CITY AND COUNTY OF SAN FRANCISCO
BOARD OF SUPERVISORS
BUDGET AND LEGISLATIVE ANALYST
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Policy Analysis Report

To: Supervisor Mar
From: Budget and Legislative Analyst's Office
Re: Options for Funding the Expansion of the Emergency Firefighting Water System
Date: November 17, 2021

SUMMARY OF REQUESTED ACTION

Your office requested that the Budget and Legislative Analyst assess potential funding sources to expand the Emergency Firefighting Water System, including Westside Phase II, South/Southeastern neighborhoods, seawater pumps, and hose tenders. The assessment was to include the timing and availability of funds, the time of proposed projects completion, and interim proposals pending project completion.

For further information about this report, contact Severin Campbell at the Budget and Legislative Analyst's Office.

Executive Summary

- The City is expanding the Emergency Firefighting Water System (EFWS) to the western side of the City that has been underserved by the high-pressure system. The first phase of the EFWS project (Westside Phase I) is fully funded by 2020 Earthquake Safety and Emergency Response (ESER) General Obligation bonds and Water Enterprise revenue bonds. The Ten-Year Capital Plan for 2022-2031 provides for $217 million in new ESER bonds to be issued in 2027, which would be used to partially fund EFWS and other public safety projects. This could include partial funding for Westside Phase II, which is estimated to cost $180 million in 2021 dollars.
- The 2022-2031 Capital Plan provides for issuing seven series of general obligation bonds, including the proposed 2027 ESER bonds, over the next ten years for various public purposes but does not provide for a stand-alone EFWS bond. City policy constrains the issuance of general obligation bond debt so that property tax rates do not increase above the 2006 rate; based on current assumptions in the 2022-2031 Capital Plan about the City's assessed valuation growth and outstanding debt, some additional general obligation bonds could be issued in approximately 2031 within this constraint, which could provide increased funding for EFWS projects.
- SFPUC is developing conceptual plans for a full citywide EFWS buildout, which it estimates will cost approximately $1.63 billion in 2021 dollars, including estimated costs of $180 million for Westside Phase II. The conceptual citywide plan includes expansions of both the potable and non-potable EFWS systems, as well as one additional saltwater pump station on the bay, expansion of the existing saltwater

pump stations, and five reservoir pump stations. SFPUC has not identified funding sources for the full citywide buildout, and these EFWS projects (except for partial funding of EFWS projects in the 2027 ESER bond) are not included in the 2022-2031 Capital Plan. We have not identified federal or state sources for EFWS; EFWS costs will generally be a City cost with the most likely funding source to be general obligation bonds. The City will need a long-term financial plan evaluating the feasibility of issuing an estimated $1.63 billion (in 2021 dollars) in general obligation bonds over 25 years to construct the EFWS and the impact on the City's general obligation bond debt, which under the City Charter is limited to 3 percent of the assessed value of property in the City.

- The 2022-2031 Capital Plan provides for a $400 million general obligation bond for transportation projects to be placed on the June 2022 ballot; the deadline for approving placement of the proposed transportation bond on the ballot is March 4, 2022. The federal infrastructure bill approved by Congress includes $39 billion for transit modernization and increased accessibility for seniors and people with disabilities; whether these funds could be available for San Francisco transit projects is not known, but the City's Capital Planning Committee and Board of Supervisors should consider the option to reduce the size of the proposed $400 million Transportation bond, thus freeing up bonding capacity for a potential stand-alone bond for the EFWS. The Capital Planning Committee is expected to have hearings on the Transportation bond prior to the end of 2021.
- The Board of Supervisors would have the opportunity to approve a stand-alone general obligation bond for the EFWS as part of the next Capital Plan for 2024-2033 if there is sufficient bonding capacity projected at that time, which would require trade-offs with other City priorities. The 2024-2033 Capital Plan would provide updated information on the City's bonding capacity and the feasibility of issuing additional general obligation bond debt in the next ten-year period.
- The Fire Department's Portable Water Supply System, which includes hose tenders, augments the existing low pressure and high-pressure firefighting water system. The Fire Department is in the process of purchasing five new hose tenders, which provide portable fire suppression resources to areas of the City underserved by the existing EFWS. The Fire Department has not proposed a specific plan on the need for additional hose tenders but recommends that hose tenders be purchased in phases, as units are customized and storage space is limited. Because bond funds cannot be used for hose tender purchase, an alternative would be lease revenue financing, which would allow the City to amortize the purchase costs over several years.
- The City should continue to pursue other potential funding sources for the EFWS and the Portable Water Supply System, including hose tenders. These sources include lease revenue financing for hose tenders and potential future federal and state funds. The City also has the potential to expand EFWS resources through private development

