

LONDON N. BREED MAYOR

September 16, 2019

The Honorable Garrett L. Wong Presiding Judge, Superior Court of California, County of San Francisco 400 McAllister Street, Room 008 San Francisco, CA 94102-4512

Dear Judge Wong,

In accordance with Penal Code 933 and 933.05, the following is in response to the 2018-2019 Civil Grand Jury Report, Act Now Before It Is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Firefighting Water System. We would like to thank the members of the 2018-2019 Civil Grand Jury for their interest in disaster preparedness and in improving the resiliency of our critical public safety infrastructure to provide robust emergency firefighting to all communities in San Francisco.

San Francisco continues to improve our City's resiliency each day through our ongoing investments in public infrastructure and equipment. Our Capital Planning Program coordinates much of these investments by conducting strategic long-term planning across major programs and projects, including the Emergency Firefighting Water System and Earthquake Safety and Emergency Response (ESER). The ESER bonds approved by voters in 2010 and 2014 have funded improvements to cisterns, pipelines, and critical public facilities that improve the City's ability to respond in emergencies and to fight fires. In addition, through the City's annual budgeting process, we will continue weighing resources to improve public safety and the operational readiness and emergency response capabilities of our departments. For example, our most recently adopted FY 2019-20 budget includes funding for five new hose tenders to replace and enhance the Fire Department's aging equipment.

In March 2020, the voters of San Francisco will once again vote on a new \$628.5 million ESER bond measure. Included in the proposal is an investment of an additional \$153.5 million for the Emergency Firefighting Water System.

We appreciate the opportunity to comment on the Civil Grand Jury report findings and recommendations. Moving forward, and as appropriate, the City plans to analyze many of the recommendations as part of our next 10-Year Capital Plan.

A detailed response from the Mayor's Office, City Administrator's Office, Fire Department, Public Utilities Commission, and the Department of the Environment is attached.

Each signatory prepared its own responses and is able to respond to questions related to its respective part of the report.

Indu Brown

London N. Breed Mayor

Harla & Kellyh.

Harlan L. Kelly Jr. General Manager, Public Utilities Commission

Jeanine Nicholson Chief, Fire Department

Naomi Kelly City Administrator

Deborah Raphael Director, Department of the Environment

Report Title [Publication Date]	F#	Finding (text may be duplicated due to spanning and multiple respondent effects)	Respondent Assigned by CGJ [Response Due Date]	Finding Response (Agree/Disagree)	Finding Response Text	R# [for F#]	Recommendation (text may be duplicated due to spanning and multiple respondent effects)	Respondent Assigned by CGJ [Response Due Date]	Recommendation Response (Implementation)	Recommendation Response Text
Act Now Before It Is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Fireflighting Water System [July 17, 2019]	F4	The City's high-pressure emergency water supply system, rown as the Auxillary Water Supply system (NWSS), does not over large barst of Supprivation Iboritists 1, 4, 7 and 11, roughly one-third of the City's developed area. As a result, these districts are not adequately protected from fires after a major earthquake.	Mayor (September 15, 2019)	Agree with the finding	The SFPLC, SFPD, and San Francisco Public Works (SFPV) are committed to nicreasing fire protection throughout San Francisco. Since the protection throughout San Francisco. Since the passage of the first Earthquake Safeky and Emergency Response Bond in 2010, the three spanices have been implementing projects to improve the AWSS system's seemin crelability and range of coverage, chanancing the AWSS range of coverage to all areas of the City would require the allocation of funds to do so. The three agencies will continue to develop and the committee of the city would be considered to the committee of the city would be considered to the city would be committeed to the city would be committeed to the city with the city of the	R1 [for F1-F6]	By no later than December 31, 2020, the Mayor, the SPDLY, the SPTL, and the Office of Resilience and Capital Planning should jointly present to the Board of Supervisors a detailed plan to ensure the City is well prepared to flight fires in all grants of an Francisco in the event of a 1506-magnitude (7.8) earthquake.	Mayor [September 15, 2019]	Will be implemented	Ensuring that San Francisco has the infrastructure and resources to be well prepared to fight fires in all parts of San Francisco is something that will be a focus of the next 10 Year Capital Plan. Per Administrative Code 3.20, that Plan must be submitted to the Mayor and Board no later than March 10 each odd-numbered year for approval no later than March 10 each odd-numbered year for approval no later than March 10 each odd-numbered year for approval no later than March 10 each odd-numbered year for approval no later than March 10 each odd-number of the March 10 each 1
Act Now Before It Is Too Late: Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Freelighting Water System (July 17, 2019)	F4	The City's high-pressure emergency water supply system, novan as the Auxillary Water Supply system (NWSS), does not over large parts of Supprivation (Districts 1, 4, 7 and 11, roughly one-third of the City's developed area. As a result, three districts are not allegative protected from these after a major earthquake.	Mayor (September 15, 2019)	Agree with the finding	The SPEUC, SPED, and San Francisco Public Works (SPPV) are committed to increasing fire protection throughout San Francisco. Since the protection throughout San Francisco. Since the protection throughout San Francisco. Since the protection of the Section	R2 [for F1-F6]	The plan discussed in Recommendation R1 should include a detailed proposal, including financing sources, for the installation within 15 years of a high-pressure, multi-sourced, estimically safe energency water system for those parts of the City that don't currently have one, i.e., by no later than June 30, 2034.	Mayor [September 15, 2019]	Requires further analysis	The commitment of sources for specific uses on specific timelies for San Francisco's public infrastructure is the work of the 10-Year Capital infrastructure is the work of the 10-Year Capital Plan. The plan discussed in Recommendation 1 will be acknowledged in the Capital Plan, and based on analysis, will be done on the capital plan timeline. The capital planning process for the capital plan timeline. The capital planning process to the capital plan than construction of public infrastructure portfolio and across San planding for medical plan has longstanding funding principles to guide the prioritizen of public infrastructure investments. These investments are tiered: (1a) address legal and/or regulatory mandates; (2) ensure public safety and enhance resillence; (3) advance planned and programmatic needs, and 5) promote economic development in the next LD-trac Capital Plan and those that follow, the committen of the proposed promotes and programs and identify cornect to advance those priorities. Committing to entirely funding a single program could context and without regard for the trade-offs of that commitment would be out of step with the City's longstanding and highly regarded capital planning process and likely crase is egificiant vulnerabilities elsewhere in the portfolio.
Act Now Before It Is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Firefighting Water System [July 17, 2019]	FS	A high-pressure, multi-sourced, seismically see mergency freelings water supply to be costly but is essential to protect the City.	Mayor (September 15, 2019)	Agree with the finding	As the CRY considers what is essential to protect San Francisco, it is important to acknowledge our multiple, compiler resilience shellenges. These challenges are documented in the Reallienges are documented in the Mellienges are documented in the Mellienges. The CRY continues are represented in the 10-Year Capital Plan (last updated 2019). Here challenges are used to the strategy (CRIO), and underlient say represented in the 10-Year Capital Plan (last updated 2019). Here challenges are Earthquakes, Sea Level Resignation, and Social Anging Infrastructure, Unifordicability, and Social Anging Infrastructure, Unifordicability, and Social Anging Infrastructure, Unifordicability, and Social Melling Uniford Social Plan (Social Plan (1997), and Social Mellin (1997), an	R1 [for F1-F6]	Sy no laster than December 31, 2020, the Mayor, the SPEUP, the SPFI, and the Office of Resilience and Capital Planning should jointly present to the Beard of Supervisors a deligible plan to ensure the CIV is well prepared to flight fires in all grants of San Francisco in the event of a 1506-magnitude (7.8) earthquake.	Mayor [september 15, 2019]	Wil be	Ensuring that San Francisco has the infrastructure and resources to be well prepared to fight fires in all parts of San Francisco is something that will be a Gous of the next 10 Year Capital Plan. Per Administrative Code 3.00, that Plan must be submitted to the Mayor and Board no later than March 10 each odd-numbered year for approval no later than March 20 each odd-numbered year for approval no later than March 20 each odd-numbered year for approval no later than March 20 each odd-numbered year for approval no later than March 20 each odd-number of work of the Code of the Co
Act Now Before It Is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Fireflighting Water System [July 17, 2019]	FS	A high-pressure, multi-sourced, seimically safe emergency freeling water supply to be costly but is essential to protect the City.	Mayor (September 15, 2015)	Agree with the finding	As the CRY considers what is essential to protect San Francisco, it is important to acknowledge our multiple, compiler resilience valuelineges. These challenges are documented in the Realliences are documented in the Realliences are accounted to the transpire (CRISI) and underflent set strategic (CRISI) and underflent set strategic (CRISI) of our capital investments are represented in the 10-Year Capital Plan (last updated 2019). Here challenges are particularly and the challenges are challenges are challenges are considered and so that the challenges are also the challenges are considered and the challenges are also the challenges are also the challenges and the challenges are also the challenges, and the challenges are also the challenges and all the challenges are considered and all the challenges and all the challenges are considered and all the challenges and the challenges are considered and all the challenges are challenges and all the challenges are	R2 [for F1-F6]	The glan discussed in Recommendation £1 and a should include a detailed proposal, including financing sources, for the installation within 5 years of a high-pressure, multi-sourced, seismically safe energency water system for those parts of the City that don't currently have one, i.e., by no later than June 30, 2034.	Mayor (september 15, 2019)	Requires further analysis	the commitment of sources for specific uses on specific timelines for San Francisco's public infrastructure is the work of the 10-Year Capital Plan. The plan discussed in Recommendation 1 will be acknowledged in the Capital Plan, and based on analysis, will be done on the capital plan timeline. The capital planning process gathesis, documents, and balances planned funding for needs across the public landing for needs across the public plan than the public plan of the public plan has longstanding funding principles to guide the prioritization of public infrastructure investments. These investments are tiered: (1a) address legal and/or regulatory madrates; (2) ensure public safety and enhance resilience; (3) address legal and promote sustainability; (4) advance planned and programmatic needs, and projects and programs and identify sources to advance those priorities. Committing to entirely projects and programs and identify sources to advance those priorities. Committing to entirely projects and programs and identify sources to advance those priorities. Committing to entirely funding a single program out of context and without regard for the trade-offs of that commitment would be out of step with the City's longstanding and highly regarded capital planning process and likely create significant valinerabilities desewhere in the portfolio.

