

File No. 220892

Committee Item No. 11

Board Item No. 7

## COMMITTEE/BOARD OF SUPERVISORS

### AGENDA PACKET CONTENTS LIST

Committee: Budget and Finance Committee

Date September 14, 2022

Board of Supervisors Meeting

Date September 20, 2022

#### Cmte Board

- Motion
- Resolution
- Ordinance
- Legislative Digest
- Budget and Legislative Analyst Report
- Youth Commission Report
- Introduction Form
- Department/Agency Cover Letter and/or Report
- MOU
- Grant Information Form
- Grant Budget
- Subcontract Budget
- Contract/Agreement
- Form 126 – Ethics Commission
- Award Letter
- Application
- Public Correspondence

#### OTHER (Use back side if additional space is needed)

- ORCP Presentation 9/14/2022
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
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- \_\_\_\_\_
- \_\_\_\_\_

Completed by: Brent Jalipa

Date September 8, 2022

Completed by: Brent Jalipa

Date September 16, 2022

1 [Urging Development of Financing Plan by December 31, 2022 for Emergency Firefighting  
2 Water System]

3 **Resolution urging the Office of Resilience and Capital Planning to create a financing**  
4 **plan by December 31, 2022, for expanding the Emergency Firefighting Water System**  
5 **(EFWS) to unprotected areas of the City, with current and potential sources of funding**  
6 **for the EFWS, hose tenders and other options to minimize fire damage from a major**  
7 **earthquake.**

8  
9 WHEREAS, The Emergency Firefighting Water System (EFWS) is a high-pressure fire  
10 suppression water system designed to protect communities against the loss of life, homes,  
11 and businesses in the event of multiple fires resulting from a major earthquake in the SF Bay  
12 Area region, where the U.S. Geological Survey estimates that the probability of an earthquake  
13 before 2043 is 72 percent for a magnitude 6.7 or greater quake, 51 percent for a magnitude  
14 7.0 or greater quake, and 20 percent for a magnitude 7.5 or greater quake; and

15 WHEREAS, The current EFWS consists of the original high-pressure network,  
16 consisting of the Twin Peaks Reservoir, Summit Reservoir, Ashbury Heights Tank, and Jones  
17 Street Tank, two pump stations to draw seawater from the San Francisco Bay, high-pressure  
18 hydrants and pipelines, fireboats, and cisterns constructed several years after the 1906  
19 earthquake estimated at magnitude 7.9, a system that covers the City’s built environment a  
20 century ago, prior to the development of the western and southern neighborhoods in the  
21 decades since; and

22 WHEREAS, In the event of a major earthquake that damages infrastructure leading to  
23 fires, multiple conflagrations would necessitate extending the coverage of the high-pressure  
24 EFWS to fight fires throughout the City; and

25 WHEREAS, Districts 1, 4, 7 and 11 have the least amount of EFWS coverage, as

1 measured by miles of EFWS mains, number of cisterns, and notably the number of high-  
2 pressure hydrants ranging from 3 to 79 in these districts, as opposed to assets of 110 up to  
3 366 hydrants located in each of the other 7 Supervisorial districts with a high concentration in  
4 the downtown and South of Market areas, per the Budget and Legislative Analyst’s December  
5 2020 report; and

6 WHEREAS, The 2018-19 Civil Grand Jury called upon the City to “Act Now Before It is  
7 Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Firefighting  
8 Water System” urging, among other recommendations to the Board of Supervisors, that the  
9 Public Utilities Commission (SFPUC) as the lead department work with Fire Department  
10 (SFFD) to provide a detailed analysis of firefighting needs, and feasibility study on salt-water  
11 pump stations to improve the redundancy of water sources, with reports completed by SFPUC  
12 in June 2021 and presented at the Board’s Government Audit & Oversight Committee in  
13 November 2021; and

