

File No. 240668

Committee Item No. 2

Board Item No. 16

COMMITTEE/BOARD OF SUPERVISORS

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Board of Supervisors Meeting:

Date: September 19, 2024
Date: October 1, 2024

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Prepared by: Monique Crayton

Date: September 13, 2024

Prepared by: Monique Crayton

Date: September 27, 2024

Prepared by: _____

Date: _____

1 [Board Response - Civil Grand Jury Report - Come Hell or High Water: Flood Management in
2 a Changing Climate]

3 **Resolution responding to the Presiding Judge of the Superior Court on the findings**
4 **and recommendations contained in the 2023-2024 Civil Grand Jury Report, entitled**
5 **“Come Hell or High Water: Flood Management in a Changing Climate,” and urging the**
6 **Mayor to cause the implementation of accepted findings and recommendations**
7 **through her department heads and through the development of the annual budget.**

8
9 WHEREAS, Under California Penal Code, Section 933 et seq., the Board of
10 Supervisors must respond, within 90 days of receipt, to the Presiding Judge of the Superior
11 Court on the findings and recommendations contained in Civil Grand Jury Reports; and

12 WHEREAS, In accordance with California Penal Code, Section 933.05(c), if a finding or
13 recommendation of the Civil Grand Jury addresses budgetary or personnel matters of a
14 county agency or a department headed by an elected officer, the agency or department head
15 and the Board of Supervisors shall respond if requested by the Civil Grand Jury, but the
16 response of the Board of Supervisors shall address only budgetary or personnel matters over
17 which it has some decision making authority; and

18 WHEREAS, Under San Francisco Administrative Code, Section 2.10(a), the Board of
19 Supervisors must conduct a public hearing by a committee to consider a final report of the
20 findings and recommendations submitted, and notify the current foreperson and immediate
21 past foreperson of the Civil Grand Jury when such hearing is scheduled; and

22 WHEREAS, In accordance with San Francisco Administrative Code, Section 2.10(b),
23 the Controller must report to the Board of Supervisors on the implementation of
24 recommendations that pertain to fiscal matters that were considered at a public hearing held
25 by a Board of Supervisors Committee; and

1 WHEREAS, The 2023-2024 Civil Grand Jury Report, entitled “Come Hell or High
2 Water: Flood Management in a Changing Climate,” (“Report”) is on file with the Clerk of the
3 Board of Supervisors in File No. 240668, which is hereby declared to be a part of this
4 Resolution as if set forth fully herein; and

5 WHEREAS, The Civil Grand Jury has requested that the Board of Supervisors respond
6 to Finding Nos. F1, F3, F4, F5, and F6 as well as Recommendation Nos. R1.4, R3.2, R4.1,
7 R5.1, R6.2, and R6.3 contained in the subject Report; and

8 WHEREAS, Finding No. F1 states: “ClimateSF Governance and Coordination Are
9 Inadequate;” and

10 WHEREAS, Finding No. F3 states: “Funding of Climate Resilience Is Hampered by
11 Debt Cap and Service Rate Constraints;” and

12 WHEREAS, Finding No. F4 states: “Flood Management Needs Interdepartmental
13 Coordination;” and

14 WHEREAS, Finding No. F5 states: “Flood Damage Claims Are Not Funded by
15 Insurance;” and

16 WHEREAS, Finding No. F6 states: “The City Fails to Communicate Impacts of Climate
17 Change;” and

18 WHEREAS, Recommendation No. R1.3 states: “Beginning 2025, ClimateSF shall
19 prepare an annual report for the public, summarizing the status of the ongoing climate
20 resilience projects, using standardized metrics, including a description of the project, the Core
21 agency in charge, the intended climate resilience measures, a projected cost, budget status
22 and project timeline. This recommendation may and should be implemented administratively;”
23 and

24
25

1 WHEREAS, Recommendation No. R1.4 states: “If Recommendation 1.3 is not
2 implemented administratively, the Board of Supervisors shall enact an ordinance making the
3 annual report a legal requirement;” and

4 WHEREAS, Recommendation No. R3.2 states: “By December 31, 2024, the Board of
5 Supervisors shall direct their Budget and Legislative Analyst to do an analysis of the impact
6 on the city’s General Fund of increasing the current limit for General Obligation Bonds;” and

7 WHEREAS, Recommendation No. R4.1 states: “By December 31, 2024, the Mayor
8 and the Board of Supervisors shall request a report from the City Administrator, as Floodplain
9 Administrator, on the optimal governance structure (for example, CPC, Deputy City
10 Administrator, Floodplain Administrator) to implement interdepartmental flood adaptation
11 procedures;” and

12 WHEREAS, Recommendation No. R5.1 states: “By December 31, 2024, the Board of
13 Supervisors shall request a Budget and Legislative Analyst report on the advisability of a
14 Board resolution urging modification of the federal mandate to purchase flood insurance
15 beyond that which is currently required in the FEMA designated floodplain;” and

16 WHEREAS, Recommendation No. R6.2 states: “By December 31, 2024, the Board of
17 Supervisors shall direct their Budget and Legislative Analyst to prepare a financial analysis of
18 the possible differential harms of climate change resilience projects within marginalized
19 communities;” and

20 WHEREAS, Recommendation No. R6.3 states: “By December 31, 2025, the Board of
21 Supervisors shall hold annual public hearings on the differential harms of climate change
22 resilience projects within the impacted communities with testimony from the Department of the
23 Environment and the Human Rights Commission;” and

24 WHEREAS, In accordance with California Penal Code, Section 933.05(c), the Board of
25 Supervisors must respond, within 90 days of receipt, to the Presiding Judge of the Superior

1 Court on Finding Nos. F1, F3, F4, F5, and F6 as well as Recommendation No. R1.4, R3.2,
2 R4.1, R5.1, R6.2, and R6.3, contained in the subject Report; now, therefore, be it

3 RESOLVED, That the Board of Supervisors reports to the Presiding Judge of the
4 Superior Court that they disagree partially with Finding No. F1 for the following reasons:
5 ClimateSF functions as a coordinating body for City Departments to address threats related to
6 climate resilience; It is not clear that noted challenges in convening Director-level meetings
7 have expressly inhibited this coordination, as evidenced by several initiatives that have been
8 successfully implemented; the Board of Supervisors agrees, however, that the City should
9 continue to improve upon existing interdepartmental coordination; and, be it

10 FURTHER RESOLVED, That the Board of Supervisors reports to the Presiding Judge
11 of the Superior Court that they disagree partially with Finding No. F3 for the following reasons:
12 the Board of Supervisors agrees that there should be a better understanding of anticipated
13 climate resilience costs which would help inform an evaluation of funding options; If the City
14 increased its General Obligation Bond debt authority, however, it would likely not be sufficient
15 to fund all capital and adaptation infrastructure needs; In addition, this recommendation does
16 not contemplate that there are likely other sources of funding from the State and Federal
17 governments that could fund flood resilience and climate adaptation infrastructure that would
18 not impact enterprise revenues and would alleviate competitive concerns; and, be it

19 FURTHER RESOLVED, That the Board of Supervisors reports to the Presiding Judge
20 of the Superior Court that they agree with Finding No. F4; and, be it

21 FURTHER RESOLVED, That the Board of Supervisors reports to the Presiding Judge
22 of the Superior Court that they disagree wholly with Finding No. F5 for the following reasons:
23 Flood claims are paid for by the San Francisco Public Utilities Commission Wastewater
24 Enterprise, not from the General Fund; and, be it

25

1 FURTHER RESOLVED, That the Board of Supervisors reports to the Presiding Judge
2 of the Superior Court that they disagree wholly with Finding No. F6 for the following reasons:
3 the City regularly communicates climate change risks to residents through the Planning
4 Department, San Francisco Public Utilities Commission, the Department of the Environment,
5 and others; The Board of Supervisors agrees, however, that departments should improve their
6 coordination and streamlining of communications; and, be it

7 FURTHER RESOLVED, That the Board of Supervisors reports that Recommendation
8 No. R1.4 requires further analysis as any future action will be dependent upon analysis that
9 the City Administrator's office has committed to complete; upon receipt of that analysis, the
10 Board of Supervisors will consider whether further action is needed; this shall be determined
11 within one year from the date of adoption of this resolution; and, be it

12 FURTHER RESOLVED, That the Board of Supervisors reports that Recommendation
13 No. R3.2 will not be implemented because it is unwarranted as General Obligation bonds are
14 paid for by special property taxes, not the General Fund; and, be it

15 FURTHER RESOLVED, That the Board of Supervisors reports that Recommendation
16 No. R4.1 will not be implemented because it is unwarranted as City Departments are in the
17 process of developing a governance structure for flood management; and, be it

18 FURTHER RESOLVED, That the Board of Supervisors reports that Recommendation
19 No. R5.1 will not be implemented because it is unwarranted as the Board of Supervisors
20 cannot require FEMA to adjust its flood policies; and, be it

21 FURTHER RESOLVED, That the Board of Supervisors reports that Recommendation
22 No. R6.2 will not be implemented because that work is already being undertaken by the
23 Planning Department, Port, San Francisco Public Utilities Commission, and other City
24 Departments; and, be it

25

1 FURTHER RESOLVED, That the Board of Supervisors reports that Recommendation
2 No. R6.3 will not be implemented because it is unwarranted as this Board of Supervisors
3 cannot commit to future hearing actions of the body; and, be it

4 FURTHER RESOLVED, That the Board of Supervisors urges the Mayor to cause the
5 implementation of the accepted findings and recommendations through her department heads
6 and through the development of the annual budget.

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Come Hell or High Water

Flood Management in a Changing Climate



June 11, 2024



CITY AND COUNTY OF SAN FRANCISCO

2023–2024 CIVIL GRAND JURY

About the San Francisco Civil Grand Jury

The San Francisco Civil Grand Jury (the “Jury”) is a government oversight panel of volunteers who serve for one year. Each Jury determines which local government entities within San Francisco it will investigate. Private citizens also may submit written complaints to the Jury, for investigation at the Jury’s discretion. The Jury cannot investigate disputes between private parties, criminal activity, or activities outside its jurisdiction, which is the government of the City and County of San Francisco and any other local governments within city limits.

In reports made available to the public, the Jury documents findings and recommendations based on its investigations. Reports do not generally identify individuals by name, and disclosure of the specific identity of anyone interviewed by the Jury is prohibited.

The San Francisco Civil Grand Jury consists of 19 city residents impaneled by a Superior Court Judge. By state law, a person is eligible for Civil Grand Jury service if the person is a U.S. citizen, 18 years of age or older, of ordinary intelligence and good character, and has a working knowledge of the English language.

2023–2024 Civil Grand Jurors

Michael Carboy Foreperson

Carol Healey

Carol Anderson

Jim Ketcham

Peter Boyd

Roe Landesman

Jonathan E. Cowperthwait

Ralph Lane

Phyllis Deets

Will McCaa

Paul Dravis

John Monson

Bart Fisher

Niall Murphy

Brian Flaherty

Beverley Talbott

Will Fox

Fred Waldman

Marina Franco

Summary

Climate change has brought to San Francisco the triple threat of the sea rising along our shorelines, extreme storms dumping unprecedented volumes of water into our already strained sewer systems, and saturated surface soils preventing timely seepage into the aquifers. One result...increased flooding.

Given this unavoidable future, individual departments of the City and County of San Francisco have responded with plans to adapt to the increasingly extreme conditions.

Since 2012, the San Francisco Public Utilities Commission has been implementing the Sewer System Improvement Program, a 20-year, citywide investment to upgrade aging infrastructure and to address challenges including the impacts from climate change. 23,700 residents are forecasted to be adversely affected by inland flooding.

The Port of San Francisco's Waterfront Resilience Program, initiated in 2019, includes the ongoing Seawall Program, the Flood Resiliency Study, and related resilience planning and implementation efforts for the Port's entire 7.5 miles of waterfront property.

In 2021, the Mayor's Office created the Climate Resilience Program, also known as ClimateSF, to coordinate and oversee existing and future climate resilience projects. ClimateSF is a partnership of the SFPUC and the Port, along with the Planning Department, the San Francisco Environment Department, and the Office of Resilience and Capital Planning. The charter for that partnership has the objectives of "coordinated planning and performance management," as well as "aligned communications and engagement."

This report evaluates the city's progress towards these objectives, pointedly looking at flood management.

The Civil Grand Jury found that:

- ClimateSF assists in coordinating planning projects, yet lacks the authority to coordinate project implementation and management.
- Flood management lacks the necessary interdepartmental coordination.
- With no plan to fund the necessary adaptation infrastructure, the city is hampered by a self-imposed limit on the use of debt finance.
- The city is paying avoidable flood damage recovery costs.
- The city's activities for climate resilience are not transparent in the city's budget.
- The city is failing to communicate to residents the future impacts of climate change.

Our recommendations to address these findings entail:

- Reforming the process of decision making in the Climate Resilience Program
- Providing more transparency in planning for climate adaptation
- Reassessing the certain funding shortfalls needed to respond to the impacts from climate change
- Improving interdepartmental coordination by the city to address expected flooding
- Stepping up efforts to notify the public about flood insurance options and to inform the public about those areas most likely to be affected.

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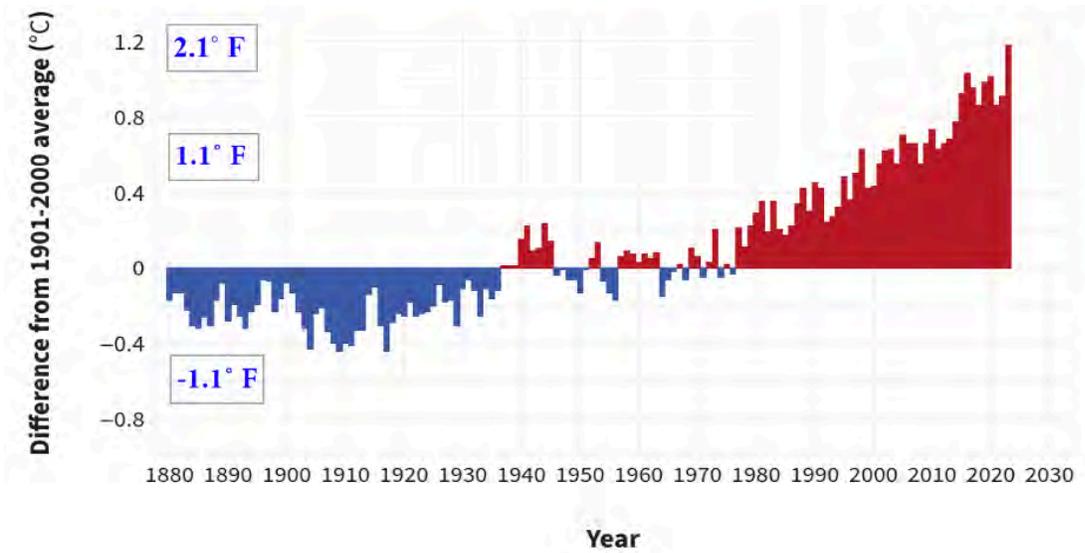
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Background

The Science of Climate Change

Climate change refers to the increased warming of our planet and the downstream effects of that change, including rising sea levels, increasing frequency and intensity of precipitation, and drought. By a wide margin, 2023 was the warmest year for our planet since global record taking began in 1850. The 10 warmest years in the historical record have all occurred in the past decade (2014–2023).¹

Figure 1: Global average surface temperature



Yearly surface temperature from 1880-2023 compared to the 20th century average (1901-2000). Blue bars indicate cooler than average years; red bars show warmer than average years. From NOAA Climate.gov.

