TENNESSEE Wastewater
an Aqua Utility
851 Aviation Parkway
Smyrna, TN 37167

Date: May 29, 2015

Mr. David Foster
Tennessee Regulatory Authority
502 Deaderick Street, 4th Floor
Nashville, TN 37243

re: Docket No 14-00006 Monthly Report

Mr. Foster,

Please find enclosed the following information as an update to docket as requested:

1. Notice of Violation issued on February 19, 2015 from Ann Morbit in regards to the River Road/ Lost Hollow facility. Also enclosed is our response to the NOV dated March 16, 2015 asking for clarification on what items of the permit were in violation. As to date, TWSI has not received a response to this letter. Therefore, we are filing this information as just information and TWSI has no corrective measures to take, outside of filing the MOR's monthly rather than quarterly. TWSI has no further cost to encounter or further actions to take at this time.

Sincerely,

Charles Hyatt
President

TENNESSEE Wastewater
an Adenus Utility
851 Aviation Parkway
Smyrna, TN 37167

March 16, 2015

Mrs. Ann Morbitt
Division of Water Pollution Control
711 R. S. Gass Blvd.
Nashville, TN. 37243

Re: Compliance Evaluation Inspection of River Road Lagoon NPDES #TN0074764

Dear Mrs. Ann Morbitt,

This letter is in response to the Compliance Evaluation Inspection letter written on February 19, 2015.

1. **Not providing proper maintenance of the wastewater system:** Please clarify what were the permit violations.

2. **Failure to submit MOR's at the required frequency:** Monthly submission of MOR's will begin immediately.

Please let me know if there are any questions.

Sincerely,

Brian Carter
Operations and Maintenance Manager
Adenus Utilities

TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
NASHVILLE ENVIRONMENTAL FIELD OFFICE
711 R. S. GASS BOULEVARD
NASHVILLE, TENNESSEE 37243
PHONE (615) 687-7000 STATEWIDE 1-888-891-8332 FAX (615) 687-7078

February 19, 2015

Certified Mail Return Receipt
7012 3050 0000 3011 4005

Mr. Charles Hyatt, CEO
Tennessee Wastewater Systems, Inc.
Adenus Group, LLC
849 Aviation Parkway
Smyrna, TN 37167

Re: Notice of Violation
Compliance Evaluation Inspection
Tennessee Wastewater Systems – River Road / Lost Hollow Subdivision Lagoon
NPDES Permit # TN0074764, Cheatham County

Dear Mr. Hyatt:

On September 23, 2014, Ann Rochelle of this office met with Brian Carter of Adenus Operations, LLC, to conduct a Compliance Evaluation Inspection (CEI) of the Tennessee Wastewater Systems' River Road Wastewater Treatment Lagoon. Adenus has a contract with Tennessee Wastewater Systems (TWS) to provide a certified operator and to operate the wastewater treatment system. Mr. Carter is the wastewater treatment system certified operator who has been in charge of the facility. The CEI was conducted to determine facility compliance with the NPDES Permit regarding operation and maintenance, self-monitoring analysis and reporting, and permit effluent limits. Mr. Carter was contacted by telephone on January 14, 2015, to obtain any updates to system status. He stated there had been no changes at the facility since the date of the inspection.

The observations and information obtained during the inspection, from file review, or provided by Mr. Carter are included as follows.

1. The system is designed as an anaerobic lagoon with discharge to the Cumberland River. There are only four customers that discharge into the system, all residential.
2. The lagoon is checked on a monthly basis. Site inspection forms are completed electronically by iPhone and used to document the site visits. These entries are sent to a computer data recording system where the information is stored and can be printed out for use if needed.
3. The lagoon is fenced with a locked gate. There was some damage to the fence that had not been repaired after the 2010 flood. This damage should be repaired to secure the facility. Vegetation growing on, through and around the fence should be kept cleared to prevent additional damage to the fencing material, and to allow inspection for safety and security purposes.
4. The area inside the fence and the slopes of the lagoon as well as the area just outside the fence had recently been cut over with a bush hog. There was still a narrow area of heavy mixed vegetation just above the water level that had not been cut. From the appearance of the cut vegetation, there had been very heavy growth of woody brush and trees or saplings on the embankments of the lagoon. The woody debris had been left on the inside slopes of the lagoon

and some of the material had fallen down into the edge of the water. This woody debris should be removed from the inside slopes so it cannot enter the wastewater.

