Sep 15, 2021

VIA ELECTRONIC MAIL

Mr. Mark Lewis
Directorate of Public Works
201 Beasley Drive, Suite 252
Fort Detrick, Maryland 21702-5016

RE: Discharge Permit for Fort Detrick Wastewater treatment Plant
State Discharge Permit 18-DP-2527, NPDES Permit MD0020877

Dear Mr. Lewis:

Enclosed is the above discharge permit with the effective date indicated on the cover page. The permittee is responsible for complying with all permit conditions. You are therefore advised to read the permit carefully and become thoroughly familiar with the requirements in order to maintain compliance with the permit.

The annual maximum loading rate limits for Total Nitrogen, Total Phosphorus and Total Suspended Solids (TSS) are included in the permit. Attached please find a copy of blank and sample forms for your use to calculate monthly load, year-to-date cumulative load and annual maximum load for these parameters. At the end of each calendar year, the permittee will be required to fill out and submit this form along with the Discharge Monitoring Report (DMR) for the month of December. You may contact the Project Manager to obtain this form in an electronic version (EXCEL SPREADSHEET).

Your facility has been approved by MDE to electronically submit Discharge Monitoring Report (DMR) through NetDMR. Therefore you are required to submit monthly DMRs by the 28th of the following month and all other documents as listed in the discharge permit electronically through NetDMR. Should you encounter problems in electronic submission for any month, please consult the MDE's Compliance Program by calling at (410) 537-3510 to avoid missing the deadline for submission of the above stated documents.

You will also find enclosed a copy of the Federal Register published on May 19, 2021 with final rule to update the Code of Federal Regulations (CFR), Title 40, Part 136 - "Guidelines Establishing Test Procedures for the Analysis of Pollutants" which is in effect from July 19, 2021. For future reference, please be advised to visit the U.S Government Publishing Office (USGPO) website **https://mdewwp.page.link/40CFR136** (this link is case-sensitive) regularly to obtain updated guidelines. Unless otherwise specified, the most updated guidelines in 40 CFR Part 136 are required to be used for the analyses of pollutants specified in this permit.

In addition, we have enclosed a copy of the table of the Minimum Monitoring Requirements. Also, enclosed is a copy of transmittal cover sheet for the WWTP Effluent Toxic Chemical Monitoring Data, copy of the most updated Department's "Toxic Pollutant Monitoring Protocol and Reporting Requirements for Toxic Chemical Testing Analytical Data (amended on 12/02/2019)", and a copy of the most updated Department's "Effluent Biotoxicity Testing Protocol for Industrial and Municipal Effluents (amended on 1/23/2019). Please visit Maryland Department of the Environment (MDE) website link below for future updates of these guidance documents:
https://mde.maryland.gov/programs/Permits/WaterManagementPermits/Pages/waterpermits.aspx (this link is case-sensitive).

If you have any questions, please contact Mahendra Chawla, Project Manager, Surface Discharge Permits Division, at (410) 537-3679 or Email at Mahendra.Chawla@maryland.gov.

Sincerely,

Heather Barthel for (Sep 15, 2021 15:34 EDT)

D. Lee Currey, Director
Water and Science Administration

Enclosures

cc: Ms. Rebecca K. Crane, USEPA (electronic copy)
Mr. Barry Glotfelty, Director, Environmental Health, Frederick County Health Department (electronic copy at bglotfelty@frederickcountymd.gov)
Mr. Scott Boylan, Western Inspection Division Chief (electronic copy)
Mr. Matt Rowe (electronic copy)
Mr. Dennis Rasmussen (electronic copy)

DISCHARGE PERMIT

NPDES Discharge Permit MD0020877	**State Discharge Permit** 18-DP-2527
Effective Date: 11/01/2021	**Expiration Date:** 10/31/2026
Modification Date: (Not applicable)	**Reapplication Due Date:** 04/30/2025

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:

Department of the Army
U S Army Garrison, Fort Detrick
201 Beasley Drive, Suite 204A
Frederick, Maryland 21702

