Illicit Discharge Detection and Elimination (IDDE) Report

Permit Year 8

PREPARED FOR

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1

Executive Summary

This Illicit Discharge Detection and Elimination (IDDE) Report for Permit Year 8 (July 1, 2025-June 30, 2026) has been developed for the Massachusetts Department of Conservation and Recreation (DCR) to track progress towards the requirements of the United States Environmental Protection Agency's (EPA) 2016 National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4) in Massachusetts, hereafter referred to as the "2016 Massachusetts MS4 Permit" or "MS4 Permit." This report documents the progress of the DCR IDDE program, developed to fulfill Minimum Control Measure 3 of the MS4 Permit. The goal of the program is to systematically identify and eliminate sources of non-stormwater discharges to DCR's storm sewer system and implement procedures to prevent such discharges.

Activities under the IDDE program include the screening of regulated outfalls[1], catchment investigations, and illicit discharge removal. During this permit year, the Project Team of VHB, subconsultant Stacy DePasquale Engineering, Inc (SDE), and DCR staff and subcontractors completed the following IDDE program tasks:

- regulated outfall dry weather screening,

[1] "regulated outfalls" refers to both outfalls and interconnections included in DCR's Outfall/Interconnection inventory pursuant to the MS4 permit part 2.3.4.7.a.i.

- Problem and Highest catchment investigation field work including wet weather screening, dye testing, coordination with other stakeholders, and closed circuit television investigation (CCTV), where required,
- desktop analysis and planning focused on Problem and Highest priority outfalls,
- catchment investigation screening and sampling for High and Low priority outfalls,
- desktop analysis of catchments including identification of System Vulnerability Factors, and
- illicit discharge mitigation including pipe lining, structure restoration, and interagency coordination, where required.

This report includes details about the work completed by DCR in Permit Year 8 in accordance with DCR's IDDE Plan to support progress towards meeting the MS4 Permit requirements.

Table 1 summarizes outfalls included in DCR's IDDE Program, and the outfall screening conducted in Permit Year 8 and to date. As DCR continues to update drainage mapping new outfalls are identified and reviewed for IDDE requirements. For newly mapped outfalls and interconnections, DCR uses a 3-year window from mapping to completion of dry weather screening, therefore not all mapped outfalls and interconnections have been screened as of the end of Permit Year 8. While weather conditions allow for wet weather screening are infrequent, DCR and the Project Team have worked through Permit Year 8 to capitalize on wet weather screening days, sending out multiple field teams when possible to help progress wet weather screenings.

Table 1 Permit Year 8 Screening and Sampling Summary

Screening Activity	Details	Permit Years 1 - 7	Permit Year 8	Total
	Regulated Outfalls Included in IDDE Program	-	-	1,558[1]
Dry Weather	Regulated Outfalls Screened	1,325[2]	**106**	1,431
Wet Weather	Regulated Outfalls Screened	117	**84**	201

1 – The number of regulated outfalls continues to be updated as mapping, field work, and desktop review identify additional outfalls and interconnections or changes to the regulated status of an outfall or interconnection occur.

2 – The number of regulated outfalls screened prior to Permit Year 8 decreased from the number reported in Permit Year 7 due to a limited number of outfalls which were previously screened being reclassified as non-regulated due to additional data and mapping updates.

As required by the permit, each regulated outfall was assigned a prioritization category - problem, high, low, or excluded[2] - as part of the Year 1 update to the IDDE plan. As new outfalls are added to the database through continued field mapping, priorities are assigned

[2] The terms "Problem outfalls," "Highest priority outfalls," "High priority outfalls," and "Low priority outfalls" refer to both outfalls and interconnections included in DCR's Outfall/Interconnection inventory pursuant to the MS4 permit part 2.3.4.7.a.i.

and the outfalls are prioritized for dry weather screening. Regulated outfalls where dry weather sampling results indicated likely sewer inputs are ranked at the top (Highest) of the High priority outfalls category for investigation. Outfall priorities have been reviewed, and updated as needed, to reflect results from Permit Year 8's sampling. **Table 2** summarizes the updated outfall prioritization.

Table 2 Regulated Outfall Prioritization

Prioritization Category	# of Regulated Outfalls
Problem	21
High (Highest)	19
High	1,408
Low	110
Total in the IDDE Program[1]	**1,558**
Excluded	238[2]
Total	1,796

1 – Regulated outfalls that do not have a prioritization category of "Excluded."

2 – The number of Excluded outfalls decreased from Permit Year 7. Due to updated mapping information in Permit Year 8, several outfalls that were defined as regulated and categorized as "Excluded" no longer meet the regulated criteria under the MS4 permit.

In Permit Year 8, the Project Team continued to spend significant resources, including staff time, contractors, equipment, and sampling costs, completing investigations on regulated outfalls that were identified as Problem and Highest priority and on making steady progress on High and Low priority outfall investigations. **Table 3** provides a summary of the status of catchment investigations to date and highlights the significant number of catchment investigations that are in progress or complete. Many of the Problem and Highest Priority catchments have complex, aging drainage systems and need coordination with interconnecting municipalities, state agencies or private property owners to thoroughly investigate the drainage system, making each catchment investigation complicated to identify and eliminate and illicit discharges and involving multiple steps to reach completion.

In Permit Year 8, one Highest Priority catchment was closed based on confirmatory screening results after a sewer pipe was disconnected from a municipal drainage system which interconnected to DCR's system. For all other open Problem and Highest Priority catchment investigations, the Project Team coordinated regularly on progress and next steps for each catchment to support efficient closeout of investigations, where possible. Actions taken on Problem and Highest priority outfall investigations included desktop analysis (e.g., record plan-set and sanitary sewer mapping review), coordination with municipalities, dye testing, CCTV, confirmatory screening, and drainage structure and pipe lining work. These are discussed in greater detail in Section 3 of this report.

Table 3 Catchment Investigations Status

Regulated Outfall Priority Category	Total	In Progress	Permit Year 8 Completed	Total Completed (PY1-PY8)
Problem	21	7	0	14
Highest	19	8	1	11
High	1,408	335	74	468
Low	110	21	6	38
Total	**1,558**	**370**	**81**	**531**

While in Permit Year 8 DCR focused on Problem and Highest priority outfalls to expeditiously address the potential of illicit discharges in these catchments, DCR also progressed catchment investigations for High and Low priority catchment. Actions taken on High and Low priority outfalls primarily included initial dry weather catchment investigations.

Through catchment investigations, the Project Team identified three illicit discharges and removed one illicit discharge in Permit Year 8. The two illicit discharges identified in Permit Year 8 that have yet to be removed require continued coordination with private property owners, municipalities, or other for proper removal. During Permit Year 8, the project team allocated significant resources to identifying, removing, and coordinating with other agencies regarding illicit discharges. This work is detailed in Section 4.

Table 4 Illicit Discharge Removal Summary

	Permit Years 1 - 7	Permit Year 8	Total
Potential Illicits Identified	**9**	**3**	12
Illicit Discharges Removed	6	**1**	7
Gallons of Sewage Removed per Day[1]	340	**135**	475

1 – When sewer is identified as the source of the illicit discharge, the gallons of sewage removed per illicit discharge per day is estimated using the equation detailed in Section 4. Illicit discharges with an unknown quantity of sewage removed or those where sewer is not the source of the illicit discharge are excluded from these calculations.

DCR's IDDE Program progress is detailed in the report below. All data associated with the IDDE program is available in GIS the MassDCR IDDE Summary Report Web App[3].

[3] https://vhb.maps.arcgis.com/apps/webappviewer/index.html?id=87a35a2683aa4478a07ade7ffb7c1b2a

2

Regulated Outfall Screening

In accordance with part 2.3.4.7.b of the MS4 Permit, DCR must screen all regulated outfalls during dry weather conditions and use the results of the screening to develop an outfall ranking priority order and catchment investigation completion schedule. Due to the statewide nature of the regulated outfalls, DCR has developed a web map[4] to show the location of the areas investigated, which includes the field and lab sample results for the regulated outfalls with dry weather flow. For more information on regulated outfall-specific locations, please contact DCR Stormwater Unit.

2.1 Dry Weather Screening and Sampling

The goal of regulated outfall screening is to identify regulated outfalls with dry weather flow, sample for the required parameters, and review the priority ranking of the regulated outfall based on sampling results. **Table 5** summarizes the status of the dry weather screening. While dry weather screening of known regulated outfalls on DCR regulated properties was completed to meet the Permit Year 3 deadline, DCR has continued to identify interconnections and map outfalls as IDDE program work continues and therefore continues to perform additional screening each year. For newly mapped outfalls and interconnections,

[4] IDDE Report Webmap address: https://vhb.maps.arcgis.com/apps/webappviewer/index.html?id=87a35a2683aa4478a07ade7ffb7c1b2a

DCR uses a 3-year timeframe target from mapping to completion of dry weather screening, therefore not all mapped outfalls and interconnections have been screened.

Table 5 Dry Weather Screening and Sampling Status

	Dry Weather Screening Outfalls	Previously Screened	Permit Year 8 Screening	Total	% of Total[1]
Regulated Outfalls Screened	1,537[1]	1,325[2]	106	1,431	93.1%

Notes:

1 – Total number regulated outfalls included in the IDDE program that require dry weather screening (i.e. excluding Problem Outfalls).

2 – The number of regulated outfalls screened prior to Permit Year 8 decreased from the number reported in Permit Year 7 due to a limited number of outfalls which were previously screened being reclassified as non-regulated due to additional data and mapping updates.

In accordance with DCR's IDDE Plan procedures developed to meet the requirements in the MA MS4 permit (Part 2.3.4.7.b.iii.4.b), the field teams performed field measurements and collected samples for lab analysis to analyze dry weather flow. Field measurements and lab samples are taken in accordance with DCR's IDDE Plan and MS4 Permit requirements[5].

