

## Compliance Inspection Report

**Permit:** WQ0017224      **Effective:** 10/03/18      **Expiration:** 11/30/23      **Owner :** Gwwtp LLC  
**SOC:**      **Effective:**      **Expiration:**      **Facility:** Ginguite Woods WWTP  
N Croatan Hwy  
**County:** Dare  
**Region:** Washington      Southern Shores NC 27949

**Contact Person:** Bob Howsare      **Title:**      **Phone:** 252-305-2696

### Directions to Facility:

Approximately 0.56 miles east of the Currituck Sound bridge, on the NE corner of the intersection of US 158 (N Croatan Hwy) and S Dogwood Tr in Kitty Hawk.

**System Classifications:** SI,      WW2,

**Primary ORC:**      **Certification:**      **Phone:**  
**Secondary ORC(s):**

**On-Site Representative(s):**

### Related Permits:

**Inspection Date:** 08/03/2021      **Entry Time** 01:00PM      **Exit Time:** 02:00PM  
**Primary Inspector:** Victoria Herdt      **Phone:** 252-948-3911

**Secondary Inspector(s):**  
Robert B Tankard      Phone :252-946-6481 Ext.23

**Reason for Inspection:** Routine      **Inspection Type:** Compliance Evaluation

**Permit Inspection Type:** Reclaimed Water

**Facility Status:**    Compliant    Not Compliant

### Question Areas:

<input checked="" type="checkbox"/> Treatment Flow Measurement-Effluent	<input checked="" type="checkbox"/> Treatment Flow Measurement-Influent	<input checked="" type="checkbox"/> Miscellaneous Questions
<input checked="" type="checkbox"/> Treatment Flow Measurement-Water Use Records	<input checked="" type="checkbox"/> Treatment Barscreen	<input checked="" type="checkbox"/> Treatment Filters
<input checked="" type="checkbox"/> Record Keeping	<input checked="" type="checkbox"/> Treatment Lagoons	<input checked="" type="checkbox"/> Treatment Activated Sludge
<input checked="" type="checkbox"/> Treatment Influent Pump Station	<input checked="" type="checkbox"/> Treatment Clarifiers	<input checked="" type="checkbox"/> Treatment Disinfection
<input checked="" type="checkbox"/> End Use-Infiltration	<input checked="" type="checkbox"/> Treatment Flow Measurement	<input checked="" type="checkbox"/> Treatment Return pumps
<input checked="" type="checkbox"/> End Use-Reuse	<input checked="" type="checkbox"/> Standby Power	<input checked="" type="checkbox"/> Wells

**(See attachment summary)**

**Permit:** WQ0017224

**Owner - Facility:** Gwwtp LLC

**Inspection Date:** 08/03/2021

**Inspection Type :** Compliance Evaluation

**Reason for Visit:** Routine

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**Inspection Summary:**

A compliance inspection was conducted on 08/03/2021 by Victoria Herdt and Robert Tankard of the NCDEQ DWR and Bryan Allen (ORC).

Walking through the plant, the following issues were observed:

EQ basin tanks and head works are rusting and metal is now flaking to a point where the integrity is questionable. The EQ basin and headworks need to be replaced.

The operator is using one clarifier for storage of solids.

Flow meter and turbidity meter did not have calibration sticker. Turbidity meter was not operational on day of inspection.

Infiltration pond had excessive vegetation around the perimeter of the pond. Also algae and duckweed were prevalent in the pond. This may cause problems with infiltration in the future.

Did not evaluate reclaim irrigation system. A rain or moisture sensor needs to be installed and connected to irrigation system.

An attempt to start Generator failed. Generator has had problems in the past and was not operational on day of inspection. The generator need to be replaced. The generator has failed on to many inspections where it is no longer reliable.

All catwalks and safety rails need to be repaired where operators and inspectors can evaluate the system without concerns of safety. This office will refer all safety issues to the Dept. of Labor.

Groundwater violations are present in MW1 and MW2. MW2 is located offsite of wwtp.

Operator and Back-up operator needs to be designated.

On the day of inspection the facility was considered non-compliant in regards to Permit # WQ0017224.