TO DISCHARGE FROM: Fort Detrick Wastewater Treatment Plant

LOCATED AT: 1780 North Market Street
Frederick, Frederick County, Maryland 21701

THROUGH OUTFALL: 001A (WWTP Effluent)

TO: the Monocacy River, designated as Use IV-P waters, protected for recreational trout and public water supply; 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. Effluent Limitations, Outfall 001A [1] [2] [3] [4]

The quality of the effluent discharged by the facility at a discharge point location (Outfall 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	170	250	N/A	10	15	N/A
TSS	170	250	N/A	10	15	N/A
TKN (4/1 to 9/30)	50	75	N/A	3.0	4.5	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	60,800	REPORT
Total Phosphorus-P [4] [5] [6] [7]	REPORT	1,827	REPORT
Total Nitrogen-N [5] [6] [7]	REPORT	24,364	REPORT

	Effluent Limits	
Effluent Characteristics	Maximum	Minimum
E. coli [4]	126 MPN/ 100 ml monthly geometric mean value	N/A
Total Residual Chlorine [8]	Non-detectable level (See footnote- 8)	N/A
pH	8.5	6.5
Dissolved Oxygen (All Year)	N/A	5.0 mg/l at anytime

An annual average flow of 2.0 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.

II. SPECIAL CONDITIONS

A. Footnotes for Effluent 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.

(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) Lower Monocacy River is on the 303(d) list as the impaired waters for nutrients (1996), sediments (1996), and fecal bacteria (2002). A Total Maximum Daily Load (TMDL), approved by the EPA on 05/22/2013, allocated a total phosphorus load of 1, 827 lbs/yr, a TMDL for E.coli approved on 12/03/2009 allocated a limit of 126 MPN/100 ml and a TMDL for sediment approved on 03/17/2009 allocated a load limit of 30.4 tons/yr 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.

(5) The permittee shall operate the ENR facility in a manner that optimizes the nutrient removal capability of the facility. The first exceedance of the permit limit shall be counted and reported as daily exceedances beginning from the first exceedance, determined to the nearest day, through December 31. In addition, after any such exceedance, 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 *Chesapeake Bay TMDL based* annual maximum loading rate limitations 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): 0.30 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.J for further details.

The *concentration-based* loading requirements may be revised if the limits or schedule 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 all applicable regulations and requirements in effect at that time.

(8) Total residual chlorine limitation of ***the nondetectable level*** 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 Fort Detrick 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)(18)	All Year	Two per week	24-hour composite
Total Suspended Solids (9)(18)	All Year	Two per week	24-hour composite
TKN (9)(11)(18)	All Year	Two per week	24-hour composite
Total Ammonia Nitrogen as N (9)(10)(11)(15)(16)(18)	All Year	Two per week	24-hour composite
Organic Nitrogen as N (9)(10)(11)(16)(18)	All Year	Two per week	Calculated
(Nitrite + Nitrate) as N (9)(10)(11)(16)(18)	All Year	Two per week	24-hour composite
Total Nitrogen as N (9)(11)(12(17)(18)	All Year	Two per week	Calculated
Orthophosphate as P (9)(10)(15)(18)	All Year	Two per week	24-hour composite
Total Phosphorus(9)(12)(17)(18)	All Year	Two per week	24-hour composite
E. coli (4)(9)(18)	All Year	Two per week	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
Benzidine (9)*N-Nitrosodimethylamine (9)*	All Year	One per quarter	24-hour composite
Hexachlorobenzene (9)*	All Year	One per quarter	24-hour composite
Temperature(9)(10)(19)**	All Year	One per quarter	24- hour composite
(Effluent+Stream) Flow(9)((15)(16)	All Year	One per week**	(i – s)
Total Flow(9)(17)	All Year	Continuous	Recorded
	All Year	Monthly	Calculated

II. SPECIAL CONDITIONS

Footnotes for the monitoring requirements:

