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**MUNICIPAL SEPARATE STORM  
SEWER SYSTEM (MS4)  
COMPLIANCE AUDIT**

**MONMOUTH COUNTY,  
NEW JERSEY**

**Report Date: January 28, 2025**

**Audit Dates: November 14, 2024 (Virtual Audit),  
November 21-22, 2024 (Field Visits)**

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**1.0 Introduction**

The United States Environmental Protection Agency, Region 2 and EPA contractors from Eastern Research Group (ERG), conducted a compliance audit of the Monmouth County’s Municipal Separate Storm Sewer System program consisting of a virtual audit on November 14, 2024 and field visits from November 21-22, 2024. The closing conference was held on November 22, 2024. Table 1 lists the primary representatives who participated in the audit.

**Table 1. Monmouth County MS4 Audit Participants**

Affiliation	Attendees
<p><b>Primary County Representatives:</b></p>	<p>John Tobia – Director of Public Works &amp; Engineering  <a href="mailto:John.Tobio@co.monmouth.nj.us">John.Tobio@co.monmouth.nj.us</a></p> <p>James Cerreta -Assistant Director of Public Works &amp; Engineering  <a href="mailto:James.Cerreta@co.monmouth.nj.us">James.Cerreta@co.monmouth.nj.us</a></p> <p>Jessica Kubida – Environmental Specialist  <a href="mailto:Jessica.Kubida@co.ocean.nj.us">Jessica.Kubida@co.ocean.nj.us</a></p> <p>Dan Frizell – General Supervisor  <a href="mailto:Dan.Frizell@co.monmouth.nj.us">Dan.Frizell@co.monmouth.nj.us</a></p> <p>Steven Toporek – General Supervisor  <a href="mailto:Steven.Toporek@co.monmouth.nj.us">Steven.Toporek@co.monmouth.nj.us</a></p> <p>Alex Whiteside – Assistant Superintendent  <a href="mailto:Alex.Whiteside@co.monmouth.nj.us">Alex.Whiteside@co.monmouth.nj.us</a></p> <p>Joseph Ettore – County Engineer  <a href="mailto:Joseph.Ettore@co.monmouth.nj.us">Joseph.Ettore@co.monmouth.nj.us</a></p>
<p><b>EPA Representatives:</b></p>	<p>Patrick Whalen – Environmental Scientist  <a href="mailto:Whalen.patrick@epa.gov">Whalen.patrick@epa.gov</a></p> <p>Carly Cummings – Physical Scientist  <a href="mailto:Cummings.carly@epa.gov">Cummings.carly@epa.gov</a></p>
<p><b>EPA Contractors:</b></p>	<p>Tiffany Brackett – ERG, Senior Environmental Scientist  <a href="mailto:tiffany.brackett@erg.com">tiffany.brackett@erg.com</a></p> <p>AJ Paige – ERG, Environmental Scientist  <a href="mailto:aj.paige@erg.com">aj.paige@erg.com</a></p>

Audit Report Author:		
Name: Tiffany Brackett	Signature: 	Date: 1/28/2025

The purpose of the audit was to obtain information to assess the County’s compliance with the requirements of the New Jersey Department of the Environmental Protection’s New Jersey Pollutant Discharge Elimination System “Highway Agency Municipal Stormwater General Permit”, Permit No. NJ0141887 which became effective on January 1, 2020 and expired on December 31, 2024. The County is authorized to discharge in accordance with the terms and conditions in the Permit under Authorization to Discharge No. NJG0152234.

The audit focused on Permit Minimum Standards and Other Control Measures for:

- Public Involvement and Participation Including Public Notice
- Local Public Education and Outreach
- Post Construction Stormwater Management in New Development and Redevelopment
- Pollution Prevention / Good Housekeeping
- MS4 Outfall Pipe Mapping, and Illicit Discharge and Scouring Detection and Control
- Stormwater Facilities Mapping
- Stormwater Facilities Maintenance

Construction site stormwater runoff was not evaluated as part of this audit. Part IV.B.3.a. of the Permit states “*construction site stormwater runoff activities are authorized under a separate NJPDES permit, generally the Construction Activity NJPDES Stormwater General Permit No. NJ0088323 pursuant to N.J.A.C. 7:14A-25.6(b)2, (or an individual permit pursuant to N.J.A.C. 7:14A-24.7(a)2.)*”.

The EPA Audit Team compiled information about the County’s MS4 Program through document reviews, interviews with County representatives, and visits to County facilities and MS4 infrastructure. Information is presented in this report as audit observations.

Appendix C, Photograph Log contains photographs taken during the field audit. Appendix D, Exhibit Log, contains Outfall Inspection Reports, Monmouth County 2019 Stormwater Pollution Prevention Plan (SPPP), NJDEP FY18 CEI, Monmouth County 2023 Annual Report, 2023 Street Sweepings, Street Sweepings Disposal Records, Stormwater Management Design Training, Cartegraph Site Screen Captures, 2023 Washout Repairs, and Photographs Received from County Representatives on December 13, 2024.

### **1.1 Audit Procedures**

On November 14, 2024, the day of the virtual audit, members of the EPA Audit Team presented their Clean Water Act (CWA) inspector credentials to County representatives and conducted a brief opening conference. The EPA Audit Team discussed the overall objectives and plans for the virtual and field portions of the audit. The EPA Audit Team compared the SPPP contents, which are the County’s plans for achieving compliance with Permit requirements, with on-the-ground implementation of the minimum standards to identify, reduce, eliminate, or prevent the discharge of stormwater pollutants, and prevent violations of surface water quality, groundwater quality, and sediment management standards. The EPA Audit Team again presented their CWA inspector

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credentials on November 21, 2024, upon arrival for the field visits.

The EPA Audit Team conducted a closing conference with County representatives on November 22, 2024, at the conclusion of the field visits. During the closing conference, the EPA Audit Team presented preliminary audit findings and discussed the process for providing a written report to the County. The County was informed that the findings presented at the closing conference were preliminary and did not constitute a determination of compliance.

### **1.1.1 Notification and Records Request**

On October 29, 2024, the EPA Audit Team provided the County with a formal audit notification letter via electronic mail. The notification stated that the EPA would be auditing the Monmouth County MS4 program for Permit compliance and included an EPA Records Request asking the County to make specific documentation available for review prior to and during the audit. The County provided the EPA Audit Team with electronic and hard copies of requested documents prior to, during, and following the audit. The EPA Audit Team requested that the bolded items in the list be provided by November 6, 2024 and the remaining documents by November 11, 2024. The County provided the EPA Audit Team with electronic copies of some of the requested documents prior to and on November 12, 2024. The EPA Audit Team requested additional documents during and following the audit. These documents are discussed below. The following is a noncomprehensive list of documents provided prior to and during the audit:

- Annual reports for 2021, 2022, and 2023 report years.
- 2023 Basin reconstruction/retrofitting activities database.
- Copies of the regulatory mechanisms defined in Permit Part IV.B.5.a (i.e., wildlife feeding, litter, improper disposal of waste).
- Records of street sweeping and litter pick-up operations (for reporting years 2021, 2022, and 2023).
- Records of catch basin and storm drain inlet inspection and cleaning (most recent Reporting Year).
- Inventory records of storm drain inlet labeling and retrofitting (most recent Reporting Year).
- Outfall map showing the location of the end of MS4 outfall pipes which discharge to a surface water body and the locations and names of all surface water bodies receiving discharges from those outfall pipes.
- Records of dry-weather outfall screening activities.
- Example of tracking mechanism/ documentation of illicit discharges identified, and actions taken to control or eliminate them.
- Map/inventory/list of Permittee facilities and properties within the permitted area (e.g., road maintenance facilities, stockpile sites, storage and material handling areas, etc.).
- Street sweeping records for the last three years.

After the audit, on November 27, 2024, the EPA Audit Team provided the County with an additional EPA Records Request. The additional records request included:

- Spill Prevention, Control, and Countermeasures (SPCC) maps with dates of last revision for Highway District 1, District 4, District 6, and District 10.

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- Cartegraph (asset management system) screen captures for all site visit locations listed above with assets layers turned on as appropriate.
- Specifications/site plans for the Halls Mill Road detention basins site visit
- Documentation related to the district's street sweeping dewatering process:
  - Maps or Cartograph screen captures demonstrating the street sweeping stockpiling and dewatering locations
  - Cartegraph screen capture example of a street sweeping task and associated information
  - Standard Operating Procedure or equivalent documentation of the street sweeping dewatering process.
- The last recorded street sweeping disposal records for Highway District 4, District 8, and District 9.

The County provided the requested records prior to and on December 13, 2024.

**1.2 History and Background**

NJDEP originally issued the County an Authorization to Discharge on April 1, 2004 and assigned the unique identifying number, NJG0152234. Upon expiration of the 2004 Permit, permit coverage was automatically carried over to subsequent NJPDES Highway Agency Municipal Stormwater General Permits, including the current Permit. NJDEP issued the County Authorization to Discharge under the R12 – Highway Agency Stormwater General Permit on December 17, 2019 (refer to Appendix A).

The Permit authorizes the County to discharge stormwater runoff and certain non-stormwater flows from the County’s MS4 to surface water and groundwater.

Based on discussion with County Representatives during the Audit and documentation received on November 12, 2024 , the County’s jurisdiction includes the following receiving waterbodies from the Outfall Inspection Report (refer to Appendix D, Exhibit 1):

Shrewsbury River	Crosswicks Creek	Waackaack Creek	Manalapan Brook
Raritan / Sandy Hook Bay tributaries	Doctors Creek	Chingarora Creek	Whale Pond Brook
Navesink River	Metedeconk River	Matchaponix Brook	Shark River Tributary
McClees Creek	Assunpink Creek	Raritan River	Toms River
Deal Lake	Barnegat Bay	Wreck Pond Brook	Pleasant Run
Manasquan River	New Sharon Branch	Millstone River	

The County encompasses 665.25 square miles, bordered by the Atlantic Ocean to the east, Middlesex County to the north, Mercer and Burlington counties to the west, and Ocean County to the South. According to the 2020 U.S. Census, the total population of the County is approximately 643,615.

The County’s SPPP, developed on April 1, 2005, was last updated in July 2019, (refer to Appendix D, Exhibit 2). The SPPP describes the programs, plans, and activities the County will perform to comply with Permit requirements.