<u>Type</u>	<u>Yes</u>	<u>No</u>	<u>NA</u>	<u>NE</u>
Single Family Spray, LR	<input type="checkbox"/>			
Lagoon Spray, LR	<input type="checkbox"/>			
Infiltration System	<input type="checkbox"/>			
Activated Sludge Spray, LR	<input type="checkbox"/>			
Activated Sludge Spray, HR	<input type="checkbox"/>			
Single Family Drip	<input type="checkbox"/>			
Recycle/Reuse	<input type="checkbox"/>			
Activated Sludge Drip, LR	<input type="checkbox"/>			
Reuse (Quality)	<input checked="" type="checkbox"/>			

<u>Treatment Influent Pump Station</u>	<u>Yes</u>	<u>No</u>	<u>NA</u>	<u>NE</u>
Is the pump station free of bypass lines or structures?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the general housekeeping acceptable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are all pumps present?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are all pumps operable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are floats/controls operable?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are audio and visual alarms available?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are audio and visual alarms operational?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
# Are SCADA/Telemetry alarms required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are SCADA/Telemetry available?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Are SCADA/Telemetry operational?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Comment:

<u>Treatment Flow Measurement-Influent</u>	<u>Yes</u>	<u>No</u>	<u>NA</u>	<u>NE</u>
Is flowmeter calibrated annually?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Is flowmeter operating properly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Does flowmeter monitor continuously?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Does flowmeter record flow?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Does flowmeter appear to monitor accurately?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Comment:

<u>Treatment Flow Measurement-Water Use Records</u>	<u>Yes</u>	<u>No</u>	<u>NA</u>	<u>NE</u>
Is water use metered?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Are the daily average values properly calculated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Comment:

<u>Treatment Flow Measurement-Effluent</u>	<u>Yes</u>	<u>No</u>	<u>NA</u>	<u>NE</u>
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Inspection Type : Compliance Evaluation

Reason for Visit: Routine

- Is flowmeter calibrated annually?
- Is flowmeter operating properly?
- Does flowmeter monitor continuously?
- Does flowmeter record flow?
- Does flowmeter appear to monitor accurately?

Comment: Flow meter is a sigma 950 Totalizer Calibrated by Delta Services. A calibration sticker was not present on Flow meter on day of inspection. Rebecca Manning sent proof of Calibration on 5/27/21 by Delta System Environmental LLC. Turbidity meter was not working on day of inspection.

**Standby Power**

**Yes No NA NE**

- Is automatically activated standby power available?
- Is generator tested weekly by interrupting primary power source?
- Is generator operable?
- Does generator have adequate fuel?

Comment: Old surplus generator was not operational on day of inspection.

**Treatment Barscreen**

**Yes No NA NE**

- Is it free of excessive debris?
- Is disposal of screenings in compliance?
- Are the bars spaced properly?
- Is the unit in good condition?

Comment: Bar screen is corroding along with the Equalization basin. Both should be replaced before a bypass occurs.

**Treatment Activated Sludge**

**Yes No NA NE**

- Is the aeration mechanism operable?
- Is the aeration basin thoroughly mixed?
- Is the aeration equipment easily accessed?
- Is Dissolved Oxygen adequate?
- Are Settleometer results acceptable?
- Is activated sludge an acceptable color?

Comment: Two new BB69 C KAESER Blowers were installed.

**Treatment Clarifiers**

**Yes No NA NE**

- Are the weirs level?
- Are the weirs free of solids and algae?
- Is the scum removal system operational?
- Is the scum removal system accessible?
- Is the sludge blanket at an acceptable level?
- Is the effluent from the clarifier free of excessive solids?

Comment: Clarifier #1 was the only clarifier being used. Operator could not measure sludge blanket because not having an adequate sludge judge.

**Treatment Return pumps**

**Yes No NA NE**

Are they in place?

Are they operational?

Comment:

**Treatment Filters**

**Yes No NA NE**

Is the filter media present?

Is the filter media the correct size and type?

Is the air scour operational?

Is the scouring acceptable?

Is the clear well free of excessive solids?

Is the mud well free of excessive solids and filter media?

Does backwashing frequency appear adequate?

Comment: The filters were not being backwashed as needed. The operator had put additional cartridge filters in the troughs to help with screening any solids that may come from the clarifiers.

**Treatment Disinfection**

**Yes No NA NE**

Is the system working?