Act Now Before It Is Too Late: Aggressively Expand and Enhance Our High-Pressure High-Pressure Fixed Part of the	FS	A high-pressure, multi-sourced, seismically safe emergency fireflighting water supply will be costly but is essential to protect the City.	Mayor [September 15, 2019]	Agree with the finding	As the City considers what is essential to protect San Francisco, it is important to acknowledge our mittple, complex resilience challenges. These challenges are documented challenges. These challenges are documented to the Realized States() 2003 and underline as represented in the 10-rear Capital Plan (but updated 2019). Here challenges are: Earthquakes, Sea Level Rise/Climate Change, danging infrastructure, unfarfordability, and Social inequity. All of these challenges represent continues of the control of th	R8 [for F5, F6, F11]	By no later than June 30, 2022, the Mayor and the Board of Supervisors should analyze whether to propose a separate bond for the development of a high-pressure, multi-source for the development of a high-pressure, multi-source for the City with the proposed of the City	Mayor [September 15, 2019]	Will be implemented	The analysis will be performed as part of the Ciry's 10-Year Capital Plan development process. The next full update to the Capital Plan will be submitted to the Mayor and Board not later than March, 2021, for approval no later than March, 2021, f
Act Now Before it is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Firefighting Water System [July 17, 2019]	F6	Unless the City Increases funding levels, it will be several decades its., after the 1955 set, and the several decades its., after the 1955 set one or more major earthquakes will occur) before the southern parts of the City have a high pressure, multi-sourced, seismically safe emergency fireflighting water supply.	Mayor (September 15, 2019)	Disagree, wholly	Decisions, about programming and funding levels of future SES bonds and other complementary sources that could support the separation of the AWSS have yet to be made.	R1 [for F1-F6]	Synol Jater than December 31, 2000, the Major, the STPUC, the STPL and the Office of Rediffere, and the Office of Rediffere, and Capital Planning should jointly present to the Board of Supervisors 4 design and the State of Supervisors 4 design and 5 desig	Mayor [September 15, 2019]	Will be implemented	Ensuring that San Francisco has the infrastructure and resources to be well prepared to flight fires in all parts of San francisco is something that will be a focus of the next 10 Year Capital Plan. Per Administrative Code 3.20, that Plan must be submitted to the Mayor and Board no later than March 10 dech od-dnumbered year for approval no later than March 10 dech od-mumbered year for approval no later than March 10 described the delivered as part of that Plan's submission to enable holistic planning across San Francisco's resilience challenges. Updates available on this timeline would be included. The City and synthesis project and timeline until the ESER 2020 plan passes. For this reason, the City will synt the project and timeline until the ESER 2020 plan passes. For this reason, the City will synt hosy the recommendation with the Capital Plan, and push back the timeline to December 31, 2021.
Act Now Before It is Too Late: Aggressively Expand and Enhance Out High-Pressure Emergency Fireflighting Water System [July 17, 2019]	F6	Unless the City increases funding levels, it will be several decades it, after the USSS predicts one or more major earthquakes will occup before the southern parts of the City have a high-pressure, multi-ourred, seismically safe emergency fireflighting water supply.	Mäyor [September 15, 2019]	Disagree, wholly	Decisions about programming and funding levels of future ESE bonds and other complementary sources that could support the expansion of the AWSS have yet to be made.	R2 [for F1-F6]	The glan discussed in Recommendation R1 about linclude a detailed proposal, including financing sources, for the installation within 15 years of a high-pressure, multi-sourced, estimically safe energency water system for those parts of the City that don't currently have one, i.e., by no later than June 30, 2034.	Mayor (September 15, 2019)	Requires further analysis	The commitment of sources for specific uses on specific timelines for San Francisco's public infrastructure is the work of the 10-Year Capital Plan. The plan discussed in Recommendation 1 will be acknowledged in the Capital Plan, and based on analysis, will be done on the capital plant timeline. The capital planning process gathers, documents, and balances planned funding for needs across the public infrastructure portion and across San Francisco's resilience challenges. The Capital Plan has longstanding funding principes to re- investments. These investments are tiered: (1) advance public safety and enhance resilience; (3) ensure public safety and enhance resilience; (3) ensure public safety and enhance resilience; (3) preserve assets and promotes sustainability; (4) advance planned and prongrammatic needs; and (3) promote economic development. In the next 10-Year Capital Plan and those that follow, the City will continue to analyze princit to advance those protries. Committing to entirely funding a single program out of context and without regard for the trade-offs of the City's longstanding and highly regarded capital planning process and likely creat esignificant vulnerabilities elsewhere in the portfolio.
Act Now Before It Is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Firefighting Water System [July 17, 2019]	F6	Unless the City increases funding levels, it will be several decades (i.e., after the USGs predicts one or more major earthquakes will occur) selfore the southern parts of the City have a high-pressure, multi-borrect, desirably safe energiency freelighting water supply.	Mayor [September 15, 2019]	Disagree, wholly	Decisions about programming and funding levels of future EER bonds and other complementary owners that could support the expansion of the ANYSS have yet to be made.	R4 [for F6-F7]	As interim measure, by no later than June 30, 2021, the first should purchase the 20 new YMSS hose tenders being requested by the 97th, or explace and expand its currently inadequate inventory.	Mayor (September 15, 2019)	Requires further analysis	The Fire Department has been allocated funding to purchase five units through funds from the FT3-0 (c) thought and an allocation from the FT3-0 (c) throught and an allocation from the size. The Department is currently seen to the size of the size
Act Now Before It Is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Firefighting Water System [July 17, 2019]	F6	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 the southern parts of the City have a high-pressure, multi-sourced, sebincially safe emergency firefighting water supply.	Mayor [September 15, 2019]	Disagree, wholly	Decisions about programming and funding levels of future ESER bonds and other complementary sources that could support the expansion of the AWSS have yet to be made.	R8 (for F5, F6, F11)	By no later than lune 30, 2022, the Mayor and the Board of Supervisors should analyze whether to propose a separate bond for the development of a high-pressure, multi-sourced, sesmically safe emergency water system for those parts of the City that don't currently have one, with a target date of completing construction by no later than June 30, 2034.	Mayor [September 15, 2019]	Will be implemented	the analysis will be performed as part of the City's 10-Year Capital Plan development process. The neat full update to the Capital Plan will be submitted to the Mayor and Board not later than March 1, 2021, for approval no later than May 1, 2021.
Act Now Before It Is Too Late: Too Late: Aggressively Expand and Enhance Out- High-Pressure Emergency Fireflighting Water System [July 17, 2019]	F11	The City does not have a bimilite to find and complete development of high-pressure, multi-sourced, setsmically safe emergency water supply for all pains of the City, including poor neighborhoods that historically have not been as well protected as the downtown business district and many richer neighborhoods.	Mayor (September 15, 2019)	Disagree, partially	The FTVS was built after the 1900 earthquist and its location, primarily in the northeast portion of 3sh Francisco, corresponds to the contained of the majority of the city's population at that time. Since 2010, the sFTVC, SFTD, and Public Works have made critical improvements to the existing ETVS system. Expanding the 1905 prior to ensuring that the existing ETVS is resilient and reliable would have contradicted best engineering practices. The SFTVC critical SFTVD are developing plans that would implement a few for the strength of the	R8 [for F5, F6, F11]	Syno later than June 30, 2022, the Mayor and the Board of Sperious should analyse whether to propose a separate bond for the whether to propose a separate bond for the development of a high-pressure, multi-ourzed, ssimically safe emergency water system for those parts of the City that don't currently have one, with a target date of completing construction by no later than June 30, 2034.	Mayor [September 15, 2019]	Will be implemented	The analysis will be performed as part of the CDY's 10-Year Capatile Pland Revelopment process. The next full update to the Capital Pland wellow the Submitted to the Mayor and Board not later than March 1, 2021, for approval no later than May 1, 2021.

