

NJWEA - Winter Tech Transfer 2026 Cleaning and Inspection




New Jersey Water Environment Association Presents

SESSION II - Collection System O&M Clean & Inspect 20% Per Year?

Technology Transfer Seminar

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HANDOUTS





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Collection Systems Committee


The Collection System Committee (CSC) represents a cross section of professionals in our industry that dedicate and volunteer their free time to providing training for their fellow managers and operators in the NJWEA. We proudly serve those responsible for the everyday operation and maintenance of all sanitary, combined, & storm sewer systems across New Jersey as required under NJAC 7:10A. This committee seeks to educate, guide, and develop these individuals via training programs, guidance documents, technical papers, and mini workshops.

CO-CHAIRS **AFFILIATION**

-  **Louis C. Lambe** Passaic Valley Sewerage Commission (Retired)
-  **Bill Suchodolski** Ocean County Utilities Authority (Retired)

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[Submit An Abstract for Fall 2025 Tech Transfer](#)



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Past Workshops

COLLECTION SYSTEMS COMMITTEE


Click the Session Title to View the Speakers and Presentations

- March 28, 2023 - Session III Collection System O&M – Grease Heavy is the Crown **UPDATED**
- September 12, 2023 - Session II Collection System O&M – Let's Get Organized and Clean **UPDATED**
- March 5, 2024 - Session III Collection O&M – Excavation Safety & Proper Pipe Installation **UPDATED**
- October 23, 2024 - Session II Collection System O&M – Infiltration and Inflow **Updated**
- March 11, 2025 - Session III Collection System O&M – Trenchless Technologies Updated [CLICK](#)
- October, 2025 - Session II Collection System O&M – Sweet Solutions for Your Assets Without Sugar Coating It! **NEW**



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HANDOUTS



NJ Water Environment Association

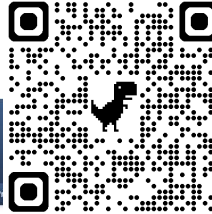
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Past Workshops

March 11, 2025 - Session III Collection System O&M – Trenchless Technologies Updated [CLICK](#)

Moderators: Louis C. Lambe, Passaic Valley Sewerage Commission
Joseph Polomene, P.E., Sherwood Logan & Associates
Jonathan Manarino, Township of Middletown

- Introduction**
Louis C. Lambe, Passaic Valley Sewerage Commission
llambe@pvsc.com
(973) 817-5816
- Cleaning Before and After Rehabilitation (Presentation)** [CLICK](#)
Walter Jenness, Tri State Environmental Services
walterjenness@tristateenviro.com
(908) 797-8570
- Bypass Pumping for Collection Systems (Presentation)**
Ryan Booth, PSI and Process Control
ryan.booth@psiprocess.com
(732) 266-0818



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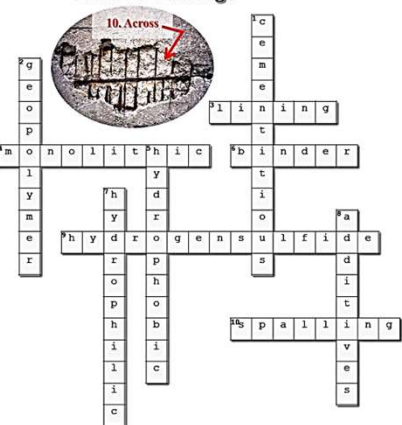
TODAY'S WORKSHOP

- March 28, 2023 - Session III Collection System O&M – Grease Heavy is the Crown **UPDATED**
- September 12, 2023 - Session II Collection System O&M – Let's Get Organized and Clean **UPDATED**
- March 5, 2024 - Session III Collection O&M – Excavation Safety & Proper Pipe Installation **UPDATED**
- October 23, 2024 - Session II Collection System O&M – Infiltration and Inflow **Updated**
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- October, 2025 - Session II Collection System O&M – Sweet Solutions for Your Assets Without Sugar Coating It! **NEW**



COATINGS PUZZLE ANSWERS IN THE NEXT SCAN

Surface Coatings



Across

3. A coating applied to a surface to protect from corrosion or seal leaks. (**lining**)
4. Coating that forms a single, continuous lining without voids. (**monolithic**)
6. Holds cementitious materials together, enhances structural property. (**binder**)
9. Gas that attacks concrete surface when it becomes acid. (**hydrogensulfide**)
10. Surface with chunks of cement and aggregate breaking off. (**spalling**)

