

Ben Grumbles, Secretary Horacio Tablada, Deputy Secretary

# Aug 5, 2021

# VIA ELECTRONIC MAIL

Ms. Diana Rose, P.E., Environmental Engineer Naval Support Facility Indian Head 3972 Ward Road, Building 289 Indian Head, Maryland 20640

RE: Discharge Permit for Naval Support Facility Indian Head (NSFIH) Wastewater Treatment Plant (WWTP) State Discharge Permit 17-DP-2528, NPDES Permit MD0020885

Dear Ms. Rose:

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 28<sup>th</sup> 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.

www.mde.maryland.gov

Ms. Diana Rose Page 2

For future reference, please be advised to visit the U.S Government Publishing Office (USGPO) website <u>https://mdewwp.page.link/40CFR136</u> (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:

<u>https://mde.maryland.gov/programs/Permits/WaterManagementPermits/Pages/waterpermit</u> <u>s.aspx</u> (this link is case-sensitive).

If you have any questions, please contact Rabeya Noor, Project Manager, Surface Discharge Permits Division, at (410) 537-3015.

Sincerely,

Heather W. Barthel for

D. Lee Currey, Director Water and Science Administration

Enclosures

 cc: Ms. Rebecca K. Crane, USEPA (electronic copy) Mr. Lisa Laschalt, Director, Environmental Health, Charles County Health Department (electronic copy) Mr. Clay Troy, Chief, Compliance Program's Central Inspection Division (electronic copy) Mr. Matt Rowe (electronic copy) Mr. Dennis Rasmussen (electronic copy)



Ben Grumbles, Secretary Horacio Tablada, Deputy Secretary

# DISCHARGE PERMIT

NPDES Discharge Permit		State Discharge	
Number:	MD0020885	Permit Number:	17-DP-2528
		] [	
Effective		Expiration	
Date:	09/01/2021	Date:	08/31/2026
		] [	
Modification	(Not	Reapplication Due	
Date:	applicable)	Date:	03/01/2025

Pursuant to the provisions of Title 9 of the Environment Article, <u>Annotated Code of Maryland</u>, and regulations promulgated thereunder, and the provisions of the Clean Water Act, 33 U.S.C. Section 1251 <u>et seq</u>., 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:

	Naval Support Facility Indian Head (NSFIH) Attn: Director, Environmental Division Department of Navy 3972 Ward Road, Suite 101 Indian Head, Maryland 20640-5157
TO DISCHARGE FROM:	NSFIH Wastewater Treatment Plant (WWTP)
LOCATED AT:	3972 Ward Road, Building 289 Indian Head, Maryland 20640-5157
THROUGH OUTFALL:	001A (WWTP Effluent)
TO:	the Potomac River, designated as Use II (non-shellfish harvesting) water which is 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<sub>5</sub> (Biochemical Oxygen Demand)" means the amount of oxygen consumed in a standard BOD<sub>5</sub> 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. 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.
  - 3. "Monthly average *maximum* (or *minimum*)" limitation means the *highest* (or *lowest*) allowable monthly average concentration or waste load of a parameter

#### I. **DEFINITIONS**

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.
- "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 <u>or</u> 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.
- 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.

#### Permit No. 17-DP-2528 (NPDES MD0020885)

#### I. **DEFINITIONS**

- 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. "Performance-based benchmark load" means a wastewater point source annual effluent load which is calculated at the end of each calendar year using the end of the calendar year annual cumulative flow for the facility, multiplied by the applicable assigned nitrogen, phosphorus or Total Suspended Solids (TSS) performance concentration converted to units of pounds per year, where a sewage treatment facility has an assigned performance consideration: (a) for total nitrogen, 3.0 mg/l or less; (b) for total phosphorus, 0.3 mg/l or less; or (c) for TSS, 30 mg/l or less.
- Q. "Performance-based Credit load" means a unit of load reduction below performancebased benchmark load of one pound of nitrogen, phosphorus, or sediment. The performance-based credit load shall be calculated and reported under the terms of the required wastewater discharge permit at the end of each calendar year as the load remaining after subtracting actual annual effluent nutrient or TSS load discharged from the performance-based benchmark load.