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Act Now Before It Is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Frefighting Water System [July 17, 2019]	F1	Fires resulting from an earthquake represent a significant risk of despread damage and potential loss of life in San Francisco.	General Manager, San Francisco Public Utilities Commission [September 15, 2019]	Agree with the finding		R1 [for F1-F6]	By no later than December 31, 2003, the Mayor, the SPDLP, the SPTLP, the SPTLP, and the Office of Resilience and Capital Planning should jointly present to the Beach of Supervisors a detailed join to ensure the CIV is well prepared to flight fires in all parts of Son Francisco in the event of a 1906-magnitude (7.8) earthquake.	General Manager, San Francisco Public Utilities Commission [September 15, 2019]	Will be implemented	Ensuring that San Francisco has the infrastructure and resources to be well prepared to fight fires in all parts of San Francisco is something that will be a focus of the next 10-Year Capital Plan. Per Administrative Code 3.20, that Plan must be submitted to the Mayor and Board no later than March 1 of each odd-numbered year for approval no later than Mays 1. The requested presentation would be delivered as part of that Plan's submission to enable holistic planning across San Francisco's resilience Amelineges. Updates available on this timeline would be found to make the state of the submission of the San
Act Now Before It Is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Fireflighting Water System [July 17, 2019]	F1	Fires resulting from an earthquake represent a significant risk of disciprend damage and potential loss of life in San Francisco.	General Manager, San Francisco Public Utilities Commission [September 15, 2019]	Agree with the finding		R2 [for F1-F6]	The plan discussed in Recommendation 11 should include a detailed proposal, including financing sources, for the installation within 52 years of a high-pressure, multi-sourced, sestimically safe emergency water system for those parts of the Cyth and on tumer for those parts of the Cyth and don't currently have one, i.e., by no later than June 30, 2034.	General Manager, San Francisco Public Utilities Commission [September 15, 2019]	Requires further analysis	The commitment of sources for specific uses on specific timeles of Soa Francisco's public infrastructure is the work of the 10-Year Capital Plan. The plan discussed in Recommendation 1 will be acknowledged in the Capital Plan, and based on analysis, will be done on the capital plan timeline. The capital planning process gathers, documents, and balances planned funding for needs across the public infrastructure portion and across Capital Plan has longstanding funding principles to guide the prioritization of public infrastructure investments. These investments are tiered; 13) address legal and/or regulatory mandates; (2) ensure public cafety and enhance resilience; (3) advance public cafety and enhance resilience; (3) advance planned and programmatic needs; and (3) promote economic development. In the next 10-Year Capital Plan and those that follow, the City will continue to analyze prioritis. Committing to entirely advance those profirms. Committing to entirely without regard for the trade-offs of that commitment would be out of size with the City's longstanding and highly regarded capital planning process and likely create significant vulnerabilities elsewhere in the portfolio.
Act Now Before It is Too late: Aggressively Expand and Enhance Our High-Pressure Emergency Fredighting Water System [July 17, 2019]	F2	The muticipal valete supply system (MVSS) is highly valencable to damage from a raily earthquake and is not a reliable source for water supply for firefighting after a major earthquake.	General Managor, San Francisco Public Utilities Commission [September 15, 2019]	Disagree, partially	The NMS has been significantly upgraded in the bast 15 years frough the Water Special to the bast 15 years frough the Water Special to the bast 15 years frough the Water Special to Part 10 years of the Special to the		By no later Than Dicember 31, 2003, the Major, the STPUE, best Type the Defice of Reciliance and Capital Falaning should jointly present to the Beaut of Supervisors a deligible plan to ensure the City is well prepared to flight free; hall glant 5 of an Francisco in the event of a 1905-magnitude (7.8) earthquake.	General Managor, San Francisco Public Utilities Commission [September 15, 2019]	Will be implemented	Ensuring that San Francisco has the infrastructure and resources to be well prepared to fight fires in all parts of San Francisco is something that will be a focus of the next 10-Year Capital Plan. Per Administrative Code 3.20, that Plan must be submitted to the Mayor and Board no later han March 1 of each odd-numbered year for approval no later than May 1. The requested presentation would be delivered as part of that Plan's submission to enable holistic planning across San Francisco's resilience challenges. Updates available on this timeline would be included. The city cannot discoss the project scan for the properties of the propert
Act Now Before It Is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Preefighting Water System (July 17, 2019)	F2	The municipal water supply system (NWSS) in highly valuerable to damage from a major earthquake and is not a reliable source for water supply for fireflighting after a major earthquake.	General Manager, San Francisco Public Utilites Commission [September 15, 2019]	Disagree, partially	The MWSS has been significantly upgraded in the last 15 years frough the Water Supply Improvement Program (WSP) initiated by the SPUCL. The galot of WSP included to reduce valine ability of the water system to damage from earthquakes and increase overall water system reliability. There were 25 in city projects with the water system of the water system of the water system of the water system in the largest water infrastructure programs in the nation. Additionally, it is one of the only comprehensive and strategic infrastructure programs targeted specifically at improving a water system's science reliability and resiliency. Additionally, it is unique because the WSP utilized a 7.8 magnitic earthquake as its sesmic Level of Service.	R2 [for F1-F6]	The plan discussed in Recommendation R1 should include a detailed proposal, including financing sources, for the installation within 15 years of a high-pressure, multi-source, described the plan of the Custom (and the continued of the continued	General Manager, San Francisco Public Utilities Commission [September 15, 2019]	Requires further analysis	The commitment of sources for specific uses on specific users on specific users on specific users on specific specific spublic infrastructure is the work of the 1D-Year Capital Plan. The plan discussed in Recommendation 1 will be acknowledged in the Capital Plan, and based on analysis, will be done on the capital plan timelite. The capital planning process of the plan discussed in the capital plan has discussed in the capital plan has longstanding funding principles to guide the prioritization of public infrastructure investments. These investments are tiered: (13) address legal and/or regulatory mandets; (2) ensure public safety and enhance resilience; (3) advance planned and programmatic needs; and (3) promote economic development. In the capital plan discussed in the capit
Act Now Before It is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Freelighting Water System [July 17, 2019]	F4	The City's high-pressure emergency water supply system, somes the suudiary Water supply system, somes the suudiary Water Supply System (AWSS), does not cover large supris of Supervisional Districts 1, 2, 7 and 11, roughly one-third of the City's developed area, Ar a result, these districts are not adequate, protected from fires after a major earthquake.	General Managor, San Francisco Public Utilities Commission [September 15, 2019]	Agree with the finding	The SFPLC_SFTD, and San Francisco Public Works (SFPV) are committed to accessing five protection throughout San Francisco. Since the passage of the first Earthquake Safety and Emergency Response Bond in 2010, the three spancies have been implementing projects to improve the AWSS system's seismic reliability and range of coverage. Enhancing the AWSS system's seismic reliability and range of coverage. Enhancing the AWSS system's seismic reliability and range of coverage. Enhancing the AWSS in angle of coverage to all areas of the City would require the allocation of funds to do so. The three agencies will continue to develop and implement projects utilitizing new and proven system design. There have been many system design, There have been many advancements in earthquake resistrant pipeline design and materials, hydrants, and seismic valves since the earthquake resistrant pipeline design and materials, hydrants, and seismic valves since the earthquake resistrant pipeline design and materials, hydrants, and seismic valves since the earthquake resistrant pipeline design and materials, hydrants, and seismic valves since the earthquake resistrant pipeline design and materials, hydrants, and seismic valves since the earthquake resistrant pipeline design and materials, hydrants, and seismic valves since the earthquake resistrant pipeline design and materials, hydrants, and seismic valves since the earthquake resistrant pipeline design and materials, hydrants, and seismic valves since the earthquake resistrant pipeline design and materials to the control of the seismic reliability and proven and the control of the seismic reliability and the design and the seismic reliability and the seismic reliabili	R1 [for F1-F6]	By no later Than December 31, 2003, the Major, the SPUP, the SPT2 not the Office of Resilience and Capital Flaming should jointly present to the Board of Supervisors a deligible plan to ensure the City is well prepared to flight free; sail glast of San Francisco in the event of a 1906-magnitude (7.8) earthquake.	General Managor, San Francisco Public Utilities Commission [September 15, 2019]	Will be Implemented	Ensuring that San Francisco has the infrastructure and resources to be well prepared to fight fires in all parts of San Francisco is something that will be a focus of the next 10-Year Capital Plan. Per Administrative Code 3.20, that Plan must be submitted to the Mayor and Board no later than March 10 desh od-in-unbered year for approval no later than May 1. The requested presentation would be delivered as part of that Plan's submission to enable holistic planning across San Francisco's resillence fuellenges. Included. The City cannot discuss the project and timeline until the SER 2020 plan passes. For this reason, the City will sync this recommendation with the Capital Plan, and push back the timeline to December 31, 2021.

Act Now Before It Is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Firefighting Water System [July 17, 2019]	F4	The City's high-pressure emergency water supply system, known as the Autillary Water Supply system (MSS), does not cover give parts of Supervisorial Districts 1, 4, 7 and 11, roughly one-third of the City's developed and As a result, these districts are not adequately protected from fires after a major earthquake.	General Manager, San Francisco Public Utilities commission [September 15, 2019]	Agree with the finding	The SFPUC, SFFD, and San Francisco Public Works (SFPV) are committed to increasing five protection throughout San Francisco. Since the passage of the first Earthquake Safety and Emergency Response Bond in 2010, the three agencies have been implementing projects to improve the AWSS system's sestimic religious and range of coverage. Enhancing the AWSS range of coverage of coverage at all areas of the City would require the allocation of funds to do so. The three agencies will remove upon the residence of the remove the continue to develop and implement projects utilizing new and proven the ready of the remove the removal of the re	R2 [for F1-F6]	The plan discussed in Recommendation R1 should include a detailed proposal, including flanding source, for the installation within 15 years of a high-pressure, multi-sourced, sestimically safe engrency water system for those parts of the City that don't currently have one, i.e., by no later than June 30, 2034.	General Manager, San Francisco Public Utilities Commission [September 15, 2019]	Requires further analysis	The commitment of sources for specific uses on specific timelines for San Francisco's public infrastructure is the work of the 10-Year Capital Plan. The plan discussed in Recommendation 1 will be acknowledged in the Capital Plan, and based on analysis, will be done on the capital planning process gathers, documents, and balances planned unding for needs across the public infrastructure portfolio and across San Prancisco's resilience challenges. The Capital Plan has longstanding funding principles to guide the prioritization of public infrastructure investments. These investments are tered; (1) address legal and/or regulatory manaless. (2) ensure public sallerly and enhance resilience; (3) guidens legal prioritization of public infrastructure investments. These investments are tered; (1) ensure public sallerly and enhance resilience; (3) ensure public sallerly and enhance; (4) ensure public sallerly and enhance; (4) ensure public sallerly and enhance; (4) ensure public infrastructure in the ensure of the ensure sallerly ensure sallerly ensure sallerly ensured and without regard for the trade-offs of that office of the ensured ensured capital planning process and likely create significant vulnerabilities elsewhere in the portfolio.
Act Now Before It is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Firefighting Water System [July 17, 2019]	B	A high-pressure, multi-sources, estimically as the emergency friending water supply will be costly but is essential to protect the City.	General Manager, San Francisco Public Utilities Commission [September 15, 2019]	Agree with the finding	As the City considers what is essential to protect San Francios. It is important to acknowledge our multiple, complex resilients callenges. The callenges are documented in the Reallenges are documented in the Reallenges are documented in the Reallenges. The continues are represented in the 10-Year Capital Plan (last updated 2019). Here challenges are capital Plan (last updated 2019). Here challenges are capital Plan (last updated 2019). Here challenges are careful to the challenges are careful to the challenges are challenges are challenges are challenges and the challenges are challenges and the challenges are challenges and all the challenges are challenges are challenges and all the challenges are challenges and the challenges are challenges are challenges are challenges and the challenges are challenges are challenges are challenges are challenges are challenges are challenges and the challenges are challenges are challenges are challenges and the challenges are challenges are challenges are challenges and the challenges are challenges are challenges are challenges and the challenges are challenges are challenges are challenges and the challenges are c		By no later than December 31, 2020, the Major, the SPUC, the SPID, and the Office of Resilience and Capital Planning should jointly Resilience and Capital Planning should jointly present to the Board of Supervisors a detailed plan to ensure the City is well prepared to flight fire; and plant of Sian Francisco in the event of a 1306-magnitude (7.8) earthquake.	General Manager, San Trandsso Public Utilities Commission (September 15, 2015)	Will be implemented	crisuring that San Francisco has the infrastructure and resources to be well prepared to fight fires in all parts of San Francisco is something that will be a focus of the next 1.0 Year Capital Plan. Per Administrative Code 3.20, that Plan must be submitted to the Major and Board no later than March 1 of each od-numbered year for approval no later than March 1 of each od-numbered year for approval no later than March 1 of each od-numbered year for approval no later than March 1 of each od-numbered year for approval no later than March 1 of each od-numbered year for approval no later than March 2 for special parts of the p
Act Now Before It Is Too Late: Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Emergency Expending Water System [July 17, 2019]	FS	A high-pressure, multi-sourced, estemically as the emergency friending water supply will be costly but it is essential to protect the City.	General Manager, San Francisco Public Utilities Commission [September 15, 2019]	Agree with the finding	As the City considers what is essential to protect San Francisco, it is important to acknowledge our multiple, compiler resilient callenges, the callenges are documented in the Resilient 5's strategy (2015) and underlied the strategic efforts of our capital investments as represented in the 20-Year Capital Plan (last Estheuskes, See Jewel RiscyClimate Change, Aging Infrastructure, Unaffordability, and Social Insulput, All of these challenges represent meaningful threats to San Franciscans, their opporty, and their ability to make all file in the city. In making decisions about priority investments, San Francisco must keep an eye on all of these challenges, identify the areas of greatest need across them, and make prostructured to the control of the City has a ship pressure multi-sourced, of the fact Santhauskeep and the control of the Santhauskeep San	R2 [for F1-F6]	The plan discussed in Recommendation R1 should include a detailed proposal, including financing sources, for the installation within 15 years of a high-phesix multi-sourced, estemically safe emergency water system for those parts of the Cybra don't currently have one, i.e., by no later than June 30, 2034.	General Manager, San Francisco Public Utilities Commission (September 15, 2019)	Requires further analysis	The commitment of sources for specific uses on specific timelies for San Francisco public infrastructure is the work of the 10-Year Capital Plan. The plan discussed in Recommendation 1 will be acknowledged in the Capital Plan, and based on analysis, will be done on the capital plan timeline. The capital planning process studies of the capital plan timeline. The capital planning process should be capital plan timeline. The capital planning process atomic plan timeline, the capital planning process atomic plan timeline. The capital planning process to the capital plan has longstanding funding principles to guide the prioritizen challenges. The Capital Plan has longstanding funding principles to guide the prioritizen of public infrastructure investments. These investments are tiered: (1) address legal and regulation of public infrastructure investments. These investments are tiered: (2) ensure public safety and enhance resilience; (3) preserve assets and promotes sustainability; (4) advance planned and programmatic needs; and (5) promote connomic development. In the next 10-Year Capital Plan and those that follow, registed not programs and deentily sources to advance those priorities. Committent would be out of step with the City's longstanding and highly regarded capital planning process and likely create significant vulnerabilities elsewhere in the portfolio.
Act Now Before It is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Firefighting Water System [July 17, 2019]	F6	Unless the City increases funding levels, it will be several decades [e.g., after the USS of the cone or more major earthquakes will occup before the southern parts of the City have a high-pressure, multi-sourced, seismically safe emergency firefighting water supply.	Francisco Public Utilities Commission (September 15, 2019)	Disagree, wholly	Decisions about programming and funding levels of future ESF bands and other levels of future ESF bands and other complementary sources that could support the expansion of the AWSS have yet to be made.		By no later than December 11, 2020, the Mayor, the SPUC, the SPIC, and the Office of Resilience and Capital Planning should jointly present to the Board of Supervisors a decipied plan to ensure the City is well prepared to flight fires in all pasts of San Francisco in the event of a 1006-magnitude (7.8) earthquake.	Francisco Public Utilities Commission [September 15, 2019]	Will be implemented	Insuring that San Francisco has the infrastructure and resources to be well prepared to fight fires in all parts of San francisco is something that will be a focus of the next 10-Year Capital Plan. Per Administrative Code 3.20, that Plan must be submitted to the Mayor and Board no later than March 1 of each odd-numbered year for approval no later than Mays. 1. The requested presentation would be delivered as part of that Plan's submission to enable holistic planning across San Francisco's resilience challenges. Updates available on this timeline would be fused to the submission of the San San Francisco's part of that plan's and timeline until the SER 2020 plan pases. For this reason, the City will sync this commendation with the Capital Plan, and push back the timeline to December 31, 2021.
Act Now Before It is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency System [July 17, 2019]	F6	Unless the City increases funding levels, I will be several decades [i.e., after the USSS predicts one or more major earthquakes will occur) before the southern parts of the City have a high-pressure, multi-sourced, sesmically safe emergency fireflighting water supply.	General Manager, San Francisco Public Utilities Commission (September 15, 2019)	Disagree, wholly	Decisions about programming and funding levels of Inture ESE bonds and other complementary sources that could support the expansion of the AWSS have yet to be made.	R2 [for F1-F6]	The plan discussed in Recommendation R1 housed include a delayed proposal, including financing sources, for the installation within 15 years of a high-phere, multi-sourced, seismically safe emergency water system for house parts of the Cybra don't currently have one, i.e., by no later than sune 30, 2034.	General Manager, San Francisco Public Utilities Commission (September 15, 2019)	Requires further analysis	The commitment of sources for specific uses on specific timelies for San Francisco public infrastructure is the work of the 10-Year Capital Plan. The plan discussed in Recommendation 1 will be acknowledged in the Capital Plan, and based on analysis, will be done on the capital season of the capital Plan, and based on analysis, will be done on the capital infrastructure portfolio and across San Indiang for needs across the public infrastructure portfolio and across San Pland Granding for needs across the public infrastructure portfolio and across San Granding for needs of the profit of the capital Plan has longstanding funding principles to guide the prioritization of public infrastructure investments. These investments are tiered: (1) address legal and/or regulation of public infrastructure investments. These investments are tiered: (1) ensure public sallerly and enhance resilience; (3) ensure public sallerly and enhance resilience; (4) ensure public sallerly and enhance resilience; (4) ensure public sallerly and enhance ensure public sallerly and ensu

