

Stantec Consulting Services Inc.

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January 31, 2021

Attention: Todd Borci, Enforcement Officer

US EPA Region I – New England 5 Post Office Square – Suite 100 Boston, MA 02109-3912

Subject: Town of Belmont

ORDER ON CONSENT Docket No. CWA-AO-R01-FY17-11

Report On Compliance

Dear Mr. Borci,

In accordance with the above referenced Order On Consent, we are submitting the following Report On Compliance (ROC) dated January 31, 2021, which describes activities conducted from July 1, 2020 through December 31, 2020 associated with the Wellington Brook and Winn's Brook tributary areas in the Town of Belmont. These two areas are designated as Sub-catchments 8 and 10, respectively. This report also includes activities associated with all sub-catchments in the Mystic River Watershed including, 1, 2, 3, 4, 5, 6, 8, 9, 9A, 10, 11, 11A, 12, 13, 15 and 15A. Refer to the November 2017 Investigation of the Winn's Brook and Wellington Brook Tributary Areas report and the January 2018 Report On Compliance for complete figures of each sub-catchment area.

A comprehensive Sewer System Rehabilitation Construction project, which includes removal of suspected and confirmed illicit sources of contamination to the storm drain and inflow and infiltration within the sewer, is currently under construction and approximately 95% complete with only a few lateral liners to be installed and minor punch list items remaining. The project included all identified required rehabilitation work from the previous ROC dated January 31, 2020. The rehabilitation is shown in the Sanitary Sewer Rehabilitation contract drawings in **Attachment 1.** All sub-catchments discharging to the Mystic River Watershed were resampled during this reporting period for *E. coli* and select locations for Ammonia.

V.1.a ILLICIT DISCHARGES IDENTIFIED

Charles River Watershed Sub-catchments 16-31

Completed

No work was conducted in the Charles River Watershed sub-catchments.

Planned

The Charles River Watershed sub-catchments will have comprehensive follow-up sampling completed during the next reporting period.



January 31, 2021 Mr. Todd Borci Page 2 of 8

Reference: CWA-AO-R01-FY17-11 Report On Compliance

Mystic River Watershed Sub-catchments 1-15A

Completed

Dry weather samples were collected for all sub-catchment areas in November 2020, after the majority of the rehabilitation, within areas 2, 9A, 10 (10-1 and 10-2), 11, 11A, 12 and 15A had been completed to evaluate the status at each sub-catchment. Refer to **Figures 1 and 2**. As shown in **Table 1** Sub-catchments 3, 4, 5, 6, 9, and 9A didn't to have dry weather flows; Sub-catchments 1, 10-2, 13 and 15A were below the *E. coli* reportable threshold of 235 MPN/100mL; Sub-catchments 11, 11A,12 and 15 showed significant improvements, but are still above the threshold for *E. coli*. Sub-catchments 8 and 10 are large tributaries and were broken down into smaller catchment areas to identify any masked contamination upstream. Sub-catchment 2 showed an increase in *E. coli* concentration, but E. coli concentrations improved within the tributary in the rehabilitated areas. Refer to **Attachment 2**. Additional upstream tributary sampling is detailed below in sub-catchments where it was necessary.

Planned

Comprehensive investigations will continue in the Mystic River Watershed sub-catchments as described below.

<u>Sub-catchments 1, 3, 4, 5, 6, 9, 9A, 13 and 15A</u>

Completed

Sub-catchments 1, 3, 4, 5, 6, 9, 9A, 13 and 15A were all sampled for *E. coli* and were all below the threshold or there was no dry weather flow present. Refer to **Table 1**. Sub-catchment 9A and 15A had all rehabilitation work completed as part of the ongoing Sewer System Rehabilitation project that was identified from prior investigations. Sub-catchments 13 and 15A had elevated levels of ammonia based on the one sample collected for each.

Planned

These sub-catchments will continue to be monitored specifically Sub-catchments 13 and 15A due to the elevated levels of ammonia.

Sub-catchment 1

Completed

Sub-catchment 1 had been previously cleared as a contamination source. However, follow up sampling, during this reporting period, within the tributary indicated a source emanating from a 6" pipe from an easement at Fairview Ave and Van Ness Rd. This period's sampling showed the level of *E. coli* to be 12,300 MPN/100 mL at that specific location. Refer to **Figure 3** and **Attachment 2**.



January 31, 2021 Mr. Todd Borci Page 3 of 8

Reference: CWA-AO-R01-FY17-11 Report On Compliance

Planned

This segment will be CCTV inspected (appears to be a dead-end pipe segment with no access upstream), and the site adjacent to this segment will be inspected via internal building inspections/dyed-water testing to identify connections (if any).

