

Emergency Firefighting Water System

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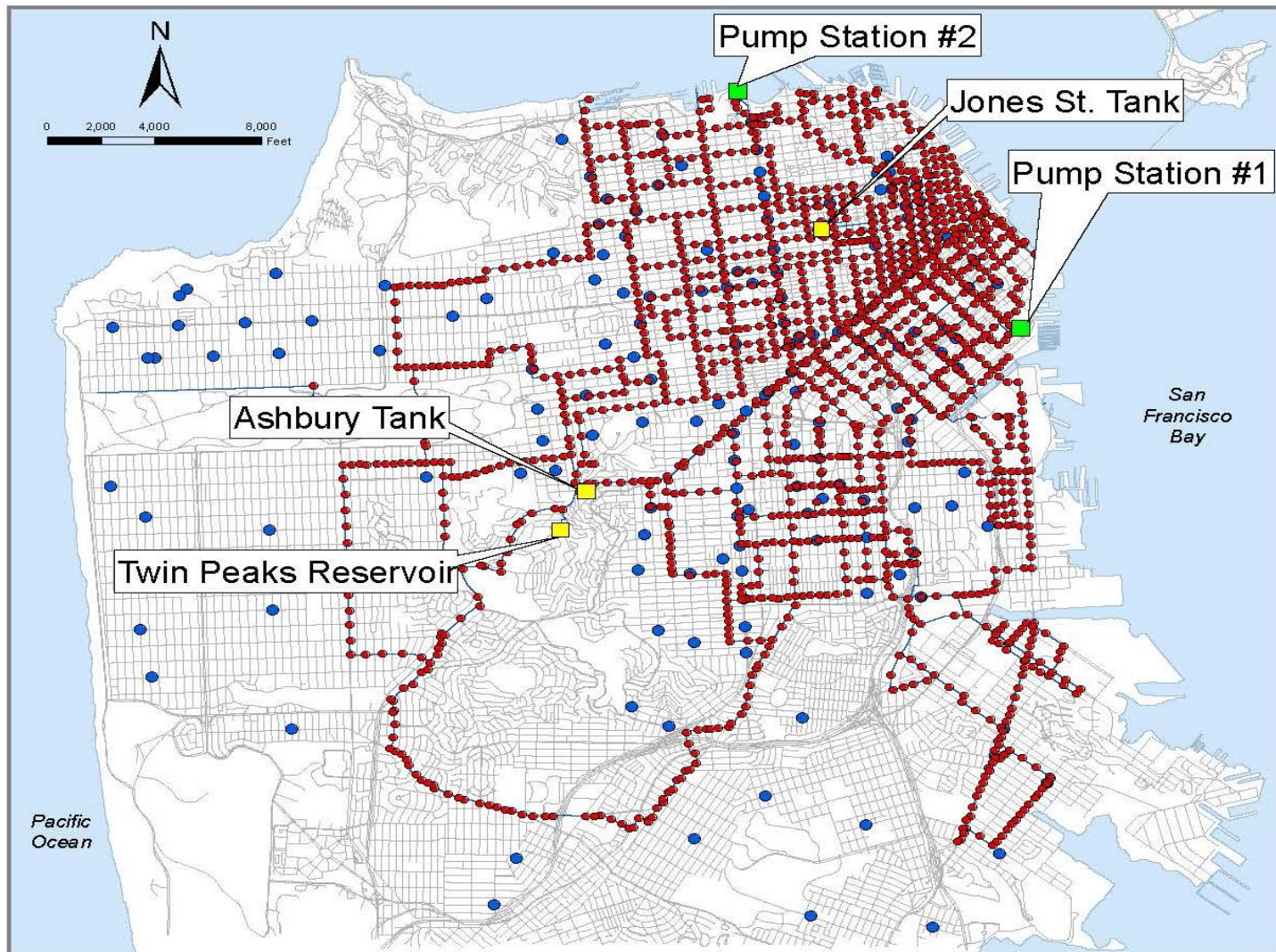
What is the EFWS?