* These toxic substances shall be monitored without limits on a quarterly basis starting from the effective date of the permit. The monitoring of these chemicals shall be performed in accordance with the MDE's latest edition of "*Toxic Pollutant Monitoring Protocol and Reporting Requirements for Toxic Chemical Testing Analytical Data*". The testing laboratory shall measure and report the results in units of µg/L using detection limits specified in the above protocol. The results shall be reported at the end of each quarter ending in March, June, September and December. After the completion of the first four quarterly samplins, if the results indicate that the effluent levels of these chemicals have no reasonable potential to exceed aquatic life or human health toxic criteria, the permittee may petition the Department to discontinue the regular quarterly monitoring requirements for these chemicals.

** The temperature monitoring frequency of One per week means One set of the temperature measurements required during a calendar week. Each set of the temperature measurements shall include a minimum of two temperature measurements including one in the morning and one in afternoon on the same day. See Special Condition II. L for further details.

(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), TKN (00625), 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), Benzidine (39120), Benzo(a) Anthracene (34526), Acrylonitrile (34215), Aldrin (39330), N-Nitrosodimethylamine (34438), N-Nitosodi-n-Propylamine (34428), Dieldrin (39380), 3,3'-Dichlorobenzidine (34631), Hexachlorobenzene (39700), Heptachlor Epoxide (39420), Toxaphene (39400), PCB (04166), pH (00400), Flow (50050), Total flow (82220), and Temperature (00011).

(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 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. Total Kjeldahl Nitrogen (TKN) is defined as the total concentration of organic nitrogen and ammonia as N. All nitrogen species must be sampled at the same day. The monitoring result for organic nitrogen may be calculated through the subtraction of the total Ammonia as N monitoring result from the result of TKN sample taken at 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.J 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-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 Fort Detrick 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.

(14) Samples for these parameters (total residual chlorine, pH and dissolved oxygen) shall be taken at intervals evenly distributed throughout the staffed period each day to comply with the General Condition III.A for the representative sampling requirements.

II. SPECIAL CONDITIONS

(15) 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).

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

(17) "Total 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

(18) The permittee shall distribute the timing for effluent sampling with (a) minimum of 48-hour apart for two per week monitoring frequencies, (b) minimum of 24-hours apart for three per week monitoring frequencies, or (c) no more than one per day for five per week monitoring frequencies. The 48 hours interval for two per week sampling shall be defined as the period between the starting times of the two consecutive effluent sample collections for the same effluent parameter.

(19) Temperatures of the effluent and stream shall be monitored and reported in accordance with the Special Condition II.K.

Refer to Definition I.J for Sample Type "i-s (immersion stabilization)". The temperatures shall be measured using a device which has accuracy of at least 0.1^{o} C and meeting the appropriate standards stated in 40CFR Part 136.

B(2). Report Submittal Requirements

Report Description	Reporting Frequency	Report Submittal Deadline
Effluent Biomonitoring Study Plan and Toxic Chemical Testing Plan (20)(21)	See footnote - 21	See footnote – 21
Effluent Biomonitoring Study Report (20)(22) (24)	See footnotes- 22 & 24	See footnote- 24
Effluent Toxic Chemical Testing Report (20)(23)(24)	See footnotes – 23 & 24	See footnote- 24
Wastewater Capacity Management Plan (WCMP) (20(25)	See footnote – 25	See footnote- 25
Flow Capacity Report (FCR) (20(26)	See footnote - 26	See footnote- 26
Gross Beta Activity Report for: 1) WWTP Influent 2) WWTP Effluent 3) Landfill Leachate	Quarterly (see page 22)	Quarterly (see page 22)

(20) 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.

(21) 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.

(22) 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.

(23) 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.

II. SPECIAL CONDITIONS

(24) 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).

(25) 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.

(26) 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.

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.

