Resolution declaring a State of Urgency to rapidly expand the City’s Emergency
Firefighting Water System (EFWS) to protect all neighborhoods in the event of a
major earthquake and fire, and calling for a comprehensive EFWS action plan to
expand the City’s EFWS to cover all unprotected neighborhoods by 2034; to expand
the Fire Department’s firefighting apparatus such as portable hose tenders to provide
interim protection to neighborhoods not currently covered by the EFWS; and to
require an annual report to the Board of Supervisors on the state of the City’s EFWS
preparedness for a major earthquake and fire.

WHEREAS, The United States Geological Survey (USGS) estimates that the
probability an earthquake magnitude 6.0 or larger will occur in the San Francisco region
before 2043 is 98 percent, the probability of at least one earthquake of magnitude 6.7 or
larger is 72 percent, and the probability of at least one earthquake of magnitude 7.0 or larger
is 51 percent; and

WHEREAS, In San Francisco, the most densely populated city in California, over 90
percent of buildings are constructed from wood, many of them directly touching their neighbor
buildings, and earthquakes in places with this type of construction have caused the two
largest peacetime urban fires in history: in 1906 in San Francisco and in 1923 in Tokyo, and
San Francisco remains highly vulnerable to fire after an earthquake, as explained in a 2008
article for the International Association for Fire Safety Science; and

WHEREAS, The San Francisco Fire Department (SFFD), the San Francisco Public
Utilities Commission (SFPUC), and this Board of Supervisors share a common goal of
increasing the firefighting capabilities of all areas of San Francisco; and
WHEREAS, The EFWS is a high-pressure and volume fire suppression water system that can be utilized during large fires and is vital for protection against the loss of life, homes, and businesses from fire following a major earthquake and non-earthquake multiple-alarm fires; and

WHEREAS, The EFWS does not cover large parts of nor adequately protect Supervisorial Districts 1, 4, 7, and 11, roughly one-third of the City's developed area, which also have the fewest cisterns, and each fewer than ten miles of EFWS mains and fewer than 50 EFWS fire hydrants; and

WHEREAS, In June 2003, the 2002-2003 Civil Grand Jury recommended that the EFWS be extended "to serve all parts of the City," and 16 years later many neighborhoods still do not have new EFWS pipelines; and

WHEREAS, The SFPUC is developing a preliminary list of potential projects for various parts of the City where there is currently limited access to the EFWS, as well as other projects to reinforce or otherwise improve the existing EFWS; and

WHEREAS, The City does not have an agreed-upon timeline to fund and complete development of EFWS for all areas of the City, including neighborhoods that historically have not been as well protected as other areas of the City; and

WHEREAS, Unless the City increases funding levels, it will be several decades (i.e., after the USGS predicts one or more major earthquakes will occur) before some parts of the City have a high-pressure and volume, multi-sourced, seismically safe emergency firefighting water supply; and

WHEREAS, While the amount of money needed to implement EFWS citywide is estimated to be in the hundreds of millions of dollars, the potential loss of life and potential property damage could be far greater if an extremely large earthquake strikes San Francisco; and
WHEREAS, Based on the City’s current pace of issuing ESER Bonds, it could take approximately 35 years or more to build out EFWS pipelines to serve all neighborhoods, unless the timing of the ESER Bond issuances are expedited or other sources of funding are identified; and

WHEREAS, SFPUC and SFFD are in the process of analyzing the best method for bringing a robust and resilient high-pressure and volume firefighting water system to the Western neighborhoods in San Francisco that is capable of providing water to the SFFD firefighters at the high-pressure needed for firefighters to combat large fires after a seismic event, and are examining several options for the Westside, including potential development of a potable EFWS with over 14 miles of new EFWS pipelines and two new pump stations that could be supplied by four water sources; and

WHEREAS, To best utilize the existing EFWS and serve areas where the EFWS is lacking, it is critical that the SFFD obtain new updated Hose Tenders; and

WHEREAS, SFFD hose tenders are specialized apparatus designed for pumping and transporting large volumes of water from any source, are recognized worldwide for their ability to successfully move large amounts of water to a fire at high-pressures and volumes for firefighting, and are the ideal solution for areas with limited access to the EFWS because these vehicles can be dynamically deployed to any area of the City; and

WHEREAS, The SFFD currently has five Hose Tenders, three from 1973, one from 1987, and one from 1992, all of which are two-wheel drive, and do not have the capacity to draft or pump water; and

WHEREAS, In FY2019-2020 SFFD submitted a request for funding to purchase 20 Portable Water Supply System (PWSS) hose tenders, the Board of Supervisors and Mayor funded four new PWSS hose tenders, and the State of California funded one; and

