

File No. 231001

Committee Item No. 4

Board Item No. 12

COMMITTEE/BOARD OF SUPERVISORS

AGENDA PACKET CONTENTS LIST

Committee: Budget and Finance Committee Date October 25, 2023

Board of Supervisors Meeting Date October 31, 2023

Cmte Board

- | | | |
|-------------------------------------|-------------------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Motion |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Resolution |
| <input type="checkbox"/> | <input type="checkbox"/> | Ordinance |
| <input type="checkbox"/> | <input type="checkbox"/> | Legislative Digest |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Budget and Legislative Analyst Report |
| <input type="checkbox"/> | <input type="checkbox"/> | Youth Commission Report |
| <input type="checkbox"/> | <input type="checkbox"/> | Introduction Form |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Department/Agency Cover Letter and/or Report |
| <input type="checkbox"/> | <input type="checkbox"/> | MOU |
| <input type="checkbox"/> | <input type="checkbox"/> | Grant Information Form |
| <input type="checkbox"/> | <input type="checkbox"/> | Grant Budget |
| <input type="checkbox"/> | <input type="checkbox"/> | Subcontract Budget |
| <input type="checkbox"/> | <input type="checkbox"/> | Contract/Agreement |
| <input type="checkbox"/> | <input type="checkbox"/> | Form 126 – Ethics Commission |
| <input type="checkbox"/> | <input type="checkbox"/> | Award Letter |
| <input type="checkbox"/> | <input type="checkbox"/> | Application |
| <input type="checkbox"/> | <input type="checkbox"/> | Public Correspondence |

OTHER (Use back side if additional space is needed)

- | | | |
|-------------------------------------|-------------------------------------|--|
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <u>PUC Emergency Declaration 9/14/2023</u> |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <u>PUC Presentation 10/25/2023</u> |
| <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | _____ |

Completed by: Brent Jalipa Date October 19, 2023

Completed by: Brent Jalipa Date October 26, 2023

1 [Emergency Declaration - Repair of Fillmore and Green 16" Water Main Break - Total
2 Estimated Cost Not to Exceed \$5,000,000]

3 **Resolution approving an emergency declaration of the San Francisco Public Utilities**
4 **Commission pursuant to Administrative Code, Section 6.60, to contract resources to**
5 **perform sewer main, water main, and street repairs on Fillmore Street between Green**
6 **Street and Union Street, which were damaged by a water main failure, with a total**
7 **estimated cost not to exceed \$5,000,000.**

8
9 WHEREAS, On September 11, 2023, a 16-inch water transmission main installed in
10 1949 in the intersection of Fillmore and Green Streets failed; and

11 WHEREAS, The resulting release of water damaged the 8-inch water distribution main
12 on Fillmore Street and caused the subsequent failure of the street base and pavement on
13 Fillmore Street between Union Street and Green Street; and

14 WHEREAS, The displacement of sand and mud caused the complete collapse of
15 sections of Fillmore Street with voids of up to 10 feet in depth and failure of the sewer main
16 and sewer laterals on Fillmore Street between Union Street and Green Street; and

17 WHEREAS, The flow of water also buckled sidewalks on Fillmore Street near Union
18 Street and inundated a number of resident garages and basements, as well as businesses
19 and residents along Green, Steiner, Fillmore, Lombard, and Union Streets with displaced
20 sand and mud; and

21 WHEREAS, The water main break resulted in disruption of water services as well as
22 interruption of gas service to customers on Fillmore Street, and properties downhill from the
23 main break on several other blocks were damaged; and

24 WHEREAS, On September 14, 2023, the San Francisco Public Utilities Commission
25 (SFPUC) General Manager declared an emergency under Administrative Code, Section 6.60,

1 which the President of the San Francisco Public Utilities Commission approved, to contract
2 resources to perform sewer main, water main, and street and sidewalk repairs on Fillmore
3 Street; and

4 WHEREAS, The work must be completed as soon as possible and is beyond the
5 capabilities of City forces; and

6 WHEREAS, The cost for this work is currently estimated not to exceed \$5,000,000; and

7 WHEREAS, The Controller has certified that funds are available for this emergency
8 work; now, therefore, be it

9 RESOLVED, That the Board of Supervisors approves the SFPUC declaration of
10 emergency dated September 14, 2023, to contract resources to perform sewer main, water
11 main, and street and sidewalk repairs on Fillmore Street, which were damaged by the
12 September 11, 2023 water main break, with a total estimated cost not to exceed \$5,000,000;
13 and, be it

14 FURTHER RESOLVED, That the Board of Supervisors ratifies actions taken by the
15 San Francisco Public Utilities Commission to remediate the emergency condition.

