

CITY OF SOMERVILLE, MASSACHUSETTS  
JOSEPH A. CURTATONE  
MAYOR  
DEPARTMENT of INFRASTRUCTURE & ASSET MANAGEMENT  
ENGINEERING DIVISION



RICHARD E. RAICHE, PE, PMP  
DIRECTOR OF INFRASTRUCTURE & ASSET MANAGEMENT

JESSICA FOSBROOK, PE  
DIRECTOR OF ENGINEERING

### COUNCIL ORDER RESPONSE

Date: 21 February 2020  
To: Somerville City Council  
From: Rich Raiche, Director of Infrastructure & Asset Management  
CC: Jess Fosbrook, Brian Postlewaite, John DeLuca, George Proakis, Annie Connor  
RE: Response to several Council Orders regarding flooding in various locations

---

In recent months, the City Council has approved several Orders addressed to IAM, Engineering and OSPCD regarding flooding in various locations throughout the City. Specifically:

- 209656 - That the Directors of the Water and Sewer and Engineering Departments provide to the Ward 5 Councilor an assessment of steps that can be taken to mitigate flooding on the side streets near the Lowell Street bridge, particularly Alpine, Vernon, and Hudson Streets.
- 209641 - That the Director of Infrastructure and Asset Management report to the Ward 6 Councilor in writing of any plans to mitigate flooding and sewage backup in homes during heavy rains around Kingston Street.
- 209546 - That the Executive Director of the Office of Strategic Planning and Community Development (Mobility) discuss what can be done to mitigate the flooding of Alewife Brook Parkway and Mystic Valley Parkway.
- 209348 - That the Director of Infrastructure and Asset Management advise this Council what can be done immediately to lessen the continual flooding of Alewife Brook Pkwy when it rains.
- 209174 - That the City Engineer provide information on the flooding problems in the Dane Street/Duck Village area and whether the problem has been permanently resolved.

This memorandum is intended to provide the City Council a response to those Orders, and update the Council on ongoing efforts to reduce flooding, eliminate Combined Sewer Overflows, and improve the City's combined sewer and drain system.





At the time of this writing, the City is underway with construction of the Somerville Avenue Utility and Streetscapes Improvement (SAUSI) project, and is in the design phase for the Poplar Street Pump Station and Spring Hill Sewer Separation projects. That suite of projects achieves two goals: relieving legacy flooding in Union Square, and creating the central infrastructure necessary to reduce both flooding and Combined Sewer Overflows (CSOs) elsewhere in Somerville. Years of alternatives analysis, preliminary design, and hydraulic modeling informed the definition of elements in those projects that cost-effectively achieve the City's goals.

For the past two years, the Engineering Division through its consultant has created and calibrated the hydraulic model, a critical tool for those evaluations, for the other geographies of Somerville. For the past several months, the Engineering Division has developed a scope and fee with its consultant to create a citywide comprehensive drainage and water quality improvements plan. Like the previous efforts for Union Square, the plan will identify, evaluate and prioritize options to reduce flooding, mitigate CSOs, and improve water quality. The planning project will include not only technical analysis, but also extensive community outreach to assure that the problems are correctly identified and to obtain input for evaluating and prioritizing solutions that will include both "grey" and "green" infrastructure. While this citywide planning effort will cover a much larger geography than the prior planning for Union Square, the Engineering Division is much better equipped to perform this work than it was previously, and our current schedule anticipates delivering a final plan by the end of 2021.

For the sake of making the project manageable and for scheduling community meetings according to the differing needs of various locations throughout Somerville, the project is phased by sewershed (i.e. areas that drain to a common sewer subsystem). The projected milestones associated with each Council Order are as follows:

- 209656 - Alpine, Vernon, and Hudson Streets: Community meeting January 2021, draft plan July 2021.
- 209641 - Kingston Street: Community meeting July 2020, draft plan February 2021.
- 209546 - Alewife Brook Parkway and Mystic Valley Parkway: Community meeting July 2020, draft plan February 2021.
- 209348 - Alewife Brook Pkwy: Community meeting July 2020, draft plan February 2021.
- 209174 - Dane Street/Duck Village: Community meeting May 2020, draft plan October 2020.

Following the development of a draft plan for each sewershed, projects will be prioritized overall, and a comprehensive plan drafted by December 2021. Although Alewife Brook Parkway and Mystic Valley Parkway are the jurisdiction of the Department of Conservation and Recreation (DCR), our evaluation of options will include upgrades to infrastructure within the Commonwealth's Right-of-Way, and we will highlight coordination needs as part of those potential projects.

The effort described above will result in recommendations for major infrastructure upgrades to achieve the flood reduction and CSO mitigation goals of the City. Once those projects are defined and prioritized, we will seek funding approval for design and construction from the City Council. Poor condition of existing pipes may be exacerbating existing system deficiencies and contributing to localized flooding. To





identify those locations and target system repairs, IAM is initiating a full asset management program, including extensive inspections of sewers. We are currently developing the scope and fee for those efforts and anticipate initiating the program in the spring. We will prioritize investigations in areas known to be problematic such as those identified in the Council Orders above. In the meantime, the Water & Sewer Department will continue to prioritize routine maintenance in those areas.

I hope this memorandum provides an understanding of our ongoing efforts to address flooding in the subject locations, and the timetables in which we will be engaging the community and providing interim results. Please feel free to contact me or Haleemah Qureshi, the project manager for the planning effort, for additional details on the plan.