Down

1. Materials typically comprised of Portland cement. (**cementitious**)
2. Inorganic binder used as a sustainable alternative to Portland cement. (**geopolymer**)
5. Substance which repels water, forming droplets. (**hydrophobic**)
7. Substance which readily dissolves in or is attracted to water. (**hydrophilic**)
8. Ingredients mixed in for waterproofing or durability. (**additives**)

Across


3. **lining**
4. **monolithic**
6. **binder**
9. **hydrogensulfide**
10. **spalling**

Down

1. **cementitious**
2. **geopolymer**
5. **hydrophobic**
7. **hydrophilic**
8. **additives**

INSPECTION PUZZLE IN THE NEXT SCAN

Inspections



Across

3. ___ listening method locates active wire failures in corroding pipe sections.
4. Method to measure debris below the waterline.
7. The 'L' in LACP?
9. The 'A' in PACP, MACP, LACP
11. Effective method for systems with low water table.

Down

1. Effective method for systems with high water table.
2. Leak location system using Ohm's Law to measure leaks below the waterline.
5. Standardized inspection coding into structural and O&M categories.
6. The 'M' in MACP?
8. The first 'P' in PACP?
10. Sewer assessment tool that uses sound to find potential blockages between manholes.

Across

3. **Listening**
4. **Debris**
7. **L**
9. **A**
11. **Low**

Down

1. **High**
2. **Ohm's**
5. **Standardized**
6. **M**
8. **P**
10. **Sewer**



**New Jersey Water
Environment
Association
Presents**

SESSION II - Collection System O&M Clean & Inspect 20% Per Year?

**Technology
Transfer
Seminar**

CSO PERMITS WHERE ARE WE?

- Draft permit issued on March 10, 2025
- The Department held four public hearings to solicit public comment on the draft permit.
- Two virtual public hearings held on April 14, 2025
- Two in-person public hearings were held in the City of Newark on April 16, 2025
- Comments due by May 14, 2025
- Final Permits issued in the Fall of 2025
- Effective Date January 2026 Expiring December 2030



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2015 CSO PERMIT FEATURES

NINE MINIMUM CONTROL REQUIREMENTS

- **Standard Operating Procedures => O&M Manuals**
Proper operation and maintenance to include the implementation of detailed SOPs and corrective/preventive maintenance SOPs within a structured maintenance program, adequate funding, effective management, adequate operator staffing, training and process controls.
- **Emergency Plans**
Provides operators of POTWs with the comprehensive guidance and procedures to ensure the safe and effective operation of the treatment works during emergencies or disasters of manmade or natural origin. Sandy lessons learned.
- **Asset Management Plans**
Ensured that there is sufficient investment in the CSO control strategy as well as the planned maintenance, needed repair, replacement, and upgrade of the infrastructure for the treatment works.



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2025 CSO PERMIT FEATURES

NINE MINIMUM CONTROL REQUIREMENTS

To ensure that the treatment works & facilities are being operated & maintained to achieve compliance with the terms and conditions of the discharge permit, the O&M Manual must include, but is not limited to, the following details for the treatment works & facilities owned/operated by permittees:

- Normal operating positions, alternate operating positions;
- Start-up, shut-down, and draining procedures;
- Process control;
- Fail-safe features;
- Emergency operation procedures;
- Common operating and control problems;
- Out-of-service procedures;
- Instrumentation and controls descriptions;
- Engineering design information; and
- Bypass operation procedures.