agreements and establishing financing districts such as Infrastructure Financing Districts and Community Facilities Districts.

The Board of Supervisors should:

1. Request information from Capital Planning Committee and Office of Resilience and Capital Planning on how potential federal infrastructure funds for transportation projects could allow for a reduced Transportation bond issuance in 2022.
2. Request the Capital Planning Committee and Office of Resilience and Capital Planning to evaluate options for increasing bond capacity for the EFWS in the next 10-year Capital Plan in 2023.
3. Request the Planning Department to negotiate for EFWS funding as a community benefit in development agreements.
4. Request the Office of Public Finance and SFFD to evaluate use of lease financing for hose tenders.
5. Request the Office of Resilience and Capital Planning to evaluate a long-term financial plan on the feasibility of issuing an estimated $1.63 billion (in 2021 dollars) in general obligation bonds over 25 years to construct the EFWS, and the impact on the City's general obligation bond debt, which under the City Charter is limited to 3 percent of the assessed value of property in the City.
6. Request the Mayor's Budget Office to evaluate future federal and state fund availability.
7. Request the City Administrator through the Office of Resilience and Capital Planning to evaluate formation of Infrastructure Financing Districts or Community Facilities Districts as a potential source of EFWS financing.

Project Staff: Severin Campbell, Reuben Holober

Current Expansion of the Emergency Firefighting Water System

As shown in the Budget and Legislative Analyst's report "Status of Emergency Firefighting Water System Analysis," issued December 2, 2020, the City's Emergency Firefighting Water System (EFWS) does not provide sufficient coverage to the western and southern portions of the City. The Sunset, Richmond, Excelsior, and Visitacion Valley areas have limited EFWS coverage, and generally have Fire Response Area (FRA) reliability scores below 50 percent. This means that after a 7.8-magnitude earthquake, these FRAs would have less than half the water supply necessary to meet the median firefighting demands. In June 2021, the San Francisco Public Utilities Commission (SFPUC) issued a water requirements study to estimate the amount of water required to suppress fires following a major earthquake. SFPUC is also preparing an EFWS citywide comprehensive plan, which will include detailed analysis of neighborhood firefighting water demands. The report, which will be completed by December 31, 2021, will use the data from the water requirements study to better refine the areas with insufficient coverage, dividing the City into 50-acre zones rather than larger FRAs.

SFPUC has developed a conceptual plan to construct a potable EFWS system in the Sunset and Richmond Districts. The Westside Phase I project provides high-pressure firefighting water by connecting Lake Merced and the SFPUC's Hetch Hetchy Regional Water System to the Outer Sunset and Richmond neighborhoods, while Phase II would potentially connect a loop through the Inner Sunset and Richmond neighborhoods, also connecting to the Sunset Reservoir as a secondary water source. The estimated cost of the Westside Phase I project is approximately $198 million, and the estimated cost of the potential Westside Phase II project is approximately $180 million in 2021 dollars.

