The logo for the Buffalo Sewer Authority is centered on a dark teal rectangular background. The word "BUFFALO" is written in a light blue, sans-serif font, with each letter spaced out. Below it, the words "SEWER AUTHORITY" are written in a white, sans-serif font, also with spaced-out letters.

**B U F F A L O**  
**S E W E R A U T H O R I T Y**

**SPDES Permit No. NY0028410**

**Long Term Control Plan Semi-Annual Status Report**  
**Reporting Period: *July through December 2019***

**Amended Administrative Order**

**CWA-02-2014-3033**

**(Amends CWA-02-2012-3024)**

**March 2020**

# **Long Term Control Plan Semi-Annual Status Report**

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### **ATTACHMENT:**

- A. Work Completed in Current Period/ Projection of Work to be Performed in Next Reporting Period
- B. Detailed Project Descriptions
- C. Public Meeting Materials
- D. Certificates of Acceptance and Occupancy

# 1. INTRODUCTION

The Buffalo Sewer Authority (Authority) received approval of its Long Term Control Plan (LTCP) from the United States Environmental Protection Agency (USEPA) and New York State Department of Environmental Conservation (NYSDEC) on March 18, 2014. The Authority entered into an Amended Administrative Order on April 16, 2014 (herein after referred to as the AO), with the USEPA. This AO establishes a schedule for implementation of the Authority's LTCP, approved by the USEPA and NYSDEC.

The AO in part requires that the Authority submit written Semi-Annual Status Reports to the USEPA and NYSDEC by September 1<sup>st</sup> for current year January 1– June 30 reporting period, and March 1<sup>st</sup> for the previous calendar year July 1 – December 31 reporting period. The AO requires that the following be provided in each Semi-Annual Status Report:

- The project milestones, deadlines and other terms that the Authority is required to meet since the date of the last Semi-Annual Status Report, whether and to what extent the Authority has met those requirements, and the reason for any anticipated delays and/or noncompliance.
- A general description of the work completed during the reporting period and the applicability of the work to meet indicated design criteria, as well as the projection of work to be performed during the next reporting period and any anticipated delays for the upcoming work. Any changes in key personnel must also be noted.
- Enclosure of public meeting (if held) materials including: advertisements, handouts, formal meeting notes, and a summary of the meeting (see Attachment C).
- Copies (to USEPA only) of all monthly monitoring reports or other reports pertaining to combined sewer overflows (CSOs) and bypasses that Authority submitted to the NYSDEC during the reporting period. Please note DMRs are now submitted electronically directly to the USEPA and no dry weather overflows occurred during this period, so this item does not apply during this reporting period.

This report covers July through December 2019 which serves as Semi-Annual Report No. 12.

## 2. REQUIREMENTS DUE IN REPORTING PERIOD

Attachment A provides the current status of all projects listed in the Administrative Order. Issues with implementing these projects are detailed in Section 4 of this document.

This document serves as the March 1, 2020 semi-annual report.

Certificates of Acceptance and Occupancy for fully completed projects for this reporting period are included in Attachment D.

### **3. WORK COMPLETED IN CURRENT REPORTING PERIOD AND PROJECTION OF WORK TO BE PERFORMED NEXT REPORTING PERIOD**

A general description of the work completed on LTCP projects during the current reporting period and the work projected to be performed during the next reporting period is provided in Attachment A. Items that have been completed have been highlighted orange.

A more detailed description of each project including the location and the goal to be achieved through each project is provided in Attachment B.

### **4. IMPLEMENTATION ISSUES**

#### 4.1 Hamburg Drain Optimizations

Preliminary design for the Hamburg Drain Optimizations was begun prior to January 1, 2014; however, detailed design was delayed due to high water levels in Lake Erie. As a result of this delay the March 18, 2016 Notice to Proceed deadline was exceeded. The Authority completed a model recalibration and submitted the model calibration report to the EPA and DEC on January 8, 2019. The Authority is moving forward with conducting new SWMM modeling and until this modeling is completed, the Authority is unable to set a deadline for completing the Hamburg Drain Optimizations. Updated deadline dates will be requested via formal request following the additional modeling of this area. Design of the Mill Race In-Line Storage project has commenced.