#### I. **DEFINITIONS**

- R. "Permittee" means an individual or organization holding the discharge permit issued by the Department.
- S. "POTW" means a publicly owned treatment works.
- T. "Sampling Point" means the effluent sampling location in the outfall line(s) downstream from the last addition point or as otherwise specified.
- U. "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.
- V. "Significant Industrial Process" is one that discharges 25,000 gallons per day of process wastewater, one that is greater than 5% of the hydraulic or organic capacity of the treatment plant or one that has the potential to cause a violation of this permit.
- W. "TKN (Total Kjeldahl Nitrogen)" means organic nitrogen plus ammonia nitrogen.
- X. "TSS (Total Suspended Solids)" means the residue retained on the filter by an analysis done in accordance with Standard Methods or other approved methods.
- Y. "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.

#### Permit No. 17-DP-2528 (NPDES MD0020885)

### **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, <u>Pounds/d</u>	Weekly Average Loading Rate,	Daily Avera Loadin Rate	y ge ng c, C	Monthly Average concentration,	Weekly Average Concentration,	Daily Average Concentration,	
BODs	<u>av 1</u> 125	188	<u>r ounus/</u> N/A	<u>uav</u>	<u>30</u>	<u>45</u>	N/A	
TSS	125	188	N/A		30	45	N/A	
		Maximum Effluent Limits						
	Total Month Loading Rat	ly Total Qu e, Loading	uarterly g Rate,	Annu Loa	al Maximum ding Rate,	Monthly Average Concentration,	Quarterly Average Concentration,	
			]	Pounds/	Year (Except a	<u>8</u>	-	
Effluent Characteristics	Pounds/Mon	<u>th</u> grams/c	quarter		<u>noted)</u>	<u>mg/l</u>	<u>pg/l</u>	
Byphenyls (tPCBs) <sup>(9)</sup>	N/A	REPO	ORT	REPOR	T (grams/year)	N/A	REPORT	
TSS <sup>(4)</sup>	REPORT	N/	'A		45,683	REPORT	N/A	
Total Nitrogen as N $^{(4)}$ $^{(5)}$ $^{(6)}$ $^{(7)}$	REPORT	N/	'A		6,091	REPORT	N/A	
Total Phosphorus as P <sup>(4)(5)(6)(7)</sup>	REPORT	N/	/A		457	REPORT	N/A	
				Ef	fluent Limits			
Effluent Characteristics		Maximur	m		Minimum			
Enterococci	35 MPN/ 100 ml monthly geometric mean value			N/A				
Total Residual Chlorine <sup>(8)</sup>	Nondetectable level (See footnote- 8)			N/A				
рН	8.5			6.5				
Dissolved Oxygen (All Year)		N/A				5.0 mg/l at anytime		
(All Year)		N/A			5.5 mg/l monthly average			
(2/1 - 5/31)		N/A			6.0 mg/l weekly average			

An annual average flow of <u>0.50</u> 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.

#### Permit No. 17-DP-2528 (NPDES MD0020885)

#### **II. SPECIAL CONDITIONS**

#### A. Effluent Limitations, Continued

#### Footnotes for the effluent limitations

- <sup>(1)</sup> When this permit is renewed, the new limitations may not be equal to the above limitations.
- <sup>(2)</sup> There shall be no discharge of floating solids or visible foam other than trace amounts.
- <sup>(3)</sup> 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.
- <sup>(4)</sup> The Potomac River is on the 303(d) list as the impaired waters for Phosphorus (TP), Total Nitrogen (TN), Total suspended Solid (TSS), PCBs in fish tissues, cadmium, chromium, copper and lead.

A Total Maximum Daily Load (TMDL) of PCB for Potomac River Middle Tidal watershed, approved by the EPA on 11/01/2007, allocated a PCB waste load of 0.18 gm/year in conjunction with an annual average concentration of 260 pg/l and 0.50 mgd flow to this facility. The quarterly monitoring and reporting concurrently with the source tracking and elimination requirements through Best Management practices (BMPs) for tPCBs, as listed in footnotes 9 and 20, are in conformance with this TMDL.

<sup>(5)</sup> 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 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.

- <sup>(6)</sup> At the end of each calendar year, beginning January of the same 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) <u>TN Limitation (lbs/year)</u>: 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) <u>TP Limitation (lbs/year)</u>: 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.