2020 Earthquake Safety and Emergency Response General Obligation Bonds

In March 2020, San Francisco voters approved Proposition B, a $628.5 million Earthquake Safety and Emergency Response (ESER) bond that includes approximately $153.5 million for EFWS projects. The ESER bond funding, as well as approximately $55 million in Water Enterprise revenue bonds, totaling $208.5 million, provide sufficient funding to complete the EFWS Westside Phase I project by 2025, pending California Environmental Quality Act (CEQA) review. In January 2021, the Board of Supervisors approved the issuance of $85 million in 2020 ESER bonds, of which approximately $80.7 million were issued (File 20-1295). SFPUC has received $20 million of the initial bond proceeds, which will be used for planning, design, and CEQA review for the Westside Phase I project and manifold projects at Fort Mason and Pier 33 ½. In June 2021, the Board of Supervisors approved the issuance of an additional $90 million in 2020 ESER bonds, of which $87.1 million were issued. SFPUC

has received $15 million in bond proceeds from this second bond issuance for the EFWS system (File 21-0422). [1]

Role of Hose Tenders

In addition to the EFWS, the City maintains a Portable Water Supply System (PWSS) to assist with firefighting operations in areas not covered by the EFWS. The San Francisco Fire Department (SFFD) currently has five hose tenders, and all are between 29 and 48 years old and beyond their useful lives. These tenders are only able to transport hose and equipment and do not have pumping capabilities.

The FY 2019-20 budget included $4 million for four new hose tenders, and SFFD also received $1 million in funding from the California Office of Emergency Services to purchase an additional hose tender, totaling $5 million for purchase of five hose tenders at a cost of $1 million each. The new hose tenders are equipped with approximately one mile of five-inch diameter hose, a portable pump, portable hydrants, and other firefighting equipment. Due to the City's budget deficit from the COVID-19 pandemic, $2 million was reduced by the Mayor's Budget Office as part of the mid-year balancing plan. That leaves $3 million in prior funding to purchase three new hose tenders, and the units have been ordered by the Office of Contract Administration and are currently under construction. The FY 2021-22 budget restored funding for two additional hose tenders, offsetting the balancing plan reduction, which will be ordered under the same procurement contract by the Office of Contract Administration. These new hose tenders are more efficient and maneuverable than older models. They contain pumps that can siphon water from the Bay, reservoirs, or other sources. The hoses can be connected to carry water several miles from the source.

SFFD estimates that the delivery time to receive the hose tenders after purchase is approximately one year, as the units are custom built and require parts from various suppliers. After delivery, the hose tenders will require additional work by SFPUC metalworkers to hand make equipment compatible with the EFWS system. EFWS hydrants use the Gleeson Valve, which is unique to San Francisco, to regulate outgoing pressure. SFFD is currently working with SFPUC to determine the cost of completing each hose tender before becoming usable. According to SFFD staff, the feasibility of acquiring new hose tenders in addition to the five planned hose tenders would require retiring existing apparatus to make room for the hose tenders because of limited storage space.

[1] Of the remaining 2020 ESER bonds, $118.5 million is allocated to EFWS projects, including issuance and oversight costs.

Proposed Future Emergency Firefighting Water System Expansion

10-Year Capital Plan and General Obligation Bonds

The 10-year Capital Plan for 2022-2031 was approved by the Board of Supervisors in April 2021 (File 21-0220). The Capital Plan provides for placing a $217 million ESER bond on the 2027 ballot. According to the Capital Plan, future ESER bond funds will focus on improving EFWS capabilities in the City's western neighborhoods. The EFWS projects in the Capital Plan include 14 miles of new high-pressure pipelines supplied with four water sources, funded by 2020 ESER bonds and Water Revenue Bonds (noted above to support Westside Phase I), and EFWS projects funded by a portion of 2027 ESER bonds. The actual EFWS project funding in the 2027 ESER bond is not yet defined, as the bond would also be used to fund other projects, but according to the Capital Plan, 2027 ESER bond funds could support Phase II.