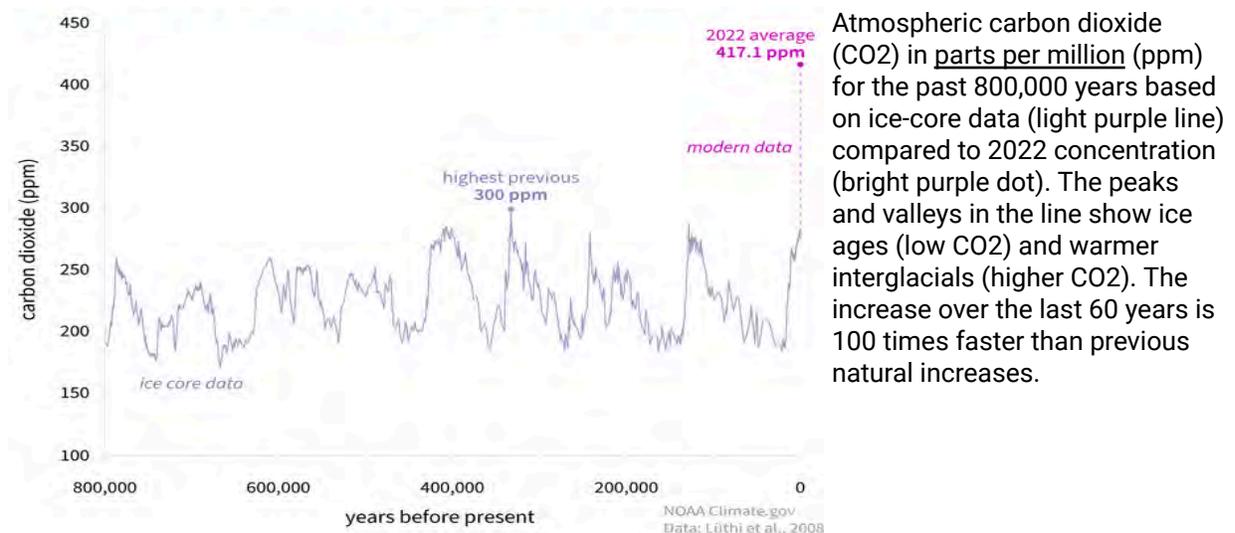
Global Warming

The increasing level of carbon dioxide released into the atmosphere by human activities, especially the burning of fossil fuels, leads to trapping of the sun’s radiation when it’s reflected

¹ Lindsey, R. and Dahlman, L., NOAA Climate.Gov, [Climate Change: Global Temperature](#), 2024.

back from the earth's surface, which causes an increase in temperature. The increased release of carbon dioxide in industrial times has caused global warming at a rate far exceeding anything seen for millenia.²

Figure 2. Carbon dioxide rise over 800,000 years



Greenhouse gases (mostly carbon dioxide) have already led to an increase in global surface temperatures of about 2 °F compared to pre-industrial times.³ It is estimated that global warming will increase by an additional 2.7°F to 7.2°F in the next 75 years depending on our ability to limit emissions. If all countries are able to limit greenhouse gases, particularly over the next two decades, it is still possible to keep future warming under 4.5°F by the end of the century (as opposed to the business-as-usual scenario that would propel the world towards 7.2°F of warming).⁴

² NOAA Climate.gov, 2024.

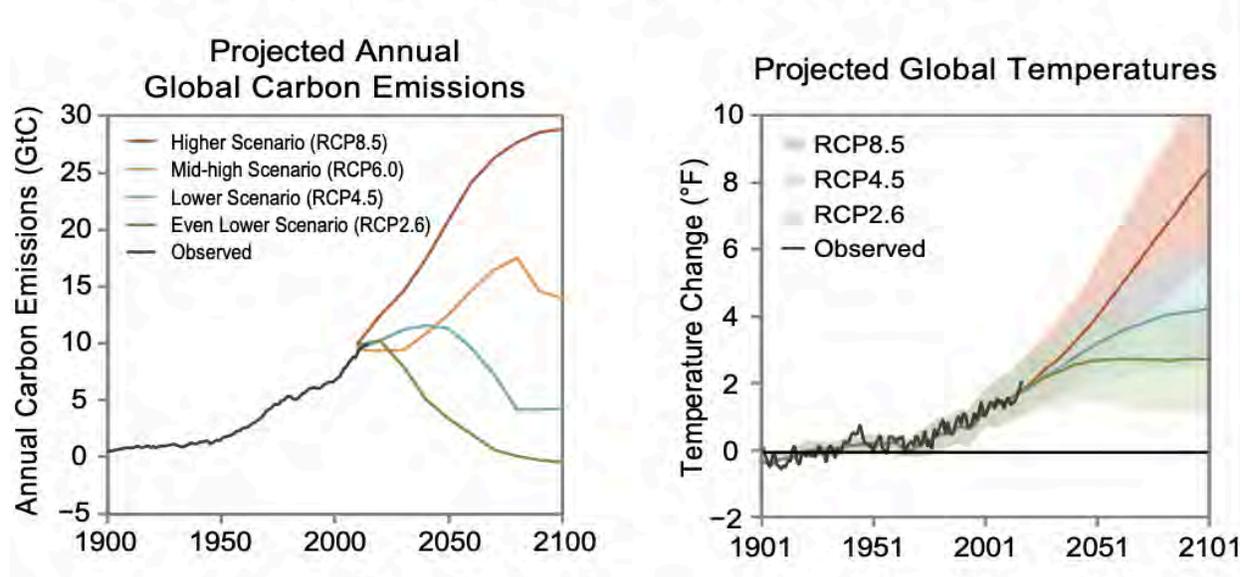
³ NOAA 2023 Annual Climate Report.

⁴ Lee, et al., "Climate Change 2023: Synthesis Report," IPCC

Sea Level Projected to Rise 3.5 feet by 2100

There is scientific consensus that human activities have warmed our atmosphere, ocean, and land. The melting of ice sheets along with an increase in ocean temperature has caused the global mean sea level to increase by about 7.1 inches between 1901 and 2018. The average rate of sea level rise was 0.05 inches per year between 1901 and 1971, compared to 0.15 inches per year between 2006 and 2018.⁵

Figure 3: Greater emissions lead to significantly more warming



Left: Annual historical and a range of plausible future carbon emissions in units of gigatons of carbon (GtC) per year; Right: Historical observed and modeling of future temperature changes that would result for a range of future scenarios relative to the 1901–1960 average. Representative Concentration Pathways (RCPs) refer to future low (2.6), medium (4.5), and high (8.5) levels of CO₂ potentially released into the atmosphere. From Climate Science Special Report (2022)⁶

The US National Oceanic and Atmospheric Administration (NOAA) reports that “Sea level along the U.S. coastline is projected to rise, on average, 10–12 inches in the next 30 years (2020–2050), which will be as much as the rise measured over the last 100 years. Sea level rise will vary regionally along U.S. coasts because of changes in both land and ocean height, with 4-8 inches predicted for the US west coast and 14–18 inches for the east coast.”⁷

⁵ [“Climate Change 2023: Synthesis Report.”](#)

⁶ [“Climate Change: Global Temperature,”](#) 2024.

⁷ Sweet, et al., [NOAA Sea Level Rise Technical Report](#), 2022.

“In addition, about 2 feet of sea level rise along the U.S. coastline is increasingly likely between 2020 and 2100 if the current rate of carbon emissions holds steady. Failing to curb future emissions is likely to cause an additional 1.5–5 feet of rise for a total of 3.5–7 feet by the end of this century.”⁸

“Sea level rise will create a profound shift in coastal flooding over the next 30 years by causing tide and storm surge heights to increase and reach further inland. By 2050, “moderate” (typically damaging) flooding is expected to occur, on average, more than 10 times as often as it does today, and can be intensified by local factors.”⁹



Photo by F.Waldman

Increased Warming Will Bring More Extreme Precipitation

Historically, the Bay Area has benefited from a Mediterranean climate, with about 75% of its annual average rainfall between November and March, with little to no rainfall occurring in summer. The Bay Area oscillates between extremes, with periods of below average annual rainfall (i.e., drought conditions) interspersed with years of above-average annual rainfall.

⁸ NOAA, “[Sea Level Rise Technical Report](#).” Accessed March, 2024.

⁹ NOAA, “[Sea Level Rise Technical Report](#).” Accessed March, 2024.

Two storm types typically bring rainfall to the Bay Area:

- Extratropical cyclones develop offshore and can bring cloudiness and mild showers, but also severe gales, thunderstorms, blizzards, and heavy rain.
- Atmospheric rivers originate in the tropics and can bring light beneficial rain, but also torrential downpours and high winds.

Each storm type can occur on its own, or they can occur in combination. A single atmospheric river can also co-occur with a series of back-to-back extratropical cyclones. Atmospheric rivers and extratropical cyclones on the more hazardous end of the spectrum are associated with an increased risk of flooding in low-lying areas throughout the Bay Area.

The atmospheric warming associated with climate change allows for greater amounts of water vapor in the air, leading to increased levels of precipitation from these storm events. A recently published study¹⁰ done in collaboration with the San Francisco Public Utilities Commission used storm data from five recent storms to model what future storm levels might look like with increasing atmospheric warming. They found that increased warming is very likely to be associated with significant increases in the frequency and intensity of atmospheric rivers and extratropical cyclones.

Climate Resilience: Adaptation and Mitigation

*Adaptation*¹¹ in climate parlance means anticipating the adverse effects of climate change and taking appropriate action to prevent or minimize the damage these effects can cause. Examples of adaptation measures include large-scale infrastructure projects, such as building defenses to protect against sea-level rise. Adaptation can be understood as the process of adjusting to the current and future effects of climate change.

Mitigation means making the impacts of climate change less severe by preventing or reducing greenhouse gas emissions into the atmosphere. Mitigation is achieved either by reducing the sources of these gases, for example by increasing the use of renewable energies, or by

¹⁰ [Patricola et al., 2022](#), "Future changes in extreme precipitation over the San Francisco Bay Area: Dependence on atmospheric river and extratropical cyclone events," *Weather and Climate Extremes* 36:2212.

¹¹ 2017, [European Environment Agency](#). Accessed March, 2024.

expanding the forest footprint in order to capture these gases. Mitigation is a human intervention that reduces the sources of greenhouse gas emissions and/or enhances carbon sinks, such as forests.

The City's Response to Climate Change

San Francisco is a recognized leader in its response to climate change.

In 2013, San Francisco became one of the first 100 Resilient Cities (100RC) to receive funding and support from the Rockefeller Foundation. In 2014, San Francisco was the first city to hire a Chief Resilience Officer, and in 2016 was the first to complete a strategic plan for resilience.

To institutionalize resilience as a civic priority, in 2016 the Capital Planning Program and the Office of Resilience and Recovery merged to create the new Office of Resilience and Capital Planning (ORCP), led by the city's Chief Resilience Officer.

ClimateSF: a Partnership of City Agencies

In October 2021, the Mayor's Office launched the Climate Resilience Program, also known as ClimateSF, a partnership of city agencies to initiate, develop, and coordinate the governance of San Francisco's climate resilience efforts. Led by the Mayor's Office, the core agencies are the ORCP with the city's Chief Resilience Officer, the Planning Department, the San Francisco Environment Department (SFE), the Port of San Francisco (Port) and the San Francisco Public Utilities Commission (SFPUC). They are augmented by three partner agencies Public Works (DPW), Municipal Transportation Agency (MTA) and Recreation & Park (RPD).

ClimateSF's objectives are threefold: 1) aligned communications and engagement; 2) coordinated planning and performance management; and 3) climate resilient building and infrastructure across current projects. There is a three-tiered committee structure: department heads (Directors) of the agencies listed above are to meet quarterly; their deputy department heads are to meet every six weeks; and a team of designated staff members from each department, referred to as "the Champions," are to meet biweekly or as needed.¹²

¹² Office of Resilience and Capital Planning, ClimateSF, August 18, 2021, "Climate Resilience Program Charter," 8.

Decisions are expected to be made primarily through consensus among the Core Agencies with deference given to the agency-assigned task/project-lead for that element. When the team cannot come to a consensus, decisions can be escalated to the next level of authority, starting with the Deputies Committee and then the Directors Committee. There is no express provision in the program charter to resolve the inability to achieve consensus at the Director level meeting.

“The objective of this approach is to ensure that all climate resilience projects throughout the city use and provide input into the climate resilience framework as well as coordinate together. Staff who are engaged in the staff level meetings shall brief and gather executive input from their respective agencies and vice versa.”¹³

Progress on meeting success metrics is communicated in an annual report produced prior to the first quarterly Directors meeting after the end of the Fiscal Year.

Among the success metrics to be evaluated are:

- Developing a Resilient Infrastructure Finance Working Group that will recommend financing strategies for mitigation and adaptation projects.
- Mapping vulnerable communities located in the Sea Level Rise Vulnerability Zone as part of the Environmental Justice Framework.¹⁴

The Climate Resilience Framework (updated July 2022) asserts that “ClimateSF will be assessed on an annual basis. During this assessment, a rolling list of key challenges will be reviewed and revised in addition to the goals and vision.”¹⁵

The ORCP assigned a Program Manager to ClimateSF responsible for facilitating interagency collaboration on all tasks to ensure that all program deliverables are developed in a consistent fashion. The Program Manager oversaw the ClimateSF working groups and committees and supported regular communication amongst agencies.¹⁶ After budget cuts in the spring of 2023,¹⁷ this position was defunded.