	F8	D-44 1 146	Consultations Con	A (tab. ab		R6	The CERTIC AND CEEP and the CE December of	C	Will be	SFPUC and SFFD will complete this study by
Act Now Before It Is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Firefighting Water System [July 17, 2019]	PS	Redundancy is an important feature of an emergency fireflighting water system.	General Manager, San Francisco Public Utilities Commission [September 15, 2019]	Agree with the finding			The SFPUC, the SFP and the SF Department of the Environment should study adding salt-water pump stations to improve the redundancy of water sources, especially on the west side. Findings and recommendations from this study should be presented to the Board of Supervisors by no later than June 30, 2021.	Francisco Public Utilities Commission	will be implemented	SPUL and SH10 will complete this study by June 30, 2021.
Act Now Before It Is Too List. Too L	F9	Current plans to extend protections to the wastern part of the City do not include any high pressure water sources north of colden Gate Park.	General Manager, San Francisco Public Utilities Commission (September 15, 2019)	Deagree, partially	While it is true that the SFPUC and SFPD are studying flour potential water accuracy proposed studying flour potential water accuracy proposed studying flour potential water accuracy proposed for City, which are not obseled noth of Golden Gate Park, which by no means would reduce the proposed system's resiliency, reliability, performance, or ability to provide abundant high-pressure water for resuppression to the Richmool Buttird after a sessinic event. San Francisco is unique in that there are 11 in-city reservoirs, with a total water capacity of approximately 43 (20,000) gailon to the company of the proposed system's proposed services of San Francisco this in Capacity of San Capacity of San	R6 [for F8-F9]	The SFPUC, the SFFD and the SF Department of the Environment should study adding salt- terms of the SFPUC, the SFPUC and the SFP	Francisco Public Utilities Commission [September 15, 2019]	Will be implemented	SPPUC and SPFD will complete this study by June 30, 2021.
Act Now Before It is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Emergency Firefighting Water System [July 17, 2019]	F10	The "reliability scores" being used by the SFPUC impart an overly optimistic impression of the protection provided.	General Manager, San Francisco Public Utilities Commission [September 15, 2019]	Diagree, partially	Fine Reprome Areas (FRA) were utilized by SPEVL and SPEI to the planning study CS-199. This study divided the City into areas based on those defined by the SPEI for Initial standard response and were called Fire Response Areas and were called Fire Response Areas (SPEA). Probable fire demands were developed for each FRA using 1200 sets of fire demands sequented by Charles Sewhorth, PhD using a Monte Carlo analysis of fire ignitions and fire specific and analysis of fire ignitions and the specific sequented by Charles (SPEA). Probable fire Areas (SPEA) and SPEA (SPEA) a	R7 [for F10]	The SFPL/Should (a) continue its efforts to complete amore detailed analysis of emergency fireflighting water needs (including above-the-median needs) by neighborhood, and not just by FRA, and (b) present a completed analysis to the Board of Supervisors by no later than June 30, 2021.	General Manager, San Francisco Public Utilities Commission (September 15, 2015)	Will be implemented	SFPUC and SFFD will complete this analysis by June 30, 2021.
Act Now Before It Is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Friedlyting Water System [July 17, 2019]	F11	The City does not have a timeline to fund and complete development of a high-present of the complete development of the complete of th	General Manager, San Francisco Public Utilities Commission [September 15, 2019]	Diagree, partially	The ETW was built after the 1906 earthquake and its location, promarily in the northeast portion of San Francisco, corresponds to the location of the majority of the city's population at that time. Since 2010, the STPUC, STPD, and Public Worsh have made critical improvements to the existing ETWS system. Expanding the PURS yipit or essenting ETWS systems, paparing the STPUC and STPU and S					
Act Now Before It Is Too Late: Aggressively Expand and Enhance Our High-Tressure Emergency Freelighting Water System [July 17, 2019]	F12	The SFPL has not developed a number of the countiem maintenance plans recommended in a 2014 report (CS-199), and has not adequately defined which AVRS valves are "Critical" and therefore require increased attention.	General Manager, San Francisco Public Utilites Commission [September 15, 2019]	Disagree, wholly	Since taking over maintenance responsibilities, SPUPU. has completed spillificant maintenance activities. For example, on a monthly basis, staff from the SPIVE Lets to thir hump Station of 1 and Pump Station #2. There are 6 maintenance teachmentations provided in the CS-199 study as shown below in Table 7-1 from CS-199. The saintenance places recommended in the report or has determined the recommended maintenance practice in not necessary (i.e. flushing of a non-postable water system). Maintenance Recommendations, CS. 199 Task 11 The: Maintenance Recommendation 1: Confirm that all AMSS assets are entered into COTO: saset at AMSS and the state of the confirmation of SPIVE Responser. All AMSS is used boardons are entered into COTO shades on SPIVE Responser. All AMSS assets boardons are entered into COTO shades AMSS and the state of the complete places and the state places are stabilished for regular maintenance. Maintenance Recommendation 2: Perform Regular maintenance and testing SPIVE Responser. According to SPIVU Maximo maintenance places in maintenance and testing is performed in accordance with maintenance plans. Maintenance Recommendation 3: Check, flush Maintenance.	R9 [for F12]	By no later than December 31, 2020 the SPPU. With the advice and subject to the approach the SPFD, should (a) implement "best practices" for the maintenance of AWSS assets, and (b) redefine which AWSS valves in the system are "Critical," and, therefore, require menury attention and priority in the SPPUC's maintenance plans.	Francisco Public Utilities	Has been implemented	(a) SFPLC implements "best practices" for the maintenance of ANSS sasest in collaboration with SFD, and consistent with the terms of the Memorandum of Inderstanding Regarding Operation and Maintenance of San Francisco Water Supply systems Related to FSF Suppression (MOU), SFPLC will seek SFP Suppression (MOU), SFPLC will seek SFPLC suppression (MOU), SFPLC will seek SFPLC will seek SFPLC suppression (MOU), SFPLC will seek seek SFPLC will see