Potential Stand-Alone EFWS Bond

The Board of Supervisors has requested SFPUC to complete a comprehensive citywide EFWS plan by December 31, 2021. As part of the comprehensive citywide plan, the City Administrator's Office, Mayor's Budget Office, Office of Resilience and Capital Planning, SFPUC, and SFFD are analyzing whether to propose a stand-alone ESER bond dedicated solely to funding subsequent phases of the EFWS project. The 2027 ESER Bond may impact the feasibility of a stand-alone ESER bond for EFWS, as it reduces capacity to issue additional general obligation bonds and stay within the property tax rate constraint set by City policy.[2]

The Capital Planning Committee uses five principals in determining funding for projects: (1) addresses a legal or regulatory mandate; (2) protects life safety and enhances resilience, including racial equity; (3) ensures asset preservation and sustainability; (4) serves programmatic or planned needs; and (5) promotes economic development. City policy is to not increase long-term property tax rates above 2006 levels, so new general obligation bonds can only be introduced as exiting bonds are retired and/or the city's total assessed valuation grows. The FY 2022-2031 Capital Plan shows that additional general obligation bond capacity may become available in approximately 2031.

The FY 2022-2031 Capital Plan provides for the issuance of seven series of general obligation bonds between June 2022 and November 2031 totaling $1.2 billion, as shown in Exhibit 1 below.

[2] City policy is to limit the impact of general obligation bond debt on property tax rates, so that the property tax rate does not exceed the 2006 rate.

Exhibit 1: Proposed General Obligation Bonds
June 2022 – November 2031

Proposed Date	Purpose	Amount ($millions)
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 & Open Space	151
Nov 2031	Public Health	TBD
	Total	**$1,245**

Source: FY 2022-2031 Capital Plan

The Board of Supervisors will have the opportunity to consider a stand-alone general obligation bond for the EFWS as part of the next Capital Plan for the period of 2024-2033. This will require trade-offs with other City priorities and the plan to issue general obligation bonds for transportation, public health, affordable housing, waterfront safety, and parks and open space. The 2024-2033 Capital Plan will provide updated information on the City's bonding capacity and the feasibility of issuing additional general obligation bond debt in the next ten-year period.

Potential Impact of Federal Infrastructure Funding

The federal infrastructure bill approved by Congress includes $39 billion for transit modernization and increased accessibility for seniors and people with disabilities. Whether these funds could be available for San Francisco transit projects is not known, but the City's Capital Planning Committee and Board of Supervisors should consider the impact on San Francisco projects and the planned $400 million general obligation bond for transportation projects to be placed on the June 2022 ballot. Such consideration could include the option to reduce the size of the proposed $400 million Transportation General Obligation bond, thus freeing up bonding capacity for a potential stand-alone bond for the EFWS. The deadline for placing the June 2022 transportation bond on the ballot is March 4, 2022. To meet this deadline, the Capital Planning Committee is expected to have hearings on the Transportation bond in October and November of this year.

Seawater Pump Station Feasibility

While the Capital Plan identifies high pressure water pipelines and water sources as projects in Westside Phase II to be funded by future ESER bond funds, the Plan does not address seawater pumps on the Westside. However, as recommended by the Civil Grand Jury, a study on the feasibility of seawater pump stations completed by SPA LLC and AECOM for SFPUC in June 2021 analyzed placement of seawater pump stations at various

locations on the San Francisco waterfront and determined that it would be more costly and less impactful for fire response to build pump stations on the ocean side than additional pump stations on the bay side. The estimated costs by size and location of pump stations are shown in Exhibit 2 below.

Exhibit 2: Estimated Seawater Pump Station Costs

Location	Pump Type	Pump Flow [a]	Initial Cost	Lifecycle Cost
Bay side	Open water intake	3,000 gpm	$25,000,000	$36,000,000
Ocean side	Slant well intake	3,000 gpm	$40,000,000	$55,000,000
Ocean side	Open water intake	3,000 gpm	$68,000,000	$78,000,000
Bay side	Open water intake	40,000 gpm	$93,000,000	$116,000,000
Ocean side	Slant well intake	40,000 gpm	$145,000,000	$286,000,000
Ocean side	Open water intake	40,000 gpm	$180,000,000	$200,000,000

Source: AECOM, Commissioned by SFPUC

[a] Pump flow is measured in gallons per minute (gpm).