Supervisor Mar; Fewer, Yee, Safai, Walton

BOARD OF SUPERVISORS
WHEREAS, On October 8, 2019, Supervisor Gordon Mar requested the Budget and Legislative Analyst to study through an equity lens and issue a report to the Board no later than December 31, 2020 (a) which areas of the City do not have sufficient water supplies for the anticipated demand for water to fight fires following a major earthquake similar in magnitude to the 1906 earthquake, and (b) options to address the issue in both the short term and the long term; and

WHEREAS, On October 1st, 2019, the San Francisco Board of Supervisors adopted a Resolution responding to the Presiding Judge of the Superior Court on the findings and recommendations contained in the 2018-2019 Civil Grand Jury Report, entitled “Act Now Before It Is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Firefighting Water System,” on file with the Clerk of the Board of Supervisors in File No. 190786, which is hereby declared to be a part of this Resolution as if set forth fully herein; now, therefore, be it

RESOLVED, That the Board of Supervisors hereby declares a State of Urgency to rapidly expand the City’s EFWS to protect all neighborhoods in the event of a major earthquake and fire, given that the vulnerability of the City poses a serious and urgent threat to the well-being of San Francisco and the safety of its inhabitants and environment; and be it

FURTHER RESOLVED, That the Board of Supervisors urges the SFPUC, SFFD and the Office of Resilience and Capital Planning to develop a comprehensive EFWS action plan, including funding sources, to install a high-pressure and volume, multi-sourced, seismically safe emergency water system to fight fires in the event of a major earthquake in all the parts of the City where it is lacking by June 30, 2034, to be submitted to the Board of Supervisors by December 31, 2021; and, be it
FURTHER RESOLVED, That the Board of Supervisors urges the SFPUC and SFFD to complete a study for adding an EFWS saltwater pump station on the Westside of San Francisco to be presented to the Board no later than June 30, 2021; and, be it

FURTHER RESOLVED, That the Board of Supervisors urges the SFPUC to continue its efforts to complete more detailed analysis of emergency firefighting water needs by neighborhood and prepare a completed analysis by June 30, 2021; and, be it

FURTHER RESOLVED, That by June 30, 2022, the City should analyze whether to propose a separate bond for the development and implementation of EFWS projects for areas of the City with limited EFWS access as part of the City’s regular capital planning process; and, be it

FURTHER RESOLVED, That the Board of Supervisors urges the Mayor to prioritize funding for the purchase of new PWSS hose tenders, apparatus, and equipment to replace and expand SFFD’s currently inadequate inventory within the next three Fiscal Years; and, be it

FURTHER RESOLVED, That the Board of Supervisors urges the Department of Emergency Management, SFPUC, SFFD, and the Office of Resilience and Capital Planning to provide a consolidated annual report to the Board of Supervisors on the state of the City’s EFWS preparedness for a major earthquake and fire and planned funding from the ten-year Capital Plan for EFWS by June 30 of each year, with the first report due June 30, 2020.
Resolution declaring a state of urgency to rapidly expand the City's Emergency Firefighting Water System (EFWS) to protect all neighborhoods in the event of a major earthquake and fire, and calling for a comprehensive EFWS action plan to expand the City's EFWS to cover all unprotected neighborhoods by 2034; to expand the Fire Department's firefighting apparatus such as portable hose tenders to provide interim protection to neighborhoods not currently covered by the EFWS; and to require an annual report to the Board of Supervisors on the state of the City's EFWS preparedness for a major earthquake and fire.

November 08, 2019 Public Safety and Neighborhood Services Committee - RECOMMENDED

November 19, 2019 Board of Supervisors - AMENDED, AN AMENDMENT OF THE WHOLE BEARING SAME TITLE
Ayes: 11 - Brown, Fewer, Haney, Mandelman, Mar, Peskin, Ronen, Safai, Stefani, Walton and Yee

November 19, 2019 Board of Supervisors - ADOPTED AS AMENDED
Ayes: 11 - Brown, Fewer, Haney, Mandelman, Mar, Peskin, Ronen, Safai, Stefani, Walton and Yee

I hereby certify that the foregoing Resolution was ADOPTED AS AMENDED on 11/19/2019 by the Board of Supervisors of the City and County of San Francisco.

Angela Castillo
Clerk of the Board

London N. Breed
Mayor

11/27/19
Date Approved
I hereby certify that the foregoing resolution, not being signed by the Mayor within the time limit as set forth in Section 3.103 of the Charter, or time waived pursuant to Board Rule 2.14.2, became effective without her approval in accordance with the provision of said Section 3.103 of the Charter or Board Rule 2.14.2.

[Signature]
Angela Calvillo
Clerk of the Board

1/27/19
Date

File No.
191029