¹³ ORCP, Aug 18, 2021, “Climate Resilience Program Charter,” 3.

¹⁴ ORCP, Aug 18, 2021, “Climate Resilience Program Charter,” 8.

¹⁵ ORCP, Aug 18, 2021, “Climate Resilience Program Charter,” 9.

¹⁶ ORCP, Aug 18, 2021, “Climate Resilience Program Charter,” 9.

¹⁷ [Dan Goncher, et al., City and County of San Francisco, Mar 31, 2023, “Budget Outlook Update \(March Five Year Update\).”](#)

At a meeting of departmental deputies at a meeting on April 26, 2023, there was a strong preference to have a manager level position hired to lead the project.¹⁸ There is currently no one at the department level or at the deputy level managing the city’s climate change resilience program.

A posting for “ClimateSF Program Manager” was listed on December 13, 2023, and applications for this 0923 Manager II position closed on January 4, 2024.¹⁹ A review of the ClimateSF website on May 8, 2024 did not find that a program manager had been selected.²⁰

Projects Coordinated by ClimateSF

ClimateSF functions as a coordinating body for departmental projects but does not manage those projects specifically. The six lead and three partner agencies of ClimateSF oversee projects in various states of planning and implementation. Currently, there is no complete list of ongoing projects related to climate resilience in the city, nor a complete disclosure of their projected costs.

We have provided an expanded summary of many of the relevant city projects in Appendix A as identified by the Office of Resilience and Capital Planning (ORCP) on the ClimateSF website.²¹ Three are described below as examples for the essential role that interdepartmental coordination plays in planning and implementation.

Ocean Beach Climate Change Adaptation Project

The Ocean Beach project is the first major climate change adaptation project in San Francisco. The SFPUC is the lead on this project to construct a buried wall to protect wastewater infrastructure and recycled water facilities from shoreline erosion.

This project was originally recommended by the 2012 Ocean Beach Master Plan, a collaborative vision for San Francisco’s western coast, which brought together city agencies, the Federal Highway Administration, and the National Park Service.²²

¹⁸ ClimateSF Meeting Notes, 26 Apr 2023.

¹⁹ [ClimateSF Program Manager Position, 2023, SF Careers.](#)

²⁰ [Office of Resilience and Capital Planning, Who We Are.](#) Accessed May 9, 2024.

²¹ [Office of Resilience and Capital Planning, Climate SF.](#) Accessed May 9, 2024.

²² SFPUC, [“Ocean Beach Climate Change Adaptation Project.”](#) Accessed May 6, 2024.

The Ocean Beach Project required approvals from the SFPUC, RPD, DPW, the MTA, the Golden Gate National Recreation Area (part of the National Park Service), and the Federal Highway Administration.

More than a decade later, in October 2023, the Planning Commission certified the Final Environmental Impact Report, and the project was approved by the SFPUC and Recreation and Park Commission.

On April 1, 2024 the National Park Service (NPS) published the NEPA Environmental Assessment to consider whether to issue an easement and Special Use Permit to the city for work within NPS land to implement the Ocean Beach Climate Change Adaptation Project.²³

In the spring of 2024, the Recreation and Park Commission presented the plan for closure of the Great Highway Extension between Sloat and Skyline Boulevards to the Board of Supervisors as an essential element of the project. The latest delay concerned a tenant of the Recreation and Park Department, the San Francisco Zoological Society, about the effect of the closure on parking lot access for patrons.

At a hearing of the Board of Supervisors Land Use and Transportation Committee on April 29, 2024, after a community leader referenced “multi-year delays,” an ordinance to close the Great Highway Extension in 2026 was forwarded to the full Board which passed it within three weeks.

The current schedule estimates construction will begin in 2025 and last for approximately four years.

Sewer System Improvement Program

Since 2012, the SFPUC has been implementing the Sewer System Improvement Program (SSIP), a 20-year, citywide investment to upgrade aging infrastructure, addressing seismic vulnerability, climate change, localized flooding, and water quality.²⁴

²³ [2024. San Francisco Recreation and Park Civic Alert.](#)

²⁴ SFPUC website, [“Sewer System Improvement Program.”](#)

Stormwater flooding occurs during storm events as rainfall runoff collects in areas that once were naturally-formed waterways but are now contained within the city's combined sewer and stormwater collection system.²⁵

Stormwater flooding can cause physical damage to buildings and infrastructure, disrupt economic activity, and impair public health.²⁶

As climate change causes sea level rise and precipitation events to become more intense, the frequency and extent of stormwater flooding will increase.²⁷

Extreme storms will increasingly drop more rain in a shorter period. The intensity of the more frequent smaller storms will increase even more than extreme storms.²⁸ As sea level rises, the ability for the sewer system to discharge to the Bay and creeks will be counter-gravitational, thus requiring mechanical assistance to avoid stormwater seepage into buildings and onto streets when the system capacity is overwhelmed.

Additionally, if coastal storm water overtops the shoreline and is captured by our combined sewer system, the saline content has the potential to damage biological treatment processes and further decrease available system capacity for wastewater needs, as designed, into the Bay.²⁹

In general, flooding adaptation requires one or a combination of three options: accommodate (raise or waterproof assets in place), protect (create natural or engineered barriers, such as wetlands or levees), or retreat (relocate sensitive assets to low-risk areas and/or transition high-risk areas to lower-risk uses).

In a presentation to the Capital Planning Committee, in December of 2022, the SFPUC Climate Change Project Manager reported that the Wastewater Enterprise could not “manage that change alone” within our sewer system.³⁰

²⁵ SFPUC website, “[Our Combined Sewer.](#)”

²⁶ National Institutes of Health, “[Health Impacts of Extreme Weather.](#)” Accessed May 6, 2024.

²⁷ Environmental Protection Agency, 2023, “[Climate change indicators in coastal flooding.](#)”

²⁸ Mak M, Neher J, May CL, Finzi Hart J, Wehner M, Roche A., 2023, “[San Francisco Precipitation in a Warmer World.](#)” Volume 1: State of the Science, 9.

²⁹ Port of San Francisco, “[San Francisco Waterfront Flood Study.](#)”

³⁰ [Capital Planning Committee, Dec. 12, 2022, Minutes, “Extreme Precipitation Study Slide 9.”](#)

Without the capacity to either convey, store or discharge the amount of water beyond the existing Level of Service objective (a three-hour storm event that delivers 1.3 inches of rain), the SFPUC expects inland flooding.³¹

The Islais Creek area (Cayuga/Alemanya), South of Market, Inner Mission, and Civic Center/Western Addition include significant areas that are at risk of stormwater flooding during a 100-year storm, that is, a storm with a projected likelihood of 1% in any given year, as well as during rainfall events that occur more frequently.³²

Seawall Resilience Project and Army Corps of Engineers Study

In January 2024, the US Army Corps of Engineers (USACE) and the Port issued a draft feasibility and environmental impact study of a program to reduce the risk of flooding along approximately seven and a half miles of the city's northeastern waterfront.³³ Prepared over the course of six years, the draft report seeks to "identify vulnerabilities and recommend strategies to reduce current and future flood risks."

The draft report's origins lie in a 2018 congressional appropriation, the San Francisco Waterfront Coast Flood Study, and a general obligation bond known as the Embarcadero Seawall Earthquake Safety Bond, approved by voters in November 2018.

The study projects that flooding from rising sea levels could result in approximately \$23 billion in damages to Port properties and adjoining neighborhoods over the next 100 years, and makes high-level recommendations of flood and seismic defenses that will need to be built to mitigate these risks. Much of the projected work is directed at shoring up the city's century-old seawall.³⁴

Figure 4 shows the currently estimated limits of flooding and inundation along the city's eastern shoreline due to the anticipated increase in sea level.

³¹ [San Francisco Precipitation in a Warmer World](#), Volume 1.

³² [San Francisco Waterfront Flood Study](#).

³³ United States Army Corps of Engineers, 2024, "[San Francisco Waterfront Coastal Flood Study, CA Draft Integrated Feasibility Report and Environmental Impact Statement](#)."

³⁴ USACE, 2024, "[San Francisco Waterfront Coastal Flood Study](#)," and [Port of San Francisco, U.S. Army Corps of Engineers Draft Plan](#) press release.

Figure 4: Composite map showing USACE inundation areas ³⁵



Extent of possible inundation by 2140 expected under 1% likely flood event and Relative Sea Level Rise as described in the USACE “Future Without a Project” scenario.

Colors refer to low (light blue), intermediate (medium blue) and high (dark blue) relative sea level rise.

Coastal hazards relevant to the 7.5 mile San Francisco Waterfront study include coastal flooding, inundation, waves, and erosion. Coastal flooding occurs when Bay water levels rise above the shoreline along the waterfront. Coastal flooding already occurs almost annually along the lowest spots of the shoreline. Given the currently projected extent of flooding, the potential damage and disruption can result in physical damage to structures, business interruption, transit delay and inundation of contaminated areas.³⁶ The draft report does not detail specific designs for proposed construction, but it estimates that adaptation efforts will cost approximately \$20.5 billion over twenty years. Subject to Congressional approval, the United States federal government would furnish 67% of funding, with the State of California and the city responsible for the balance.

³⁵ San Francisco Civil Grand Jury composite map based upon USACE “[San Francisco Waterfront Coastal Flood Study](#),” ES-1, ES-2; Figures 3-6, 3-7, 3-8, 3-9; 59-63.

³⁶ [Port of San Francisco, U.S. Army Corps of Engineers Draft Plan](#) press release.

Figure 5 depicts the maps for Reaches 1–4 of the USACE study, spanning the coastline from Aquatic Park in the north to Heron’s Head in the south. This figure describes the types of adaptation methods suitable for the four different major portions of the USACE draft study.

Figure 5: Seawall Resilience Project and Army Corps of Engineers study



The draft report is currently available for review and comment by city departments. A final report is expected in early 2025.

Climate and Hazards Resilience Plan

The three projects described above, two led by the SFPUC, and one led by the Port of San Francisco, require design and planning in coordination with other city departments.

The coordination of planning has been guided by the 2020 Hazards and Climate Resilience Plan (HCR), itself an inter-agency effort led by the ORCP, to better understand and address the impacts of natural disasters on San Francisco³⁷. The HCR serves as a near-term implementation

³⁷ San Francisco Office of Resilience and Capital Planning, 2020, "[Hazards and Climate Resilience Plan.](#)"

plan for the long-term policies of the Community Safety Element of the San Francisco General Plan.

The HCR's risk assessment evaluation quantifies the impact of flooding risks to the city.³⁸ In its citywide hazard exposure analysis, the HCR identifies 23,700 San Francisco residents at risk of inland stormwater flooding, or 2.7% of the city's population.³⁹ Importantly, the HCR acknowledges the impact of climate change increases over time, affecting more people, more critical facilities and more commercial parcels.

The HCR also serves as a plan for the city to "increase resilience to the impacts of climate change."⁴⁰ It provides more than ninety-five strategies for the adaptation and mitigation of hazards and risks to the city over multiple projects, carrying varied timelines for implementation. Sixty-five of these strategies are in response to the hazards of flooding.⁴¹

Of strategies in the HCR, the jury highlights fifty-nine strategies directly related to the hazards and risks of climate change across the three cost domains detailed in the HCR.⁴² Appendix C highlights the strategies and projects the jury identifies as relating to climate change. The extent to which each strategy relies on multiple city departments demonstrates how climate resilience necessitates cross-departmental work and project management. The following table details the projected cost ranges for each of these strategies, giving insight on the financial implications of climate resilience in San Francisco.⁴³

³⁸ ORCP, 2020, "[Hazards and Climate Resilience Plan](#)," 198.

³⁹ Number of residents at risk from stormwater flooding during a 100-year storm. ORCP, 2020, "[Hazards and Climate Resilience Plan](#)," 200.

⁴⁰ ORCP, 2020, "[Hazards and Climate Resilience Plan](#)," 5.

⁴¹ ORCP, 2020, "[Hazards and Climate Resilience Plan](#)," 233-239.

⁴² ORCP, 2020, "[Hazards and Climate Resilience Plan](#)," 229-293.

⁴³ ORCP, 2020, "[Hazards and Climate Resilience Plan](#)," 233-291.

Table 1. Climate resilience strategies identified in the Hazards and Climate Resilience Plan

	Low Cost Level (0-\$500k per strategy)	Medium Cost Level (\$500k-\$5M per strategy)	High Cost Level (\$5M and above per strategy)	Cost Level Yet To Be Determined
Number of climate change identified strategies in each cost level	18	15	18	8

Financing of Climate Resilience

The Jury investigated two sources of funding for climate resilience, debt financing and flood insurance, which are subject to the city’s process and policies, while acknowledging that grants from federal and state budgets must serve a major role in the financing of infrastructure projects required by climate change. For a more extensive review of city finance, please see Appendix B.

Debt Financing

Like virtually all municipalities and agencies, the City issues debt to fund major capital projects (e.g., buildings and infrastructure improvements). Efforts to fund climate resilience projects have included a number of individual bond measures. A \$425 million Seawall Resilience bond measure was approved by San Francisco voters in 2018.

A \$250 million Waterfront and Climate Safety bond measure is scheduled for a vote of approval in March 2028, followed by another \$200 million Waterfront and Climate Safety bond measure scheduled for a November 2032 vote.⁴⁴

⁴⁴ [City and County of San Francisco Capital Plan for Fiscal Years 2024-2033, Table 51.1, 65](#)

Flood Insurance

The City is a participant in the National Flood Insurance Program (NFIP). Under this program, which is managed by the Federal Emergency Management Agency (FEMA), the federal government makes flood insurance available at affordable rates in the city. Homeowners, renters, and businesses are eligible to purchase federally subsidized flood insurance to protect their properties.

Analysis

ClimateSF Was Designed to Coordinate Planning, Not to Coordinate Implementation

ClimateSF's program charter states as an objective the "coordinated planning and performance management" of infrastructure projects, but it has played more of an active role in shared planning between departments than in coordinating the implementation of projects. The management of projects has been the responsibility of the designated lead agency.

Departments Function Within Silos

The practice of designating separate departments as "leads" for individual projects has adversely affected the way in which city agencies operate. That independent culture has resulted in agencies having their own teams for capital projects, for communications, and for finance. When a project requires coordination between departments, we found no specific process in place to optimize the collaboration.