16
17
18
19
20
21
22
23
24
25

Item 4 File 23-1001	Department: San Francisco Public Utilities Commission (SFPUC)
--------------------------------------	---

EXECUTIVE SUMMARY

Legislative Objectives

- The proposed resolution would approve SFPUC’s emergency declaration in an amount not-to-exceed \$5,000,000. The emergency contracting authority would be used for sewer main, water main, and street repairs on Fillmore Street between Green Street and Union Street due to a water main break on September 11, 2023.
- Any contracts entered into under the emergency authority are exempt from Administrative Code Chapters 6 (public works contracting policies and procedures), 12A (human rights commission), 12B (non-discrimination in contracts), 12C (non-discrimination in property contracts), and 14B (local business enterprise utilization).

Key Points

- The water main break caused a release of water that damaged another water distribution main and numerous service laterals, damage to the street, and utilities. Flooding occurred on Steiner and Fillmore Streets and between Lombard and Green Streets.
- An engineering estimate provided on October 16, 2023 estimates the cost of the emergency response to be \$3,529,000, of which \$2,863,400 would be procured under the proposed emergency contracting authority. The SFPUC selected three pre-qualified contractors for various repair work: (1) A. Ruiz Construction Company, (2) JMB Construction, Inc., and (3) J. Flores Construction, Inc. Work commenced on September 11, 2023 and is expected to be completed mid-November. Approximately \$660,000 of planning, design, and construction support work is being undertaken by City staff from SFPUC and Public Works.

Fiscal Impact

- The \$3,529,000 estimated repair work cost will be sourced from the Local Water Conveyance and Distribution Program, which is funded by 2012 Water Revenue Bonds, and from the Renew Services Program, which is funded by the 2021 Water Revenue Bonds.
- The estimates do not account for \$1.4 million in PG&E repair work and other damage claims that may be liabilities of the City.

Policy Consideration

- The proposed \$5 million not to exceed amount is \$1,471,000 more than the currently known emergency work costs. Delays in the repair work and unforeseen underground conditions may increase contract expenses, so SFPUC requests the full proposed \$5 million emergency contracting authority.
- The SFPUC reports that the water main that broke had no prior breaks was categorized as a low priority water main in its water infrastructure repair plan.

Recommendation

- Approve the proposed resolution.

MANDATE STATEMENT

Administrative Code Section 6.60(d) states that emergency work that costs more than \$250,000 is subject to Board of Supervisors approval. Prior to the commencement of emergency work above the \$250,000 threshold, the Department must also secure approval in writing from the Mayor or the President of the appropriate Board or Commission. If the emergency does not permit approval of the emergency determination by the Board of Supervisors before work begins, the Department must submit a resolution approving the emergency determination to the Board of Supervisors within 60 days of the Department head’s declaration of emergency.

BACKGROUND

On September 11, 2023, a break occurred in a 16-inch water transmission main near the intersection of Fillmore and Green Streets. The break caused a release of water that damaged an 8-inch water distribution main and numerous service laterals. Resulting impacts included the failure of the street base, pavement, sewer main, and sewer laterals on Fillmore Street between Union Street and Green Street and the buckling of sidewalks on Fillmore Street near Union Street. Flooding occurred on Steiner and Fillmore Streets and between Lombard and Green Streets. Businesses and residential garages and basements were inundated with displaced sand and mud, and water, sewer, and gas services to customers on Fillmore Street were disrupted. The main break also damaged utilities. CDD crews responded to the break and repaired the 16” main on September 11.

On September 14, 2023, the San Francisco Public Utilities Commission (SFPUC) General Manager requested, and the SFPUC President approved, a declaration of emergency, which allowed the SFPUC to immediately contract with construction and professional services firms to perform sewer main, water main, and street and sidewalk repairs on Fillmore Street. The SFPUC considered the declaration necessary because the repair work was beyond the capacity of City staff and needed to be completed as soon as possible.

According to the proposed resolution, the cost for the work is estimated not to exceed \$5 million and the Controller has certified that funds are available. The funding source would be water revenue bonds.

The proposed resolution was introduced on September 22, 2023, within the sixty-day timeframe required by Administrative Code Section 6.60(d).

