ITEM 2.D.1

NPDES PERMIT NO. NC0020354

STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF WATER RESOURCES

PERMIT

TO DISCHARGE WASTEWATER UNDER THE

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of North Carolina General Statute 143-215.1, other lawful standards and regulations promulgated and adopted by the North Carolina Environmental Management Commission, and the Federal Water Pollution Control Act, as amended, the

Town of Pittsboro

is hereby authorized to discharge wastewater from a facility located at the

Town of Pittsboro WWTP
Off Small Street Extension
Chatham County

to receiving waters designated as Robeson Creek and the Haw River in the Cape Fear River Basin in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, III, and IV hereof.

This permit modification shall become effective August 15, 2014.

This permit and the authorization to discharge shall expire at midnight on April 30, 2016.

Signed this day August 1, 2014.

ORIGINAL SIGNED BY TOM BELNICK

Thomas A. Reeder, Director
Division of Water Resources
By Authority of the Environmental Management Commission

SUPPLEMENT TO PERMIT COVER SHEET

All previous NPDES Permits issued to this facility, whether for operation or discharge are hereby superseded. As of this permit issuance, any previously issued permit bearing this number is no longer effective. Therefore, the exclusive authority to operate and discharge from this facility arises under the permit conditions, requirements, terms, and provisions included herein.

The Town of Pittsboro is hereby authorized to:

1. Continue to operate an existing 0.75 MGD extended aeration treatment system consisting of the following components:

- Manual and mechanical bar screen
- Diffused aeration basins
- Clarifiers
- Phosphorous removal
- High-rate sand filters
- Sludge thickening
- Aerobic sludge digestion
- Ultraviolet disinfection
- Effluent flow measurement
- Cascade post aeration

The facility is located at the Pittsboro WWTP, 458 Small St., Pittsboro in Chatham County.

After receiving an Authorization to Construct from the Division and upon submittal of an engineer's certification, operate the wastewater treatment facility at a treatment capacity of 1.249 MGD.

2. After receiving an Authorization to Construct from the Division and submitting an engineer's certification, operate a 3.22 MGD wastewater treatment facility.

3. Discharge from said treatment works at the location specified on the attached map into Robeson Creek (0.75 MGD and 1.249, outfall 001), and into the Haw River (1.971 MGD, outfall 002), both classified as WS-IV NSW waters in the Cape Fear River Basin.

A.(1.) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS – Outfall 001

Beginning upon the effective date of this permit and lasting until expiration or expansion to 1.249 MGD, the Permittee is authorized to discharge treated wastewater from Outfall 001 to Robeson Creek. Such discharges shall be limited and monitored[11] by the Permittee as specified below:

EFFLUENT CHARACTERISTICS	EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS		
	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location[1]
Flow	0.75 MGD			Continuous	Recording	Influent or Effluent
Total Monthly Flow (MG)	Monitor & Report			Monthly	Recording or Calculated	Influent or Effluent
BOD, 5-day, (20°C) [2] (April 1 – October 31)	5.0 mg/L	7.5 mg/L		3/Week	Composite	Influent & Effluent
BOD, 5-day, (20°C) [2] (November 1 – March 31)	10.0 mg/L	15.0 mg/L		3/Week	Composite	Influent & Effluent
Total Suspended Solids[2]	30.0 mg/L	45.0 mg/L		3/Week	Composite	Influent & Effluent
NH_3 as N	2.0 mg/L	6.0 mg/L		3/Week	Composite	Effluent
Total Residual Chlorine[4]			17 µg/L	3/Week	Grab	Effluent
pH [5]				3/Week	Grab	Effluent
Temperature (°C)				Daily	Grab	Effluent
Temperature (°C)				3/Week	Grab	Upstream & Downstream
Dissolved Oxygen[3]				3/Week	Grab	Effluent, Upstream & Downstream
Fecal Coliform (geometric mean)	200/100 mL	400/100 mL		3/Week	Grab	Effluent, Upstream & Downstream
Conductivity				3/Week	Grab	Effluent, Upstream & Downstream
TKN	Monitor & Report (mg/L)			Weekly	Composite	Effluent
NO_3-N + NO_2-N	Monitor & Report (mg/L)			Weekly	Composite	Effluent
Total Nitrogen, TN[6]	Monitor & Report (mg/L)			Weekly	Composite	Effluent
TN Load [7,8]	Monitor & Report (lb/mo) Monitor & Report (lb/yr)			Monthly Annually	Calculated	Effluent
Total Phosphorus, TP	Monitor & Report (mg/L)			Weekly	Composite	Effluent
Total Phosphorus, TP [9]	2.0 mg/L Quarterly Average			Weekly	Composite	Effluent
TP Load [7,8]	Monitor & Report (lb/mo) 322 lb (Apr. 1-Oct. 31)			Monthly Seasonally	Calculated	Effluent
Total Nickel		25 µg/L	261 µg/L	Weekly	Composite	Effluent
Total Copper				Monthly	Composite	Effluent
Total Zinc				Monthly	Composite	Effluent
Chronic Toxicity [10]				Quarterly	Composite	Effluent

All footnotes are listed on the following page.