2.2 Outfall Prioritization Categories Review

The results of dry weather screening must be reviewed and used to update the regulated outfall prioritization categories each year. **Table 6** summarizes the regulated outfall prioritization categories, and the sections below discuss the results in further detail.

For regulated outfalls with no dry weather flow and no olfactory or visual evidence of illicit input, the outfall remained in the same priority category unless there was new information regarding the location or ownership of the regulated outfall. If new data indicates that a regulated outfall is either not a DCR-owned outfall, does not exist once reviewed in the field, or updated mapping precludes it from the IDDE program (e.g., updated mapping indicates that the mapped MS4 outfall is a cross-culvert outlet), the regulated outfall was removed from the total regulated outfall inventory.

For regulated outfalls with dry weather flow, VHB and SDE reviewed the results and recommended next steps based on sampling results, the sewage indicator criteria included in the MS4 permit, and DCR's IDDE plan. This review included determining if a higher priority category was appropriate for a particular regulated outfall.

[5] Where the discharge is directly into a water quality limited water or a water subject to an approved TMDL as indicated in Appendix F of the MS4 permit; the sample shall be analyzed for the pollutant of concern identified as the cause of the impairment as specified in Appendix G of the MS4 permit.

Table 6 Changes in Regulated Outfall Prioritization for Permit Year 8

Prioritization Category	# of Regulated Outfalls	
	Permit Year 7	Permit Year 8[1]
Problem	21	21
Highest	18	19
High	1,268	1,408
Low	109	110
Included in the IDDE Program	*1,416*	*1,558*
Excluded	240	238
Total	1,656	1,796

1 – The number of outfalls changed from Permit Year 7 due to updated mapping information.

The status of catchment investigations for each of these categories is discussed in **Section 3, Catchment Investigations**.

2.2.1 Problem Outfalls

DCR identified fifteen outfalls as Problem outfalls in Permit Year 1 based on historical issues. After reviewing the ownership of these outfalls in subsequent permit years, several of these outfalls were determined to be municipally owned. As such, DCR re-delineated these Problem outfall catchments to align with DCR's upstream interconnection points. This increased the total number of Problem outfalls from fifteen to twenty-one since DCR is often interconnected upstream of the original Problem outfall in more than one location. Part 2.3.4.7.b of the MS4 Permit indicates that the permittee should move right to catchment investigations for these regulated outfalls even if they were not dry weather screened.

2.2.2 Highest Priority Outfalls

The Highest priority category was developed by DCR to prioritize investigation of outfalls where dry weather sampling results met the likely sewer input indicators[6]. Permit Year 8 dry weather screening detected potential non-stormwater flow and elevated sampling results that exceeded sewer input indicator thresholds at one outgoing interconnection point. Therefore, this outfall was reprioritized as Highest. This assessment is detailed in Appendix C.

2.2.3 High Priority Outfalls

Permit Year 8 dry weather screening of High priority outfalls detected potential non-stormwater flow and elevated sampling results that exceeded sewer input indicator

[6] As defined in the MS4 permit, likely sewage input indicators are any of the following:

- Olfactory or visual evidence of sewage,
- Ammonia ≥ 0.5 mg/L, surfactants ≥ 0.25 mg/L, and bacteria levels greater than the water quality criteria applicable to the receiving water, or
- Ammonia ≥ 0.5 mg/L, surfactants ≥ 0.25 mg/L, and detectable levels of chlorine (0.02 mg/L).

thresholds at one outgoing interconnection point. This outgoing interconnection was reclassified as Highest priority. The remaining High priority outfalls screened this year were initially categorized as high priority and the screening did not indicate signs of illicit connections. Since they still discharge to receiving waters with specific listed impairments these outfalls will remain classified as High priority.

2.2.4 Low Priority Outfalls

The Low priority outfalls screened this year were initially categorized as Low priority and the screening did not indicate signs of illicit connections. Therefore, these outfalls remain categorized as Low priority.

2.2.5 Excluded Outfalls

Regulated outfalls with no potential for illicit discharges may be excluded from the IDDE program. The permit identifies that drainage from the following categories below can be excluded:

- Roadway drainage in undeveloped areas with no dwellings and no sanitary sewers,
- Drainage for athletic fields, parks, or undeveloped green space and associated parking without services, or
- Cross-country drainage alignments (that neither cross nor are in proximity to sanitary sewer alignments) through undeveloped land.

DCR has identified regulated outfalls that are excluded from the IDDE program as those located away from sanitary sewer systems, in undeveloped areas based on land use, and not in proximity to a DCR building with restrooms. In Permit Year 8, the number of Excluded outfalls decreased from Permit Year 7 due to updated mapping information. DCR will continue to refine Excluded outfall status through catchment investigations and desktop analysis.

3

Catchment Investigations

DCR must perform catchment investigations on all non-excluded regulated outfalls as part of the IDDE program. Pursuant to the MS4 permit Part 2.3.4.8.b.ii, the field crews conducted dry weather catchment investigations by opening key junction manholes upstream of the regulated outfalls. If flow was observed in a particular pipe, the flow was sampled in accordance with DCR's IDDE Plan. If there were signs of potential intermittent flow at a pipe, a sandbag was placed for a minimum of 48 hours to capture intermittent flows. In order to complete a catchment investigation, DCR must perform wet weather screening if the catchment includes System Vulnerability Factors (SVFs) based on previous information or the catchment investigation. DCR has continued to refine its catchment investigation procedures as documented in the IDDE Plan. The dry weather catchment investigation data and wet weather screening data are available in a public web map[7].

The permit requires the following schedule for Problem outfall investigations:

- Begin investigations within two years of the permit effective date.
- Identify the source of the illicit discharge and develop a schedule for removal within seven years of the permit effective date.
- Complete all catchment investigations within ten years of the permit effective date.

[7] IDDE Report Webmap address: https://vhb.maps.arcgis.com/apps/webappviewer/index.html?id=87a35a2683aa4478a07ade7ffb7c1b2a

In Permit Year 8, significant effort was focused on completing investigations of Problem and Highest priority outfalls and steady progress on High priority outfall investigations. The Project Team has spent significant resources (DCR staffing, contractors, equipment, materials, etc.) working to identify the source of non-stormwater flows in the Problem and Highest catchments. DCR was able to close one Highest Priority catchment based on confirmatory screening results after a sewer pipe was disconnected from a municipal drainage system which interconnected to DCR's system. Catchment investigations require planning, multiple steps (sampling, dye testing, CCTV, etc.), and coordination with municipalities, state agencies, and residents, taking considerable time to progress each investigation. The complexity and age of DCR's drainage systems, location in high-traffic roadways and urbanized areas, and connectivity with other MS4 systems contribute to the extensive coordination efforts required by DCR and the Project Team to complete these investigations. The Project Team utilizes all available methods as part of these investigations, often collecting additional samples to expeditiously identify sources.

DCR was able to complete the investigation of 14 Problem and 10 Highest outfalls for the Permit Year 7 deadline and has completed the investigation of one Highest outfall in Permit Year 8. Due to the complexities discussed above identifying the potential illicit discharges source in the remaining Problem and Highest outfall investigations are ongoing. DCR has made efforts to progress all outstanding Problem and Highest investigations in Permit Year 8. These efforts are detailed in Sections 3.1 and 3.2 below.

Table 7 summarizes the status of the catchment investigations and further detail is provided in the sections below.

Table 7 Catchment Investigations Status

Prioritization Category	Total	In Progress	Completed			Permit Investigations Complete Due Dates
			Year 8	Total	% Complete	
Problem	21	7	0	14	66%	PY7 (July 1, 2025)
Highest	19	8	1	11	58%	PY7 (July 1, 2025)
High	1,408	335	74	468	33%	PY10 (July 1, 2028)
Low	110	21	6	38	35%	PY10 (July 1, 2028)

3.1 Problem Outfalls Catchment Investigations

As part of filing for coverage under this permit, DCR identified Problem outfalls in six areas based on historic information or ongoing issues. Catchments associated with these areas were prioritized for investigation and are discussed in the following sections. Each section identifies catchments by the outfall originally included in the Problem outfall list even though DCR has identified that some of the outfalls are instead owned by others and DCR instead interconnects upstream of the final outfall. For simplicity we have included historical screening and sampling information regarding the investigation but highlighted the work this year. We have also included tables summarizing the status of the Problem outfalls and the actions taken during Permit Year 8 to identify if the discharge includes illicit flows as **Appendix B**.

3.1.1 Stacey Brook (2 outfalls; Investigations complete)

The storm drainage area under review, which is comprised of two outfalls (outfalls 38017 and 37114.1), is located around Stacey Brook in Lynn and Swampscott, MA. Stacey Brook flows underground through a 6-foot culvert and discharges through an outfall on Red Rock Beach and ultimately into Nahant Bay.

DCR's drainage network to these outfalls is mostly limited to Lynn Shore Drive, Red Rock Beach, and the landscaped areas between the roadway and beach; it also includes a portion of Eastern Ave and Humphrey Street. DCR's drainage interconnects to Outfall 38017, which is owned by Swampscott, at manhole 25416 and at catch basin 666668502. DCR's drainage interconnects to outfall 37114.1, which is owned by Lynn, at manhole 25418 and at a blind connection downstream of catch basin 666667101. These outfalls were flagged as Problem outfalls based on previous sampling results indicating high bacteria (both *E. Coli* and *Enterococcus*) as well as the presence of pharmaceutical indicators that suggested the presence of human waste. It was not initially clear which outfall had been sampled so both outfalls were classified as Problem outfalls.