Act Now Before It Is	F13	In the 2015 MOU between the SFFD and the	General Manager, San	Disagree, partially	There are no formal protocol outlining specific	R10		General Manager, San	Will be	SFFD and SFPUC will work together to amend
Too Late:		SFPUC, the two agencies agreed to conduct	Francisco Public Utilities		joint AWSS exercises or drills in the MOU;	[for F13]	between the SFPUC and the SFFD should be	Francisco Public Utilities	implemented	the MOU by June 30, 2020.
Aggressively Expand		joint AWSS trainings annually, but there is no	Commission		however, there are multiple opportunities to			Commission		
and Enhance Our		formal protocol outlining specific joint AWSS	[September 15, 2019]		train together during operation, maintenance,		annual emergency response exercises, including	[September 15, 2019]		
High-Pressure		exercises or drills using hypothetical disaster			and construction of improvement projects for		simulated disaster and earthquake drills			
Emergency		scenarios, such as a major earthquake.			the AWSS facilities as previously described in		involving the AWSS and the PWSS.			
Firefighting Water					the response to the Grand Jury questions sent					
System					in May 2019.					
[July 17, 2019]										
					The SFFD and SFPUC have had multiple field					
					training opportunities during the maintenance					
					and start-up testing of AWSS facilities in the last					
					5 years. For example, on December 20, 2018,					
					SFFD and SFPUC personnel conducted					
					emergency generator start-up procedures for					
					Pump Station No. 2 (PS2). On April 5, 2018					
					SFPUC and SFFD performed joint-department					
					full-scale test of AWSS Pump Station No. 1 (PS1)					
					including pumping seawater into an isolated					
					section of the AWSS distribution through					
					system hydrants. On August 29, 2018, SFPUC,					
					SFFD and DPW personnel conducted a seawater					
					drafting drill and confirmation test from the					
					new suction connection at Pier 50. In addition,					
					SFFD and SFPUC periodically test different					
					facilities to assure systems are in good working					
					order, and to train personnel on operations and	1				
					joint-agency communications. For example, a					
					full-scale emergency exercise was performed	1				
					between SFFD and SFPUC staff in January 2016	1				
	I		1			1		1	1	

Report Title [Publication Date]	F#	Finding (text may be duplicated due to spanning and multiple respondent effects)	Respondent Assigned by CGJ [Response Due Date]	Finding Response (Agree/Disagree)	Finding Response Text	R# [for F#]	Recommendation (text may be duplicated due to spanning and multiple respondent effects)	Respondent Assigned by CGJ [Response Due Date]	Recommendation Response (Implementation)	Recommendation Response Text
Act Now Before It Is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Furelighting Water System (July 17, 2019)	F1	Fires resulting from an earthquake represent a significant risk of widespread damage and potential loss of life in San Francisco.	Chief, San Francisco Fire Department [September 15, 2019]	Agree with the finding		R1 [for F1-F6]	Syn o laster than December 31, 2020, the Mayor, the SPUPL, the SFTP, and the Office of Resilience and Capital Planning should jointly present to the Board of Supervisors a delegal plan to ensure the City is well prepared to flight frees will give the service of the STP of th	Chief, San Francisco Fire Department (September 15, 2019)	Will be implemented	insuring that San Francisco has the infrattructure and resources to be well prepared to fight fires in all parts of San Francisco is something that will be a focus of the next 10 Year Capital Plan. Per Administrative Code 3.20, that Plan must be submitted to the Mayor and Board no later than March 10 each od-numbered year for approval no later than May 1. The requested presentation would be delivered as part of that Plan's submission to enable holistic planning across San Francisco's resilience challenges. San Capital Plan San Capital Plan and timeline unlike ESER 2020 plan passes. For this reason, the City will sync this recommendation with the Capital Plan, and push back the timeline to December 31, 2021.
Act Now Before it is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Freelighting Water System [July 17, 2019]	F1	Fires resulting from an earthquake represent a significant risk of despread damage and potential loss of life in San Francisco.	Chlef, San Francisco Fire Department (September 15, 2019)	Agree with the finding			The plan discussed in Recommendation £1 should include a detailed proposal, including financing sources, for the installation within 5 years of a high-pressure, multi-sourced, sesmically safe energency water system for those parts of the City that don't currently have one, i.e., by no later than June 30, 2034.	Chief, San Francisco Fire Department [September 15, 2019]	Requires further annalysis	The commitment of isources for specific uses on specific timelines for San Francisco's public infrastructure is the work of the 10-Year Capital Plan. The plan discussed in Recommendation 1 will be acknowledged in the Capital Plan, and based on analysis, will be done on the capital plan timeline. The capital planning process gathesis, documents, and balances planned suffastructure portfolio and across. San infrastructure portfolio and across. San public safety and enhance realized plan plan has longstanding funding principles to guide the prioritization of public infrastructure investments. These investments are tiered: (1a) address legal and/or regulatory mandets; (2) ensure public safety and enhance realience; (3) address legal and promote sustainability; (4) advance planned and programmatic needs; and (5) promote economic development. In the low, the City will continue to analyze priority projects and programs and identify sources to advance those priorities. Committing to entirely projects and programs and identify sources to advance those priorities. Committing to entirely funding a single program out of context and without regard for the trade-offs of that commitment would be out of step with the City's longstanding and highly regarded capital planning process and likely crease is engificant valinerabilities elsewhere in the portfolio.
Act Now Before It Is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Fireflighting Water System [July 17, 2019]	F2	The municipal water supply system (MWSS) is highly vulnerable to damage from a major earthquake and is not a reliable source for water supply for firefighting after a major earthquake.	Chief, San Francisco Fire Department [September 15, 2019]	Disagree, partially	The MWS has been significantly upgraded in the last 15 years through the Water Supply Improvement Program (WSIP) initiated by the less 15 Years through the Water spike to reduce valuerability of the water system to damage from earthquakes and increase overall water system reliability. There were 35 in-city projects within the 54.8 billion dollar program. The WSIP was the largest capital program ever undertaken by San franction, and one of the largest water infrastructure programs in the anion. Additionally, it is one of the only comprehensive and strategic infrastructure programs targeted specifically at improving a yadditionally, it is unique because the WSIP willied a 7.8 magnitude earthquake as it is seimic Level of Service.	R1 [for F1-F6]	By no later than December 31, 2020, the Mayor, the SPEU, the SPFI, and the Office of Resilience and Capital Planning should jointly present to the Board of Supervisors a delegal plan to ensure the CIV is well prepared to flight fires in all parts of Son Francisco in the event of a 1906-magnitude (7.8) earthquake.	Chief, San Francisco Fire Department [September 15, 2019]	Will be implemented	Ensuring that San Francisco has the infrastructure and resources to be well prepared to fight fires in all parts of San Francisco is something that will be a focus of the next 10 Year Capital Plan. Per Administrative Code 3.20, that Plan must be submitted to the Mayor and Board no later than March 10 each odd-numbered year for approval no later than May 1. The requested presentation would be delivered as part of that Plan's submission to enable holistic planning across San Francisco's resilience challenges. Updates available on this timeline would be included. The city cannot discoss the project. For this reason, the City will you this program of the code of the project of
Act Now Before It Is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Freelighting Water System [July 17, 2019]	F2	The municipal water supply system (NWSS) in highly valuerable to damage from a major earthquake and is not a reliable source for water supply for fireflighting after a major earthquake.	Chlef, San Francisco Fire Department [September 15, 2019]	Disagree, partially	The MWS has been significantly upgraded in the last 15 years through the Water Supply improvement Program (WSP) initiated by the SPUCL. The goals of WSP included to reduce valuerability of the water system to damage from entripulsars and increase overall water system reliability. There were 15 in-city projects with the 54.5 billional dollar program. The undertaken by San Francisco, and one of the major that the state of the system reliability, and one of the notion of the system of the s	R2 [for F1-F6]	The plan discussed in Recommendation R1 should include a detailed proposal, including financing sources, for the installation within 15 years of a high-pressure, multi-sourced, estimically safe energency water system for those parts of the City that don't currently have one, i.e., by no later than June 30, 2034.	Chief, San Francisco Fire Department [September 15, 2019]	Requires further analysis	The commitment of sources for specific uses on specific timelies of San Francisco's public infrastructure is the work of the 10-Year Capital infrastructure is the work of the 10-Year Capital Plan. The plan discussed in Recommendation 1 will be acknowledged in the Capital Plan, and based on analysis, will be done on the capital plan timeline. The capital planning process gathese, documents, and balances planned subjects to the planning process the planned of the planning process and planned and process. San Francisco's resilience challenges. The Capital Plan has longstanding funding principles to guide the prioritizen of public infrastructure investments. These investments are tiered: (1a) address legal and/or regulatory mandates; (2) ensure public safety and enhance resilience; (3) advance public safety and enhance resilience; (3) advance planned and programmatic needs; and 5) promote economic development. In the next 10-Year Capital Plan and those that follow, rought and the properties and programs and identify sources to advance those priorities. Committing to entirely funding a single program out of context and without regard for the trade-offs of that commitment would be out of step with the City's longstanding and highly regarded capital planning process and likely crase is egificant vulnerabilities elsewhere in the portfolio.
Act Now Before It Is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Fireflighting Water System [July 17, 2019]	F3	Approximately 30 cistents have recently been deded with funds from ESER Bonds, but of most EN Bonds, but of which we shall be sometiment only have up to about an hour of water supply and thus do not provide sufficient water for fighting fires following a major earthquake.		Agree with the finding	Gaterns serve as one of many important tools for use by the STF0 in response to a disaster. Gatern locations are strategically located in the City in the event of a major conflagration to assist as a "Demarcation Line" on some of The City's major thoroughtees. This was reading dealer the 1906 earthquake. With work accomplished throughtees. This was reading content to the complete and the complete and the complete the time of the complete and the complete and the complete and the complete and the complete the complete and the co		Syn o laster than December 31, 2020, the Major, the SPUPL, the SPTJ, and the Office of Resilience and Capital Planning should jointly present to the Beach of Supervisors a delegal plan to ensure the City is well prepared to flight fires in all parts of Son Francisco in the event of a 1906-magnitude (7.8) earthquake.	Chief, San Francisco Fire Department (September 15, 2019)	Will be implemented	essuring that San Francisco has the infrattructure and resources to be well prepared to flight fires in all parts of San Francisco is something that will be a focus of the next 10 Year Capital Plan. Per Administrative Code 3.20, that Plan must be submitted to the Mayor and Board no later than March 10 each od-a-unberde year for approval no later than May 1. The requested presentation vould be delivered as part of san across San Francisco's resilience challenges. Updates available on this timeline would be included. The City cannot discuss the project and timeline until the SER 2020 plan passes. For this reason, the City will sync this recommendation with the Capital Plan, push back the timeline to December 31, 2021.