Footnotes from Effluent Limitations and Monitoring Requirements (Outfall 001):

1. Sample locations: Upstream = at least 100 yards above the outfall; Downstream = at least 100 yards downstream from the outfall. Instream monitoring shall be conducted 3/Week during June, July, August, and September, and once per week during the remainder of the year. Instream monitoring is provisionally waived in light of the Permittee's participation in the Upper Cape Fear River Basin Association. Instream monitoring shall be conducted as stated in this permit should the Permittee end its participation in the Association.
2. The monthly average BOD5 and Total Suspended Residue concentrations shall not exceed 15% of the respective influent value (85% removal).
3. The daily dissolved oxygen effluent concentration shall not be less than 6.0 mg/l.
4. Total Residual Chlorine limit applies if chlorine or chlorine derivative is used for disinfection. The Division shall consider all effluent TRC values reported below 50 µg/l to be in compliance with this permit. The Permittee shall continue to record and submit all values reported by a North Carolina certified laboratory even if these values fall below 50 µg/l.
5. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units.
6. TN = TKN + NO_3-N + NO_2-N, where TN is Total Nitrogen, TKN is Total Kjeldahl Nitrogen, and NO_3-N and NO_2-N are Nitrate and Nitrite Nitrogen, respectively.
7. TN or TP Load is the mass quantity of Total Nitrogen or Phosphorus discharged in a given period of time. See Condition A. (7.).
8. Compliance with mass limits shall be determined in accordance with Conditions A.(5.) and A.(6.).
9. The quarterly average for total phosphorus shall be the average of composite samples collected weekly during each calendar quarter (January-March, April–June, July–September, October-December).
10. Chronic Toxicity (Ceriodaphnia) P/F at 90%; March, June, September & December. See Condition A.(8.).
11. No later than 270 days from the effective date of this permit, begin submitting discharge monitoring reports electronically using NC DWR's eDMR application system. See Special Condition A (10).

There shall be no discharge of floating solids or foam.

A.(2.) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS – Outfall 001

Beginning upon expansion above 0.75 MGD and lasting until expiration, the Permittee is authorized to discharge treated wastewater from Outfall 001 to Robeson Creek. Such discharges shall be limited and monitored by the Permittee as specified below:

EFFLUENT CHARACTERISTICS	EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS		
	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location[1]
Flow	1.249 MGD			Continuous	Recording	Influent or Effluent
Total Monthly Flow (MG)	Monitor & Report			Monthly	Recording or Calculated	Influent or Effluent
BOD, 5-day, (20°C) [2] (April 1 – October 31)	5.0 mg/L	7.5 mg/L		3/Week	Composite	Influent & Effluent
BOD, 5-day, (20°C) [2] (November 1 – March 31)	10.0 mg/L	15.0 mg/L		3/Week	Composite	Influent & Effluent
Total Suspended Solids[2]	30.0 mg/L	45.0 mg/L		3/Week	Composite	Influent & Effluent
NH_3 as N (April 1 – October 31)	1.0 mg/L	3.0 mg/L		3/Week	Composite	Effluent
NH_3 as N (November 1 – March 31)	2.0 mg/L	6.0 mg/L		3/Week	Composite	Effluent
Total Residual Chlorine[4]			17 µg/L	3/Week	Grab	Effluent
pH [5]				3/Week	Grab	Effluent
Temperature (°C)				Daily	Grab	Effluent
Temperature (°C)				3/Week	Grab	Upstream & Downstream
Dissolved Oxygen[3]				3/Week	Grab	Effluent, Upstream & Downstream
Fecal Coliform (geometric mean)	200/100 mL	400/100 mL		3/Week	Grab	Effluent, Upstream & Downstream
Conductivity				3/Week	Grab	Effluent, Upstream & Downstream
TKN	Monitor & Report (mg/L)			Weekly	Composite	Effluent
NO_3-N + NO_2-N	Monitor & Report (mg/L)			Weekly	Composite	Effluent
Total Nitrogen, TN[6]	Monitor & Report (mg/L)			Weekly	Composite	Effluent
TN Load [7,8]	Monitor & Report (lb/mo) Monitor & Report (lb/yr)			Monthly Annually	Calculated	Effluent
Total Phosphorus, TP	Monitor & Report (mg/L)			Weekly	Composite	Effluent
Total Phosphorus, TP [9]	2.0 mg/L Quarterly Average			Weekly	Composite	Effluent
TP Load [7,8]	Monitor & Report (lb/mo) 322 lb (Apr. 1-Oct. 31)			Monthly Seasonally	Calculated	Effluent
Total Nickel		25 µg/L	261 µg/L	Weekly	Composite	Effluent
Total Copper				Monthly	Composite	Effluent
Total Zinc				Monthly	Composite	Effluent
Chronic Toxicity [10]				Quarterly	Composite	Effluent
Effluent Pollutant Scan	Monitor and Report			Footnote11	Footnote 11	Effluent

All footnotes are listed on the following page.

