

**Illicit Discharge Removal Report
Year 6 (July 1, 2023 - June 30, 2024)**

Illicit Identified in MS4 Permit Year#	Location	Discharge Description	Method of Discovery	Date Discovered/ Confirmed	Date Eliminated	Date Repair Confirmed	Mitigation	Enforcement or Corrective Measures	Schedule of Removal	Estimated volume of sewerage removed	Notes	Catchment
0	750 Mass Ave*	The 7-Eleven convenience store at 750 Mass Ave was dye tested on April 4, 2018. After approximately 45 minutes, dye was observed in drain manhole D10DMH3257 which is located within the sidewalk along Mass Ave. The shared building basement was accessed through the Pandemonium Books & Games store at #4 Pleasant Street. One sewer service was observed going into the concrete slab foundation to Mass Ave. The building owner explained that the building sewer service was recently replaced, which is when it may have been redirected to the drain line on Mass Ave.	IDDE investigation	2018.04.04	2020.01.30	2020.01.30	The City's remedial contractor redirected the identified illicit connections from the drain to the sewer system.	Not applicable	2020	454 gpd (est)	Identified initially from CCTV	D10
0	219 Vassar St*	Dye testing of the building at #219 Vassar Street was scheduled through MIT and completed on April 19, 2018. MIT building maintenance staff poured the dye because the facility is a childcare center and Stantec was not allowed to enter. After dye testing a toilet in the building, the dye was observed in drain manhole D10DMH1110 on Vassar Street.	IDDE investigation	2018.04.19	2020.03.12	2020.03.12	The City's remedial contractor redirected the identified illicit connections from the drain to the sewer system.	Not applicable	2020	1433 (est)	Identified initially from CCTV	D10
1	57-59 Magazine St	Stantec met with the building maintenance staff for #57/59 Magazine Street on July 12, 2018 and inspected the building basement. Two sewer laterals to Magazine Street were identified; the first on the northern wing of the building, and the second on the southern wing. A toilet in the basement tied to the northern sewer lateral was dye tested and the dye was observed in the sewer manhole S30SMH1730 on Magazine Street. A slop sink tied to the southern sewer service was dye tested, and the dye was observed in drain manhole D12DMH7537 on Magazine Street. All the bathrooms and fixtures on the southern portion of the building collect and discharge from this lateral.	IDDE investigation	2018.07.12	2020.02.05	2020.02.05	The City's remedial contractor redirected the identified illicit connections from the drain to the sewer system.	Not applicable	2020	1375 (est)	Identified initially from dry weather stormwater sampling	D16/D12
2	9 Gray Gardens East	SDE conducted two dye tests at 9 Gray Gardens East in Cambridge (Sparks Area). The basement toilet tested dye in both the sewer and the drain. The dye was seen in the drain 2 minutes after it was flushed and then in the sewer about 2 minutes later. The dye was significantly brighter in the drain than it was in the sewer. A 2nd floor toilet tested not legal with the dye appearing in the drain after 2 minutes. The crew mentioned that there may have been very faint traces of dye from the 2nd floor toilet in the sewer but it was not truly distinguishable. It should be noted that the drain is at a higher elevation than the sewer.	IDDE investigation	2020.02.07	2020.03.16	2021.04	Replaced sections of collapsed drain and sewer lateral and confirm with a dye test	Not applicable	Work was done to repair the laterals and connection during Year 2. Due to COVID post correction check was not able to be performed. Dye testing was performed by SDE, Inc. in April 2021. and confirmed that Gray Gardens East and Raymond were clean and verified the correction.	440 gpd (est)	Follow up CCTV confirmed collapsed sewer and drain laterals. DPW confirmed that there are cracks and breaks then eventually to a collapsed sewer lateral that starts 11 feet from sewer manhole to 16 feet to the house. The same situation exists for the drain lateral as well. Somehow the sewer and drains make their way to the system mixed. DPW authorized remedial contractor to do repairs week of 3/16/20 and will have chance to do a dye test before work is back filled.	Sparks Street D31
2	2 Hemlock Rd	This appears to be a direct illicit connection of the sewer lateral to the main drain in the street, and will likely require re-connecting the existing building sewer lateral to the sewer main.	IDDE investigation	2020.03.11			City to rehab sewer main and determine condition of #2 Hemlock sewer lateral to repair/line as needed.	Not applicable	City added to remedial contract during Year 6	440 (est)	CCTV inspection and cleaning of the sewer did not occur during the Year 3 reporting period. CCTV of the mains was completed during Year 4 revealing major defects in the mains. CCTV of the sewer lateral at 2 Hemlock was attempted during year 5 but unable to complete due to a concrete blockage in the mainline.	Sparks Street D31