<sup>(7)</sup> 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 Naval Support Facility Indian Head WWTP. Please refer to footnote 14 for details.
- <sup>(9)</sup> To achieve a goal of annual maximum loading rate of 0.18 grams/year for tPCBs, the permittee shall continue monitoring tPCBs in the effluent on a quarterly basis and make every effort to track and eliminate sources of the PCBs by adopting the Best Management Practices (BMPs) approved by the Department.

#### Permit No. 17-DP-2528 (NPDES MD0020885)

# **II. SPECIAL CONDITIONS**

- B(1). Minimum Monitoring Requirements:
- (a) Regular Monitoring and Reporting Schedule

The effluent characteristics listed below in Table B(1) shall be monitored at the sampling point (Definition I.R) located at LONGITUDE: 77°10'38.6"W and LATITUDE: 38°35'60.0"N. The permittee shall ensure that the effluent samples taken at the above stated sampling point are representative of the effluent quality discharged at the Outfall 001A.

Effluent Characteristics	<u>Monitoring Period</u>	<u>Measurement Frequency</u>	Sample Type
BOD <sub>5</sub> <sup>(10)(19)</sup>	All Year	Two per week	24-hour composite
Total Suspended Solids (TSS) <sup>(10)(13)(19)</sup>	All Year	Two per week	24-hour composite
TKN <sup>(10)(11)(12)(19)</sup>	All Year	Two per week	24-hour composite
Total Ammonia Nitrogen as N <sup>(10)(11)(12)(19)</sup>	All Year	Two per week	24-hour composite
(Nitrite + Nitrate) as N <sup>(10)(11)(12)(19)</sup>	All Year	Two per week	24-hour composite
Organic Nitrogen as N $^{(10)(11)(12)(19)}$	All Year	Two per week	Calculated
Total Nitrogen as N <sup>(10)(12)(13)(19)</sup>	All Year	Two per week	Calculated
Total Phosphorus as P <sup>(10)(13)(19)</sup>	All Year	Two per week	24-hour composite
Orthophosphate as $P^{(10)(11)(19)}$	All Year	Two per week	24-hour composite
Enterococci <sup>(10)</sup>	All Year	One per week	Grab
Total Residual Chlorine (10)(14)(15)	All Year	See footnote 14	
Dissolved Oxygen (10)(15)	All Year	Two per day	Grab
pH <sup>(10)(15)</sup>	All Year	Two per day	Grab
Flow <sup>(10)(16)(17)</sup>	All Year	Continuous	Recorded (22)
Total Flow <sup>(10)(18)</sup>	All Year	Monthly	Calculated (23)
tPCBs <sup>(10)(20)</sup>	All year	One per quarter	24-hour composite
Benzidine <sup>(10)(21)(22)</sup>	All Year	One per quarter	Grab
Chlordane <sup>(10)(21)(22)</sup>	All year	One per quarter	24-hour composite
Toxaphene <sup>(10)(21)(22)</sup>	All year	One per quarter	24-hour composite

- B(1). Minimum Monitoring Requirements, continued:
  - (b) Nutrient and Sediment Performance-based Credit Reporting Schedule

Under COMAR 26.08.11, Maryland Water Quality Trading Program, the permittee is authorized to generate nutrient and sediment credits for trading to industrial and municipal stormwater permit holders. For each calendar month, the permittee shall calculate and report on the monthly DMR the effluent related nutrient (Total Nitrogen and Total Phosphorus) and sediment (TSS) performance-based benchmark loads (Definition I.P) and performance-based credits (Definition I.Q) as listed below.

If the permittee seeks to trade the reported credit, the permittee shall also submit information related to the generation of annual performance-based credit on the "<u>Credit Verification and Registration Form for Wastewater Point Source</u>" provided by the Department. The completed form shall be sent to the Department's Water and Science Administration Trading Administrator by the end of each January to report credits generated during the prior calendar year.

The Permittee shall report the below listed the *performance-based benchmark load* and *performance-based credit load* on the monthly DMR using the discharge designation "*TRAD-E*".