The study estimated that initial costs for an ocean side pump station, which include design, permitting, and construction, would be approximately $40-68 million for a smaller 3,000 gpm pump station and approximately $145-180 million for a larger 40,000 gpm pump station. Lifecycle costs, which include initial costs, annual operation and maintenance, and periodic part replacement, would be approximately $55-78 million for a 3,000 gpm pump station and approximately $200-286 million for a 40,000 gpm pump station. Funding sources for a potential seawater pump station have not been identified. In addition to costs, the report also notes potential challenges in obtaining permits from various regulatory agencies. In particular, the California Coastal Commission (CCC) and State Water Resources Control Board (SWRCB) generally have the most stringent requirements.

Long Term Emergency Firefighting Water System Capacity and Costs

The comprehensive study prepared by SFPUC and to be issued in December 2021 will provide a conceptual plan and cost estimates for citywide emergency firefighting water system capacity. While the plan is still conceptual and not fully detailed, SFPUC estimates that the full buildout of the EFWS system would cost approximately $1.63 billion in 2021 dollars. This amount does not include $198 million already funded for Westside Phase I but does include $180 million for the estimated cost for Westside Phase II.

Long Term Emergency Firefighting Water System Capacity Planning

The June 2021 engineering report prepared by AECOM and SPA Risk LLC for SFPUC evaluated the required water capacity through 2050 in the event of a major earthquake. Based on this study, SFPUC estimates that the required water flow would need to increase from the current capacity of approximately 144,000 gpm to approximately 240,000 gpm.

The conceptual full EFWS buildout includes potable water system expansions in the Inner Richmond, Glen Park, Excelsior, and Visitacion Valley areas, as well as non-potable system expansions in the Bayview, Hunters Point, South of Market, and Downtown areas. To achieve a desired flow of 240,000 gpm to provide adequate water supply for strong earthquakes, the plan includes expanding the capacity of the existing seawater pump stations near Fisherman's Wharf and at SFFD Headquarters and installing a new seawater pump station in the Dogpatch on the bay side, as well as pump stations at the Summit, Sutro, Stanford Heights, College Hill, and University Mound reservoirs. Saltwater pump stations are not proposed on the ocean side because, according to SFPUC, the Westside water supply is adequate to meet all firefighting demands.

EFWS Financing Over 25 Years

The conceptual plan does not identify funding sources for the full EFWS build out with estimated costs of $1.63 billion in 2021 dollars. The amount of $1.63 billion includes $180 million estimated for Westside Phase II. The 2022-2031 Capital Plan provides for EFWS funding in the proposed 2027 ESER bonds, which would cover a portion of the $180 million estimated cost for Westside Phase II. Westside Phase II could potentially be fully funded if increased bonding capacity is made available through growth in the assessed value of property and retirement/reduction of other bond debt, availability of other transportation funding to reduce the amount of the proposed Transportation bond, or if other public safety projects identified in the Capital Plan do not receive ESER bond funding. SFPUC estimates that the full EFWS build out would take 15 to 25 years, based on the ability of the SFPUC's construction program to implement projects, but funding sources for the full build out beyond Westside Phase II are not known.

SFPUC estimates that a portion of the potable EFWS could be funded with Water Enterprise monies (approximately $130 million). However, unless future federal or state appropriations fund urban firefighting infrastructure, most EFWS costs will be a City cost with the most likely funding source to be general obligation bonds. The City will need a long-term financial plan evaluating the feasibility of issuing an estimated $1.63 billion in 2021 dollars in general obligation bonds over 25 years to construct the EFWS, and the impact on the City's general obligation bond debt, which under the City Charter is limited

to 3 percent of the assessed value of property in the City.[3,4] While we have not identified federal or state funds to build out the EFWS, the Board of Supervisors should request the Mayor's Budget Office and City Administrator to evaluate future federal and state fund availability.