- Emergency Firefighting Water System (EFWS): A high-pressure fire-suppression water system built after 1906 earthquake
- Ownership transferred to SFPUC in 2010
- SFFD is the end user: System improvements and expansion approved by SFFD, SFPUC, and Public Works
- Hydraulic Modeling utilized to guide decision making.



Original EFWS Map

33
Seismically
Reliable
Valves
Throughout
System



Partnership

- Evaluation of EFWS when transferred to SFPUC:
 - Using modern seismic resilience capability analysis looking for vulnerabilities, leading to immediate and future projects
 - 47% system reliability for median flow of water needed by SFFD to fight fires after 7.8 earthquake
- Since 2010 - SFPUC, SFFD, and Public Works have been implementing projects to improve the EFWS.
- Projects completed utilizing Earthquake Safety and Emergency Response Bonds:
 - 2010 Bond: \$102 million for EFWS capital projects
 - 2014 Bond: \$54 million for EFWS capital projects



Key ESER Projects Completed

- EFWS Reliability upgrades at three primary source supplies:
 - Twin Peaks Reservoir, Ashbury Heights Tank, and Jones Street Tank
- Replaced engines and installed remote control capabilities for Seawater pump station #1
- Installation of 30 new cisterns:
 - 15 in the Sunset and Richmond districts
- Electronic Control Improvements
- 6 pipeline and tunnel projects



Key ESER Projects Underway

- Seawater pump station #2
- 19th Ave. Pipeline:
 - Bidding Feb 2020
- Ashbury Bypass Pipeline
- Clarendon Supply Pipeline
- Irving St. Pipeline
- Terry Francois Blvd. Pipeline:
 - Phase 1: completed
 - Phase 2: Bidding 2019



By June 30, 2021, complete a study for adding an EFWS saltwater pump station on the Westside of San Francisco.

- SFPUC & SFFD are committed to completing seawater pump station report:
 - Contracting with a multidisciplinary consulting team.
 - Development of scope of work with consultant team
 - Review of deliverables throughout development by SFPUC and SFFD
 - Updates to SFPUC CAC
 - Final Review by EFWS Management Oversight Committee
 - Final presentation of study to Board by 6/30/2021



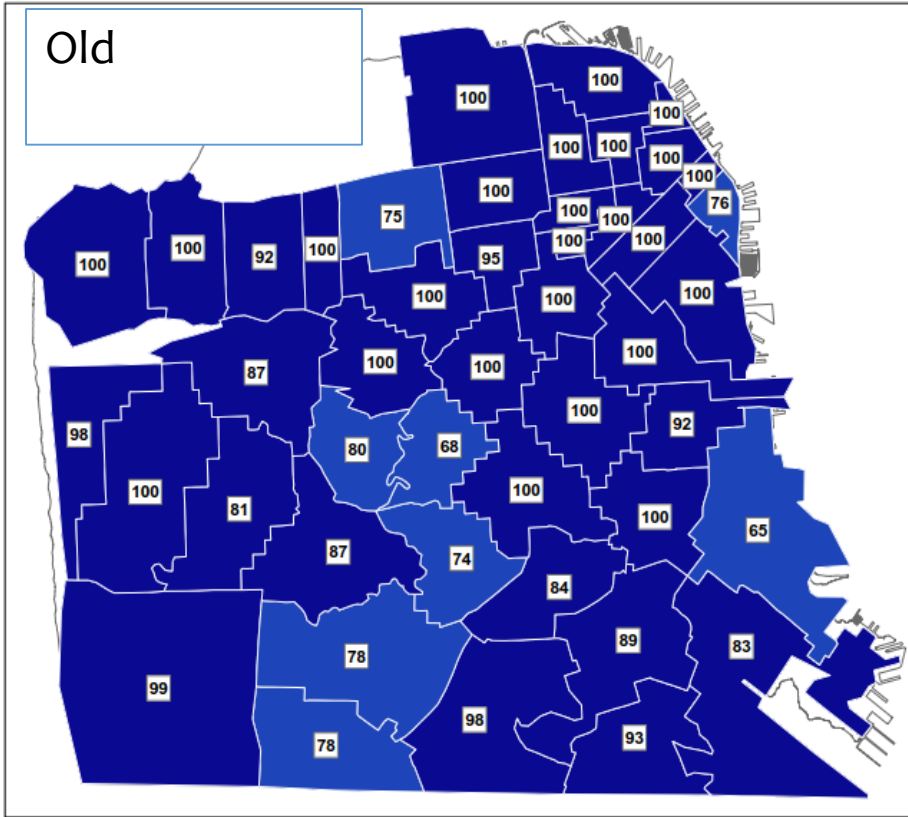
By June 30, 2021, complete a more detailed analysis of emergency firefighting water needs by neighborhood.