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2 (final confirmation in Year 4)	Healy Street	SDE conducted several dye tests on Healey St. Both 18 and 20 Healey Street tested dye in both the sewer and the drain. For both tests the dye was seen in the sewer first followed by the drain and the intensity was brighter in the sewer. Based on those test results it was assumed there may be an infrastructural issue in the street as opposed to an issue with the individual building laterals. SDE added dye directly into sewer MH S47SMH3312. The dye was seen in both the downstream sewer (S47SMH3305) and the downstream drain (D31DMH3415). The dye was brighter in the downstream sewer than it was in the downstream drain. This indicates that the sewer on Healey St is leaking into the storm drain. It should be noted that it took several hours for the dye to appear in the downstream manholes.	IDDE investigation	2020.03.11			Additional investigation is required prior to making repairs - City Contractor will perform test pits.	Not applicable	Additional testing of pipes 2022/2023 is recommended to confirm corrective measures to be taken	TBD	Completed pipe investigations on Healy Street in Yr 4 •SDE dye tests completed 3/10 & 3/11/2020 with two buildings having results of dye in the sewer and drain (#18, #20). SDE then dye tested the sewer at MH S47SMH3312 and observed dye in the drain MH D31DMH3415 – confirming infrastructure issues. •CCTV of sewer and drain mains started 1/19 & 1/20/2021; one section of drain incomplete •Last remaining segment of drain CCTV completed 10/7/2021. CCTV reports and videos received 5/23/2022 – confirmed defects in both sewer and drain mains. •Sewer re-laid with PVC under FY15 remedial contract. Bulges observed in video could be due to compaction issues or bricks observed in photos taken during installation causing joints not to seal properly - recommend test pits. Consider lining of drain.	Sparks Street D31
3	1640 Cambridge Street	Sanitary lateral connected to drain	IDDE Investigation	2021.03.24	2021.04.95	2021.04.21	City disconnected lateral from storm drain and reconnected to sanitary sewer	Not applicable	Complete	1,000 gpd	Repair was confirmed with a post corrective dye test during year 3	DeWolfe Street D21
3	255 Main Street	Sanitary ejector pump tied to drain manhole	IDDE Investigation	2021.03	2021.03 (reported 2024.02)	2024.06.18	Property owner disconnected ejector pump and reconnected to sewer lateral	Not applicable	Illicit eliminated year 3, not reported until Year 6	610 gpd (est)	DPW made contact with Owner Jan/Feb 2024. Owner confirmed the illicit was corrected immediately after it was identified March 2021. 4/24/2024 post correction dye test was completed and legal. 6/18/2024 the inlet in D07DMH0555 which originally had visual evidence is bricked over.	Broad Canal D07
4	55 Broadway	sanitary lateral notched through top of 54" drain is leaking	Utility repair work	2021.08			Due to the number of utilities in Broadway, it is not possible to change the location of the sanitary service at this time. We will be making arrangements to CIPP line the sewer service to stop the leak. 2023 update: Lateral may not be re-used and instead abandoned/plugged. 2024 update: developer stated the building will remain vacant and eventually will be demolished - lateral will be abandoned (cut/capped)	Not applicable	Building vacant 2023, to be demolished 2024	2,700 gpd (est)	Building to be demolished, leaking lateral will be abandoned (cut/capped)	Broad Canal D07
5	6 Marie Ave	partial direct illicit connection (1st floor sink in half bath)	IDDE investigation	2022.07	2024.02	2024.04.24	Corrective action required work by Owner (internal re-plumbing).	Not applicable	Illicit removed Year 6	1320 gpd (est)	•SDE dye tests completed 8/11/2021. Four tests; 3 were Legal and 1 was Not Legal (1st floor sink in half bath) •CCTV of main drain line completed 2/16/22 by NWMCC •CCTV report and video for Marie Ave received 7/13/22-confirmed at least one (possibly 2) active drain laterals for #6 Marie Ave •CCTV results and next steps reviewed with City 7/27/22•City confirmed building reconstruction is ongoing (Sept 2023) and entire building re-plumbed. SDE scheduled dye tests for 11/20/2023. •11/20/2023 SDE inspected/dye tested with Contractor and confirmed there is an issue with sanitary fixtures going to the drain. Contractor agreed to fix issues and contact SDE once complete. SDE has since tried reaching out but no response. •2/20/24: SDE spoke with Contractor who stated the illicit was eliminated and basement leak fixed. Building now has running water. SDE will schedule a follow-up dye test to confirm the illicit has been eliminated. •March 2024: SDE completed post-correction dye test which was legal, but a leak of the sewer discharge pipe was identified within the basement from a first floor fixture. SDE plans to conduct another dye test once that leak is fixed. •April 2024: Contractor reported the leak has been fixed and has scheduled another dye test with SDE •4/24/2024: SDE post correction dye test was completed. The previously leaking toilet at 6 Marie Ave was retested and the	DeWolfe St D21