Purchase of Hose Tenders

The San Francisco Fire Department has not proposed a specific plan on the number and timing for the purchase of new hose tenders in addition to the five hose tenders currently being purchased. SFFD has limited space to store additional hose tenders and will need to retire some of its existing apparatus to make space, as noted above. According to SFFD, purchase of new hose tenders would need to be phased, with the purchase of no more than three to five new hose tenders per year. Each hose tender needs to be custom built, and once delivered to San Francisco, would need to be adapted by SFPUC to be compatible with the EFWS system as noted above.

Lease Revenue Financing of New Hose Tenders

The City Attorney's Office has determined that ESER bonds may not be used to purchase hose tender equipment, so they must be purchased from the General Fund or grant funds. Given the cumulative General Fund deficit of more than $400 million through FY 2025-26, projected by the Controller, Mayor's Budget Office, and Budget and Legislative Analyst's Office in the March 2021 Budget Outlook Update, the City has limited capacity to fund new hose tenders in the General Fund budget.

Another funding option is lease revenue financing through the City and County of San Francisco Finance Corporation (the "Finance Corporation"). Under lease revenue financing, the Finance Corporation issues debt to purchase equipment, which then serves as the collateral asset. As of FY 2020-21, the Office of Public Finance (OPF) can authorize up to $86.4 million in lease revenue financing under the Finance Corporation. To capture financing efficiencies, OPF estimates that the annual minimum principal amount it would issue is $10 million. If hose tenders were purchased through lease revenue financing, they would likely be combined with other emergency response equipment, such as fire engines,

[3] According to an April 2021 memorandum from the Controller's Office, the City's current assessed value of property is approximately $301.4 billion, resulting in a debt limit of $9.04 billion. Total authorized general obligation bonds are approximately $5.4 billion or 1.8 percent of the assessed value. This amount does not include San Francisco Unified School District or Community College District general obligation bonds.

[4] The City's Capital Plan constrains property tax rates to the rate in effect in 2006. This policy could potentially require revision if the City were to issue additional general obligation bonds to finance the EFWS build out.

ambulances, or police cars, to sum to the $10 million minimum amount. The total estimated debt service paid over five years would be approximately $11.5 million, and estimated annual debt service, which is a General Fund cost, would be approximately $2.3 million.

An alternative to lease revenue financing is to purchase the units by issuing commercial paper, which is short term debt and can be issued without a minimum amount. While lease revenue financing through the San Francisco Finance Corporation to purchase equipment has been approved by the Board of Supervisors in prior years, commercial paper has not generally been used as a financing source for equipment purchases.[5]

SFFD Emergency Response Plan for Areas with Insufficient EFWS Coverage

The Fire Department's Water Supply and Distribution

The Fire Department maintains a manual that details the City's (a) water supply, (b) low-pressure system, and (c) high-pressure system.

Water Supply

SFPUC is responsible for water supply and water system maintenance. The water supply system consists of the terminal reservoirs (Sunset, University Mound, College Hill, and Merced Manor), the distribution system (reservoirs, tanks, and pumps), distribution pipelines, and associated components.

Low Pressure System

The low-pressure system consists of hydrants distributed throughout the City, which according to the manual, is the main water source for firefighting. According to the State Fire Code, the low-pressure hydrants must not be more than 500 feet apart. However, there are no hydrants located along the Upper Great Highway on the western boundary of the Richmond and Sunset Districts, but a limited water supply is available from Golden Gate Park infrastructure.

Some private developments or property under the jurisdiction of other public agencies have private hydrants in addition to the Fire Department hydrants. The U.S. Navy retains jurisdiction over the former Hunters Point Naval Shipyard, which has limited water supply; the U.S. Navy is responsible for the water infrastructure until the area is developed. San Francisco State University and Stonestown have some private hydrants in addition to Fire Department hydrants.

[5] In September 2021, the Board of Supervisors approved $2.4 million in commercial paper for the purchase of police vehicles (File 21-0872).