Footnotes from Effluent Limitations and Monitoring Requirements (Outfall 001):

1. Sample locations: Upstream = at least 100 yards above the outfall; Downstream = at least 100 yards downstream from the outfall. Instream monitoring shall be conducted 3/Week during June, July, August, and September, and once per week during the remainder of the year. Instream monitoring is provisionally waived in light of the Permittee's participation in the Upper Cape Fear River Basin Association. Instream monitoring shall be conducted as stated in this permit should the Permittee end its participation in the Association.
2. The monthly average BOD5 and Total Suspended Residue concentrations shall not exceed 15% of the respective influent value (85% removal).
3. The daily dissolved oxygen effluent concentration shall not be less than 6.0 mg/l.
4. Total Residual Chlorine limit applies if chlorine or chlorine derivative is used for disinfection. The Division shall consider all effluent TRC values reported below 50 µg/l to be in compliance with this permit. The Permittee shall continue to record and submit all values reported by a North Carolina certified laboratory even if these values fall below 50 µg/l.
5. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units.
6. TN = TKN + NO_3-N + NO_2-N, where TN is Total Nitrogen, TKN is Total Kjeldahl Nitrogen, and NO_3-N and NO_2-N are Nitrate and Nitrite Nitrogen, respectively.
7. TN or TP Load is the mass quantity of Total Nitrogen or Phosphorus discharged in a given period of time. See Condition A. (7.).
8. Compliance with mass limits shall be determined in accordance with Conditions A.(4.) and A.(5.).
9. The quarterly average for total phosphorus shall be the average of composite samples collected weekly during each calendar quarter (January-March, April–June, July–September, October-December).
10. Chronic Toxicity (Ceriodaphnia) P/F at 90%; March, June, September & December. See Condition A.(8.).
11. The permittee shall perform three Effluent Pollutant Scans during the term of this permit. See Special Condition A. (9).

There shall be no discharge of floating solids or foam.

A.(3.) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS – Outfall 002

Beginning upon expansion above 1.249 MGD and lasting until expiration, the Permittee is authorized to discharge treated wastewater from Outfall 002 to the Haw River. Such discharges shall be limited and monitored by the Permittee as specified below:

EFFLUENT CHARACTERISTICS	EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS		
	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location[1]
Flow (MGD)	1.971 MGD			Continuous	Recording	Influent or Effluent
Total Monthly Flow (MG)	Monitor & Report			Monthly	Recording or Calculated	Influent or Effluent
BOD, 5-day, (20°C) [2] (April 1 – October 31)	5.0 mg/L	7.5 mg/L		Daily	Composite	Influent & Effluent
BOD, 5-day, (20°C) [2] (November 1 – March 31)	10.0 mg/L	15.0 mg/L		Daily	Composite	Influent & Effluent
Total Suspended Solids[2]	30.0 mg/L	45.0 mg/L		Daily	Composite	Influent & Effluent
NH3 as N (April 1 – October 31)	1.0 mg/L	3.0 mg/L		3/Week	Composite	Effluent
NH3 as N (November 1 – March 31)	2.0 mg/L	6.0 mg/L		3/Week	Composite	Effluent
Total Residual Chlorine[4]			28 µg/L	3/Week	Grab	Effluent
pH [5]				Daily	Grab	Effluent
Temperature (°C)				Daily	Grab	Effluent
Temperature (°C)				3/Week	Grab	Upstream & Downstream
Dissolved Oxygen[3]				3/Week	Grab	Effluent, Upstream & Downstream
Fecal Coliform (geometric mean)	14/100 mL	25/100 mL		Daily	Grab	Effluent, Upstream & Downstream
Conductivity				3/Week	Grab	Effluent, Upstream & Downstream
TKN	Monitor & Report (mg/L)			Weekly	Composite	Effluent
NO_3-N + NO_2-N	Monitor & Report (mg/L)			Weekly	Composite	Effluent
Total Nitrogen, TN[6]	Monitor & Report (mg/L)			Weekly	Composite	Effluent
TN Load [7,8]	Monitor & Report (lb/mo) Monitor & Report (lb/yr)			Monthly Annually	Calculated	Effluent
Total Phosphorus, TP	Monitor & Report (mg/L)			Weekly	Composite	Effluent
TP Load [7,8]	Monitor & Report (lb/mo) Monitor & Report (lb/yr)			Monthly Annually	Calculated	Effluent
Total Nickel				Monthly	Composite	Effluent
Total Copper				Monthly	Composite	Effluent
Total Zinc				Monthly	Composite	Effluent
Chronic Toxicity [9]				Quarterly	Composite	Effluent
Effluent Pollutant Scan	Monitor and Report			Footnote 10	Footnote 10	Effluent

All footnotes are listed on the following page.