### 1.2.1 Previous Compliance Activity

On June 12 & 15, 2018, NJDEP conducted a compliance evaluation inspection (CEI) of the Monmouth County Highway Agency (refer to [Appendix D, Exhibit 3](#)). NJDEP recorded the following deficiencies during the CEI:

- Housekeeping deficiencies at salt storage buildings in Districts 3, 10, 8, 1, and 7.
- An exposed pile of salt at District 6 was surrounded on three sides with bin block. The salt pile was exposed to the elements.
- MCHA does not have facilities to prevent vac truck wastewater (from catch basin cleaning) from flowing to the surface waters of the state.
- Industrial source materials were observed outdoors without proper containment, in violation of the Permit and/or SPP Plan, including:
  - District 9 had a large pile of waste asphalt without containment;
  - District 9 had large piles of road millings, waste concrete, stone and soil were observed on the grounds without containment;
  - District 9 had one uncovered roll-off labeled "steel only" contained crushed drums and pails of asphalt sealer and other products that must not be exposed to rainwater;
  - District 6 had several 55-gallon drums marked "non-hazardous waste" were stored outdoors on a pallet without cover or containment;
  - the small cold patch stockpile was uncovered at District 6;
  - an uncovered roll-off with several 55-gallon drums of hydraulic oil, and pails of asphalt sealant was observed at District 3;
  - aggregates stored at District 10 had 3-sided walls, some were not high enough to contain the piles of material within (especially sand); and
  - District 8 was not storing aggregates within 3-sided containment.

NJDEP required the County to add BMPs for the following activities:

- Asphalt crushing at District 9, including the storage of material that is crushed and awaiting to be crushed.
- Dumping of vac truck waste from catch basin cleaning.
- Dumping of waste from street sweeper operations.
- Housekeeping in salt storage areas.
- operation and maintenance of oil/water separators that treat water entering the floor drains of several buildings in District 9.
- Covering roll-off containers that contain pollutants, such as petroleum drums and pails, that could be contacted by rain and washed out of the container.

NJDEP's 2018 CEI required the County to add BMPs for the following activities:

- asphalt crushing at District 9, including the storage of material that is crushed and awaiting to be crushed;
- housekeeping in salt storage areas; and
- covering roll-off containers that contain pollutants.

## **2.0 Audit Observations**

The EPA Audit Team made the following observations relative to the County's MS4 program implementation and Permit requirements.

### **2.1 Overall Program Management**

The County's MS4 program is managed and implemented through the Public Works and Engineering Department (PWE). The PWE Environmental Specialist serves as coordinator and primary contact for MS4 program. MS4 related activities within the PWE are performed by the Directors Office, Division of Bridges, Division of Engineering, Division of Fleet Services, and Division of Highways. The County stated that they are not responsible for sanitary sewer maintenance and repairs from municipal systems within their jurisdictional boundaries or adjacent municipalities.

The PWE includes 10 Highway Districts operating across 9 physical facilities. Highway District 2 and District 9 PWE are located at the Public Works Complex in Freehold, NJ, also referred to as "Headquarters". The Division Supervisors from each district are tasked with overseeing program implementation at their respective divisional facilities. Although each Highway District facility has its own unique layout, the common site layout includes components such as an office building, employee parking area, maintenance buildings, salt storage areas, storage for street sweeping debris, cold patch storage, fueling stations, grounds maintenance equipment storage, and dumpsters.

County representatives stated that the County's Division of Highway is responsible for right-of-way maintenance activities including road de-icing, maintenance of catch basins including inlet retrofitting, street sweeping, and garage facility maintenance. The County's Bridge Department oversees catch basin and bridge inspections, including the bridge outfalls for all county bridges. County representatives stated that County field staff are responsible for visually inspecting nearby outfalls during their routine route checks.

County representatives stated that, while the MS4 program is primarily implemented by the PWE staff, some program elements, specifically the illicit discharge detection and elimination (IDDE) program, are concurrently implemented by the County Health Department, Fire Department staff, and Sheriff's Department. At the time of the audit, the County did not have any third-party contractors to carry out any aspects of the MS4 program. County representatives stated that funding for the program is allotted from the County's general funds.

The County representatives stated that they do not have MS4 agreements or memorandums of understanding (MOUs) with neighboring municipalities and MS4s pertaining to their MS4 program. They do, however, have service agreements with adjacent municipalities. The written service agreements allow the municipalities to request that the County provide services such as street sweeping, at a cost to the municipality. The County representatives noted that municipal service activities in other MS4s are not counted in the County's annual report numbers or information.

### **2.2 Stormwater Pollution Prevention Plan (SPPP)**

In response to the EPA Records Request, the County referred to an electronic version of the County's SPPP maintained on the County webpage, which was last updated July 2019 (refer to [Appendix D, Exhibit 2](#)).

The July 2019 SPPP was signed and certified by the Director of Public Works and Engineering. The

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SPPP Team, listed on SPPP Form 1, includes 11 individuals including the County's Deputy Communication Director; Clerk of the Board; County Engineer; Superintendent of Highway; staff from the Division of Engineering and Traffic Safety; the General Supervisor, Division of Highways; the Supervising Road Inspector; the General Supervisor; and staff from PWE. The County representatives stated they reviewed the SPPP contacts annually and acknowledged the list in the current SPPP needed to be updated. Additionally, the SPPP includes the 2009 Permit #NJ0141887 not the current Permit and the 2018 Annual report as attachment.

### **2.3 Public Involvement and Participation**

SPPP Form 2 "Public Notice" states:

*For any meetings where public notice is required under the Open Public Meetings Act ("Sunshine Law", N.J.S.A. 10:4-6 et seq.), Monmouth County provides public notice in a manner that complies with the requirements of that Act.*

*In regard to the county budget, Monmouth County provides public notice in a manner that complies with the requirements of the Local Budget Law, N.J.S.A. 40A:4-1 et seq.*

*For resolutions of the Monmouth County Board of Chosen Freeholders that prove a penalty for violation thereof, Monmouth County provides public notice in a manner that complies with the requirements of N.J.S.A. 40:24-3.*

All public notices appear in the following periodicals:

- *Asbury Park Press*

The SPPP is posted on the County website ([www.co.monmouth.nj.us](http://www.co.monmouth.nj.us)) on the Department of Public Works and Engineering homepage ([https://www.co.monmouth.nj.us/documents/28/HWY\\_FINAL\\_July\\_2019\\_SPPP\\_V2.pdf](https://www.co.monmouth.nj.us/documents/28/HWY_FINAL_July_2019_SPPP_V2.pdf)).

The County representatives stated that updates to the SPPP would be uploaded to their website where the public could review the updates. According to the County representatives, updates to the SPPP would be made at the same time as the development of the annual report.

The EPA Audit Team did not find regulatory mechanisms posted on the County website.

### **2.4 Local Public Education and Outreach**

SPPP Form 4 "Local Public Education Program" states "Monmouth County does not currently own or operate any service or rest areas along the County highway system; therefore distribution of the annual brochure to users of the system is not required. However, Monmouth County will post the annual brochure in common areas of appropriate Highway Agency structures."

The EPA Audit Team confirmed that the County neither owns nor operates rest areas or service areas and is therefore exempt from the requirements outlined in Permit Part IV.B.2.a. According to the 2023 MS4 Annual Report, educational stormwater related brochures are distributed and tracked as part of the MS4 program (refer to [Appendix D, Exhibit 4](#)). However, the County representatives present stated they were not aware of the brochures that were distributed to the public. The EPA Audit Team requested the brochures during and after the virtual call but the County did not provide them.

## **2.5 Post Construction Stormwater Management in New Development and Redevelopment**

SPPP Form 3 “New Development and Redevelopment Program” describes the County’s program.

*The Monmouth County Division of Highways is implementing a post-construction stormwater management in new development and redevelopment program as per the Highway Agency Permit minimum standard. Monmouth County intends to consider the applicable design and performance standards as early as possible in the project planning and design process. The Monmouth County Division of Engineering and Traffic Safety will ensure that all projects which are “new development and redevelopment projects” as described in the Highway Agency Permit are designed in accordance with the permit requirements. These applicable projects will be listed in the Annual Report and Certification. The Monmouth County Division of Highways will maintain these projects in accordance with the County’s Highway Agency Stormwater Permit.*

*On January 12, 2006 the Monmouth County Board of Chosen Freeholders adopted resolution #06-45 which addresses the following goals:*

- 1) Adopt (and incorporates by reference) for such projects the applicable design and performance standards (including maintenance requirements) established under N.J.A.C. 7:8 for major development, and the storm drain inlet design standard in Attachment C;*
- 2) Requires that all such projects be designed to comply with these design and performance standards and this storm drain inlet design standard; and*
- 3) Requires that the Highway Permit’s Post-Construction Program Design Checklist for Individual Projects be completed before each project’s construction is approved.*

*Resolution #06-45 is included in Appendix IV for reference and Appendix III includes the Post-Construction Program Design Checklist for Individual Projects.*

*The Monmouth County Division of Engineering and Traffic Safety works cooperatively with the Monmouth County Division of Planning relative to stormwater management responsibilities concerning new development and redevelopment projects. The cooperation of these, and other County Divisions, are intended to encourage consistency and coordination among County stormwater management activities, and may result in some future revisions to the County’s postconstruction program.*

*For each new development or redevelopment project regulated by the Highway Permit the following information will be included in the Annual Report and Certification:*

- Project name and municipality*
- Description of project*
- Acres of disturbance (estimate)*
- Acres of additional impervious surface (estimate)*
- Land use regulation program permit requirement*
- Completion of Design Checklist for Individual Projects*
- Waiver claims under N.J.A.C. 7:8-5.2(e)*

- *Project approved for construction*
- *Completion of project*

SPPP Form 3 states that compliance with the Permit’s storm drain inlet design criteria will “[f]or most projects, Monmouth County will use the NJDOT bicycle safe grate and (if needed) a curb opening with a clear space no bigger than two (2) inches across the smallest dimension. The storm drain inlets will also be engineered to ensure adequate hydraulic performance.”

When the SPPP was updated in July 2019, it states that “Monmouth County has not constructed any projects regulated by the Highway Permit as new development and redevelopment projects.”

SPPP Form 3 states that “When the County constructs such a project, the County will ensure adequate long-term operation and maintenance of BMPs for that project by preparing (through the Monmouth County Division of Engineering and Traffic Safety) a project maintenance plan in accordance with N.J.A.C. 7:8-5.8 where applicable.”