5. There was still heavy woody brush and saplings growing around the lagoon outlet structure and up through the walkway built over it to provide access from the top of the lagoon embankment. The walkway couldn't be used due to the overgrowth and the outlet standpipe was mostly obscured by the vegetation. This remaining vegetation should be cut and the debris removed to a point outside the embankments. All the area on and within the lagoon embankments must be kept cleared and free of deep rooted woody vegetation or trees. Only grasses or other low growing, shallow rooted vegetation should be allowed. This is necessary to prevent structural damage and the potential for leakage of the embankments, and to allow adequate inspection of the embankments.
6. The outlet standpipe has a riser, made of much smaller PVC pipe, inserted in the top with a flexible boot connector. Due to the overgrown vegetation, the piping could not be observed well enough to inspect its condition or the connection. The PVC riser pipe was observed to be leaning at a steep angle. It extends through the access walkway floor, 18 inches to 2 feet above the walkway. The top of the riser is at an elevation well above the top of the lagoon embankments. The top elevation of the larger outlet pipe is very low on the lagoon embankment. It was not clear how flow could enter the outlet pipe. This piping does not conform to the approved engineering plans for the lagoon. The outlet standpipe should be returned to the structural design in the approved engineering plans.
7. The operator explained that the valve on the discharge line for the effluent standpipe in the lagoon has been kept in the closed position. The valve should be checked during each inspection to verify that no leakage is occurring. These observations should be noted in the site inspection record.
8. There is no control building or electrical service for the site. The discharge line has not yet been completed. An old, open excavation was observed leading away from the lagoon. There were sections of PVC piping in the excavation trench with disconnected pipe joints. This trench lead to the below ground disinfection unit structures, two tanks, which were partly exposed. The system was designed for tablet chlorination. The units are not yet functional. These structures are outside the fence around the lagoon and the area is thickly overgrown with trees and woody brush. The vegetation was so thick that the structures could not be accessed for inspection. The area surrounding any of the treatment structures should be kept cleared of vegetation and maintained. The deep rooted trees and woody vegetation can cause structural damage to the existing structures. The observed conditions indicate that repair or replacement of the units may be necessary before the units could be used in the future. Secure fencing should also be provided around all the treatment structures.
9. The first home was connected to the lagoon in 2001, and the system has only had a total of the four customers since then. The lagoon wastewater level is still approximately half full. This would be expected due to the low influent flows. However, the operator explained that during the May 2010 flood, the floodwaters overflowing from the adjacent Cumberland River had put the lagoon five feet underwater. When the floodwaters receded, this would have left the lagoon full up to the top of the embankments. It would be expected that once the lagoon was full, from that point on it would have maintained a much higher water level if no discharge or leakage was occurring. The lagoon has dropped back to a pre-flood water level. This raises concerns about possible leakage. An inspection by division personnel conducted on June 25, 2008, noted that the lagoon was about half full at that time.

10. There were irregularities and notches just above the wastewater level on part of the embankments inside the lagoon adjacent to the river. After the vegetation is more closely cut along the water line, these areas should be carefully inspected and checked for any potential for leakage through the embankment. The burrowing of animal dens is a possibility based on the appearance of a couple of the points observed.
11. There is no wastewater level gauge installed at the lagoon. The division's engineering design criteria requires that a level gauge be located on outfall structures or be attached to stationary structures. A suitable level gauge should be installed and the gauge readings documented on the site visit forms during each facility inspection. This is necessary to determine when discharge will be necessary and to monitor for any significant water level drop to detect potential leakage.
12. The operator did not know the location of the outfall point on the adjacent Cumberland River bank. This point should be identified and marked. If an outfall structure is in place, some means should be devised to allow inspection of the outfall point. It should be checked to verify that it is still structurally sound. If any damage is found or erosion of the river bank occurs around the structure, it should be repaired and maintained. Any significant erosion of the river bank could over time threaten the structural integrity of the lagoon. The permit requires that a sign be posted to identify the discharge point. A double faced sign that contains the wording required in the permit should be installed.
13. The monthly operation reports (MORs) for the facility on file in our office were reviewed for the three years prior to the inspection. The MORs were submitted quarterly, with "no discharge" reported for three months, all recorded on one MOR form. The permit requires that the MORs be submitted on a monthly basis. The inspection date and time when the facility was visited and the "no discharge" observation should be recorded on each monthly report.
14. The electronically generated form used for reporting is not the appropriate MOR for this type facility and does not reflect the permit limits, sampling frequency, or reporting requirements that are in effect for the lagoon. If an appropriate electronic MOR form is not available to you, our office can provide paper copies of the MOR for your use.
15. Mr. Carter has been signing the MORs as certified operator. He advised that Larry Barnes is now the operator of record for this facility.
16. A letter dated September 24, 2008, cited several items which needed corrective action that were noted during the June 25, 2008, CEI. During this inspection, these same items were found which still have not been addressed.
    - The overgrowth of trees and other woody vegetation
    - Chlorine contact tank located outside the fence enclosing the lagoon
    - A flow monitoring device has not been specified nor installed
    - Submittal of MORs on a quarterly basis instead of monthly
    - This (wastewater treatment system) project must be completed to allow for proper operation when the lagoon does fill

Inadequate maintenance of the wastewater treatment lagoon can result in damage to the structural integrity of the lagoon. This can result in structural damage or failures and discharges of inadequately treated wastewater that would pose a threat to public health and water quality. Not submitting MORs at the required frequency can prevent the division from being made aware of compliance status or any operational problems in a timely manner.

Not providing proper maintenance of the wastewater system, and not submitting self-monitoring reports at the required frequency are violations of the NPDES permit and of the *Tennessee Water Quality Control Act*. Failure to complete system construction in accordance with approved engineering plans and specifications is also a violation of the *Act*.

Please provide a written response within 30 days of receipt of this letter stating what actions have been or will be taken to correct the violations listed in this inspection letter. The corrective action plan (CAP) should include specific corrective measures and dates of completion or a scheduled completion date for each item.

Your prompt attention to these matters is appreciated. I would like to thank Mr. Carter for his assistance provided to division personnel during the inspection. If you should have any questions, or if I can be of further assistance, please contact me at 615-687-7119, or Ann Rochelle at 615-687-7123 or by e-mail at Ann.Rochelle@tn.gov.

Sincerely,

Ann Morbitt
Environmental Program Manager
Division of Water Resources

Cc: Brian Carter, Adenus Operations