The Ocean Beach Climate Change Adaptation Project offers a cautionary tale regarding interdepartmental cooperation. We learned in our investigation that the excessive delay leading to the projected 2025 construction start of the Adaptation Project from a recommendation in the 2012 Ocean Beach Master Plan was due in significant part to the lack of coordinated planning and implementation between the various participating departments and agencies.

The "multi-year delays" were commented upon at the April 29, 2024, hearing before the Board of Supervisors' Land Use and Transportation Committee on an ordinance to close the Great Highway Extension. Based upon the concern the ordinance would have on their visitors' access to a parking lot, the San Francisco Zoological Society continued to debate the enabling legislation.

The Waterfront Coastal Flood Study released in January 2024 by the United States Army Corp of Engineers (USACE) is a contemporary example of the need to work in conjunction with other

agencies when designing and constructing a significant capital improvement like a seawall. While a seawall may prevent intrusion by seawater due to rising sea levels, it might also limit the effectiveness of the city's infrastructure to remove excessive stormwater runoff from an extreme precipitation event. As a consequence, the USACE Study will likely include modeling of the city's drainage systems' ability to collect and discharge stormwater in response to severe precipitation of varying intensity and duration.⁴⁵

There is much to admire in the Port's success in being awarded the USACE Study, and it would not have happened if the USACE were not convinced that the Port could work efficiently with the San Francisco Public Utilities Commission (SFPUC), the Municipal Transportation Agency (MTA), Public Works and other city departments. However, there is little evidence that the structure of the ClimateSF partnership influenced the award process.

Federal study of the waterfront seawall improvements began in 2013, years before the formation of ClimateSF. In addition, the Port Director had direct access to the Mayor and the Mayor's Chief of Staff throughout the planning process, and was never reliant on the Flood Administrator or the Chief Resilience Officer.

At the March 25, 2024, Board of Supervisors Land Use and Transportation Committee, there was a hearing to receive an informational presentation on the USACE Study. The Committee Chair questioned the Waterfront Resilience Program Director on how the Port was going to coordinate the necessary implementation of the adaptation projects with the various affected city agencies. The Program Director replied that ClimateSF was the mechanism for coordination. The Chair then asserted that ClimateSF was fine for coordinating planning projects, but it did not indicate who would coordinate the governance, budgeting, and project management necessary to implement the projects.⁴⁶

Absenteeism at Director Level Meetings

Review of the minutes from the ClimateSF Directors meetings in the last few years show an average of two or three directors and up to a dozen lower level staffers attending. Our investigation revealed that staffers at every agency involved in ClimateSF would attend the

⁴⁵ United States Army Corps of Engineers, 2024, "[San Francisco Waterfront Coastal Flood Study](#)," ES-12.

⁴⁶ [Board of Supervisors Land Use and Transportation Committee Minutes](#), March 25, 2024.

quarterly Director meetings to advise and advocate for policies, but few Directors attended. The directors of the Port and SFPUC, arguably two of the agencies most focused on flood management, only attended one meeting together in all the years reviewed.

However, increased attendance at the Directors level meeting may create new concerns. The overlap in positions between the Director level meeting and the Capital Planning Committee (CPC), raises the possibility that convening Directors at a ClimateSF meeting would create an unannounced, non-agendized quorum of the CPC – which would violate the requirement that such meetings be publicly announced and formally agendized under the Ralph M. Brown Act. It would be important to resolve this Brown Act issue to facilitate greater attendance by Directors at the Directors level meeting.

Staff Initiatives Do Not Get Elevated and Amplified at Directors' Level

Initially, ClimateSF meetings were intended to be structured to facilitate sharing information between departments and discussing the climate resilience projects each agency was considering. However, our investigation revealed that the current meeting structure does not provide a procedure to propagate ideas through the departments toward implementation. Good ideas were discussed at the staff level; however, by not attending staff level meetings, departmental leadership did not then develop ideas for implementing them. The Directors and lower level staff with whom we met agreed that this represents a limit to ClimateSF's structure.

The conclusion of staff and administrators at the core agencies is that ClimateSF has been helpful as a structure to share information at the staff level, but not an effective structure to manage infrastructure projects.

ClimateSF's Failure to Publish an Annual Review Conceals Their Success

Each year, ClimateSF performs an annual review of the success metrics listed in the program charter. However, the Jury has not found any publication of the results of these reviews. The ClimateSF website provides a link to sign up for a quarterly newsletter in which such results could be published.⁴⁷

⁴⁷ San Francisco Office of Resilience and Capital Planning, "[ClimateSF](#)".

The public needs to know what is being currently done to adapt to climate change, as they will be the taxpayers, ratepayers, and floodplain dwellers affected by the success of the city's resilience efforts.

No Citywide Plan to Aggregate Costs of Climate Adaptation

Climate adaptation funding is hampered by departmental silos, self imposed limits on debt financing, and the lack of a consolidated list of projects.

As discussed above, the city's efforts to fund climate resilience projects include bond measures, with 2018's bond supplemented by bonds scheduled for voter approval in 2028 and 2032. Regrettably, these funds alone will not be enough. Combined, these bond packages amount to less than \$1 billion – but the state's and city's projected share of the \$21 billion USACE Waterfront Plan alone exceeds \$7 billion.

The Jury found no citywide plan to address the aggregate costs of climate adaptation, nor the impact that financing the adaptation projects will have on property tax rates or service rates at the city's so-called enterprise departments – SFPUC, MTA, the Port, and the San Francisco International Airport (SFO).

Departmental Silos

A recent funding dispute augurs the difficulties the city will face in marshaling multiple departments to secure funding for climate adaptation programs.

In 2021–2022, the San Francisco Civil Grand Jury recommended an independent, third-party study of Hunters Point Shipyard to predict modifications to the site under multiple sea level rise scenarios. When the Mayor disagreed with this recommendation, the Board of Supervisors (BOS) resolved to implement the study through the budget appropriations process – but the SFPUC subsequently refused to allocate funds from its reserve to fund the study. The BOS was forced to appropriate \$500,000 from the City's general fund, instead.

When departments withhold even minuscule amounts relative to the costs of resiliency adaptation, it is clear that funding in response to climate change must be centrally coordinated.

The Jury agrees with a remark from the SFPUC's Climate Change Project Manager in a December 2022 hearing: the challenges of dealing with sea-level rise, shallow groundwater, and excess surface water from extreme precipitation will require efforts that span departments. Neither the SFPUC nor any other Enterprise or General Fund department can “manage that change alone.”

Self-Imposed Limits on Debt Financing

The city's funding for climate resilience-related projects will require financing using debt securities comprising both General Obligation and other General Fund-serviced debt, and revenue bonds issued by the city's enterprise departments. A summary of these financing strategies is available in *Appendix B*.

However, the city's ability to issue debt beyond amounts reflected in the current 10-Year Capital Plan⁴⁸ is constrained in two ways:

- There are explicit limitations on how much debt the city can issue that is serviced by funds from the General Fund.
- There are implied limitations on how much debt the city's enterprise departments can issue in order to maintain affordability for their ratepayers and competitive pricing for their customers.

General Obligation Bonds: Hitting the Limit in 2028

Since 2006, the Board of Supervisors has approved annual budgets in conformity with a Capital Planning Committee (CPC) policy that imposes a financial constraint on the use of General Obligation debt such that debt service does not increase property owners' tax rates above fiscal 2006 levels. This limit is shown as the red line in Figure 6, Capital Plan G.O. Debt program FY 2024–33.

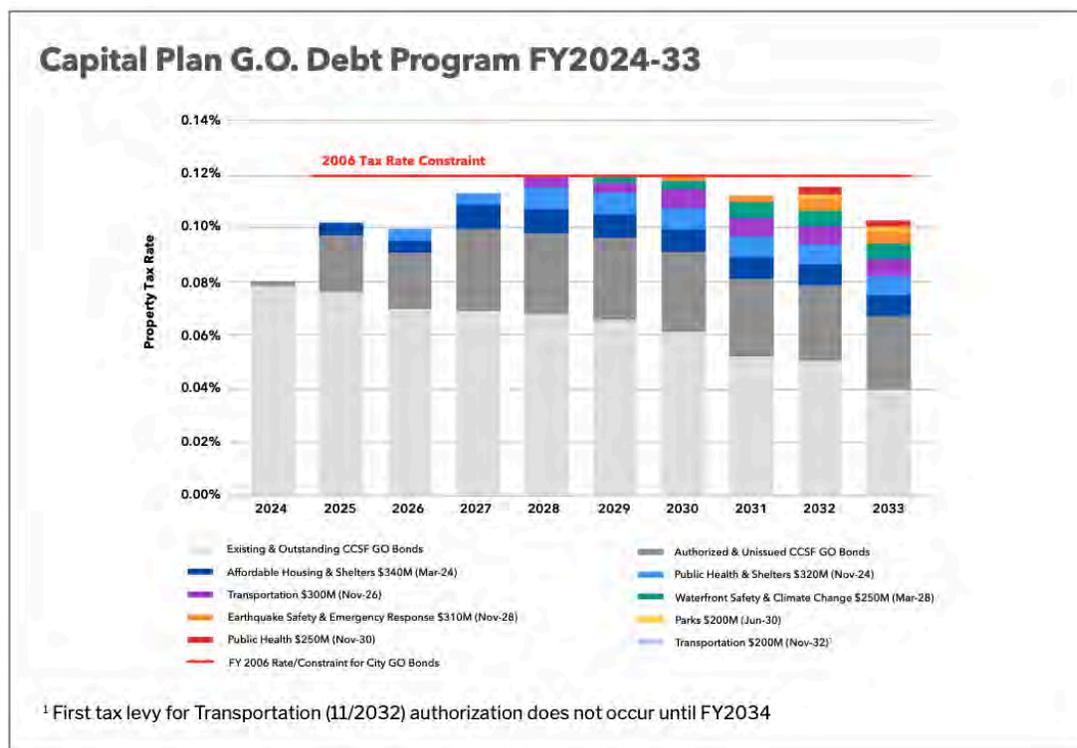
⁴⁸ City and County of San Francisco Office of Resilience and Capital Planning, 2021, "[City and County of San Francisco Capital Plan for Fiscal Years 2024-2033](#)," Fiscal Years 2024-33 Capital Plan.

The limitation is included in CPC budget presentations and in ballot pamphlets when bond measures are put before the electorate. However, the limitation is not reflected in the city’s official debt policy published by the Controller’s Office of Public Finance.⁴⁹

As Figure 6 shows, the city’s ability to issue additional General Obligation Debt will become limited by this constraint in FY28, FY29, and FY30. Note that this 10-Year Capital Plan does *not* yet reflect the incremental spending needed to fund the city’s contribution to the seawall project proposed in the USACE report.

The USACE report notes an estimated \$7.2 billion cost share to be paid by the combination of the State of California and the city.⁵⁰ It is not yet known what percentage of this cost share will need to be borne by the city – but it is clear that given the extraordinary future costs of climate related adaptation, the city needs to reassess self imposed limits on debt financing.

Figure 6: City General Obligation Bond Program expected issuance⁵¹



⁴⁹ San Francisco Controller’s Office, 2019, “[Debt Policy of the City and County of San Francisco.](#)”

⁵⁰ [USACE Study](#), ES-9.

⁵¹ [City and County of San Francisco Capital Plan for Fiscal Years 2024-2033](#), Chart 1.1, 10

Enterprise Divisions Have Little Room for Additional Debt

Like the city itself, the SFPUC, the MTA, SFO, and the Port may need to make additional investments beyond those amounts now planned to ensure their operating infrastructures are upgraded to provide adequate climate resilience.

These enterprise departments maintain their own capital budgets and long-term capital plans, and their ability to service debt is a function of both current debt outstanding and the revenue streams they expect to receive from users and citizens in the form of fees paid for services received.

The 10-Year Capital Plan identifies \$8.3 billion in revenue bond issuances by the SFPUC and SFO for projects now planned:

Figure 7: Planned revenue bond issuances FY 2024–33⁵²

Planned Revenue Bond Issuances FY2024-33 (Dollars in Millions)			
Agency	FY24-28	FY29-33	Total
SFPUC	5,289	1,258	6,546
Airport	669	1,060	1,729
Total	5,958	2,318	8,276

The precise timing and scale of the effects on the city of sea level rise, groundwater inundation, and surface water flooding from extreme precipitation are beyond the scope of this report. Nevertheless, it is clear that, over the next several decades, the need will arise for additional capital projects not now contemplated.

To better understand the abilities of the major Enterprise divisions to issue additional debt beyond the amounts set out in the 10-Year Capital Plan, we engaged the divisions to learn more.

Overall, our investigation found the Enterprise divisions currently operate with levels of debt that are well matched to their abilities to service the debt given the service rates now in place.

⁵² San Francisco Office of Resilience and Capital Planning, 2023, "[10-Year Capital Plan FY2024–33](#)," 69.

However, little additional capacity exists for unexpected major capital projects. Major new costs would require increases in these departments' service rates, or subsidies drawn from the city's General Fund. Key facts learned in our analyses of various enterprise divisions include:

- The SFPUC's ability to support unexpected debt issuance is sharply constrained by commitments to maintain affordability for the most economically vulnerable 20% of the customer base. That commitment will become limiting in FY2036–37.⁵³ This suggests any major unexpected capital projects will require the SFPUC to revisit the affordability policies for all customers.
- The SFMTA is currently grappling with an operating deficit forecast to be approximately \$13 million in FY2025–26 and \$240 million in FY2026–27.⁵⁴ Consequently, the SFMTA has little capacity to issue any debt beyond those amounts reflected in the Capital Plan. Should unexpected projects require funding, it is unclear how the SFMTA would be able to finance such projects without reverting to additional funding from the City General Fund and/or increasing service fees and transit fares.
- SFO's planning horizon contemplates supporting capital infrastructure growth to accommodate an increase in traffic with annual enplanements rising from 47 million passengers in FY2022–23 to an estimated 71 million within 15 years. Management's capital budgeting process now plans for expenditures of \$1.9 billion for a range of projects addressing terminal redevelopment, airfield, groundside, and terminal enhancements.

The 10-Year Capital Plan, the city Debt Policy maintained by the Department of Public Finance within the Controller's Office, and CPC and capital plan forecasts maintained by enterprise divisions do not discuss the conditions under which self-imposed policies and limitations may have to be modified, nor do they discuss the possible scope and scale of those modifications that may be necessary to provide funding for climate resilience programs.