If the most recent three year average flow is over 80% of its design capacity or if it is anticipated to exceed 80 % in the following year, a Wastewater Capacity Management Plan (WCMP) must be submitted to the Department using NetDMR no later than January 28 of the following year. Thereafter, the "Wastewater Flow Capacity Report (WFCR)" and "worksheets (Style #1 and #2) for WFCR" shall be submitted to the Department using NetDMR tool no later than January 28th of each year. The permittee can obtain the WCMP guidance document and forms from the Department's web site links listed below:

(a) https://mdewwp.page.link/CMPGuidance for WCMP guidance document,
(b) https://mdewwp.page.link/CMPFlowCap for WFCR,
(c) https://mdewwp.page.link/CMPws1 for WFCR's Worksheet # 1, and
(d) https://mdewwp.page.link/CMPws2 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
Wastewater Discharge Permits Program
Water and Science Administration (WSA)
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 001A 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 control/quality assurance

   h. report preparation

   i. testing schedule

2. The testing program shall consist of definitive testing for four annual testing events. Three of the events shall have acute testing and one of the events shall have 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. One of these first two testing events shall include the chronic tests. This testing shall be initiated no later than January or February following the Department's acceptance of the study plan. If results from any of the required tests suggest toxicity in the effluent, the permittee shall repeat the required test within 60 days as a follow-up test. If toxicity is observed from the results of the follow-up test, the permittee shall be subject to the requirements specified in Section 10 below of this Special Condition.

   a. The acute testing shall consist of 48-hour static renewal tests using fathead minnow and the 48-hour static renewal tests using a daphnid.

   b. The chronic testing shall include the Ceriodaphnia survival and reproduction test and the fathead minnow larval survival and growth test.

   c. Acute test results shall be expressed as LC_{50}. Chronic 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

D. 4. The following EPA documents discuss the appropriate methods:

a. Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, Fifth Edition, EPA-821-R-02-012, October 2002

b. Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms Fourth Edition, EPA-821-R-02-013, 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), 01/23/2019".

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

D. 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 tool. The material shall be attached as separate single files and labeled as "Biomonitoring Program Study Plan" and "WET Test Results" in 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
Montgomery Park Business Center
1800 Washington Boulevard, Suite 420
Baltimore, MD 21230-1708

The permittee shall notify the Department at the above address or via email at **mde.biomonitoring@maryland.gov** immediately upon electronic submission of the biomonitoring program study plan, WET test results and associated material 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

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.

II. SPECIAL CONDITIONS

E. 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 TRE-related materials shall be submitted electronically to the Department if the permittee has already been approved for the NetDMR tool. The material shall be attached as a separate single file and labeled as "TRE" in 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
Montgomery Park Business Center
1800 Washington Boulevard, Suite 420
Baltimore, MD 21230-1708

The permittee shall notify the Department at the above address or via email at **mde.biomonitoring@maryland.gov** immediately upon electronic submission of TRE material 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 the sets of 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, 12/2/2019".

4. Toxic chemical testing shall be performed in accordance with 40 CFR Part 136 and the Department-approved toxic chemical testing plan. Also, the MDE's protocol titled "REPORTING REQUIREMENTS FOR TOTAL PCBs (PCB CONGENERS) BY EPA METHOD 1668 C or A, rev 11/9/2017" shall be utilized when analyzing effluent samples for Total Polychlorinated Biphenyls (Total PCBs) using EPA Method 1668 A or C. The total PCBs concentration is the summation of all individually measured congeners. 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, 12/2.2019"./

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

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F. 9. All 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. The results shall be attached as a separate single file and labeled as "Toxic Chemical Testing Results" in 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, Suite 420
Baltimore, MD 21230-1708

The permittee shall notify the Department at the above address or via email at **mde.biomonitoring@maryland.gov** immediately upon electronic submission of results through the NetDMR tool.