Effluent Characteristics	Monitoring <u>Period</u>	Measurement <u>Frequency</u>	Sample <u>Type</u>
TSS <sup>(10)(24)(25)</sup> (Performance-based Benchmark Load)	All Year	One per month	Calculated
TSS <sup>(10)(24)(25)</sup> (Performance-based Credit)	All Year	One per month	Calculated
Total Nitrogen as N <sup>(10)(24)(25)</sup> (Performance-based Benchmark Load)	All Year	One per month	Calculated
Total Nitrogen as N <sup>(10)(24)(25)</sup> (Performance-based Credit)	All Year	One per month	Calculated
Total Phosphorus as P <sup>(10)(24)(25)</sup> (Performance-based Benchmark Load)	All Year	One per month	Calculated
Total Phosphorus as P <sup>(10)(24)(25)</sup> (Performance-based Credit)	All Year	One per month	Calculated
Flow Year-to-date (YTD) Total (10)(26)	All Year	One per month	Calculated

#### B(1). Minimum Monitoring Requirements, continued:

#### Footnotes for Special Conditions II.B(1)(a) and (b)

- (10) "STORET" (short for STOrage and RETrieval) is a widely-used repository for water quality data reporting and monitoring. The corresponding STORET codes for the effluent characteristics specified in Special Conditions II.A and II.B are: BOD<sub>5</sub> (00310), Total Suspended Solids (00530), Total Ammonia Nitrogen as N (00610), Total Kjeldahl Nitrogen (00625), 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 (51040), Total Residual Chlorine (50060), Dissolved Oxygen (00300), pH (00400), Flow (50050), Total flow (82220), PCBs (79819), Benzidine (39120), Toxaphene (39400) and Chlordane (39350), Sediment as TSS Performance-based Benchmark Load (00530(P)), TSS Performance-based Credit (00530(Q)), Total Nitrogen Performance-based Benchmark Load (00600(P)), Total Nitrogen Performance-based Credit (00665(P)), Total Phosphorus Performance-based Credit (00665(Q)) and Flow YTD Total (74076(R)).
- <sup>(11)</sup> 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.
- (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. 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.
- <sup>(13)</sup> The permittee shall also calculate and report on the DMR the TSS, 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-<u>001A</u>.

For each calendar year beginning January, the year-to-date cumulative loads of TSS, 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".

- (14) The minimum monitoring requirements of two 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 Naval Support Facility Indian Head. 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.</p>
- <sup>(15)</sup> 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.
- (16) Flows shall be reported in million gallons per day (mgd) to at least the nearest <u>1,000</u> gallons per day. (Example: A flow of <u>524,699</u> gallons per day shall be reported as <u>0.525</u> 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).

- <sup>(17)</sup> Continuous electronic flow measurement and recording which can produce a permanent record are acceptable to the Department.
- (18) "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 million gallons (MG) to at least the nearest 1,000 gallons. (Example: A flow of 1,524,699 gallons shall be reported as 1.525 MG).
- <sup>(19)</sup> The permittee shall distribute the timing for effluent sampling with minimum of 48-hour apart for two 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.
- (20) The permittee shall continue measuring total PCBs once per quarter and the measurements shall be reported on the Monthly Operating Reports (MORs) as individual results in picograms (pg/l); and on the Discharge Monitoring Reports (DMRs) for quarter ending months as quarterly average concentration in pg/l, total quarterly load in grams/quarter and year-to-date cumulative load in grams/year. The quarterly average loading rate (in grams/quarter) is calculated for each quarter using this formula:

# PCB Total Quarterly Load, grams/quarter = 0.0000037854 x (PCB quarterly concentration, pg/l) x Total Flow in a calendar quarter, Million Gallons)

The year-to date cumulative load PCBs loading rate shall be sum of the individual four consecutive quarterly loads. The permittee may report all results below 5 pg/l as a non-detectable. The monitoring data for PCBs shall be reported to the Department's Compliance Program for evaluation.