14 WHEREAS, The 2018-19 Civil Grand Jury also recommended that the Mayor, SFPUC,  
15 SFFD, and the Office of Resilience and Capital Planning develop and present a detailed plan  
16 to ensure that all parts of the City would be protected in the event of a 1906-magnitude  
17 earthquake, including financing sources to develop a high-pressure, multi-sourced, and  
18 seismically safe EFWS network by June 30, 2034; and

19 WHEREAS, The SFPUC released the Emergency Firefighting Water System 2050  
20 Planning Study in December 2021, in response to the detailed plan requested in resolution  
21 422-19, with this study providing a comprehensive analysis of the firefighting demands into  
22 the future in anticipation of greater housing density in the City, as well as the water resources  
23 and engineering options for meeting those demands, presented to the Board’s Public Safety &  
24 Neighborhood Services Committee in April 2022; and

25 WHEREAS, Supervisors in Districts 1 and 4 have brought these critical issues to the

1 public's attention through hearings and resolutions in recent years, going beyond the  
2 recommendations in the 2018-19 Civil Grand Jury in Board Resolution 484-19 that requires a  
3 consolidated annual report by June 30th of each year to monitor the progress toward a full  
4 buildout of EFWS; and

5 WHEREAS, Earthquake Safety and Emergency Response (ESER) Bonds have  
6 provided funds for EFWS capital projects for expansion as well as upgrades to the current  
7 system in the last decade, allocating over \$300 million in total from these bonds in 2010,  
8 2014, and 2020; and

9 WHEREAS, The most recent ESER bond was approved by voters in March 2020 for  
10 \$153.5 million of the total \$628.5 million to EFWS, and along with a separate funding source  
11 of \$53.8 million in Water Enterprise revenue bonds these sources will cover the entire costs of  
12 Phase I construction of the modern EFWS high pressure network, providing state-of-the-art  
13 protection to parts of the outer Richmond and Sunset neighborhoods in Districts 1 and 4  
14 respectively; and

15 WHEREAS, The most recent Capital Plan for FY2022-31 notes that future work on  
16 expanding EFWS is expected to be funded through the ESER 2027 General Obligation Bond,  
17 and this would likely go toward Phase II work based on the EFWS design as an  
18 interconnected system of pipes and water sources, with Phase II costs estimated at \$180  
19 million; and

20 WHEREAS, This EFWS 2050 Planning Study provided cost estimates for citywide  
21 expansion of EFWS, with pipeline additions and upgrades, pump stations, and facility  
22 improvements totaling \$1.9 billion in 2021 figures, with costs escalating to \$2.9 billion if  
23 completed by 2034, and \$4 billion if EFWS citywide expansion were completed by 2046, with  
24 these cost estimates excluding the funded Phase I portion of EFWS from the 2020 ESER  
25 bond; and WHEREAS, Future phases of EFWS expansion require refining plans presented

1 in the 2050 Planning Study, and the gap in funding remains significant, up to several billion  
2 dollars; and WHEREAS, An infrastructure project of this magnitude would be challenging to  
3 fund from a single category of revenue sources, with General Obligation Bonds including  
4 ESER bonds being a predominant source of funding for the City's capital planning needs and  
5 process, requiring voter approval and scheduled out in successive Capital Plans with  
6 considerations for bonding capacity, and the Office of Resilience and Capital Planning has  
7 noted that the total General Obligation bonding capacity available for the next ten years is  
8 \$1.2 billion; and WHEREAS, The 2018-19 Civil Grand Jury recommendations for EFWS  
9 included adding 20 hose tenders to this small, aging fleet of specialized fire trucks, as an  
10 interim measure to cover the unprotected areas of the City, and Fire Department is limited in  
11 acquiring the full number as recommended due to budget and storage limitations, with each  
12 hose tender costing approximately \$1 million; and

13 WHEREAS, The urgency to address the fire dangers from a major earthquake could be  
14 intensified with projections for greater building density in residential areas of the City, as  
15 shaped by housing construction goals as part of current and forthcoming Regional Housing  
16 Needs Allocation (RHNA) allocations and demand in the private housing market; now,  
17 therefore, be it