The PWE Engineering staff complete development plan reviews. The review is completed to ensure that all projects which are “new development and redevelopment projects” as described in the Highway Agency Permit are designed in accordance with the Permit requirements. According to the County SPPP, applicable projects will be listed in the Annual Report and Certification.

County representatives stated that the County recently completed a County road project that included bridge culvert replacements, and other bridge replacement work was in process.

SPPP Form 3 states that the County had not prepared a best management practices (BMP) maintenance plan for stormwater facilities and was in the process of developing a stormwater facility maintenance program to “ensure proper function and operation of all County stormwater facilities regulated by the Highway Permit.” At the time of the audit, the County had not developed a complete inventory of BMPs or a BMP maintenance plan.

### **2.5.1 Stormwater Management Program**

On January 12, 2006, the County adopted a resolution titled “Resolution Authorizing the Adoption of A Policy for Post-Construction Stormwater Management in New Development and Redevelopment in Monmouth County Highway Property.” The resolution contains requirements that all major development on County-owned land should adhere to design and performance standards under the New Jersey Administrative Code (N.J.A.C) 7:8 (refer to [Appendix D, Exhibit 2](#)).

### **2.5.2 Post Construction Stormwater Management Plan Review**

The County representatives stated that the County has engineers assigned to review County design plans. The engineers meet once every two weeks and go over key issues and questions about procedures. County representatives stated all the reviewing engineers have taken training offered by the New Jersey Department of Transportation and some have taken the free training offered by Rutgers University.

### **2.5.3 Post Construction Stormwater Management Facilities Maintenance**

The County representatives stated that the Road Department is responsible for the long-term maintenance of County-owned post-construction facilities (e.g., detention basins). However, based

on discussions with County representatives, the County did not demonstrate that it was following operation and maintenance plans (O&M) for the County-owned post-construction facilities. Specifically, County representatives stated they were still developing an inventory of post-construction facilities but were performing mowing and removal of debris as needed. Depending on the level of effort and size of the activity required County representatives stated that maintenance may be documented in a workplan system.

## **2.6 Pollution Prevention / Good Housekeeping**

“SPPP Form 10 – Regulatory Mechanisms” includes four of the five Permit-required regulatory mechanisms are part of Monmouth County Board of Chosen Freeholders Resolution #06-47; adopted January 12, 2006: Improper Disposal of Waste; Wildlife Feeding; Illicit Connections; and Refuse Containers and Dumpsters. “SPPP Form 10 – Regulatory Mechanisms” states the County does not have a pet waste resolution because *“The Monmouth County Highway Agency does not operate any rest areas or service areas for the Agency facilities subject to this permit.”*

The County representatives stated that each Highway District has maintenance equipment, fueling stations, and salt storage. The County representatives stated that it is the district’s responsibility to ensure that each district is implementing good housekeeping BMPs. The Highway districts are responsible for performing their own inspections and the SPPP provides the standardized process they are to follow. The County representatives stated that each district has an individual approach.

### **2.6.1 Regulatory Mechanisms**

The County has adopted the following regulatory mechanisms:

- #06-47 Prohibits Improper Disposal of Waste Into Storm Sewers on County Highways adopted on adopted on January 12, 2006.
- #06-46 Prohibits Feeding of Unconfined Wildlife on Monmouth County Highway Property, adopted on January 12, 2006.
- #06-49 Prohibits Illicit Connection to Storm Sewers on County Highways, adopted on January 12, 2006.
- #06-45 A Policy and Procedures for Post-Construction Stormwater Management in New Development and Redevelopment in Monmouth County Highway Property, adopted on January 12, 2006.
- MCF 10-28-2010 Policy and Procedures Requiring Dumpsters and Other Refuse Containers that are Outdoors or Exposed to Storm Water to Be Covered at all Times, adopted on October 28, 2010.
- #06-48 Policy and Procedures to Prohibit Littering at any Complex or Property Owned or Operated by Monmouth County, adopted on January 12, 2006.

### **2.6.2 County Wide Control Measures**

#### *Street Sweeping and Litter Pickup*

According to the County’s SPPP Form 12 “Street Sweeping and Road Erosion Control,” *“Monmouth County currently owns/operates 1,000 lane miles of road with approximately 25.3 miles of road that currently meets the Highway Agency general permit criteria requiring monthly sweeping (i.e., 35 mph*

*or less in predominantly commercial areas). Weather permitting, all County roads are swept once per month. Street sweeping diaries are maintained by street sweeper operator and provided to the General Supervisors.”*

SPPP Form 12 includes the County’s highway agency facilities that are subject to the monthly street sweeping requirement and states the district supervisor conducts weekly road inspections to evaluate the need for repair due to erosion. *“Highway district supervisors will complete repair tasks in Cartegraph Asset Management System during scheduled erosion control repairs. This system is utilized in lieu of logs. At the end of the year, a report is calculated and exported into spreadsheet and reviewed by Dan Frizell”* (refer to [Appendix D, Exhibit 5](#)).

According to the County representatives, the County Road Department sweeps the County roads daily. The County representatives stated their street sweeping goal includes:

- With storm drains and discharge to surface waters twice a month but at least once a month at a minimum;
- With storm drains and discharge to surface waters but are not limited access highways twice a month;
- All roads at least once a month;
- County Complexes once a month; and
- Construction projects as necessary.

The County representatives stated that all street sweepings are taken to the County landfill at least once a week. The County provided street sweeping documentation including, street sweeping logs from 2021, 2022, and 2023, landfill manifests, labor logs, and showed the EPA Audit team the district facilities monthly tracking system. The records of inspection do not show that each County road was swept monthly as stated in the SPPP (refer to [Appendix D, Exhibit 2](#)).

The County’s 2023 MS4 Annual Report states that from January 2023 to December 2023, the County conducted 2,977 miles of street sweeping, removing 1,357.4 cubic yards of material County-wide (refer to [Appendix D, Exhibit 6](#)).

In addition to street sweeping, the County representatives stated that they have a litter pickup program where the staff pick up litter daily, weather permitting. The County also has a Clean Communities Program that is implemented through the Sheriff Department and a Clean Beach program implemented with assistance from NJDEP. The County Representatives stated that all litter is weighed and taken to the County landfill. The County’s 2023 MS4 Annual Report estimates that 26.5 tons of litter was picked up during the reporting period.

#### *Catch Basin and Storm Drain Inlet Inspection and Cleaning*

SPPP Form 13 “Stormwater Facility Maintenance” states the intent of the Highway Department is to *“inspect [all catch basins] annually and schedule cleaning and/or repairs based on the results of the physical inspection.”* Per SPPP Form 13, only catch basins with sediment, debris, or trash are cleaned and those cleaned are also inspected for proper function. *“Catch Basin Materials are added to Street Sweeping Materials. All road clean up materials will remain staged on an impervious surface for the appropriate staging time, as per the standards set in guidance provided by the NJDEP Division of Solid*

*and Hazardous Waste.”*

The County representatives stated that there are 6,244 catch basins which are documented in Cartegraph, and the County cleans the catch basin on an as needed basis. A single crew is responsible for patrolling all the roads in each district daily and if they observe a catch basin in need of cleaning, the basin is assigned for cleaning and/or maintenance. Maintenance activities are recorded in Cartegraph. Catch basin cleaning debris is stored at the District yards and disposed of on an as needed basis, usually weekly, at the County landfill.

The County provided inlet and catch basin cleaning records for 2023. The records show 861 catch basin pipes were cleaned and 13,071 inlet tops were cleaned, note this number includes multiple cleanings for single inlets. The 2023 MS4 Annual Report states that the County inspected 6,244 catch basins, cleaned 2,686 catch basins, and collected 867.25 cubic yards of material (refer to [Appendix D, Exhibit 4](#)).

#### *Storm Drain Inlet Labeling*

SPPP Form 5 “ Storm Drain Inlet Labeling” states that *“all of the storm drain inlets within the Monmouth County Highway Agency system have been labeled. This was completed during the 2004 – 2009 permit cycle.”* The SPPP also states that the Division of Highways will ensure long-term maintenance of the storm drain inlet labels during the annual catch basin cleaning program.

During the field visits, the County representatives stated they were working on updating the current inlet labels to the new ID system they were using in Cartegraph which includes the district number, type of asset, and asset number in that district. The County representatives demonstrated how the inlets are tracked in Cartegraph and showed what the old and new identifiers looked like in the system. The County representatives stated that if a label wears down or comes off, then it is replaced using the new labels that are generated by the Signs Division. During the field visits, the EPA Audit Team observed labeled storm drain inlets.

#### *Storm Drain Inlet Retrofits*

SPPP Form 11 “Solids and Floatable Control - Storm Drain Inlets (Retrofitting)” states that *“[f]or most projects, Monmouth County will use the NJDOT bicycle safe grate style and (if needed) a curb opening with a clear space no bigger than two inches across the smallest dimension.”*

The County representatives stated that each district is responsible for retrofitting and repairing storm drains within their district. Retrofitting is completed by County personnel or, if it is part of a larger project, a contractor. The 2023 MS4 Annual Report states that all storm drain inlets in direct contact with repaving, repairing, reconstruction, or alteration projects were retrofitted or replaced to meet standards. According to the 2023 MS4 Annual Report, 61 storm drain inlets were retrofitted during the reporting period (refer to [Appendix D, Exhibit 4](#)).

### **2.6.3 Municipal Maintenance Yards and Other Ancillary Operations**

SPPP Form 17 Standard Operating Procedures (SOPs) states that *“all County facilities with fueling, vehicle and equipment maintenance, and de-icing materials shall be inspected monthly basis.”* SPPP Form 17 includes a source material inventory list for maintenance yard operations.

The individual County District Supervisor is responsible for maintenance and good housekeeping measures at County facilities. The County representatives showed the EPA Audit Team their monthly tracking documentation for items such as street sweeping. During the field visits at the district facilities, some of the facility representatives stated they were performing monthly stormwater inspections of their respective yards. The District facility representatives did not have a consistent method for documentation of monthly inspections at all districts to document monthly inspections but stated some were documented in daily diaries by staff or were tracked as work orders if an issue was identified during the inspection.

The County conducts the following operations at the County District facilities: vehicle fueling, vehicle/equipment maintenance, salt storage, aggregate material storage, vehicle washing, and temporary street sweeping/catch basin material storage.