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2025 CSO PERMIT FEATURES

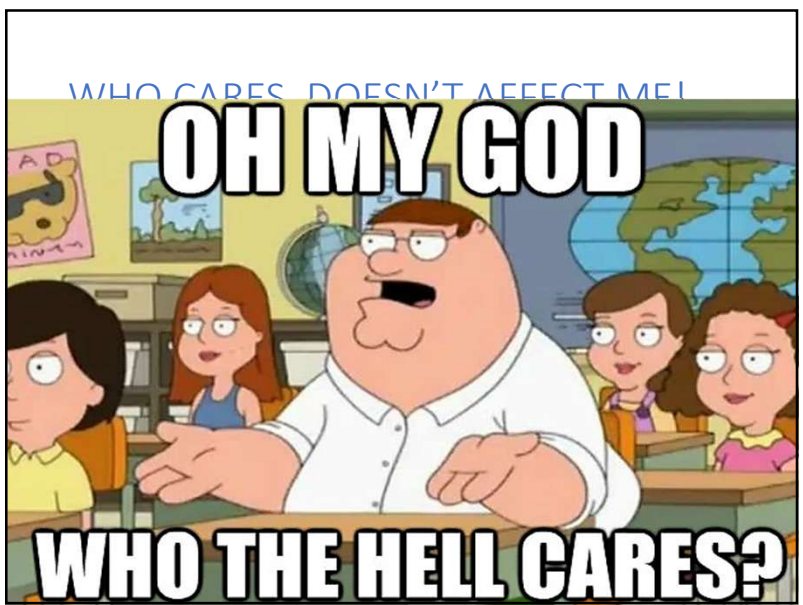
NINE MINIMUM CONTROL REQUIREMENTS

The O&M Manual must provide the schedules & procedures pertaining to the preventative maintenance program & corrective maintenance procedures, or references to these procedures in the manufacturer's maintenance manuals for the treatment works' infrastructure. The permittee shall include in the O&M Program & Manual:

- A System Cleaning Program which is designed to ensure the entire collection system, including, but not limited to, outfalls & regulators, is sufficiently clean in order to function properly & minimize CSO-related street flooding which can include overflows to basements, streets & other public & private areas. **Ensuring the entire collection system is sufficiently clean can be done through regular inspection &, if necessary, cleaning.**
- **Such inspection & cleaning should be done, such that within five years, the entire system has been covered where the length of the system shall be defined in linear feet/miles.** The System Cleaning Program shall also include **an annual certification to be sent to NJDEP that a minimum of 20% of the system (by linear feet/miles) shall have been inspected &, if necessary, cleaned, within the last year. Alternatively, if less than 20% of the system has been completed within the last year, a statement of how much of the system was inspected &, if necessary, cleaned, within the last year & a plan to ensure that 100% of the system is inspected & if necessary cleaned, by the expiration date of the permit.**



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2025 PERMIT PUBLIC COMMENTS

F. NINE MINIMUM CONTROL REQUIREMENTS

1. Proper Operation and Maintenance Programs for the Sewer System and CSOs


- COMMENTS IN SUPPORT
- COMMENTS IN OPPOSITION



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F. NINE MINIMUM CONTROL REQUIREMENTS

Proper Operation and Maintenance Programs for the Sewer System and CSOs Support Comments



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F. NINE MINIMUM CONTROL REQUIREMENTS

1. Proper Operation and Maintenance Programs for the Sewer System and CSOs


Sewage Free Streets and Rivers [2]

COMMENT: The planning, design, and construction of CSO controls have been (and will be) a long, arduous process for permittees and likely the most costly component of the process overall. Therefore, ensuring the work is well-planned, adequately funded, and maintained accordingly is critical.

As potentially one of the most significant public investments a municipality or utility will make, it is critical to allow for transparency with the public on progress, funding sources, avenues for monitoring compliance, and ways to ensure construction and maintenance occur as planned to eliminate future system failures. **We strongly support the new operation and maintenance (O&M) provisions requiring routine, scheduled collection system maintenance to minimize CSO-related street and basement flooding. As has been noted by others, the Camden County MUA maintenance program has been successful in this regard.**

What will be the enforcement mechanism to ensure that the permittee implements the system cleaning program? What will the NJDEP do if the permittee does not comply with the annual system cleaning program and/or if they do not meet the 100% inspection and cleaning of the system at the end of the respective five-year permit? Will performance factors and deficiencies be communicated to the public? If so, how will that be communicated to the public? [2]

Association of New Jersey Environmental Commissions, Clean Water Action, Clean Water Advocacy Center, Natural Resources Defense Council, New Jersey Environmental Justice Alliance, New Jersey Future, New Jersey League of Conservation Voters, NJ/NY Baykeeper, New Jersey Tree Foundation



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F. NINE MINIMUM CONTROL REQUIREMENTS

1. Proper Operation and Maintenance Programs for the Sewer System and CSOs

Jersey Waterworks CSO Committee [3]


COMMENT: We suggest the permit include compliance and enforcement language that makes it clear to the permittees that there will be serious consequences if the requirement of cleaning the sewers is not met on a continual basis. Include language that explains the steps that NJDEP will take if the permittee does not comply annually with the system cleaning program and if they do not meet the 100% inspection and cleaning of the system at the end of the respective permit (five years). **The permit should require performance factors and deficiencies to be communicated to the public.** [3]