Contractor Selection Process

SFPUC has existing contracts with multiple vendors to perform work as needed. These contracts were utilized to perform emergency work. Sewer work was divided between two contractors to perform the work as quickly as possible and to be fair and equitable to the contractors, as well as for logistical considerations. A third contractor was used for water drainage infrastructure repairs. The three contracts consist of the following:

- The City Distribution Division (CDD) contracted with A. Ruiz Construction Company to perform sewer replacement and repair work on the 15-inch vitrified clay pipe (VCP) sewer pipe and 14 sewer laterals on Fillmore Street from Union to Green Street. A. Ruiz holds contract WD-2868 “San Francisco Local Water As-needed Paving (FY 21-24)” with the City and was initially employed to assist with the damages to the pavement, curb, and sidewalk on Fillmore Street. When it was discovered that the sewer and sewer lateral lines were also damaged, the City Distribution Division (CDD) determined the most expedient course of action was to utilize A. Ruiz Construction Company to perform the sewer replacement and repair work.
- CDD contracted with JMB Construction, Inc. for the repair and replacement of the 8-inch water main, 20 water service laterals, sidewalk, granite curb, pavement renovation, and curb ramp work on Fillmore Street (Union to Green Streets) and pavement restoration work on Green Street (Fillmore to Steiner Streets). JMB Construction is contracted by the City under contract WD-2889, “As-Needed Service Line Replacement” to perform the water line, service laterals, associated curb, sidewalk, and pavement work.
- CDD contracted with J. Flores Construction, Inc. to repair and replace culverts and catch basins within the intersections of Fillmore and Green Streets and Fillmore and Union Streets. J. Flores is contracted by the City under Contract WW-715 “As-Needed Spot Sewer Replacement No. 43” to perform sewer repair work.

DETAILS OF PROPOSED LEGISLATION

The proposed resolution would approve SFPUC’s emergency declaration in an amount not-to-exceed \$5,000,000. The emergency contracting authority would be used for sewer main, water main, and street repairs on Fillmore Street between Green Street and Union Street due to a water main break on September 11, 2023. Any contracts entered into under the emergency authority are exempt from Administrative Code Chapters 6 (public works contracting policies and procedures), 12A (human rights commission), 12B (non-discrimination in contracts), 12C (non-discrimination in property contracts), and 14B (local business enterprise utilization).

The emergency declaration and resulting proposed resolution set the not-to-exceed amount at \$5 million, given the uncertainty regarding the full scope of damage and needed repairs. An engineering estimate provided on October 16, 2023 estimates the cost of the emergency response to be \$3,529,000, of which \$2,863,400 would be procured under the proposed emergency contracting authority. The cost estimate excludes any costs that may result from a claim by PG&E, which estimates its cost to repair the gas main and service laterals to be \$1.4 million, as that expense will not be incurred due to contracting. The estimate also excludes any pending claims by residents and businesses impacted by the flooding.

Exhibit 1 below provides the details of the \$3,529,000 cost estimate.

Exhibit 1 Estimated Cost of Emergency Work

	Planning	Design	Construction Support	Contracted Work	Total Cost
Emergency Response	\$0	\$0	\$55,200	\$176,400	\$231,600
15-in. Sewer, Service Laterals, Drainage	\$35,400	\$30,000	\$50,000	\$787,000	\$902,400
8-inch Water Main & Service Lateral Replacement	\$30,000	\$70,000	\$55,000	\$500,000	\$655,000
Street, Sidewalk, & Curb Restoration	\$50,000	\$225,000	\$65,000	\$1,400,000	\$1,740,000
Total	\$115,400	\$325,000	\$225,200	\$2,863,400	\$3,529,000

Source: SFPUC

As shown above, total emergency repair work is estimated to cost \$3,529,000, of which \$2,863,400 will be contracted to A. Ruiz, JMB, and J Flores. Planning, design, and construction support work will be primarily undertaken by SFPUC’s Water Enterprise, the Wastewater Enterprise, and the City’s Department of Public Works.

According to SFPUC, work commenced on September 11, 2023 and is expected to be completed mid-November.

FISCAL IMPACT

The \$3,529,000 estimated cost will be sourced from the Local Water Conveyance and Distribution Program, which is funded by 2012 Water Revenue Bonds, and from the Renew Services Program, which is funded by the 2021 Water Revenue Bonds. The bond proceeds are intended to fund design and construction of water main replacement projects as part of SFPUC’s long term capital improvement program to replace up to 15 miles per year of water distribution piping. According to SFPUC, \$51.9 million is budgeted in FY 2023-24 for water distribution piping maintenance.