- SFPUC is committed to completing this more detailed analysis:
 - This work is already underway – Civil Grand Jury noted “continue” this work.
 - Will be updated based on updated ignition model
 - Review by expert staff and consultants
 - Updates to SFPUC CAC
 - Final Review by EFWS Management Oversight Committee
 - Final presentation to Board by 6/30/2021

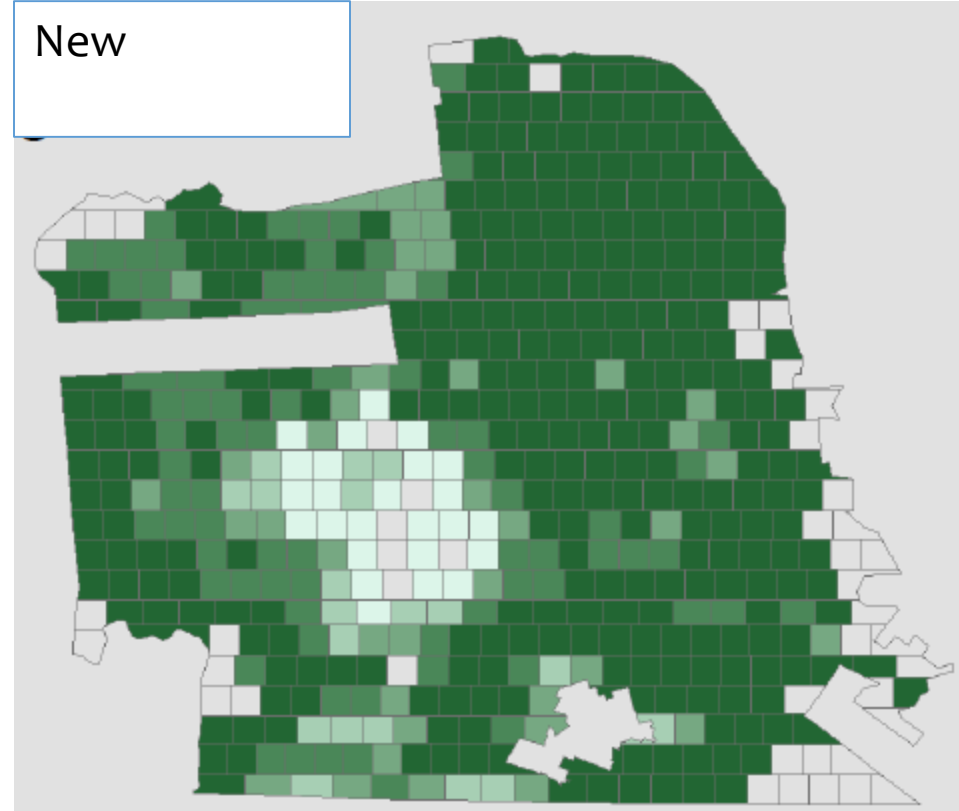


Detailed analysis

Old



New



By December 31, 2021, develop a comprehensive EFWS action plan, including funding sources, to deliver EFWS citywide by June 30, 2034.