Jersey Water Works CSO Committee: Andy Kricun, Moonshot Missions, Michele Langa, Hackensack Riverkeeper and NY/NJ Baykeeper Andrea Sapal, New Jersey Future

Passaic River Coalition [6]

COMMENT: We strongly support the new O&M provisions requiring that routine, scheduled collection system maintenance be implemented to minimize CSO-related street and basement flooding. As has been noted by others, the Camden County MUA maintenance program has been successful in this regard. [6]

Laurie Howard, Executive Director, Board of Trustees: Jeanne Lennon, Chair, John J. Veneri, Jr., Esq., Vice Chair, Daniel J. Van Abs, PhD, PP, Treasurer, Richard Van Kampen, Secretary, Jay N. Meegoda, PhD, PE, Zeyuan Qiu, PhD, Nancy C. Wollheb, PE, CME



F. NINE MINIMUM CONTROL REQUIREMENTS


1. Proper Operation and Maintenance Programs for the Sewer System and CSOs

NJDEP – Response “We Hear You”

RESPONSE (15-17): Collection system cleaning is integral to the proper function of the sewer system and specific requirements are included in these subject renewal permits. Proper operation and maintenance of the collection system is the responsibility of all NJPDES CSO permittees for the collection system that they own/operate. The 2015 NJPDES CSO permits contain Proper Operation and Regular Maintenance Program Requirements in Part IV (Combined Sewer Management (IP)) Section F.1 which has been carried forward in these renewal permits. The extensive language included in this section of the permit specifically states that the collection system, CSO outfalls, solids/floatables facilities, regulators, and related appurtenances that are owned/operated by the permittee must be operated in a manner to function properly and minimize CSO-related street flooding. Operations and maintenance requirements are also effectuated through the Department’s rules, including N.J.A.C. 7:14A-6.12.

As part of external outreach leading up to the development of the LTCs, the Department received multiple requests to include specific, measurable system cleaning requirements within the NJPDES permits to ensure proper maintenance of the CSS. As a result, and upon consultation with several CSO permittees, the Department expanded upon the Proper Operation and Regular Maintenance Program permit requirements by developing the System Cleaning Program requirements in Part IV (Combined Sewer Management (IP)) Section F.1.f. The Department is further enhancing the requirements of Part IV (Combined Sewer Management (IP)) Section F.1.f regarding the System Cleaning Program.

As a result, Part IV (Combined Sewer Management (IP)) Section F.1.f.ii of the final permit issued to PVSC is modified as follows (includes revisions from RESPONSE (208)):



F. NINE MINIMUM CONTROL REQUIREMENTS

1. Proper Operation and Maintenance Programs for the Sewer System and CSOs


f. The permittee shall include in the O&M Program and corresponding Manual, a System Cleaning Program to address the following:

- i. The System Cleaning Program shall be designed to ensure the entire collection system, including, but not limited to, tide gates, outfalls and regulators, is sufficiently clean in order to function properly and minimize CSO-related street flooding.
- ii. The System Cleaning Program shall be designed to ensure that the entire collection system is sufficiently clean which can be accomplished through regular inspection and, if necessary, cleaning. Such inspection and cleaning should be done, such that within five years, the entire system has been covered. Specifically, for PVSC the total system is 21 miles of intercepting sewers and 13 miles of branch interceptors. Critical portions of the system, such as regulators, solids/floatables facilities, and tide gates, may benefit even more from frequent inspection.
- iii. The System Cleaning Program shall include an annual certification that a minimum of 20% of the system (by linear feet/miles) shall have been inspected and, if necessary, cleaned, within the last year. Alternatively, if less than 20% of the system has been completed within the last year, the certification shall include a statement of how much of the system was inspected and, if necessary, cleaned, within the last year and a plan to ensure that 100% of the system is inspected and if necessary cleaned, by the expiration date of the permit. This is an annual requirement based on the calendar year, due February 1 of the following year and is part of the Operation and Maintenance Manual. The total length of the system in linear/feet shall also be defined. Updates on the System Cleaning Program shall also be provided in Progress Reports.