- (21) The toxic substances shall be measured and reported in units of µg/l using the appropriate minimum Limit of Quantification (LOQ) levels as suggested in the Department's protocol. The LOQ is a minimum reporting limit which is the minimum value of the calibration ranges of an analyte. The permittee must assure that the laboratory contracted for analysis and reporting of the toxic substances shall comply with all requirements of the MDE's latest "Toxic Pollutant Monitoring Protocol and Reporting Requirements for Toxic Chemical Testing Analytical Data" including all but not limited to the analytical methodology, detection levels, holding times, preservation methods, sample type, and reporting. In addition to the data submitted by the monthly DMR, the permittee shall submit a copy of the laboratory report for the parameter to MDE in accordance with General Condition III.A.2.c of the draft permit. Water used for the operation of sampling/analysis apparatus shall be free of the elements and compounds under investigation as well as any other elements or compounds whose presence could interfere with the analysis.
- (22) Beginning effective date of this permit, the permittee shall measure Toxaphene, Benzidine and Chlordane once per quarter by 24-hour composite samples for four consecutive quarters during the first year of the discharge permit renewal in addition to the Toxic Chemical Testing (TCT) requirements (per footnote 21) stated in Special Condition II.G. The results with the comprehensive laboratory reports of all four tests shall be submitted to MDE's Municipal Surface Discharge Permits Division for review and evaluation. The permittee shall ensure that these pollutants are analyzed by the laboratory in accordance with MDE's toxic chemical testing protocol. Upon reviewing of results for assessment, the Department will either notify the permittee to discontinue monitoring or reopen the discharge permit to establish limits for any of these toxic substance(s), as appropriate. Department's approval of the results for additional quarterly monitoring for first year of permit cycle will be implemented through a permit modification that will include a public participation process.
- (23) Reserved for future use.

#### <sup>(24)</sup> Nutrient and Sediment Performance-Based "Benchmark Loads":

At the end of each month, a year-to-date cumulative nutrient and sediment (as total nitrogen, total phosphorus and total suspended solids in the effluent) performance-based "benchmark load" for this facility shall be calculated and reported on monthly DMR using the formulas listed below:

(a) For TN:

Year-to-date cumulative Performance-Based Benchmark Load for TN (pounds) =  $3.0 \text{ mg/L}^* \times 8.34 \times Flow$  YTD Total (million gallons/year).

(b) For TP:

Year-to-date cumulative Performance-Based Benchmark Load for TP (pounds)  $= 0.30 \text{ mg/L}^* \times 8.34 \times \text{Flow YTD Total (million gallons/year)}.$ 

(c) For Sediment:

Year-to-date cumulative Performance-Based Benchmark Load for Sediment (pounds) =  $30 \text{ mg/L} * \times 8.34 \times \text{Flow YTD Total (million gallons/year)}.$ 

\*Or any more stringent effluent concentration-based limit required in the discharge permit.

#### (25) Nutrient and TSS "Performance-Based Credit"

At the end of each month, the facility shall subtract the year-to-date nutrient and sediment cumulative loads (as defined in I.H.5 & I.H.6 in this permit) from the year-to-date nutrient and sediment performance-based benchmark loads (stated above in footnote 24), and report the result as year-to-date "performance-based credit" on the monthly DMR. The "performance-based credit" generated by the facility at the end of each calendar year may be eligible for trading activities authorized by COMAR 26.08.11.

<sup>(26)</sup> Flow YTD Total is calculated and reported in million gallons per year as the sum of total flows (stated above in footnote 18) for a period from January 1<sup>st</sup> through the reporting month.

<b>Report Description</b>	Reporting Frequency	<b>Report Submittal Deadline</b>
Effluent Biomonitoring Study Plan and Toxic Chemical Testing Plan <sup>(27)(28)</sup>	See footnote - 28	See footnote – 28
Effluent Biomonitoring Study Report (27)(29) (31)	See footnotes- 29 & 31	See footnote- 31
Effluent Toxic Chemical Testing Report (27)(30)(31)	See footnotes – 30 & 31	See footnote- 31
Wastewater Capacity Management Plan (WCMP) (27)(32)	See footnote – 32	See footnote- 32
Flow Capacity Report (FCR) <sup>(27)(33)</sup>	See footnote - 33	See footnote- 33
Per- and Polyflourinated Alkyl Substances (PFAS) Study Plan and Report <sup>(27)(34)</sup>	See footnote- 34	See footnote- 34

#### B(2) Report Submittal Requirements

- (27) If the permittee has selected a third party for submitting reports to the Department, the permittee must provide to the third party with a <u>document of authorization for report submission</u> which is required with the report.
- <sup>(28)</sup> 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.
- (29) 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.
- (30) 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.
- (31) 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 28<sup>th</sup> April).
- <sup>(32)</sup> Unless the permittee has previously submitted the WCMP to the Department; the permittee shall submit the WCMP <u>one time</u> within 90 (Ninety) days of the effective days of this permit.
- <sup>(33)</sup> 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.
- (34) Within 90 days from the effective date of this permit, the permittee shall submit the Study Plans for PFAS monitoring and obtain approval from the Department. Upon approval, the permittee shall perform four consecutive quarterly PFAS monitoring within a 12-month period and submit results in a comprehensive report to the Department as per requirements of the Special Condition II.K.