G. Use of Sufficiently Sensitive Test Methods

In accordance with 40 C.F.R. § 122.44(i)(1)(iv), the permittee shall use sufficiently sensitive test procedures (i.e., methods) approved under 40 C.F.R. Part 136 or required under 40 C.F.R. Chapter I, Subchapter N or O, for the analysis of pollutants or pollutant parameters limited in this permit. A method is considered "sufficiently sensitive" when either: (1) the method minimum level (ML) is at or below the level of the effluent limit established in this permit for the measured pollutant or pollutant parameter; or (2) the method has the lowest ML of the analytical methods approved under 40 C.F.R. Part 136 or required under 40 C.F.R. Chapter I, Subchapter N or O for the measured pollutant or pollutant parameter. The ML is not the minimum level of detection, but rather the lowest level at which the test equipment produces a recognizable signal and acceptable calibration point for a pollutant or pollutant parameter, representative of the lowest concentration at which a pollutant or pollutant parameter can be measured with a known level of confidence. For the purposes of this permit, the detection limit is the lowest concentration that can be reliably measured within specified limits of precision and accuracy for a specific laboratory analytical method during routine laboratory operating conditions (i.e., the level above which an actual value is reported for an analyte, and the level below which an analyte is reported as non-detect).

II. SPECIAL CONDITIONS

H. NON-DOMESTIC WASTEWATER CONTROL PROGRAM

1. OBJECTIVE

The permittee shall operate and maintain a program for controlling the discharge of non-domestic wastewater to the sewage treatment plant to prevent pass through of pollutants to State waters, prevent interference with the operation of the sewage treatment facility and to facilitate the safe and efficient disposal of sewage sludge.

2. IMPLEMENTATION

a. The permittee shall establish a sewer use regulation applicable to non-domestic discharges to the sewage treatment plant which sets forth their responsibility to comply with requirements established therein. The permittee shall provide notice of the sewer use regulation to all dischargers of non-domestic wastewater. The requirements of this regulation are not requirements of this State Discharge Permit and are not directly enforceable by the Department through this Permit.

b. The permittee shall evaluate the need, and develop where necessary, site-specific discharge limitations applicable to all non-domestic dischargers. The permittee shall consider the methodology described in "*Guidance Manual on the Development and Implementation of Local Discharge Limitations Under the Pretreatment Program*" (USEPA, Office of Water Enforcement and Permits, December 1987) when evaluating and developing site-specific discharge requirements. Site-specific discharge limitations shall be made part of the sewer use regulation described in item #2 above.

c. The permittee shall evaluate new users of the sewage treatment plant and designate Significant Industrial Users (SIUs). An SIU shall be:

- Any user which would be subject to Categorical Pretreatment Standards (Industries subject to 40 CFR Chapter 1 Subchapter N Parts 400 - 471) if the discharge were to a Publicly Owned Treatment Works;
- Any user which discharges an average of 25,000 gallons per day or more of process wastewater (excluding sanitary, noncontact cooling and boiler blowdown);
- Any user which discharges a process wastestream which makes up more than five percent or more of the hydraulic or organic capacity of the sewage treatment facility;
- Any user which is designated as such on a discretionary basis by the permittee;
- Any user found by the permittee to have a significant impact either singly or in combination with other contributing discharges to the sewage plant, the quality of the sludge, the sewage plant's effluent quality or air emission generated by the system; except that

II. SPECIAL CONDITIONS

H. 2. c. - Any user meeting the criteria above which has no reasonable potential for adversely affecting the sewage plant's operation or for violating any discharge requirement may be determined by the permittee not to be an SIU.

d. The permittee shall have procedures for the periodic review, inspection and/or sampling of all dischargers designated as SIUs to ensure their conformance with the requirements of the sewer use regulation.

e. The permittee shall have procedures for correcting non-complying discharges. The permittee shall develop a nonconforming discharge investigation and response plan for determining when a nonconforming discharge has occurred and procedures for implementing corrective action.