⁵³ San Francisco Public Utilities Commission. 2024, "[FY 2025 10-Year Financial Plan Presentation](#)," slide 9.

⁵⁴ San Francisco Municipal Transportation Agency, 2024, "[SFMTA Board Workshop](#)," slide 23.

Lack of a Consolidated List and Cost of Infrastructure Projects

The costs of implementing climate adaptation will be substantial. Policymakers need to assess those costs relative to costs currently incurred and future costs avoided. Unfortunately, however, there is no clear answer to what the city is spending now to address climate change.

In our investigation, the Jury found neither a consolidated list of infrastructure projects devoted to climate change resilience, nor a line item in the capital budget representing investment in the necessary adaptation. Without such centralized reporting, city planners are hampered in their efforts to estimate how much capital investment will be necessary to adapt to climate change.

Each department pursues its separate efforts to plan and implement projects for climate change resiliency, but neither the San Francisco Environment Department nor the ORCP maintains a comprehensive list of projects specifically focused on climate change resilience.

The Office of the Controller does not segregate expenditures that involve investments in climate adaptation, so neither the two-year budget nor the 10-Year Capital Plan distinguishes those items.

It is difficult to determine how much the city is currently spending on climate change as a baseline for future investments.

Flood Management Planning Lacks Interdepartmental Coordination

Currently when storms are predicted, the heads of DPW and SFPUC and their staff make contact to manage the potential flooding as a team. The connections are made *ad hoc* to the storm conditions of the moment. There is no formal meeting structure for prospective flood planning.

Repeatedly in our investigation, we were told that interdepartmental processes are highly dependent upon the personal knowledge and history of relationships of the particular staff members. While there is a certain efficiency in these informal networks, staff turnover and flood infrastructure planning may require a more formal process.

Future Stormwater Will Exceed the Capacity of Our Wastewater Enterprise

In a December 2022 presentation on the increase of extreme precipitation made to the Capital Planning Committee, the SFPUC Climate Change Project Manager reported that the Wastewater Enterprise could not “manage that change alone” within the city’s sewer system.⁵⁵

Without the capacity to convey, store, or discharge the amount of stormwater in question, the SFPUC predicted inland flooding from a three-hour storm event that delivered 1.3 inches of rain.⁵⁶

Flood Administrator Lacks Operational Governance

The 2008 Floodplain Management Ordinance enabled access to federal flood insurance, governed construction in flood-prone areas, and designated the City Administrator’s Office (CAO) as the city’s Floodplain Administrator.

Our research showed that the intent of the ordinance was to qualify for federal insurance and construction guidance. Our investigation found that their designation of the CAO as the city’s Floodplain Administrator was to comply with a condition of participating in the National Flood Insurance Program. With no additional staff or budget allocated to the CAO, there were no changes in operational authority for floodplain management added to the CAO’s already considerably wide portfolio of responsibilities.

The interdepartmental issue of flooding will require more centralized governance and clarity as to lines of authority.

The City Pays Avoidable Costs from Flooding

To support the National Flood Insurance Program (NFIP), FEMA publishes Flood Insurance Rate Maps (FIRMs) for participating communities, which are used for flood insurance and floodplain management purposes. FIRMs show Special Flood Hazard Areas (SFHAs), which are defined as

⁵⁵ San Francisco Public Utilities Commission, 2022. “Extreme Precipitation Study,” slide 9.

⁵⁶ Mak M, et al., 2023, [San Francisco Precipitation in a Warmer World](#), Volume 1: State of the Science, 23.

areas subject to inundation during a flood having a 1-percent chance of occurrence in any given year (also referred to as the Base Flood or 100-year flood).

Under Federal laws that govern the lending industry, flood insurance is required only for structures in SFHAs that have mortgages from federally backed or federally regulated lenders. Otherwise, flood insurance purchase is voluntary.⁵⁷

Property owners that are not underwritten by NFIP seek compensation for flood damage by making claims against the city for inadequate waste water drainage. These claims, when granted, are paid by the city's General Fund.

Climate Change Policy Lacks Coordinated Communications

While the program charter of ClimateSF includes "aligned communication and engagement" as its first objective, the departments continue to rely on their own robust public affairs organs of communication.

Flood Management Decisions Require Public Accountability

Decisions about which areas of the city are valuable enough to fund for climate resilience projects and which will need to be abandoned in managed retreats have huge impacts on residents. The public needs to know how those decisions are made and who makes them.

Additionally, decisions about where public money gets invested to respond to flooding should be transparent. Without a published list of cross departmental projects on flooding, those decisions are not fully available for review and public comment.

⁵⁷ San Francisco Office of Resilience and Capital Planning, "[Floodplain Management Program](#)."

Findings and Recommendations

The Jury made the following findings and recommendations in regard to the City of San Francisco's response to climate change and efforts to create a more resilient city.

Finding 1 – ClimateSF Governance and Coordination Are Inadequate

ClimateSF provides neither the necessary governance nor interdepartmental coordination of projects to address climate change because the currently configured Director level meeting cannot execute the recommendations generated from the staff level meetings.

Recommendations

Recommendation 1.1 – Henceforth, the quarterly Director level meetings of ClimateSF shall be included as part of the monthly Capital Planning Committee meeting agenda.

Recommendation 1.2 – Henceforth, the monthly Capital Planning Committee meetings shall include a permanent agenda item with an update on the status of resilience plans.

Recommendation 1.3 – Beginning 2025, ClimateSF shall prepare an annual report for the public, summarizing the status of the ongoing climate resilience projects, using standardized metrics, including a description of the project, the Core agency in charge, the intended climate resilience measures, a projected cost, budget status and project timeline. This recommendation may and should be implemented administratively.

Recommendation 1.4 – If Recommendation 1.3 is not implemented administratively, the Board of Supervisors shall enact an ordinance making the annual report a legal requirement.

Finding 2 – Resilience Projects Are Not Easily Identifiable

The city infrastructure projects designed for climate resilience are not transparently identifiable, hindering management and audits.

Recommendations

Recommendation 2.1 – By April 30, 2025, the Controller shall aggregate and publish departmental expenditures that address climate change adaptation and mitigation. This information shall be given consistent search tags describing resilience projects that allow for efficient tracking of expenditures.

Finding 3 – Funding of Climate Resilience Is Hampered by Debt Cap and Service Rate Constraints

Absent a citywide plan to fund the necessary adaptation infrastructure, the city is additionally hampered by a self-imposed limit on the use of general obligation bonds (\$0.1201 per \$100 of assessed value). Further, the jury finds the SFPUC, SFMTA, SFO, and Port face service rate constraints or competitive concerns that hamper additional use of revenue bonds.

Recommendations

Recommendation 3.1 – By December 31, 2024, the Mayor and/or City Administrator shall develop and publish a cross-department financial plan to respond to the anticipated costs of climate change resilience and potential sources of funding.

Recommendation 3.2 – By December 31, 2024, the Board of Supervisors shall direct their Budget and Legislative Analyst to do an analysis of the impact on the city’s General Fund of increasing the current limit for General Obligation Bonds.

Recommendation 3.3 – By December 31, 2024, the Controller's Office of Public Finance shall add a disclosure of the property tax limit to the *Debt Policy of the City and County of San Francisco*, Section VII Debt Limitations Section A General Obligation Bonds.

Recommendation 3.4 – By December 31, 2024, the City Administrator shall direct the Capital Planning Committee to include in the 10-Year Capital Plan the likely property tax and enterprise service division rate increases that will be necessary to fund emerging climate resilience measures.

Finding 4 – Flood Management Needs Interdepartmental Coordination

Flood management lacks a formal coordination process for an increasing environmental extremity that requires planning and implementation between multiple city departments.

Recommendations

Recommendation 4.1 – By December 31, 2024, the Mayor and the Board of Supervisors shall request a report from the City Administrator, as Floodplain Administrator, on the optimal governance structure (for example, CPC, Deputy City Administrator, Floodplain Administrator) to implement interdepartmental flood adaptation procedures.

Recommendation 4.2 – By December 31, 2025, the Mayor, the City Administrator, and all city agencies that interface with flood management planning shall sign a Memorandum of Understanding that specifies governance, budget, and priorities for Flood Management planning, and that clearly describes the responsibilities of core agencies and ancillary agencies.

Finding 5 – Flood Damage Claims Are Not Funded by Insurance

The city is compensating claims for flood damage from the General Fund that might be obtained by insurance underwriting.

Recommendations

Recommendation 5.1 – By December 31, 2024, the Board of Supervisors shall request a Budget and Legislative Analyst report on the advisability of a Board resolution urging modification of the federal mandate to purchase flood insurance beyond that which is currently required in the FEMA designated floodplain.

Recommendation 5.2 – By December 31, 2024, the City Administrator, as Floodplain Administrator in coordination with the City Attorney and the Mayor, shall develop procedures to inform and encourage property owners to voluntarily purchase flood insurance.

Finding 6 – The City Fails to Communicate Impacts of Climate Change

The city is failing to communicate the future impacts of climate change to the residents who will be most affected.

Recommendations

Recommendation 6.1 – Starting October 1, 2024, ClimateSF shall coordinate the communication of the projected impacts of climate change and the city’s mitigation and adaptation efforts.

Recommendation 6.2 – By December 31, 2024, the Board of Supervisors shall direct their Budget and Legislative Analyst to prepare a financial analysis of the possible differential harms of climate change resilience projects within marginalized communities.

Recommendation 6.3 – By December 31, 2025, the Board of Supervisors shall hold annual public hearings on the differential harms of climate change resilience projects within the impacted communities with testimony from the Department of the Environment and the Human Rights Commission.

Recommendation 6.4 – By December 31, 2025, the Commission on the Environment shall hold annual public hearings on the differential harms of climate change resilience projects within the impacted communities. The annual public hearing may, but need not, occur in conjunction with the annual public hearing of the Human Rights Commission referenced in Recommendation 6.5.

Recommendation 6.5 – By December 31, 2025, the Human Rights Commission shall hold annual public hearings on the differential harms of climate change resilience projects within the impacted communities. The annual public hearing may, but need not, occur in conjunction with the annual public hearing of the Commission on the Environment referenced in Recommendation 6.4.

Required and Requested Responses

Pursuant to California Penal Code §933, the Jury requires responses to the findings and recommendations shown in *Table 2*.

- Mayor and City Attorney within 60 calendar days
- Board of Supervisors within 90 calendar days

Table 2 : Required responses

Respondent	Findings	Recommendations
Mayor	1, 3, 4, 6	1.1, 3.1, 3.4, 4.1, 4.2, 6.1
Board of Supervisors	1, 3, 4, 5, 6	1.4, 3.2, 4.1, 5.1, 6.2, 6.3
Office of the City Attorney	5	5.2

The Jury invites responses to the findings and recommendations from the city institutions shown in *Table 3*.

- City Administrator, Controller, ORCP Director, Port Director, and PUC Manager within 60 calendar days.
- Human Rights Commission and Commission on the Environment within 60 calendar days.

Table 3 : Requested responses

Respondent	Findings	Recommendations
Office of the City Administrator	1, 3, 4, 5, 6	1.1, 1.2, 1.3, 3.1, 3.4, 4.1, 4.2, 5.2, 6.1
Office of Resilience and Capital Planning	1, 6	1.1, 1.3, 6.1
Office of the Controller	2, 3	2.1, 3.3

Respondent	Findings	Recommendations
Executive Director of the Port of San Francisco	4	4.2
General Manager of the San Francisco Public Utilities Commission	4	4.2
Human Rights Commission	6	6.5
Commission on the Environment	6	6.4

Methodology

To prepare this report, the Jury conducted over 40 interviews and reviewed dozens of analytic reports, government documents, and thousands of pages of data from local, state, peer municipal, and federal jurisdictions.

The Jury interviewed multiple city officials and employees knowledgeable about climate resilience planning at the staff, deputy, and director's levels in the various city departments. Emphasis was placed on city departments engaged in resilience planning.

The Jury reviewed and analyzed published documents, web sites, and internal memos related to climate resilience planning. Of most importance were the following publicly available documents:

- Hazards and Climate Resilience Plan (2020)
- ClimateSF Charter (2021), and meeting notes
- SFPUC Extreme Precipitation study (2023)
- SF 10-Year Capital Plan FY 2024-33 (2023)
- USACE Report (2024)
- Board of Supervisors legislative hearings

Appendix A: An Expanded Description of Projects Coordinated by ClimateSF

Hazards and Climate Resilience Plan

Lead Agency: ORCP

Type: Planning and strategy document

Timeline: Published in 2020, to be updated recurrently.

Description:

The Hazards and Climate Resilience Plan (HCR) serves as both the city's hazard mitigation and climate adaptation plan. The HCR acts as a comprehensive outline of the risks and vulnerabilities facing the city around 13 hazards: Earthquake, Tsunami, Landslide, Dam/Reservoir Failure, Flooding, High Wind, Extreme Heat, Drought, Large Urban Fire, Wildlife, Poor Air Quality, Pandemic, & Hazardous Materials.

Notably, many of these categories intersect with the effects of climate change. As such, the HCR represents an extensive outline of the city's plans for climate resilience, highlighting projects around mitigation and adaptation planning and details guiding principles to frame that policy. In all, the HCR details over ninety-five strategies to mitigate and adapt to the risks and hazards facing the city, assigning them to projected cost ranges: 25 strategies at low cost (\$0-\$500k), 25 strategies at medium cost (\$500k-\$5M), 30 strategies at the high cost range (\$5M+) and 18 strategies with cost yet to be determined.

Link To Source:

https://onesanfrancisco.org/sites/default/files/inline-files/HCR_FullReport_200326_0.pdf

Waterfront Resilience Program

Lead Agency: Port

Type: Planning framework, Projects mostly in planning phases

Timeline: Ongoing

Description: The Port describes its' Waterfront Resilience Program as including the following components:

- SF Waterfront Flood Study Draft Plan - The flood study in collaboration with the US Army Corps of Engineers sought to detail the risk to San Francisco's shoreline, strategize on reducing risk and outline the projects to adapt to sea level rise. It also sought to educate

the public on the scope of work needed to adapt to that risk, and identify funding mechanisms to pay for the work. It carries a \$13B estimated cost, with possibly up to 65% of the cost paid by the federal government. ([San Francisco Waterfront Flood Study.](#))

- 23 Embarcadero Early Projects - Cost \$650M - \$3B, to be funded through Proposition A GO Bond, and other funding sources and partnerships. The projects are mostly around seismic and flooding adaptation, including work to buildings and city infrastructure. 7 identified projects are in “needs assessment” or “alternatives analysis” phases and could begin implementation as early as this year. ([Embarcadero Early Projects.](#))
- Living Sea Wall Project - A pilot program started in 2022, the Living Seawall Project tests seawall materials to improve the ecological benefit of future construction materials.