Act Now Before It Is Too Late: Aggressively Espand and Enhance Our High-Pressure Emergency Emergency Water System [July 37, 2019]	F3	Approximately 30 cistems have recently been added with funds from ESR bonds, but cistems only have up to about a hour of water byen and thus do not provide sufficient water for fighting fires following a major earthquake.	Chief, San Francisco Fire Department (September 15, 2019)	Agree with the finding	Cistems serve as one of many important tools for use by the SFFD in response to a dissater. Cistems cloations are strategically located in the City in the event of a major confligation to assist as a "Demarkation Line" on some of The City's major throughfaires. This was realized accomplished through the SFB kind program, cistems have been estimated in processing the company of the City and the overall number of cistems has increased to approximately 320, providing the FFB kind throughout the City and the overall number of cistems has increased to approximately 320, providing the FFB kind providing the FFB kind the overall number of cistems has increased to approximately 320, providing the FFB kind part of the City and the overall number of cistems has increased to approximately 320, providing the FFB kepartment access to millions of gallons of water in an emergency.	R2 [for F1-F6]	The plan discussed in Recommendation R1 should include a detailed proposal, including financing sources, for the installation within 15 years of a high-pressure, multi-sourced, ostionizally sade energency water system for those parts of the City that don't currently have one, i.e., by no later than tune 30, 2094.	Chief, San Francisco Fire Department [September 15, 2019]	Requires further analysis	The commitment of sources for specific uses on specific timelines for San Francisco's public infrastructure is the work of the D/vara Capital Plan. The plan discussed in Recommendation 1 Plan the plan discussed in Recommendation 1 will be acknowledged in the capital Plan, and based on analysis, will be done on the capital stakes, documents, and balances planned funding for needs across the public infrastructure portfolio and across San Francisco's resilience challenges. The Capital Plan has longstranding funding principles to guide the prioritization of public infrastructure investments. These investments are literal (1) address legal and/or regulatory mandates; (2) assure public salesy and enhance realisines; (3) services the priority and the properties of the public infrastructure investments. These investments are literal (2) address legal and/or regulatory mandates; (2) address legal and/or regulatory mandates; (3) of the priority properties of the priority projects and programs and identify sources to advance those priorities. Committing to entirely funding a single program out of context and without regard for the trade-offs of what commitment would be out of step with the City's longstraining and highly regarded capital.
ACI, Now Before It Is Too late: Aggressively Expand aggressively expand and the pressure Emergency Firefighting Water System [July 17, 2019]	F4	The City's high-pressure emergency water supply system, shown at the fauliary Water supply system (AWSS), does not cover large start of Supple vision (Britzes 1, a 7, and 11, roughly one-third of the City's developed area, are assult, these districts are not adequately protected from fires after a major earthquake.	Chief, San Francisco Fire Department (September 15, 2019)	Agree with the finding	The SFIPLC, SFIPL, and San Francisco Public Works (SFIPV) are committed to increasing five orderion throughout San Francisco. Since the total control of the state of the stat		Syno later than December 31, 2020, the Mayor, the SFVPL, the SFTP, and the Office of Resilience, and Exportise of Resilience, and Exportise placed jointly present to the Board of Supervisors a deligate plan to ensure the City is well prepared to fight fires; and japan 50 fan Francisco in the event of a 1906-magnitude (7.8) earthquake.	Chief, San Francisco Fire Department (September 15, 2019)	Will be implemented	insuring that San Francisco has the infrastructure and resources to be well prepared to light fires in all parts of San Francisco is commenting that will be a fous of the next 10-Year Capital Plan. Per Administrative Code 3.20, that Plan must be submitted to the Mayor and Board no later than March 1 of sech odd-numbered year for approval no later than Mays 1. The requested presentation would be delivered as part of that Plan's submission to enable holistic planning across San Francisco's resilience challenges. Updates available on this timeline would be included. The City cannot discuss the project and timeline until the ESR 2020 plan passes. For this reason, the City will sync this recommendation with the Capital Plan, and push back the timeline to December 31, 2021.
ACI, Now Before It Is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Friedlything Water System [July 17, 2019]	F4	The City's high-pressure mergenery water supply system, some at the Auxiliany Water Supply system (MVSS), does not cover large parts of Supervisional Districts 1, 4, 7 and 11, roughly one-third of the City's developed area. As a result, three districts are not adequately protected from fires after a major earthquake.	Chief, San Francisco Fire Department [September 15, 2019]	Agree with the finding	The SPIUC, SPED, and San Francisco Public Works (SPFW) and San Francisco Public Works (SPFW) are committed to increasing five protection throughout San Francisco. Since the passage of the first Carthquake Safety and Emergency Response Bond in 2010, the three gancels have been implementing projects to improve the AWSS system's seismic reliability and range of coverage to all arease. Financing the AWSS system's seismic reliability and range of coverage. Enhancing the AWSS system's seismic reliability and range of coverage. Enhancing the AWSS single of coverage to all arease. Financing the AWSS strates of the City would be applicated to the AWSS system's seismic reliability and range of the AWSS system's seismic reliability and range of the AWSS strates are considered to the AWS	R2 [for F1-F6]	The plan discussed in Recommendation R1. Anoul include adealed proposal, including financing sources, for the installation within 2 years of a high-pressure, multi-sourced, sesimically safe emergency water system for those parts of the CV that don't currently have one, i.e., by no later than June 30, 2034.	Chief, San Francisco Fire Department [September 15, 2019]	Requires further analysis	the commitment of sources for specific uses on specific timelies of Soa Francisco's public infrastructure is the work of the 10-Year Capital Final. The plan discussed in Recommendation 1 will be acknowledged in the Capital Plan, and based on analysis, will be done on the capital plan timeline. The capital planning process gathers, documents, and balances planned funding for needs across the public infrastructure portion and across San Francisco's resilience challenges. The public infrastructure protrion and across San Francisco's resilience challenges. The public infrastructure investments are being some some some some some some some some
ACI, Now Before It Is Too Late: Aggressively Expand and Service Aggressively Expand and Service Aggressively Expand Aggressively Expand Aggressively Firefighting Water System [July 17, 2019]	F4	The City's high-pressure emergency water supply system, nown as the Audiany Water supply system (AWSS), does not cover large part of Supply-roise) libratics 1, 2, and 11, roughly one-third of the City's developed area, As a result, these districts are not adequately protected from fires after a major earthquake.	Chief, San Francisco Fire Department (September 15, 2019)	Agree with the finding	The STPUC, STPC, and San Francisco Public Works (STPV) are committed to increasing five protection throughout San Francisco. Since the passage of the first sarthopakes Safety since the passage of the first sarthopakes Safety and Emergency Response Bond in 2010, the three agencies have been implementing projects to improve the AWSS system's seismic reliability and range of coverage, chinancing the city and range of coverage. Enhannicing the city and range of the city and proven technologies that improve upon the original solvent ends of the city and proven technologies that improve upon the original solvent ends provents of the city and provents of the city and coverage of the city and the city intents to use the test possible technology available to meet the performance standards of the STPO.	RS [for F4]	The SFD should strategically locate the magnity of the PMSS base tanders in areas that at present only have low-pressure hydrants and/or cistems.	Chief, San Francisco Fire Department (September 15, 2019)	Will be implemented	The Department is currently finalizing specifications for these units, after which they will go out to bid through the City's procurement processes before construction. It is anticipated the Department will take receipt of these units in the second half of 2000/early 2021. These hose tenders are a heavy-duty apparatus designed to be able to be deployed and moved throughout the City depending on need, giving the Department needed operational flexibility in its response.
ACL Now Before It Is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Friendly Emergency Friendly Fressure Emergency Firendly Friendly	FS	A high-pressure, multi-sourced, estemically and emergency freeling water supply will be costly but is essential to protect the City.	Chief, San Francisco Fire Department [September 15, 2019]	Agree with the finding	As the City considers what is essential to protect Star Francisc, it is important to acknowledge our multiple, compiler resilience challenges. The endlanges are documented in the Recilient SF strategy (2016) and underlient to the strategic efforts of our capital investments as represented in the 10-Year capital Plan (starting strategy) (2016) and underlient strategic efforts of our capital investments as represented in the 10-Year capital Plan (starting strategy) (2016) and underlient strategic efforts of the 10-Year Capital Plan (starting strategy). All of the challenges in the challenges properly, and their challenges in the capital plan (starting strategy). All of the first of the challenges in the city. In making decisions about priority investments, San Francisco must keep an eye on all of these challenges, identify the areas going greatest need across them, and make present surprised sorts investments and 2010 to ensure that the semination of the challenges in the control of the challenges in the challenges in the challenges of the first Sarthquake Set PINS. Since the passage of the first Sarthquake Set Vinder and Emergency Response Bond in 2010, SPEUC, SFED, SF biblic Vinders have been impresent projects utilitizing new and proven techniques that improve upon the original system design.	R1 [for F1-F6]	By no lister than December 31, 2009, the Mayor, the SPDUP, the SPTUP, the SPTUP, and the Office of Resilience and Capital Planning should jointly present to the Beard of Supervisors a deligible of Supervisors a deligible of Supervisors a deligible of Supervisors a deligible of Supervisors and Supervisors and Supervisors and Part of Supervis	Chief, San Francisco Fire Department [September 15, 2019]	Will be implemented	ensuring that San Francisco has the infrastructure and resources to be well prepared to fight fires in all parts of San Francisco is something that will be a focus of the next 10-Year Capital Plan. Per Administrative Code 3.20, that Plan must be submitted to the Mayor and Board no later than March 1 of each odd-numbered year for approval into their than March 1 of each odd-numbered year for approval into their than March 1 of each odd-numbered year for approval into their than March 1 of each odd-numbered year for approval into their than March 1 of each odd-number (1) approved in the March 1 of the San Submission to each of the San San Francisco's resilience challenges. Updates available on this timeline would be included. The City cannot discuss the project and timeline until the SER 2020 plan passes. For this reason, the City will sync this recommendation with the Capital Plan, and push back the timeline to December 31, 2021.

