a parameter through the reporting month in a calendar year. It is calculated as a sum of the individual total monthly loads from January through the reporting month in a calendar year.

8. "Monthly log mean (Monthly geometric mean)" limit means the highest allowable value calculated as the logarithmic or geometric mean of all samples taken in the calendar month. The geometric mean is the antilogarithm of the mean of the logarithms.

I. Discharge Monitoring

1. "Composite sample" means a combination of individual samples obtained at hourly or smaller intervals over a time period. Either the volume of each individual sample is proportional to discharge flow rates or the sampling interval (for constant volume samples) is proportional to the flow rates over the time period used to produce the composite.

2. "Grab sample" means an individual sample collected over a period of time not exceeding 15 minutes.

3. "Estimated flow" value means a calculated volume or discharge rate which is based on a technical evaluation of the sources contributing to the discharge including, but not limited to, pump capabilities, water meters, and batch discharge volumes.

I. DEFINITIONS

4. "Measured flow" value means any method of liquid volume measurement, the accuracy of which has been previously demonstrated in engineering practice, or for which a relationship to absolute volume has been obtained.

5. "Recorded flow" means any method of providing a permanent, continuous record of flow including, but not limited to, circular and strip charts.

6. "Monthly average flow" means the total flow for a calendar month divided by the number of days in the same month.

J. "i-s (immersion stabilization)" means a calibrated device immersed in the effluent or stream, as applicable, until the temperature reading is stabilized.

K. "NetDMR" means a nationally-available electronic reporting tool, initially designed by states and later adapted for national use by EPA, which can be used by NPDES-regulated facilities to submit discharge monitoring reports (DMRs) electronically to EPA through a secure Internet application over the National Environmental Information Exchange Network (NEIEN). EPA can then share this information with authorized states, tribes, and territories.

L. "NPDES (National Pollutant Discharge Elimination System)" means the national system for issuing permits as designated by the Clean Water Act.

M. "Nondetectable Level" for total residual chlorine means a residual concentration of less than 0.10 mg/l as determined using either the DPD titrimetric or chlorimetric method or an alternative method approved by the Department.

N. "Outfall" means the location where the effluent is discharged into the receiving waters.

O. "Overflow" means any loss of wastewater or discharge from a sanitary sewer system, combined sewer system or wastewater treatment plant bypass (as defined in I.B) which results in the direct or potential discharge of raw, partially treated wastewater into the waters of the State.

P. "Permittee" means an individual or organization holding the discharge permit issued by the Department.

Q. "POTW" means a publicly owned treatment works.

R. "Sampling Point" means the effluent sampling location in the outfall line(s) downstream from the last addition point or as otherwise specified.

S. "Sanitary Sewer Overflow (SSO)" means a discharge of untreated or partially treated sewage from a separate sewer system before the sanitary wastewater reaches the headworks of a wastewater treatment facility, pursuant to COMAR 26.08.10.01.

I. DEFINITIONS

T. "Significant Industrial User (SIU)" is defined as any industrial user (IU) that:

1. is subject to national categorical standards; and

2. any other IU that:

a. discharges an average of 25,000 gallons per day or more of process wastewater (excluding sanitary, non-contact cooling and boiler blowdown wastewater); or

b. contributes a process wastestream that makes up 5% or more of the average dry weather hydraulic or organic capacity of the POTW; or

c. is designated as such by the POTW on the basis that the IU has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement; or

d. is found by the POTW, the Department, or the Environmental Protection Agency (EPA) to have significant impact either individually or in combination with other contributing industries to the POTW, on the quality of the sludge, the POTW's effluent quality, or air emissions generated by the system.

U. "TKN (Total Kjeldahl Nitrogen)" means organic nitrogen plus ammonia nitrogen.

V. "TSS (Total Suspended Solids)" means the residue retained on the filter by an analysis done in accordance with Standard Methods or other approved methods.

W. "Upset" means the exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

II. SPECIAL CONDITIONS

A.1 Effluent Limitations, Outfall 001A [(1) (2) (3) (4)]

The quality of the effluent discharged by the facility at a discharge point location- 001A shall be limited at all times as shown below:

	Maximum Effluent Limits					
Effluent Characteristics	**Monthly Average Loading Rate, Pounds/day**	**Weekly Average Loading Rate, Pounds/day**	**Daily Average Loading Rate, Pounds/day**	**Monthly Average Concentration, mg/l**	**Weekly Average Concentration, mg/l**	**Daily Average Concentration, mg/l**
BOD_5	18,000	27,000	N/A	30	45	N/A
TSS	18,000	27,000	N/A	30	45	N/A
Total Ammonia Nitrogen as N (5/1 to 10/31)	3,836	N/A	N/A	6.3	N/A	N/A
Total Phosphorus *	1,220	1,830	N/A	2.0	3.0	N/A

	Maximum Effluent Limits		
Effluent Characteristics	**Total Monthly Loading Rate, Pounds/Month**	**Annual Maximum Loading Rate, Pounds/Year**	**Monthly Average Concentration, mg/l**
TSS [(4)]	REPORT	6,669,776 lbs/yr	REPORT
Total Phosphorus-P [(6) (7)] (5/1-10/31)	REPORT	33,330 lbs total 5/1-10/31	REPORT
Total Phosphorus-P [(5)(6)(7)]	REPORT	66,700 lbs/yr	REPORT
Total Nitrogen-N [(6)(7)] 5/1-10/31	REPORT	333,330 lbs total 5/1-10/31	REPORT
Total Nitrogen-N [(5)(6) (7)]	REPORT	889,300 lbs/yr	REPORT
Total Polychlorinated Biphenyls (tPCBs)[(4)]	REPORT (See Footnote $4_{(b)}$)		REPORT (See Footnote $4_{(b)}$)

	Effluent Limits	
Effluent Characteristics	**Maximum**	**Minimum**
Enterococci	35 MPN/ 100 ml monthly geometric mean	N/A
Total Residual Chlorine [(8)]	0.018 mg/l	N/A
pH	8.5	6.0
Dissolved Oxygen (All Year)	N/A	5.0 mg/l at anytime
(2/1 – 5/31)	N/A	6.0 mg/l weekly average

An annual average flow of 73.0 million gallons per day (mgd) was used in waste allocation calculations (expressed as waste loading rate limit), and this unit shall be used when reporting on the Discharge Monitoring Report (DMR) as required by General Condition III. A.2. Notification is to be provided to the Department at least 180 days before the annual average flow is expected to exceed this flow level. If a permit modification is required, the Department will initiate the public participation NPDES process.

* The monthly and weekly Total Phosphorus limits remain in effect until completion of the ENR upgrade.

II. SPECIAL CONDITIONS

A.2 Effluent Limitations, Outfall 001A [1] [2] [3] [4]

The following authorization for a design flow of 81.0 mgd flow shall be effective only after completion of a public participation process and issuance of a major permit modification by the Department. The permit modification will be based on submittal by the permittee of a demonstration, using at least one year's performance data after the ENR upgrade is completed that total nitrogen concentrations of 3.6 mg/l as an annual average and 2.7 mg/l for the period of 5/1 through 10/31are achievable for the 81.0 mgd flow, unless more stringent wasteload requirements are applicable at the time of the permit modification. The Department's permit modification decision shall account for current applicable wasteload allocation and watershed implementation plans necessary to achieve the Chesapeake Bay TMDL. The quality of the effluent discharged by the facility at a discharge point location- 001A shall be limited at all times as shown below:

	Maximum Effluent Limits					
Effluent Characteristics	**Monthly Average Loading Rate, Pounds/day**	**Weekly Average Loading Rate, Pounds/day**	**Daily Average Loading Rate, Pounds/day**	**Monthly Average Concentration, mg/l**	**Weekly Average Concentration, mg/l**	**Daily Average Concentration, mg/l**
BOD_5	18,000	27,000	N/A	27	40	N/A
TSS	18,000	27,000	N/A	27	40	N/A
Total Ammonia Nitrogen as N (5/1 to 10/31)	4,256	N/A	N/A	6.3	N/A	N/A

	Maximum Effluent Limits		
Effluent Characteristics	**Total Monthly Loading Rate, Pounds/Month**	**Annual Maximum Loading Rate, Pounds/Year**	**Monthly Average Concentration, mg/l**
TSS [4]	REPORT	6,669,776 lbs/yr	REPORT
Total Phosphorus-P [6] [7] (5/1-10/31)	REPORT	33,330 lbs total 5/1- 10/31	REPORT
Total Phosphorus-P [5][6][7]	REPORT	66,700 lbs/yr	REPORT
Total Nitrogen-N [6][7] 5/1-10/31	REPORT	333,330 lbs total 5/1-10/31	REPORT
Total Nitrogen-N [5][6] [7]	REPORT	889,300 lbs/yr	REPORT
Total Polychlorinated Biphenyls (tPCBs)[4]	REPORT (See Footnote $4_{(b)}$)		REPORT (See Footnote $4_{(b)}$)

	Effluent Limits	
Effluent Characteristics	**Maximum**	**Minimum**
Enterococci	35 MPN/ 100 ml monthly geometric mean	N/A
Total Residual Chlorine [8]	0.018 mg/l	N/A
pH	8.5	6.0
Dissolved Oxygen (All Year)	N/A	5.0 mg/l at anytime
(2/1 – 5/31)	N/A	6.0 mg/l weekly average

II. SPECIAL CONDITIONS

An annual average flow of 81.0 million gallons per day (mgd) was used in waste allocation calculations (expressed as waste loading rate limit), and this unit shall be used when reporting on the Discharge Monitoring Report (DMR) as required by General Condition III.A.2. Notification is to be provided to the Department at least 180 days before the annual average flow is expected to exceed this flow level. If a permit modification is required, the Department will initiate the public participation NPDES process.

