
To: Todd Borci, US EPA
US EPA Stormwater and Construction
Permits Section (OEP06-1)
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Boston, MA 02109-3912

From: Robert Descheneau
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File: Compliance Memorandum

Date: June 7, 2022

**Reference: Town of Belmont, MA
ORDER ON CONSENT Docket No. CWA-AO-R01-FY17-11
Final Compliance Memorandum**

Dear Mr. Borci,

In accordance with the above referenced Order on Consent, we are submitting the following Final Compliance Memorandum dated May 20, 2022, summarizing work completed to date and outlining the anticipated schedule to find and remove any remaining sources of illicit discharges in the Town of Belmont's stormwater system. Attachments to this memorandum include a summary of the cumulative work completed by the Town to identify and rectify sources of illicit discharges.

The Town has completed projects and IDDE investigations in accordance with the Administrative Order, as well as within the MS4 Permit guidelines and requirements. These investigations were completed at the Town's outfalls and their upper tributary areas, which indicated problem areas, mains, and laterals whose rehabilitation and repair would benefit the Town's stormwater system. The ongoing infrastructure projects in Town have addressed many of these problem areas, and the Town will continue to invest its efforts into maintaining its stormwater system.

Summary of Work Completed to Date (May 2017 - May 2022):

The Town performed dry weather screening and sampling of stormwater outfalls approximately three times per year through the duration of the Order on Consent. On average, typically flowing outfalls were sampled a total of five times. IDDE sub-catchment investigations were prioritized based on the dry weather outfall sampling results. The sub-catchment investigations included additional dry weather sampling in upper tributary areas as needed. Based on results of upper tributary sampling, illicit discharges were identified through targeted dyed-water testing and CCTV inspections of various mainline and service connections. The Town then removed identified illicit discharges through several construction contracts summarized below. Wet weather sampling has also been conducted in areas of historically low-flow and to identify improvements in results after rehabilitation and removal of contamination sources.

In May 2020, the Town began the Sewer System Rehab I/I Removal Project, of which all construction is complete. The work under this project included lining of 8-inch through 10-inch VCP sewers, full length replacement of 8-inch VCP sewer, service lateral lining, service lateral replacements, point repairs, rehabilitation of manholes, and appurtenant work.

The Town also annually completes a Pavement Management Plan (PMP) Project in order to complete underground work before final paving of roads. This PMP program has been active throughout the Administrative Order on Consent, from 2017, with the most recent construction contract to be completed in 2022. Work completed during the PMP program includes point repairs of gravity sewers and storm drains, replacement of sewer and storm drain service laterals and connections, and installation of new sewer and storm drain manholes.

Ongoing work in the Town of Belmont also includes, but is not limited to, the Private Sector Sump Pump Removal & Sewer System Rehabilitation Construction Project. The scope of this rehabilitation project includes sewer system improvements such as point repairs, service lateral replacements, and cured-in-place mainline lining. This project began on July 21, 2021 and is anticipated to be remain open for the opportunity to rehabilitate or remove more IDDE contamination sources.

As a result of the Town's continued efforts towards removing illicit connections via their Pavement Management Plans and Rehabilitation projects, several outfalls and upper tributary sample manholes have shown significant improvements in E. coli levels. Outfalls 8-2, 11A, 12, 15, and 15A have far exceeded the E. coli threshold in the past but were found to be below threshold in the most recent round of sampling. Several other outfalls are still testing above threshold but have been found to have much lower levels of contamination than in the past.

Ongoing Work:

The Administrative Order on Consent requires IDDE investigations of all sub-catchment areas discharging from the Town's MS4. All stormwater outfalls within the Charles River watershed were sampled at the start of the Order on Consent work, the results of which did not indicate illicit discharge potential. For this reason, the Town has focused its efforts to date on identifying and removing illicit connections within the Mystic River Watershed sub-catchment areas. The Charles River outfalls and sub-catchments will continue to be investigated according to the MS4 Permit schedule.