Link To Source: <https://sfport.com/wrp/lbe>

SF Climate Action Plan

Lead Agency: SFE

Type: Projects mostly in planning phases

Timeline: Ongoing

Description: The 2021 Climate Action Plan and the 2023 Water Supply addendum detail 34 strategies and 174 supporting actions to mitigate climate change. Analysis from the Berkeley Center for Law, Energy & the Environment projects the implementation costs of these strategies and actions to be \$2.3B - \$21.9 B. In all, the strategies and supporting actions are grouped in 6 sectors: Energy Supply, Building Operations, Transportation and Land Use, Housing, Responsible Production and Consumption, and Healthy Ecosystems.

Link To 2021 Climate Action Plan:

https://www.sfenvironment.org/files/events/2021_climate_action_plan.pdf

Link to 2023 CAP Water Addendum:

<https://www.sfenvironment.org/media/13679/download?inline>

Link to 2024 CLEE Report on Funding the SF CAP:

<https://www.law.berkeley.edu/wp-content/uploads/2022/11/Funding-San-Francisco-Climate-Action-Nov.-2022.pdf>

SF Planning Focus on Resilience and Sustainability

Lead Agency: PLN

Type: Planning Guidelines

Timeline: Ongoing, some projects completed.

Description: The Planning Department has developed guidelines for resilience and sustainability for city planning, policy and project decisions to respond to the effects of climate change and make a safer and more resilient San Francisco. Essential to these guidelines is the Environmental Justice framework that seeks to protect and lift up marginalized communities often most impacted by the effects of climate change. This framework is in addition to the 2022 Safety and Resilience Element detailed below.

This larger focus from Planning Department includes:

Integrated long-range planning and policy development (General Plan, Area Plans, Inter-Agency Strategies), early interface with projects in the built environment (Regulatory Processes and Planning Code), tools (Sustainable Neighborhood and Environmental Justice frameworks), and horizontal and vertical design review (Major Development Application Projects). ([ClimateSF.](#))

Some completed projects included in Planning's focus on Resilience and Sustainability are: Urban Forest Plan (2015), Food System Policy Program (2013), Local Coastal Plan (2018), Better Roofs (2017), Sustainable Neighborhood Program (2020)

Link To Source: <https://sfplanning.org/resilience-and-sustainability>

Ocean Beach Climate Adaptation

Lead Agency: SFPUC

Type: Projects adapting infrastructure, shoreline habitats and recreation

Timeline: Planning began in 2012 and construction is currently scheduled as of spring 2024 to begin in 2025 and last 4 years

Description: Ocean Beach is under threat from climate change induced erosion, storm surge and sea level rise, impacting public recreational space and infrastructure such as the wastewater treatment plant and the Great Highway as well as natural habitats.

The 2012 Ocean Beach Master Plan, an inter-agency planning effort led by SPUR, details 6 moves for specific reaches of Ocean Beach to adapt to the effects of climate change and sea level rise. The overall result of the plan, designed to be implemented over decades, is to protect infrastructure assets and adapt coastal access and public space to create a new more resilient waterfront. The project is led by the SFPUC and stakeholders include the SFMTA, Recreation & Park Department, SFDPW, the Golden Gate National Recreation Area (National Park Service) and the Federal Highway Administration. ([ClimateSF.](#))

Link To Source: <https://sfpuc.org/construction-contracts/construction-projects/oceanbeach>

SFMTA Sustainability and Climate Action Program

Lead Agency: SFMTA

Type: Planning Guidelines and Policy Strategy Documents

Timeline: Varies

Description: The SFMTA Sustainability and Climate Action Program provides an umbrella of guidelines and policy documents relating to how transit and the SFMTA mitigates and adapts to the effects of climate change. The Program includes climate-related aspects from foundational SFMTA documents like the 1973 Transit First Policy, the FY 2021-2024 Strategic Plan, and the 2023 Climate Roadmap, which articulates policy strategy to align the SFMTA with the mitigation goals laid forth in the 2021 Climate Action Plan:

1. Build a fast and reliable transit system that will be everyone's preferred way to get around.
2. Create a complete and connected active transportation network that shifts trips from automobiles to walking, biking and other active transportation modes.
3. Expand programs to communities that shift trips to transit, walking and bicycling.
4. Manage parking resources more efficiently over time to charge the right price for every space.
5. Accelerate adoption of zero-emissions vehicles (ZEVs) and other electric mobility options, where motor vehicle use is necessary.
6. Conduct impactful community engagement and implement community-based transportation plans to ensure climate actions are addressing residents' needs.

Link To Source:

<https://www.sfmta.com/about-us/sustainability-and-climate-action/vision-sustainability-and-climate-action>

ORCP Capital Plan

Lead Agency: ORCP

Type: Budget Planning Document

Timeline: Updated every 2 years, current plan covers FY24-33

Description: The 10-Year Capital Plan is submitted every other (odd-numbered) year and offers an assessment of San Francisco's capital expenditures and infrastructure needs, discloses the investments required to meet those needs and offers a plan to finance those investments. The Capital Plan is required by the Administrative Code, prepared by ORCP, the CPC and city departments and submitted by the City Administrator to the Mayor and Board of Supervisors for approval. The FY22-31 Capital Plan details \$41.4 B in capital expenditures across 8 service

areas, aligned by its funding principles and towards goals of resilience and sustainability. Climate resilience is detailed in the plan and it highlights many strategies, planning documents and capital projects related to climate resilience.

Link To Source:

https://onesanfrancisco.org/sites/default/files/2023-05/CapPlan-Doc-Book_Final_0.pdf

Heat and Air Quality Resilience Project

Lead Agency: ORCP/DPH, SFDEM

Type: Risk Analysis and Strategy Document

Timeline: Published 2023

Description: The Heat and Air Quality Resilience Project (HAQRP) is an assessment of the risks to public health and city assets and infrastructure from extreme heat and wildfire smoke as they are derived from climate change. The HAQRP goes on to provide guidelines and strategies for mitigation and adaptation to heat and air quality threats, detailing 4 pathway strategy groups to develop resilience against the cited threats. The report highlights 31 specific strategies in those groups for implementation.

Link To Source: <https://onesanfrancisco.org/sites/default/files/inline-files/HAQR-230522.pdf>

Safety and Resilience Element

Lead Agency: Planning

Type: Policy Document and Planning Guidelines

Timeline: 2022

Description: Replacing the 2012 Community Safety Element, the Safety and Resilience Element seeks to outline policies and guidelines to protect people and assets from all natural and human-made hazards. The updated guidelines especially affirm the need to ensure environmental justice standards to protect those most vulnerable to environmental hazards, often low income communities or communities of color. The Safety and Resilience Element totals 122 policies to meet 6 goals:

1. *All People Live in Safe & Healthy Communities*: To ensure equitable safety, San Francisco must remedy past injustices and eliminate environmental burdens for all San Franciscans, starting with those experienced by Environmental Justice Communities.

2. *Multi-Benefit Climate and Hazard Resilience*: Pursue multi-hazard risk reduction strategies and maximize community benefits along the way to becoming a net-zero emissions city by 2040.

3. *Hazard Mitigation*: The city must reduce the likelihood, scale, and severity of impacts from all disasters to the economy; the built and natural environment; and all communities, starting with reducing such impacts in Environmental Justice Communities.

4. *Emergency Preparedness*: Ensure San Francisco residents, workers, and visitors have the knowledge, capacity, and government support needed to be safe in the face of disasters.

5. *Response*: Provide San Francisco residents, workers, and visitors with the essential support and services needed immediately following a disaster for life safety and functional recovery.

6. *Recovery and Reconstruction*: Rebuild San Francisco's built, natural, and social assets and communities towards a more equitable and resilient future. ([citation](#))

Link To Source: https://generalplan.sfplanning.org/18_Safety_and_Resilience.html

Sea Level Guidance

Lead Agency: ORCP

Type: Planning Guidelines

Timeline: Ongoing, Established 2014 and updated in 2015 and 2020.

Description: A set of planning guidelines and training on planning for city projects within the zone vulnerable to sea level rise. Designed for projects to be proposed for inclusion in the 10-Year Capital Plan, the sea level rise checklist ensures disclosures of vulnerabilities for capital projects to sea level rise over time.

Link To Source: [Sea Level Rise Guidance | Office of Resilience and Capital Planning](#)

Sea Level Rise Vulnerability and Consequences Assessment

Lead Agency: Planning

Type: Planning and Risk Analysis Document

Timeline: Report released 2020

Description: This document describes the threats of sea level rise and coastal flooding to San Francisco public assets. It further details these impacts on the people, economy and environment of San Francisco. It includes detailed reporting across asset sectors of what planning efforts San Francisco has taken to adapt and mitigate coastal flooding up to the time of publication, and offers a valuable assessment of the risks from sea level rise considering

impacts on areas of society, equity, economy, environment and governance. ([Sea Level Rise Vulnerability and Consequences Assessment](#).)

Link To Source:

https://sfplanning.s3.amazonaws.com/default/files/plans-and-programs/planning-for-the-city/sea-level-rise/SLRVCA_Report_Full_Report.pdf

Appendix B: Overview of Financing Options for the City and County of San Francisco

The City and County of San Francisco funds expenditures for a variety of operating activities and capital projects. Monies used for funding can be considered as grouped into three categories: (1) revenue collection, (2) drawdown of reserve funds, and (3) monies raised in the debt capital markets through issuance of a variety of debt instruments, for example General Obligation Bonds, Certificates of Participation, Revenue Bonds issued by Enterprise Divisions, and Special Finance District Bonds, among others. It is not the purpose of this report to provide an expansive and detailed overview of the city's revenue sources and budgetary process, yet for the purposes of this report, we offer a brief explanation to frame the discussion of the tools the city has available to finance climate resilience projects through the city's Capital Plan, 2024-2033 ("the Capital Plan")⁵⁸.

The city is required by Charter Section 9.101(c) to operate with a balanced budget⁵⁹. In simple terms, this means the city shall not spend (e.g., make expenditures) in any year amounts that exceed the resources to pay for those expenditures. The resources to pay for expenditures come from several sources: (1) Revenues collected from various taxes and fees, (2) monies received from both the State of California and the United States Federal Government, (3) withdrawals from the city's reserve fund (a simple analogy is a personal savings account), and (4) proceeds received from the issuance of various debt securities discussed immediately above.

Debt Financing

Using personal finance as an analogy, individuals work and receive paychecks. Those paychecks are comparable to the revenue the city collects as various taxes, fees for services, and capital and operating grants. As individuals, we consume goods and services and pay for those items by paying cash or writing checks (directly to merchants or to pay credit card bills when the credit

⁵⁸ SF Office of Resilience and Capital Planning, "[The San Francisco Capital Plan, 2024-2033](#)." Adopted May 9, 2023.

⁵⁹ [Charter Section 9,101\(c\)](#).

card was used for purchases). These personal expenditures are equivalent to the operating expenditures the city makes for the myriad goods and services involved in the day to day delivery of services to the citizens of the city.

Occasionally individuals may experience a very large personal expense (e.g. expensive car repair). We may choose to pay for that by tapping our personal savings. For the city, this is analogous to using funds from the Reserve Fund. When individuals choose to make a very large purchase, for example a vehicle or major home repair or purchase, we may choose to incur debt that will be paid off over several years. The analogous actions for the city are referred to as Capital Projects. These projects are planned in advance, from both a physical and financing scheduling process to ensure the projects can be paid for and the debt service for the bonds used for the projects can also be paid in future years.

Pay-As-You-Go Program

Routine expenses incurred to maintain the buildings and facilities of the city are typically paid from operating funds. These expenditures are typically linked to routine maintenance to our shared physical infrastructure and modest projects (such as upgrading various public seating accommodations in the city (e.g. benches)). Within the parlance of the Capital Plan, these expenditures are referred to as " Pay-As-You-Go " expenditures and are sourced from the city's General Fund. The Capital Plan sets forth various program expenditures with an estimated cumulative spend of \$2,165 million in the FY24-FY33 period.

General Obligation Bonds and Certificates of Participation

Major capital projects contained within the Capital Plan are financed using the creditworthiness of the city to issue bonds in the municipal debt capital markets. Creditworthiness is critical to securing low financing costs for major projects, be they projects financed with General Obligation Bonds, or Revenue Bonds issued by enterprise divisions. Just as individuals cannot borrow unlimited amounts in comparison to their ability to service and repay the loan, the same concept is relevant to the city. Buyers of various bonds and debt securities issued by the city and its enterprise divisions insist on "not too much debt" to ensure they will be repaid and tax-paying citizens also have an interest in how much debt is issued as the taxes and fees they

pay for various city services are an element of what pays off the bonds and debt securities the city may issue for its capital projects. The City General Obligation Bonds currently are rated Aaa by Moody's and AAA by Standard & Poor's, ratings that reflect the most creditworthy score by both rating agencies.⁶⁰

In order to ensure property taxes, a key source of revenue for the city to use for servicing and repaying debt, did not escalate rapidly, in 1978 voters passed a state-wide ballot initiative (Proposition 13) focusing on limiting the growth in property tax rates. As a result of voters passing Proposition E, the city adopted a new Charter. This new charter created an explicit cap on General Obligation Bonds outstanding based on real property assessed value. The City Charter (Section 9.106)⁶¹ limits the total amount of General Obligation debt that may be outstanding at any time to an amount equal to no more than 3.0% of the assessed value of property within the city. The aggregate General Obligation debt outstanding is equivalent to 0.7525% of assessed value of property.⁶²

An additional financial constraint was enacted in 2006 by the Capital Planning Committee and ratified by the Board of Supervisors upon adopting the first 10-Year Capital Plan that limits the aggregate amount of debt service on issued General Obligation Bonds to ensure property tax rates will not exceed the 0.1201% rate level of 2006. Barring increases in assessed property values (and related higher property taxes at the 0.1201% rate), new General Obligation Bonds can be issued only as older bonds are paid off and retired or as property assessed values increase.

The Capital Plan includes projects through 2033 as listed in Figure 8 excerpted from Capital Plan.

⁶⁰ Office of the Controller of the City and County of San Francisco, n.d., "[Bond Rating | City Performance Scorecards](#)," City of San Francisco. Accessed May 1, 2024.