F. NINE MINIMUM CONTROL REQUIREMENTS

Proper Operation and Maintenance Programs for the Sewer System and CSOs

Opposition Comments



NJWEA - Winter Tech Transfer 2026 Cleaning and Inspection

F. NINE MINIMUM CONTROL REQUIREMENTS


1. Proper Operation and Maintenance Programs for the Sewer System and CSOs

NJDEP – Response “We Hear You but, Not Convinced”


166. **COMMENT:** Fact Sheet, Part 12.B, page 43 of Draft Permit – Requires an annual certification for 20% of PVSC’s interceptor and branch interceptors to be inspected and cleaned each year. PVSC already has a robust cleaning and inspection program for its interceptor and branch interceptors that may conflict with this requirement. PVSC is aware of where issues within its collection system arise more frequently and continued focus on those areas, as compared to others, is more efficient and beneficial to overall system operations. Accordingly, PVSC requests this requirement be removed. [9]

RESPONSE (166): As stated in **RESPONSE (15-17)**, collection system cleaning is integral to the proper function of any sewer system and specific requirements pertaining to collection system cleaning have been included in these NJPDES CSO permits. As stated in Part IV (Combined Sewer Management (IP)) Section F.1.f.ii, the System Cleaning Program shall be designed to ensure that the entire collection system is sufficiently clean which can be

The Department acknowledges that PVSC has a cleaning and inspection program for its interceptor and branch interceptors and agrees that addressing problematic areas can be beneficial to system operations. However, the Department has not received further information in support of this claim in order to understand how the requirements at Part IV (Combined Sewer Management (IP)) Section F.1.f may impact the existing program. The Department maintains that inspection of 100% of the collection system over the five-year permit cycle is beneficial and can alert the Permittee to issues that otherwise may remain undetected until they become major.



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GUIDE FOR EVALUATING CAPACITY, MANAGEMENT, OPERATION, AND MAINTENANCE (CMOM) PROGRAMS AT SANITARY SEWER COLLECTION SYSTEMS


United States Environmental Protection Agency

Office of Enforcement and Compliance Assurance (2224A)

EPA 305-B-05-002

www.epa.gov

January 2005




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WHAT IS CMOM?

CMOM = “Capacity Assurance, Management, Operations, & Maintenance”

It is a **flexible**, dynamic framework for municipalities to identify and incorporate widely accepted wastewater industry practices to:


1. Better manage, operate, and maintain collection systems
2. Investigate capacity constrained areas of your system
3. Respond to sanitary sewer overflow (SSO) events
4. Proactively prevent sanitary sewer overflows



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SYSTEM CLEANING

- What is the system cleaning frequency? (8%-14%)
- What is the plan for system cleaning (% or frequency in years)?
- What percent of the sewer lines are actually cleaned?
- **Identify sewer line segments with chronic problems.**
- Do you have a root control program?
- Do you have a fats, oils, and grease (FOG) program? (IPP DLA)
- What is the average number of stoppages per miles of pipe/year?
- Is the number of stoppages up, down, or same for last 5 years?
- Stoppages plotted on maps with pipe size, material, & location?



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NJWEA - Winter Tech Transfer 2026 Cleaning and Inspection


F. NINE MINIMUM CONTROL REQUIREMENTS

1. Proper Operation and Maintenance Programs for the Sewer System and CSOs
NJDEP – Response “We Hear You but, Not Convinced”

228. **COMMENT:** Fact Sheet Page 13. Inspecting 20% of Bayonne's sewer system each year is not necessary and would impose even greater costs upon the rate payers. Bayonne's sewer system is proactively operated by Veolia, who currently perform a comprehensive maintenance program including routine inspection and cleaning across the collection system. Imposing the 20% requirement would lead to unnecessary costs. [10]

RESPONSE (228): Refer to **RESPONSE (166).** **Asked and Answered**

The Department acknowledges that the City of Bayonne has a maintenance program that includes routine inspection and cleaning. However, the Department has not received further information in support of this claim in order to understand how the requirements at Part IV (Combined Sewer Management (IP)) Section F.1.f may impact the existing program. The Department maintains that inspection of 100% of the collection system over the five-year permit cycle is beneficial and can alert the Permittee to issues that otherwise may remain undetected.