The catchment investigation of these outfalls occurred over several days in May and June 2019.

Outfall 38017: For outfall 38017, sampling results from the catchment investigation narrowed the area of interest for potential illicit discharge to the infrastructure along Humphrey Street in Swampscott. The contributing DCR drainage infrastructure was CCTVed and did not show any signs of illicit connection or dry weather flows, but the dry weather flows in non-DCR owned pipes continued to show elevated parameters. Based on the investigation, it was determined that the flow could come from one of the Swampscott residences adjacent to the area of interest.

DCR sent a letter to the Town of Swampscott in November 2019 with a summary of the sampling results and requested that Swampscott dye-test the several residences. COVID remote working impacted DCR's meeting with Swampscott. DCR sent a second letter to the Town of Swampscott in February 2022 with the summary of sampling results and again requested that Swampscott perform dye-testing on residences.

In June 2023, DCR sampled two of the four DCR pipes that interconnect into Swampscott outfall 38017 (Pipe 12640 and Pipe 12649) during wet weather. Sampling results did not exceed the MS4 permit thresholds, indicating there was no illicit input.

In August 2023, the remaining DCR interconnections were screened during wet weather. Sampling results did not exceed the MS4 permit thresholds, indicating there was no illicit input. DCR then sent a third letter to the Town of Swampscott in November 2023 to share the most recent sampling results and notify them that DCR will take no additional actions in the catchment and considers the **catchment investigation for outfall 38017 closed** unless Swampscott notifies DCR of additional information. DCR has yet to receive a response from Swampscott.

Outfall 37114.1: The second outfall, located in Lynn, was screened during dry weather; no signs of a potential illicit discharge were found. In September 2023, the interconnecting DCR pipes were screened during wet weather. Sampling results did not exceed the MS4 permit

thresholds indicating there was no illicit input; therefore, this **catchment investigation for outfall 37114.1 has been closed**.

3.1.2 Morrissey Boulevard (1 outfall; Follow-up ongoing)

The storm drainage system is located along Morrissey Boulevard in Dorchester and includes one outfall. The outfall drains to the mouth of the Neponset River and ultimately Dorchester Bay. This outfall (21850) was flagged as a Problem outfall based on previous sampling results from both the Boston Water and Sewer Commission (BWSC) and DCR, which showed elevated levels of *Enterococcus.* BWSC shares sampling data with DCR on an annual basis in locations where its system interconnects with DCR's system.

The catchment investigation occurred over several days in July 2019. Based on sampling results, the areas of interest were narrowed to the intersection of Morrissey Boulevard and Tenean Street and near the intersection of Morrissey Boulevard and McKone Street. DCR performed follow-up investigations of the infrastructure in the areas of interest and bricked off the connections from several pipes that were identified during CCTV investigation but not included on the map and were confirmed to be abandoned by CCTV investigation.

In order to further confirm the source of the dry weather flow and since there are BWSC sewer lines intersecting the DCR stormwater infrastructure, DCR reached out to BWSC in November 2019 with a summary of sampling results and a request to share information and investigate some of the adjacent sewer lines. DCR sent a follow-up request to BWSC in April 2021. BWSC sent a letter to DCR in response in May 2022 (dated February 2022) noting BWSC plans to reinspect a manhole in dry weather and will dye test two previously un-dye tested buildings in the area. A May 2023 email from BWSC indicated that additional screening and dye testing had not yet identified any illicit input into the drainage system and that a more formal response with sampling and dye testing results would be sent as soon as remainder of the investigation was completed. In November 2023, BWSC sent a summary of the results of their investigation to DCR, which did not uncover additional evidence of illicit discharge nor identify sources of the potential non-stormwater flow that was detected during sampling in previous investigations.

In Fall 2024, DCR requested dye testing and sampling data from BWSC for further review. After reviewing, DCR concluded that the BWSC dye testing effort in the catchment was comprehensive and determined that further dye testing was not necessary.

In Spring 2025, DCR completed a comprehensive screening and sampling effort throughout the catchment to obtain more up-to-date information and to identify the source of potential illicit flow. This investigation identified potential non-stormwater flow in the southern end of the catchment where Morrissey Boulevard and McKone Street intersect.

Following this investigation DCR conducted a CCTV investigation of the catchment's trunkline near the intersection of McKone Street and Morrissey Boulevard. This investigation did not conclusively determine the source of the potential non-stormwater flow, but identified two laterals, one abandoned and one owned by BWSC, for further investigation.

Additionally, in Spring 2025, DCR discovered a discrepancy in BWSC and DCR's mapping near 800 Morrissey Boulevard, which led to the identification of an abandoned DCR system.

BWSC shared sampling results from the pipe directly downstream of the abandoned system, which showed highly elevated levels of ammonia and enterococcus. These sampling results suggest the abandoned pipe is the source of non-stormwater flow detected in this system.

In Permit Year 8, in July 2025, DCR and BWSC conducted a joint investigation of both BWSC and DCR infrastructure in the area of 800 and 818 Morrissey Boulevard which included both CCTV and dye testing. This work identified an uncapped sewer lateral, formerly used for dewatering/bypass during initial construction, that was left in place and connected directly to an abandoned DCR drainage line. BWSC capped the lateral and plugged DCR's abandoned line to remove the issue.

In May 2025, DCR completed a screening and sampling effort upstream in the system near McKone Street within the previously identified abandoned system. This investigation confirmed the presence of potential non-stormwater flow in the abandoned system where Morrissey Boulevard and McKone Street intersect. DCR conducted CCTV of the abandoned system and identified several structural issues with the system. DCR updated the mapping in this area to reflect the new information.

In Permit Year 9 DCR will line and cap the abandoned line to prevent non-stormwater flow from entering the active drainage system. Once all work to address the identified potential illicit discharges is completed, DCR will perform confirmatory dry weather screening to review if the illicit discharge sources are eliminated.

3.1.3 Tenean Beach (1 outfall; Investigation complete)

The storm drainage system is located immediately south of Tenean Beach in Dorchester. The system extends from the parking area and through the park to one outfall draining to the mouth of the Neponset River and ultimately Dorchester Bay. This outfall (18257) was flagged as a Problem outfall based on previous sampling results showing elevated levels of *Enterococcus*.

The catchment investigation occurred over several days in July 2019, September 2019, and February 2020. The July 2019 investigation narrowed the areas of interest to two previously unmapped pipes and two catch basins. DCR determined the two unmapped pipes were no longer in use. DCR capped the two pipes. The catch basins and surrounding infrastructure were reviewed by DCR staff and it was confirmed that there were no illicit connections. DCR then cleaned the entire drainage system. To confirm there was no longer potential illicit discharges, samples were taken from two catch basins in September 2019 following the cleaning and sampling results showed a decrease in *Enterococcus*.

To close out the Problem outfall catchment investigation per the permit, DCR performed dry weather screening of the outfall in February 2020, which was the soonest available dry weather screening window after DCR conducted all follow-up actions. Since sampling results at the outfall did not exceed MS4 sewer input indicators, the catchment had been fully reviewed, and no SVFs have been identified in this area to require wet weather screening, **the outfall catchment investigation for outfall 18257 is now considered complete**.

3.1.4 Wollaston Beach (8 outfalls; 5 investigations ongoing; 3 investigations complete)

DCR investigated eight catchments along Wollaston Beach in Quincy, MA. The infrastructure for each of the catchments was generally located along Quincy Shore Drive and the beach. All of the outfalls drain directly to Quincy Bay. These outfalls were flagged as Problem outfalls based on previous sampling results showing elevated levels of *Enterococcus*.

Five of the outfalls originally identified as Problem Outfalls were determined to likely be owned by the City of Quincy. DCR drainage interconnects upstream in the system. The ownership of the outfalls and interconnections from DCR drainage is being officially confirmed via a memorandum of understanding (MOU) between DCR and the City of Quincy that is currently being drafted. Despite the pending status of the MOU, the upstream interconnections, which in many cases include more than one per each of the original Problem outfalls, and their respective catchments were broken out of the original Problem outfall catchments. These catchments remained categorized as Problem since they drain to the outfalls historically showing elevated levels of *Enterococcus*.

Initial catchment investigations occurred in November 2019 and February 2020. The November investigation was cut short due to weather and the next favorable weather window was not until February 2020. The November and February investigations narrowed the area of interest to three outfalls (outfalls 17661, 90000.1, and 34509.3) with the remaining four not showing signs of potential illicit discharges based on the sewer input indicators outlined in the MS4 Permit. However, due to the tidal conditions of the area, much of the system could not be sampled due to standing water.

Outfall 34509.3 and 666667986: In Permit Year 5, outfall 34509.3 was screened and sampled during wet weather and the results did not exceed the permit thresholds and thus were cleared of any wet weather illicit input.

Although outfall 34509.3 did not show signs of illicit input during wet weather, its dry catchment investigation results from 2020 did indicate the presence of potential non-stormwater flow. In Permit Year 6, the outfall was re-screened during dry weather to confirm the accuracy of the 2020 screening, since four years had elapsed since its initial screening and the results from 2020 were only slightly above potential non-stormwater indicator thresholds. The results of this screening conducted in August 2023 continued to show signs of potential illicit input. Catchment investigations in the upstream pipes were inconclusive due to standing water. Following this investigation, DCR updated mapping in this area and identified a separate outfall, added to map as outfall 666667986, which receives runoff from a portion of the catchment previously attributed to outfall 34509.3. This new outfall was added to DCR's program as a Problem outfall.

In Permit Year 6, additional mapping on the sewer system within the catchments for these two outfalls was retrieved from the City of Quincy and BWSC to inform future investigations. In Permit Year 7 DCR updated catchment mapping to reflect previous CCTV investigations. DCR conducted dye testing at adjacent residences and businesses, but did not find any connections to the drainage system. DCR rescreened OF-34509.3 taking lab samples for all parameters including bacteroides and identified potential non-stormwater flow.