Footnotes from Effluent Limitations and Monitoring Requirements (Outfall 002):

1. Sample locations: Upstream = at least 100 yards above the outfall; Downstream = at least 100 yards downstream from the outfall. Instream monitoring shall be conducted 3/Week during June, July, August, and September, and once per week during the remainder of the year. Instream monitoring is provisionally waived in light of the Permittee's participation in the Upper Cape Fear River Basin Association. Instream monitoring shall be conducted as stated in this permit should the Permittee end its participation in the Association. However, upstream and downstream monitoring for fecal coliform must be performed and reported regardless of association membership.
2. The monthly average BOD5 and Total Suspended Residue concentrations shall not exceed 15% of the respective influent value (85% removal).
3. The daily dissolved oxygen effluent concentration shall not be less than 6.0 mg/l.
4. Total Residual Chlorine limit applies if chlorine or chlorine derivative is used for disinfection. The Division shall consider all effluent TRC values reported below 50 µg/l to be in compliance with this permit. The Permittee shall continue to record and submit all values reported by a North Carolina certified laboratory even if these values fall below 50 µg/l.
5. The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units.
6. TN = TKN + NO_3-N + NO_2-N, where TN is Total Nitrogen, TKN is Total Kjeldahl Nitrogen, and NO_3-N and NO_2-N are Nitrate and Nitrite Nitrogen, respectively.
7. TN or TP Load is the mass quantity of Total Nitrogen or Phosphorus discharged in a given period of time. See Condition A. (7.).
8. Compliance with mass limits shall be determined in accordance with Conditions A.(4.) and A.(5.).
9. Chronic Toxicity (Ceriodaphnia) P/F at 4.0 %; March, June, September & December. See Condition A.(8.).
10. The permittee shall perform three Effluent Pollutant Scans during the term of this permit. See Special Condition A. (9).

There shall be no discharge of floating solids or foam.

A.(4.) COMBINED LIMITATIONS – Outfall C01 (Combined Outfalls 001 and 002)

During the period beginning on the dates specified below and lasting until permit expiration, the Permittee is subject to the following combined limitations for discharges from Outfalls 001 and 002 in addition to any limits specified in Conditions A.(1.) and A.(2.) of this permit:

EFFLUENT CHARACTERISTICS	EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS		
	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location[1]
Flow	3.22 MGD			See Conditions A.(1.) and A.(2.)		Combined 001 & 002
TP Delivered Load [2]	3,731 lb/yr			Annually	Calculated	Combined 001 & 002
TN Delivered Load [2]	Monitor and Report 27,514 lb/yr (effective 1/1/2019)			Annually	Calculated	Combined 001 & 002

Footnotes:

1. Values at Combined Outfall C01 are the sum of the corresponding values at Outfalls 001 and 002.
2. Compliance with the nutrient limits shall be determined in accordance with Conditions A.(5.) and A.(6.) of this permit.

A.(5.) NUTRIENT ALLOCATIONS AND LIMITS

(a.) The Pittsboro WWTP is assigned Total Phosphorus (TP) and Total Nitrogen (TN) allocations under the following authorities:

(i.) Robeson Creek Total Phosphorus TMDL, approved 1/13/2004.

(ii.) Jordan Lake TMDL, approved 9/20/2007 and incorporated into Jordan Lake Nutrient Management Strategy - Wastewater Discharge Requirements, T15A NCAC 02B .0270 (the "wastewater rule").

(b.) The purpose of this condition is to list the allocations assigned to the Permittee and any changes in the allocations resulting from transfers to or from the Permittee. For compliance purposes, these allocations do not supersede any TN or TP limit specified elsewhere in this permit or in the NPDES permit of a compliance association of which the Permittee is a Co-Permittee Member.

(c.) The Robeson Creek TMDL limits the discharge of Total Phosphorus from the Pittsboro WWTP into Robeson Creek (Outfall 001) to 322 lb TP per summer season (April 1 - October 31).

(d.) The Jordan Lake TMDL and wastewater rule limit Total Nitrogen and Total Phosphorus contributions from point and nonpoint sources into Jordan Lake and its tributaries. The following table lists the allocations assigned to, acquired by, or transferred to the Permittee in accordance with the Jordan Lake wastewater rule and the status of each as of permit issuance. For compliance purposes, this table does not supersede any TN or TP limit established elsewhere in this permit or in the NPDES permit of a compliance association of which the Permittee is a Co-Permittee Member.

Total Nitrogen Allocation

ALLOCATION TYPE	SOURCE	DATE	ALLOCATION AMOUNT (1)		STATUS
			Delivered (lb/yr)	Discharge (lb/yr)	
Base	Assigned by Rule (T15A NCAC 02B .0270)	8/11/09	27,514	36,202	Active
		TOTAL	27,514	36,202	Active

Footnote:

(1) Nitrogen Transport Factor = 76% at Robeson Creek (Outfall 001), 99% at Haw River (Outfall 002).

Total Phosphorus Allocation

ALLOCATION TYPE	SOURCE	DATE	ALLOCATION AMOUNT (1)		STATUS
			Delivered (lb/yr)	Discharge (lb/yr)	
Base	Assigned by Rule (T15A NCAC 02B .0270)	8/11/09	3,731	4,551	Active
		TOTAL	**3,731**	**4,551**	Active

Footnote:

(1) Phosphorus Transport Factor = 82% at Robeson Creek (Outfall 001), 99% at Haw River (Outfall 002).