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F. NINE MINIMUM CONTROL REQUIREMENTS

1. Proper Operation and Maintenance Programs for the Sewer System and CSOs
NJDEP – Response “We Hear You but, Not Convinced”

246. **COMMENT:** Fact Sheet, Page 10 of 43, states that:

“The System Cleaning Program shall also include an annual certification to be sent to NJDEP that a minimum of 20% of the system (by linear feet/miles) shall have been inspected and, if necessary, cleaned, within the last year. Alternatively, if less than 20% of the system has been completed within the last year, a statement of how much of the system was inspected and, if necessary, cleaned, within the last year and a plan to ensure that 100% of the system is inspected and if necessary cleaned, by the expiration date of the permit.”

The Borough of East Newark already has an annual cleaning and inspection program for its system that may conflict with this requirement. The Borough is aware of where issues within its system arise more frequently and continued focus on those areas, as compared to others, is more efficient and beneficial to overall system operations. Accordingly, the Borough requests this requirement be removed. [11]

RESPONSE (246): Refer to **RESPONSE (166).** **Asked and Answered**

The Department acknowledges that the Borough of East Newark has an annual cleaning and inspection program for its system and agrees that addressing problematic areas can be beneficial to system operations. However, the Department has not received further information in support of this claim in order to understand how the requirements at Part IV (Combined Sewer Management (IP)) Section F.1.f may impact the existing program. The Department maintains that inspection of 100% of the collection system over the five-year permit cycle is beneficial and can alert the Permittee to issues that otherwise may remain undetected.

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F. NINE MINIMUM CONTROL REQUIREMENTS

1. Proper Operation and Maintenance Programs for the Sewer System and CSOs
NJDEP – Response “We Hear You but, Not Convinced”

278. **COMMENT:** Fact Sheet Page 11, PDF Page 20 [This requirement is duplicated in Permit Part IV, Page 7-8, PDF Page 73-74]

Section i, “O&M Manual” requires a minimum of 20% of the system to be inspected annually and 100% of the system to be inspected every 5 years. This new requirement was not factored into the financial capabilities analysis, and thus, it is not known if it is affordable. Nor is the Town confident that it is achievable given the limited access to certain sewers due to rail facilities. The Town has maintained its system in good working order and due to its familiarity with the system, feels it is best positioned to direct cleaning and inspection resources most efficiently. Efforts directed in unnecessarily inspecting portions of the sewer that are not known to have issues will divert resources away from known hot spot areas. [12]

RESPONSE (278): Refer to **RESPONSE (166).** **Asked and Answered**

The Department acknowledges that the Town of Harrison is familiar with its collection system; however, the Department has not received further information in order to understand how the requirements at Part IV (Combined Sewer Management (IP)) Section F.1.f may impact any existing inspection and cleaning program. The permittee is required to ensure maintenance despite access issues. The Department maintains that inspection of 100% of the collection system over the five-year permit cycle is beneficial and can alert the Permittee to issues that otherwise may remain undetected until they become major.

The Town of Harrison objects to the collection system cleaning requirement stating that this requirement was not factored into the Financial Capabilities Analysis. Note, the FCA analysis pertained to the implementation of CSO control alternatives as part of the LTCP. Operation and Maintenance is a separate requirement under the NMCs of the Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C.




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F. NINE MINIMUM CONTROL REQUIREMENTS

1. Proper Operation and Maintenance Programs for the Sewer System and CSOs
NJDEP – Response “Thanks for your support?”

302. **COMMENT:** The LTCP implantation schedule looks good. Please proceed with the Finalization of the permit. [13] Jersey City

RESPONSE (302): The Department appreciates the commenter’s support of the work involved in the development of the NJPDES CSO permits.

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NJWEA - Winter Tech Transfer 2026 Cleaning and Inspection

F. NINE MINIMUM CONTROL REQUIREMENTS

1. Proper Operation and Maintenance Programs for the Sewer System and CSOs

NJDEP – Response “We Hear You but, Not Convinced”

305. **COMMENT:** Section i on Page 11 of 42 of the Fact Sheet, states the following: “The System Cleaning Program shall also include an annual certification to be sent to NJDEP that a minimum of 20% of the system (by linear feet/miles) shall have been inspected and, if necessary, cleaned, within the last year. Alternatively, if less than 20% of the system has been completed within the last year, a statement of how much of the system was inspected and, if necessary, cleaned, within the last year and a plan to ensure that 100% of the system is inspected and if necessary cleaned, by the expiration date of the permit.”