18 RESOLVED, That the Board of Supervisors hereby declares a vital need to identify  
19 funding sources that can be used to expand the Emergency Firefighting Water System  
20 (EFWS) per aforementioned Board resolutions urging action by 2034, in concert with other  
21 strategies such as gas pipeline shutoffs at scale, in order to protect all neighborhoods in the  
22 event of a major earthquake and fire posing a serious and urgent threat to the City, and the  
23 safety of its inhabitants and environment; and, be it

24 FURTHER RESOLVED, That the Board of Supervisors requests the Office of  
25 Resilience and Capital Planning to create a financing plan submitted to the Capital Planning

1 Committee for building out the EFWS to ensure coverage of all areas of the City that are not  
2 adequately protected from multiple fires including those following a major earthquake; and, be  
3 it

4 FURTHER RESOLVED, That the Board of Supervisors urges the City Administrator  
5 through the Office of Resilience and Capital Planning to identify and evaluate federal and  
6 state sources for funding the Emergency Firefighting Water System expansion, including grant  
7 programs that require Benefit-Cost Analysis (BCA) for EFWS projects, and to recommend to  
8 the Board actions necessary to secure this government funding; and, be it

9 FURTHER RESOLVED, That the Board of Supervisors urges the Capital Planning  
10 Committee to consider designating the “Emergency Firefighting Water System” separately  
11 from the eight public safety departments that request project funds through the Earthquake  
12 Safety and Emergency Response (ESER) general obligation bonds in order to enhance  
13 achieving diversified funding support; and, be it

14 FURTHER RESOLVED, That the Board of Supervisors urges the Capital Planning  
15 Committee to consider using increased general obligation bond capacity; and, be it

16 FURTHER RESOLVED, That the Board of Supervisors requests that the Office of  
17 Resilience and Capital Planning assess as part of the EFWS financing plan the contribution of  
18 fees from Negotiated Development Agreements for Emergency Firefighting Water System  
19 infrastructure; and, be it

20 FURTHER RESOLVED, That the Board of Supervisors urges the SFFD to work with  
21 the Real Estate Department to identify surplus property owned by the City that can be used by  
22 the SFFD to store additional hose tender fire trucks.

23

24

25

# EFWS 2050 Financing Study Overview



September 14, 2022 | BOS Budget & Finance

# Emergency Firefighting Water System (EFWS)

**Emergency Firefighting Water System (EFWS) is a high-pressure fire-suppression water system** built after the 1906 earthquake

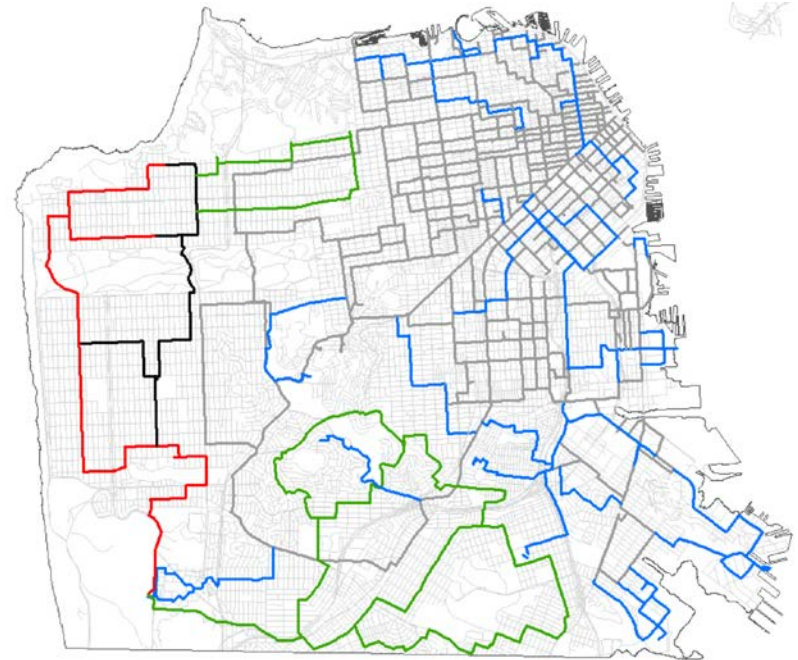
- Since 2010 - SFPUC, SFFD, and Public Works have been implementing projects to improve the EFWS.
- Projects completed utilizing Earthquake Safety and Emergency Response Bonds (ESER):
  - **2010 Bond: \$102 million** (Fixing and updating existing EFWS water sources and pipelines)
  - **2014 Bond: \$54 million** (Continue fixing/updating existing EFWS and minor pipeline expansion)
  - **2020 Bond: \$153.5 million** (Westside Phase 1 – major pipeline and water source expansion)





