

From: [Karina Bynum](#)
To: [Elizabeth Rorie](#)
Cc: [Ann Morbitt](#); [Ariel Wessel-Fuss](#)
Subject: Fw: 2022 Facility Monitoring Exceedance Letters
Date: Thursday, January 12, 2023 3:29:04 PM
Attachments: [image001.png](#)
[Outlook-3lwtom4.png](#)

Please upload to TDOT MS4 waterlog and send an acknowledgement out.

Thank you,

Karina Bynum, Ph.D., P. E. | Integrated Water Resources Engineer
Building Communities and Restoring Watershed Health

Division of Water Resources
1221 South Willow Avenue, Cookeville, TN 38506
karina.bynum@tn.gov | (931) 217-6638



We value your feedback! Please complete our [customer satisfaction survey](#).

From: Klint Rommel <Klint.Rommel@tn.gov>
Sent: Thursday, January 12, 2023 2:28 PM
To: Karina Bynum <Karina.Bynum@tn.gov>
Cc: Carma H. Smith <Carma.H.Smith@tn.gov>
Subject: 2022 Facility Monitoring Exceedance Letters

Good afternoon Karina!

Attached you will find the Exceedance Letters for facilities that have surpassed the threshold limits in one or more categories established in the State-Wide Facility Storm Water Monitoring Plan (pH, oil and grease, Chemical Oxygen Demand, Total Suspended Solids, and Chloride).

Within the letters are recommendations the ECO will administer to address any exceedance categories.

Please let me know if you have any questions or would like additional information.

Thank you and have a great rest of the week!



Klint Rommel | Transportation Manager I
Environmental Division, Facility Compliance Section Manager
James K. Polk Building, 9th Floor
505 Deaderick St., Nashville, TN 37243
p. 615-253-2419 c. 615-478-5169



**STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION**

**ENVIRONMENTAL DIVISION
ENVIRONMENTAL COMPLIANCE OFFICE**
SUITE 900, JAMES K. POLK BUILDING
505 DEADERICK STREET
NASHVILLE, TENNESSEE 37243-1402
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BUTCH ELELY
DEPUTY GOVERNOR &
COMMISSIONER OF TRANSPORTATION

BILL LEE
GOVERNOR

January 10, 2023

Karina Bynum, PhD, PE
Tennessee Department of Environment and Conservation
Division of Water Resources
1221 South Willow Avenue
Cookeville, Tennessee 38506

**Re: Tennessee Department of Transportation Facility Monitoring Results
Bethel Springs District Garage**

Dear Ms. Bynum:

Per Section 2.1.6.5 of the Tennessee Department of Transportation (TDOT) Municipal Separate Storm Sewer System Permit TNS077585, a State-wide Facility Stormwater Monitoring Plan (SFMP) has been developed and implemented in each permit year to sample storm water runoff from 19 representative TDOT facilities. The storm water samples for a district garage are sent to a certified laboratory and tested for pH as well as the potential pollutants Oil and Grease, Chemical Oxygen Demand (COD), Total Suspended Solids, and Chloride. If a facility exceeds the pollutant action level, TDOT takes steps to determine the source of the exceedance and then address it. This facility was being re-sampled due to having exceeded pollutant action levels for COD and chloride in 2021. As a courtesy, the Tennessee Department of Environment and Conservation is notified when sampling results are greater than the pollutant action level specified in the SFMP.

On September 7, 2022, EnSafe Inc., consultants to the TDOT Environmental Compliance Office (ECO), conducted analytical monitoring of the storm water discharge from the Bethel Springs District Garage in McNairy County, Tennessee, according to the methods and requirements of the SFMP. The final laboratory analytical reports from this sampling event were received on September 26, 2022. Results from the sample acquired from Outfall 55-D-03, which is the principal and representative outfall draining this facility, included a value for chloride of 1,710 milligrams per liter (mg/L), which exceeds the action level concentration of 1,200 mg/L for chloride specified in the SFMP. The suspected cause of the elevated chloride level was a brine release that occurred on March 9, 2022. While brine was being mixed and a 5,000-gallon tank being filled, a valve was left open and, over a 10-minute period, approximately 1,000 gallons

were released and flowed into the riprap-lined ditch leading to Outfall 55-D-03. Once the release was discovered, the valve was shut and a temporary earthen dam was placed in the ditch to contain the flow. Site personnel were able to recover approximately 165 gallons, but the remaining amount either infiltrated into the riprap ditch or was discharged at the outfall. Site personnel documented the release in a spill report that was placed into the facility's Storm Water Pollution Prevention Plan. Salt- and brine-handling procedures were also reviewed with all pertinent employees to prevent similar accidents from happening in the future. No impacts to vegetation at the outfall were observed. Before and after the sampling event, all salt was observed to be under cover and there was no visible white salt-staining on the ground suggesting salt exposure to storm water. The previous year's sample had a chloride level of 4,400 mg/L, which suggests levels are going down over time. Site personnel are planning on moving brine operations to a new shed in 2023. Secondary containment will be provided for the tanks at the new location to prevent future releases. The Environmental Compliance Office requests that Bethel Springs personnel continue to follow TDOT's Standard Environmental Procedure for salt- and brine-handling, which requires all stored de-icing materials to be kept under cover or contained in a way so that no de-icer is exposed to storm water. Please see the attached photo log.

The Storm Water Pollution Prevention Plan for this facility will be revised to incorporate the lab results.

Please distribute this letter within your department to the appropriate personnel. If you have any questions or concerns, then please email me at Klint.Rommel@tn.gov.

Sincerely,

Klint Rommel
Digitally signed by Klint
Rommel
Date: 2023.01.12 12:28:25
-06'00'

Klint Rommel
Facility Compliance Section Manager
TDOT Environmental Division

Attachments:

Photographic Log



Bethel Springs District Garage

Region 4
Outfall 55-D-03

Photograph 1

Note: View of the salt shed and brine tanks. Salt was being kept 5-foot back from the entrance and there was no visible salt-staining on the grounds. Site personnel expect to move the brine tanks under the new shed some time in 2023. Concrete secondary containment will be constructed for the brine tanks after they have been moved.



Photograph 2

Note: View of the riprap-lined ditch below the salt shed and brine tanks. The storm water sample collected at Outfall 55-D-03 exceeded the action level for chloride. Exposed salt or salt-staining was not observed, but site personnel said there had been a brine release in March 2022. It is suspected that the brine that settled out in the ditch is the source of the high chloride levels. Sediment should be removed from the ditch to minimize sediment transport and to potentially lower the chloride levels.



Bethel Springs District Garage

Region 4
Outfall 55-D-03

Photograph 3

Note: View of riprap-lined ditch leading to Outfall 55-D-03. Storm water samples indicated high chloride levels. It is suspected that brine from the release in March 2022 settled out in the ditch and got washed out with each rain event. No damaged vegetation was observed at the outfall. Sediment should be removed from the ditch to prevent offsite movement and to potentially lower the chloride levels.



Photograph 4

Note: View of the ditch leading to Outfall 55-D-03. The brine tanks are expected to be moved to the new shed in 2023. Secondary containment will be provided for the tanks to prevent releases from happening in the future.