Footnotes for limitations:

(1) When this permit is renewed, the new limitations may not be equal to the above limitations.

(2) There shall be no discharge of floating solids or visible foam other than trace amounts. See Special Condition II.M.

(3) The permit may also be reopened in accordance with the requirements of MDE's Watershed Permitting Plan under which all discharge permits in a watershed are issued the same year.

(4)(a) The Patapsco River (Baltimore Harbor basin number 02130903) has been identified on the 303(d) list as impaired by total phosphorus, total nitrogen, total suspended solids (1996), Enterococcus (1998), toxics (polychlorinated biphenyls, or PCBs) (1998), chlordane (1998), and impacts to biological communities (2004). A Total Maximum Daily Load (TMDL), approved by the EPA on 12/29/2010, allocated limits of 33,330 lbs of total phosphorus and 333,330 lbs of total nitrogen per season (5/1-10/31). Yearly loadings of 66,700 lbs, 889,300 lbs, 6,669,776 lbs and 27.20 grams for total phosphorus, total nitrogen, total suspended solids and PCBs respectively were also allocated to this facility; and the parameter limits are in conformance with this TMDL. This permit is in conformance with the "Chesapeake Bay TMDL for Nitrogen, Phosphorus and Sediment" established on December 29, 2010.
When TMDLs for other remaining parameters are completed, limits may be imposed, after the public participation process, to incorporate any TMDL requirements.

(4)(b) The TMDL for PCBs for Baltimore Harbor and PATMH Tidal Chesapeake Bay Segment, approved by the EPA on 10/1/2012, has included a tPCBs annual waste load allocation (WLA) of 27.20 grams/year (0.059912 pounds/year) for this facility (that is based on the design capacity of 73.0 mgd and the water column TMDL endpoint tPCBs concentration of 270 picograms per Liter (pg/L). The above stated WLA of tPCBs included in the TMDL does not impose effluent limits for tPCBs in the discharge permit until the effluent tPCBs data collected after the completion of the ENR upgrade are evaluated by the Department. Upon completion of the ENR upgrade, if the facility's annual tPCBs load exceeds the WLA, the permittee shall submit a plan to the Department for approval to track the sources and Best Management Practice (BMP) implementation within 60 days of exceedence of the above stated annual load for tPCBs.

(5) The permittee shall operate the ENR facility in a manner that optimizes the nutrient removal capability of the facility as stipulated in the Grant Agreement for ENR upgrade. The first exceedence of the permit limit shall be counted and reported as daily exceedences beginning from the first exceedance, determined to the nearest day, through December 31. In addition, after any such exceedence, the permittee shall demonstrate to the Department's satisfaction that the facility is optimizing its nutrient removal capability, and neither the arrival of the next calendar year nor the issuance of a permit renewal during a period of noncompliance shall obviate continuance of any noncompliance status related to treatment optimization requirements.

II. SPECIAL CONDITIONS

Footnotes for limitations, Continued:

(6) At the end of each calendar year, the permittee shall comply with the *concentration-based* limitations for the Annual Maximum Loading Rate defined below or the *Tributary Strategy-based* loading rate limitation listed in above in the effluent limitations table, whichever is lower:

(a) TN Limitation (lbs/year): 3.6 mg/l x annual total flow (calendar year based in million gallons per year) x 8.34. To the extent that the permittee alleges that temperature levels of 12 degrees C or lower have diminished the treatment system's capability of complying with this *concentration-based* loading rate limitation for Total Nitrogen, the permittee shall provide notification beginning with the calendar year report under the "Upset" provision in Section III.B.6 of this permit. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

(b) TP Limitation (lbs/year): 0.27 mg/l x annual total flow (calendar year based in million gallons per year) x 8.34.

The details and results of all required annual calculations shall be submitted to the Department with the Discharge Monitoring Report for December. See Special Condition II.K for further details.

The *concentration-based* loading requirements may be revised if the limits are determined to be impracticable based on actual performance and the Department re-opens the permit as a major modification (which requires public participation) to impose (an) alternate effluent limitation(s) or revised schedule.

(7) The permittee may request that the permit be reopened and modified to include nutrient trading consistent with the most current "Maryland Policy for Nutrient Cap Management and Trading in Maryland's Chesapeake Bay Watershed" in effect at that time.

(8) Total residual chlorine limitation of 0.018 mg/l shall be applicable, when chlorine or any chlorine-containing compound is used in any treatment process (es), including but not limited to disinfection, that could become a potential constituent of the effluent discharged from the Patapsco WWTP. The wastewater shall be dechlorinated to reduce effluent total residual chlorine concentration to the nondetectable level (See definition I.M).

II. SPECIAL CONDITIONS

B.(1) Minimum Monitoring Requirements:

The effluent characteristics listed below in Table B(1) shall be monitored at the sampling point (Definition I.R). If the sampling point is other than the outfall- 001A, the permittee shall ensure that the effluent samples are representative of the effluent quality being discharged at the outfall 001A.

Effluent Characteristics	Monitoring Period	Measurement Frequency	Sample Type
BOD_5 [9]	All Year	One/day	24-hour composite
Total Suspended Solids [9]	All Year	One/day	24-hour composite
Total Ammonia Nitrogen as N [9][11]	All Year	One/day	24-hour composite
Total Phosphorus as P [9][12]	All Year	One/day	24-hour composite
Total Nitrogen as N [9][11][12]	All Year	One/day	Calculated
(Nitrite + Nitrate) as N [9][10][11]	All Year	One/day	24-hour composite
Organic Nitrogen as N [9][10][11]	All Year	One/day	24-hour composite
Orthophosphate as P [9][10]	All Year	One/week	24-hour composite
Enterococci [9]	All Year	One/day	Grab
Total Residual Chlorine [9][13][14]	All Year	Three per day, One per shift	Grab
Dissolved Oxygen [9][14]	All Year	Three per day, One per shift	Grab
pH [9][14]	All Year	Three per day, One per shift	Grab
Copper [9][15]	All Year	One/month	Grab
Cyanide, Free [9][15]	All Year	One/month	4- Grabs/day
Total Polychlorinated Biphenyls (tPCBs) [9][15]	All Year	One/quarter	24-hour composite
Flow [9][16][17]	All Year	Continuous	Recorded [17]
Total Monthly Flow [9][18]	All Year	Monthly	Calculated [18]

II. SPECIAL CONDITIONS

B(1) Minimum Monitoring Requirements:

Footnotes for the monitoring requirements, continued:

(9) "STORET" (short for STOrage and RETrieval) is a widely-used repository for water quality data reporting and monitoring. The STORET codes for the effluent characteristics described as limitations and/or monitoring requirements are: BOD_5 (00310), Total Suspended Solids (00530), Total Ammonia Nitrogen as N (00610), Total Phosphorus as P (00665), Total Nitrogen as N (00600), (Nitrite + Nitrate) as N (00630), Organic Nitrogen as N (00605), Orthophosphate as P (04175), Enterococci (61211), Total Residual Chlorine (50060), Dissolved Oxygen (00300), pH (00400), Cyanide, Free (00722), Copper (01119), tPCBs (79819), Flow (50050), and Total monthly flow (82220).

(10) This parameter (without effluent limitations) must be monitored, and it shall be reported on the Monthly Operating Report (MOR) as individual results and on the Discharge Monitoring Report (DMR) as monthly average concentrations.

(11) Total nitrogen as N (in mg/l) is a calculated parameter as the sum of individual results for total ammonia nitrogen as N, organic nitrogen as N and (nitrite + nitrate) as N. All the nitrogen species must be sampled on the same day.

(12) The permittee shall also calculate and report on the DMR the TN and TP total monthly loads (Definition I.H.5) plus year-to-date cumulative loads (Definition I.H.6) for the calendar year in question for the outfall- 001A.

For each calendar year, the year-to-date cumulative loads of TN and TP for the month of December shall represent the total annual loads, and they must be incorporated toward complying with the respective annual maximum load limits. Refer to Special Condition II.K for “Reporting TN and TP total annual loads for compliance to the Concentration-based maximum annual loading rate limits”.