- City Agencies committed to developing a comprehensive EFWS citywide plan by deadline:
 - Technical Work:
 - Obtain updated fire ignition modeling results
 - Complete hydraulic modeling, analyzing piping configurations and water supplies
 - Review of various scenarios with expert consultants
 - Review and recommendations by expert staff
 - Updates to SFPUC CAC
 - Review and recommendation by EFWS Management Oversight Committee
 - Development of timeline and funding needs



By June 30, 2022, analyze whether to propose a standalone EFWS bond as part of the City's regular capital planning process

By March 1 of each odd-numbered year...the City Administrator shall submit to the Mayor and Board of Supervisors a ten-year capital expenditure plan, which shall include an assessment of the City's capital infrastructure needs, investments required to meet the needs identified through this assessment, and a plan of finance to fund these investments.

By May 1 of the same year, the Mayor and Board shall review, update, amend, and adopt by resolution the ten-year capital expenditure plan.



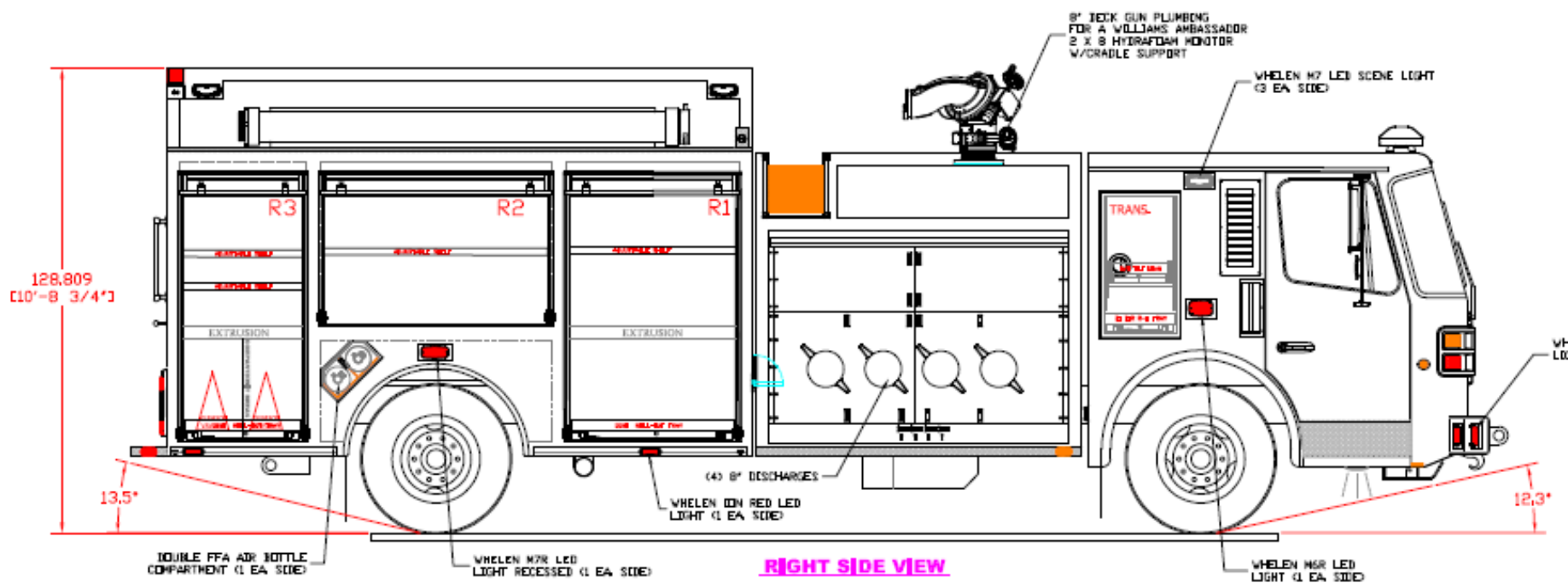
Administrative Code Section 3.20

In even-numbered years, an off-year update is prepared to take into account major developments and advances in planning.

Consideration of a standalone bond for EFWS would be incorporated into the FY2022 off-year capital plan update.



Prioritize Hose Tenders



Questions?



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