POLICY CONSIDERATION

Not to Exceed Amount

The SFPUC set the not-to-exceed amount in the emergency declaration and the resolution at \$5,000,000 shortly after the pipe broke and before SFPUC staff or contractors had a detailed understanding of the conditions underground. As work is ongoing, there are still potential unknowns that could cause the project to incur additional costs, including potential design delays or other unforeseen underground conditions. As such, the SFPUC requests that the authority approved by this resolution include the total not-to-exceed amount so that there is a \$1,471,000 million contingency (the difference between the proposed \$5 million not to exceed amount and the \$3,529,000 in known emergency work costs) to account for potential additional unforeseen costs.

Water Distribution Infrastructure Maintenance

The water main break occurred on a 16-inch water main that was installed in 1949 and damaged an 8-inch water main and numerous service laterals (pipes between the water main and the

customer) that were installed in 1960. According to the American Water Works Association, a non-profit association of water utilities and water supply professionals, water pipes laid after 1945 have a useful life of approximately 75 years. Hence, the 16-in water main was at the end of its useful life.

The SFPUC has a continually evolving system to prioritize which water mains it will replace as part of its ongoing replacement plan. In 2012 the CDD produced the “*Initial 10-Year Replacement & Renewal Plan, Amended 2012*” (the 2012 Plan) that identified 320 miles of priority replacement pipes. The CDD *Earthquake Response Plan, December 2017*, further refined which pipelines were considered critical. In 2018, water main break data collection was incorporated into the prioritization system. Of the 320 miles of pipe identified in the 2012 Plan, only 16 miles have been replaced. According to Water Enterprise staff, that is because the 2012 Plan focused on pipes installed between 1860 and 1930; however, upon examination of break data, pipes that were installed between 1920 and 1970 showed higher break rates.¹ As a result, the Department’s focus on pipes with higher break rates has de-emphasized the oldest pipes in the distribution system, which have a longer useful life.

Currently, mains are categorized as either low, medium, or high priority according to established criteria. To be considered high priority, the criteria are a water main must:

- Have been identified for replacement in the *Initial 10-Year Replacement & Renewal Plan, Amended 2012*
- Be needed to improve operational functionality and/or improve system pressure
- Have had three or more main breaks along 1,000 ft of the identified pipe segments
- Been identified as a critical pipeline in the *CDD Earthquake Response Plan, December 2017*

The SFPUC reports that the main that broke was categorized as a low priority water main and had no prior breaks. Low priority mains are mains that had been identified for replacement in the *Initial 10-Year Replacement & Renewal Plan, Amended 2012* but do not meet the additional Medium Priority criteria of having had two or more breaks along a 2,000-foot segment of the pipe and require replacement for the purpose of improving operational functionality and/or improving system pressure.

RECOMMENDATION

Approve the proposed resolution.

¹ According to the American Water Works Association, pipe manufacturing methods and materials have changed over time, such that as pipes installed in the 1800s have a useful life of 120 years, pipes installed in the 1920s have a useful life of 100 years, and pipes installed after 1945 have a useful life of approximately 75 years. According to data provided by SFPUC staff, the average break per pipe mile for pipes installed between 1860 and 1920 is 1.1 and the average break rate for pipes installed between 1920 and 1970 is 1.9.



San Francisco
Water Power Sewer
Services of the San Francisco Public Utilities Commission

**File No. 231001, Emergency Declaration - Repair of
Fillmore and Green 16" Water Main Break - Total
Estimated Cost Not to Exceed \$5,000,000**