(13) The Minimum monitoring requirements of three per day (one per shift) grab samplings for total residual chlorine shall be applicable, when chlorine or any chlorine compound is used in any treatment process(es), including but not limited to disinfection, that could become a potential constituent of the effluent discharged from the Patapsco WWTP. The minimum detection level (quantification level) for total residual chlorine is 0.10 mg/l. The permittee may report all results below the minimum level as <0.10 mg/l. All results reported below the minimum level shall be considered in compliance.

(14) The monitoring of parameters (total residual chlorine, pH and dissolved oxygen) by three per day – grab samplings shall be distributed on a daily basis during the entire the staffed period in accordance with the representative sampling requirements as stated in the General Condition III.A1.

II. SPECIAL CONDITIONS

Footnotes for the monitoring requirements, continued:

(15) All toxic chemical monitoring required by this permit shall be performed in accordance with MDE's Water Management Administration Toxic Substance Analytical Protocol. This includes analytical methodology, detection levels, holding times, preservation methods, sample types and reporting.

The permittee shall measure and report tPCBs in picograms/L (pg/L). To incorporate the TMDL of PCBs for Baltimore Harbor and PATMH Tidal Chesapeake Bay Segment approved by the EPA on 10/1/2012, the effluent tPCBs monitoring and annual totals PCBs reporting shall be initiated upon completion and beginning operation of the ENR upgrades at Patapsco WWTP. The permittee shall use the approved EPA testing Methods in accordance with MDE's protocol titled "Reporting Requirements for Total PCBs (PCB Congeners) by EPA Method 1668 C or A". The tPCBs monitoring shall be once per quarter for at least one year beginning the ENR operation. The quarter shall end on March, June, September and December. The annual average concentration for tPCBs shall be calculated using the following formula:

$$\text{Average Concentration (pg/L)} = 264172 \times \frac{\text{Total Annual Cumulative load discharged (Grams)}}{\text{Total Annual Flow (MG) at 001A and 001B}}$$

Based on the tPCBs monitoring results, the Department will determine whether to continue tPCBs monitoring or change the tPCBs monitoring frequency after the tPCBs sources are identified and eliminated through BMP as stated in footnote $4_{(b)}$. Any changes to the effluent tPCBs limits and/or monitoring requirements shall be addressed through the permit modification process.

(16) Flows shall be reported in millions gallons per day (mgd) to at least the nearest 10,000 gallons per day. (Example: A flow of 1,524,699 gallons per day shall be reported as 1.53 mgd.). For each calendar month, flows shall be reported on the MOR as daily individual results and on the DMR as monthly average (mgd) and daily maximum (mgd).

(17) Continuous electronic flow measurement and recording which can produce a permanent record are acceptable to the Department.

(18) "Total monthly flow" is a calculated parameter equal to sum of the daily flow results in a calendar month. It shall be reported on the monthly DMR as Total monthly flow in millions gallons (MG) to at least the nearest 10,000 gallons. (Example: A flow of 1,524,699 gallons shall be reported as 1.53 MG).

II. SPECIAL CONDITIONS

B(2) Report Submittal Requirements

Report Description	Reporting Frequency	Report Submittal Deadline
Effluent Biomonitoring Study Plan and Toxic Chemical Testing Plan [19][20]	See footnote - 20	See footnote - 20
Effluent Biomonitoring Study Report [19][21][23]	See footnotes- 21 & 23	See footnote- 23
Effluent Toxic Chemical Testing Report [19][22][23]	See footnotes – 22 & 23	See footnote- 23
Wastewater Capacity Management Plan (WCMP) [19][24]	See footnote – 24	See footnote- 24
Flow Capacity Report (FCR) [19][25]	See footnote - 25	See footnote- 25

(19) If the permittee has selected a third party for submitting reports to the Department, the permittee must provide to the third party with a ***document of authorization for report submission*** which is required with the report.

(20) Within three months from the effective date of this permit, the permittee shall submit the Study Plans for effluent biomonitoring as well as toxic chemical testing and obtain approval from the Department. For further details, refer to Special Condition II.D.1 for Effluent Biomonitoring Study Plan and Special Condition II.F.1 for Effluent Toxic Chemical Testing Study Plan.

(21) After MDE's approval of the Effluent Biomonitoring Study Plan, the permittee shall perform the effluent biomonitoing study and submit the results in a comprehensive report to the Department as per requirements of the Special Condition II.D.

(22) After MDE's approval of the Effluent Toxic Chemical Testing Plan, the permittee shall perform the effluent toxic chemical testing and submit the results in a comprehensive report to the Department as per requirements of the Special Condition II.F.

(23) The reports (a) for each biomonitoring study test performed as per the Special Condition II.D.2 and (b) for each analytical testing for toxic chemicals performed as per Special Condition II.F.3 shall be submitted to the Department by a mail or attached and submitted to the Department along with DMR for the month during which the test was completed, using NetDMR tool no later than 28th of the month following the test completion month. (Example: If the test is completed in March, the comprehensive report shall be submitted with the March DMR no later than 28th April).

(24) Unless the permittee has previously submitted the WCMP to the Department; the permittee shall submit the WCMP ***one time*** within 90 (Ninety) days of the effective days of this permit.

(25) The permittee shall submit the FCR to the Department as per the Special Condition II.C. This report shall be submitted ***once per year*** along with the DMR for the month of December.

II. SPECIAL CONDITIONS

C. Wastewater Capacity Management

The permittee shall report the total cumulative flow for the each calendar year for the above referenced facility. The total cumulative flow shall be reported in million gallons for the entire calendar year to the nearest ten thousand gallons. The annual total cumulative flow determination shall be provided to the Department using NetDMR no later than January 28th of the following year.

Because the most recent three-year average flow for this facility is over 80% of its design capacity, unless it has already been submitted, a Wastewater Capacity Management Plan (WCMP) must be submitted to the Department using NetDMR no later than 90 days of the issuance date of this discharge permit.

In addition, the permittee shall also submit a "Wastewater Flow Capacity Report (WFCR)" and "worksheet for WFCR" for the previous calendar year to the Department using NetDMR tool no later than January 28th of each year. If the permittee has not previously submitted the WCMP or the annual WFCR, the first WFCR and "worksheet for WFCR" shall be submitted within 90 days from the effective date of this permit. The permittee can obtain the WCMP guidance document and forms from the Department's web site links listed below: (a) http://9nl.at/MD-CMPGuidance for WCMP guidance document, (b) http://9nl.at/MD-CMPFlowCapReport for WFCR, (c) http://9nl.at/MD-CMPWorksheet1 for WFCR's Worksheet # 1, and (d) http://9nl.at/MD-CMPWorksheet2 for WFCR's Worksheet # 2 (these links are case-sensitive).

If the permittee prefers to provide the above documents in hard copies, they shall be provided to the Department postmarked by January 28th of the following year to the address below:

Attention: Calendar Year Total Cumulative Flow
WSA – Wastewater Discharge Permits Program
Maryland Department of the Environment
1800 Washington Boulevard, STE-455
Baltimore, MD 21230-1708

The permittee is advised to notify the Department at the above address immediately upon electronic submission of reports through NetDMR tool.

II. SPECIAL CONDITIONS

D. Biomonitoring Program

1. Within three months of the effective date of the permit, the permittee shall submit to the Department for approval a study plan to evaluate wastewater whole effluent toxicity (WET) at Outfall 001 using the biomonitoring results. The study plan shall include a discussion of:

   a. wastewater and production variability

   b. sampling & sample handling

   c. source & age of test organisms

   d. source of dilution water

   e. testing procedures/experimental design

   f. data analysis

   g. quality assurance/quality control

   h. report preparation

   i. testing schedule

2. The testing program shall consist of definitive annual chronic testing. The testing events shall be conducted annually during January or February of each of the first four years after approval of the study plan. This testing shall be initiated no later than the January or February following the Department's acceptance of the study plan.

   Testing shall include the sheepshead minnow (*Cyprinodon* variegatus) or inland silverside (*Menidia beryllina*) larval survival and growth tests and mysid shrimp (*Americamysis bahia* AKA *Mysidopsis bahia)* survival, growth, and fecundity tests. Testing must include one vertebrate species and one invertebrate species. Test results shall be expressed as NOEC, LOEC, ChV, and IC_{25}.

3. The samples used for biomonitoring shall be collected at the same time and location as the samples analyzed for the effluent limitations and monitoring requirements for this outfall. For chlorinated effluents, samples shall be collected after dechlorination. The permittee shall collect 24-hour flow–proportioned composite samples unless the Department has given prior approval of an alternative sampling type.

II. SPECIAL CONDITIONS

4. The following EPA document discusses the appropriate methods:

   For Estuarine Receiving Stream: Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Marine and Estuarine Organisms Third Edition, EPA-821-R-02-014, October 2002

5. Test results shall be submitted to the Department within one month of completion of each set of tests.

6. Test results shall be reported in accordance with the Department's "Effluent Biotoxicity Testing Protocol for Industrial and Municipal Effluents, Appendix E, Reporting Requirements for Effluent Biomonitoring Data," 12/4/12.