High Pressure System

The high pressure EFWS is maintained by SFPUC and used exclusively by the Fire Department. The high-pressure system is for use when the low-pressure system is insufficient and consists of three zones: west of Twin Peaks, lower zone, and upper zone. Each of the three zones has high pressure hydrants. The bayside has two saltwater pumping stations at the base of 2nd Street, supplying water to the lower zone, and at Fort Mason, supplying water to the lower and upper zones. The EFWS also has 230 cisterns located throughout the City.

The Fire Department's Interim Plans for Westside and Southern Neighborhoods

In the event of a major fire, SFFD has emergency response plans in place for the interim period before the EFWS system can be built out citywide. In the Richmond District, SFFD would utilize the network of cisterns, EFWS system from Park Presidio, and low-pressure potable water system. Additionally, Stow Lake and Spreckles Lake in Golden Gate Park contain approximately 23 million gallons of water combined that can be pumped and relayed with hose tenders. The lakes can be refilled from the park's irrigation system. In the Sunset District, SFFD would rely on the EFWS pipeline on 19th Avenue and use hose tenders to connect to other parts of the neighborhood. SFFD would also use the Lake Merced Pump Station, which can discharge approximately 54 million gallons of water per day. In the southern portion of the City, such as the Excelsior and Visitacion Valley, SFFD would use hose tenders to create a loop system around the affected area. SFFD would connect from the University Mound Reservoir, which contains approximately 141 million gallons of water. SFFD reports that in the event of a severe disaster, the California Department of Forestry and Fire Protection (Cal Fire) would likely use planes to drop water for fire suppression.

Other Financing Options

The Westside Phase I project includes approximately $55 million in funding from SFPUC Water Enterprise revenue bonds. According to SFPUC, Water Enterprise revenue bonds may be used for the Westside Phase I project, which provide potable water benefits, and could potentially be used for other potable EFWS project but could not be used for conventional EFWS projects.

Development Fees

Development projects can also contribute to the buildout of the EFWS system. Several developments, including Mission Rock, Mission Bay, Pier 70, Potrero Powerplant, Potrero Hope SF, Sunnydale Hope SF, 3333 California, Park Merced, Candlestick, Hunters Point Shipyard, Balboa Reservoir, Visitacion Valley, and India Basin, will include EFWS infrastructure within their projects. In addition to the EFWS infrastructure construction, the Mission Rock, Pier 70, and 3333 California developments have agreed to pay fees to increase the EFWS system's total capacity. The Mission Rock and Pier 70 developments will

each pay up to $1,500,000, subject to 4.5 percent escalation, and the 3333 California development will pay $1,055,000. These fees were negotiated as part of the Development Agreements, rather than established City fees.

Infrastructure Financing and Community Facilities Districts

The City has used two State-authorized tools – Infrastructure Financing Districts and Community Facilities Districts – to fund infrastructure development associated with new housing and commercial development in the City.

Infrastructure Financing Districts

California Government Code provides for Infrastructure and Revitalization Financing Districts and Enhanced Infrastructure Financing Districts, allowing a city, county, or city and county to form a legally constituted government entity for the sole purpose of financing public facilities. Infrastructure and Revitalization Financing Districts (IFRDs) were established by the State Legislature in 2014 to provide for financing housing development and other development projects of communitywide significance in current and former redevelopment project areas, such as Hunters Point Shipyard and Bayview Hunters Point. IFRDs fund affordable housing, highways and transit facilities, industrial structures, sewage treatment, and other infrastructure.[6] IFRDs are governed by the same governing body as the city or county creating the district.

Enhanced Infrastructure Financing Districts (EIFD), approved by the State Legislature in 2014 and amended in 2015, expand the definition of what can be funded. An EIFD can finance traditional public works, such as transportation, transit, water and sewer facilities, solid waste disposal, and flood control and drainage, as well as projects supporting energy efficiency, environmental mitigation and sustainability, affordable housing, and other goals. EIFDs are separate government entities formed through a joint powers authority made up of cities, counties, and special districts.