Do the fecal coliform results indicate proper disinfection?

Is there adequate detention time (>=30 minutes)?

Is the system properly maintained?

If gas, does the cylinder storage appear safe?

Is the fan in the chlorine feed room and storage area operable?

Is the chlorinator accessible?

If tablets, are tablets present?

Are the tablets the proper size and type?

Is contact chamber free of sludge, solids, and growth?

If UV, are extra UV bulbs available?

If UV, is the UV intensity adequate?

# Is it a dual feed system?

Does the Stationary Source have more than 2500 lbs of Chlorine (CAS No. 7782-50-5)?

If yes, then is there a Risk Management Plan on site?

If yes, then what is the EPA twelve digit ID Number? (1000-\_\_\_\_ - \_\_\_\_)

If yes, then when was the RMP last updated?

Comment:

**Record Keeping**

**Yes No NA NE**

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Is a copy of current permit available?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are monitoring reports present: NDMR?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NDAR?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are flow rates less than of permitted flow?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are flow rates less than of permitted flow?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are application rates adhered to?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is GW monitoring being conducted, if required (GW-59s submitted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are all samples analyzed for all required parameters?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are there any 2L GW quality violations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is GW-59A certification form completed for facility?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is effluent sampled for same parameters as GW?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do effluent concentrations exceed GW standards?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are annual soil reports available?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
# Are PAN records required?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
# Did last soil report indicate a need for lime?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
If so, has it been applied?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Are operational logs present?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are lab sheets available for review?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Do lab sheets support data reported on NDMR?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Do lab sheets support data reported on GW-59s?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are Operational and Maintenance records present?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Were Operational and Maintenance records complete?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Has permittee been free of public complaints in last 12 months?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is a copy of the SOC readily available?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
No treatment units bypassed since last inspection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comment: Rebecca Manning provided NDMR/NDAR, Bench sheets, Lab sheets for October 1, 2020 was spot checked with no discrepancies found..

**End Use-Infiltration**

	<u>Yes</u>	<u>No</u>	<u>NA</u>	<u>NE</u>
# Is the application High Rate or Low Rate?				High Rate
Are buffers maintained?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are any supply wells within the CB?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are any supply wells within 250' of the CB?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is municipal water available in the area?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are GW monitoring wells required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are GW monitoring wells located properly w/ respect to RB and CB?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are GW monitoring wells properly constructed, including screened interval?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Is a usable green area maintained?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Is the disposal site acceptable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the distribution equipment acceptable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the disposal site free of ponding?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Is the disposal site free of breakout?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are the disposal sites free of solids, algae, etc.?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do the records show that the fields are properly maintained?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are the disposal sites free of vegetation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do any surface water features appear to be adversely impacted by GW discharge?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
No chemicals or rototiller used to eliminate vegetation, solids, algae, etc.?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Comment: The infiltration pond needs the woody vegetation removed to insure leaves do not prevent infiltration from occurring at a high rate as designed.

**End Use-Reuse**

	Yes	No	NA	NE
Is the acreage in the permit being utilized?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does the acreage specified in the permit correspond to the measured acreage at the site?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are all essential units provided in duplicate?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is an automatically activated standby power source available?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the equalization capacity adequate?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is aerated flow equalization present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Has the turbidity meter been calibrated in the last 12 months?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does the turbidity meter have recording capabilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is all flow diverted at the appropriate times?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is all upset wastewater diverted from reuse storage unit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is all upset wastewater treated, retreated, or disposed of acceptably?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is upset wastewater treated prior to discharge to irrigation storage?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is public access restricted from irrigation area during active site use?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If golf course, is a sign posted in plain sight on the club house?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Is the cover crop acceptable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Are buffers adequate?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Is the site free of ponding/runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Is the acreage in the permit being utilized?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the application equipment acceptable?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the application area free of limiting slopes?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
How close is the closest water supply well?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are any supply wells within the CB?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are any supply wells within 250' of the CB?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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Is municipal water available in the area?

Are GW monitoring wells required?

Are GW monitoring wells located properly w/ respect to RB and CB?

Are GW monitoring wells properly constructed, including screened interval?

Comment: Spray Irrigation Fields are not being utilized. The weather station is not operable. All wastewater is going to the high rate pond.