# EFWS Pipeline – Existing & Future

1. **Existing – Grey**
2. **Phase 1 of Westside – Red** (funded via the 2020 ESER Bond, implementation occurring)
3. **Phase 2 of Westside – Black** (unfunded)
4. **Future proposed pipelines – Green and Blue** (unfunded) from December 2021 Plan Submitted to Board of Supervisors



# Capital Planning Committee

## Funding Programs & Priorities

### G.O. Bond Debt Program

(in \$millions)

Election	Proposed Program	Amount
Jun 2022	Transportation	400
Nov 2023	Public Health	188
Nov 2024	Affordable Housing	160
Nov 2026	Waterfront Safety	130
Nov 2027	Earthquake Safety & Emergency Response	217
Nov 2028	Parks and Open Space	151
Nov 2031	Public Health	TBD
<b>TOTAL</b>		<b>1,245</b>

- The City has passed **1.7B in GO bonds since the last capital plan (FY20)**
  - This significantly **reduces the capacity in current GO Bond schedule**
- The current GO Bond program proposes about **1.25B over the next decade**, which is over 1.5B less than the previous Capital Plan

# Capital Planning Committee

## Funding Programs & Priorities

### Trade-offs: Critical Infrastructure Priorities



# Capital Planning Committee

## Sources to be Considered

### **Pressure on limited City sources is increasing:**

- Growing infrastructure needs (housing, climate change)
- Increasing inflation costs
- Continued COVID impact on General Fund
- Potential for slow down/decrease in property values

