

851 Aviation Parkway Smyrna, TN 37167

Tennessee Wastewater Systems, Inc. Docket 15-00025 April 2021 Report Overview

Systems subject to Notice of Violations and other Corrective Orders:

River Road* (NOV) – TWSI is awaiting a signed easement for the land occupied by the sewer system. This is the final requirement TDEC had for resolution of the NOV.

Hidden Springs (Order) – Construction of the new system continues with expected completion date to be early Summer 2021.

Cross Plains (Order) – The CAP 2 was submitted to TDEC in December and TWSI is awaiting approval of those plans so it can begin construction of the sand filter.

Sunnybrook Farms (NOV) – NOV was issued although the site was already undergoing evaluation by the system operator for issues with the treatment plant and drip field.

* There is no KPI Report because there is no discharge from the facility.



STATE OF TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

Division of Water Resources Nashville Environmental Field Office 711 R.S. Gass Blvd. Nashville, Tennessee 37216

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March 25, 2021

Mr. Jeff Risden, CEO Adenus Group, LLC 851 Aviation Parkway Smyrna, TN 37167

RE: Notice of Violation

Tennessee Wastewater Systems, Inc. Sunnybrook Farms Treatment System, SOP-03015 Robertson County, Tennessee

Dear Mr. Risden,

On Tuesday, March 2, 2021, the Division of Water Resources (Division) received a complaint of incorrect operation of the Sunnybrook Farms Treatment System (the system) and raw sewage odors. The complainant submitted photographs of the fenced-in recirculating sandfilter area depicting PVC piping leading from two partly opened round manholes to two partly opened square manholes further down the system.

Ms. Jenny Strobel and Mr. Jordan Fey visited the site on Wednesday, March 3, 2021, to confirm. They met with Mr. Tracy Nichols on site. Photographs from that visit are included in the attached photo log. Near the open manholes, there was a slight sewage odor. According to Mr. Nichols, the PVC piping is used to redirect flow from several zones of the sand filter that are becoming clogged with biomass and draining slowly. He indicated that the system has been set up this way for approximately 6 months. Needing to route flow completely away from zones of the filter for several months is indicative of more serious problems with the treatment system and may cause additional problems by now overloading the zones still in use.

In addition, Ms. Strobel and Mr. Fey walked through the drip field during the site reconnaissance and noted areas of saturation and pooling. Throughout the entire drip field area, black and green algae was observed indicating saturation for an extended period of time. While it had recently rained before the site reconnaissance, the drip field, which is located on higher ground was saturated and had pools of water, while the lower ground around the drip field was dry.

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Sunnybrook Farms Treatment System, SOP-03015
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Also, there is an area within the drip field located approximately 70 feet from the sandfilter area marked with a green flag. According to Mr. Nichols, drip lines that may need repair are flagged for monitoring. The immediate area around the green flag was saturated and a layer of algae was present.

The drip field is an important component of the treatment system. Saturated soils cannot effectively treat the effluent from the sand filter. Drip fields must be sufficiently drained to support treatment despite rainfall. The degree of saturation and presence of algae and slimes are indicative of long-term saturation and that the soils are no longer suitable for disposal of treated effluent.

The permit states that instances of surface saturation, ponding, or pooling within the land application area as a result of system operation are prohibited. In addition, the permit states that that drip irrigation system shall be operated in a manner preventing the creation of health hazard or a nuisance.

Conclusion:

Failure to properly maintain the treatment structure by allowing clogged cells to go unrepaired and bypassing sections of treatment and overloading the drip field causing surface saturation and pooling constitute violations of the State Operating permit and the *Tennessee Water Quality Control Act*. As such, this letter serves as an official Notice of Violation.