In Permit Year 8, DCR cleaned and conducted CCTV of the system to OF-34509.3 where they updated mapping, identified blind connections, and identified broken pipes. Through this CCTV work DCR determined that a full reconstruction to raise the drainage system in this area is needed to reduce tidal and groundwater influence and prevent backup of stormwater through the system. Reconstruction of the drainage system will involve coordinating with CVS to raise their interconnecting drainage system, as well. In Permit Year 9, DCR will advance reconstruction of this drainage system through design and coordination with CVS.

For OF-666667986, in PY9 DCR will work to dewater and clear the drainage system and conduct a CCTV investigation to understand the extent of the system.

Outfall 34507.3: In Permit Year 5, this outfall was screened and sampled during wet weather. The wet weather sampling results did not exceed the permit thresholds and thus were cleared of any wet weather illicit input. Since both the dry and wet weather screening results did not show any signs of illicit input, the **catchment investigation for outfall 34507.3 is considered complete**.

Outfall 17661: For the interconnections upstream of outfall 17661, DCR performed a subsequent CCTV investigation in August 2020 during which the pipes were de-watered showed no flow coming from DCR infrastructure and no illicit connections were found. The results indicate that the sampling results from the 2019 dry weather investigation likely sampled stagnant, standing water in the pipes. For further review, this catchment was re-screened in Permit Year 6 and considerable effort was made to ensure stagnant water was not sampled. The results from the rescreening showed no signs of potential illicit input. outfall 17661 was wet weather screened in Permit Year 6; results of the screening did not exceed the sewer input indicators and the **catchment investigation for outfall 17661 is considered complete**.

Outfall 90000.10: The initial catchment investigation for outfall 90000.10 was completed in November 2019 and February 2020, including sampling. DCR performed a CCTV investigation in August 2020 during which the pipes were de-watered to access and evaluate the interconnections upstream of outfall 90000.1. The investigation showed no flow coming from DCR infrastructure and no illicit connections were found. The results indicate that the previous 2019 and 2020 dry weather investigation sampling results likely sampled stagnant, standing water in the pipes.

To provide a second look, these catchments were re-screened in Permit Year 6 and considerable effort was made to ensure stagnant water was not sampled. Dry weather screening results from 2019 for outfall 90000.10 showed signs of potential non-stormwater flow.

Since the permit requires full catchment investigations for Problem outfalls, DCR continued with catchment screening and wet weather sampling of this outfall. In Permit Year 7, given the evidence of potential non-stormwater flow found in the 2019 sampling of OF-90000.10, DCR re-screened flow from the interconnection from MH-37195.00 and analyzed the lab samples for ammonia and surfactants. During this follow-up screening no indicators of potential illicit flow were found. The wet weather screening and sampling for outfall 90000.10 conducted in Permit Year 6 also did not indicate the presence of non-stormwater flow but was only completed for approximately half of the catchment due to time and

weather constraints. In Permit Year 8, DCR returned to MH-37195.00 and screened one of three incoming DCR pipes during wet weather – Pipe 18383. The remaining two pipes weren't sampled due to time and weather constraints. Wet weather screening results did not exceed EPA's sewer threshold. In Permit Year 9, DCR will attempt to conduct wet weather screening at the remaining incoming pipes.

Outfall 37221.10: The dry weather investigations for outfall 37221.10 did not show evidence of non-stormwater flow in DCR contributing pipes and was completed for entire catchment.

In Permit Year 7, DCR completed wet weather screening for the catchment draining to Outfall 37221.10; results of the screening did not exceed sewer input indicators and the **catchment investigation for outfall 37221.10 was closed.**

Outfall 34500.3: The dry weather investigations conducted in the catchment to outfall 34500.3 did not show signs of illicit input and was completed with exception of Pipe 18076, which accepts runoff from approximately one third of the catchment. Flow was observed exiting this pipe during review of a manhole further upstream in the system, but it could not be sampled due to the lack of a street level access structure at the discharging end of the pipe and a large steel grate that obstructs sampling access from the upstream structure. In Permit Year 7, DCR completed dry weather screening of the catchment area discharging to outfall 34500.30 by screening immediately up and downstream of the blind interconnection. This screening did not find any increase concentration in sampling results between the up and downstream structures; in fact, concentrations were lower at the downstream structure. These results indicate Pipe 18076 discharges clean groundwater.

Wet weather screening and sampling was conducted in Permit Year 6 for approximately one half of the catchment draining to outfall 34500.3 and did not show evidence of non-stormwater flow in DCR contributing pipes. In Permit Year 8, DCR planned to complete wet weather screening for the remainder of the catchment area by screening immediately up and downstream of the blind interconnection; however, a suitable storm event timed with a low tide window, to minimize chances of standing water, did not occur. In Permit Year 9, DCR will complete wet weather screening for the remainder of the catchment.

Outfall 38020: The dry weather investigation for outfall 38020 revealed potential non-stormwater flow originating from two abandoned pipes, Pipe 66674708 and Pipe 66674710. These pipes were sealed by DCR, which eliminated the potential non-stormwater flow. The dry weather investigation in the remainder of the catchment was inconclusive due to standing water. In Permit Year 7, DCR received and reviewed CCTV footage in the catchment areas draining to outfall 38020. DCR discovered that a significant portion of this catchment had built up concrete within the drainage infrastructure. DCR began removal of this concrete in Permit Year 7 and continued this work into Permit Year 8, however was unable to complete the work due to repeated equipment failure and contractor issues. In Permit Year 9, DCR will complete concrete removal in this catchment and complete confirmatory dry and wet weather investigations to review if additional sources of non-stormwater flow are contributing to the elevated sample results.

3.1.5 Neponset Valley Parkway (1 outfall; Investigation complete)

Outfall 17289 was included in the Problem outfall list in Permit Year 1, but DCR is not aware of historical sampling data indicating potential illicit discharges at this location. DCR completed both the dry weather screening and wet weather sampling in November 2021 and January 2022, respectively. There was no evidence of illicit discharge during either of these investigations. **The catchment investigation for the outfall 17289 is considered complete.**

3.1.6 Western Avenue (3 outfalls; 3 investigations complete)

Four outfalls in this location were included in the Permit Year 1 Problem outfall list, but DCR is not aware of historical sampling data indicating potential illicit discharges. Outfall 19738: During review of the outfall locations in the database, we determined that Outfall 19738 was a duplicate of outfall 19739 and therefore there were only three outfalls to follow up on in this area. Outfall 19738 was removed from DCR's database.

Outfall 19105 and 19377: These catchment investigations were completed in June 2021; there was no flow present. There are no known SVFs in these locations, so wet weather sampling is not required to complete the catchment investigation.

Outfall 19379: For outfall 19379, the catchment investigation was completed in April 2025; there was no flow present. There are no known SVFs in these locations, so wet weather sampling is not required to complete the catchment investigation.

The catchment investigations for outfalls 19105, 19377, and 19379 are considered complete.

3.2 Highest Priority Catchment Investigations

In addition to investigating Problem outfalls, DCR focused on Highest Priority outfalls in Permit Year 8. DCR has begun dry weather investigations for all Highest Priority catchments and has closed 11 of the 19 Highest priority catchments, including one closed in Permit Year 8. A summary of the actions performed in Permit Year 8 for the Highest Priority catchments can be found in **Appendix C**. A summary of actions prior to Permit Year 8 are outlined in the Permit Year 4 through 7 IDDE Summary Reports or are available upon request from DCR.

3.3 High Priority Catchment Investigations

There were 335 High priority catchment investigations in progress and 74 completed during Permit Year 8. Permit Year 8 activity on these catchments consisted of dry weather investigations and wet weather screening. DCR will continue to make progress on the active High priority catchment investigations when possible.

3.4 Low Priority Catchment Investigations

There were 6 Low priority catchments completed and 21 in progress during Permit Year 8. The Low priority catchments will be completed following the completion of High priority catchments.

4

Illicit Discharge Removal

In Permit Year 8, DCR identified three sources of illicit discharge into DCR-owned drainage systems and removed one illicit discharge. Details from illicit discharges closed in previous permit years can be found in Appendix D. Illicit discharge IDs are listed below for reference. Details from illicit discharges active as of the close of Permit Year 8 are detailed below.