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5	64 Highland Ave	partial direct illicit connection (basement sink-right side of building)	IDDE investigation	2022.07			Corrective action requires work by Owner (internal re-plumbing or remove and cap illicit fixture). City will coordinate with owner and pursue enforcement if needed during Year 6.	Potential	2024	660 gpd (est)	<ul style="list-style-type: none"> •SDE dye tests completed 8/3/2021. 2nd Floor sink Legal; Basement sink (right side of building) Not Legal •CCTV of main drain line completed 2/16/22 by NWMCC •CCTV report and video for Highland Ave drain received 7/13/22 - confirmed an active drain service for #64 with evidence of illicit. •Six (6) unit owners contacted via email and SDE began additional dye testing Oct 2023. Issues appear to be isolated to right side of building. •Nov & Dec 2023 – Rapid Flow CCTV laterals and mainlines concurrent with SDE dye tests – confirmed 3 units on right side of bldg. (#2, 6, 8) and basement fixtures discharge thru pipe on right side to the drain. Three (3) units on the left side of the bldg. (#1, 3, 5) and roof drain discharge thru pipe on left side to sewer. •2/22/2024: SDE and City met with Owner on-site to review findings and required repairs/schedule. SDE then spoke with plumber. Owner to contact SDE once plumber has completed repairs and then SDE will perform a post-correction dye test. •5/21/2024: SDE spoke with the Owner's plumber recently and they said they sent a proposal to the Owners 2 weeks ago. •June 2024: City corresponded with Owners, who said quote from first plumber is too high – City recommended getting a second quote 	DeWolfe St D21
5	38 Dana St	leaking sewer laterals	IDDE investigation	2023.03			City to line both building sewer laterals.	Not applicable	2024	257 gpd (est)	<ul style="list-style-type: none"> •July 2021: SDE dye tests indicate the basement sink and washing machine for #38 Dana Street connect to a drain lateral and require internal re-plumbing by owner. •This property has 2 drain laterals and 2 sewer laterals serving 2 separate units. No issues identified with #36 side of bldg. •Oct 2021: No CCTV of lateral or sewer mains on Dana or Chatham were received, only CCTV for drains on Chatham and Dana were received. The main storm drain along Chatham and downstream on Dana is also in poor/fair condition. •March 2023: CCTV of sewer mains and one sewer lateral and one drain lateral completed. Drain lateral is capped at 14ft but this is not the drain lateral with the issue. Roots observed within sewer lateral. •Sept 2023 – City met with Owner onsite. •Nov & Dec 2023 – Rapid Flow CCTV laterals and mainlines concurrent with SDE dye tests – previously DIB fixture tested legal. Roof drains also to sewer but most are disconnected. Determined this is not an illicit – no further investigations required. City will line sewer laterals. 	DeWolfe St D21
5	3 Gray Gardens West	leaking sewer lateral	IDDE investigation	2023.03			City to line the sewer lateral.	Not applicable	2024	147 gpd (est)	<ul style="list-style-type: none"> •SDE dye tests completed 8/31/2021; all fixtures tested had dye observed in the sewer and drain •CCTV of sewer and drain mains completed 2/17/2022. Reports and videos received 7/13/2022 – confirmed one active sewer lateral for #3 Gray Gardens West and no active drain laterals. CCTV of sewer lateral for 3 Gray Garden West incomplete. •CCTV/Dye Testing completed March 2023 by Rapid Flow and SDE. Confirmed #3 Gray Gardens West is a leaking lateral. 	Sparks Street D31

Building addresses with an asterisk had illicit discharges identified prior to the effective date of the permit (July 1, 2018) but were eliminated within the permit term