#### C. Wastewater Capacity Management

The permittee shall report the <u>total cumulative flow</u> for 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 28<sup>th</sup> 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 28<sup>th</sup> of each year. If the permittee has not previously submitted the WCMP or the annual WFCR, the first WFCR and "worksheets (Style #1 and #2) 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) <u>http://9nl.at/MD-CMPGuidance</u> for WCMP guidance document, (b) <u>http://9nl.at/MD-CMPFlowCapReport</u> for WFCR, (c) <u>http://9nl.at/MD-CMPWorksheet1</u> for WFCR's Worksheet # 1, and (d) <u>http://9nl.at/MD-CMPWorksheet2</u> 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 28<sup>th</sup> 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.

- 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 <u>definitive</u> 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 30 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 <u>Ceriodaphnia</u> survival and reproduction test and the fathead minnow larval survival and growth test.
  - c. Acute test results shall be expressed as LC<sub>50</sub>. Chronic test results shall be expressed as NOEC, LOEC, ChV, and IC<sub>25</sub>.
- 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.
- 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<sub>25</sub>.
- 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<sub>50</sub>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<sub>50</sub> equal to or less than 100% for acute tests and an IC<sub>25</sub> 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.
- 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. In the event when wastewater from a significant industrial process passes through or interferes with treatment process(es), 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 **<u>mde.biomonitoring@maryland.gov</u>** immediately upon electronic submission of the biomonitoring program study plan, WET test results and associated material through NetDMR tool.

#### 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 <u>Toxicity Reduction</u> <u>Evaluation Guidance for Municipal Wastewater Treatment Plants</u> (EPA/833B-99/002) August 1999.

Additional Guidance documents on the TRE process are shown below:

- <u>Methods for Aquatic Toxicity Identification Evaluations Phase I Toxicity</u> <u>Characterization Procedures Second Edition</u> United States Environmental Protection Agency Office of Research and Development, Washington, DC 20460, EPA/600/6-9 1/003 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
- <u>Methods for Aquatic Toxicity Identification Evaluations Phase III</u> <u>Toxicity Confirmation Procedures for Samples Exhibiting Acute and</u> <u>Chronic Toxicity</u>, United States Environmental Protection Agency Office of Research and Development, Washington DC 20460, EPA /600/R-92/08 1 September 1993
- <u>Clarifications Regarding Toxicity Reduction and Identification</u>
  <u>Evaluations in the National Pollutant Discharge Elimination System</u>
  <u>Program</u>, 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.

- 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<sub>50</sub> greater than 100%, and/or eliminate chronic toxicity, an IC<sub>25</sub> 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 **<u>mde.biomonitoring@maryland.gov</u>** immediately upon electronic submission of TRE material through NetDMR tool.

- 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.
- 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

#### Permit No. 17-DP-2528 (NPDES MD0020885)

### **II. SPECIAL CONDITIONS**

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 **<u>mde.biomonitoring@maryland.gov</u>** immediately upon electronic submission of results through the NetDMR tool.

- G. Non-Domestic Wastewater Control Program
  - 1. The permittee shall keep a record of events where wastewater from a significant industrial process center the treatment works.
  - 2. The permittee shall take necessary controls to ensure wastes from a significant industrial process do not pass through or interferes with the treatment process(es).
  - 3. The permittee shall notify MDE as soon as they know, or have reason to believe, that:
    - a. Any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, or any toxic pollutant which is not limited in the permit, if that discharge will exceed one hundred micrograms per liter; or
    - b. Any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, or a toxic pollutant which is not limited in the permit, if that discharge will exceed five hundred micrograms per liter.
- 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.