(e.) Any addition, deletion, or modification of the listed allocation(s) (other than to correct typographical errors) or any change in status of any of the listed allocations shall be considered a major modification of this permit and shall be subject to the public review process afforded such modifications under state and federal rules.

A.(6.) ANNUAL NUTRIENT LIMITS – Jordan Lake

(a.) Total Nitrogen (TN) and Total Phosphorus (TP) allocations and load limits established under the Jordan Lake Nutrient Management Strategy for NPDES wastewater dischargers are annual values and apply on a calendar year basis. (The provisions of this special condition are limited to these annual limits and do not apply to seasonal limits established in the Robeson Creek TMDL.)

(b.) For any given calendar year, the Permittee shall be in compliance with the annual TN (or TP) Load limit in this Permit if:

(i.) the Permittee's annual TN (or TP) Load is less than or equal to the effective limit, or

(ii.) the Permittee is a Co-Permittee Member of a compliance association.

(c.) The TN (or TP) Load limit in this Permit may be modified as the result of allowable changes in the Permittee's allocations.

(i.) Allowable changes include those resulting from purchase of TN (or TP) allocation from an authorized mitigation banker, the Ecosystem Enhancement Program, or other source allowed under applicable regulations; purchase, sale, trade, or lease of allocation between the Permittee and other dischargers; regionalization; and other transactions approved by the Division.

(ii.) The Permittee may request a modification of the TN (or TP) Load limit in this Permit to reflect allowable changes in its allocation(s).

(A) Upon receipt of timely and proper application, the Division will modify the permit as appropriate and in accordance with state and federal program requirements.

(B) Changes in TN (or TP) limits become effective on January 1 of the year following permit modification. The Division must receive application no later than August 31 for changes proposed for the following calendar year.

(iii.) Any requests for modification should be sent to:

NCDENR/ DWR/ NPDES Programs
Attn: Jordan Lake Watershed Coordinator
1617 Mail Service Center
Raleigh, NC 27699-1617

(d.) If the Permittee is a member and co-permittee of an approved compliance association on January 1 of a given year, its TN and TP discharges during that year are governed by that association's group NPDES permit and the limits therein.

(i.) The Permittee shall be considered a Co-Permittee Member for any given calendar year in which it is identified as such in Appendix A of the association's group NPDES permit.

(ii.) Association roster(s) and members' TN and TP allocations will be updated annually and in accordance with state and federal program requirements.

(iii.) If the Permittee intends to join or leave a compliance association, the Division must be notified of the proposed action in accordance with the procedures defined in the association's NPDES permit.

(A) Upon receipt of timely and proper notification, the Division will modify the permit as appropriate and in accordance with state and federal program requirements.

(B) Membership changes in a compliance association become effective on January 1 of the year following modification of the association's permit.

(e.) The TN and TP monitoring and reporting requirements in this Permit remain in effect throughout the term of the Permit and are not affected by the Permittee's membership in a compliance

association.

A.(7.) CALCULATION AND REPORTING OF NUTRIENT LOADS

The Permittee shall calculate and report monthly and annual nutrient loads as follows:

(a.) Calculation of Discharge Loads (Outfalls 001 and 002): The Permittee shall calculate monthly and annual discharge loads for each outfall as follows:

(i.) Monthly Discharge Load (lb/mo, TN or TP) = TN (or TP) x TMF x 8.34

where:

TN (or TP)	=	the average Total Nitrogen (or Total Phosphorus) concentration (mg/L) of the composite samples collected during the month
TMF	=	the Total Monthly Flow of wastewater discharged during the month (MG/mo)
8.34	=	conversion factor, from (mg/L x MG) to pounds

(ii.) Annual Discharge Load (lb/yr, TN or TP) = Sum of the 12 Monthly TN (or TP) Loads for the calendar year

(b.) Calculation of Delivered Loads (Outfall C01): The Permittee shall calculate annual delivered loads as follows:

(i.) Individual Outfalls 001 & 002:
Annual Delivered Load (lb/yr, TN or TP) = Annual Discharge Load (lb/yr) x TF

where TF = Transport Factor for each outfall, as specified in Condition A.(5.), Nutrient Allocations and Limits.

(ii.) Combined Outfall C01:
Annual Delivered Load (lb/yr, TN or TP) = Sum of the Outfall 001 & 002 Annual Delivered TN (or TP) Loads for the calendar year

(c.) Reporting of Nutrient Discharges: The Permittee shall report monthly TN and TP discharge loads for Outfalls 001 and 002 in the appropriate discharge monitoring report.

(d.) Reporting of Combined Delivered Loads: The Permittee shall report each calendar year's combined delivered loads for Outfall C01 with the December report for that year and shall append the report with a summary of monthly loads and calculations.

A.(8.) CHRONIC TOXICITY PERMIT LIMITS (QUARTERLY)

The effluent discharge shall at no time exhibit observable inhibition of reproduction or significant mortality to *Ceriodaphnia dubia* at an effluent concentration of **90% at Outfall 001 (Robeson Creek) and 4 % at Outfall 002 (Haw River)**.