Illicit ID 1: Illicit removed prior to PY8. Details in Appendix D

Illicit ID 2: Illicit removed prior to PY8. Details in Appendix D

Illicit ID 3: Illicit removed prior to PY8. Details in Appendix D

Illicit ID 4

- *Location*: 647 West Roxbury Parkway
- *Description*: Exfiltration into abandoned drainage line from adjacent sanitary sewer lateral
- *Associated outfall ID:* 27352.00
- *Associated outfall ID Priority:* Highest
- *Associated catchment ID:* 978
- *Method and date of discovery*: Dye testing on 5/22/2024
- *Mitigation or enforcement action or planned corrected measures and schedule for completing the illicit discharge removal:* The illicit discharge was removed by capping the abandoned drainage line into which the sanitary sewer lateral was exfiltrating.
- *Date of elimination*: December 2024

- *Date of confirmatory Dry Weather Screening*: June 2025
- *Date of confirmatory Wet Weather Screening*: Incomplete at close of Permit Year 8 Completion. See Appendix A for work completed through August 2026.
- *Estimated volume of sewage removed:* 20 gallons/day
  - Formula: $\text{WWR} \times \text{EF} = \text{Volume of Sewage Removed (Gallons/Day)}$
    - **WWR** = 135 gallons/day
      - *Assumed typical wastewater flow rates from residential building. This assumed an average 150 gpd of water use multiplied by a factor of 90% to represent sewer flows.*
    - **EF** = 15%
      - *Exfiltration factor assumed to account for exfiltration through soil to DCR drainage system*

Illicit ID 5

- *Location*: 651 West Roxbury Parkway
- *Description*: Direct connection from sanitary sewer lateral
- *Associated outfall ID:* 27352.00
- *Associated outfall ID Priority:* Highest
- *Associated catchment ID:* 978
- *Method and date of discovery*: CCTV inspection on 5/22/2024; confirmed by BWSC email on 5/30/2024
- *Mitigation or enforcement action or planned corrected measures and schedule for completing the illicit discharge removal:* BWSC removed this illicit discharge by disconnecting the sanitary sewer lateral from the drainage system and reconnecting it to the adjacent sanitary sewer system main line.
- *Date of elimination*: 8/21/2024
- *Date of confirmatory Dry Weather Screening*: 9/4/2024
- *Date of confirmatory Wet Weather Screening*: Incomplete at close of Permit Year 8 Completion. See Appendix A for work completed through August 2026.
- *Estimated volume of sewage removed:* 290 gallons/day[8]

Illicit ID 6

- *Location*: Storrow Drive, Boston
- *Description*: Potential illicit input via groundwater infiltration (source unknown)
- *Associated outfall ID:* 19326.00
- *Associated outfall ID Priority:* Highest
- *Associated catchment ID:* 538

[8] This estimate was provided by BWSC.

- *Method and date of discovery*: A 11/8/2023 dry weather investigation found that groundwater containing potential non-stormwater flow was entering the drainage system via infiltration through the joints between pipes and drainage structures throughout the catchment. Since there are no sanitary sewer pipes in the vicinity of this catchment and previous DCR CCTV investigation found no direct illicit connections into the system, the origin of the potential illicit input in the groundwater is unknown.
- *Mitigation or enforcement action or planned corrected measures and schedule for completing the illicit discharge removal:* Illicit discharge is planned to be removed by sealing and grouting pipe connections into drainage structures throughout the catchment.
- *Date of elimination*: Scheduled to be completed by Fall 2026 or Spring 2027
- *Date of confirmatory Dry Weather Screening*: Incomplete. Scheduled for Fall 2026 or Spring 2027
- *Date of confirmatory Wet Weather Screening*: Incomplete. Scheduled for Fall 2026 or Spring 2027
- *Estimated volume of sewage removed:* To be determined. The illicit discharge has not yet been removed.

Illicit ID 7: Illicit removed prior to PY8. Details in Appendix D

Illicit ID 8: In Permit Year 7, DCR removed one illicit discharge (previously Illicit ID 8) from its total inventory, as confirmatory screening indicated the suspected illicit discharge source was not contributing illicit flow.

Illicit ID 9

- *Location*: Mystic Valley Parkway, Medford
- *Description*: Potential illicit input via groundwater infiltration (source unknown)
- *Associated outfall ID:* 22021.00
- *Associated outfall ID Priority:* Highest
- *Associated catchment ID:* 55
- *Method and date of discovery*: DCR conducted a dry weather investigation in 2022 that identified potential non-stormwater input into the drainage system. In 2023, two nearby MWRA sanitary sewer pipes were investigated and determined to be significantly below the DCR drainage system and were ruled out as a source of the potential illicit input. Additionally, DCR investigated the drainage system of an adjacent, privately owned parking lot and determined that the system was not connected to DCR's drainage system and was ruled out as a potential source. In December 2023, DCR dewatered several catch basins within the catchment and observed groundwater infiltration through the walls of the basins. This groundwater infiltration was sampled and was determined to contain potential illicit input. The origin of the potential illicit input into the groundwater is unknown.

- *Date of elimination*: On 3/15/2024 DCR lined the four catch basins identified as having groundwater infiltration. However, confirmatory screening showed that this did not fully eliminate the issue and therefore DCR performed additional lining of pipes in November 2024. A second round of dry weather confirmatory screening did not show elevated sampling results indicating the groundwater infiltration had been addressed at this location. However, wet weather confirmatory screening revealed a wet weather issue was present. It is unclear at this time if the wet weather non-stormwater flow is associated with the original dry weather non-stormwater flow. Follow-up work to conduct weir testing in the catchment to identify the remaining source of inflow and infiltration is anticipated to be completed Fall 2026 or Spring 2027.
- *Date of confirmatory Dry Weather Screening*: DCR initially performed confirmatory testing on 4/17/2024 but the results indicated that maintenance work did not successfully remove all non-stormwater flow into the system. DCR then performed a second round of pipe and structure lining and follow-up confirmatory screening on 11/19/2024 showed the dry weather non-stormwater flow was eliminated.
- *Date of confirmatory Wet Weather Screening*: 3/24/25. Results indicate a wet weather non-stormwater flow remains.
- *Mitigation or enforcement action or planned corrected measures and schedule for completing the illicit discharge removal:* DCR plans to conduct weir testing of flow within the catchment to inform the mitigation effort.
- *Estimated volume of sewage removed:* To be determined. The illicit discharge has not yet been removed.

Illicit ID 10

- *Location*: 480 Truman Parkway, Boston
- *Description*: Septic System overflow from 480 Truman Parkway
- *Associated outfall ID*: 17106.00
- *Associated outfall ID Priority:* Highest
- *Associated catchment ID:* 850
- *Method and date of discovery*: DCR conducted dye testing at an adjacent residence to identify the source of non-stormwater flow at a DCR catch basin. Results indicated non-stormwater flow coming from the residence.. DCR then conducted CCTV and found that the catch basin was connected to the overflow of a residential septic system. DCR coordinated with BWSC on this matter who reached out to Boston Inspectional Services Department, who has the legal authority for enforcement, requesting they use their authority to mitigate the issue. BWSC contacted ISD five times from July 2025 through December 2025, after which Boston ISD informed them that their legal department is working on it.
- *Mitigation or enforcement action or planned corrected measures and schedule for completing the illicit discharge removal:* DCR and BWSC have sent the Boston Inspectional Services Department a letter notifying them of the issue and requesting they use their legal authority to mitigate. Both DCR and BWSC have continued to

follow up with the Boston Inspectional Services Department (BISD) to push BISD to progress disconnection of the septic system. DCR will continue to follow-up with BWSC and BISD on this issue to mitigate the issue.

- *Date of elimination*: Scheduled to be completed by Boston Inspectional Services.
- *Date of confirmatory Dry Weather Screening*: Incomplete. Scheduled to occur after illicit discharge removal is completed.
- *Date of confirmatory Wet Weather Screening*: Incomplete. Scheduled to occur after illicit discharge removal is completed.
- *Estimated volume of sewage removed:* To be determined. The illicit discharge has not yet been removed.

Illicit ID 11

- *Location*: 818 Morrissey Boulevard, Boston
- *Description*: Uncapped lateral formerly used for dewatering/bypass during initial construction, was left in place and was transmitting flow into DCR's system from a damaged sanitary sewer line.
- *Associated outfall ID: 21850*
- *Associated outfall ID Priority:* Problem
- *Associated catchment ID: 32*
- *Method and date of discovery*: BWSC and DCR CCTV Investigation in July 2025
- *Date of elimination*: 7/8/2025
- *Mitigation or enforcement action or planned corrected measures and schedule for completing the illicit discharge removal:* A BWSC dig crew removed the connection to the abandoned line and repaired the sanitary sewer. DCR confirmed that the abandoned connection showed no signs of flow and sealed with a plug.
- *Date of confirmatory Dry Weather Screening*: Incomplete. Illicit ID 11 is located within a catchment with other sampling exceedances upstream which are being investigated. To reduce chance for false positives, dry weather confirmatory screening will be completed after any potential upstream non-stormwater flows are investigated and removal of additional potential non-stormwater flow upstream is completed.
- *Date of confirmatory Wet Weather Screening*: Incomplete. To be completed after identification and removal of additional potential non-stormwater flow upstream in catchment is completed.
- *Estimated volume of sewage removed:* To be determined. Confirmatory screening has not yet been completed.

Illicit ID 12

- *Location*: Commandants Way, Chelsea

- *Description*: Apartment complex sewer lateral was incorrectly connected to municipal drainage system along Commandants Way, which interconnects to DCR's drainage system south on Commandants Way and discharges to the Mystic River.
- *Associated outfall ID: OF 666667734.00*
- *Associated outfall ID Priority:* Highest
- *Associated catchment ID: 778*
- *Method and date of discovery*: CCTV Investigation in July 2025
- *Mitigation or enforcement action or planned corrected measures and schedule for completing the illicit discharge removal:* In January 2026 the property owner corrected the illicit connection to the municipal drainage system.
- *Date of elimination*: January 2026
- *Date of confirmatory Dry Weather Screening*: Completed on 4/9/2026, sample results did not exceed EPA sewer input thresholds.
- *Date of confirmatory Wet Weather Screening*: Completed on 5/15/2026, sample results did not exceed EPA sewer input thresholds.
- *Estimated volume of sewage removed:* 135 gallons/day
  - Formula: $\mathrm{WWR} \times \mathrm{EF} = \text{Volume of Sewage Removed (Gallons/Day)}$
    - **WWR** = 135 gallons/day
      - *Assumed typical wastewater flow rates from residential building. This assumed an average 150 gpd of water use multiplied by a factor of 90% to represent sewer flows. Given that only one sewer lateral from apartment complex was connected the standard residential building flow rate was applied as a conservative estimate.*
    - **EF** = 100%
      - *Exfiltration factor assumed to account for exfiltration through soil to DCR drainage system. Given the direct connection this factor was assumed to be 100%.*

Illicit ID 13

- *Location*: Lynnway and Lynn Shore Drive, Lynn
- *Description*: Sanitary sewer exfiltration identified from municipal sewer system located in the catchment area of DCR's drainage system near Nahant Circle.
- *Associated outfall ID: OF 666667686.00*
- *Associated outfall ID Priority:* High
- *Associated catchment ID: 1211*
- *Method and date of discovery*: 1/13/2026
- *Mitigation or enforcement action or planned corrected measures and schedule for completing the illicit discharge removal:* DCR shared sampling and CCTV results with Lynn in January 2026 and has been working with the City to coordinate field mitigation actions, including additional CCTV. DCR plans to complete corrective actions in Fall 2026, including abandoning system fragments and sealing pipes which are allowing contaminated ground water into DCR system. City of Lynn is responsible for investigating and eliminating the exfiltration from their sewer system.