Costs associated with the above newly established requirement have not been evaluated or estimated. However, it is anticipated to be costly and was not factored into the Town’s Financial Capability Analysis conducted as part of the LTCP development. The Town of Kearny ensures that the system operates in good working order and feels strongly that it can effectively identify areas requiring inspection and cleaning. Efforts directed toward unnecessary inspection and cleaning ultimately divert resources from other critical inspection and cleaning operations. As such, the Town of Kearny is not in agreement with this requirement. [14]

RESPONSE (305): Refer to RESPONSE (166). Asked and Answered

The Department acknowledges that the Town of Kearny is familiar with its collection system; however, the Department has not received further information in order to understand how the requirements at Part IV (Combined Sewer Management (IP)) Section F.1.f may impact any existing inspection and cleaning program. The Department maintains that inspection of 100% of the collection system over the five-year permit cycle is beneficial and can alert the Permittee to issues that otherwise may remain undetected until they become major.

The Town of Kearny objects to the collection system cleaning requirement stating that this requirement was not factored into the Financial Capabilities Analysis. Note, the FCA analysis pertained to the implementation of CSO control alternatives as part of the LTCP. Operation and Maintenance is a separate requirement under the NMCs of the Federal CSO Control Policy and N.J.A.C. 7:14A-11, Appendix C.

F. NINE MINIMUM CONTROL REQUIREMENTS

1. Proper Operation and Maintenance Programs for the Sewer System and CSOs

NJDEP – Response “We Hear You but, Not Convinced”

321. **COMMENT:** Fact Sheet, Page 11 of 44; PDF Page 20 – The fact sheet states “The permittee shall include in the O&M Program and corresponding Manual, a System Cleaning Program which is designed to ensure the entire collection system, including, but not limited to, outfalls and regulators, is sufficiently clean in order to function properly and minimize CSO-related street flooding which can include overflows to basements, streets and other public and private areas”

Inspecting and cleaning the entire system (52 miles) in a 5 year permit cycle would likely incur a burdensome cost. The cleaning frequency should be based on inspections and field conditions. A lower goal or targeted cleaning and inspection of only critical lines or areas identified as needing frequent cleaning should be proposed. [15]

RESPONSE (321): Refer to RESPONSE (166). Asked and Answered

The Department acknowledges the City of Newark’s request for an inspection goal lower than 100% every five years and/or targeted identification of critical areas needing cleaning and inspection. However, the Department maintains that inspection of 100% of the collection system over the five-year permit cycle is beneficial and can alert the Permittee to issues that otherwise may remain undetected until they become major.



F. NINE MINIMUM CONTROL REQUIREMENTS

1. Proper Operation and Maintenance Programs for the Sewer System and CSOs

NJDEP – Response “We Hear You but, Not Convinced”

351. **COMMENT:** Fact Sheet, Page 11 of 45, states that:

“The System Cleaning Program shall also include an annual certification to be sent to NJDEP that a minimum of 20% of the system (by linear feet/miles) shall have been inspected and, if necessary, cleaned, within the last year. Alternatively, if less than 20% of the system has been completed within the last year, a statement of how much of the system was inspected and, if necessary, cleaned, within the last year and a plan to ensure that 100% of the system is inspected and if necessary cleaned, by the expiration date of the permit.”

NBMUA and the Town of North Bergen already has a robust cleaning and inspection program for its system that may conflict with this requirement. The NBMUA as well as North Bergen Township are aware of where issues within its system arise more frequently and continued focus on those areas, as compared to others, is more efficient and beneficial to overall system operations. Accordingly, NBMUA requests this requirement be removed. [16]

RESPONSE (351): Refer to RESPONSE (166). Asked and Answered

The Department acknowledges that the North Bergen MUA and the Town of North Bergen have a cleaning and inspection program and agrees that addressing problematic areas can be beneficial to system operations. However, the Department has not received further information in support of this claim in order to understand how the requirements at Part IV (Combined Sewer Management (IP)) Section F.1.f may impact the existing program. The Department maintains that inspection of 100% of the collection system over the five-year permit cycle is beneficial and can alert the Permittee to issues that otherwise may remain undetected.