Financing for IFRDs and EIFDs comes from incremental property tax revenues generated by development. IFRDs require two-thirds voter approval for formation and issuance of bonds. EIFDs do not require voter approval for formation, but issuance of bonds requires 55 percent voter approval.[7]

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[6] Although IFRDs do not have an affordable housing set-aside requirement, any district that does develop housing must have at least 20 percent low- and moderate-income housing.

[7] Voter approval is based on voters in the district to be formed. Debt service on the bonds is paid from incremental property tax revenue.

Community Facilities Districts

Community Facilities Districts (CFD) were created by the Mello-Roos Act in 1982 to pay for public services and infrastructure. Formation of a Community Facilities District may be initiated by a government entity or property owner. Local goals and policies must be adopted by the entity proposing the district, including how special taxes will be levied on properties within the district. Formation of the district requires a public hearing, adoption of a resolution of intent to form the district, adoption of a resolution forming the district, and an election, in which two-thirds of voters in the district approve the formation. The CFD can issue debt secured by special taxes on district property, and CFD funds can be used for services, such as fire protection, and for infrastructure.

Policy Consideration

The City's main option to finance the expansion of the Emergency Firefighting Water System are general obligation bonds. The 2022-2031 Capital Plan provides for a $217 million Earthquake Safety and Emergency Response (ESER) bond in 2027, which includes funding for EFWS and other public safety projects. Although the 2027 ESER bonds could preclude issuance of a stand-alone EFWS bond, the Board of Supervisors should request the Capital Planning Committee and Office of Resilience and Capital Planning to evaluate (a) how potential federal infrastructure funds available for transportation projects could allow for a reduced Transportation bond issuance in 2022, increasing bond capacity for the EFWS, and (b) potential additional bond capacity in the 2024-2033 Capital Plan due to increased assessed value of property and refunding/retirement of outstanding debt.

The estimate of full build out of the EFWS over 25 years is approximately $1.63 billion in 2021 dollars. The City will need a long-term financial plan evaluating the feasibility of issuing an estimated $1.63 billion in 2021 dollars in general obligation bonds over 25 years to construct the EFWS, and the impact on the City's general obligation bond debt, which under the City Charter is limited to 3 percent of the assessed value of property in the City.

The City should continue to pursue other potential funding sources for the EFWS and hose tenders. The City could use lease financing to purchase new hose tenders, which would require SFFD to plan for the implementation and storage of new hose tenders and Office of Public Finance to plan for efficient issuance of lease revenue debt. The City also has the potential to expand EFWS funding resources through private development, either through construction of EFWS infrastructure as part of the development or assessment of fees as part of negotiated development agreements to pay EFWS infrastructure costs. The City could also consider financing EFWS infrastructure through formation of Infrastructure Financing Districts and Community Facilities Districts, in which debt can be issued and secured by property tax increment generated by development or by special taxes assessed on properties in the district.

The Board of Supervisors should:

1. Request information from Capital Planning Committee and Office of Resilience and Capital Planning on how potential federal infrastructure funds for transportation projects could allow for a reduced Transportation bond issuance in 2022.
2. Request the Capital Planning Committee and Office of Resilience and Capital Planning to evaluate options for increasing bond capacity for the EFWS in the next 10-year Capital Plan in 2023.
3. Request the Planning Department to negotiate for EFWS funding as a community benefit in development agreements.
4. Request the Office of Public Finance and SFFD to evaluate use of lease financing for hose tenders.
5. Request the Office of Resilience and Capital Planning to evaluate a long-term financial plan on the feasibility of issuing an estimated $1.63 billion (in 2021 dollars) in general obligation bonds over 25 years to construct the EFWS, and the impact on the City's general obligation bond debt, which under the City Charter is limited to 3 percent of the assessed value of property in the City.
6. Request the Mayor's Budget Office to evaluate future federal and state fund availability.
7. Request the City Administrator through the Office of Resilience and Capital Planning to evaluate formation of Infrastructure Financing Districts or Community Facilities Districts as a potential source of EFWS financing.