The permit holder shall perform at a minimum, *quarterly* monitoring using test procedures outlined in the "North Carolina *Ceriodaphnia* Chronic Effluent Bioassay Procedure," Revised December 2010, or subsequent versions or "North Carolina Phase II Chronic Whole Effluent Toxicity Test Procedure" (Revised- December 2010) or subsequent versions. The tests will be performed performed during the months of **March, June, September, and December**. These months signify the first month of each three month toxicity testing quarter assigned to the facility. Effluent sampling for this testing must be obtained during representative effluent discharge and shall be performed at the NPDES permitted final effluent discharge below all treatment processes.

If the test procedure performed as the first test of any single quarter results in a failure or ChV below the permit limit, then multiple-concentration testing shall be performed at a minimum, in each of the two following months as described in "North Carolina Phase II Chronic Whole Effluent Toxicity Test Procedure" (Revised-December 2010) or subsequent versions.

All toxicity testing results required as part of this permit condition will be entered on the Effluent Discharge Monitoring Form (MR-1) for the months in which tests were performed, using the parameter code **TGP3B** for the pass/fail results and **THP3B** for the Chronic Value. Additionally, DWR Form AT-3 (original) is to be sent to the following address:

Attention: North Carolina Division of Water Resources
Aquatic Toxicology Branch, Water Sciences Section
1621 Mail Service Center
Raleigh, North Carolina 27699-1621

Completed Aquatic Toxicity Test Forms shall be filed with the Environmental Sciences Section no later than 30 days after the end of the reporting period for which the report is made.

Test data shall be complete, accurate, include all supporting chemical/physical measurements and all concentration/response data, and be certified by laboratory supervisor and ORC or approved designate signature. Total residual chlorine of the effluent toxicity sample must be measured and reported if chlorine is employed for disinfection of the waste stream.

Should there be no discharge of flow from the facility during a month in which toxicity monitoring is required, the permittee will complete the information located at the top of the aquatic toxicity (AT) test form indicating the facility name, permit number, pipe number, county, and the month/year of the report with the notation of "No Flow" in the comment area of the form. The report shall be submitted to the Environmental Sciences Section at the address cited above.

Should the permittee fail to monitor during a month in which toxicity monitoring is required, monitoring will be required during the following month. Assessment of toxicity compliance is based on the toxicity testing quarter, which is the three month time interval that begins on the first day of the month in which toxicity testing is required by this permit and continues until the final day of the third month.

Should any test data from this monitoring requirement or tests performed by the North Carolina Division of Water Resources indicate potential impacts to the receiving stream, this permit may be re-opened and modified to include alternate monitoring requirements or limits.

If the Permittee monitors any pollutant more frequently than required by this permit, the results of such monitoring shall be included in the calculation & reporting of the data submitted on the DMR & all AT Form submitted.

NOTE: Failure to achieve test conditions as specified in the cited document, such as minimum control organism survival, minimum control organism reproduction, and appropriate environmental controls, shall constitute an **invalid test** and will require immediate follow-up testing to be completed no later than the last day of the month following the month of the initial monitoring.

A. (9.) EFFLUENT POLLUTANT SCAN

The Permittee shall perform a total of three (3) Effluent Pollutant Scans for all parameters listed below. One scan must be performed in each of the following years: 2014, 2015, and 2016. Analytical methods shall be in accordance with 40 CFR Part 136 and shall be sufficiently sensitive to determine whether parameters are present in concentrations greater than applicable standards and criteria. Samples should be collected with one quarterly toxicity test each year, and must represent seasonal variation [i.e., do not sample in the same quarter every year]. Unless otherwise indicated, metals shall be analyzed as "total recoverable."

Ammonia (as N)
Chlorine (total residual, TRC)
Dissolved oxygen
Nitrate/Nitrite
Kjeldahl nitrogen
Oil and grease
Phosphorus
Total dissolved solids
Hardness
Antimony
Arsenic
Beryllium
Cadmium
Chromium
Copper
Lead
Mercury (EPA Method 1631E)
Nickel
Selenium
Silver
Thallium
Zinc
Cyanide
Total phenolic compounds

Volatile organic compounds:

Acrolein
Acrylonitrile
Benzene
Bromoform
Carbon tetrachloride
Chlorobenzene
Chlorodibromomethane
Chloroethane
2-chloroethylvinyl ether
Chloroform
Dichlorobromomethane
1,1-dichloroethane
1,2-dichloroethane
Trans-1,2-dichloroethylene
1,1-dichloroethylene
1,2-dichloropropane
1,3-dichloropropylene
Ethylbenzene
Methyl bromide
Methyl chloride
Methylene chloride
1,1,2,2-tetrachloroethane
Tetrachloroethylene
Toluene
1,1,1-trichloroethane
1,1,2-trichloroethane
Trichloroethylene
Vinyl chloride

Acid-extractable compounds:

P-chloro-m-cresol
2-chlorophenol
2,4-dichlorophenol
2,4-dimethylphenol
4,6-dinitro-o-cresol
2,4-dinitrophenol
2-nitrophenol
4-nitrophenol
Pentachlorophenol
Phenol
2,4,6-trichlorophenol