The EPA Audit Team made observations during the field audit which are further described in Section 4.0 of the report below. Many of these observations are also documented as potential non-compliance items.

#### *Employee Training*

SPPP Form 18 “Employee Training” states “*Monmouth County will conduct a training program for appropriate employees in accordance with topics contained in the permit. The coordinator for these trainings is Gary Fread, Superintendent of Highway. Sign-In sheets are attached to the SPPP.*” Also, “[d]ates of employee training sessions are included in the Annual Report and Certification, previous years’ Report and Certification are included in [SPPP] Appendix VI.” Per SPPP Form 18, training topics covered under annual and new hire training are: waste disposal education; control measures; vegetative waste; illicit connection elimination and outfall pipe mapping; street sweeping; road erosion control and outfall pipe stream scouring remediation; and maintenance yard operations.

The SPPP included on the County’s website and provided to the EPA Audit Team in response to the records request does not include Appendix VI, which is referenced as the location of training records. In response to the EPA records request, the County provided copies of the certificates of employees who had completed the Stormwater Management Design Review Training. The certificates were set to expire on October 14, 2029 (refer to [Appendix D, Exhibit 7](#)).

During the field visits, the District Supervisors stated they talk to their staff about stormwater during routine meetings which are not documented. The County representatives stated that new hires are trained on stormwater topics, covering the ten items listed in the Permit; however, not all training documentation requested by the EPA Audit Team was not provided before, during, or following the audit.

#### *Good Housekeeping BMPs*

SPPP Form 17 lists the County’s SOPs and BMPs for fueling (including fueling, bulk product transfer, spill response), vehicle maintenance (including: fluid disposal, battery & tire storage, washing, and inspection), good housekeeping practices (including: street sweepings, catch basins, cold patch, solid waste, and waste oil storage), and de-icing material storage leachate. SPPP Form 16 “De-Icing Material Storage” lists the following SOPs for good housekeeping of de-icing material handling:

- *“Prevent and/or minimize the spillage of salt and de-icing materials during loading and*

*unloading activities.*

- *At the completion of loading and unloading activities, spilled de-icing materials shall be removed using dry cleaning methods and either reused or disposed of properly.*
- *Sweeping of storage and loading/unloading areas by hand or mechanical means shall be done on a regular basis. More frequent sweeping is required following loading/unloading activities.*
- *Sweeping shall also be conducted immediately following, as practicable, loading/unloading activities.*
- *Tracking of materials from storage and loading/unloading areas shall be minimized.*
- *Minimize the distance de-icing materials are transported during loading/unloading activities.*

*All Highway Districts that store de-icing material do so in a permanent structure, which is compliant with the County's Highway Agency Permit. Districts that must store salt for brine separately from the road salt do so in accordance with the Permit's Interim Seasonal Tarping Good Housekeeping Practices section."*

*SPPP SOP "Best Management Practices De-Icing Material Storage Leachate" describes "practices to address possible leachate bubbling from the surfaces surrounding the wooden barns storing de-icing material. These practices will be implemented upon discovery of the leachate."*

*The SPPP SOP for Good Housekeeping states "[t]his SOP-BMP contains the basic practices of good housekeeping to be implemented during typical day-to-day maintenance activities at the Monmouth County Highway Agency Facilities. The purpose of this SOP is to provide a set of guidelines for all County employees at maintenance yards."*

The SOPs in the SPPP were all developed prior to the 2019 Permit. Fueling Operations, Vehicle Maintenance, Good Housekeeping Practices are dated 2005 and the de-icing material storage leachate SOP is dated 2018. The 2023 MS4 Annual Report states that the County is following the permit-required SOPs.

## **2.7 Outfall Pipe Mapping, and Illicit Discharge and Scouring Detection Control**

*SPPP Form 15 "Outfall Pipe Stream Scouring Remediation" directs the Department of Public Works and Engineering to "implement a stormwater outfall pipe stream scouring, remediation, and maintenance program to detect and control localized stream scouring in the vicinity of the highway system outfall pipes operated by the County, subject to applicable permit requirements and regulations. When possible, inspections of the outfall pipes will be coordinated with inspections for illicit connections." The County will maintain a prioritized list of outfall pipes with scouring and establish a schedule for repairs, "beginning with the outfall pipes most in need of remediation and those most easily accessible. In addition, repairs that do not require NJDEP Land Use permits or other local, State, or Federal permits will be completed first." SPPP Form 15, under "Scouring Long-term Maintenance Program" states "[f]or those outfall pipes in which scouring had been detected, repairs will be scheduled based on the results of the physical inspection with prioritization to areas exhibiting the most severe damage."*

The County purchased and utilizes Cartegraph, a cloud-based public sector focused asset management system for all asset management and tracking in the County, including stormwater

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assets. According to the County's 2023 MS4 Annual Report and County representatives, the County has 649 MS4 outfalls (refer to [Appendix D, Exhibit 4](#)). During the field visits, County representatives stated that not all stormwater assets, including retention basins and bioswales, are included in the Cartegraph system. County representatives demonstrated that Cartegraph supports attaching or linking assets to standard operating procedures, design plans, or other relevant documents.

The County representatives stated that field staff do not have administrative permissions to enter or modify data in Cartegraph. Data entry and updates are limited to supervisors, administrators, and a PWE engineer. Digital mapping in Cartegraph is the responsibility of a PWE engineer unless the County Geographic Information System Department support is needed. The County representatives stated that the Monmouth County Planning Board maintains separate County GIS maps that are available to their staff upon request. However, assets should be the same in both programs.

The County representatives stated during the virtual discussions that they did not have any connections to any other MS4s. However, during the field visits, the County representatives identified areas where the MS4 has interconnections with neighboring municipalities outside the County jurisdiction. Specifically, the County representatives stated there were locations where the County's MS4 directly discharges into the New Jersey Turnpike Authority's MS4 at the headquarters location. County representatives stated these connections were not mapped as outfalls in Cartegraph.

The EPA Audit Team observed that SPPP Form 15 does not provide clear direction as to which outfall scouring will be addressed first, either outfall pipes most in need of remediation, most easily accessible, and outfalls that do not require NJDEP Land Use permits or other local, State, or Federal permits or those with "the most severe damage".

### **2.7.1 Outfall Pipe Mapping**

SPPP Form 6 "MS4 Outfall Pipe Mapping" states *"The municipal separate storm sewer system (MS4) outfalls are mapped as required in the Highway Agency permit. The Monmouth County Division of Engineering and Traffic Safety maintains a GIS inventory of the outfalls within the stormwater system. The County MS4 outfall map is available in the Public Works Building located at 250 Center Street, Freehold Township, New Jersey."*

According to the County's 2023 MS4 Annual Report, the County has 649 MS4 outfalls and all the County's MS4 outfalls are mapped (refer to [Appendix D, Exhibit 2](#)). The County used Cartegraph to demonstrate to the EPA Audit Team the County's mapped MS4 outfalls, County owned/operated facilities, stormwater controls, municipal boundaries, and receiving waters. The County also provided copies of the District Facilities and District Asset maps. The maps provided included outfalls with IDs, buildings, municipal boundaries, county routes, state highways, and local roads. County representatives also stated that the assets are maintained in a GIS map. Cartegraph assets are only updated by the District Supervisors and PWE Engineer, but all staff have access to it. Assets are manually added by designated staff from Headquarters. The County also provided an excel spreadsheet that included all 649 outfalls with their ID, the pipe material, District, city, pipe size, receiving water, notes, and coordinates.

During the field inspection, the EPA Audit Team observed previously unmapped outfalls at several County Facilities. Specifically, the EPA Audit Team observed unmapped MS4 outfalls at the

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Headquarters and Districts 1, 8, and 10 (refer to [Appendix D, Exhibit 8](#)). County representatives stated that they had not mapped connections to other MS4s as outfall locations. After the Audit, the County provided screenshots of outfalls that had been added to the system (refer to [Appendix D, Exhibit 8](#)).

### **2.7.2 Stream Scouring**

SPPP Form 15 “Outfall Pipe Stream Scouring Remediation” directs the Department of Public Works and Engineering to “*implement a stormwater outfall pipe stream scouring, remediation, and maintenance program to detect and control localized stream scouring in the vicinity of the highway system outfall pipes operated by the County, subject to applicable permit requirements and regulations. When possible, inspections of the outfall pipes will be coordinated with inspections for illicit connections.*” The County will maintain a prioritized list of outfall pipes with scouring and establish a schedule for repairs, “*beginning with the outfall pipes most in need of remediation and those most easily accessible. In addition, repairs that do not require NJDEP Land Use permits or other local, State, or Federal permits will be completed first.*” SPPP Form 15, under “Scouring Long-term Maintenance Program” states “[f]or those outfall pipes in which scouring had been detected, repairs will be scheduled based on the results of the physical inspection with prioritization to areas exhibiting the most severe damage.”

The EPA Audit Team observed that SPPP Form 15 does not provide clear direction as to which outfall scouring will be addressed first, either outfall pipes most in need of remediation, most easily accessible, and outfalls that do not require NJDEP Land Use permits or other local, State, or Federal permits or those with “*the most severe damage.*”

The County representatives stated that the Division of Highways and Division of Bridges are responsible for conducting stream scouring investigations and that scouring inspections are conducted concurrently with dry weather flow inspections. At the time of the audit, the County did not provide documentation or other evidence of a written program to detect and investigate stream scouring. The 2023 MS4 Annual Report states, in response to the question of whether the County has a prioritized list of outfall pipes requiring stream scouring remediation “yes” (refer to [Appendix D, Exhibit 4](#)). County representatives stated that routine inspections are completed by bridge or highway inspectors in response to complaints or routinely and that some structures are more “problematic” than others. For frequency of inspections, the County stated that bridges are inspected twice a year and where appropriate the inspector will look for stream scouring. The County provided “Washout Repair” spreadsheets for 2021, 2022, and 2023 which show the areas where washout was identified and addressed. It appears the documents address all washout areas not just stream scouring (refer to [Appendix D, Exhibit 9](#)). The County did not provide documentation of a prioritized inspection program they were following for stream scouring inspections.