Sub-catchment 2

Completed

All the indirect and direct sources included in the ongoing Sewer System Rehabilitation project were completed during this reporting period in Sub-catchment 2 in the Dalton Rd area. Select locations were sampled for *E. coli* within the sub-catchment and showed significant improvements (Betts Rd, Livermore Rd and Shaw Rd), but were still above the *E. coli* threshold. Refer to **Figure 4** and **Attachment 2.** Sampling was conducted relatively soon after the rehabilitation was completed with little rainfall. This could indicate that the storm drain system didn't have flows that would flush out the system.

The CCTV inspections on Anis Rd, Dalton Rd, Woods Road and Bacon Rd were completed. Defects and recommended rehabilitation are shown in **Table 2**. All recommended rehabilitation will be included in the upcoming 2021 Sump Pump Removal and Sewer System Rehabilitation Contract, excluding the replacement of 12 drain services on Dalton Rd. These will be evaluated for replacement/lining upon evaluation of the rehabilitation effectiveness.

Planned

Outfall and tributary sampling will be conducted upon completion of the sewer and storm drain rehabilitation work in Sub-catchment Area 2.

Sub-catchment 8-1

Completed

An investigation approach has been developed for the storm drain systems upstream of the intersection at Bow Rd and Lincoln St where the last sample taken showed *E. coli* concentrations of 20,000 MPN/100 mL (from Bow Rd) and 30,000 MPN/100 mL (From Lincoln Rd).

Planned

All of the remaining houses that have not been rehabilitated or dyed-water tested/inspected as part of the most recent investigations, in 2018 and 2019, will be conducted within this area. All the mainline sewers in this area have been CIPP lined, indicating the only contamination source to be emanating from sewer service laterals either directly or indirectly. All of the storm drains has been inspected or partially inspected (due to defects or bends in the mainline). These inspections will be reviewed and a plan to repair the defects to complete the inspection will be evaluated. Refer to **Figure 5**.



January 31, 2021 Mr. Todd Borci Page 4 of 8

Reference: CWA-AO-R01-FY17-11 Report On Compliance

Sub-catchment 8-2

Completed

Sub-catchment 8-2 sample had an *E. coli* concentration of 19,700 MPN/100 mL. This was a significant increase from previous samples taken after rehabilitation was conducted upstream to remove contamination sources.

Planned

This sub-catchment area will be further sampled upstream to identify target areas for investigations.

Sub-catchment 8-3

Completed

Sub-catchment 8-3 was sampled for *E. coli* that was slightly elevated at 500 MPN/100 mL. *E. coli* was not detected in the previous sample.

Planned

This sub-catchment area will be further monitored.

Sub-catchment 8-4

Completed

Sub-catchment 8-4 sample had an E. coli concentration of 22,000 MPN/100 mL. This was a significant increase from previous sample where E. coli was not detected.

Planned

This sub-catchment area will be further sampled upstream to identify target areas for investigations.

Sub-catchment 8-5

Completed

Sub-catchment 8-5 sample had an E. coli concentration of 4,800 MPN/100 mL. This was an increase from previous sample where the E. coli was 220 MPN/100 mL.

Planned

This sub-catchment area will be further sampled upstream to identify target areas for investigations.



January 31, 2021 Mr. Todd Borci Page 5 of 8

Reference: CWA-AO-R01-FY17-11 Report On Compliance

Sub-catchment 8-6

Completed

Maple St, Bartlett Ave and Trapelo Rd

All the indirect and direct sources included in the ongoing Sewer System Rehabilitation project were completed during this reporting period in Sub-catchment 8-6. Select locations were sampled within the sub-catchment but had fluctuating/inconclusive results and there were issues in the field when locating drain manholes that were previously sampled and inspected. Refer to Figure 6 and Attachment 2.

Planned

Sub-catchment 8-6 will be sampled throughout the area clarify and identify specific target locations for further investigation.

Sub-catchment 10-1

Completed

Sub-catchment 10-1 (the upper portion of Sub-catchment 10) previously had fluctuating low levels of contamination from *E. coli*. The most recent sample taken was 7,900 MPN/100mL. Additional samples were taken upstream, and the results are shown on **Figure 7** and **Attachment 2**.

Planned

Additional sampling will be conducted to further isolate potential contamination sources and investigations will be implemented pending the sampling results.

Sub-catchment 10-2

Completed

The indirect and direct sources included in the ongoing Sewer System Rehabilitation project were not completed during this reporting period in Sub-catchment 10-1.

