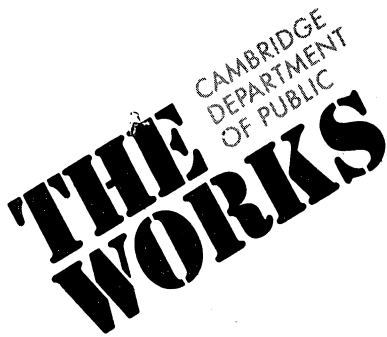




Ralph E. Dunphy
Commissioner

147 Hampshire Street
Cambridge, MA 02139
617-349-4800
TDD 617-349-4805

To: Robert W. Healy
City Manager

From:  Ralph E. Dunphy
Commissioner

Date: October 31, 1996

Re: Council Order # 085, dated 10/21/96
Re: Report on Flooding

RECEIVED
96 NOV -1 PM 4:47
OFFICE OF THE CITY MANAGER

The City of Cambridge is on an average - 10.84 feet below the U.S. coast and Geodetic Survey Mean Sea Level. The City received 10" of rain in 24 hours. Which, if it were winter, would be equivalent to 40" of snow.

New Street is a low area. The property that was flooded is lower than the City street so all the water drains back into the private parking lot. There are pumps installed in this lot to pump the water up, out of the lot and into the City storm drain. These two pumps were working. They can pump 150 gallons per minute each, for a total of 300 gallons per minute. The Fire Department also brought in 2 fire pump trucks. These pumps can pump 1,000 - 1,500 gallons each for a total of 2,000-3,000 gallons per minute.

While it was raining, these two pumps were just keeping up with the rain, preventing the water level from rising any higher. The 2 fire pumps pumping to their capacity, could not lower the water level. This was partly due to the Alewife Brook rising up over its banks. New Street drains out to the Brook. The stormwater had no place to go. The pumps on New Street were working, however, the high water level alarm was out. This alarm is scheduled to be repaired within the next month, and weather permitting, each pump will be taken out of service for annual maintenance. One pump will remain while the other is being serviced and they will not be taken out of service is rain if on the forecast.



The City has 3 combined sewer outfalls on the Alewife Brook. These were placed that so during heavy rains the sanitary and stormwater can overflow to the Brook. This weekend's storm event caused the Brook to be so high that the Brook was flowing into the City collection system and taking up all the City's and MWRA's pipes capacity. This area is scheduled for major sewer reconstruction and separation in 1998. Once this sewer separation project is completed the combined sewer outfalls will either be bricked up or turned into storm drain outfalls. Once this project is completed, the City should not have any flooding problems that interrupt the sanitary sewer service. The City will also have an improved sewer drain system. However, Alewife Brook was up over its banks and flooded Route 2 and part of Columbus Avenue. Though the City will have improved drainage systems, if similar rains occur and the Alewife Brook rises again as it did this last storm, some property owners will still experience flooding from stormwater only. The sanitary system will be separated and should not cause any flooding from sewage.

The catch basins on Columbia Street will be cleaned within the next few weeks (in the month of November). This street drains to the Charles River which was high and had no place to flow.

When stormwater drainage systems are filled to capacity the water will back up into the streets. This is not unusual when a community experiences a storm of this magnitude. Collection systems are normally designed - due to economic reasons - to handle the water from a 5, 10, or 15 year storm. This storm was probably close to a 100 year storm.



CITY OF CAMBRIDGE

INTEROFFICE CORRESPONDENCE

RECEIVED
96 NOV -7 PM 3:55
OFFICE OF THE CITY MANAGER

November 6, 1996

To: Robert W. Healy, City Manager

From: Bob Bersani, Inspectional Services

Subject: Council Order #085, dated 10/21/96 RE: Report on Flooding

As a result of the heavy rain that occurred on 19 and 20 October and the resulting flooding, ISD responded on an emergency basis across virtually all functional areas. Requests for assistance were received from basically three sources; City Departments (Fire, Emergency Management, Public Works, and Manager's Office), Utilities (COMGAS and COMELECTRIC), and directly from effected citizens.

Inspectors responded throughout day and evening hours from Saturday, 10/19/96 through Thursday, 10/24/96 by emergency response teams organized by Mike Nicoloro, Assistant Commissioner. A total of 174 man hours and \$5,600 was expended in this effort. A separate report has been provided to the Emergency Management Department to support potential State/FEMA reimbursement.

Following is a summary description of actions taken by functional area:

- a. Building Inspection - Safety inspections conducted of roofs and cellars in response to Fire Department requests.
 - b. Plumbing and Gas Inspection - Inspected heating systems and hot water tanks and assisted in evaluation of sewerage problems in coordination with the Fire Department and COMGAS.
 - c. Electrical Inspection - Inspection of electrical equipment in commercial and residential property in coordination with Fire Department and COMELECTRIC. A total of 40 separate trouble calls involving the securing and restoration of power were coordinated with COMELECTRIC.
 - d. Housing Inspectors - Inspected units flooded by water to assist in relocations and unit restoration.
 - e. Sanitary (restaurant inspections) - Inspected flood damaged restaurants (disposition of damaged food, closings, etc.)
- Attached is a report from Mike Nicoloro detailing several addresses that required special attention because of unique circumstances.

My assessment is that the emergency response procedures in place in the Inspectional Services Department worked well in responding to this emergency. All employees who assisted in this emergency performed in an outstanding manner.

Very truly yours,

R. R. Bersani



CITY OF CAMBRIDGE
INTEROFFICE CORRESPONDENCE

To: Robert R. Bersani
Commissioner

Date: November 4, 1996

From: Michael J. Nicoloro, Jr.
Assistant Commissioner *(mjn)*

Subject: Heavy rain on 10/20/96

Re: Flooding

Enclosed, please find a report of action taken by this department during the heavy rain on October 20, 1996.