### **2.7.3 Illicit Discharge Detection and Elimination**

SPPP Form 7 “Illicit Connection Elimination Program” incorporates the Permit’s Attachment B “Procedures for Detecting, Investigating, and Eliminating Illicit Connections” by reference. Per SPPP Form 7:

*Outfall pipes found to have dry weather flow or indications of intermittent non-stormwater flow will be further investigated by the Monmouth County Division of Engineering and Traffic Safety, with the*

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*assistance of the Monmouth County Health Department, as need. If no dry weather or intermittent flows are observed, there is probably not an illicit connection. Inspection information will be maintained in the County's Asset Management System.*

*The initial step of the investigation process of an Illicit Connection is the completion by Monmouth County Division of Engineering and Traffic Safety personnel of the Illicit Connection Inspection Report Form. Upon completion, if it is determined further investigation is required, this form will be forwarded to the Monmouth County Health Department and entered into the Health Department's Complaint Database.*

*The potential Illicit Connection will be further evaluated by the Health Department, as needed. Upon completion of the investigation by the Health Department, documentation will be returned to the Division of Engineering and Traffic Safety for inclusion in the Annual Report and Certification.*

*For illicit connections from a public source (e.g. the host municipality or a neighboring municipality), notification will be provided to that entity, and a written explanation sent to the NJDEP detailing the results of the investigation. The report should be directed to the permit manager and enforcement case manager.*

SPPP Form 7 directs the County to re-inspect each outfall for illicit connections at least once per five-year Permit cycle and when possible illicit connections are reported by residents or municipalities.

The County representatives stated that they assess mapped outfalls every two years. The last round of inspections took place in 2022, and the next round of inspection is set to occur in 2025. The Outfall Inspection Report provided by the County shows inspections occurred from 2016 through 2023 (refer to [Appendix D, Exhibit 1](#)). In addition to the inspections every two years, the County representatives stated they look at the outfalls on an informal basis year-round, but the informal inspections are not documented unless an issue is identified. Information recorded by the field staff is recorded in their "daily diaries" and take photos as appropriate. County representatives stated that supervisors upload relevant notes and photos to Cartegraph.

When an illicit discharge is identified, the County representatives stated they first check County maps, including any historical maps, then follow the flow upstream using cameras if necessary. If the flow is identified as hazardous, the County Health Department is notified, and they take over the clean-up process. If not, the County representatives stated that they are able to identify the responsible party they would verbally tell them to cease the activity. If in either case, the responsible party does not address the issue, then Code Enforcement or the Building Inspector would be notified, and the issue would be escalated until the illicit discharge stopped and cleaned up.

The County representatives stated that only the Health Department can issue fines, but their staff do not have access to Cartegraph so they continue to work with PWE staff throughout the process. Additionally, County representatives stated that they have a working relationship with the County Health Department and usually receive a phone call or email when an illicit discharge is resolved. According to County representatives, illicit connections are rarely observed but when one is discovered, it is immediately reported to the County Health Department.

The County representatives stated if the public needs to report a possible illicit connection, they would call County staff directly or send an email to the County. The complaint would be added into

the County system as a task order and assigned to the appropriate highway district. Once the complaint is investigated and remediated, it is closed out in the system. County representatives stated that complaints are investigated within 24 hours unless complaints indicate a health and safety concern, then they are investigated immediately.

**3.0 Field Observations**

The table below summarizes the EPA Audit Team’s field observations from site visits conducted in the County from November 21-22, 2024. The weather at the time of the site visit on November 21, 2024 was partly cloudy with temperatures ranging from approximately 39°F to 52°F. The weather at the time of the site visit on November 22, 2024 was partly cloudy with temperatures ranging from approximately 34°F to 42°F.

After the field visit the County provided photographs that showed before and after of housekeeping items at District 6 and District 10. These photographs have been placed in Appendix D, Exhibit 10. All photographs were taken by County representatives.

<b>Site Visit #1: Public Works Freehold Complex (Headquarters)</b>	
<b>Geographic Location:</b> 240 Center Street, Freehold, NJ	<b>Date:</b> 11/21/2024 <b>Time:</b> 9:25 AM (EST) to 11:30 AM (EST)
<p><b>Notable Observations:</b></p> <ul style="list-style-type: none"> <li>• The Public Works Complex Freehold (Complex) houses several different County departments/divisions including the Fleet Services, Traffic Safety, Bridge Division, District 9, Bus Facility, Fueling Station, and District 2. The Complex contains several buildings for materials and equipment storage, vehicle maintenance, vehicle storage lots, asphalt recycling, fueling, and a truck wash. The Complex includes small detention basins and catch basins that convey stormwater to a large detention basin before it leaves the property and enters the MS4. Prior to discharging from the property, stormwater passes through a Jellyfish filtration technology system. The County representatives stated the filtration system at the Complex was not mapped in Cartegraph. Refer to <a href="#">Appendix C, Photographs 1 and 2</a> for general overview photographs of the site.</li> <li>• The EPA Audit Team observed a 30-yard roll-off dumpster containing general waste that did not have a permanent lid/cover (refer to <a href="#">Appendix C, Photograph 3</a>).</li> <li>• The Complex representatives did not have documentation of routine stormwater inspections. The Complex representatives stated they routinely walk the site and look for trash and spills.</li> <li>• The EPA Audit Team observed a partially paved and gravel vehicle and equipment storage area on the middle western boundary and south of the maintenance garage (refer to <a href="#">Appendix C, Photographs 4 and 5</a>). Stormwater at the vehicle storage area would flow to the adjacent large storage basin.</li> <li>• The EPA Audit Team observed the large stormwater detention basin located in the southern part of the Complex. The County representatives stated that the outfall from the filtration conveys stormwater to the NJTA system. Excess stormwater from the basin would be conveyed through a weir, over a spillway, through a filtration system and offsite. The County representatives stated that they believed it connected to the NJTA MS4. (refer to <a href="#">Appendix C, Photographs 6 and 7</a>). The basin consisted of three inlets and one outlet. The</li> </ul>	

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**Site Visit #1: Public Works Freehold Complex (Headquarters)**

outfall from the filtration for the basin had not been mapped at the time of the Audit. At the time of the Audit, no trash or excess growth was observed in the basin.

- A second large stormwater detention basin in the north central portion of the property had four inlets and one outlet that discharges offsite from the southern facility boundary before entering NJTA MS4 system. At the time of the site visit, the EPA Audit Team observed high velocity flow at the outlet. The County representatives stated that the outlet pipe was only 4-inches in diameter and that the pipe could get clogged easily so maintenance was performed at least twice a year in addition to the routine mowing. The outlet discharges to a filtration system and to f the County MS4. At the time of the audit no trash or excess growth was observed in the basin.
- The EPA Audit Team observed a membrane treatment system comprising of several individual filters inside the access point at the outlet for each basin (refer to [Appendix C, Photograph 8](#)). The County representatives stated that, at a minimum, the individual filters are replaced twice per year and the number of individual filters deployed depends on the size of the chamber. Additionally, County representatives stated that not all stormwater filtrations systems currently deployed county-wide were mapped within Cartegraph at the time of the audit.
- The EPA Audit Team observed the County vehicle wash bay and associated floor drain. The wash bay was located indoors and County representatives stated that the wash water goes through an onsite oil/water separator (OWS) before entering the sanitary sewer system.
- The EPA Audit Team observed the fueling station located on the northern side of the district yard near the large detention basin. The fueling station included both gasoline and diesel pumps, spill kits, emergency shutoff access, and an emergency contact number. Fuel storage was observed adjacent to the fueling station with the required signage with three (3) 10,000-gallon above ground storage tanks (ASTs) (refer to [Appendix C, Photographs 9 through 11](#)). A small retention basin containing standing water, located adjacent to the fueling station and AST farm, was observed by the EPA Audit team. No sheen or other abnormalities were observed in the basin. The small detention basin discharges flow south and into the large detention basin located on the southern side of the Complex.
- The EPA Audit Team observed a roll-off dumpster placed adjacent to the salt storage. The dumpster was delivered during the audit and was observed to be empty and without a temporary or permanent cover (refer to [Appendix C, Photograph 12](#)).
- The Complex also had an area designed for asphalt recycling. The area included an asphalt recycler, milling and asphalt storage, and concrete barriers. The asphalt recycler is on an elevated platform with a loading bay below and to the rear of the system (refer to [Appendix C, Photographs 13](#)). Turbid stormwater was observed at the asphalt stockpile storage area following a recent precipitation event (refer to [Appendix C, Photographs 14 and 15](#)).
- The EPA Audit Team observed aggregate storage adjacent to the salt storage. The materials were not fully contained within the covered area (refer to [Appendix C, Photograph 16](#)).

<b>Site Visit #1: Public Works Freehold Complex (Headquarters)</b>	
<ul style="list-style-type: none"> <li>• Sand storage was observed adjacent north of the Division of Bridges building. Sand was observed uncovered and outside of the containment area (refer to <a href="#">Appendix C, Photograph 17</a>).</li> <li>• The EPA Audit Team observed sand storage that was contained and covered. Spillage was observed outside of the containment and exposed (refer to <a href="#">Appendix C, Photograph 18</a>).</li> <li>• The EPA Audit Team observed that the salt storage structure at the Complex was fully enclosed on four sides and designed to prevent stormwater exposure, stormwater run-on, or pollutant run-off (refer to <a href="#">Appendix C, Photograph 19</a>). During the audit, the structure's entryway overhead door was closed, and all sides of the enclosure were secure and in good condition. No significant signs of track out or discharge were observed.</li> <li>• The EPA Audit Team observed the Complex's four double-walled brine storage tanks on elevated concrete slabs. The District 9 portion of the Complex has snowplow storage and solar salt storage used for brine making, and four brine tanks (refer to <a href="#">Appendix C, Photograph 20</a>).</li> <li>• A storage yard containing vehicles and equipment for auction was observed to the north of the salt shed.</li> <li>• The EPA Audit Team observed an enclosure storing oil and used batteries (refer to <a href="#">Appendix C, Photograph 21</a>).</li> </ul>	

<b>Site Visit #2: Robert C. McGurr Bridge Outfall</b>	
<b>Geographic Location:</b> West of the intersection of Halls Mill Road and Elton Adelpia Road	<b>Date:</b> 11/21/2024 <b>Time:</b> 12:10 PM (EST) to 12:20 PM (EST)
<b>Notable Observations:</b> <ul style="list-style-type: none"> <li>• The Robert C. McGurr Bridge and associated outfall is located along Elton Adelpia Road near the intersection with Halls Mill Road and extends across Debois Creek.</li> <li>• The EPA Audit Team observed one outfall located centrally on the northern underside of the bridge (refer to <a href="#">Appendix C, Photographs 22 and 23</a>). The County representatives stated that the outfall is included in the County's routine field inspections.</li> <li>• The EPA Audit Team observed the outfall to be free of obstructions.</li> </ul>	