**Steve Ritchie
Assistant General Manager for Water**

October 25, 2023

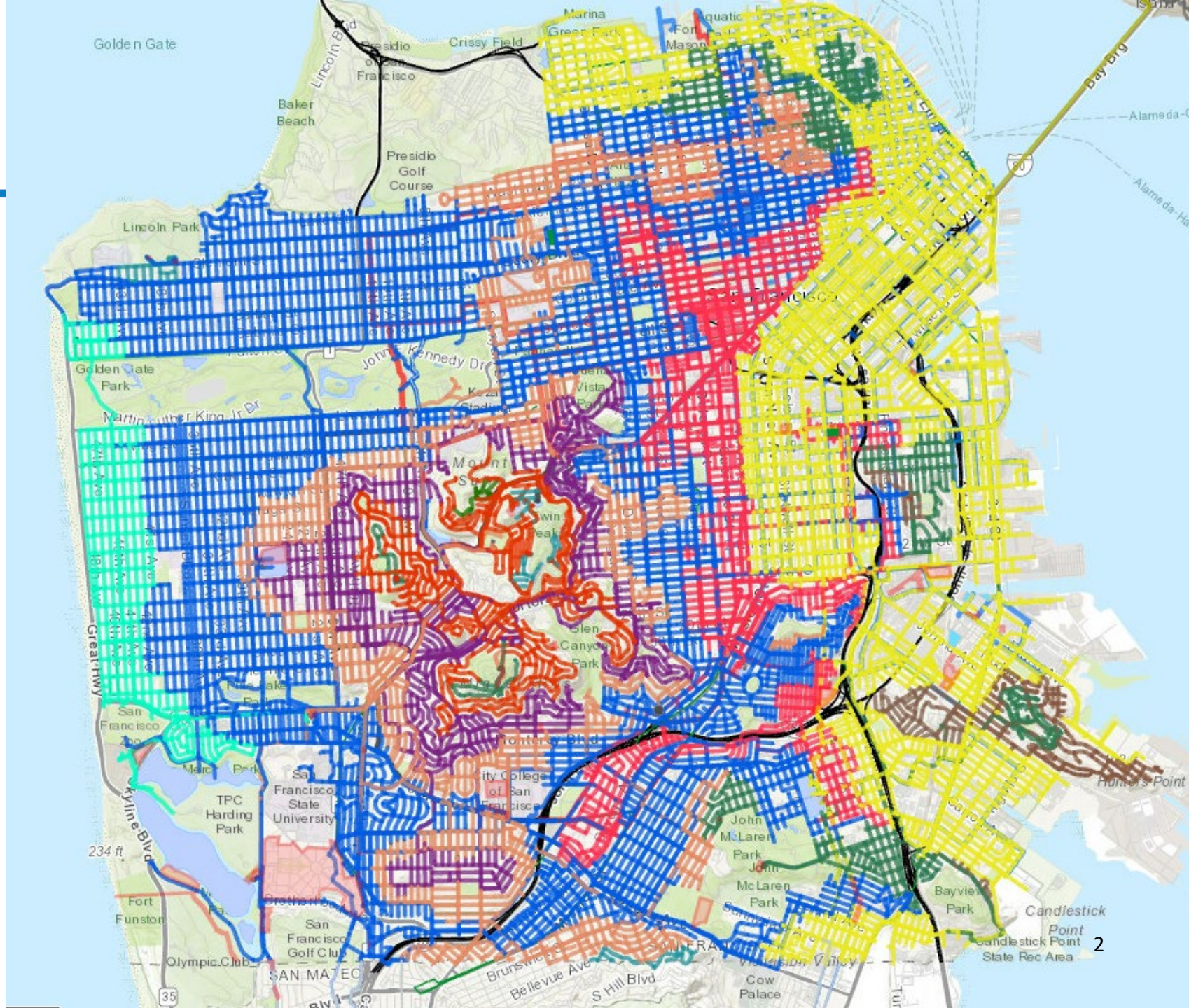


San Francisco
Water Power Sewer
Services of the San Francisco Public Utilities Commission