7. As a minimum, the reported chronic results shall be expressed as NOEC, LOEC, ChV, and IC_{25}.

8. If a 50% mortality or greater occurs in one or more effluent concentrations during the first 48 hours of the chronic tests, 48-hour LC_{50}s shall be calculated and reported along with the chronic results

9. If testing is not performed in accordance with MDE-approved study plan, additional testing may be required by the Department.

10. If the test results of any two consecutive valid toxicity tests show acute or chronic toxicity (LC_{50} equal to or less than 100% for acute tests and an IC_{25} equal to or less than the in-stream waste concentration for chronic tests), the permittee shall repeat the test within 30 days to confirm the findings of acute or chronic toxicity. Intermittent toxicity or other concerns may require additional testing or limits. If acute and/or chronic toxicity is confirmed, the permittee shall:

    a. Eliminate the source of toxicity through operational changes as soon as possible but in any case not longer than within three months, or

    b. Perform a TRE. If the permittee repeats the toxicity testing as stated above and the results of the repeat test do not confirm the acute or chronic toxicity, the Department will require the permittee to repeat the toxicity testing as stated above to reconfirm a finding of no acute or chronic toxicity. After reconfirmation, the permittee shall complete any remaining quarterly testing required.

II. SPECIAL CONDITIONS

11. If the permittee completes a TRE in accordance with II.D.10.b and unacceptable toxicity is confirmed, a Whole Effluent Toxicity (WET) permit limit and a compliance schedule will be required which shall become discharge permit conditions through a Department initiated permit modification or through a permit renewal.

12. When a WET test result shows reasonable potential for toxicity, unless it can be demonstrated that the source of toxicity has been eliminated, inappropriate test procedures were utilized, or the source has been controlled via a chemical specific permit limitation, WET limits shall be required. These limits may be implemented by reopening the current permit or in a permit renewal. Where reasonable potential has been assumed based on one test result, the permit shall include a WET limit effective within three years unless the effluent shows no toxicity in six follow-up quarterly tests. The permit may be modified to remove the WET limit if the six follow-up quarterly tests show no toxicity.

13. If plant processes or operations change so that there is a significant change in the nature of the wastewater, the Department may require the permittee to conduct a new set of tests.

14. If a significant industrial user locates within the service area so that significant change in the nature of the wastewater might be anticipated, MDE may require the permittee to conduct a new set of tests.

15. The biomonitoring program study plan, WET test results and related materials shall be submitted electronically to the Department if the permittee has already been approved for the NetDMR process. Otherwise, the permittee shall submit all pertinent physical documents to:

Attention: Whole Effluent Toxicity Coordinator
Compliance Program
Water and Science Administration
Maryland Department of the Environment
1800 Washington Blvd., Suite 420
Baltimore, MD 21230-1708

(NOTE: If the documents are submitted electronically using NetDMR process, the permittee must make written notification upon submission to the Whole Effluent Toxicity Coordinator.)

II. SPECIAL CONDITIONS

E. Toxicity Reduction Evaluation

The permittee shall conduct a Toxicity Reduction Evaluation (TRE) when a review of toxicity test data by the Department indicates unacceptable acute or chronic effluent toxicity. A TRE is an investigation conducted to identify the causative agents of effluent toxicity, isolate the source(s), determine the effectiveness of control options, implement the necessary control measures and then confirm the reduction in toxicity.

1. Within 90 days of notification by the Department that a TRE is required, the permittee shall submit for approval by the Department a plan of study, schedule and completion date for conducting a TRE. The permittee shall conduct the TRE study consistent with the submitted plan and schedule.

2. This plan shall follow the framework presented in Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants (EPA/833B-99/002) August 1999.

   Additional Guidance documents on the TRE process are shown below:

   - Methods for Aquatic Toxicity Identification Evaluations Phase I Toxicity Characterization Procedures Second Edition United States Environmental Protection Agency Office of Research and Development, Washington, DC 20460, EPA/600/6-9 l/003 February 1991

   - Methods for Aquatic Toxicity Identification Evaluations Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity, United States Environmental Protection Agency Office of Research and Development, Washington DC 20460, EPA/600/R-92/080 September 1993

   - Methods for Aquatic Toxicity Identification Evaluations Phase Ill Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity, United States Environmental Protection Agency Office of Research and Development, Washington DC 20460, EPA /600/R-92/08 1 September 1993

   - Clarifications Regarding Toxicity Reduction and Identification Evaluations in the National Pollutant Discharge Elimination System Program, March 27, 2001, U.S. Environmental Protection Agency, Office of Wastewater Management , Office of Regulatory Enforcement, Washington, DC 20460

II. SPECIAL CONDITIONS

3. Beginning 60 days from the date of the Department's acceptance of the TRE study plan and every 60 days thereafter, the permittee shall submit progress reports including all relevant test data to the Department. This shall continue until completion of the toxicity reduction confirmation.

4. Within 60 days of completion of the toxicity identification or the source identification phase of the TRE, the permittee shall submit to the Department a plan, schedule and completion date for implementing those measures necessary to eliminate acute toxicity, an LC_{50} greater than 100%, and/or eliminate chronic toxicity, an IC_{25} greater than the in-stream waste concentration (IWC). The implementation of these measures shall begin immediately upon submission of this plan.

5. Within 60 days of completing the implementation of the control measures to eliminate or reduce toxicity, the permittee shall submit to the Department for approval a study plan to confirm the elimination or reduction of toxicity by using biomonitoring.

6. If, for any reason, the implemented measures do not result in compliance with the Department's toxicity limitations, the permittee shall continue the TRE and a Whole Effluent Toxicity (WET) permit limit and a compliance schedule will be required.

7. All the TRE-related materials shall be submitted electronically to the Department if the permittee has already been approved for the NetDMR tool. Otherwise, the permittee shall submit all pertinent physical documents to:

Attention: Whole Effluent Toxicity Coordinator
Compliance Program
Water and Science Administration
Maryland Department of the Environment
1800 Washington Blvd., Suite 420
Baltimore, MD 21230-1708

The permittee is advised to notify the Department at the above address immediately upon electronic submission of reports through NetDMR tool.

II. SPECIAL CONDITIONS

F. Toxic Chemical Testing

1. Concurrent with the biomonitoring study plan, the permittee shall submit to the Department for approval, a study plan to perform analytical testing for toxic chemicals.

2. The toxic chemical testing study plan shall include a description of:

   a. sampling methods;

   b. analytical methods;

   c. practical detection levels; and

   d. quality control procedures.

3. Concurrently with each biomonitoring toxicity tests (Special Condition II.D.2), the permittee shall perform analytical testing for the toxic chemicals identified in the Department's "Toxic Pollutant Monitoring Protocol and Reporting Requirements for Toxic Chemical Testing Analytical Data" (05/18/2011).

4. Toxic chemical testing shall be performed in accordance with 40 CFR Part 136 and the Department-approved toxic chemical testing plan. Also after completion and beginning operation of the ENR upgrades at Patapsco WWTP, when analyzing effluent samples for Total Polychlorinated Biphenyls (total PCBs) using Method 1668 A or C, the total PCBs concentration is the summation of all individually measured congeners; and both the individual congeners and the total PCBs concentrations shall be reported. Grab samples must be used for cyanide, phenols, and volatile organic compounds. All other pollutants shall be collected using 24-hour flow–proportioned composite samples unless the Department has given prior approval of an alternative sampling type.

5. Substances other than those identified in Section 3 above may be detected in the effluent. If so, the permittee shall identify and quantify the ten present in highest concentration for those compounds for which standards are available.

6. Results of each toxic chemical test performed as per Sections II.F.3 and II.F.4 shall be submitted to the Department with results of the concurrent biomonitoring toxicity test.

7. Toxic chemical testing results shall be reported in accordance with the Department's "Toxic Pollutant Monitoring Protocol and Reporting Requirements for Toxic Chemical Testing Analytical Data" (05/18/2011).

II. SPECIAL CONDITIONS

8. If testing is not performed in accordance with the Department's approved study plan, additional testing may be required by the Department.

9. All the toxic chemical testing results and related materials shall be submitted electronically to the Department if the permittee has already been approved for the NetDMR tool. Otherwise, the permittee shall submit all pertinent physical documents to:

Attention: Toxic Chemical Testing Coordinator
Compliance Program
Water and Science Administration
Maryland Department of the Environment
Montgomery Park Business Center
1800 Washington Boulevard, STE 420
Baltimore, MD. 21230-1708

The permittee is advised to notify the Department at the above address immediately upon electronic submission of reports through NetDMR tool.

G. Pretreatment Program

The permittee shall operate and maintain the pretreatment program in accordance with COMAR 26.08.08, the General Pretreatment Regulations for Existing and New Sources of Pollution (40 CFR Part 403) and the approved pretreatment program submission as approved on August 7, 1985 by the Department. The program must be updated if needed to comply with COMAR 26.08.08 or 40 CFR Part 403 or modifications to the State of Maryland Publicly Owned Treatment Works (POTW) Pretreatment Delegation Agreement signed on March 18, 2002. The terms of the POTW Pretreatment Delegation Agreement are expressly incorporated herein as if set forth in full.