3. REQUIRED NOTIFICATIONS

a. The permittee shall notify the Department prior to the commencement of discharge from any new SIU. In addition to identification of all SIUs, the permittee shall also describe the specific discharge requirements to which the SIU is subject.

b. Within 180 days of the effective date of the permit, the permittee shall submit the following information describing the Non-Domestic Wastewater Control Program to the Department for review and approval:

- A description of the staff/unit/group which is responsible for implementation of the requirements contained in this special condition;
- A copy of the sewer use regulation;
- Documentation of the evaluation of the need for site-specific discharge limitations and any site-specific limits established from this evaluation;
- Written procedures for the review and evaluation of new discharges;
- Written procedures for performing periodic inspection and sampling of SIUs;
- A non-complying discharge investigation and response plan; and
- A list of users designated as SIUs and a description of the specific discharge requirements to which the SIU is subject.
- A best management practice plan for disposal of laboratory wastewater, directly or indirectly, into the Fort Detrick sanitary sewer system. This includes any liquids, solids or gases containing viable pathogenic or parasitic organisms including but not limited to viruses, bacteria, algae, protozoa and amoebas that may pose a health hazard or interfere with the proper operation of the wastewater collection or treatment system.

The Department shall provide written notice to the permittee within 30 days of receipt of the above information of any deficiencies in the proposed Program. In the event that the Department does not provide comments with 30 days of receipt, the Program shall be considered approved. Subsequently, the Department may provide annual review and comment on the Program.

c. The permittee shall notify the Department within 30 days of substantial modifications to the Program.

II. SPECIAL CONDITIONS

H. 4. ADDITIONAL REQUIREMENT FOR NON-DOMESTIC DISCHARGERS

The Department reserves the right to establish additional discharge requirements, through limitations established at internal monitoring locations under this permit or through a separate permit(s), for any non-domestic discharger.

5. RADIOACTIVE WASTEWATER REQUIREMENTS

a. The permittee shall take all appropriate measures to prohibit the introduction into the sanitary sewer, by the permittee and any users of Ft. Detrick Wastewater Treatment Plant, of any radioactive wastes or isotopes of such half-life or concentration as to exceed limits established by applicable local, state, or Federal regulations, including 10CFR Part 20.2003 for discharges to the sanitary sewers.

b. The permittee shall continue quarterly sampling of the landfill leachate, the wastewater treatment plant effluent and the wastewater treatment plant influent for gross beta activity, by a third party, using methodology approved by the Nuclear Regulatory Commission. The sampling results shall be sent on a quarterly basis to the Pretreatment Section of the Department. Based on these results, the Department reserves the right to modify this permit accordingly.

6. REPORTING REQUIREMENTS FOR NON-DOMESTIC WASTEWATER CONTROL PROGRAM

All Non-Domestic Wastewater Control Program reports shall be submitted to

Maryland Department of the Environment
Water and Science Administration
Wastewater Permits Program
Attn: Pretreatment Coordinator
Montgomery Park Business Center
1800 Washington Boulevard, Baltimore, Maryland 21230-1708

I. 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

J. 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.

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 "001A". 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 Fort Detrick 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. Water Temperature Requirements

1. For Effluent:

The effluent temperature shall be measured in degrees Fahrenheit at the end of outfall or closest accessible location to the actual discharge location.

2. For Stream:

When the effluent temperature is 75°F or less, stream monitoring is not required. Otherwise, in order to include ambient temperatures of the effluent receiving stream with the effluent temperatures for evaluation, the permittee must measure the stream temperatures in degrees Fahrenheit upstream of the outfall location (at the Fort Detrick Water Treatment Plant Intake) as stated below in section 3. The permittee shall also measure the stream temperature in degrees Fahrenheit downstream (approximately 100') from the outfall location. If the recommended sampling points are not accessible; the permittee can propose an alternative location with the approval of the Department. The permittee shall submit a map showing the locations of the sampling points with latitude and longitude for each sampling point with the

II. SPECIAL CONDITIONS

L. 2. first monthly operating report. These locations should remain the same for the duration of the permit unless the permittee notifies the Compliance Program in advance of the need for a change. The downstream temperature shall be calculated as described in II.L.4

3. Timing for Effluent and Stream Sampling:

The water temperature measurements of the effluent and the receiving stream at the sampling locations as described above in Sections 1 and 2 shall be taken on the same day in the morning between 7:00 to 10:00 AM as well as in the afternoon between 2:00 to 5:00 PM. These measurements shall be reported in degrees Fahrenheit on MOR as individual results and on DMR as a Monthly Average and Maximum Daily Average.