### **Potential funding strategy will include bonds, grants, developer, and revenue sources:**

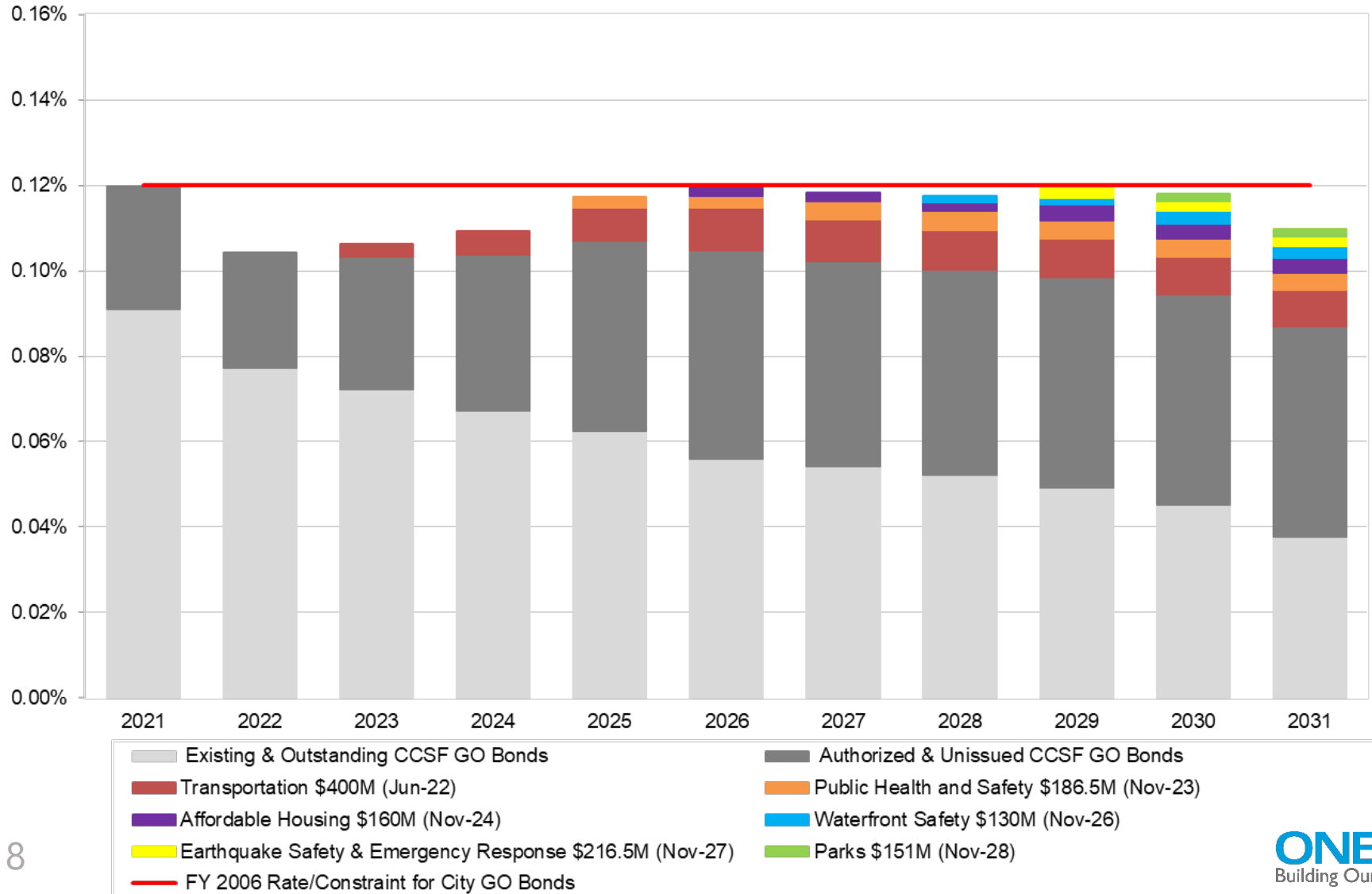
- General Obligation Bonds
- Federal & State Funding
- Community Facility Districts & Infrastructure Financing Districts
- Landscape & Utility Districts
- Development Agreements
- Developer Impact Fees

Thank you.

[onesanfrancisco.org](https://onesanfrancisco.org)

# DEBT PROGRAM

## General Obligation (G.O.) Bond Schedule



# Introduction Form

By a Member of the Board of Supervisors or Mayor

Time stamp  
or meeting date

I hereby submit the following item for introduction (select only one):

- 1. For reference to Committee. (An Ordinance, Resolution, Motion or Charter Amendment).
- 2. Request for next printed agenda Without Reference to Committee.
- 3. Request for hearing on a subject matter at Committee.
- 4. Request for letter beginning : "Supervisor  inquiries"
- 5. City Attorney Request.
- 6. Call File No.  from Committee.
- 7. Budget Analyst request (attached written motion).
- 8. Substitute Legislation File No.
- 9. Reactivate File No.
- 10. Topic submitted for Mayoral Appearance before the BOS on

Please check the appropriate boxes. The proposed legislation should be forwarded to the following:

- Small Business Commission
- Youth Commission
- Ethics Commission
- Planning Commission
- Building Inspection Commission

**Note: For the Imperative Agenda (a resolution not on the printed agenda), use the Imperative Form.**

Sponsor(s):

Subject:

The text is listed:

Signature of Sponsoring Supervisor:

For Clerk's Use Only