We had 21 commercial calls and 39 residential calls. All these calls required re-inspection and some will require further follow up due to other problems found.

I have enclosed trouble sheets from Com/Electric (40 TOTAL)

Below is a list of the calls from Com/Gas, 75% were boilers and 25% were hot water heaters.

Saturday	10/19/96	32 Calls
Sunday	10/20/96	26 Calls
Monday	10/21/96	158 Calls
Tuesday	10/22/96	213 Calls
Wednesday	10/23/96	155 Calls
Thursday	10/24/96	122 Calls

Also enclosed is a list of restaurants which we responded due to water and other housing calls from the Cambridge Fire Department.

Below is also a brief report on calls which required special attention.

Gurney Street

Three homes flooded had water pump out, inspector stayed with Project/power cut off. Inspector was available on Gurney Street for 3 days off and on.

Bay State Road/New Street

Ten buildings were involved in flooding, had power turned off. Had inspector available to assist Fire Department at this location for 5 days.

20 Banks Street

Elderly Housing, Com/Electric isolated wiring on 3rd floor , James DeAngelo re-inspected on Monday.

16 Lexington Avenue

Called by Com/Electric for 1/2 power found fixture on 3rd floor water to owner to get electrician. Com/Electric shut of breaker not needed. Boiler in water called Water Department for emergency pump, owner just out of hospital with open heart surgery. Cellar was pumped and Gas Co. restored gas to boilers.

27 Willard Street

Owner bed ridden, Fire Department pumped basement. Electrical fire on boiler controls, City inspector restored power isolating problems. Check on building during day of 10/20, had gas to store restored on 10/21.

Doane Street #9

Owner 98 years old, cellar full of water, had Water Department pump out and gas restored.

Residents

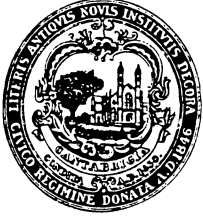
On site inspections from Cambridge Fire Department which requires follow-up inspections.

251 Garden Street (Bristol Arms)
1530 Cambridge Street
27 Willard Street
Tobin School, Inspector watching water pipe.
20 Columbia Street
23 Gurney Street (3 houses)
10 Poplar Street (3 units)
12 Poplar Street (3 units)
279 Walden Street
20 Surrey Street (3 units)
16 Fayerweather Street (2 units, heat problem)
17 Bay Street (6 units)
74-76 Willow Street (4 units)
62 Richdale Avenue (3 units, roof problem)
302 Rindge Avenue
18 Hews Street
364 Harvard Street (6 units)
1716 Cambridge Street
96 Richdale Avenue
465 Concord Avenue
Sparks Street
1200 Mass Avenue (50 units)
129 Franklin Street (40 units, basement flooding)
14 Jackson Place
2192 Mass. Avenue
10 Soden Street
Harrington School
Bellis Circle (3 houses)
12,14,16,18 Harrington Road

Restaurants

On site inspections from Cambridge Fire Department which requires follow-up inspections.

365 Concord Avenue	Kyoto
871 Main Street	India
873 Main Street	Stefani's
875 Main Street	Bertucci's



CITY OF CAMBRIDGE

57 INMAN STREET, CAMBRIDGE, MA 02139 • TEL (617) 349-4680

CONSERVATION COMMISSION

November 12, 1996

Ms. Julia O'Brien
Metropolitan District Commission
20 Somerset Street
Boston, MA 02108

Dear Ms. O'Brien,

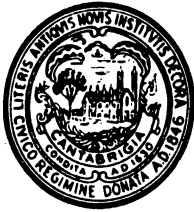
As we discussed in our recent telephone conversation, last month's severe storm served as a graphic reminder of the need for a hydrology study focused on the Alewife Brook floodplain. A few years ago, at the urging of local conservation commissions, it appeared that the MDC had won funding from the Army Corps of Engineers for a Floodplain Management Study of the Alewife Brook system. The results of this study were anticipated to provide invaluable guidance for floodplain permitting and planning purposes.

It is unfortunate that the Floodplain Management Study has been delayed. The Cambridge Conservation Commission hopes that the MDC will renew its efforts to obtain the services of the Army Corps for this study, and offers to assist in any way that would be helpful in getting the study back on track. Please advise the Commission of the status of the study at your earliest possible convenience.

Sincerely,

Alex Strysky
Director

cc: Robert Healy, Cambridge City Manager ✓
Susan Brent, Arlington Conservation Commission
John Murphy, Belmont Conservation Commission



EXECUTIVE DEPARTMENT
ROBERT W. HEALY
City Manager

RICHARD C. ROSSI
Deputy City Manager

CITY OF CAMBRIDGE
CAMBRIDGE, MASSACHUSETTS 02139

TEL. 349-4300
FAX. 349-4307

November 18, 1996

To The Honorable, The City Council:

Please find attached a response to Awaiting Report Item No. 15, regarding a report on flooding, received from Public Works Commissioner Ralph Dunphy, Inspectional Services Commissioner Robert Bersani and Conservation Commission Director Alex Strysky.

Very truly yours,

Robert W. Healy
City Manager

RWH/mec
attachments

Consent Agenda #5

5-573

Transmitting communication relative to
Awaiting Report Item Number Fifteen, regarding
a report on flooding.

Original Order # 85
of 10-21-96
see 487 CM of 10-21-96
Report received 11-18-96

In City Council November 18, 1996

PLACED ON FILE