4. Calculation of Downstream Temperature

The following calculation shall be done for both A.M. and P.M. temperature measurements when the effluent temperature is greater than 75 degrees Fahrenheit, to determine the stream temperature downstream of the Ft. Detrick WWTP outfall 001A.

$T_{Downstream} = ((Q_{USGS} \times T_{Upstream}) + (QWWTP \times T_{WWTP}))/ (QDownstream)$
where,

Q_{USGS} = Flow in cfs for Monocacy River USGS Gage 01642190 for the day

$T_{Upstream}$ = Per Special Conditions II.L, stream temperature in Degrees Fahrenheit upstream of the Ft. Detrick WWTP outfall 001A for A.M. /P.M. as applicable

Q_{WWTP} = Ft. Detrick WWTP discharge in cfs for the day

T_{WWTP} = Ft. Detrick WWTP's Effluent temperature in Degrees Fahrenheit for A.M. /P.M. as applicable

$Q_{Downstream}$ = ($Q_{USGS} + Q_{WWTP}$) cfs for the day

$T_{Downstream}$ = Mononcacy River Stream Temperature in Degrees Fahrenheit downstream of Ft. Detrick WWTP Outfall 001A the for A.M. /P.M. as applicable.

The calculated Monocacy River downstream A.M. and P.M. temperatures shall be reported on the monthly MORs.

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, 12/2/2019" 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.

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A. 2. C. If the permittee prefers to submit hard copy of this information along with the supporting documentations instead of the electronic submission via 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.

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;

III. GENERAL CONDITIONS

A. 6. 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.

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;

III. GENERAL CONDITIONS

B. 1. 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.

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.

III. GENERAL CONDITIONS

B. 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

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;

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B. 6. 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.

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;

III. GENERAL CONDITIONS

B. 9. 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.

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.

III. GENERAL CONDITIONS

B. 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.

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.

III. GENERAL CONDITIONS

B. 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. Stormwater Pollution Prevention

a. No later than 6 months after the permit's effective date the permittee shall apply for coverage or No Exposure Certification (NEC) under the "*General Permit for Discharges from Storm Water Associated with Industrial Activities*" in accordance with Section II A of the State NPDES Permit No. MDR0000. The Notice of Intent (NOI) submitted with the application shall address all storm water associated with industrial activity, including but not limited to any storm water discharging via the outfalls authorized under this permit. A copy of the 12-SW permit, NOI and associated guidance are available at the following link (case-sensitive): https://mdewwp.page.link/ISW.

b. As of the effective date of this permit the permittee shall begin preparing a storm water pollution prevention plan (SWPPP). Once a SWPPP has been completed, the permittee shall switch, as soon as feasible, to complying with the new SWPPP. The SWPPP must be completed and implemented no later than 6 months after the effective date of this permit. The guidance documents for preparing SWPPP are available at the following links (case-sensitive):

https://mdewwp.page.link/ISWGuidance and

https://mdewwp.page.link/ISWSectorT.

c. 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.

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;

III. GENERAL CONDITIONS

C. 1. 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.

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.