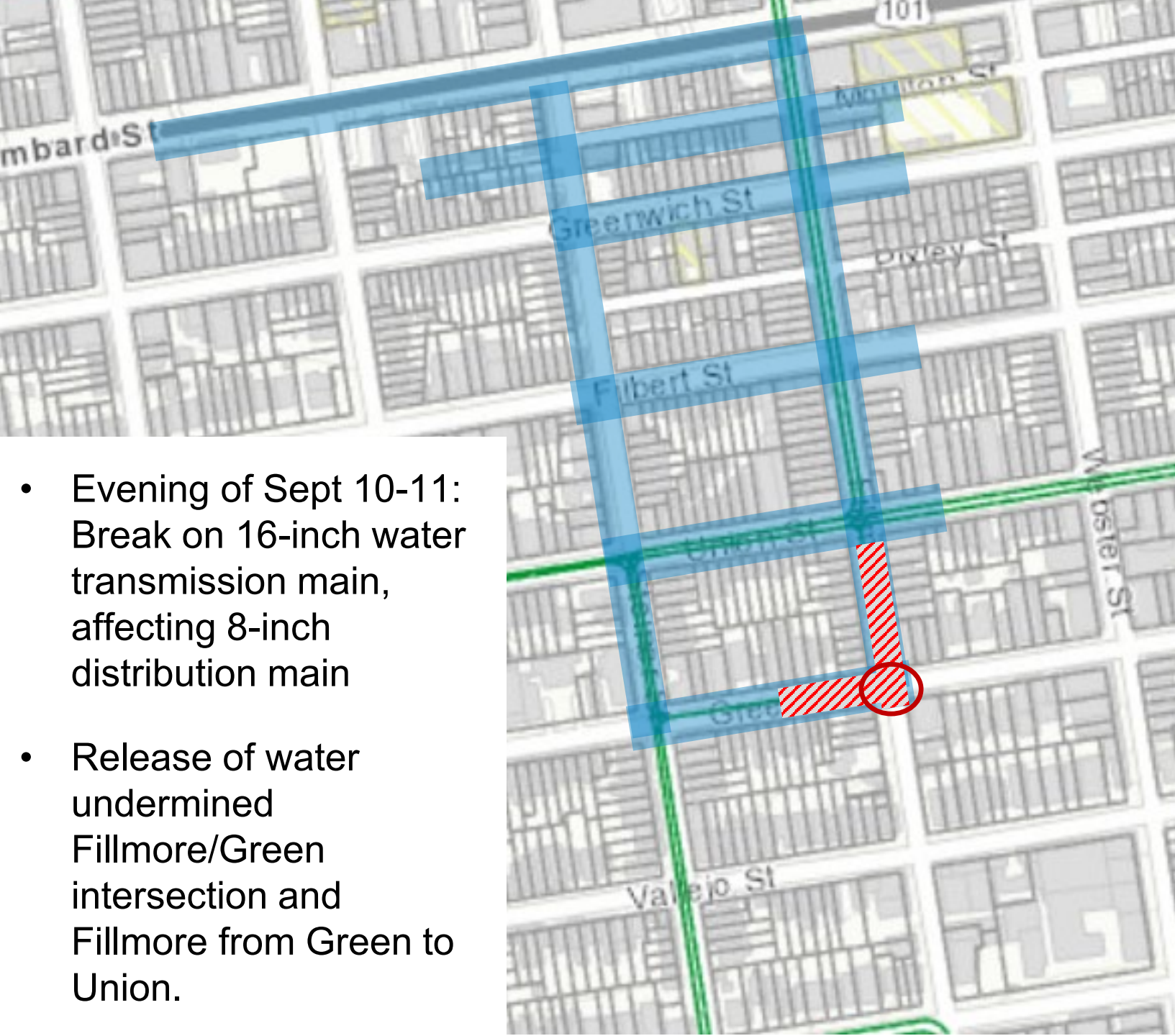
SF Water System

24 Pressure Zones

1250 Miles of water
mains serving almost
1 million residents



Areas Impacted

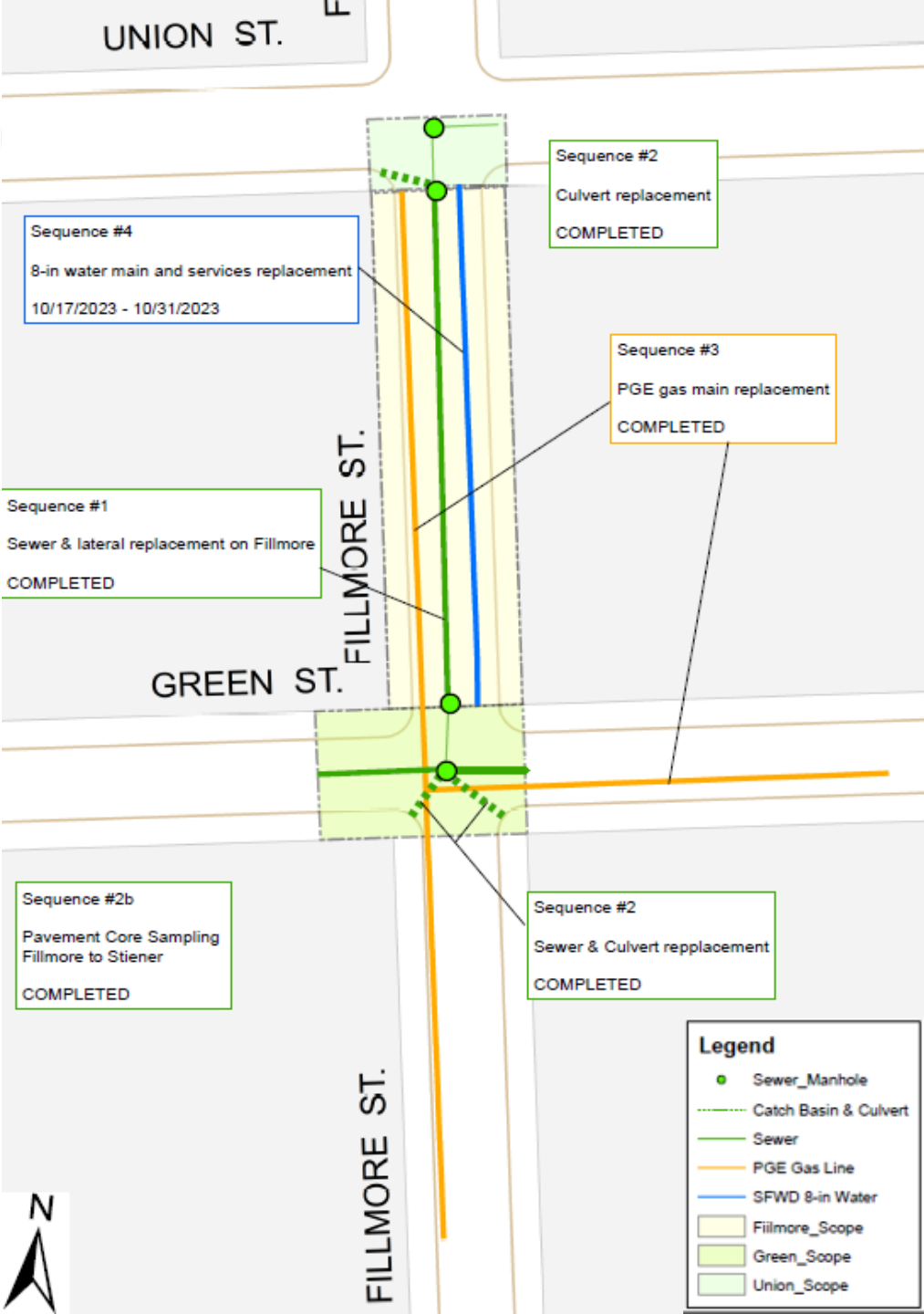


■ Areas where water flowed

▨ Street and sidewalk damaged

○ 16" Main Break location

- Evening of Sept 10-11: Break on 16-inch water transmission main, affecting 8-inch distribution main
- Release of water undermined Fillmore/Green intersection and Fillmore from Green to Union.



Utility Replacement and Restoration

- **16-inch Water transmission main:** Repaired on the day of the break
- **Sewer Main:** On Fillmore from Green to Union (no work in Union intersection)
- **Sewer Laterals:** Connecting properties to sewer main in this block
- **2-inch PGE gas line:** Replace since street is open