Action Items:

Tennessee Wastewater Systems (TWS) must develop and submit a corrective action plan (CAP) detailing steps that will be taken to remedy the issues with the sand filter that require rerouting flow around portions of the system. The CAP should also address how TWS will dispose of effluent from the sand filter. The CAP should detail how TWS will determine the repair or rehabilitation requirements and methods for the sand filter. Additionally, a method of controlling the distribution of wastewater to the zones of the sand filter should be developed that does not require having the tank and well lids open.

Please submit this CAP to the Division by May 26, 2021. The CAP should include proposed timelines.

The cause of the clogged sandfilters must be addressed to maintain correct operation of the system. The ponding in the drip field must be investigated immediately and any sources of effluent on the surface must be repaired as soon as possible.

Please submit evidence of repairs or a plan to address the ponding issues to the Division by April 26, 2021. Any plan submitted must have a completion date of no later than June 26, 2021. Due to the logistics during the ongoing pandemic, this document will not be physically mailed but emailed instead. I am requesting a read-receipt to confirm its delivery. Similarly, an e-mailed

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response as requested above will be accepted. If you have any questions or concerns, please contact Mr. Fey at 615-687-7114 or Jordan.Fey@tn.gov.

Sincerely,

Michael Murphy Program Coordinator

Division of Water Resources

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e-copy:

Jeff Risden, Tennessee Wastewater System, Inc - jeff.risden@adenus.com

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Jenny Strobel, Division of Water Resources — <u>Jenny.strobel@tn.gov</u>
Brad Harris, Division of Water Resources — <u>Brad.Harris@tn.gov</u>

Photographic Log

Client or Facility Name: Site Location: Permit No.:
Sunnybrook Farms Smyrna, TN SOP-03015

Photo No. Date
1 3-3-2021

Description

View of PVC piping emerging from two open manholes located towards the northwest corner of the fenced in recirculating sandfilter area.

Photo taken by Jenny Strobel using state issued iPhone.



Photo No. Date
2 3-3-2021

Description

View of the PVC piping extending from the open manholes, bypassing the clogged areas of the sandfilters, and rerouted to other areas of the sandfilter system. Facing the southeast corner.



Photo No.	Date
3	3-3-2021

Additional view of the PVC piping extending from the open manholes towards the northwest corner or the sandfilter area.

Photo taken by Jenny Strobel using state issued iPhone.



Photo No.	Date
4	3-3-2021

Description

View of the PVC pipe after being rerouted, located along the western boundary of the fenced in sandfilter area.



Photo No.	Date
5	3-3-2021

View of the PVC pipe after being rerouted, located along the southern boundary of the fenced in sandfilter area.

Photo taken by Jenny Strobel using state issued iPhone.



Photo No.	Date
6	3-3-2021

Description

Additional view of the PVC pipe after being rerouted, located along the southern boundary of the fenced in sandfilter area.



Photo No. Date 7 3-3-2021

Description

View of green algae located throughout the drip field, indicating saturation for an extended period of time.

Photo taken by Jenny Strobel using state issued iPhone.



Photo No. Date 8 3-3-2021

Description

View of standing water and green algae located throughout the drip field area.



Photo No.	Date
9	3-3-2021

Additional view of standing water located throughout the drip field area.

Photo taken by Jenny Strobel using state issued iPhone.



Photo No.	Date
10	3-3-2021

Description

View of a broken valve box with standing water surrounding it.



Photo No. Date
11 3-3-2021

Description

View of green algae found throughout the drip field.

Photo taken by Jenny Strobel using state issued iPhone.



Photo No. Date
12 3-3-2021

Description

View of a flagged area in the drip field. According to Mr. Nichols, the lines that may need repair are flagged for monitoring. Note green algae.



Photo No.	Date
13	3-3-2021

View of an area within the drip field with dark green algae and black slime.

Photo taken by Jenny Strobel using state issued iPhone.



Photo No.	Date
14	3-3-2021

Description

Photo taken from the southern boundary of the fenced in sandfilter area. During the site reconnaissance, the higher ground was saturated while the lower ground was dry.