<b>Site Visit #3: Halls Mill Road Widening Project Post-Construction Facilities</b>	
<b>Geographic Location:</b> Halls Mill Road & Elton Adelpia Road, Freehold, NJ	<b>Date:</b> 11/21/2024 <b>Time:</b> 12:20 PM (EST) to 12:35 PM (EST)
<b>Notable Observations:</b> <ul style="list-style-type: none"> <li>• The EPA Audit Team observed the County-owned Halls Mills Road detention basin, which captures stormwater runoff from the adjacent field and roadway (refer to <a href="#">Appendix C, Photograph 24</a>). The basin and swale systems are mapped within Cartegraph.</li> <li>• The basin's inlet was observed to be in good condition and free from obstructions. The basin's outlet was observed with a protective cage around the structure to limit debris. Standing water was not observed within the basin at the time of the audit (refer to <a href="#">Appendix C, Photographs 25 through 26</a>).</li> </ul>	

<b>Site Visit #3: Halls Mill Road Widening Project Post-Construction Facilities</b>	
<ul style="list-style-type: none"> <li>The northbound and southbound lanes of Halls Mill Road has a vegetated swale located between the adjacent to the stormwater basin (refer to <a href="#">Appendix C, Photograph 27</a>).</li> <li>The County representative stated that maintaining the vegetation within the swale vegetation has been a challenge due to safety concerns during mowing and maintenance operations. At the time of the audit, the swale was observed to be free of trash.</li> </ul>	

<b>Site Visit #4: District 5</b>	
<b>Geographic Location:</b> 383 Cranberry Rd, Howell Township, NJ	<b>Date:</b> 11/21/2024 <b>Time:</b> 1:40 PM (EST) to 2:20 PM (EST)
<p><b>Notable Observations:</b></p> <ul style="list-style-type: none"> <li>The Monmouth County Highway District 5 includes an office building, a catch basin, salt storage building, maintenance garage, aggregate storage, brine storage, fuel island, AST for fuel, dumpsters, and a paved lot for parking and equipment storage (refer to <a href="#">Appendix C, Photograph 28</a>). Marsh Bod Brook is located approximately 30 feet to the east of the facility boundary.</li> <li>The EPA Audit Team observed the street sweeping and cold patch materials storage area on the southern border of the property. The materials are stored within three sided bays without covers to prevent stormwater from commingling with the materials and migrating from the storage area (refer to <a href="#">Appendix C, Photographs 29 and 30</a>.)</li> <li>Facility representatives were unable to produce documentation of stormwater-specific inspections of the Highway District yard required for Good Housekeeping. Facility representatives stated that they complete routine inspections once a week.</li> <li>The EPA Audit Team observed a 30-yard roll-off dumpster adjacent to the salt storage containing general waste that did not have a permanent lid/cover and was not fully covered under the roofing (refer to <a href="#">Appendix C, Photograph 31</a>).</li> <li>The Highway District 5 maintains a fuel island on the northwest corner of the site with one (1) 6,000-gallon diesel underground storage tank (UST) and one (1) 3,000-gallon gasoline UST containing unleaded gasoline and diesel fuel (refer to <a href="#">Appendix C, Photograph 32</a>). A spill kit, emergency shutoff switch, and overfill alarms were present. The signage at the fuel island did not have the required safe operation of fueling language required by the permit.</li> <li>The EPA Audit Team observed that the salt storage structure at the District was fully enclosed on four sides and designed to prevent stormwater exposure, stormwater run-on, or pollutant run-off.</li> </ul>	

<b>Site Visit #5: Outfall OFH-5-002</b>	
<b>Geographic Location:</b> East of Havens Bridge Road and Adelpia Road, Farmingdale, NJ	<b>Date:</b> 11/21/2024 <b>Time:</b> 2:35 PM (EST) to 2:45 PM (EST)
<b>Notable Observations:</b>	
<ul style="list-style-type: none"> <li>• Outfall OFH-5-002 is located along Adelpia Road in a suburban residential area. Flow was observed from the outfall at the time of the audit(refer to <a href="#">Appendix C, Photographs 33 and 34</a>).</li> <li>• Flow from the outfall was observed flowing overland south towards approximately 125 feet towards Crows Creek. The flow was clear and did not have an odor or foam.</li> <li>• County representatives stated they visually check the outfall as a part of their routine inspections, and the outfall is mapped within the Cartegraph system.</li> <li>• The County representatives stated the outfall was last inspected on 11/19/2024 and overgrown vegetation was observed. Vegetation was cleared out on 11/20/2024.</li> </ul>	

<b>Site Visit #6: District 4</b>	
<b>Geographic Location:</b> 2060 Hospital Road, Wall, NJ	<b>Date:</b> 11/21/2024 <b>Time:</b> 3:00 PM (EST) to 3:35 PM (EST)
<b>Notable Observations:</b>	
<ul style="list-style-type: none"> <li>• District 4 includes an office building, salt storage building, maintenance garage, aggregate storage, brine storage, a fuel island, dumpsters, and a paved lot for parking and equipment storage.</li> <li>• The District representatives did not have documentation of stormwater-specific inspections of the Highway District yard as required for good housekeeping. The District representatives stated that they walk the site monthly and note and issues observed in their daily diaries or logs.</li> <li>• The Highway District 4 maintains a fuel island with one (1) 5,000-gallon diesel AST or and one (1) 3,000-gallon gasoline AST (refer to <a href="#">Appendix C, Photograph 35</a>). The signage at the fuel island did not have the required safe operation of fueling language required by the permit.</li> <li>• Cold patch asphalt and aggregate materials were observed stored within three-sided bays with a roof (refer to <a href="#">Appendix C, Photograph 36</a>). The materials were observed to not be fully contained within the structure at the time of the audit.</li> <li>• The County representatives stated that there are three catch basins at the facility that they believe tie into the Wall Township MS4. County representative stated during the audit that the County did not have formal agreements with Wall Township regarding the operations and maintenance for MS4 connections. (refer to <a href="#">Appendix C, Photograph 37</a>).</li> <li>• The EPA Audit Team observed that the salt storage structure at the District was fully enclosed on four sides and designed to prevent stormwater exposure, stormwater run-on, or pollutant run-off (refer to <a href="#">Appendix C, Photograph 38</a>).</li> <li>• The EPA Audit Team observed minor spillage and migration of materials near the aggregate and cold patch storage area. The standing water adjacent to the storage area did not have a sheen or other visual observations to indicate that pollutants had left the storage area in stormwater (refer to <a href="#">Appendix C, Photograph 39</a>).</li> </ul>	

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**Site Visit #6: District 4**

- The 3-sided cold patch bay observed with minor spillage and drainage observed outside of the containment area (refer to [Appendix C, Photograph 40](#)).
- The EPA Audit Team observed the dumpster used to store vegetative debris that was. The dumpster did not have a lid or a permanent cover (refer to [Appendix B, Photograph 41](#)).

**Site Visit #7: District 8**

**Geographic Location:** 1621 Union Ave., Hazlet,  
NJ

**Date:** 11/22/2024

**Time:** 8:00 AM (EST) to 8:45 AM (EST)

**Notable Observations:**

- District 8 includes an office building, staff parking, aggregate storage, trailer parking, brine tanks, metal storage, fueling, and buildings for salt storage and maintenance. A tributary to East Creek was identified along the southern perimeter and adjacent to the paved vehicle parking lot. The tributary flows east along the property boundary towards East Creek (refer to [Appendix C, Photograph 42](#)).
- The County representatives stated that stormwater flow in the parking area and storage area along the fence generally goes towards the Creek which eventually discharges to the bay.
- The EPA Audit Team observed that the salt storage structure at the District was fully enclosed on four sides and designed to prevent stormwater exposure, stormwater run-on, or pollutant run-off.
- Aggregate materials are stored within three sided bays without covers (refer to [Appendix C, Photograph 43](#)).
- Turbid stormwater was observed flowing from the backside of the materials storage area into a vegetated graveled area (refer to [Appendix C, Photograph 44](#)).
- A 30-yard roll-off dumpster was observed to be partially under cover. The roll off contained general road trash (refer to [Appendix C, Photograph 45](#)).
- The District representatives did not have documentation of stormwater-specific inspections of the Highway District yard as required for Good Housekeeping. The District representatives stated that they walk through the site twice a month looking for leaks and checking BMPs but the walkthroughs are not documented.
- Inside the maintenance building, drums containing new and used oil were located next to the door. The drums were within secondary containment, but the drain in the containment directly next to the door was unplugged.
- The fuel island, located near the northwestern corner of the property, has double-walled gasoline and diesel fuel AST. A spill kit was observed next to the fueling area (refer to [Appendix C, Photograph 46 and 47](#)). The signage at the fuel island did not have the required safe operation of fueling language required by the permit.
- A small divot to convey stormwater from the pavement to the lawn was observed next to the fueling station (refer to [Appendix C, Photograph 48](#)).