#### 4.2 WWTP Improvement Project Alternative C2

Design of this project has been delayed due to the presence of extensive quantities of grit that have accumulated in the system reducing WWTP capacity. Before further upgrades are considered, the existing issues must first be rectified to allow for accurate measurements of existing capacity. The cleaning of the A-side influent channels, aeration basin 3 and both the A-side and B-side effluent channels was completed in two separate contracts for the facility. Phase 1 removal of the grit in the secondary system included the removal and disposal of over 1,210 wet tons of grit. Phase 2 of the grit removal project continued with grit removal for the remaining influent and effluent channels and consisted of the removal of an additional 240 wet tons of grit.

The Authority worked with a consulting engineer to begin the next phase of removing grit from the aeration tanks in the secondary system, and issued bidding documents for the removal and associated tank isolation activities. The bids received ranged from \$6.7 to \$12.2 million, which are much higher figures than the Authority anticipated. After reviewing the bids and considering the costs solely of grit removal, the Authority determined that it would

be more prudent to replace the entire 24-year old aeration system in order to ensure its longevity and to improve energy efficiency.

On June 28, 2019, the Authority submitted to USEPA and NYSDEC, for review, a revised schedule for completion of the WWTP Improvement Project, which includes replacement of the aeration system. The Authority has continued to discuss a revised timeline with USEPA and NYSDEC since this time, while moving forward with engineering for part of the project. Following this reporting period on January 28, 2020, the Authority submitted to NYSDEC the Engineering Report for the Secondary System Rehabilitation and Upgrade. This report included both a \$16 million and \$30 million alternatives that the Authority is currently contemplating.

#### 4.3 North Relief-Interceptor

Preliminary subsurface investigation in conjunction with the North Relief-Interceptor concept has revealed concerns with the location of bedrock and the feasibility of the proposed tunnel location. Due to the noted concerns, the Authority has phased the proposed project. The initial phase, the Bird Avenue Underflow Sewer Project has been completed. Engineering analysis for additional phases is currently focused on the implementation of real time control technology and short circuit methodologies with the intention of reducing the scale of a North Relief-Interceptor project. The Authority is moving forward with the CSO 13 project which is planned to be significantly upsized in order to realize system wide benefits, including a potential reduction in the scope of the North Relief-Interceptor project.

## 5. CHANGES IN KEY PERSONNEL

There have been no changes in personnel during the reporting period.

## 6. PUBLIC MEETINGS

A presentation regarding Green Infrastructure in Buffalo was given to PUSH Buffalo in July 2019. A presentation on Green Infrastructure was given to Vision Niagara in August 2019. A lunch and learn presentation on Nature Based Green Infrastructure Solutions for Stormwater Management and Climate Change Resilience was given to the Western NY APWA chapter. A presentation on Green Infrastructure Planning was given at the NYWEA Stormwater Specialty Conference. The slides used in all of the presentations are included in Attachment C.

## 7. MODEL MODIFICATIONS

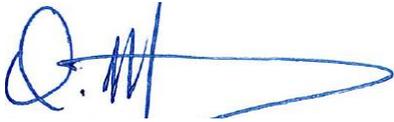
The Authority is moving forward with utilizing the January 2019 model for LTCP project planning purposes. All projects that were implemented or designed and underway for implementation in 2019 will be added into the model during the next reporting period.

## 8. GREEN INFRASTRUCTURE

A private property green infrastructure grant program will be issued during the next reporting period.

## 9. CERTIFICATION STATEMENT

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."



*Oluwole A. McFoy, P.E., General Manager*

\_\_\_\_\_ Date