- *Date of elimination*: To be completed by City of Lynn, timing undetermined. DCR drainage improvements planned to be completed by Fall 2026 or Spring 2027.
- *Date of confirmatory Dry Weather Screening*: Incomplete. To be completed after illicit discharge removal is completed.
- *Date of confirmatory Wet Weather Screening*: Incomplete. Scheduled to occur after illicit discharge removal is completed.
- *Estimated volume of sewage removed:* To be determined. The illicit discharge has not yet been removed.

Appendix A – Problem and Highest Catchment Activities Following Permit 8

This Appendix details Problem and Highest priority catchment activities conducted since the conclusion of Permit Year 8. The actions reported below were conducted in July 2026 prior to the finalization of the Annual IDDE Summary Report in August and are included to show continued progress. The project team will work to determine next steps and continue progressing these Problem and Highest priority catchment investigations.

Unnamed Tributary (MA72-38); West Roxbury Parkway, Boston MH-27352 – Highest

DCR conducted wet weather screening of this manhole and identified potential non-stormwater flow. DCR plans to conduct confirmatory CCTV screening to confirm whether the previously identified illicit connections were properly removed.

Winthrop Bay (MA70-10); Constitution Beach, Boston MH-666669024 – Highest

DCR conducted CCTV of LF-11114, the drainage line with potential non-stormwater flow. Significant infiltration and inflow was not observed. DCR did observe a significant amount of dog waste at this location and logged 8 no dog signs designating which areas dogs are not allowed, 3 dog waste signs informing pet owners of their responsibility to remove pet waste, and 5 waste signs with garbage bins and dog waste bag dispensers located throughout the parking area and on the beach side of the parking lot near the DCR rink.

Quincy Bay (MA70-05); Wollaston Beach, Quincy; Quincy Shore Drive, Quincy Wollaston Beach 4 (blind interconnection from IN-2476 drains to OF-34500.3) – Problem

DCR conducted wet weather screening upstream and downstream of the blind DCR interconnection. No flow was observed upstream of the interconnection. The downstream end of the interconnection was full of standing water and inaccessible for sampling during this event.

Quincy Bay (MA70-05); Wollaston Beach, Quincy; Quincy Shore Drive, Quincy Wollaston Beach 5 (MH-666667017 and MH-37223.10 interconnects to OF-38020) – Problem

DCR wet weather screening MH-37223.10 and identified potential non-stormwater flow from two incoming DCR trunklines. DCR will conduct additional wet weather investigation to isolate the source of this flow.

Quincy Bay (MA70-05); Wollaston Beach, Quincy; Quincy Shore Drive, Quincy Wollaston Beach 7 (MH-37195.00 interconnects to OF-90000.1) – Problem

DCR attempted wet weather screening at MH-37195 of LF-18279, but was unable to isolate the flow due to standing water and a lip in the structure's sump. DCR continued to the

upstream structure for wet weather screening where all incoming pipes were observed to be submerged under water.

Quincy Bay (MA70-05); Wollaston Beach, Quincy; Quincy Shore Drive, Quincy Wollaston Beach 8 (OF-666667986) – Problem

DCR attempted night work to conduct CCTV of this catchment. Night work was required because the inspection needed to be performed during low-tide conditions, and nighttime scheduling also simplified traffic control and reduced impacts to daytime traffic. Some CCTV was able to be conducted, but due to sediment build-up and tidal conditions they were unable to clear the final line to the outfall for CCTV. DCR will return in Permit Year 9 to clear the outfall and complete CCTV.

Appendix B - Problem Catchment Investigation Summary Table

Receiving Water (ID), Area/ Town; Outfall	Catchment Investigation Status[1]			Permit Year 8 Investigation Actions	DCR's Next Steps[3]
	Dry Weather	Wet Weather	Illicit Discharge Identification Status[2]		
Nahant Bay (MA93-24); Stacey Brook, Lynn and Swampscott					
Stacey Brook 1 (2 interconnections to MH-25416, 2 interconnections to CB-666668502, drains to OF-38017)	Complete	Complete	Catchment Investigation Complete - No Illicit Discharge Detected	DCR completed the Problem outfall catchment investigation prior to Permit Year 8.	**Catchment investigation is complete.**
Stacey Brook 2 (4 interconnections to MH-25418, 1 blind interconnection downstream of CB-666667101, drains to OF-37114.1)	Complete	Complete	Catchment Investigation Complete - No Illicit Discharge Detected	DCR completed the Problem outfall catchment investigation prior to Permit Year 8.	**Catchment investigation is complete.**

Receiving Water (ID), Area/ Town; Outfall	Catchment Investigation Status[1]			Permit Year 8 Investigation Actions	DCR's Next Steps[3]
	Dry Weather	Wet Weather	Illicit Discharge Identification Status[2]		
Neponset River (MA73-04); Morrissey Boulevard, Dorchester					
Morrissey Blvd 1 (OF-21850)	In Progress	Not Started	Investigation in Progress – Potential Non-stormwater Flow Detected[2]	• Conducted a joint investigation with BWSC of both BWSC and DCR infrastructure in the area of 800 and 818 Morrissey Boulevard which included both CCTV and dye testing. • Identified an uncapped sewer lateral near 819 Morrissey Boulevard formally used for dewatering/bypass during initial construction, that was left in place and connected directly to an abandoned DCR drainage line. BWSC capped the lateral and plugged DCR's abandoned line to remove the issue. • Conducted dry-weather screening and sampling effort within the abandoned system identified near McKone Street and confirmed the presence of potential non-stormwater flow in the abandoned system. • Conducted CCTV of the abandoned system and identified several structural issues with the system and updated mapping in this area.	DCR will line and cap the abandoned line to prevent non-stormwater flow from entering the active drainage system.
Tenean Beach 1 (OF-18257)	Complete	Not Required (No SVFs)	Catchment Investigation Complete - No Illicit Discharge Detected	DCR completed the Problem outfall catchment investigation prior to Permit Year 8.	**Catchment investigation is complete.**

Receiving Water (ID), Area/ Town; Outfall	Catchment Investigation Status[1]			Permit Year 8 Investigation Actions	DCR's Next Steps[3]
	Dry Weather	Wet Weather	Illicit Discharge Identification Status[2]		
Quincy Bay (MA70-05); Wollaston Beach, Quincy					
Wollaston Beach 1 (OF-34509.3)	In Progress	Complete	Investigation in Progress – Potential Non-stormwater Flow Detected	Conducted CCTV and updated mapping, identified blind connections, and identified maintenance needs. Through CCTV, determined that a full reconstruction to raise the drainage system in this area is needed to reduce tidal and groundwater influence and prevent backup of stormwater in the system.	DCR will advance the scope of this drainage system reconstruction and coordinate with the CVS property tying into DCR's drainage system. CVS would need to raise their system as well as part of this work.
Wollaston Beach 8 (OF- 666667986)[3]	In Progress	Not Started	Investigation in Progress – No Illicit Discharge Detected	Attempted to review previous CCTV investigation videos, but was unable to locate the records. Scheduled follow-up CCTV investigation work in this catchment.	DCR will conduct a CCTV investigation to determine whether potential non-stormwater flow is present in the catchment.
Wollaston Beach 2 (OF-34507.3)	Complete	Complete	Catchment Investigation Complete - No Illicit Discharge Detected	DCR completed the Problem outfall catchment investigation prior to Permit Year 8.	**Catchment is investigation complete.**
Wollaston Beach 3 (4 interconnections to MH-34502.3, drains to OF-17661)	Complete	Complete	Catchment Investigation Complete - No Illicit Discharge Detected	DCR completed the Problem outfall catchment investigation prior to Permit Year 8.	**Catchment is investigation complete.**

Receiving Water (ID), Area/ Town; Outfall	Catchment Investigation Status[1]			Permit Year 8 Investigation Actions	DCR's Next Steps[3]
	Dry Weather	Wet Weather	Illicit Discharge Identification Status[2]		
Wollaston Beach 4 (3 interconnections to MH-34497.3, 1 interconnection to MH-34454.3, 1 blind interconnection from IN-2476 downstream of MH-34454.3, drains to OF-34500.3)[3]	Complete	In progress	Investigation in Progress – No Illicit Discharge Detected	• Completed the Problem catchment investigation associated with structures MH-34497.3 and MH-34502.3 prior to Permit Year 8. • Attempted wet weather screening at the blind interconnection, but was unable to identify a storm event that correlated with an appropriate tidal window.	DCR will wet weather screen the blind interconnection.
Wollaston Beach 5 (MH-37223.1, MH-666667017 interconnects to OF-38020)[3]	In Progress	In Progress	Investigation in Progress – Potential Non-stormwater Flow Detected	• Attempted wet weather screening of MH-37223.1, but was unable to identify a storm event that correlated with an appropriate tidal window to conduct wet weather screening. • Continued work to remove concrete within the system; however, this operation has presented unique challenges in terms of acquiring the appropriate equipment for concrete removal, including equipment failures. In Permit Year 8, DCR identified and worked with a new subcontractor to identify the appropriate equipment for this pipe maintenance.	DCR will return to wet weather screen the system discharging to MH-37223.1 during low-tide. DCR will clear concrete in the system discharging to MH-666667017 and complete CCTV investigation of the system to determine if potential non-stormwater flow is present.

