

Compliance Inspection Report

Permit: WQ0017224 **Effective:** 10/03/18 **Expiration:** 11/30/23 **Owner :** Gwwtp LLC
SOC: **Effective:** **Expiration:** **Facility:** Ginguite Woods WWTP
County: Dare N Croatan Hwy
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: David John Robertson **Certification:** 987714 **Phone:** 252-489-9711

Secondary ORC(s):

On-Site Representative(s):

Related Permits:

Inspection Date: 03/14/2023 **Entry Time** 11:00AM **Exit Time:** 12:30PM
Primary Inspector: Robert B Tankard **Phone:** 252-946-6481 Ext.233

Secondary Inspector(s):

Victoria Herdt

Reason for Inspection: Routine **Inspection Type:** Technical Assistance

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 | <input checked="" type="checkbox"/> Treatment Barscreen |
| <input checked="" type="checkbox"/> Treatment Filters | <input checked="" type="checkbox"/> Treatment Activated Sludge | <input checked="" type="checkbox"/> Treatment Sludge Storage/Treatment |
| <input checked="" type="checkbox"/> Treatment Clarifiers | <input checked="" type="checkbox"/> Treatment Disinfection | <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 |

(See attachment summary)

Permit: WQ0017224

Owner - Facility: Gwwtp LLC

Inspection Date: 03/14/2023

Inspection Type : Technical Assistance

Reason for Visit: Routine

Inspection Summary:

A compliance inspection was conducted on March 14, 2023 by Victoria Herdt and Robert Tankard of the NCDEQ DWR and Dsve Robertson(ORC) with Atlantic OBX and Bob Howsare.

Walking through the plant, the following issues were observed:

The EQ basin tanks, digester, and aeration basins are new and have been replaced. The barscreen requires a splash plate to direct flows down into the screen. One of the blowers need to be replaced or repaired.

The tankarge for the clarifier, filters and disinfection is in bad shape and needs to be replaced within the next two to five years. The weirs and skimmer of the clarifier work but do not know for how long. The tertiary filters will only work in manual mode so backwashing only occurs when the ORC is on site. The disinfection system needs to be repaired because fecal results does not always meet limits.

The turbidity meter has been replaced and calibrated. The flow meter has been calibrated. The recalimed valve is questionable. Operator did not know if it worked or not. The irrigation system does not work. New pumps and controller are probably needed.

The infiltration pond has been cleaned and looks great. Vegetation needs to be established on the bank to stabilize erosion.

The generator needs to be replaced.

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

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>
Lagoon Spray, LR	<input type="checkbox"/>			
Infiltration System	<input type="checkbox"/>			
Single Family Spray, LR	<input type="checkbox"/>			
Activated Sludge Spray, HR	<input type="checkbox"/>			
Activated Sludge Spray, LR	<input type="checkbox"/>			
Activated Sludge Drip, LR	<input type="checkbox"/>			
Recycle/Reuse	<input type="checkbox"/>			
Single Family Drip	<input type="checkbox"/>			
Reuse (Quality)	<input checked="" type="checkbox"/>			

<u>Treatment</u>	<u>Yes</u>	<u>No</u>	<u>NA</u>	<u>NE</u>
Are Treatment facilities consistent with those outlined in the current permit?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Do all treatment units appear to be operational? (if no, note below.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comment: Facility has replaced the front part of the wwtp. The clarifiers, filters and disinfection system are in need of repair. The spray irrigation system is not operational.

<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 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>
Is flowmeter calibrated annually?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is flowmeter operating properly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does flowmeter monitor continuously?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does flowmeter record flow?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does flowmeter appear to monitor accurately?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comment:

<u>Standby Power</u>	<u>Yes</u>	<u>No</u>	<u>NA</u>	<u>NE</u>
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- Is automatically activated standby power available?
- Is generator tested weekly by interrupting primary power source?
- Is generator operable?
- Does generator have adequate fuel?

Comment: Generator is old surplus army type and has not worked for some time. Generator needs to be replaced.

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: Barscreen requires a splash plate. The way it is designed flow goes around the barscreen. Need the splash plate to direct flow downward through the screen.

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: Aeration tank is a new system.

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: The clarifiers are old and should be replaced within the next two to three years.

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?

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- 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: Filters and tankage is old and needs to be replaced. Filters have to be manually backwashed with only one pump working. Filter media needs to be replaced.

Treatment Sludge Storage/Treatment

Yes No NA NE

- Is the aeration operational?
- Is the aeration pattern even?
- If required, are Sanitary "Ts" present in tankage?

Comment:

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: The disinfection system is old and needs to be replaced. Fecal limits are not being met on a regular basis.

End Use-Reuse

Yes No NA NE

- Is the acreage in the permit being utilized?
- Does the acreage specified in the permit correspond to the measured acreage at the site?
- Are all essential units provided in duplicate?

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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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does the turbidity meter have recording capabilities?	<input checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input 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 type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Is the site free of ponding/runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" 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 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 type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>	<input type="checkbox"/>
Are GW monitoring wells properly constructed, including screened interval?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Comment: Reclaimed irrigatin system is not functional. New irrigation pumps and controllers are required. Diversion valve needs to be checked to make sure it is functional and if not, it needs to be replaced.