H. Protection of Water Quality

It is a violation of this permit to discharge any substance not otherwise listed under the permit's "Effluent Limitations and Monitoring Requirements" special conditions at a level which would cause or contribute to any exceedance of the numerical water quality standards in COMAR 26.08.02.03 unless the level and the substance were disclosed in writing in the permit application prior to the issuance of the permit. If a discharge regulated by this permit causes or contributes to an exceedance of the water quality standards in COMAR 26.08.02.03, including but not limited to the general water quality standards, or if the discharge includes a pollutant that was not disclosed or addressed in the public record for the permit determination, the Department is authorized to modify, suspend or revoke this permit or take enforcement action to address unlawful discharges of pollutants.

II. SPECIAL CONDITIONS

I. Reapplication for a Permit

No later than 18 months before the expiration date, unless permission for a later date has been granted by the Department, the permittee shall submit a new application for a permit or notify the Department of the intent to cease discharging by the expiration date. In the event that a timely and complete reapplication has been submitted and the Department is unable, through no fault of the permittee, to issue a new permit before the expiration date of this permit, the terms and conditions of this permit continue and remain fully effective and enforceable. The renewal application is required by that date in accordance with the requirements of MDE's Watershed Permitting Plan under which all discharge permits in a watershed should be issued in the same year.

J. Wastewater Discharges to Groundwater

This permit does not authorize the permittee to discharge any type or quantity of the wastewater to the groundwater of the State. The permittee must make every effort to prevent any type of leakage or discharges to the groundwater system from the wastewater treatment lagoon(s) and/or other conveyance system.

K. Reporting Nutrient Total Annual Loads to Comply with Concentration-based Annual Loading Rate Limits

The Permittee shall report the concentration-based (also known as Floating Cap) annual loading requirements for TN and TP on the December DMR designated "001-Z". The permittee shall submit to the Department the Discharge Monitoring Report for the month of December with this designation. For each calendar year, the permittee shall calculate the annual concentration-based loads for TN and TP as per the footnote- 6 of the Special Condition II.A, and report these loadings along with the total annual cumulative flow on the December month DMR in accordance with the General Condition III.A.2.a of this discharge permit. If the Patapsco WWTP discharges effluent at more than a single outfall, the total annual loads for TN, TP and total annual discharge flow shall be reported as a sum of the individual results from each outfall.

L. Combined Sewer Overflows (CSOs)

There are no known combined sewer overflows in the Patapsco wastewater collection system service areas at the time of issuance of this permit (last CSO Point Source # 013P, Forest Park area in Baltimore City area was eliminated on June 20, 2006). However, since parts of the Baltimore City's collection system are old and the system serves an urban area, there may be secluded and hidden CSOs, which are not known at this time. In order to address this potential, the following CSO reopener clause will apply to any CSO that subsequently comes to the knowledge of the Department. If a CSO is identified in the collection system contributing to this facility, this permit may be reopened to incorporate the CSO requirements developed in accordance with the National Combined Sewer Overflow Strategy promulgated in October 8, 2001 by the EPA.

M. Fat, Oil and Grease (FOG) Mitigation Plan

To protect the treatment works, maintain effluent quality, and ensure full compliance with the narrative discharge standard of this permit, the permittee shall develop and implement an FOG mitigation Plan (the Plan). The plan should include a description of the measures that will be taken to achieve the maximum practicable reduction of fats oils and grease and implementation schedule. The permittee shall submit the Plan to the Department for approval within 60 days after the effective date of this permit. Prior to approval of the Plan by the Department, the Department may reopen this permit to implement additional FOG mitigation requirements.

II. SPECIAL CONDITIONS

M. Fat, Oil and Grease (FOG) Mitigation Plan, continued

At a minimum, the Plan shall include, but not be limited to, the following items:

a) Regular maintenance and repair of the skimmers, as required in the Department's Consent Order (CO-16-2405).
b) Enforcement of Pretreatment requirements.
c) Public outreach to reduce FOG in the sewer collection system.
d) During normal flow condition, the permittee shall either raise the water level or lower the scum logs in the contact chamber to optimize the FOG removal efficiency.

The permittee shall report to the Department on an annual basis at the end of each calendar year all measures taken to comply with the plan. Noncompliance with the Plan shall be deemed an enforceable condition of this permit.

III. GENERAL CONDITIONS

A. Monitoring and Reporting

1. Representative Sampling

Samples and measurements shall be taken at times that are representative of the quantity and quality of the discharge, and at evenly spaced intervals.

2. Monthly Monitoring Results

a. Discharge Monitoring Reports

Monitoring results obtained during each calendar month shall be summarized and submitted electronically using the NetDMR tool. Results shall be submitted to the Department via NetDMR no later than the 28th of the month following the end of the reporting month.

b. Monthly Operating Reports (MORs)

The permittee shall submit monthly operating reports on a form acceptable to the Compliance Program. For each calendar month, the permittee shall submit to the Department a signed original of the MOR as an attachment to Copy of Record (COR) via NetDMR in electronic format concurrently with the Discharge Monitoring Report submission postmarked no later than the 28th day of the month following the reporting month.

III. GENERAL CONDITIONS

c. Toxic Chemical Reporting

Any data collected according to the Department's "Toxic Pollutant Monitoring Protocol and Reporting Requirements for Toxic Chemical Testing Analytical Data" (05/18/2011) being submitted to the Department, either in fulfillment of Special Conditions II.B or pursuant to the toxic chemical testing requirement, pretreatment requirements or toxic metals or organic data collected on a voluntary basis, must be accompanied by laboratory data reports. At a minimum, these reports shall include, the name of the facility, the date(s) of sampling, beginning and ending sample time, place of sampling collection, the sample type (grab, composite, etc.), the sample description (influent or effluent), the preservation method, the analytical method used for each parameter, the analytical method detection limit, the date of analysis, the name of person performing the analysis, the analytical result, and the name and address of the laboratory performing the analyses. Chain-of-custody forms shall also be submitted.

If the permittee prefers to submit hard copy of this information along with the supporting documentations instead of the electronic submission using NetDMR tool, they shall be submitted to:

Attention: Toxic Chemical Data
WSA – Compliance Program
Maryland Department of the Environment
1800 Washington Boulevard, STE 420
Baltimore, Maryland 21230-1708

3. Sampling and Analysis Methods

Analytical and sampling methods shall conform to test procedures for the analysis of pollutants as identified in 40 CFR Part 136 - "Guidelines Establishing Test Procedures for the Analysis of Pollutants."

4. Analytical Laboratory

Within 30 days after the effective date of this permit, the permittee shall submit to the Department the name and address of the analytical laboratory (including the permittee's own laboratory) which is used to perform the monitoring required by this permit.

If the laboratory changes during the effective period of this permit, the permittee shall notify the Department of the new laboratory within 30 days after the change.

III. GENERAL CONDITIONS

5. Monitoring Equipment Maintenance

   a. The permittee shall calibrate and maintain all monitoring and analytical instrumentation to ensure accuracy of measurements.

   b. Environment Article, Section 9-343 provides that any person who falsifies, tampers with, or knowingly renders inaccurate, any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six months per violation, or by both.

6. Recording of Results

   For each measurement or sample taken pursuant to the requirements of the permit, the permittee shall record the following information:

   a. the date, exact place and time of sampling or measurement;

   b. the person(s) who performed the sampling or measurement;

   c. the dates analyses were performed;

   d. the person(s) who performed each analysis;

   e. the analytical techniques or methods used; and

   f. the results of such analyses.

7. Additional Monitoring by Permittee

   If the permittee monitors any pollutant at the location(s) designated herein more frequently than required by this permit, using approved analytical methods as specified above, the results of such monitoring shall be included in the calculation and reporting of the values required in the Discharge Monitoring Report. The increased frequency shall also be reported. The results of any other monitoring performed by the permittee shall be made available to the Department upon request.

8. Record Retention

   All data used to complete the permit application and all records and information resulting from the monitoring activities required by this permit, including all records of sampling and analyses performed, calibration and maintenance of instrumentation, and recordings from continuous monitoring instruments, shall be retained for a minimum of three years. This period shall be extended automatically during the course of litigation or when requested by the Department.

III. GENERAL CONDITIONS

B. General Requirements

1. Permit Noncompliance - Notification Requirements

All discharges authorized herein shall be consistent with the terms and conditions of this permit. If, for any reason, the permittee does not comply with or will be unable to comply with any permit condition, the permittee shall, within 24 hours, notify the Department by telephone at (410) 537-3510 during work hours or at (866) 633-4686 during evenings, weekends, and holidays. The permittee shall provide the Department with the following information in writing within five days of such oral notification.

a. a description of the noncomplying discharge including the name of the stream and the impact upon the receiving waters;

b. cause of noncompliance;

c. the duration of the period of noncompliance and the anticipated time the condition of noncompliance is expected to continue;

d. steps taken by the permittee to reduce and eliminate the noncomplying discharge;

e. steps to be taken by the permittee to prevent recurrence of the condition of noncompliance;

f. a description of the accelerated or additional monitoring to determine the nature and impact of the noncomplying discharge; and

g. the results of the monitoring described in f. above.