⁶¹ San Francisco Charter, "[SEC. 9.106. GENERAL OBLIGATION BONDS](#)," American Legal Publishing. Accessed May 1, 2024.

⁶² Office of the Controller of the City and County of San Francisco. Accessed February 25 2024.

Figure 8- General Obligation Bond issuance by program⁶³

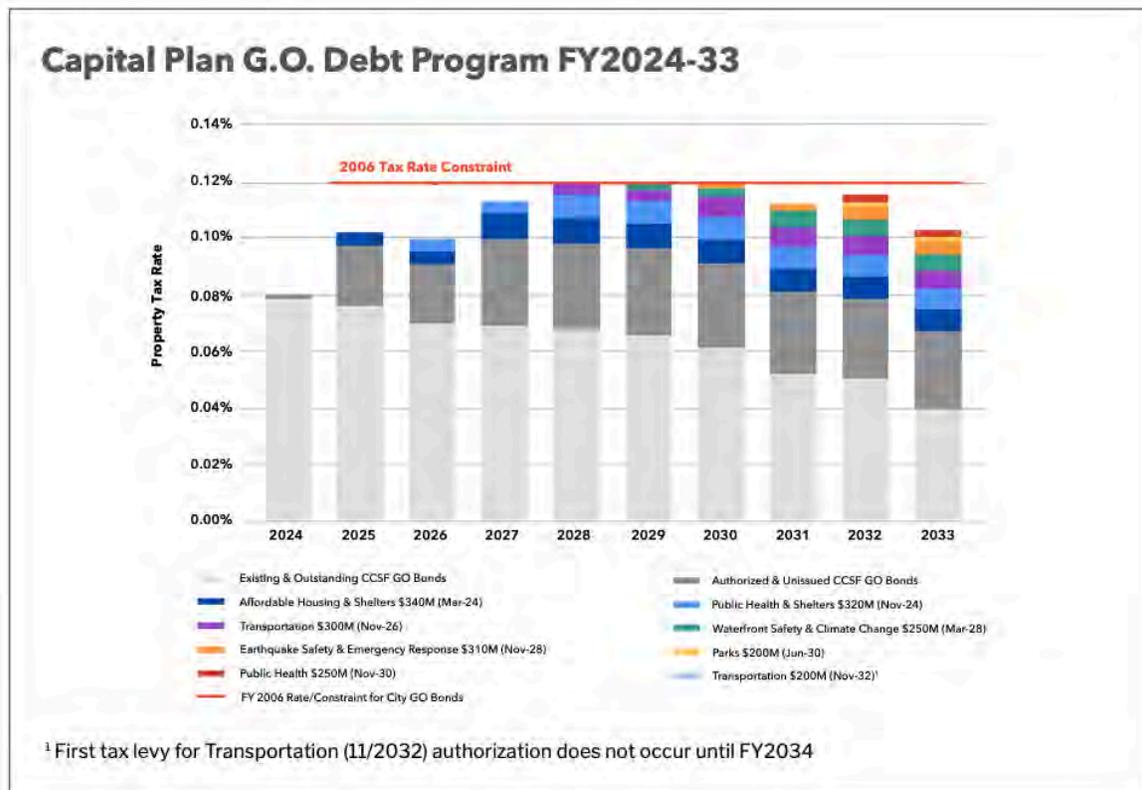
G.O. Bond Debt Program		
(Dollars in Millions)		
Election Date	Bond Program	Amount
Mar 2024	Affordable Housing & Shelters	340
Nov 2024	Public Health & Shelters	320
Nov 2026	Transportation	300
Mar 2028	Waterfront and Climate Safety	250
Nov 2028	Earthquake Safety & Emergency Response	310
Jun 2030	Parks and Open Space	200
Nov 2030	Public Health	250
Nov 2032	Waterfront and Climate Safety	200
Total		2,170

The Capital Plan estimates the borrowing for these projects will “max out” the City’s General Obligation Bond issuance capacity in FY 2028, 2029, and 2030 as constrained by the 0.1201% property tax rate limit. Figure 9 below excerpted from the Capital Plan illustrates this limitation of any spending beyond those projects currently included in the Capital Plan.

A point worth considering is that the funding necessary for the building of a prospective seawall and for other capital improvements that may be necessary to deal with sea-level rise and extreme precipitation are only beginning to be understood and may require a citywide response rather than depending solely on funding by select enterprise divisions.

⁶³ San Francisco Office of Resilience and Capital Planning, 2023, “[10-Year Capital Plan FY 2024–33](#),” Table 1.5, 65.

Figure 9 - City General Obligation Bond Program expected issuance⁶⁴



Beyond General Obligation bonds issued by the city, Certificates of Participation (“COPs”) are another form of debt security the city may use to raise capital for projects. The COPs are backed by the physical assets owned by the city and are intended to leverage the General Fund to finance capital projects and acquisitions. Such projects typically relate to normal existing city operations rather than the providing of major new services that could arise from a large-scale capital investment project. For example, the Capital Plan⁶⁵ notes funding used to relocate city staff to more seismically safe buildings as an example of the type of small capital projects where COPs funding is used. The debt service for the COPs is sourced from the General Funds or from revenues that would otherwise flow into the General Fund. Table 5.2 of the Capital Plan⁶⁶ mentions that during the period FY24–FY30, the city expects to issue \$527 million of COPs for a variety of small projects.

⁶⁴ ORCP, 2023, “[10-Year Capital Plan FY 2024–33](#),” Chart 1.1, 66.

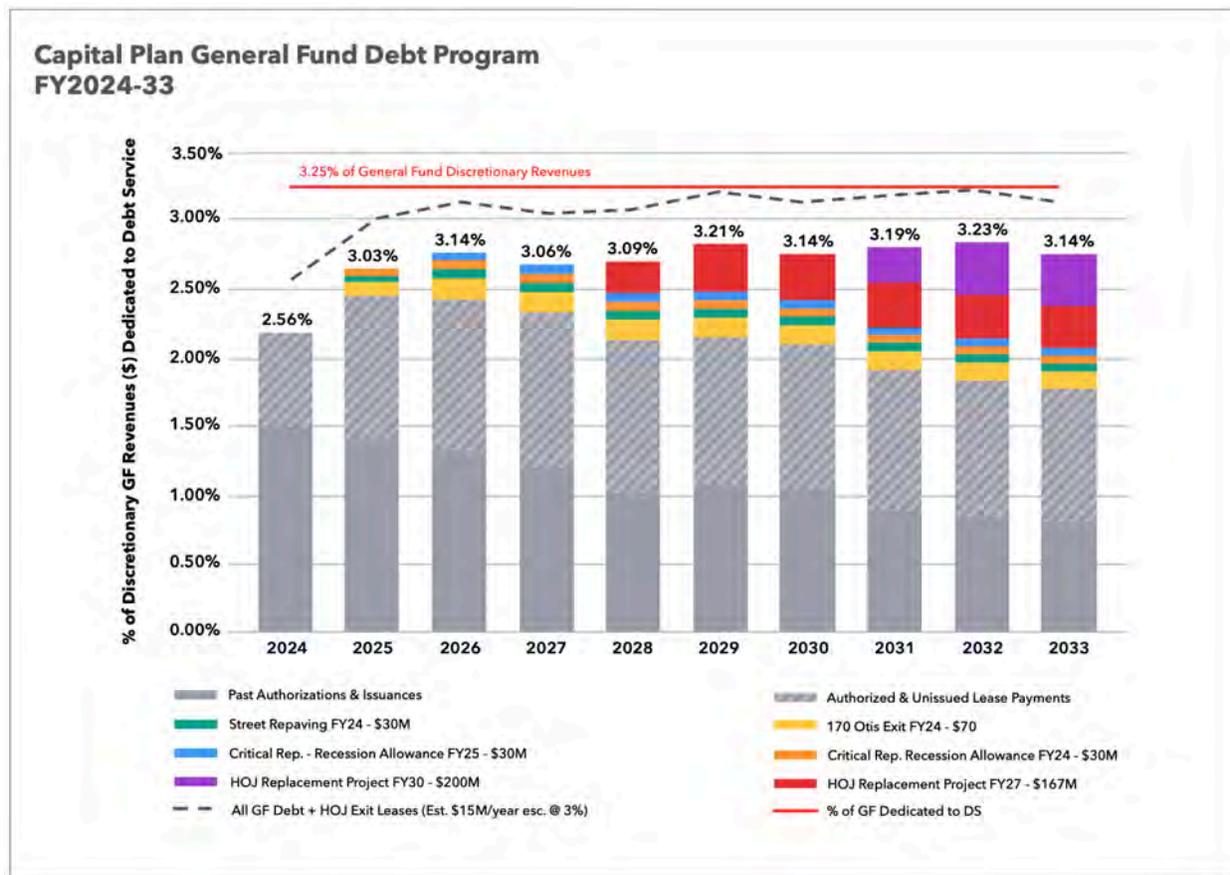
⁶⁵ ORCP, 2023, “[10-Year Capital Plan FY 2024–33](#),” 67.

⁶⁶ ORCP, 2023, “[10-Year Capital Plan FY 2024–33](#),” Table 5.2, 67.

The city is limited in the amount of COPs it may have outstanding: The COPs program operates with a policy constraint in place that limits General Fund debt (which COPs are) to an amount whose debt service does not exceed 3.25% of discretionary General Fund revenues. Revenues collected by the city that are linked to voter-approved mandated spending from the General Fund may not be used for COPs debt service.

Figure 10, excerpted from the Capital Plan,⁶⁷ illustrates the debt issuance limitation with a red line.

Figure 10 - Capital Plan General Debt Fund Program



As can be seen in the figure, the city is planning, based upon projects now contemplated in the 10-Year Capital Plan, to use the majority of its debt capacity that may be funded by discretionary General Fund revenues through FY33.

⁶⁷ ORCP, 2023, "[10-Year Capital Plan FY 2024-33](#)," Chart 5.2, 68.

Revenue Bond Section

In addition to debt raised by the city that can be serviced from property taxes or the General Fund, enterprise divisions also issue debt. Those enterprise divisions of the city that produce revenue arising from fees paid by users are the typical issuers of revenue bonds. The San Francisco Public Utility Commission (“SFPUC”), the Airport Commission of the City and County of San Francisco - San Francisco International Airport (the “Airport”), The Port of San Francisco (“Port”), and the San Francisco Municipal Transit Authority (“SFMTA”) are examples of enterprise divisions with user fee streams that could serve as the financial backing for bonds issued by those entities. It is worth noting that the funds raised from the sale of revenue bonds are required to be used for the intended purposes disclosed in the sale documents and those purposes must be exclusively within the subject enterprise division.

The Capital Plan in Table 5.3⁶⁸ notes that during the FY 24-33 period, the SFPUC and the Airport plan, collectively, to raise \$8.3 billion for major capital projects.

Debt service for revenue bonds is tied to the revenues collected by the enterprise divisions and not to the city’s real estate property tax base. The various enterprise divisions’ bond offering statements detail the financial control mechanisms in place to ensure debt service can be provided to investors with a meaningful margin of safety.

To summarize, the debt service linked to an amount of revenue bond debt to be issued by an enterprise division should be less than the revenues from fees collected from users. In the case of the SFPUC, the rates collected from users are our water and sewer charges and those rates are established by balancing operating and capital expense requirements against affordability for households. The SFPUC plans rates, consistent with its published Affordability Policy⁶⁹, to ensure affordability for the 40% income percentile household. Thus the rates, linked to household affordability, determine the amount of debt service the SFPUC can afford which then, depending on interest rates, determines the amount of debt that can be raised. The SFPUC

⁶⁸ ORCP, 2023, “[10-Year Capital Plan FY 2024–33](#),” Table 5.3, 67.

⁶⁹ San Francisco Public Utility Commission, 2023, “[Affordability Policy](#).”

maintains a policy of budgeting net revenue for current debt coverage of 1.1x⁷⁰. Further details on SFPUC debt coverage criteria can be found at the SFPUC's page addressing financial policies⁷¹. The enterprise departments, as issuers of revenue bonds, face constraints on the amount of debt they can issue. While most bond indenture credit constraints are linked to some metric relating to the assurance that debt interest and principal can be paid, those limitations are not the first limitations that might constrain the issuance of additional debt by an enterprise division.

The enterprise divisions, like any business, balance revenues with expenses and the revenues are linked to the prices customers pay for services. Those prices are often subject to various public policy constraints relating to affordability of the services in the case of the SFPUC and the SFMTA. For the San Francisco International Airport, rates have an impact on the costs of travel for users of the airports.

The first operational constraint on further debt issuance by the SFPUC relates to affordability. As a matter of public policy, the SFPUC aims to ensure that services rates do not exceed affordability for those in low income situations, defined in the SFPUC's Affordability Policy document.

The Port of San Francisco faces similar dynamics as those faced by the San Francisco International Airport in terms of establishing rates that are competitively appealing to ensure the Port's physical assets are used as much as possible.

The SFMTA currently faces an projected operating deficit which precludes issuing additional debt. Rates for public transportation are a matter of public policy and are set at levels deemed affordable by the most economically vulnerable proportion of users.

Overall, the SFCGJ found in its work that the enterprise divisions do not enjoy substantial latitude to raise additional debt for unexpected and no-unplanned-for climate change adaptation projects without having to breach public policy commitments on affordability and competitiveness of service rates.

⁷⁰ San Francisco Public Utility Commission, 2017, "[Debt Service Coverage Policy](#)."

⁷¹ San Francisco Public Utility Commission, 2017, "[Financial Plans and Policies](#)."

Appendix C: Jury Identified HCR Strategies Related to Climate Change

The jury highlights the following 59 strategies from the Hazard and Climate Resilience Plan to present the scope of the future of climate resilience in San Francisco. Listed are a summary of the strategy, the projected cost, involved government entities and an identifying strategy code containing the domain code, primary hazard group number, the strategy number and the substrategy number. Further detail can be found in the 2020 Hazard and Climate Resilience Plan pages 228-293.

Low Cost Level Climate Related Strategies

- **Strategy: Strengthen citywide efforts to conserve, restore, and steward biodiversity**
- Strategy Code: IN-2.16
- Projected Cost: Low Cost Level (0-\$500k per strategy)
- Lead Agency: SFE
- Partners: Various public and private agencies

- **Strategy: Reduce seismic and flood risk along three miles of the San Francisco Waterfront from Fisherman's Wharf to Mission Creek**
- Strategy Code: IN-5.02
- Projected Cost: Low Cost Level (0-\$500k per strategy)
- Lead Agency: Port
- Partners: City depts., regional planning agencies

- **Strategy: Develop multi-hazard resilience design guidelines for municipal buildings**
- Strategy Code: B-2.01
- Projected Cost: Low Cost Level (0-\$500k per strategy)
- Lead Agency: ORCP
- Partners: Public Works, Planning, SFPUC, Port, SFMTA, SFO, etc.