Base-neutral compounds:

Acenaphthene
Acenaphthylene
Anthracene
Benzidine
Benzo(a)anthracene
Benzo(a)pyrene
3,4 benzofluoranthene
Benzo(ghi)perylene
Benzo(k)fluoranthene
Bis (2-chloroethoxy) methane
Bis (2-chloroethyl) ether
Bis (2-chloroisopropyl) ether
Bis (2-ethylhexyl) phthalate
4-bromophenyl phenyl ether
Butyl benzyl phthalate
2-chloronaphthalene
4-chlorophenyl phenyl ether
Chrysene
Di-n-butyl phthalate
Di-n-octyl phthalate
Dibenzo(a,h)anthracene
1,2-dichlorobenzene
1,3-dichlorobenzene
1,4-dichlorobenzene
3,3-dichlorobenzidine
Diethyl phthalate
Dimethyl phthalate
2,4-dinitrotoluene
2,6-dinitrotoluene
1,2-diphenylhydrazine
Fluoranthene
Fluorene
Hexachlorobenzene
Hexachlorobutadiene
Hexachlorocyclo-pentadiene
Hexachloroethane
Indeno(1,2,3-cd)pyrene
Isophorone
Naphthalene
Nitrobenzene
N-nitrosodi-n-propylamine
N-nitrosodimethylamine
N-nitrosodiphenylamine
Phenanthrene
Pyrene
1,2,4-trichlorobenzene

Reporting. Test results shall be reported on DWR Form-A MR-PPA1 (or in a form approved by the Director) by December 31st of each designated sampling year. The report shall be submitted to the

following address: **NC DENR / DWR / Central Files, 1617 Mail Service Center, Raleigh, North Carolina 27699-1617.**

A. (10.) ELECTRONIC REPORTING OF DISCHARGE MONITORING REPORTS

Proposed federal regulations require electronic submittal of all discharge monitoring reports (DMRs) and specify that, if a state does not establish a system to receive such submittals, then permittees must submit DMRs electronically to the Environmental Protection Agency (EPA). The Division anticipates that these regulations will be adopted and is beginning implementation in late 2013.

NOTE: This special condition supplements or supersedes the following sections within Part II of this permit (*Standard Conditions for NPDES Permits*):

- Section B. (11.) Signatory Requirements
- Section D. (2.) Reporting
- Section D. (6.) Records Retention
- Section E. (5.) Monitoring Reports

1. **Reporting [Supersedes Section D. (2.) and Section E. (5.) (a)]**

   Beginning no later than 270 days from the effective date of this permit, the permittee shall begin reporting discharge monitoring data electronically using the NC DWR's Electronic Discharge Monitoring Report (eDMR) internet application.

   Monitoring results obtained during the previous month(s) shall be summarized for each month and submitted electronically using eDMR. The eDMR system allows permitted facilities to enter monitoring data and submit DMRs electronically using the internet. Until such time that the state's eDMR application is compliant with EPA's Cross-Media Electronic Reporting Regulation (CROMERR), permittees will be required to submit all discharge monitoring data to the state electronically using eDMR and will be required to complete the eDMR submission by printing, signing, and submitting one signed original and a copy of the computer printed eDMR to the following address:

   NC DENR / DWR / Information Processing Unit
   ATTENTION: Central Files / eDMR
   1617 Mail Service Center
   Raleigh, North Carolina 27699-1617

   If a permittee is unable to use the eDMR system due to a demonstrated hardship or due to the facility being physically located in an area where less than 10 percent of the households have broadband access, then a temporary waiver from the NPDES electronic reporting requirements may be granted and discharge monitoring data may be submitted on paper DMR forms (MR 1, 1.1, 2, 3) or alternative forms approved by the Director. Duplicate signed copies shall be submitted to the mailing address above.

   Requests for temporary waivers from the NPDES electronic reporting requirements must be submitted in writing to the Division for written approval at least sixty (60) days prior to the date the facility would be required under this permit to begin using eDMR. Temporary waivers shall be valid for twelve (12) months and shall thereupon expire. At such time, DMRs shall be submitted

electronically to the Division unless the permittee re-applies for and is granted a new temporary waiver by the Division.

Information on eDMR and application for a temporary waiver from the NPDES electronic reporting requirements is found on the following web page:

http://portal.ncdenr.org/web/wq/admin/bog/ipu/edmr

Regardless of the submission method, the first DMR is due on the last day of the month following the issuance of the permit or in the case of a new facility, on the last day of the month following the commencement of discharge.

2. **Signatory Requirements [Supplements Section B. (11.) (b) and supersedes Section B. (11.) (d)]**

All eDMRs submitted to the permit issuing authority shall be signed by a person described in Part II, Section B. (11.)(a) or by a duly authorized representative of that person as described in Part II, Section B. (11.)(b). A person, and not a position, must be delegated signatory authority for eDMR reporting purposes.