I. Reapplication for a Permit

No later than <u>18 months</u>, 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. 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 Naval Support Facility Indian Head 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.

K. Evaluation Study for the Passage of Per- and Polyflourinated Alkyl Substances (PFAS) within the Treatment Work:

The facility is required to conduct a study and provide information on the migration and distribution of PFAS chemicals within a municipal wastewater treatment works. No later than 90 days from the effective date of the discharge permit, the permittee shall submit a Study Plan (the Plan) to the Department for review and approval. The Plan shall incorporate pertinent information including but not limited to the following items:

- 1. The permittee shall commence the PFAS evaluation study (the study) within 90 days upon the Department's approval of the Plan.
- 2. The duration of the study period shall be one year which includes four quarterly sampling events. Among the four quarterly samples, two of them shall be collected during wet weather conditions (i.e. 12- 24 hours after rainfall event of 0.5 inches or greater), and the other two shall be collected during dry weather conditions (i.e. no rainfall has occurred within the previous 72 hours). The weather condition during each collection event shall be identified along with the monitoring results in the report.
- 3. Each quarterly sampling event shall include samples from the following locations around the treatment works: (a) raw sewage intake, (b) sludge digester, (c) effluent outfall and (d) background receiving water above point of discharge (The upstream sampling location shall have minimal impact from the effluent discharge). Aqueous samples within each sample set shall be collected concurrently while the solid sampling (from the sludge digester) shall be collected within 24 hours after the collection of the aqueous samples.
- 4. To perform sampling and analysis of PFAS in aqueous (wastewater and stream) and solid (wastewater sludge) samples, the permittee shall use methodologies consistent with the modified EPA Method 537.1, DoD QSM 5.3 or their future updated versions with equivalent accuracy. The PFAS chemicals to be monitored in the study shall include but not limited to the ones listed in the Section 9 below. The methodologies associated with the sample preparation, analytical procedures and QC measures must meet the criteria set in Appendix B Table 15 of the document Department of Defense (DoD) Department of Energy (DoE) Consolidated Quality Systems Manual (QSM) for Environmental Laboratories, version 5.3 2019 or future updated versions.
- 5. The study report shall provide comparison on the level of the PFAS chemicals monitored at each of the designated sampling locations.
- 6. The permittee shall also provide monitoring results for PFAS levels in the potable water supplied within the service area of the wastewater facility during the same period as the study.
- 7. Results from each quarterly monitoring events shall be sent to the Department through attachment with the facility's NetDMR submission in the following reporting month.
- 8. The final report for the study should be submitted through NetDMR no later than 6 (six) months upon the completion of the study.

- 9. The monitoring of PFAS analyses shall include but not limited to the 12 chemicals listed below.
- 10. The methods shall be consistent with the Minimum Reporting Limits specified in the MDE's PFAS Sampling Guidance Document, dated 8/12/2020 for these 12 chemicals.

Analyte	Acronym	CARSN *		
Perfluorooctanesulfonic acid	PFOS	1763-23-1		
Perfluorooctanoic acid	PFOA	335-67-1		
N-ethyl perfluorooctanesulfonamidoacetic acid	NEtFOSAA	2991-50-6		
N-methyl perfluorooctanesulfonamidoacetic acid	NMeFOSAA	2355-31-9		
Perfluorobutanesulfonic acid	PFBS	375-73-5		
Perfluorodecanoic acid	PFDA	335-76-2		
Perfluorododecanoic acid	PFDoA	307-55-1		
Perfluoroheptanoic acid	PFHpA	375-85-9		
Perfluorohexanesulfonic acid	PFHxS	355-46-4		
Perfluorohexanoic acid	PFHxA	307-24-4		
Perfluorononanoic acid	PFNA	375-95-1		
Perfluorotridecanoic acid	PFTrDA	72629-94-8		
* Chemical Abstract Registration Service Number				

- 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.

#### Permit No. 17-DP-2528 (NPDES MD0020885)

### **III. GENERAL CONDITIONS**

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. 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).

5. 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.

- 6. 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.
- 7. 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.
- 8. 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.

9. 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;
- 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, <u>Annotated Code of Maryland</u>, 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
- 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.

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.
  - 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.

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. 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.

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.

#### 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.

Heather W. Barthel for

D. Lee Currey, Director Water and Science Administration