Planned

The outfall and tributary sampling will be conducted upon completion of the service rehabilitation work in sub-catchment 10-2.



January 31, 2021 Mr. Todd Borci Page 6 of 8

Reference: CWA-AO-R01-FY17-11 Report On Compliance

Sub-catchments 11, 11A & 12

Completed

Nearly all the indirect and direct sources included in the ongoing Sewer System Rehabilitation project were completed during this reporting period in Sub-catchments 11,11A and 12, with only a few remaining. The outfall samples showed significant improvements with only 11 and 11A showing slightly elevated level of *E. coli*.

Planned

Follow-up outfall and tributary sampling will be conducted once the rehabilitation work is 100% completed.

Spy Pond Outfalls – Outfall Areas 15 & 15A

Completed

All the indirect and direct sources included in the ongoing Sewer System Rehabilitation project were completed during this reporting period in Sub-catchments 15 and 15A. The outfall samples showed significant improvements with only Sub-catchment 15 showing slightly elevated level of *E. coli*.

Planned

Although Sub-catchment 15A has been cleared as a contamination source after the repairs were completed, both Sub-catchments 15 and 15A will continue to be monitored.

V.1.b SSO EVENTS

See attached Table 3, which displays a list of blockages reported to the Town and removed.

V.1.c ILLICIT DISCHARGE AND SSO EVENT MAP

The Illicit Discharge and SSO Event Maps have been updated through December 31, 2020 and are included in this **Report (Figures 8 & 9).**

V.1.d CMOM-PROGRAM SELF-ASSESSMENT & CORRECTIVE ACTION PLAN ACTIVITIES

Activities undertaken this period include:

Section II. Continuing Sewer Assessment Plan: Item 9 - The Town is required to identify the origin of each load to be disposed of at the DPW Yard. As of November 2018, the Town is no longer allowing septage haulers to access the Town yard.



January 31, 2021 Mr. Todd Borci Page 7 of 8

Reference: CWA-AO-R01-FY17-11 Report On Compliance

Section III. B. Collection System Management: Training, and Section IV. C. Collection System Operation: Safety - The Department of Public Works provides operations and equipment training to department staff. DPW is actively working to identify outside facilities and instructors in order to implement a safety training program.

Section III. E. Collection System Management: SSO Notification Program, Items 1 and 2 - The Department of Public Works is in receipt of the Massachusetts Department of Environmental Protection Sanitary Sewer Overflow (SSO)/Bypass Notification Form and the department is prepared to meet all reporting requirements when required to do so.

Section IV. D. Collection System Management: SSO Notification Program, Item 3 - The Department of Public Works provides to all sewer department staff an emergency response plan for SSO events. Regular staff training sessions are being programmed to ensure that new hires and current staff are prepared to respond to an SSO event.

V.1.e ADDITIONAL ACTIVITIES FOR ACHIEVING COMPLIANCE

Refer to the Part V.1.a.

V.1.f PROPOSED CHANGES TO REMEDIAL MEASURES

None.

V.1.g IDENTIFICATION OF ALL PLANS, REPORTS, AND OTHER SUBMISSIONS REQUIRED

No additional reports required for submission.

V.1.h PLANS FOLLOWING THE REPORTING DEADLINES

Refer to the Part V.1.a.

V.1.i IDENTIFICATION OF NONCOMPLIANCE OF THE ORDER

None.

Below is a summary of rehabilitation work completed to date:

Completed this reporting period

Refer to the Sewer System Rehabilitation Contract drawings in **Attachment 1**. A detailed list and updated Record Drawings will be included in the next reporting period.



January 31, 2021 Mr. Todd Borci Page 8 of 8

Reference: CWA-AO-R01-FY17-11 Report On Compliance

Previously completed

- 12 Brettwood Road Indirect sewer service connection Lined
- Homer Rd Sewer 17S021-17S020 Indirect connection, broken pipe Replaced/Lined
- 11 Pierce Road Indirect sewer service connection Lined
- 37 Hoitt Road Indirect sewer service connection Lined
- 43 Hoitt Road Potential indirect sewer service connection Lined
- 49 Hoitt Road Potential indirect sewer service connection Lined
- 16 Randolph St Indirect sewer service connection Lined
- 28 Randolph St Indirect sewer service connection Lined
- 71 Bow Rd Direct sewer service connection to drain Redirected to the sewer
- 364 Brighton St Direct sewer service connection to drain Redirected to the sewer

Please contact me if you have any questions regarding the information contained in this report.

Regards,

STANTEC CONSULTING SERVICES INC.

Robert Descheneau III

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