2. Change in Discharge

The permittee shall report any anticipated facility expansions, production increases, or process modifications which will result in new, different or an increased discharge of pollutants by submitting a new application at least 180 days prior to the commencement of the changed discharge except that if the change only affects a listed pollutant and will not violate the effluent limitations specified in this permit, by providing written notice to the Department. Following such notice, the permit may be modified by the Department to include new effluent limitations on those pollutants.

III. GENERAL CONDITIONS

3. Facility Operation and Quality Control

All waste collection, control, treatment and disposal facilities shall be operated in a manner consistent with the following:

a. Facilities shall be operated efficiently to minimize upsets and discharges of excessive pollutants.

b. The permittee shall provide an adequate operating staff qualified to carry out operation, maintenance and testing functions required to ensure compliance with this permit. Superintendents and operators must be certified by the Board of Waterworks and Waste Systems Operators located at Montgomery Park Business Center, 1800 Washington Boulevard, STE- 410, Baltimore, Maryland 21230 in accordance with Title 12 of Environmental Article, Annotated Code of Maryland, and Section 26.06.01 of the COMAR.

c. Facility maintenance work, which adversely affects or may adversely affect the discharge quality, shall be scheduled during non-critical water quality periods.

4. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to waters of this State, human health or the environment resulting from noncompliance with any effluent limitations specified in this permit, and must perform accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge.

5. Bypassing

Any bypass of treatment facilities is prohibited unless the bypass does not cause any violations of the effluent limitations specified in Special Condition II.A, and is for essential maintenance to assure efficient operation, or unless the permittee can prove that:

a. the bypass is unavoidable to prevent loss of life, personal injury, or substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources; and

b. there are no feasible alternatives to the bypass; and

III. GENERAL CONDITIONS

c. the Department receives notification pursuant to General Condition III.B.1 above. Where the need for a bypass is known (or should have been known) in advance, this notification shall be submitted to the Department for approval at least ten days before the date of the bypass or at the earliest possible date if the period of advance knowledge is less than ten days; and

d. the bypass is allowed under conditions approved by the Department to be necessary to minimize adverse effects.

6. Conditions Necessary for Demonstration of Upset

An upset shall constitute an affirmative defense to an action brought for noncompliance with technology-based effluent limitations only if the permittee demonstrates, through properly signed, contemporaneous operating logs, or other relevant evidence, that:

a. an upset occurred and that the permittee can identify the specific cause(s) of the upset;

b. the permitted facility was at the time being operated in a prudent and workman-like manner and in compliance with proper operation and maintenance procedures;

c. the permittee submitted a 24-hour notification of upset in accordance with the reporting requirements of General Condition III.B.1 above;

d. the permittee submitted, within five calendar days of becoming aware of the upset, documentation to support and justify the upset; and

e. the permittee complied with any remedial measures required to minimize adverse impact.

In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

7. Sewage Sludge Requirements

The permittee shall comply with all State and federal laws and regulations regarding Sewage Sludge Management, and with any regulations promulgated pursuant to Environment Article, Section 9-230 et seq. or to the Clean Water Act, Section 405 (d). A Sewage Sludge Utilization Permit is required for the collection, handling, burning, storage, treatment, land application, disposal, or transportation of sewage sludge, processed sewage sludge, or any product containing these materials in Maryland. If the sludge is hauled out of the State for disposal, a transportation permit must be obtained from the Department.

III. GENERAL CONDITIONS

8. Power Failure

The permittee shall maintain compliance with the effluent limitations and all other terms and conditions of this permit in the event of a reduction, loss or failure of the primary source of power to the wastewater collection and treatment facilities.

9. Right of Entry

In accordance with 40 CFR §122.41(i), the permittee shall allow the Secretary of the Department, the Regional Administrator of the Environmental Protection Agency, and their authorized representatives (including an authorized contractor acting as a representative), upon presentation of credentials and other documents as required by the law, to:

a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act, any substances or parameters at any location.

10. Property Rights/Compliance With Other Requirements

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property, invasion of personal rights, or any infringement of federal, State or local laws or regulations.

11. Reports and Information

a. Upon request, the permittee shall provide to the Department, within a reasonable time, copies of records required to be kept by this permit. The permittee shall also furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit; or to determine compliance with this permit.

b. All applications, reports or information submitted to the Department shall be signed and certified as required by COMAR 26.08.04.01 and 40 CFR 122.22.

III. GENERAL CONDITIONS

c. Except for data determined to be confidential under COMAR 26.08.04.01, all data shall be available for public inspection at the Department and the Office of the Regional Administrator of the Environmental Protection Agency. Effluent data shall not be considered confidential.

d. Environment Article, Section 9-343 provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance, shall upon conviction be punished by a fine of not more than $10,000 or by imprisonment for not more than six months or by both.

12. Transfer of Ownership or Control

In the event of any change in ownership or control of facilities from which the authorized discharge emanates, the permit may be transferred automatically to another person only if:

a. the current permittee notify the Department, in writing, of the proposed transfer at least 30 days prior to the proposed transfer date;

b. the notice includes a written agreement between the existing permittee and a new permittee containing the specific date of proposed transfer of permit coverage, and of responsibilities and liabilities under the permit; and

c. neither the current permittee nor the new permittee receive notification from the Department, within 30 days of the Department's receipt of the agreement, of its intent to modify, revoke, reissue or terminate the existing permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph 12(b) above.

13. New Effluent Standards

This permit shall be revoked and reissued or modified to meet any effluent standard, water quality standard or prohibition established under the Environment Article, the Clean Water Act, or regulations promulgated thereto, and the permittee shall be so notified.

III. GENERAL CONDITIONS

14. Industrial Users

The permittee shall require all industrial users of the wastewater treatment facility to comply with user charges as established by the permittee, pursuant to Section 9-326(a)(i) of the Environment Article.

15. Noncompliance

Nothing in this permit shall be construed to preclude the institution of any legal action for noncompliance with State, federal or local laws and regulations.

16. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action against the permittee or to relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Clean Water Act or under the Environment Article.

17. Waterway Construction and Obstruction

The permit does not authorize the construction or placing of physical structures, facilities, debris, or the undertaking of related activities in any waters of this State including the 100 year flood plain.

18. Construction Permit

This permit is not a permit to construct. For a new facility, in order to make this permit valid, a construction permit shall be obtained to meet the requirements of COMAR 26.03.12.03(A) and Environment Article, Section 9-204(d).

19. Storm Water Pollution Prevention

(a) The permittee shall maintain coverage under the "General Permit for Discharges from Storm Water Associated with Industrial Activities" in accordance with Part II A of the State NPDES Permit No. MDR0000, and

(b) Industrial storm water is not authorized under this individual permit.

III. GENERAL CONDITIONS

20. Severability

If any provision of this permit shall be held invalid for any reason, the remaining provisions shall remain in full force and effect, and such invalid provisions shall be considered severed and deleted from this permit.

C. Wastewater Collection System

This permit shall not authorize discharges from the wastewater collection system for this facility.

1. Reporting Requirements

Pursuant to Environment Article Sub title 9-331.1, the permittee must report sanitary sewer overflows (SSOs) which result in the direct or potential discharge of raw or diluted sewage into the surface waters or ground waters of the State to the Water and Science Administration's Compliance Program. Concurrently, the permittee shall also notify the local health department. Such reports must be made via telephone as soon as practicable, but no later than 24 hours after the time that the permittee became aware of the event. Reportable SSOs include, but are not limited to, overflows into the surface of the ground, into waterways, storm drains, ditches or other manmade or natural drainage conveyances to surface or ground waters which are reasonably likely to reach waters of the State. Overflows that are wholly contained within buildings and not likely to discharge to waterways need not be reported. Treatment plant bypasses shall be reported under General Condition III.B.1. Telephone reports shall be made to (410) 537-3510 on weekdays between 8:00 a. m. and 5:00 p.m. After hours telephone notification shall be made to emergency response number at (866) 633-4686.

III. GENERAL CONDITIONS

C. 1. Reporting Requirements, Continued

When the incident is reported to the Department, the following information needs to be included:

a. the location of the overflow, including city or county,

b. the name of the receiving water, if applicable;

c. an estimate of the volume of sewage discharged;

d. a description of the sewer system or treatment plant component from which the overflow was released (such as manhole, crack in pipe, pumping station wet well or constructed overflow pipe);

e. an estimate of the overflow's impact upon public health and to waters of the State;

f. the cause or suspected cause of the overflow;

g. the estimated date and time when the overflow began and stopped or the anticipated time the overflow is expected to continue;

h. if known at the time of reporting, the steps taken or planned to reduce, eliminate and prevent reoccurrence of the overflow and a schedule of major milestones for those steps; (if unknown at the time the telephone report is made, the steps must be included in the written reports submitted under general conditions III.C.2).

i. if known at the time of reporting, measures taken or planned to mitigate the adverse impact of the overflow and a schedule of major milestones for those steps (if unknown at the time the telephone report is made, the steps must be included in the written reports submitted under general conditions III.C.2); and

j. whether there has already been a notification to the public and other City or County Agencies or Departments and how notification was done.