Receiving Water (ID), Area/ Town; Outfall	Catchment Investigation Status[1]			Permit Year 8 Investigation Actions	DCR's Next Steps[3]
	Dry Weather	Wet Weather	Illicit Discharge Identification Status[2]		
Wollaston Beach 6 (MH-37193 interconnects to OF-37221.1)	Complete	Complete	Catchment Investigation Complete - No Illicit Discharge Detected	DCR completed the Problem outfall catchment investigation prior to Permit Year 8.	**Catchment investigation is complete.**
Wollaston Beach 7 (MH-37195.00, MH-6002.40 interconnects to OF-90000.1)[3]	Complete	In Progress	Investigation in Progress – No Illicit Discharge Detected	Conducted wet weather screening of LF-18052 at MH-37195.00 and did not identify illicit flow; however, was unable to screen incoming DCR pipe LF-18279.	DCR will conduct wet weather screening of LF-18279 at the interconnection to MH-37195.00.
Neponset River (MA73-02); Neponset Valley Parkway, Boston					
Neponset (OF-17289)	Complete	Complete	Catchment Investigation Complete - No Illicit Discharge Detected	DCR completed the Problem outfall catchment investigation prior to Permit Year 8.	**Catchment investigation is complete.**
Charles River (MA72-36); Western Avenue, Cambridge					
Western Ave 1 (OF-19105)	Complete	Not Required (No SVFs)	Catchment Investigation Complete - No Illicit Discharge Detected	DCR completed the Problem outfall catchment investigation prior to Permit Year 8.	**Catchment investigation is complete.**
Western Ave 2 (OF-19377)	Complete	Not Required (No SVFs)	Catchment Investigation Complete - No Illicit Discharge Detected	DCR completed the Problem outfall catchment investigation prior to Permit Year 8.	**Catchment investigation is complete.**

Receiving Water (ID), Area/ Town; Outfall	Catchment Investigation Status[1]			Permit Year 8 Investigation Actions	DCR's Next Steps[3]
	Dry Weather	Wet Weather	Illicit Discharge Identification Status[2]		
Western Ave 4 (OF-19379)	Not Started	Not Required (No SVFs)	Catchment Investigation Complete - No Illicit Discharge Detected	DCR completed the Problem outfall catchment investigation prior to Permit Year 8.	**Catchment investigation is complete.**

Notes:

1 – Catchment Investigation Status descriptions:

Not Started: Investigation has not begun.

In Progress: Investigation is on-going.

Complete: Investigation is complete and either no suspect flow has been identified or suspect flow has been identified and removed as a result of the investigation.

2 - Illicit Discharge Identification Status descriptions:

Catchment Investigation Complete - No Illicit Discharge Detected: Catchment investigation is complete and no illicit discharges were detected.

Investigation in Progress - Potential Non-stormwater Flow Detected: Potential non-stormwater flow was detected and identification of the source is still ongoing.

Investigation in Progress - No Illicit Discharge Detected: The catchment investigation is in progress and non-stormwater flow has not been detected to date.

Illicit Discharge Identified - Removal In Progress: An illicit discharge has been identified and mitigation measures are planned/are in progress.

Illicit Discharge Identified and Removed: An illicit discharge has been identified and removed.

3 – See Appendix A for details on catchment actions after Permit Year 8.

Appendix C – Highest Priority Catchment Investigation Summary Table

Receiving Water (ID), Area/ Town; Outfall	Catchment Investigation Status[1]			Permit Year 8 Investigation Actions	DCR's Next Steps[3]
	Dry Weather	Wet Weather	Illicit Discharge Identification Status[2]		
Mystic River and Tribs (MA71-03, MA71-02 & MA71-13) Mystic Valley Parkway, Medford					
OF-22724	Complete	Complete	Illicit Discharge Identified and Removed	DCR completed the Highest priority outfall catchment investigation prior to Permit Year 8.	**Catchment investigation is complete.**
OF-22021	Complete	In Progress	Investigation in Progress - Potential Non-stormwater Flow Detected	• Conducted wet weather catchment investigation and isolated wet weather potential non-stormwater flow to the east side of the system. • Updated mapping to reflect field conditions after observing an unmapped pipe.	DCR will complete weir testing in this system to confirm source of potential infiltration.
OF-22018	Complete	Complete	Catchment Investigation Complete - No Illicit Discharge Detected	DCR completed the Highest priority outfall catchment investigation prior to Permit Year 8.	**Catchment investigation is complete.**
OF-21979	In Progress	Not Started	Investigation in Progress - Potential Non-stormwater Flow Detected	• Conducted two days of dye testing in this catchment and did not identify any potential sanitary sewer connections to the drainage system. • Conducted dye testing on a City of Medford sewer manhole previously observed to be clogged and did not identify any exfiltration into the drainage system. • Conducted mapping confirmation field work to confirm municipal and private drainage mapping adjacent to the catchment.	DCR will conduct further dye testing at locations previously inaccessible.

Receiving Water (ID), Area/ Town; Outfall	Catchment Investigation Status[1]			Permit Year 8 Investigation Actions	DCR's Next Steps[3]
	Dry Weather	Wet Weather	Illicit Discharge Identification Status[2]		
Mystic River (MA71-03) O'Malley Memorial Park, Chelsea					
OF-666667734	Complete	Complete	Illicit Discharge Identified and Removed	• Conducted follow-up field investigation and discovered that the northern trunkline, which DCR had previously thought ended at DCR MH-28374, continues north along Commandants Way via a City of Chelsea owned stormwater main. • Performed a CCTV investigation of the system to the north, updated mapping of the infrastructure, and isolated the source of the contaminated flow to a privately owned pipe interconnecting into the non-DCR interconnecting drainage system. • Coordinated with the City of Chelsea informing them of DCR's findings. • Confirmed that the City of Chelsea coordinated with the private property to have the illicit connection removed. • Conducted confirmatory dry weather outfall screening, which did not exceed sewer input indicator thresholds. • Completed wet weather screening, which did not exceed sewer input indicator thresholds.	**Catchment investigation is complete.**
Malden River (MA71-05) Mystic View Rd, Everett					
OF-27645	Complete	Complete	Illicit Discharge Identified and Removed	DCR completed the Highest priority outfall catchment investigation prior to Permit Year 8.	**Catchment investigation is complete.**
Neponset River (MA73-02) Truman Parkway, Hyde Park					
MH-17009 (interconnects to OF-666666991)	Complete	Complete	Catchment Investigation Complete - No Illicit Discharge Detected	DCR completed the Highest priority outfall catchment investigation prior to Permit Year 8.	**Catchment investigation is complete.**

Receiving Water (ID), Area/ Town; Outfall	Catchment Investigation Status[1]			Permit Year 8 Investigation Actions	DCR's Next Steps[3]
	Dry Weather	Wet Weather	Illicit Discharge Identification Status[2]		
MH-666667147 (interconnects to OF-666666991)	Complete	Complete	Catchment Investigation Complete - No Illicit Discharge Detected	DCR completed the Highest priority outfall catchment investigation prior to Permit Year 8.	**Catchment investigation is complete.**
MH-17006 interconnects to OF-666666991	Complete	Complete	Catchment Investigation Complete - No Illicit Discharge Detected	DCR completed the Highest priority outfall catchment investigation prior to Permit Year 8.	**Catchment investigation is complete.**
IN-2011 interconnects to OF-666666991	Complete	Complete	Catchment Investigation Complete - No Illicit Discharge Detected	DCR completed the Highest priority outfall catchment investigation prior to Permit Year 8.	**Catchment investigation is complete.**
MH-17005 interconnects to OF-666666991	Complete	Complete	Catchment Investigation Complete - No Illicit Discharge Detected	DCR completed the Highest priority outfall catchment investigation prior to Permit Year 8.	**Catchment investigation is complete.**
Lynn Harbor (MA93-52) Lynn Shore Reservation, Nahant					
OF-666667157	Complete	Complete	Illicit Discharge Identified and Removed	DCR completed the Highest priority outfall catchment investigation prior to Permit Year 8.	**Catchment investigation is complete**.
Dorchester Bay (MA70-03) Morrisey Boulevard, Boston					
MH-17701	In Progress	Not Started	Investigation in Progress - Potential Non-stormwater Flow Detected	Conducted CCTV throughout catchment and identified minor inflow and infiltration, maintenance concerns regarding pipe blockages, along with sag issues.	DCR will review CCTV in the catchment area and schedule additional maintenance work as needed.

Receiving Water (ID), Area/ Town; Outfall	Catchment Investigation Status[1]			Permit Year 8 Investigation Actions	DCR's Next Steps[3]
	Dry Weather	Wet Weather	Illicit Discharge Identification Status[2]		
Neponset River (MA73-03)					
MH-17106	In Progress	Not Started	Illicit Discharge Identified – Removal In Progress	DCR coordinated and followed up with Boston Inspectional Services Department (ISD) and BWSC regularly to receive updates on illicit discharge removal. BWSC contacted ISD five times from July 2025 through December 2025, after which Boston ISD informed them that their legal department is working on it. DCR and BWSC have continued following up since, but no change in status has been reported.	DCR will coordinate/ follow up with Boston ISD regularly to ensure the illicit discharge removal occurs. DCR will conduct a wet weather investigation once Boston Inspectional Services Department confirms the discharge has been removed.
Unnamed Tributary (MA72-38)					
MH-27352[3]	Complete	Not Started	Illicit Discharge Identified and Removed	DCR was unable to secure a police detail within an adequate wet weather screening window during Permit Year 8. See Appendix A for details on catchment actions after Permit Year 8.	DCR will conduct wet weather screening on the discharge structure.
Benetts Pond Brook (MA93-48)					
IN-4414	Not Needed	Complete	Catchment Investigation Complete - No Illicit Discharge Detected	DCR completed the Highest priority outfall catchment investigation prior to Permit Year 8.	**Catchment investigation is complete**.