- **Sewer Catchbasins/Culverts:** Replace/repair at Fillmore/Union corner, Fillmore/Green intersection
- **1960 8-inch Water main:** Upgrade main and connect to property service lines
- **Restore street base, paving and sidewalks**
- **Expected completion in mid-November**



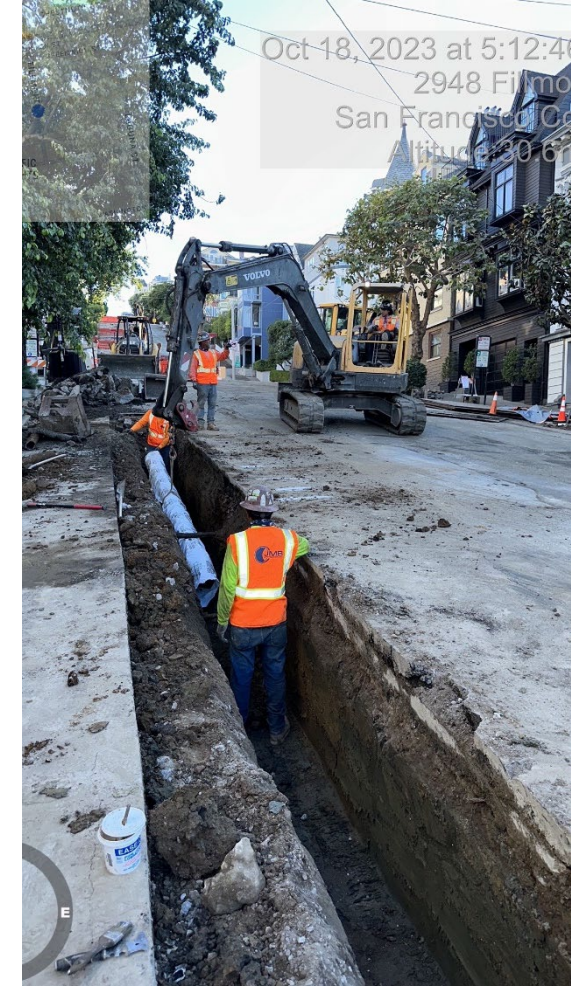
Initial Damage



Sewer Work



PG&E Work



Water Main Work

- The estimated cost to replace the 8-inch water main and laterals, the 15-inch sewer main and laterals, sewer catch basin and culvert work, sidewalk, curb ramp, curb, and pavement work is **\$3,529,000**.
- Note: PG&E’s estimate repair the gas main and service laterals is \$1.4 million. PG&E will work directly with the City Attorney’s Office to process the claim.