III. GENERAL CONDITIONS

C. 2. Written Reports

Within 5 calendar days following telephone notification of the event, the permittee shall provide MDE with a written report regarding the incident that includes, at a minimum, the information cited above. The permittee shall maintain copies of all overflow records and reports, work orders associated with investigation of overflows, a list and description of complaints from customers or others related to overflows (including backups of sewage in to houses or businesses), and documentation of performance and implementation measures for minimum period of three years and shall make this information available to MDE for review upon written request.

This wastewater collection system provision may be superseded by a general permit for collection systems, when such a permit is issued by MDE and the permittee have been accepted for registration under the permit.

3. Other Requirements

The permittee, as directed by the State or local health department, shall also be responsible for posting notification in close proximity to the affected area/stream and for conducting appropriate water quality sampling as deemed necessary.

D. Permit Expiration, Modification, or Revocation

1. Expiration of Permit

This permit and the authorization to discharge shall expire at midnight on the expiration date of the permit unless the permittee has submitted a timely and complete reapplication pursuant to Section II.I.

2. [Reserved.]

3. Permit Modification - Request of Responsible Permittee

A permit may be modified by the Department upon the written request of the permittee and after notice and opportunity for a public hearing in accordance with the provisions set forth in COMAR 26.08.04.10.

4. Permit Modification, Suspension, Revocation - Violation of Laws

A permit may also be modified, suspended or revoked by the Department, in the event of a violation of the terms or conditions of the permit, or of State or federal laws and regulations and in accordance with the provisions set forth in COMAR 26.08.04.10. This permit may be suspended or revoked upon a final, unreviewable determination that the permittee lacks, or is in violation of, any federal, state, or local approval necessary to conduct the activities authorized by this permit.

IV. CIVIL AND CRIMINAL PENALTIES

A. Civil Penalties for Violations of Permit Conditions

In addition to civil penalties for violations of State water pollution control laws set forth in Section 9-342 of the Environment Article, Annotated Code of Maryland, the Clean Water Act provides that any person who violates Section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under Section 402 of the Act or in a permit issued under Section 404 of the Act, is subject to a civil penalty not to exceed $37,500 per day for each violation.

B. Criminal Penalties for Violations of Permit Conditions

In addition to criminal penalties for violations of State water pollution control laws set forth in Section 9-343 of the Environment Article, Annotated Code of Maryland, the Clean Water Act provides that:

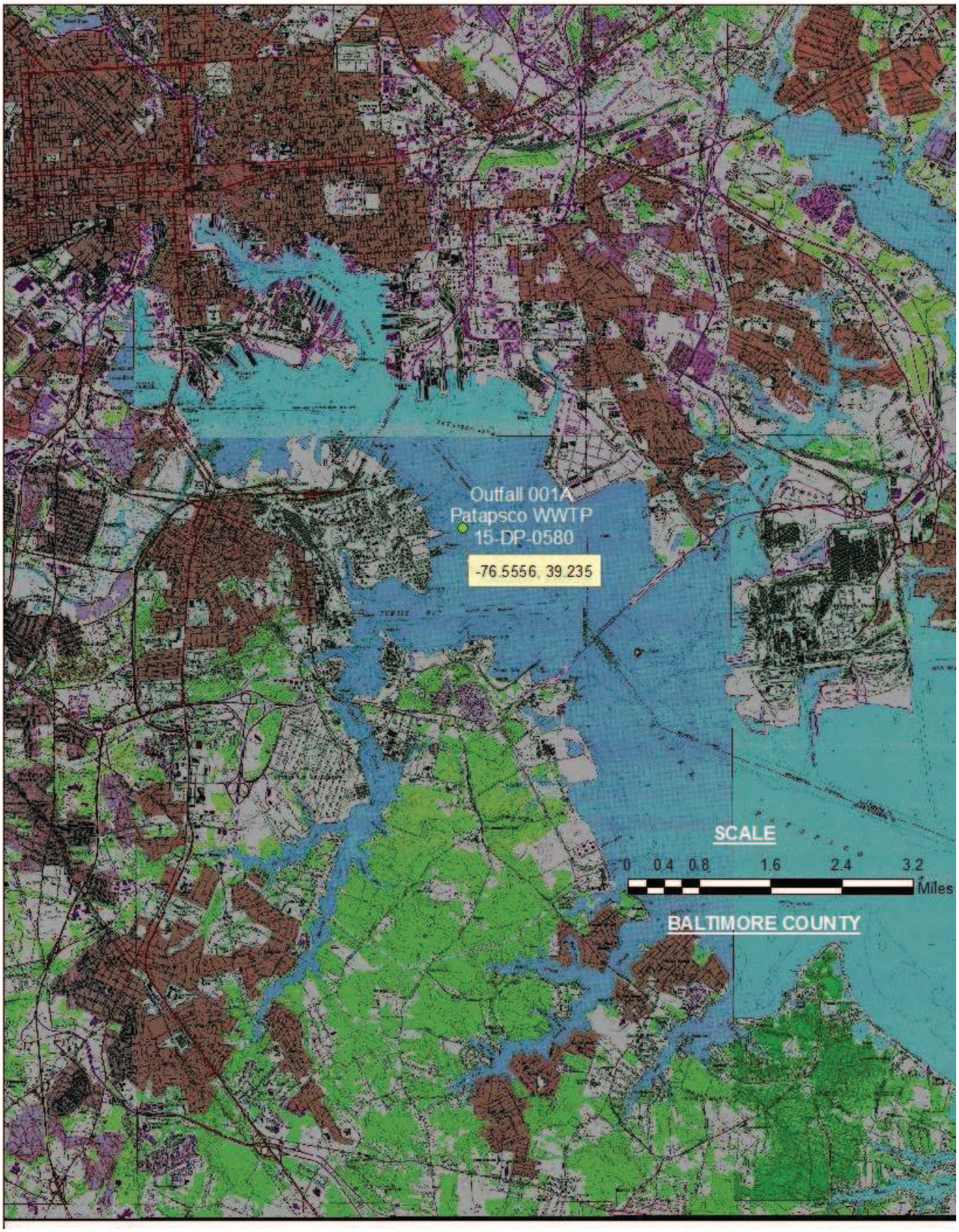
1. any person who negligently violates Section 301, 302, 306, 307, 308, 318, or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under Section 402 of the Act, or in a permit issued under Section 404 of the Act, is subject to a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than one year, or by both.

2. any person who knowingly violates Section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under Section 402 of the Act, or in a permit issued under Section 404 of the Act, is subject to a fine of not less than $5,000 nor more than $50,000 per day of violation, or by imprisonment for not more than three years, or by both.

3. any person who knowingly violates Section 301, 302, 306, 307, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under Section 402 of the Act, or in a permit issued under Section 404 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, is subject to a fine of not more than $250,000 or imprisonment of not more than 15 years, or both.

4. any person who knowingly makes any false material statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under the Act or who knowingly falsifies, tampers with or renders inaccurate any monitoring device or method required to be maintained under the Act, is subject to a fine of not more than $10,000 or by imprisonment for not more than two years, or by both.

V. MAP SHOWING DISCHARGE POINT LOCATION



VI. NPDES PROGRAM

On September 5, 1974, the Administrator of the U.S. Environmental Protection Agency approved the proposal submitted by the State of Maryland for the operation of a permit program for wastewater discharges pursuant to Section 402 of the Clean Water Act.

Pursuant to the aforementioned approval, this discharge permit is both a State of Maryland discharge permit and an NPDES permit.