III. GENERAL CONDITIONS

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

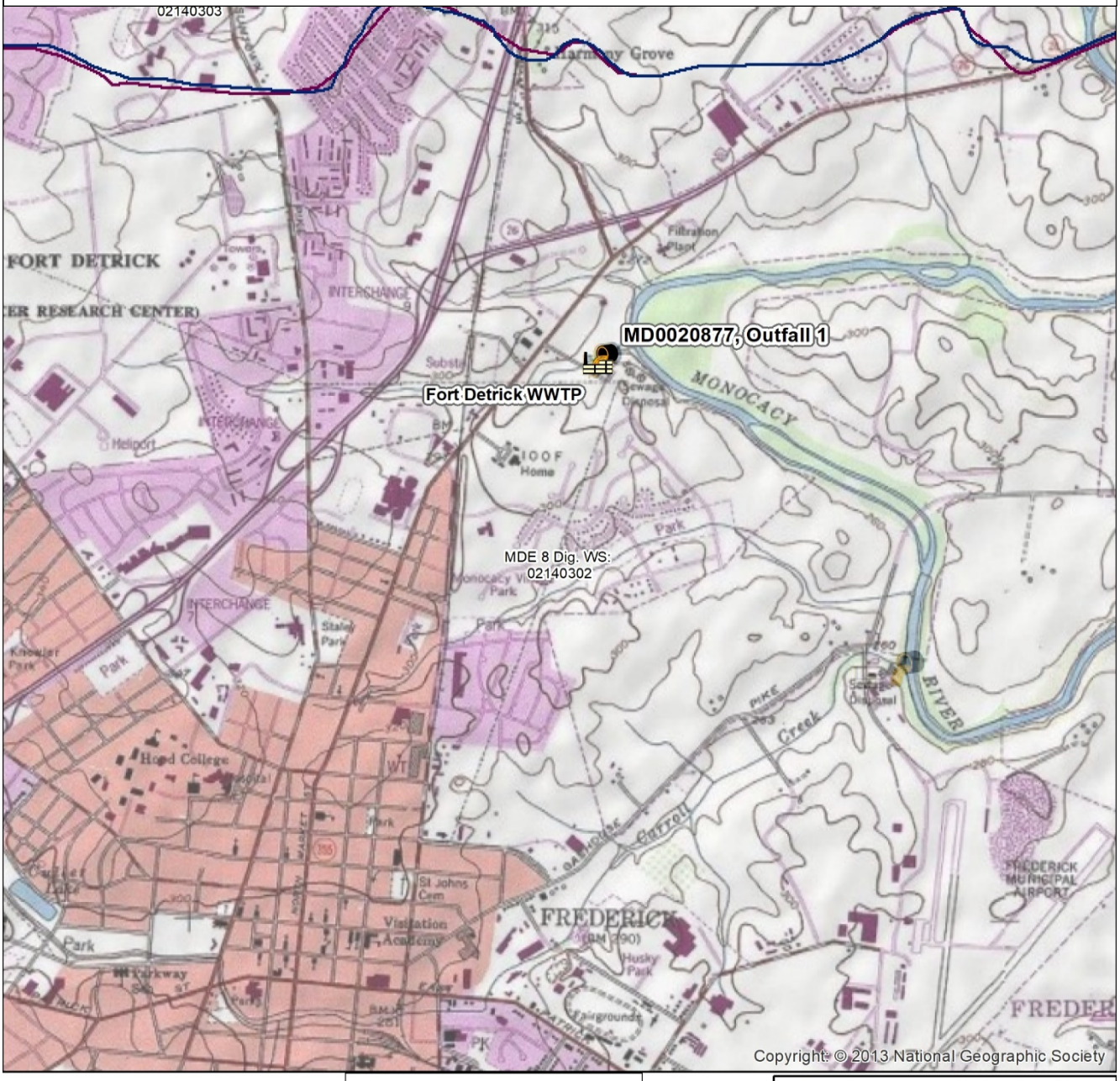
A. Civil Penalties for Violations of Permit Conditions

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



Facilities and Outfalls

Facilities | Industrial Outfalls: Significant, Insignificant | Municipal Outfalls: Significant, Insignificant

NAD 1983 State Plane Maryland FIPS 1900
Projection: Lambert Conformal Conic
GCS: North American 1983
0 1,150 2,300
Feet

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.

Heather Barthel for (Sep 15, 2021 15:34 EDT)

D. Lee Currey, Director
Water and Science Administration