	Estimated Cost
Emergency Response Stabilization Work on 9-11-2023	\$231,600
15-in. Sewer, Laterals, Culvert, and Catch Basin Repair	\$902,400
8-inch Water Main and Service Lateral Replacement	\$655,000
Street, Sidewalk, and Curb Restoration	\$1,740,000
Total Estimated Cost	\$3,529,000






INTER-OFFICE MEMORANDUM

Date: September 14, 2023

To: Commissioner Newsha Ajami
 President, San Francisco Public Utilities Commission

From: Dennis J. Herrera 
 General Manager

Subject: **Declaration of Emergency – Fillmore and Green 16” Water Main Break**

In accordance with Chapter 6, Article IV, Section 6.60(d) of the San Francisco Administrative Code, I am declaring an emergency on behalf of the San Francisco Public Utilities Commission (SFPUC).

In the early morning hours of September 11, 2023, a 16” water transmission main installed in 1949 in the intersection of Fillmore and Green Streets failed. The resulting release of water damaged the 8” water distribution main in Fillmore, and subsequent failure of the street base and pavement on Fillmore from the intersection with Green down to the crosswalk of the Union Street intersection. The displacement of sand and mud caused complete collapse of sections of Fillmore with voids of up to 10 feet in depth and failure of the sewer main and sewer laterals from the Fillmore and Green intersection along Fillmore to the Union intersection. The flow of water from the Fillmore and Green intersection buckled sidewalks on Fillmore near Union and inundated a number of resident garages and basements, as well as businesses along Green, Steiner, Fillmore, and Union with displaced sand and mud.

Under Administrative Code section 6.60, an "actual emergency" means a sudden, unforeseeable, and unexpected occurrence involving a clear and imminent danger, demanding immediate action to prevent or mitigate loss of or damage to, life, health, property, or essential public services. The water main break resulted in disruption of water and sewer services as well as interruption of gas service to customers on Fillmore Street. Restoration of Fillmore Street between Green and Union will likely take weeks. In addition, properties downhill from the main break on several other blocks were damaged.

- London N. Breed**
Mayor
- Newsha K. Ajami**
President
- Sophie Maxwell**
Vice President
- Tim Paulson**
Commissioner
- Anthony Rivera**
Commissioner
- Kate H. Stacy**
Commissioner
- Dennis J. Herrera**
General Manager

OUR MISSION: To provide our customers with high-quality, efficient and reliable water, power and sewer services in a manner that values environmental and community interests and sustains the resources entrusted to our care.



This request for an emergency declaration is for contract resources to perform sewer main, water main, and street repairs on Fillmore Street. The work must be completed as soon as possible and is beyond the capabilities of City forces. We currently estimate the cost of the remediation work not-to-exceed \$5,000,000.

I am therefore declaring the existence of an emergency. I trust that this meets with your concurrence and approval.

CONCUR AND APPROVE:

Newsha Khodatalab Ajami

Newsha Ajami – President
San Francisco Public Utilities Commission

cc: S. Maxwell
T. Paulson
T. Rivera
K. Stacy
R. Flynn
S. Ritchie
S. Robinson
N. Hom

FROM: Jeremy Spitz, Policy and Government Affairs

DATE: September 22, 2023

**SUBJECT: [Emergency Declaration - Repair of Fillmore and Green 16”
Water Main Break– Total Estimated Cost Not to Exceed
\$5,000,000]**

Please see attached a proposed resolution approving an emergency declaration of the San Francisco Public Utilities Commission pursuant to Administrative Code Section 6.60, to contract resources to perform sewer main, water main, and street repairs on Fillmore Street between Green Street, and Union Street which were damaged by a water main failure, with a total estimated cost not to exceed \$5,000,000.

The following is a list of accompanying documents:

- Proposed Resolution (Word Doc Version)
- Proposed Resolution (Signed PDF Version)
- Signed SFPUC Declaration of Emergency Letter
- Controller’s Email Confirmation of Available Funding

Please contact Jeremy Spitz at jspitz@sfwater.org if you need any additional information on these items.

London N. Breed
Mayor

Newsha Ajami
President

Sophie Maxwell
Vice President

Tim Paulson
Commissioner

Tony Rivera
Commissioner

Kate Stacy
Commissioner

Dennis J. Herrera
General Manager