Despite the Town's best efforts to identify and remove illicit discharges, dry weather sampling continues to reveal high levels of E. coli and ammonia at several outfalls within the Mystic River watershed. These results indicate there may be remaining illicit connections and discharges that have not yet been identified in these areas. The Town is actively working on determining the origin of remaining contamination and plans on conducting activities to address and remediate these sources. Each of the sub-catchments with remaining contamination are summarized in further detail below.

Samples from OF-1 have consistently resulted in levels of contamination below IDDE thresholds. However, dyed-water testing completed in this catchment area determined a partial illicit connection at the location of 58 Van Ness Road. The service lateral will be replaced from the main to the property in the early summer possibly sooner under the ongoing project, Private Sector Sump Pump Removal & Sewer System Rehabilitation Construction Project. A drain line also crosses the sewer near this service and will be lined/replaced, if possible, to prevent sewer infiltration into the drain.

OF-2 sample results have indicted illicit discharge potential and triggered additional sampling in the upper tributary area. Results of upstream sampling have narrowed down a source of contamination

to the neighborhood surrounding Shaw Road. Additional repair work in this area is ongoing under the Private Sector Sump Pump Removal & Sewer System Rehabilitation Construction Project, and all planned excavation repairs have been completed. There is a potential direct connection at 10 Hartley Rd, but additional investigation is needed to confirm this connection, which will occur in the late spring or early summer and will be rehabilitated after confirmation.

Sampling conducted on November 18, 2021, in OF-10 detected E. coli at 3,100 MPN/100 mL, indicating the potential for illicit discharges in the catchment area. Follow up CCTV inspections and dyed water testing of the area will be conducted, along with additional sampling.

Rehabilitation in sub-catchment 11A has already been completed, and sampling completed in March of 2021 have indicated below-threshold levels of E. coli. Samples taken at OF-11 on March 23, 2021, resulted in an E. coli concentration of 4,900 MPN/100 mL, indicating the potential for illicit discharges in the catchment area. A leaking capped drain line was identified in a drain manhole at Staunton Road and Oliver Road, located in sub-catchment 11. This drain line has been abandoned and is located below the sewer. The cap is planned to be replaced by the contractor of the Private Sector Sump Pump Removal & Sewer System Rehabilitation Construction Project in the early summer, possibly sooner, to remove the source of contamination.

In addition to the ongoing work described above, the Town will continue to sample outfalls and upper tributary areas in compliance with MS4 Permit requirements. These sampling requirements will allow the Town to identify and remove any new illicit connections and discharges that arise during future Permit terms. The Town will also annually update its Stormwater Management Plan and SSO Inventory in accordance with Permit requirements.

The Town will strive to conduct investigations more frequently to identify contamination sources. The Private Sector Sump Pump Removal & Sewer System Rehabilitation Construction Project will remain open to facilitate the rehabilitation and removal of any future identified sources of contamination during the Town's investigations.

We are eager to provide additional information as necessary and are always willing to meet and discuss in greater detail any and all aspects of our work to date.

Regards,

STANTEC CONSULTING SERVICES INC.

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Work Completed to Date (May 2017-May 2022)

Report Date/ Project Name	LF Sewer Main CIPP	No. of Spot Repairs (Sewer)	No. Lined Sanitary Service Connections	No. Replaced Sanitary Service Connections	Reported Blockages	Reported SSOs	Indirect Illicit Discharges Identified	Direct Illicit Discharges Identified	Sump Pumps Removed	Cost Incurred	GPD Sewage removed
FY2018 (incl 2017 PMP and Lateral Lining project)		47	20	21			5	1		\$ 244,000.00	1,740
FY2019 (incl 2018 PMP)	1,671	15	6	14	195	1	3	2		\$ 181,000.00	1,129
FY2020 (incl 2020 I/I removal)	18,555	7		35	148		6	1	26	\$ 1,349,000.00	1,675
FY2021 (incl 2021 PMP and Mainline Lining)	3,289	10	60	14	202	1		1		\$ 525,000.00	1,670
FY2022 (incl 2022 PMP)		7		14						\$ 37,000.00	625
Subtotal	23,515	86	86	98	545	2	14	5	26	\$ 2,336,000.00	6,839