D. Lee Currey, Director
Water and Science Administration

Exhibit PT2

Patapsco Wastewater Treatment Plant | Weekly and Monthly Effluent Limit Exceedances | 1/1/2020 through 12/14//2021

	Monitoring Period End Date	Violation Code	Parameter Code	Parameter Desc	Statistical Base Short Desc	Limit Unit Short Desc	Limit Value	DMR Value	Percent Exceedance	Monthly Violations	Weekly Violations
1	1/31/20	E90	61211	Enterococci	MO GEOMN	MPN/100mL	35	47	34	1	
2	7/31/20	E90	61211	Enterococci	MO GEOMN	MPN/100mL	35	56.4	61	1	
3	8/31/20	E90	00530	Solids, total suspended	MX WK AV	lb/d	27,000	30,500	13		1
4	8/31/20	E90	00530	Solids, total suspended	MX WK AV	mg/L	45	75	67		1
5	8/31/20	E90	61211	Enterococci	MO GEOMN	MPN/100mL	35	74	111	1	
6	7/31/21	E90	00610	Nitrogen, ammonia total [as N]	MX MO AV	lb/d	3,836	4,140	8	1	
7	7/31/21	E90	00610	Nitrogen, ammonia total [as N]	MX MO AV	mg/L	6.3	9.7	54	1	
8	7/31/21	E90	61211	Enterococci	MO GEOMN	MPN/100mL	35	108	209	1	
9	3/31/21	E90	61211	Enterococci	MO GEOMN	MPN/100mL	35	53	51	1	
10	4/30/21	E90	00310	BOD, 5-day, 20 deg. C	MX MO AV	lb/d	18,000	18,900	5	1	
11	4/30/21	E90	00310	BOD, 5-day, 20 deg. C	MX MO AV	mg/L	30	40	33	1	
12	4/30/21	E90	00310	BOD, 5-day, 20 deg. C	MX WK AV	mg/L	45	49	9		1
13	4/30/21	E90	00530	Solids, total suspended	MX MO AV	mg/L	30	32	7	1	
14	4/30/21	E90	61211	Enterococci	MO GEOMN	MPN/100mL	35	48	37	1	
15	5/31/21	E90	00310	BOD, 5-day, 20 deg. C	MX MO AV	mg/L	30	31	3	1	
16	5/31/21	E90	00530	Solids, total suspended	MX MO AV	mg/L	30	31	3	1	
17	5/31/21	E90	00610	Nitrogen, ammonia total [as N]	MX MO AV	mg/L	6.3	7.6	21	1	
18	5/31/21	E90	61211	Enterococci	MO GEOMN	MPN/100mL	35	119	240	1	
19	6/30/21	E90	00530	Solids, total suspended	MX WK AV	lb/d	27,000	31,700	17		1
20	6/30/21	E90	00530	Solids, total suspended	MX WK AV	mg/L	45	55	22		1
21	6/30/21	E90	00610	Nitrogen, ammonia total [as N]	MX MO AV	mg/L	6.3	7.5	19	1	
22	6/30/21	E90	61211	Enterococci	MO GEOMN	MPN/100mL	35	41	17	1	
23	7/31/21	E90	00530	Solids, total suspended	MX MO AV	mg/L	30	34	13	1	
									Total	18	5

Weekly & Monthly Violations

Monthly	Weekly	**Total**
18	5	23

Weekly & Monthly Violation Days

Monthly	Weekly	**Total**
540	35	575

Exhibit PT3

2020 Seasonal Effluent Limit Exceedances				
	Nitrogen		**Phosphorous**	
Month	Monthly Load (lbs/month)	Cumumlative Load (lbs/year)	Monthly Load (lbs/month)	Cumumlative Load (lbs/year)
May	86,476	86,476	8,506	8,506
June	78,208	164,684	8,830	17,336
July	60,502	225,186	8,643	25,979
August	161,450	386,636	24,839	50,817
September	51,986	438,622	5,885	56,703
October	44,333	482,956	2,891	59,594
Total Seasonal Load		482,956		59,594
Seasonal Load Limit		333,330		33,330
Seasonal Load Exceedance		149,626		26,264
Seasonal Exceedance Date		8/21/20		8/10/20
Seasonal Violations		1		1
Seasonal Violation Days		72		83
Total 2020 Seasonal Violation Days		155		

2021 Seasonal Effluent Limit Exceedances*				
.	**Nitrogen**		**Phosphorous**	
Month	Monthly Load (lbs/month)	Cumumlative Load (lbs/year)	Monthly Load (lbs/month)	Cumumlative Load (lbs/year)
May	171,528	171,528	*	*
June	151,942	323,471	28,137	28,137
July	192,996	516,467	37,013	65,150
August	91,788	608,254	27,148	92,299
September	120,095	728,349	21,116	113,414
October	134,203	862,552	19,736	133,150
Total Seasonal Load		862,552		133,150
Seasonal Load Limit		333,330		33,330
Seasonal Load Exceedance		529,222		99,820 *
Seasonal Exceedance Date		7/2/21		7/5/21 *
Seasonal Violations		1		1
Seasonal Violations Days		122		119 *
Total 2021 Seasonal Violation Days		241 *		

2020 Annual Effluent Limit Exceedances				
	Nitrogen		**Phosphorous**	
Month	Monthly Load (lbs/month)	Cumumlative Load (lbs/year)	Monthly Load (lbs/month)	Cumumlative Load (lbs/year)
January	107,309	107,309	16,300	16,300
February	88,753	196,062	9,004	25,304
March	147,088	343,149	14,069	39,373
April	119,004	462,153	11,334	50,707
May	86,476	548,629	8,506	59,213
June	78,208	626,837	8,830	68,043
July	60,502	687,340	8,643	76,686
August	161,450	848,790	24,839	101,524
September	51,986	900,776	5,885	107,410
October	44,333	945,109	2,891	110,301
November	37,616	982,725	4,067	114,368
December	46,412	1,029,137	3,978	118,346
Total Annual Load		1,029,137		118,346
Annual Load Limit (Trib. Strategy		889,300		66,700
Annual Load Limit (Conc.-Based)		543,380		40,754
Annual Load Exceedance		485,757		77,592
Annual Exceedance Date		5/30/20		4/4/21
Annual Violations		1		1
Annual Violation Days		216		272
Total 2020 Annual Violation Days		488		

2021 Annual Effluent Limit Exceedances*				
	Nitrogen		**Phosphorous**	
Month	Monthly Load (lbs/month)	Cumumlative Load (lbs/year)	Monthly Load (lbs/month)	Cumumlative Load (lbs/year)
January	52,575	52,575	2,103	2,103
February	214,334	266,909	5,468	7,571
March	275,902	542,811	9,705	17,276
April	242,272	785,083	22,937	40,213
May	171,528	956,611	*	40,213
June	151,942	1,108,554	28,137	68,350
July	192,996	1,301,550	37,013	105,363
August	91,788	1,393,337	27,148	132,512
September	120,095	1,513,432	21,116	153,627
October	134,203	1,647,635	19,736	173,363
November	202,848	1,850,483	20,774	194,137
December	*	1,850,483	*	194,137
Total Annual Load		1,850,483		194,137
Annual Load Limit (Trib. Strategy		889,300		66,700
Annual Load Limit (Conc.-Based)		509,165		38,187
Annual Load Exceedance		1,341,318 *		155,950 *
Annual Exceedance Date		3/28/21 *		4/28/21 *
Annual Violations		1		1
Annual Violation Days		279 *		248 *
Total 2021 Annual Violation Days		527 *		

2020-2021 Seasonal Violations	4	
2020-2021 Annual Violations	4	
Total	8	
20-2021 Seasonal Violation Days	396	
2020-2021 Annual Violation Days	1,015	*
Total	1,411	*

* Incomplete. Load data not yet submitted.

Exhibit PT4

Monitoring Period End Date	Perm Feature ID	Monitoring Location Code	Limit Season ID	Parameter Desc	Statistical Base Short Desc	Limit Unit Short Desc	Limit Value	DMR Value	NODI Code	Violation Code	Incomplete DMR
6/30/17	001	1	0	Cyanide, free [amen. to chlorination]	MO AVG & LOAD	ppb & lb/d			M	D80	1
2/28/19	001	1	0	Oxygen, dissolved [DO]	INST MIN	mg/L	5			D90	1
3/31/19	001	1	0	Oxygen, dissolved [DO]	INST MIN	mg/L	5			D90	1
4/30/19	001	1	0	Oxygen, dissolved [DO]	INST MIN	mg/L	5			D90	1
6/30/19	001	1	0	Oxygen, dissolved [DO]	INST MIN	mg/L	5		E	D90	1
7/31/19	001	1	0	BOD, 5-day, 20 deg. C	MX MO AV	lb/d	18,000		M	D90	1
9/30/19	001	1	0	Solids, total suspended	MX MO AV	lb/d	18,000		M	D90	1
10/31/19	001	1	0	Phosphate, ortho [as P]	MO AVG	lb/d & mg/L			M	D80	1
11/30/19	001	1	0	Phosphate, ortho [as P]	MO AVG	lb/d			M	D80	1
9/30/20	001	1	0	Cyanide, free [amen. to chlorination]	MO AVG	ppb			M	D80	1
11/30/20	001	1	0	BOD, 5-day, 20 deg. C	MX MO AV	lb/d	18,000		M	D90	1
12/31/20	001	1	0	Solids, total suspended	MX MO AV	lb/d	18,000		M	D90	1
1/31/21	001	1	0	Solids, total suspended	MX MO AV	lb/d	18,000		M	D90	1
2/28/21	001	1	0	Cyanide, free [amen. to chlorination]	MO AVG	ppb			M	D80	1
3/31/21	001	1	0	BOD, 5-day, 20 deg. C	MX MO AV	lb/d	18,000		M	D90	1
4/30/21	001	1	0	Cyanide, free [amen. to chlorination]	MO AVG	ppb			M	D80	1
5/31/21	001	1	0	Phosphorus, total [as P]	MX MO AV	lb/d	1,220		M	D90	1
8/31/21	001	1	0	Solids, total suspended	MX MO AV & MX WK AV	lb/d & mg/L	various		M	D90	1

Violations	18 *
Days of Violations	540

* Data was not provided for one or more parameter during the monitoring period.