SYSTEM PERFORMANCE ANNUAL REPORT

The WWTP located at 8257 Deep Branch Road, Pembroke, NC is a grade three plant. It has a permitted capacity flow of 1.33 MGD. This flow would also consist of the monthly average of 1.33 MGD. Jason Deese is the ORC, with a grade three operator's license.

Performance:

Over the past 12 months the WWTP has treated and average of 10.073 MG. The plant consists of the headworks, two primary aeration basins, two primary clarifiers and a contact chamber. A bar screen is in place to remove all debris such as plastics, rags & etc. Bubbler system and grit channel separates the oil & grease from the grit from the waste water. Two aeration basins that the water flows into after leaving the headworks, starting the biological process that treats the wastewater. After leaving the basins the water enters the clarifiers. The solids are separated from the water. The water then moves to the contact chamber where it is disinfected by chlorine gas to kill any pathogens and it is also dechlorinated to kill any unwanted chlorine. Then deposited back into the Lumbee River.

The collection system also has 23 lift stations throughout the Town that deposits wastewater into the main lift at the WWTP.

Violations:

WWTP had two violations January 2020.

1) Exceeding the monthly flow of 1.33 MG for the month.
2) TSS monthly limit that exceeded 20 MG/L

Violations were due to an industry dumping large quantities of water on the plant due to an algae problem with their lagoon. There were no sewer overflows or environmental impacts that caused these violations. The industry received an NOV for their part in upsetting the WWTP.

Notification:

Customers will be notified on their water bills. The report will be posted on the Town's website and a copy will be posted at Town Hall.

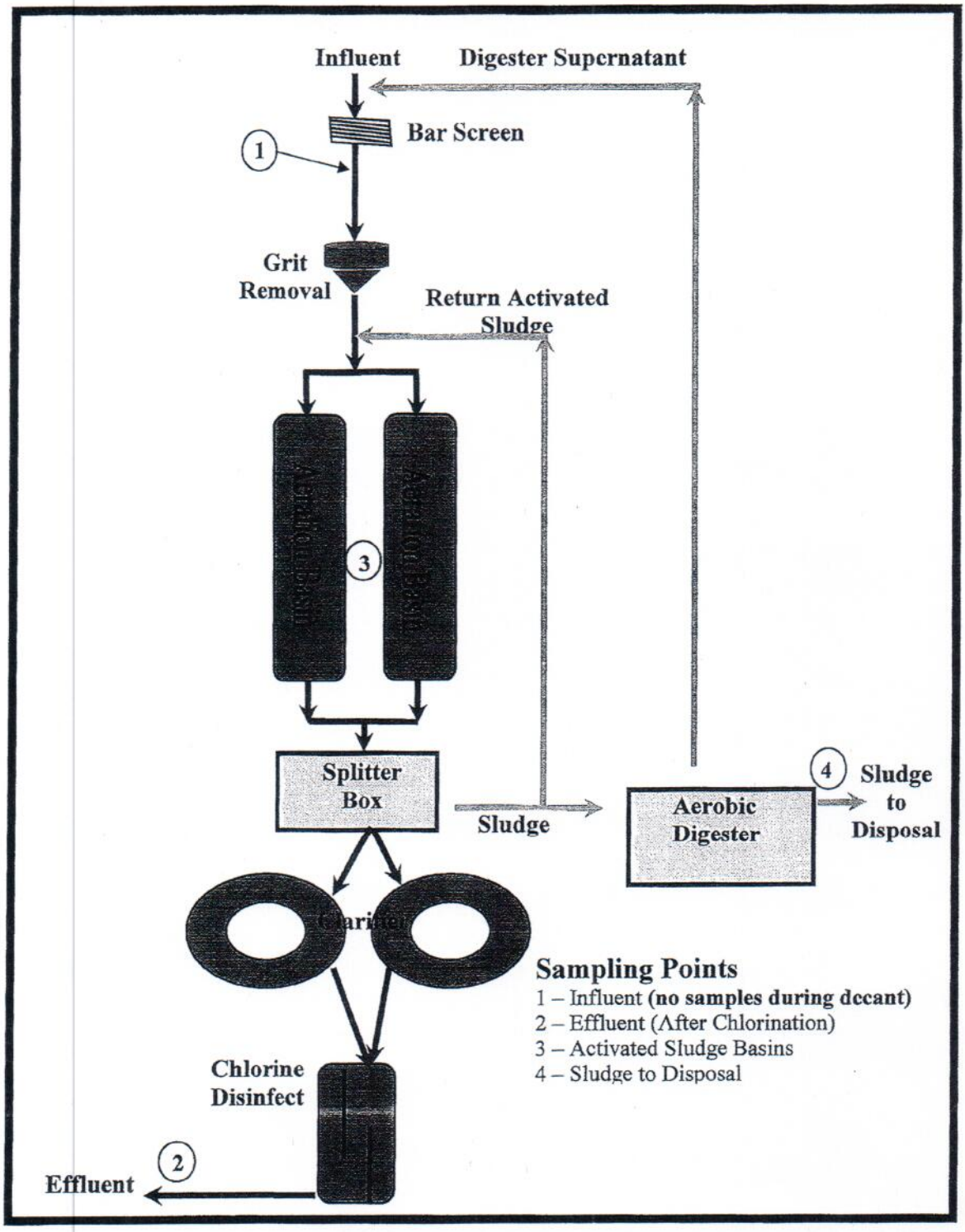
Certification:

I, Jason Deese, the WWTP ORC certify that this report is accurate and complete to the best of my knowledge. Please see the following pages for a flow chart of the WWTP along with the permit.

If you have any questions or concerns please contact:

Jason Deese, WWTP ORC at (910)521-2989

H. WWTP Diagram



PART I

A. (1) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS-FINAL [15A NCAC 02B .0400 et seq., 02B .0500 et seq.]

During the period beginning on the effective date of this permit and lasting until expiration, the Permittee is authorized to discharge from outfall 001. Such discharges shall be limited and monitored[1] by the Permittee as specified below:

EFFLUENT CHARACTERISTICS	LIMITS			MONITORING REQUIREMENTS		
	Monthly Average	Weekly Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location[2]
Flow	1.33 MGD			Continuous	Recording	E or I
Temperature, °C				Daily	Grab	E
Temperature, °C (June 1 – September 30)				3/Week	Grab	U, D
Temperature, °C (October 1 – May 31)				Weekly	Grab	U, D
BOD, 5-day, 20° C [3]	18.0 mg/l	27.0 mg/l		2/Week	Composite	E & I
Total Suspended Solids (TSS) [3]	20.0 mg/l	30.0 mg/l		2/Week	Composite	E & I
Dissolved Oxygen (DO)	Not less than 5.0 mg/l daily average			3/Week	Grab	E
Dissolved Oxygen, mg/l (DO) (June 1 – September 30)				3/Week	Grab	U, D
Dissolved Oxygen, mg/l (DO) (October 1 – May 31)				Weekly	Grab	U, D
Ammonia as Nitrogen (NH_3-N)	12.0 mg/l	35.0 mg/l		2/Week	Composite	E
Fecal Coliform (Geometric mean)	200/100 ml	400/100ml		2/Week	Grab	E
pH	Not more than 9.0 S.U. nor less than 6.0 S.U.			3/Week	Grab	E
Total Residual Chlorine [4]			28 µg/l	3/Week	Grab	E
Total Kjeldahl Nitrogen (TKN)	Monitor and Report, mg/l			Monthly	Composite	E
Nitrite/Nitrate Nitrogen (NO_2-N + NO_3-N)	Monitor and Report, mg/l			Monthly	Composite	E
Total Nitrogen (TN) TN = (NO_2-N + NO_3-N) + TKN	Monitor and Report, mg/l			Monthly	*Calculated*	E
Total Phosphorus (TP)	Monitor and Report, mg/l			Monthly	Composite	E
Chronic Toxicity [5]				Quarterly	Composite	E
Effluent Pollutant Scan	Monitor and Report			Footnote 6	Footnote 6	E

Footnotes:

1. Effective December 21, 2016 begin submitting discharge monitoring reports electronically using NC DWR's eDMR application system. See Special Condition A. (4)
2. Sample locations: E- effluent, I-influent, Upstream = CSX R.R. Trestle (above plant), Downstream = at Bridge SR 1554.
3. The monthly average effluent BOD_5 and Total Suspended Solids concentrations shall not exceed 15 percent of the respective monthly average influent value (85% removal).
4. The Division shall consider all effluent TRC values reported below 50 µg/l to be in compliance with the permit. However, the Permittee shall continue to record and submit all values reported by a North Carolina certified laboratory (including field certified), even if these values fall below 50µ/l.
5. Chronic Toxicity (Ceriodaphnia) P/F at 1.7%; January, April, July, and October. See Special Condition A. (2) of this permit.
6. The permittee shall perform three Effluent Pollutant Scans during the term of this permit [see Special Condition A. (3)].

There shall be no discharge of floating solids or visible foam in other than trace amounts.