Act Now Before It Is Too Late: Aggressively Expand	F5	A high-pressure, multi-sourced, seismically safe emergency firefighting water supply will be costly but is essential to protect the City.	Chief, San Francisco Fire Department [September 15, 2019]	Agree with the finding	As the City considers what is essential to protect San Francisco, it is important to acknowledge our multiple, complex resilience	R2 [for F1-F6]	The plan discussed in Recommendation R1 should include a detailed proposal, including financing sources, for the installation within 15	Chief, San Francisco Fire Department [September 15, 2019]	Requires further analysis	The commitment of sources for specific uses on specific timelines for San Francisco's public infrastructure is the work of the 10-Year Capital
and Enhance Our High-Pressure Emergency Firefighting Water System (July 17, 2019)					challenges. These challenges are documented in the Reallend's strategy (2016) and underlie the strategy efforts of our capital investments are represented in the DYear Capital Pain (last updated 2019). These challenges are: Earthquake, Sea Level Res/Climate Change, Aging Infrastructure, Unaffordsibility, and Social investments of the Company of the		years of a high-pressure, multi-sourced, sessimally safe energency water system for those parts of the City that don't currently have one, i.e., by no later than June 30, 2034.			Plan. The plan discussed in Recommendation 1 will be acknowledged in the Capital Plan, and based on analysis, will be done on the capital planting process gathers, documents, and balances planting in process gathers, documents, and balances planted indirect process. The capital planting process gathers, documents, and balances planted infrastructure portfolio and across San practices of the process of the pr
Act Now Before It Is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Firefighting Water System [July 17, 2019]	F6	Unlets the City increases funding levels, it will be several decades [Le., after the USSD predicts one or more major earthquakes will occur) before the southern parts of the City have a high-pressure, multi-sourced, seismically safe emergency fireflighting water supply.	[September 15, 2019]	Disagree, wholly	Decisions about programming and funding levels of Inture ESF bands and other complementary sources that could support the expansion of the AWSS have yet to be made.	[for F1-F6]	By no later than December 31, 2020, the Mayor, the SPEUP, the SPFI, and the Office of Resilience and Capital Planning should jointly present to the Beach of Supervisors a detailed plan to ensure the CIV is well prepared to flight free; sail glants of son Francisco in the event of a 1506-magnitude (7.8) earthquake.	Chief, San Francisco Fire Department [September 15, 2019]	Will be implemented	cinsuring that San Francisco has the infrastructure and resources to be well prepared to fight fires in all parts of San Francisco is something that will be a focus of the next 10-Year Capital Plan. Per Administrative Code 3.20, that Plan must be submitted to the Mayor and Board no later than March 10 each odd-numbered year for approval no later than May 1. The requested presentation would be delivered as part of that Plan's submission to enable holistic planning across San Francisco's resilience fadelings. Submission to enable holistic planning across San Francisco's resilience fadelings. In clothed the Code of the Code o
Act Now Before It is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Teoelighting Water Systems (July 17, 2019)		Unless the City increases funding levels, I will be several decades [Le., after the USOS predicts one or more major earthquakes will occur) before the southern parts of the City have a high-pressure, multi-sourced, seismically safe emergency fireflighting water supply.	Department (September 15, 2019)	Disagree, wholly	Decisions about programming and funding levels of Inture ESE bonds and other complementary sources that could support the expansion of the AWSS have yet to be made.	[for F1-F6]	The plan discussed in Recommendation fit about include a detailed proposal, including financing sources, for the installation within 15 years of a high-pressure, multi-source, lestimically safe emergency water system for the state of the plant of the City that don't currently have one, i.e., by no later than tune 30, 2094.	Chlef, San Francisco Fire Department (September 15, 2019)	Requires further analysis	The commitment of sources for specific uses on specific tursels on specific tursels on Span Francisco's public infrastructure is the work of the 1D-Year Capital infrastructure is the work of the 1D-Year Capital Flan. The plan discussed in Recommendation 1 will be acknowledged in the Capital Plan, and based on analysis, will be done on the capital ready of the capital Plan has been capital stathers, documents, and balances planned funding for needs across the public infrastructure portfolio and across San public infrastructure portfolio and across San guide the prioritization of public infrastructure investments. These investments are tiered: (1a) address legal and/or regulatory mandates; (2) ensure public safety and enhance realience; (3) address legal and promote sustainability; (4) advance planned and programmatic needs; and event 1D-year Capital Plan and those that follow, the City will continue to analyze priority projects and programs and identity sources to advance those priorities. Committing to entirely funding a single program out of context and without regard for the trade-offs of that commitment would be out of step with the City's longstanding and highly regarded capital planing process and likely craste is egificant vulnerabilities elsewhere in the portfolio.
Act Now Before It Is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Firefighting Water System [July 17, 2019]	F6	Unless the City increases funding levels, I will be several decades [i.e., after the USGS predicts one or more major earthquakes will occur) before the southern parts of the City have a high-pressure, multi-sourced, seismically safe emergency fireflighting water supply.	Department [September 15, 2019]	Disagree, wholly	Decisions about programming and funding levels of Inture ESE bonds and other complementary sources that could support the expansion of the AWSS have yet to be made.		As interim measure, by no later than June 30, 2021, the City should purchase the 20 new PMVSs hose tenders being requested by the SFFT, to replace and expand its currently inadequate inventory.	Chief, San Francisco Fire Department [September 15, 2019]	Requires further analysis	The Fire Department has been allocated funding to purches five units through funds from the F193-20 City budget and an allocation from the State. The Department is currently working with the Office of Contract Administration to develop a multi-year term contract for hose tenders so in the case that additional funding is secured in future years, the Department will be able to reduce the amount of time for procurement of the apparatus. Each hose tender cost \$1 million each, and we need to weigh purchase of additional hose tenders to other budget request and printly.
Act Now Before It is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Fireflighting Water System [July 17, 2019]		The existing Portable Mater Souph System (PWSS) inventory is inadequate. Inventing in more PWSS host tenders would provide a relatively quick, cost-effective interim means to improve protection of the southern and western part of the City until a high-pressure, multi-sourcest, steinmically safe emergency water supply can be developed in those areas.	Chlef, San Francisco Fire Department [September 15, 2019]	Agree with the finding	The Fire Department has been allocated funding to purchase the units through funds from the PTI3-20 City budget and an allocation from the PTI3-20 City budget and an allocation of the State White the Department currently has five older hote tenders spread-out throughout the City, these new units are revent a contract of the City	[for F6-F7]	As interim measure, by no later than June 30, 2021, the City should purchase the 20 new PWSS hose tenders being requested by the 579Tb, to replace along most successful inadequate inventory.	Chlef, San Francisco Fire Department [September 15, 2019]	Requires further analysis	The Fire Department has been allocated funding to purchase five units through funds from the P193-20 City budget and an allocation from the State. The Department is currently working with the Office of Contract Administration to develop a multi-year term Administration to develop a multi-year term administration to develop a multi-year term administration will be able to reduce the amount of time for procurement of the amount of time for procurement of the apparatus. Each hose tender cost St million each, and we need to weigh purchase of additional hose tenders to other budget request and priority.
Act Now Before It Is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Firefighting Water System [July 17, 2019]	F8	Redundancy is an important feature of an emergency fireflighting water system.	Chief, San Francisco Fire Department [September 15, 2019]	Agree with the finding			The SFPUC, the SFPD and the SF Department of the Environment should study adding salt-water pump stations to improve the redundancy of water sources, especially on the west side. Findings and recommendations from this study should be presented to the Board of Supervisors by no later than June 30, 2021.	Chief, San Francisco Fire Department [September 15, 2019]	Will be implemented	SFPLC and SFFD will complete this study by June 30, 2021.