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<b>Site Visit #7: District 8</b>	
<ul style="list-style-type: none"> <li>The District representatives stated that they combined stormwater training with SPCC training. The training includes how to clean catch basins, checking catch basins, IDDE, road debris handling, and spill notification.</li> </ul>	

<b>Site Visit #8: Outfall OFH-8-072</b>	
<b>Geographic Location:</b> North of Broad St. and 1 <sup>st</sup> St., Keyport, NJ	<b>Date:</b> 11/22/2024 <b>Time:</b> 8:45 AM (EST) to 9:05 AM (EST)
<b>Notable Observations:</b> <ul style="list-style-type: none"> <li>Outfall OFH-8-072 is the discharge point for the stormwater infrastructure supporting the adjacent lot and multiple adjacent blocks of the MS4 system. When not high tide, the outfall discharges onto shoreline for approximately 10-ft before entering Keyport Harbor before entering the Atlantic Ocean. The outfall was exposed and above water at the time of the site visit. County representatives stated that during high tide the outfall is submerged. The outfall was observed by the EPA Audit Team during mid-tide (refer to <a href="#">Appendix C, Photographs 49 through 51</a>).</li> <li>The outfall was observed to be in good condition and free from staining or obstruction.</li> <li>County representatives stated that this outfall is included in the routine outfall inspections and tracked in the Cartegraph system.</li> </ul>	

<b>Site Visit #9: District 1</b>	
<b>Geographic Location:</b> 218 East Road, Middletown, NJ	<b>Date:</b> 11/22/2024 <b>Time:</b> 9:20 AM (EST) to 10:05 AM (EST)
<b>Notable Observations:</b> <ul style="list-style-type: none"> <li>District 1 includes an office building, salt storage building, aggregate storage, brine storage, fuel storage, and a paved lot for parking and equipment storage.</li> <li>The receiving water at the district is East Creek which runs along the southern perimeter of the property. East Creek runs to the bay.</li> <li>The District representatives did not provide documentation of stormwater-specific inspections of the Highway District yard as required under Good Housekeeping practice</li> <li>The EPA Audit Team observed that the salt storage structure at the District was fully enclosed on four sides and designed to prevent stormwater exposure, stormwater run-on, or pollutant run-off (refer to <a href="#">Appendix C, Photograph 52</a>).</li> <li>The EPA Audit Team also observed straw bales surrounding the inlet located adjacent to the salt storage building and equipment lot (refer to <a href="#">Appendix C, Photographs 53</a>).</li> <li>Stormwater collected onsite flows to an outfall that discharges to the East Creek. The EPA Audit Team observed the outfall, and the structure was in good condition. The County representatives stated that the outfall is not currently mapped within Cartegraph (refer to <a href="#">Appendix C, Photograph 54</a>).</li> <li>Sheening was observed throughout the paved lot (refer to <a href="#">Appendix C, Photographs 55 and 56</a>).</li> </ul>	

<b>Site Visit #9: District 1</b>	
<ul style="list-style-type: none"> <li>Street sweepings are stored for dewatering approximately 20-35-ft upgradient of East Creek.</li> <li>The cold patch asphalt stockpile, in a three sided bay, was observed to be uncovered (refer to <a href="#">Appendix C, Photograph 57</a>).</li> <li>The District representatives stated that they completed training with the staff once to twice a year for all employees and new employees are trained as they come on for checking for spills, fuel handling, IDDE, good housekeeping, safety, storm drain clean up and basin cleaning.</li> </ul>	

<b>Site Visit #10: Harbor Way Detention Basins</b>	
<b>Geographic Location:</b> Harbor Way, Belford, NJ near Bedford Ferry	<b>Date:</b> 11/22/2024 <b>Time:</b> 10:10 AM (EST) to 10:20 AM (EST)
<p><b>Notable Observations:</b></p> <ul style="list-style-type: none"> <li>The EPA Audit Team observed two County-owned detention basin systems that receive flow from the adjacent parking lot. The southwestern detention system consists of two (2) smaller basins connecting to one (1) larger basin. The northeastern system consists of once 'L' shaped detention basin (refer to <a href="#">Appendix C, Photographs 58 and 59</a>).</li> <li>At the time of the audit, the detention basin outfall was visually obstructed and could not be safely observed by the EPA Audit Team without entering onto private property. County representative pointed to the suspected location of the outfall, which discharges from the shoreline of Harbor Way before entering Harbor Bay then the Atlantic Ocean.</li> <li>The EPA Audit Team observed erosion and animal burrows on the inner basin berms as well as debris and solid waste in the outlet chamber within the basin (refer to <a href="#">Appendix C, Photographs 60 through 62</a>).</li> </ul>	

<b>Site Visit #10: District 10</b>	
<b>Geographic Location:</b> 690 Route 520, Marlboro Township, NJ	<b>Date:</b> 11/22/2024 <b>Time:</b> 10:53 AM (EST) to 11:25 AM (EST)
<p><b>Notable Observations:</b></p> <ul style="list-style-type: none"> <li>The Monmouth County Highway District 10 includes an office building, salt storage building, aggregate storage, brine storage, vehicle and equipment maintenance garage, fueling, and a paved lot for parking and equipment storage.</li> <li>The EPA Audit Team observed that the salt storage structure at the district yard was fully enclosed on four sides and designed to prevent stormwater exposure, stormwater run-on, or pollutant run-off (refer to <a href="#">Appendix C, Photograph 63</a>). No signs of spillage or discharge were observed.</li> <li>A 30-yard roll off was observed partially covered (refer to <a href="#">Appendix C, Photograph 64 and 65</a>).</li> <li>Staining was observed at the AST and fueling station. The fueling station included gasoline and diesel (refer to <a href="#">Appendix C, Photograph 66</a>).</li> </ul>	

<b>Site Visit #10: District 10</b>	
<ul style="list-style-type: none"> <li>• The EPA Audit Team observed a stormwater conveyance along the eastern side of the paved lot leading to a conveyance. The conveyance was partially obstructed by sediment and leaf litter. The arrow indicates the location of the conveyance (refer to <a href="#">Appendix C, Photograph 67</a>).</li> <li>• Three storm drain inlets on the eastern portion of the yard are connected to three pipes that convey stormwater to the drainage ditch at the east of the property. The pipes discharge approximately 50 to 200 feet upstream of Willow Brook at southeast of the property. Discharge from salt barn and fueling area would be captured by the inlets.</li> <li>• The EPA Audit team noted that stormwater in the remainder of the yard flows toward the southeast corner of the facility, where a discharge point and sinkhole were observed at the discharge point. The discharge point is approximately 200 feet from Willow Brook (refer to <a href="#">Appendix C, Photograph 68</a>).</li> <li>• Some trash and debris were observed throughout the yard including an oil lubricant container with unidentified fluid in the drainage ditch along the southern perimeter.</li> <li>• Between the entrance to the District and Willow Brook, the EPA Audit Team observed a large sediment stockpile on the lawn that was uncontained and uncovered. The District representatives stated that the stockpile was not actively being worked.</li> <li>• The District representatives did not provide documentation of stormwater-specific inspections of the Highway District yard as required under good housekeeping practices. The District representatives stated that they inspect the yard two times a week and they inspect the storm drain inlets prior to and after rain events.</li> </ul>	

<b>Site Visit #11: District 6</b>	
<b>Geographic Location:</b> 750 Wilson Ave, Eatontown Boro, NJ	<b>Date:</b> 11/22/2024 <b>Time:</b> 11:50 AM (EST) to 12:40 PM (EST)
<p><b>Notable Observations:</b></p> <ul style="list-style-type: none"> <li>• The Monmouth County Highway District 6 includes an office building, salt storage building, aggregate storage, brine storage, fuel island, de-activated truck wash, chemical storage, and a paved lot for parking and equipment storage. (refer to <a href="#">Appendix C, Photograph 69</a>)</li> <li>• The EPA Audit Team observed a 30-yard roll-off dumpster adjacent to the salt storage containing general waste that did not have a permanent cover or lid and was not fully covered under the storage shed roof.</li> <li>• Uncovered and uncontained stockpiles of sediment were observed upgradient of a storm drain inlet. Evidence of a discharge of sediment was observed. The sediment was not observed entering the inlet. Uncontained asphalt millings were observed along the northern perimeter upgradient of the storm drain inlets, drainage ditch, and Willow Brook (refer to <a href="#">Appendix C, Photograph 70</a>).</li> <li>• District 6 maintains a fuel island on the northwest corner of the site with one (1) 6,000-gallon diesel UST and one (1) 3,000-gallon gasoline AST for fueling (refer to <a href="#">Appendix C, Photograph 71</a>). A spill kit, emergency shutoff switch, and overfill alarms were present. The signage at the fuel island did not have the required safe operation of fueling language required by the permit.</li> </ul>	

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**Site Visit #11: District 6**

- The EPA Audit Team observed an enclosed chemical storage area (refer to Appendix C, Photograph 72)
- The EPA Audit Team observed that the salt storage structure at the District was fully enclosed on four sides and designed to prevent stormwater exposure, stormwater run-on, or pollutant run-off.
- A partially covered cold patch storage area was not fully contained at the time of the Field visit (refer to Appendix C, Photograph 73).
- The EPA Audit Team observed three-sided bays for aggregate storage (refer to Appendix C, Photograph 74).
- The District included a fueling station with AST for diesel and gasoline, the EPA Audit Team observed spill kits at the fueling station (refer to Appendix C, Photograph 75 and 76).
- The County representatives stated that street sweeping debris are temporarily staged at the district yard and disposed of on a weekly basis when the debris is transported to the County landfill for disposal.
- The County representatives further stated that the volume of sweepings deposited at the facility are recorded and entered in the Cartegraph system by the District supervisor.
- The District representatives did not have documentation of their routine stormwater-specific inspections as required for good housekeeping. The District representatives stated that they complete routine inspections at least two times a week. During the inspection, they check for leaks, spills, debris, and clogged storm drain inlet.
- The County representatives stated that when the military installation, where the District is located, closed the pipes were divided up by municipal boundaries and the property provided to the County, there were requirements for upgrades to the infrastructure. Facility representatives were not sure how all the pipes from the site connected to offsite municipalities.
- Stormwater inlets were observed with leaf litter at the time of the field visit (refer to Appendix C, Photograph 76).
- The County representatives stated they believe the receiving waterbodies for District 6 are Wampum Brook, Huskey Brook, and a pond to the south. The County representatives did not know the name for the pond.
- The District representatives stated that the new employee training provided to the District staff includes reporting IDDE, trash handling, maintenance, debris handling, and communication with other departments.

**4.0 Summary**

**4.1 Potential Non-Compliance Items**

**Stormwater Pollution Prevention Plan**

1. Part IV.A.2.c. of the Permit requires the permittee to “review the SPPP at least annually and update it as often as necessary to reflect changes related to the permittee’s MS4 Stormwater Program.” The SPPP provided by the County prior to the Audit was last updated in July 2019.