F. NINE MINIMUM CONTROL REQUIREMENTS

1. Proper Operation and Maintenance Programs for the Sewer System and CSOs

NJDEP – Response “We Hear You but, Not Convinced”

390. **COMMENT:** Fact Sheet, Part 8. B, page 11 and Section F.f.ii of the Draft Permit - Require that 20% of the City's CSS to be inspected and cleaned (each year), and that a certification attesting to same be submitted. As you are aware, Paterson is a financially distressed community. In order to keep within the USEPA guidelines for affordability, the City had proposed a 20-year cycle. The City currently has a successful cleaning and inspection program for its sewers and further the City is aware of where issues within its collection system arise more frequently and focus more frequently on those areas, as compared to others; we believe this is a more efficient approach and beneficial to overall system operations. Accordingly, Paterson requests this requirement be removed. [17]

RESPONSE (390): Refer to RESPONSE (166). Asked and Answered

The Department acknowledges that the City of Paterson has a cleaning and inspection program and agrees that addressing problematic areas can be beneficial to system operations. However, the Department has not received further information in support of this claim in order to understand how the requirements at Part IV (Combined Sewer Management (IP)) Section F.1.f may impact the existing program. The Department maintains that inspection of 100% of the collection system over the five-year permit cycle is beneficial and can alert the Permittee to issues that otherwise may remain undetected.



NJWEA - Winter Tech Transfer 2026 Cleaning and Inspection


F. NINE MINIMUM CONTROL REQUIREMENTS

1. Proper Operation and Maintenance Programs for the Sewer System and CSOs
NJDEP – Response “We Hear You but, Not Convinced”

390. **COMMENT:** Fact Sheet, Part 8. B, page 11 and Section F.f.ii of the Draft Permit - Require that 20% of the City's CSS to be inspected and cleaned (each year); and that a certification attesting to same be submitted. As you are aware, Paterson is a financially distressed community. In order to keep within the USEPA guidelines for affordability, the City had proposed a 20-year cycle. The City currently has a successful cleaning and inspection program for its sewers and further the City is aware of where issues within its collection system arise more frequently and focus more frequently on those areas, as compared to others; we believe this is a more efficient approach and beneficial to overall system operations. Accordingly, Paterson requests this requirement be removed. [17]

RESPONSE (390): Refer to **RESPONSE (166):** Asked and Answered

The Department acknowledges that the City of Paterson has a cleaning and inspection program and agrees that addressing problematic areas can be beneficial to system operations. However, the Department has not received further information in support of this claim in order to understand how the requirements at Part IV (Combined Sewer Management (IP)) Section F.1.f may impact the existing program. The Department maintains that inspection of 100% of the collection system over the five-year permit cycle is beneficial and can alert the Permittee to issues that otherwise may remain undetected.



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F. NINE MINIMUM CONTROL REQUIREMENTS

1. Proper Operation and Maintenance Programs for the Sewer System and CSOs
NJDEP – Response “We Hear You but, Not Convinced”

The Defense Strenuously Objects



Overruled

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F. NINE MINIMUM CONTROL REQUIREMENTS

1. Proper Operation and Maintenance Programs for the Sewer System and CSOs
NJDEP – Response “We Hear You but, Not Convinced”



Mr. Gambini, that is a lucid, intelligent, well thought-out objection.


Overruled!

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F. NINE MINIMUM CONTROL REQUIREMENTS

Proper Operation and Maintenance Programs for the Sewer System and CSOs

WHAT CAN WE DO?
WORK SMARTER,
NOT HARDER!



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NJWEA - Winter Tech Transfer 2026 Cleaning and Inspection

TODAY'S WORKSHOP

- 8:30am Cleaning & Inspection Requirements of New CSO Permits
Louis C. Lambe, PVSC Retired
- 9:10am The latest in Pipeline and Manhole Inspection Equipment,
Rob Shick, Jet Vac Equipment
- 10:00am Coffee Break (included)
- 10:15am Using Artificial Intelligence to Solve Infrastructure Problems
Ryan Booth, PSI Process & Pumping Services
- 11:00am Cleaning the Right Pipe at the Right Time Using Acoustics
Heather McNeil, InfoSense, Inc.
- 11:45am Lunch (included)
- 1:30pm Inspection and Assessment of Pressure Mains
David Smith, Xylem Inc.
- 2:10pm Next-Generation Pipeline Intelligence: Digital Twin Delivery for City of Houston Sanitary Trunkline, Santhosh Kumar Saride, EnviroCal 132"
- 2:50pm A Programmatic Approach to Sewer Screening
Christopher Skehan, IDEX Intelligent Water
- 3:30pm Session Ends



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THANK YOU ENJOY
TODAY'S PROGRAM



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