For eDMR submissions, the person signing and submitting the DMR must obtain an eDMR user account and login credentials to access the eDMR system. For more information on North Carolina's eDMR system, registering for eDMR and obtaining an eDMR user account, please visit the following web page:

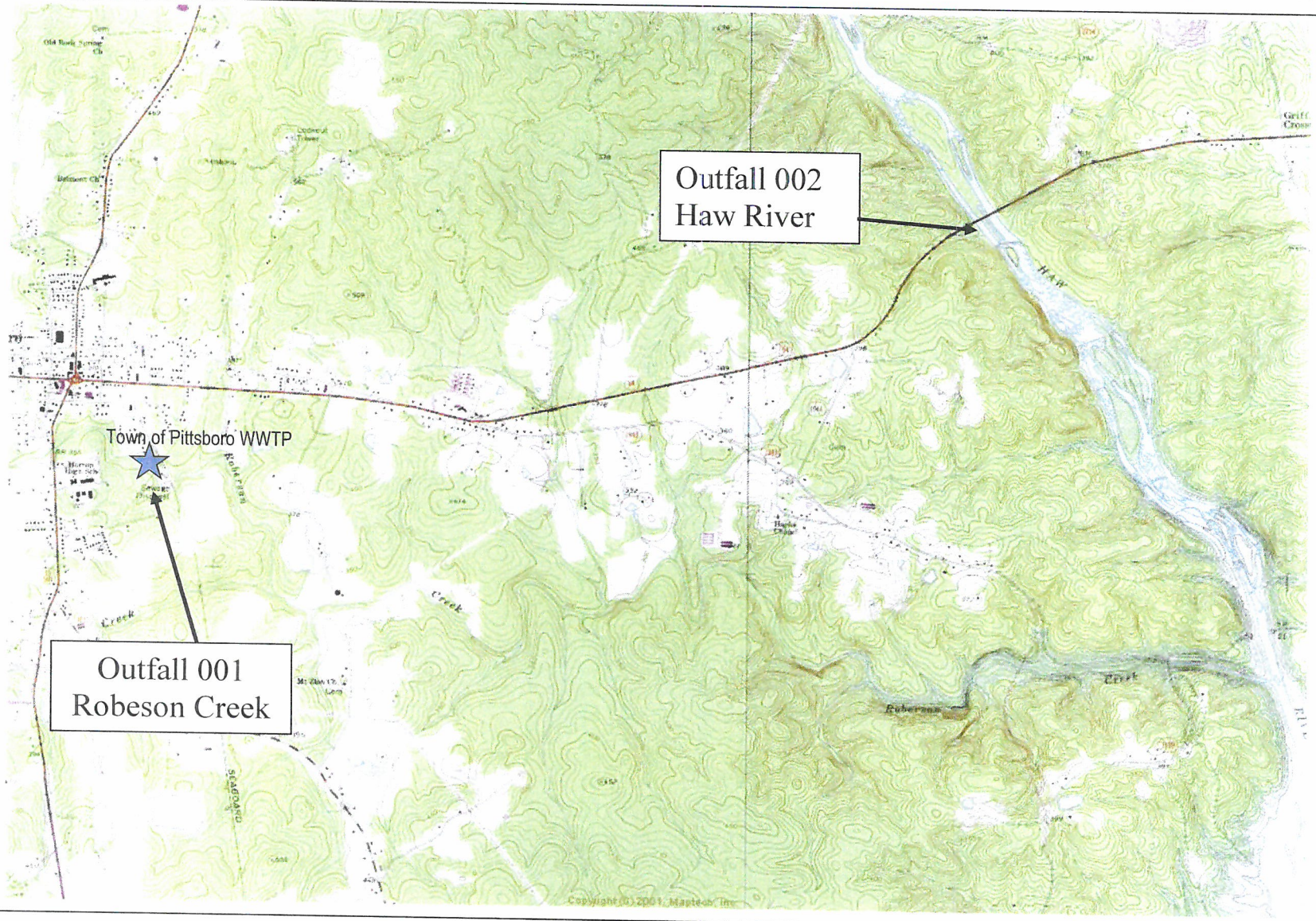
http://portal.ncdenr.org/web/wq/admin/bog/ipu/edmr

Certification. Any person submitting an electronic DMR using the state's eDMR system shall make the following certification [40 CFR 122.22]. NO OTHER STATEMENTS OF CERTIFICATION WILL BE ACCEPTED:

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations."

3. **Records Retention [Supplements Section D. (6.)]**

The permittee shall retain records of all Discharge Monitoring Reports, including eDMR submissions. These records or copies shall be maintained for a period of at least 3 years from the date of the report. This period may be extended by request of the Director at any time [40 CFR 122.41].



Town of Pittsboro WWTP - NC0020354 **Chatham County**

Outfall 001:	Robeson Creek	Stream Class – WS-IV	Lat 35º 42' 48"	Long	79º 10' 14"
Outfall 002:	Haw River	Stream Class – WS-IV	Lat 35º 43' 50"	Long	79º 06' 23"
USGS Quad:	E22NW, Pittsboro	**Sub-basin:** 03-06-04	**HUC:** 03030002		

N

Facility Location
not to scale