Receiving Water (ID), Area/ Town; Outfall	Catchment Investigation Status[1]			Permit Year 8 Investigation Actions	DCR's Next Steps[3]
	Dry Weather	Wet Weather	Illicit Discharge Identification Status[2]		
Charles River (MA72-38); Storrow Drive					
OF-19326	In Progress	Not Started	Investigation in Progress – Potential Non-stormwater Flow Detected	• Coordinated with BWSC to retrieve their IDDE investigation records from adjacent areas. No additional insight was provided for DCR's investigation. • Requested information from Boston Groundwater Trust on any monitoring data they had available for groundwater wells near this catchment. No monitoring data was available. • Performed dye testing on adjacent BWSC sewer manhole and did not observe exfiltration into DCR's drainage system. • Cleaned and dewatered catch basins previously observed to have standing water and observed infiltration into the catch basins. Screened infiltration and identified potential non-stormwater flow.	DCR is evaluating additional maintenance costs for the system to determine the most efficient next steps.

Receiving Water (ID), Area/ Town; Outfall	Catchment Investigation Status[1]			Permit Year 8 Investigation Actions	DCR's Next Steps[3]
	Dry Weather	Wet Weather	Illicit Discharge Identification Status[2]		
Winthrop Bay (MA70-10)					
MH-36958	In Progress	Not Started	Illicit Discharge Identified – Removal in Progress	• Lined pipes on the eastern side of the catchment with observed infiltration. • Screened infrastructure further upstream in the catchment and identified potential non-stormwater flow. • Conducted CCTV investigation and identified additional infiltration not previously observed.	DCR will line the pipes through which contaminated groundwater is infiltrating and conduct confirmatory screening.
MH-666669024[3]	In Progress	Not Started	Investigation in Progress - Potential Non-stormwater Flow Detected	Conducted initial dry weather screening at this interconnection, which identified potential non-stormwater flow.	DCR will conduct CCTV in this catchment to determine the source of potential non-stormwater flow.

Notes:

1 – Catchment Investigation Status descriptions:

Not Started: Investigation has not begun.

In Progress: Investigation is on-going.

Complete: Investigation is complete and either no suspect flow has been identified or suspect flow has been identified and removed as a result of the investigation.

2 **-** Illicit Discharge Identification Status descriptions:

Catchment Investigation Complete - No Illicit Discharge Detected: Catchment investigation is complete and no illicit discharges were detected.

Investigation in Progress - Potential Non-stormwater Flow Detected: Potential non-stormwater flow was detected and identification of the source is still ongoing.

Investigation in Progress - No Illicit Discharge Detected: The catchment investigation is in progress and non-stormwater flow has not been detected to date.

Illicit Discharge Identified - Removal In Progress: An illicit discharge has been identified and mitigation measures are planned/are in progress.

Illicit Discharge Identified and Removed: An illicit discharge has been identified and removed.

3 – See Appendix A for details on catchment actions after Permit Year 7.

Appendix D – Removed Illicit Discharge Details

Illicit Discharges which were removed prior to Permit Year 8 are described in this appendix. Any illicit discharge that has not been eliminated is detailed in Section 4 of this report.

Illicit ID 1

- *Location*: Community Rowing, Boston (Charles River)
- *Description*: two sinks (hand washing basins) discharging into a catch basin
- *Associated outfall ID*: 34414.10
- *Associated catchment ID*: 82
- *Method and date of discovery*: catchment investigation on 5/19/2021
- *Date of elimination*: 6/7/2021
- *Date of confirmatory Dry Weather Screening*: N/A[9]
- *Date of confirmatory Wet Weather Screening*: N/A[9]
- *Mitigation or enforcement action or planned corrected measures and schedule for completing the illicit discharge removal:* DCR contacted the facility manager to inform him that the illicit sink drain must be disconnected from DCR's drainage system. The facility manager complied with the order and sent DCR photo evidence confirming that the illicit discharge had been removed.
- *Estimated volume of sewage removed:* N/A. Sewage was not the source of the illicit discharge.

Illicit ID 2

- *Location*: Lynn Shore Reservation, Nahant (Nahant Bay)
- *Description*: Non-stormwater flow originated from abandoned pipes in adjacent Sewer Manhole (SMH), which services the DCR Coastal Operations Building, that were not properly plugged. Abandoned pipes discharged into backfill/bedding material of drainage pipe 66669193 and infiltrated through first two pipe joints downstream of Manhole 666666941.
- *Associated outfall ID:* 666667157.00
- *Associated catchment ID:* 88
- *Method and date of discovery*: Dye testing on 12/14/2022
- *Date of elimination*: 1/11/2023
- *Date of confirmatory Dry Weather Screening*: 11/3/2023

[9] The structure at which this illicit discharge was discovered did not have flow nor did any structures in the catchment show signs of an illicit discharge before the illicit connection was removed. This illicit discharge was discovered incidentally during the investigation, rather than being located as the result of detection through dry weather flow screening/sampling. As such, confirmatory screening was deemed unnecessary.

- *Date of confirmatory Wet Weather Screening*: 3/7/2024[10]
- *Mitigation or enforcement action or planned corrected measures and schedule for completing the illicit discharge removal:* The illicit discharge was eliminated by removing and capping abandoned pipe stubs in adjacent sanitary sewer manhole (SMH) and installing cementitious lining to prevent exfiltration through SMH masonry. Dye testing completed after maintenance work confirmed the removal of the illicit discharge.
- *Estimated volume of sewage removed:* 15 gallons/day
  - Formula: $\mathrm{P} \times \mathrm{WWR} \times \mathrm{ER} = \text{Volume of Sewage Removed (Gallons/Day)}$
    - **P =** 20 persons
      - *Average daily occupancy DCR Coastal Operations Building*
    - **WWR** = 5 gallons/person/day
      - *Assumed typical wastewater flow rates from DCR Coastal Operations Building*
    - **ER** = 0.15 gallons of wastewater exfiltration from illicit discharge/gallons of wastewater flow to illicit discharge
      - *DCR estimate based on dye test observations*

Illicit ID 3

- *Location*: Lynn Shore Reservation, Nahant (Nahant Bay)
- *Description*: Exfiltration from adjacent cracked sanitary sewer line
- *Associated outfall ID:* 666667157.00
- *Associated catchment ID:* 88
- *Method and date of discovery*: CCTV on 1/17/2023
- *Date of elimination*: 10/11/2023
- *Date of confirmatory Dry Weather Screening*: 11/3/2023
- *Date of confirmatory Wet Weather Screening*: 3/7/2024[11]
- *Mitigation or enforcement action or planned corrected measures and schedule for completing the illicit discharge removal:* DCR installed a Cured-in-Place-Pipe (CIPP) liner to seal the cracked sanitary sewer pipe and prevent any future sewage exfiltration.
- *Estimated volume of sewage removed:* 15 gallons/day
  - Formula: $\mathrm{P} \times \mathrm{WWR} \times \mathrm{ER} = \text{Volume of Sewage Removed (Gallons/Day)}$
    - **P =** 20 persons
      - *Average daily occupancy DCR Coastal Operations Building*

[10] The Illicit Discharge was discovered and removed prior to the first wet weather screening and sampling event. As such, this wet weather screening satisfies both the standard and confirmatory wet weather screening requirements pursuant to the MS4 Permit sections 2.3.4.8.c.ii.2 and 2.3.4.8.e.ii, respectively.

[11] The illicit discharge was discovered and removed prior to the first wet weather screening and sampling event. As such, this wet weather screening satisfies both the standard and confirmatory wet weather screening requirements pursuant to the MS4 Permit sections 2.3.4.8.c.ii.2 and 2.3.4.8.e.ii, respectively.

- **WWR** = 5 gallons/person/day
  - *Assumed typical wastewater flow rates from DCR Coastal Operations Building*
- **ER** = 0.15 gallons of wastewater exfiltration from illicit discharge/gallons of wastewater flow to illicit discharge
  - *DCR estimate based on dye test observations*

Illicit ID 7

- *Location*: Mystic View Rd, Everett
- *Description*: Potential illicit input via groundwater infiltration (source unknown)
- *Associated outfall ID:* 27645.00
- *Associated catchment ID:* 52
- *Method and date of discovery*: A 2020 CCTV investigation showed groundwater infiltration entering the system via pipe joints in the southern portion of the catchment. A 6/7/2021 dry weather sampling investigation discovered that this groundwater infiltration contained potential non-stormwater input. DCR dye tested adjacent businesses in April and May of 2022, which did not show any evidence of sanitary sewer infiltration into the stormwater system. As such, the origin of the potentially illicit input into the groundwater is unknown.
- *Date of elimination*: 8/21/2024
- *Date of confirmatory Dry Weather Screening*: September 2024
- *Date of confirmatory Wet Weather Screening*: November 2024
- *Mitigation or enforcement action or planned corrected measures and schedule for completing the illicit discharge removal:* The illicit discharge was removed by lining pipes in the DCR stormwater system to prevent the infiltration of groundwater containing potential illicit input.
- *Estimated volume of sewage removed:* N/A. Sewage was not confirmed as the source of the illicit discharge.