



Memorandum



To: Jim Costa, Shawn Syde, Justin Chicca

From: Karilyn Heisen

Date: June 25, 2025

Subject: Recommendations for Further Investigations based on City of New Bedford Collection System Regulator Book and Transmittal of Electronic Data Files for Regulator Book

Following the submittal of the regulator book in November 2024, the CDM Smith team conducted further site investigations to address questions that arose as part of the regulator book development. The enclosed revised Regulator Book, dated June 2025, includes updates based on field investigations and comments from Shawn Syde.

In addition to the hard copy of the Regulator Book, we are providing 1 electronic copy of supporting files. This device is on an encrypted USB key. The password for the key is **NewBedford123**.

Contents of the USB key include:

- Regulator Record Drawings: One folder for each regulator containing the relevant City drawings used to develop the Regulator Book
- Regulator Information: One folder for each regulator containing subfolders with the CAD drawing file, field investigation notes if collected and pictures if collected. Meter site sketches and installation reports will also be in these folders.
- Regulator Book MailMerge: The file used to create the final regulator book including location sketches, specifications sheet and photos. Location sketches are in a pdf document. To update the sketch, modify the pdf document and then save each sketch as an image file.
- Redzone: Information provided by Redzone Robotics Inc including 3D model data and reports.
- Field Investigation Summaries: Summaries of field investigation notes used to create the recommendations provided in this letter

Based on field investigations and a review of drawings, we are providing a list of recommendations for 29 regulator locations, as shown in **Table 1**. These include 12 locations with missing or broken gates and stop logs, 11 locations which need cleaning, 8 locations with tidal inflow or groundwater infiltration, 4 issues that require jetting or dye testing to establish actual flow configurations, 6 that require confined space entry to confirm data and 8 locations which should be updated on sewer plots.

Based on the field investigations, locations 012A, 012B, and 015A currently do not allow Combined Sewer Overflows (CSO). Therefore, depth meters can be removed at 012A, 012B and 015A. We

recommend moving one meter to 022C to monitor the tendency of this location to clog. The two other meters can be redeployed at locations which are currently not monitored.

Table 1. Recommendations for Regulators based on Field Inspections

Location	Recommendation	Field Inspection Date	Meter/Block	Gate Maintenance	Cleaning	I/I Issues	Dye Testing	Confined Space Entry	Update Sewer Plots
Group 1									
R-004F	This flow gate is in poor repair and covered in debris and rages. Determine the desired function of flow gate and replace with a functional gate as needed. Dye testing to confirm 24" bypass pipe from upstream of 004F to downstream of 004E. Existing structure does not match planned drawings for the area.	2/14/25		Y	Y		Y		
R-003A	Update sewer plot and GIS. Remove the debris from the flow gate.	2/14/25			Y				Y
R-018B	Update sewer plot								Y
R-018A	Multiple field visits have been conducted at this site including in 2015 and 2025. Stagnant water in 018A makes it difficult to tell flow directions and which pipes have been closed. Jetting and dye testing should be done to verify that the pipes which return flow back into the collection system are indeed open and can convey flow. Update the model, sewerplot, and GIS with the correct MH locations.	2/14/25			Y		Y		Y
Group 3									
R-012A	Investigations indicate that the regulator is bricked up. It is possible that a small amount of space could be present at the top of the bricks. Confined space entry needed to verify that regulator is closed.	12/13/24	Remove meter					Y	
R-012B	Tide gate is sealed shut, determine if it needs to be re-opened. Update sewer plot	12/13/24	Remove meter						Y
R-013A	Based on drawings and field observations it is possible that the downstream outfall pipe is plugged. Visits at high tide were inconclusive. Need to jet and dye test to determine if flow exists the tide gate chamber.	12/13/24		Y			Y		
R-015A	Tidal flow is leaking through the tide gate, which is propped closed with a wooden beam. Install a better barrier. Update the model and sewer plot.	12/13/24	Remove meter	Y		Y - tide			Y
R-017A	Tidal inflow through duck bill and cracks in the chamber wall	12/18/24		Y		Y - tide			
R-017C	Tidal inflow through duck bill. The block is in wrong place	12/18/24	Remove block	Y		Y - tide			

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Location	Recommendation	Field Inspection Date	Meter/Block	Gate Maintenance	Cleaning	I/I Issues	Dye Testing	Confined Space Entry	Update Sewer Plots
R-017D	Confined space entry is needed to measure the height of the weir. Plug leaks allowing tidal inflow.	12/18/24				Y - tide		Y	
Group 4									
R-030B	Clean the dry weather flow chamber.	3/21/25			Y				
R-030A	Determine if a new flow gate is needed.	3/21/25		Missing gate					
R-031B	Clean outlet chamber. Determine if a flow gate (currently missing) is needed.	18/25		Missing gate	Y				
R-031C	Replace tide gate	4/30/25		Missing gate					
R-031E	Seal leaks in concrete	1/8/25				Y			
R-032A	Clean out the chamber. Determine if a new tide gate is needed	1/8/25	Replace block	Missing gate	Y				
Group 5									
R-034A	Update sewer plot. Investigate the source of dry weather flow in nearby storm drains.	1/7/25				Y			Y
Group 6									
R-020A	Remove blockage in the overflow pipe. Replace the missing stop plank. Clean out chamber.	2/14/25		Plank missing	Y				
R-035C	Chambers are constantly submerged. Clean out all chambers and measure inverts. Confirm condition of flow gate.	1/10/25	Remove block		Y			Y	
R-036B	The inlet pipe to R-036B is 10", not 8"; The block is in the old R-036B.	2/14/25	Remove block						
Group 7									
R-022C	Unclog. Prone to clogging. Consider redesign of structure	1/10/25	Add meter		Y				
R-022D	Update sewer plot								Y
R-022F	Uncover the regulator and dye test to confirm the configuration of the intersection. Confirm overflow height.	3/21/25					Y	Y	
R-022H	Confined space entry is needed to measure weir height and invert of 20" opening	3/21/25						Y	
Group 8									
DS of 023A	Repair the leak around the edges of the 18" outlet. Add structure to GIS.	1/10/25				Y			
R-024B	Structure prone to blockages. Confirm pipe sizes and weir length.	1/10/25	Meter install Dec 2024						

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Location	Recommendation	Field Inspection Date	Meter/Block	Gate Maintenance	Cleaning	I/I Issues	Dye Testing	Confined Space Entry	Update Sewer Plots
R-026A	Measure the diameter of openings with duckbills in structure downstream of weir. Measure the height of the wall containing duckbills. Replace duckbills. Update sewer plots	1/10/25		Y					Y
R-041A	Clean out. Make the weir permanent. Figure out if there is Storm drain inflow.	12/18/24			Y	Y			
R-041B	Measure the high-level outlet. Requires confined space entry. Install a new tide gate and remove the sandbag weir downstream.	12/18/24		Y - Missing gate	Y			Y	