Act Now Before It Is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Emergency Englishing Water System (July 17, 2019)	F9	Current plans to extend protections to the western part of the City do not include any high pressure water sources north of Golden Gate Park.	Department [September 15, 2019]	Disagree, partially	While it is true that the SFPUC and SFFD are studying four potential water sources proposed to supply a pollable FPVS on the west side of the City, which are not located north of Golden Cate Park, which by no means would reduce the proposed system's resiliency, reliability, performance, a pollably to provide abundant. He continued the proposed system's resiliency, reliability, performance, a pollably to provide abundant. Bit continued the proposed system's resiliency resiliency and provided the Richmond District after a session event. San Francisco is unique in that there are 11 in city reservoirs, with a total water capacity of approximately 1,000,000,000 gallions. The potable FPVS yettern for the Westerder of San Francisco that is being developed and analyzed would provide that the new EFVS popilies in the Sannest and Richmond Districts could be supplied from four sources of water at two locations. The first water sources could be supplied to the EFVS sprainer was also gold on per minute pump station in the vicinity of Lake Merced. The two water sources being studied for this pump station are Lake Merced, which has a water supply of grapmormately on being agalones, and a 80° magicanal Water System pipeline. The proposed proposed the PTVS also a landying the inclusion of a second 30,000 gallions per minute pump station for a conditional proposed proposed the PTVS also a landying the inclusion of a second 30,000 gallions per minute pump and the proposed proposed the PTVS also a landying the inclusion of a second 30,000 gallions per minute pump.	R6 [for F8-F9]	The SFPUC, the SFFD and the SF Department of the Environment should study adding salt-water pump stations to improve the redundancy of water sources, especially on the vest side. Finding and recommendations from this study should be presented to the Board of Sopervisors by no later than June 30, 2021.	Department [September 15, 2019]	Will be implemented	SFPUC and SFFD will complete this study by June 30, 2021.
Act Now Before It Is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Firefighting Water (July 17, 2019)	F10	The "reliability cores" being used by the SFPUC impart an overly optimistic impression of the protection provided.	Department [September 15, 2019]	Disagree, partially	Fine Response Areas (FRAs) were utilized by SPICL and SFIO in the planning study C-199. This study divided the City into areas based on those defined by the FST Dio ristial sales are supported and the segment and the segment areas and were called fine Response Areas and the segment areas and were called fine Response Areas and the segment and the s	R7 (for F10)	The SPEUC should (a) continue its efforts to complete a more detailed analysis of emergency fireflighting water needs (including above the-median needs) by neighborhood, and not just by FRA, and (b) present a completed analysis to the Board of Supervisors by no later than June 30, 2021.	Chef, San Francisco Fre Department [September 15, 2019]	Will be	SFPLC and SFPD will complete this analysis by June 30, 2021.
Act Now Before It Is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Firefighting Water System [July 17, 2019]	F11	The City does not have a timeline to fund and complete development of a high-pressure, multi-sourced, seismically safe emergency water supply for all parts of the City, including poor neighborhoods that historically have not been as well protected as the downtown business district and many richer neighborhoods.	Chief, San Francisco Fire Department [September 15, 2019]	Disagree, partially	The EFMS was built after the 1906 earthquake, and its location, primarily in the northeast portion of San Francisco, corresponds to the location of the majority of the cryl's population at that time. Since 2010, the SFMC, SFMC, and Table Works have made critical improvements to the existing EFMS system. Expanding the Majority of the cryl's properties to the existing EFMS system. Expanding the Service of the SFMC and SFMC are developing placel would have contradicted best engineering practices. The SFMC and SFMC are developing placel would have contradicted best engineering practices. The SFMC and SFMC are developing placel would have contradicted best engineering practices. The SFMC and SFMC are developing placel would be some the service of the Westerd of SeM Francisco. The potable EFWS that is being developed and analyzed would propose the best method for brigging a robust and resilient high-pressure fireflighting water system to the Western engible hoost in SFM Francisco that is capable of providing water to the SFMC inferiors at the high-pressure needed for fireflighters to combat large fires a section event, and is lakely to include and SFMC probable EFWS is being designed in an amanner that allows of pailing and the flexibility to add me wetchnologies and water sources. The SFMC and a manner that allows the poling enjower to be extended in the future to serve additional areas.					
Act Now Before It is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Pirefighting Water System [July 17, 2015]	F13	in the 2015 MOU between the SFTD and the SFTD Link to SFTD, and the SFTD, the two against agreed to conduct joint AWST trainings annually, but there is no Gmmal protocol outlings specific joint AWSS exercises or drills using hypothetical disaster scenarios, such as a major earthquake.	Chief, San Francisco Fire Department [September 15, 2019]	Disagree, partially	Intere are no formal protectol outsitines specific nor MXSS exercises or drills in the MXD); however, there are multiple opportunities to the control together during operation, maintenance, and construction of improvement projects for MXSS facilities as previously described in the response to the Grand Jury questions sent in MXP 2019. The STF0 and STFUC have had multiple field straining opportunities during the maintenance and start-up testing of AWSS facilities in the starting opportunities during the maintenance and start-up testing of AWSS facilities in the starting opportunities of the STFUC personnel conducted emergency generates start-up procedures for Pump Station No. 2 (F32). On April 13, 2018 STFUC and STFUC personnel conducted for the starting opportunities of the STFUC personnel conducted services of the STFUC personnel conducted services of the STFUC personnel conducted as sewater during unique of the starting opportunities of the STFUC personnel conducted as sewater during drill and confirmation sets from the mes suction connection at Pier SD. In addition, STFU and STFUC personnel conducted as sewater during drill and confirmation sets from the mes suction connection at Pier SD. In addition, STFU and STFUC personnel conducted as sewater during drill and confirmation sets from the mes suction connection at Pier SD. In addition, STFU and STFUC personnel conducted as sewater during drill and confirmation sets from the mes suction connection at Pier SD. In addition, STFU and STFUC personal configurations previously and such as the such personnel on operations and protection and previously and such as the such personnel on operation and protection and previously and such as the such personnel on operations and protection and previously and protection at Pier SD. In addition, STFU personnel conducted as sewater during drill and confirmation sets from the message of the such protection and previously and protection and previously and protection and protection and previously and protection and previously		Syn o Lister than June 30, 2020, the 2015 MOU between the SPTO, and the SPTO should be amended to include a detailed roadmap for ammusal emergency response serveries, including simulated disaster and earthquake drills involving the AWSS and the PWSS.	Chlef, San Francisco Fire Departmental (September 15, 2019)	Will be implemented	The Fire Department conducts weekly hose/hose tender drills that it rolates through companies throughout the City. The Fire Department will work with the SPFUC have them in attendance and participate in these drills. SFFD will also commit to working with the FUC to enhance the scope and frequency of trainings in the future for improved collaboration. SFFD and SFPUC will work together to amend the MOU by June 30, 2020.
Act Now Before It Is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Firefighting Water System [July 17, 2019]						R9 [for F12]	By no later than December 31, 2020 the SFVD. with the advice and subject to the approval of the SFVD, should (a) implement "best practices" for the maintenance of AWSS assets, and (b) readefine which AWSS valves in the system are "critical," and, therefore, require more attention and priority in the SFVDC's maintenance plans.	Department	Has been implemented	Igh SFPLC implements "best practices" for the maintenance of ANSS sasets in collaboration with SFD, and consistent with the terms of the Memorandum of Inderstanding Regarding Operation and Maintenance of San Francisco Water Supply systems Related to Fire Suppression (MOU), SFPLC will seek SFPD's written approval for "any modifications that a high pressure fireflighting system (MOU, page 2). (b) The ANSS critical valves have been identified and will be exercised every year through the ANSS Critical Valve Exercise Program.

Report Title [Publication Date]	FII	Finding (text may be duplicated due to spanning and multiple respondent effects)	Respondent Assigned by CGJ [Response Due Date]	Finding Response (Agree/Disagree)	Finding Response Text	R# [for F#]	Recommendation (text may be duplicated due to spanning and multiple respondent effects)	Respondent Assigned by CGJ [Response Due Date]	Recommendation Response (Implementation)	Recommendation Response Text
Act Now Before It Is Too Late: Aggressively Expand and Enhance Outure High-Pressure Emergency Fireflighting Water System [July 17, 2019]	F6	Unless the City increases funding levels, I will be several decades [Le., after the USOS predicts one or more major earthquakes will occur) before the southern parts of the City have a high-pressure, multi-sourced, seismically safe emergency fireflighting water supply.	City Administrator [September 15, 2019]	Disagree, wholly	Decisions about programming and funding levels of future ESF bonds and other complementary sources that could support the expansion of the AWSS have yet to be made.	R1 [for F1-F6]	By no later than December 31, 2020, the Mayor, the SPDLY, the SPTL, and the Office of Resilience and Capital Planning should jointly present to the Beach of Supervisors a detailed plan to ensure the City is well prepared to flight frees will apply a supervisor to the SPDL of SPDLY in the event of a 1506-magnitude (7.8) earthquake.	City Administrator [September 15, 2019]	Will be implemented	Ensuring that San Francisco has the infrastructure and resources to be well prepared to fight fires in all parts of San Francisco is something that will be a focus of the next 10-Year Capital Plan. Per Administrative Code 3.20, that Plan must be submitted to the Mayor and Board no later than March 1 of each odd-numbered year for approval no later than Mays 1. The requested year for approval no later than Mays 1. The requested spart of that across San Francisco's resilience challenges. Underse available on this timeline would be included. The City cannot discuss the project and timeline until the SER 2020 plan passes. For this reason, the City will sync this recommendation with the Capital Plan, and push back the timeline to December 31, 2021.
Act Now Before It is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Firefighting Water System [July 17, 2019]	F6	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 the southern parts of the City have a high-pressure, multi-sourced, seismically safe emergency fireflighting water supply.		Disagree, wholly	Decisions about programming and funding leaves of Inture SES bonds and other complementary sources that could support the expansion of the AWSS have yet to be made.	R2 [for F1-F6]	The plan discussed in Recommendation R1 should include a detailed proposal, including financing sources, for the installation within 15 years of a high-pressure, multi-sourced, estimically said energency water system for those parts of the CV that don't currently have one, i.e., by no later than June 30, 2034.	City Administrator [September 15, 2019]	Requires further analysis	The commitment of sources for specific uses on specific tusels on specific tusels on Span Francisco's public infrastructure is the work of the 10-Year Capital Plan. The plan discussed in Recommendation 1 will be acknowledged in the Capital Plan, and based on analysis, will be done on the capital plan timeline. The capital planning process gapthers, documents, and balances planned based on analysis, will be done on the capital plan timeline. The capital planning process gapthers, documents, and balances planned infrastructure portfolio and across San raracisco's resillation of public infrastructure investments. These investments are tiered: (1) address legal and/or regulatory mandets; (2) ensure public cafety and enhance resilience; (3) advance public safety and enhance resilience; (3) advance planned and programmatic needs; and (5) promote economic development. In the next 10-Year Capital Plan and those that follow, the City will continue to analyse protruct to projects and programs and identify sources and promote sustainability. (4) advance planned and programs and those that follow, the City will continue to analyse protruct to projects and programs and identify sources and without regard for the trade-offs of that commitment would be out of size with the City's longstanding and highly regarded capital planning process and likely create significant vulnerabilities elsewhere in the portfolio.
Act Now Before It Is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Firefighting Water System [July 17, 2019]	F6	Unless the City increases funding levels, it will be several deades (i.e., after the USSS predicts one or more major earthquakes will occur) before the southern parts of the City have a high-pressure, multi-sourced, seismically safe emergency firefighting water supply.	City Administrator [September 15, 2019]	Disagree, wholly	Decisions about programming and funding levels of future ESR bonds and other complementary sources that could support the expansion of the AWSS have yet to be made.	R8 [for F5, F6, F11]	By no later than June 30, 2022, the Mayor and the board of Supervisors should analyze whether to propose a separate bond for the development of a high-pressure, multi-sourced, setimically safe emergency water system for those parts of the City but don't currently have one, with a target date of completing construction by no later than June 30, 2034.	City Administrator [September 15, 2019]	Will be implemented	The analysis will be performed as part of the CITY's 10-Year Castal Pland development process. The next full update to the Capital Plan will be submitted to the Mayor and Board not later than March 1, 2021, for approval no later than May 1, 2021.
Act Now Before It is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Firefighting Water System [July 17, 2019]	F11	The City does not have a timeline to fund accomplete development of a high-pressure, multi-sourced, seismically sale emergency water supply for all parts of the City, including poor neighborhoods that historically have not been as well protected as the downtown business district and many richer neighborhoods.	City Administrator [September 15, 2019]	Disagree, partially	The ETWS was built after the 1900 earthouside, and its location, primarily in the northeast portion of 3an Francisco, corresponds to the contain of the majority of the city's population at that time. Since 2010, the SFPUC, SFPD, and Paulic Works have made critical improvements to the existing ETWS system. Expanding the SFPUC and SFPUC	R8 [for F5, F6, F11]	By no later than June 30, 2022, the Mayor and the Board of Superious should analyze whether to propose a separate bond for the development of a high-pressure, multi-ourced, assimically safe emergency water system for those parts of the City that don't currently have one, with a target date of completing construction by no later than June 30, 2094.	City Administrator [September 15, 2019]	Will be implemented	The analysis will be performed as part of the CITY's 10-Year Capital Plan development process. The next full update to the Capital Plan will be submitted to the Mayor and Board not later than March 1, 2021, for approval no later than Mary 1, 2021.

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Act Now Before It Is Too Late: Aggressively Expand and Enhance Our High-Pressure Emergency Firefighting Water System [July 17, 2019]						[for F8-F9]		Department of the Environment [September 15, 2019]		Not applicable to the San Francisco Department of the Environment