At the time of the Audit, the EPA Audit Team found that provided SPPP had not been updated to reflect the permittee's MS4 Stormwater Program, including:

- a) The County representatives stated that the SPPP Team needed to be updated to reflect current staffing.
- b) The SPPP includes a previous version of the permit, which expired in 2014, as an attachment.
- c) The SPPP did not include a section for shared and contracted services information.
- d) Per SPPP Form 4 "Monmouth County will post the annual brochure in common areas of appropriate Highway Agency structures." The County representatives were not aware of the brochures. The EPA audit team requested the brochures during and after the virtual audit, but the County did not provide them.
- e) SPPP Form 3 states "[s]ince the EDPA, Monmouth County has not constructed any projects regulated by the Highway Permit as new development and redevelopment projects. When the County constructs such a project, the County will ensure adequate long-term operation and maintenance of BMPs for that project by preparing (through the Monmouth County Division of Engineering and Traffic Safety) a project maintenance plan in accordance with N.J.A.C. 7:8-5.8 where applicable." At the time of the audit the County did not provide the EPA Audit Team with a project maintenance plan for the Halls Mill Road Project, a new development and redevelopment project. The as-builts for the Halls Mill Road Project are dated 12/23/2023.
- f) SPPP Form 18 "Employee Training" states "Monmouth County will conduct a training program for appropriate employees in accordance with topics contained in the permit. The coordinator for these trainings is Gary Fread, Superintendent of Highway. Sign-In sheets are attached to the SPPP." Also, "[d]ates of employee training sessions are included in the Annual Report and Certification, previous years' Report and Certification are included in [SPPP] Appendix VI." the SPPP provided on the website in response to the EPA's records request does not include Appendix VI which is referenced as the location of training records.
- g) Part IV.A.2.a.iii. requires the SPPP to identify each individual maintenance yard to be covered under each permit authorization, including the geographic region and site specific details of each yard. At a minimum, the SPPP for permittees with multiple yards must include an individual Form 10 (Maintenance Yards and Other Ancillary Operations) for each yard, as well as any other site specific SPPP Forms for each yard, where applicable. The SPPP provided did not include a SPPP Form 10 for each maintenance yard.

### **Post Construction Stormwater Management in New Development and Redevelopment**

2. Part IV.B.4.a. of the Permit requires the permittee to "develop, update, implement and enforce its stormwater management program to address post construction stormwater runoff in new development and redevelopment projects owned or operated by the permittee, and to ensure compliance with the Stormwater Management rules at N.J.A.C. 7:8 et seq."

At the time of the audit, the County had not:

- Mapped stormwater management basins as required by part IV.C.1.a.ii. of the Permit.
- Developed and implemented a program to ensure adequate long-term cleaning, operation and maintenance of stormwater management basins as required by part IV.C.2.a. of the Permit.
- Conducted regular inspections of stormwater management basins as required by part IV.C.2.c. of the Permit.

Furthermore, the County SPPP does not provide post-construction procedures that address all aspects of the permit requirements, such as reviewing plans for compliance with N.J.A.C. 7:8 et. seq.shard

### **Outfall Pipe Mapping, and Illicit Discharge and Scouring Detection Control**

3. Part IV.B.6.b. of the Permit requires the permittee to “develop, update and implement a program to detect, investigate and control any localized stream scouring from stormwater outfall pipes owned or operated by the permittee.”

The County did not provide the EPA Audit team with scouring inspection procedures that included a written, developed, or implemented process or frequency of routine or targeted scouring inspections. During the field audit, the County provided a verbal description of the detection and inspection process.

The County’s 2023 MS4 Annual Report stated that the County has developed a prioritized list of outfalls for stream scouring information, however the County did not provide this prioritized outfall list in response to the EPA’s records request.

4. Part IV.B.6.c of the Permit requires the permittee to “develop, update, implement and enforce an ongoing Illicit Discharge Detection and Elimination Program in accordance with this permit...Document investigations and actions taken using the Department’s Illicit Connection Inspection Report Form.”

At the time of the audit, the County representatives stated that the Health Department would complete sampling of illicit discharges, and they were not certain what field methods are used in the sampling and analysis. Additionally, County representatives stated there is no written procedure for communication between Public Works and the Health Department to ensure that all illicit discharges are properly documented and reported in the County’s annual report.

5. Part IV.B.6.c.i of the Permit requires the permittee to “Conduct visual dry weather inspection of all outfall pipes owned or operated by the permittee at least once every five years, with a minimum of 20% of the total number of outfalls or 100 per year, whichever is greater to determine if dry weather flow (flow occurring 72 hours after a rain event) or other evidence of illicit discharge is present...”

The Outfall Inspection Report provided by the County as their dry weather inspection document, shows that the County conducted the majority of the outfall inspections in 2018 and 2019. In addition to the inspections in 2018 and 2019, four outfalls were inspected in 2020, one outfall in 2021, seven outfalls in 2022, and 21 outfalls in 2023. County

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representatives stated dry weather outfall inspections occurred in 2022. The 2023 Annual report states there are 649 mapped outfalls.

Furthermore, the Outfall Inspection Report provided by the County did not document whether the inspector observed dry weather flow, or other indicators required by the Illicit Connection Inspection Report Form on page 7-3 of the provided SPPP.

### **Pollution Prevention / Good Housekeeping for Municipal Operations (PPGH)**

6. Part IV.B.5.b.xv of the Permit requires the permittee to “ensure that dumpsters (including tire) and other refuse containers that are outdoors or exposed to stormwater, are covered at all times.”

The roll-off dumpsters at all Districts except District 6 were observed to be not completely covered. The roll-off dumpsters contained various contents and did not have temporary or permanent covers to prevent exposure to stormwater.

7. Part IV.B.5.c. of the Permit states that the “permittee shall implement the best management practices described in Attachment E (Best Management Practices for Maintenance Yards and Other Ancillary Operations) for maintenance yards and other ancillary operations owned or operated by the permittee.”
  - a. Attachment E “Best Management Practices for Maintenance Yards and Other Ancillary Operations” directs the County to “Maintain an inspection log detailing conditions requiring attention and remedial actions taken for all activities occurring at Maintenance Yards and Other Ancillary Operations. This log must contain, at a minimum, record of inspections of all operations listed in Part IV.B.5.c of this permit including dates and times of the inspections, and the name of the person conducting the inspection and relevant findings. This log must be kept on-site, and its location referenced in the SPPP and made available to the Department upon request.”

The County did not maintain stormwater inspection logs at municipal facilities inspected by the EPA Audit Team. The County also did not provide the EPA Audit Team with the requested procedures for all the District facilities routine inspection process in response to the Records Request or during the audit. The County representatives stated they were not always documenting routine inspections and only made notes when an issue was observed.

- b. Attachment E of the Permit, “Best Management Practices for Maintenance Yards and Other Ancillary Operations,” directs the County to “Store materials such as sand, gravel, stone, top soil, road millings, waste concrete, asphalt, brick, block and asphalt-based roofing scrap and processed aggregate in such a manner as to minimize stormwater run-on and aggregate run-off via surface grading, dikes and/or berms (which may include sand bags, hay bales and curbing, among others) or three-sided storage bays.”

At District 6, the EPA Audit Team stockpiled cold patch, millings, and soil upgradient to a storm drain inlet without BMPs in place to prevent pollutants from entering the inlet and discharging from the property.

- c. Attachment E identifies specific BMPs for various operations, including fueling. Among the BMPs that NJDEP has identified for fueling operations that must be included is signage or instructions for the safe operation of fueling equipment that must be posted in a prominent area of the facility. The following must be included:
- “Topping off vehicles, mobile fuel tanks, and storage tanks is strictly prohibited.”
  - “Stay in view of fueling nozzle during dispensing.”
  - Contact information for the person(s) responsible for spill response.

At the time of the audit, the EPA Audit Team observed the signage posted at District 5, 6, 8, 9, and 10 visited during the site visits did not meet the Permit requirements

- d. Attachment E of the Permit, “Best Management Practices for Maintenance Yards and Other Ancillary Operations,” directs the County to “implement [good housekeeping BMPs] at maintenance yards and other ancillary operations owned or operated by the permittee.”

The EPA Audit Team observed instances of poor general housekeeping at all the district facilities including petroleum staining on the ground surface and catch basins and storm drain inlets filled with sediment.

#### **Other Control Measures**

8. Part IV.C.1.a. of the Permit requires the permittee to develop, update and maintain a Stormwater Facilities Map that includes subsurface infiltration/detention systems, manufactured treatment devices (MTDs), and green infrastructure, that is owned or operated by the permittee. At the time of the Audit the County did not have all these features mapped, including the County’s membrane treatment devices.
9. Part IV.C.2.b. requires stormwater facility maintenance to be performed pursuant to any maintenance plans, or more frequently as needed, to ensure the proper function and operation of the stormwater facility. The permittee shall maintain a log sufficient to demonstrate compliance with this section as required by Part IV.C.2.c of the Permit. At the time of the audit, the County was not maintaining a log to document the inspection and maintenance of several stormwater facilities, including the membrane treatment devices, the Halls Mill Road bioswale.
10. Part IV.6.c.iv. of the Permit requires the permittee to “[i]nvestigate, within 30 days of receipt, complaints and reports of illicit connections, including those from operating entities of interconnected MS4s.” The permittee must be familiar with “interconnected MS4s” to comply with Part IV.5.c.iv. During the audit, the County representatives told the EPA Audit Team that MS4 interconnections exist but the interconnections with other MS4s were not mapped.

#### **4.2 Areas of Concern**

1. The EPA Audit team noted that about half of the stormwater in District 10 flows toward the southeast corner of the facility, where a discharge point and sinkhole were observed at the discharge point. The discharge point is approximately 200 feet from Willow Brook.
2. Part II.C.3.a. of the new Highway Agency General Permit, which became effective on January 1, 2025, states that this permit does not authorize “stormwater discharge associated with industrial activity” as defined in N.J.A.C. 7:14A-1.2. Part i.5 of this section states that types of facilities that the permittee might operate and that are considered to be engaging in “industrial activity” include but are not limited to facilities that process and/or compost recyclable materials as defined in N.J.A.C. 7:26A (Recycling Rules), which includes asphalt recycling. Part II.C.3.a.ii. requires that any permittee that has stormwater discharges associated with industrial activities shall submit a separate RFA or individual permit application for that discharge. At the time of the Audit, the EPA Audit Team observed an asphalt recycling plant located at the Headquarters location. As previously stated, asphalt recycling is an industrial activity under the new Highway Agency General Permit.
3. Part IV.F.4.o.ii. of the new Highway Agency General Permit, which became effective on January 1, 2025, requires that the permittee dewater street sweepings, storm sewer and catch basin clean-out materials, stormwater basin clean-out materials, and other similar materials in a manner that prevents discharge to surface or ground water. At the time of the audit, the county did not SOPs in place for dewatering.