- **Strategy: Review the guidance for incorporating sea level rise into capital planning**
- Strategy Code: B-2.02
- Projected Cost: Low Cost Level (0-\$500k per strategy)
- Lead Agency: ORCP
- Partners: CPC, Planning, Public Works, SFPUC, SFMTA, Port

- **Strategy: Develop a program to analyze, identify, and evaluate properties at risk of stormwater flooding**
- Strategy Code: B-2.03
- Projected Cost: Low Cost Level (0-\$500k per strategy)
- Lead Agency: SFPUC
- Partners: Planning, DBI, Assessor

- **Strategy: Increase privately-owned building weatherization rates**
- Strategy Code: B-3.02
- Projected Cost: Low Cost Level (0-\$500k per strategy)
- Lead Agency: SFE
- Partners: DPH, SFPUC, BayREN, PG&E, ORCP

- **Strategy: Support increased building electrification (fuel switching) and mechanical upgrades**
- Strategy Code: B-3.03
- Projected Cost: Low Cost Level (0-\$500k per strategy)
- Lead Agency: SFE
- Partners: Public Works, SFO, SFUSD, SFPUC, OEWD, DPH

- **Strategy: Develop comprehensive and coordinated code amendments for multi-hazard resilience of private development**
- Strategy Code: B-5.06
- Projected Cost: Low Cost Level (0-\$500k per strategy)
- Lead Agency: Planning
- Partners: DBI, SFE, Port, SFO, private property owners

- **Strategy: Develop a public outreach campaign and wayfinding plan for tsunami awareness and evacuation procedures**
- Strategy Code: C-1.06
- Projected Cost: Low Cost Level (0-\$500k per strategy)
- Lead Agency: DEM
- Partners: Port, RPD, Public Works, SFMTA, CA Tsunami Program

- **Strategy: Expand household hazardous waste collection efforts**
- Strategy Code: C-4.01
- Projected Cost: Low Cost Level (0-\$500k per strategy)
- Lead Agency: SFE
- Partners: Recology SF, Public Works, DEM, DPH

- **Strategy: Create a program to coordinate existing city programs providing in-home and resident-facing services related to hazard and climate resilience**
- Strategy Code: C-5.04
- Projected Cost: Low Cost Level (0-\$500k per strategy)
- Lead Agency: DEM, DPH
- Partners: HSA, ORCP, MOHCD, SFE, DBI

- **Strategy: Develop a Preparedness Equipment Purchase Program to direct and fund the purchase of climate preparedness equipment**
- Strategy Code: C-5.05
- Projected Cost: Low Cost Level (0-\$500k per strategy)
- Lead Agency: DEM, DPH
- Partners: Public Works, ORCP, SFE, SFFD

- **Strategy: Perform gap analysis of vulnerable populations (i.e., Access and Functional Needs) and available city services**
- Strategy Code: C-5.07
- Projected Cost: Low Cost Level (0-\$500k per strategy)
- Lead Agency: MOD
- Partners: DAAS, DPH, CON, DEM, Age & Disability Friendly Initiative

- **Strategy: Study the overlap between vulnerable populations and vulnerable buildings**
- Strategy Code: C-5.15
- Projected Cost: Low Cost Level (0-\$500k per strategy)
- Lead Agency: Planning/ DPH/ORCP
- Partners: DBI, SFPUC, SFE, MOHCD, HSH, CBO

- **Strategy: Develop and manage a system for hazard and climate resilience data**
- Strategy Code: C-5.16
- Projected Cost: Low Cost Level (0-\$500k per strategy)
- Lead Agency: ORCP/DT
- Partners: DEM, Planning, DPH

- **Strategy: Develop a communications strategy for citywide climate resilience efforts**
- Strategy Code: C-5.17
- Projected Cost: Low Cost Level (0-\$500k per strategy)
- Lead Agency: ORCP
- Partners: Planning, Port, SFE, DPH, SFPUC

- **Strategy: Improve San Francisco's climate health research capacity**
- Strategy Code: C-5.18
- Projected Cost: Low Cost Level (0-\$500k per strategy)
- Lead Agency: DPH
- Partners: Varies

- **Strategy: Develop and implement a Centralized Air Quality and Extreme Heat Preparedness campaign**
- Strategy Code: C-5.19
- Projected Cost: Low Cost Level (0-\$500k per strategy)
- Lead Agency: DPH
- Partners: DEM, ORCP, CBOs, SFE, Public Works, PIOs, Public Government Affairs Staff

Medium Cost Level Climate Related Strategies

- **Strategy: Conduct a Risk and Resilience Assessment and Emergency Response Plan for the city's water infrastructure system**
- Strategy Code: IN-1.04
- Projected Cost: Medium Cost Level (\$500k-\$5M per strategy)
- Lead Agency: SFPUC

- **Strategy: Implement multi-hazard mitigation improvements for harbor dock infrastructure**
- Strategy Code: IN-1.08
- Projected Cost: Medium Cost Level (\$500k-\$5M per strategy)
- Lead Agency: Port, RPD
- Partners: DEM, TIDA, California Tsunami Program

- **Strategy: Develop a hazard mitigation and emergency response evacuation plan for SF Zoo**
- Strategy Code: IN-1.09
- Projected Cost: Medium Cost Level (\$500k-\$5M per strategy)
- Lead Agency: SF Zoo, RPD
- Partners: DEM, SFE, CA Tsunami Program

- **Strategy: Develop projects to address flooding around Islais Creek**
- Strategy Code: IN-2.01
- Projected Cost: Medium Cost Level (\$500k-\$5M per strategy)
- Lead Agency: Planning
- Partners: Port, SFMTA

- **Strategy: Complete the Extreme Precipitation Study**
- Strategy Code: IN-2.07
- Projected Cost: Medium Cost Level (\$500k-\$5M per strategy)
- Lead Agency: SFPUC
- Partners: Port, SFO, ORR

- **Strategy: Complete a comprehensive assessment of combined flood risks for San Francisco**
- Strategy Code: IN-2.08
- Projected Cost: Medium Cost Level (\$500k-\$5M per strategy)
- Lead Agency: SFPUC
- Partners: ORCP, Public Works, SF Planning (Pending scope)

- **Strategy: Develop a strategy to conserve and monitor water use by capital projects**
- Strategy Code: IN-2.13
- Projected Cost: Medium Cost Level (\$500k-\$5M per strategy)
- Lead Agency: Public Works, SFPUC
- Partners: IDC/BDC clients, City agency building operators

- **Strategy: Develop a Long-term Vulnerability Assessment and Adaptation Plan for the Hetch Hetchy Regional Water System**
- Strategy Code: IN-2.14
- Projected Cost: Medium Cost Level (\$500k-\$5M per strategy)
- Lead Agency: SFPUC
- Partners: Bay Area Water Supply & Conservation Agency (BAWSCA)

- **Strategy: Implement a Coastal Multimodal Resilience Strategy**

- Strategy Code: IN-2.15
- Projected Cost: Medium Cost Level (\$500k-\$5M per strategy)
- Lead Agency: SFMTA
- Partners: Port, Planning, ORCP, Public Works

- **Strategy: Continue to mitigate wildfire hazards in SFPUC-owned watersheds to protect source water quality and minimize risk to SFPUC water and power infrastructure**
- Strategy Code: IN-3.03
- Projected Cost: Medium Cost Level (\$500k-\$5M per strategy)
- Lead Agency: SFPUC
- Partners: National Forest Service, CalFire, county agencies

- **Strategy: Study emergency clean air and cooling capacity at key community facilities**
- Strategy Code: B-3.01
- Projected Cost: Medium Cost Level (\$500k-\$5M per strategy)
- Lead Agency: DPH
- Partners: SFUSD, DCYF, ORCP, HSA, MOHCD, RPD, SFE, LIB

- **Strategy: Install solar and storage systems at critical facilities**
- Strategy Code: B-5.02
- Projected Cost: Medium Cost Level (\$500k-\$5M per strategy)
- Lead Agency: Public Works/varies
- Partners: ORCP, SFE, SFPUC, public building owners/operators (Port, SFMTA, RPD, DBI), DPH

- **Strategy: Assess vertical evacuation options in high-hazard areas and guidance for large building refuges**

- Strategy Code: C-1.07
- Projected Cost: Medium Cost Level (\$500k-\$5M per strategy)
- Lead Agency: DBI, DEM
- Partners: MOD, DPH, Public Works, NEN, SFFD, CA Tsunami Program, BOMA, BART, NERT

- **Strategy: Identify and Create Clean Air/Cooling Hub (CACH) Public Respite Facilities**
- Strategy Code: C-5.01
- Projected Cost: Medium Cost Level (\$500k-\$5M per strategy)
- Lead Agency: ORCP
- Partners: SFPL, DEM, RPD, ADM, Public Works, DPH

- Strategy: **Develop a community-based capacity building initiative**
- Strategy Code: C-5.08
- Projected Cost: Medium Cost Level (\$500k-\$5M per strategy)
- Lead Agency: MOD
- Partners: DAAS, DPH, SFCARD, DEM, NEN, RTSF, H4H, Age & Disability Friendly Initiative

High Cost Level Climate Related Strategies

- **Strategy: Increase the resilience of the Municipal Fiber Optic Network**
- Strategy Code: IN-1.06
- Projected Cost: High Cost Level (\$5M and above per strategy)
- Lead Agency: SFDT
- Partners: SFMTA, SFPUC, SFFD, Joint Pole Assoc., PG&E

- **Strategy: Increase the resilience of the 911 Radio System**
- Strategy Code: IN-1.07
- Projected Cost: High Cost Level (\$5M and above per strategy)
- Lead Agency: SFDT
- Partners: SFMTA, SFPUC, SFFD, Joint Pole Assoc., PG&E

- **Strategy: Develop a process to move utilities from under pier structures**
- Strategy Code: IN-2.02
- Projected Cost: High Cost Level (\$5M and above per strategy)
- Lead Agency: Port

- **Strategy: Continue to implement the Ocean Beach Master Plan**
- Strategy Code: IN-2.03
- Projected Cost: High Cost Level (\$5M and above per strategy)
- Lead Agency: SFPUC
- Partners: Public Works, SFMTA, RPD, GGNRA, SF Zoo

- **Strategy: Expand the StreetTreeSF Climate Resilient Tree Planting Initiative**
- Strategy Code: IN-2.06
- Projected Cost: High Cost Level (\$5M and above per strategy)
- Lead Agency: Public Works
- Partners: OEWD, City agencies with streetscape projects, Non-Profit Partners

- **Strategy: Participate in US Army Corps of Engineers (USACE)/Port Flood Study**
- Strategy Code: IN-2.09
- Projected Cost: High Cost Level (\$5M and above per strategy)
- Lead Agency: Port
- Partners: City Departments, regional agencies, businesses and NonProfits

- **Strategy: Diversify water supply options year-round by improving the use of new water sources and drought management**
- Strategy Code: IN-2.12
- Projected Cost: High Cost Level (\$5M and above per strategy)
- Lead Agency: SFPUC
- Partners: DPH, DBI

- **Strategy: Conduct a system-wide, multi-hazard vulnerability and operational assessment for Muni**
- Strategy Code: IN-5.01
- Projected Cost: High Cost Level (\$5M and above per strategy)
- Lead Agency: SFMTA
- Partners: Public Works, SFPUC, Planning, regional agencies

- **Strategy: Continue to advance Sewer System Improvement Program (SSIP) projects to meet level of service objectives**
- Strategy Code: IN-5.03
- Projected Cost: High Cost Level (\$5M and above per strategy)
- Lead Agency: SFPUC
- Partners: Public Works, Port, SFMTA

- **Strategy: Implement the Pipe Replacement Prioritization Program**
- Strategy Code: IN-5.04
- Projected Cost: High Cost Level (\$5M and above per strategy)
- Lead Agency: SFPUC
- Partners: SFFD, DPH, DEM, NERT, Bay Area Peninsula agencies

- **Strategy: Enhance flood and earthquake resilience of regional dams and ancillary facilities**
- Strategy Code: IN-5.06
- Projected Cost: High Cost Level (\$5M and above per strategy)
- Lead Agency: SFPUC, DSOD
- Partners: Downstream municipalities

- **Strategy: Implement SFMTA Asset Management and State of Good Repair Strategy**
- Strategy Code: IN-5.09
- Projected Cost: High Cost Level (\$5M and above per strategy)
- Lead Agency: SFMTA

- **Strategy: Implement SFMTA Transit Fixed Guideway Strategy**
- Strategy Code: IN-5.10
- Projected Cost: High Cost Level (\$5M and above per strategy)
- Lead Agency: SFMTA

- **Strategy: Implement floodproofing and elevation projects for properties at risk of stormwater flooding citywide**
- Strategy Code: B-2.04
- Projected Cost: High Cost Level (\$5M and above per strategy)
- Lead Agency: SFPUC
- Partners: Assessor, DBI, Planning, SFO

- **Strategy: Amend the capital improvement program for transportation facilities to consider hazard mitigation opportunities**
- Strategy Code: B-5.01
- Projected Cost: High Cost Level (\$5M and above per strategy)
- Lead Agency: SFMTA
- Partners: Public Works, SFPUC, Planning, RPD, MOHCD, SFO, PG&E

- **Strategy: Secure a resilient public safety training facility for San Francisco Fire Department (SFFD)**
- Strategy Code: B-5.03
- Projected Cost: High Cost Level (\$5M and above per strategy)
- Lead Agency: SFFD
- Partners: SFPD, SHF

- **Strategy: Increase resilience and operation efficiency of maintenance yards**
- Strategy Code: B-5.04
- Projected Cost: High Cost Level (\$5M and above per strategy)
- Lead Agency: Public Works
- Partners: RPD, SFMTA, SFE, SFPUC, Port

- **Strategy: Continue to meet housing production goals**
- Strategy Code: C-1.05
- Projected Cost: High Cost Level (\$5M and above per strategy)
- Lead Agency: MOHCD
- Partners: OCII, DBI, Planning, non-profit housing developers

To Be Determined Cost Level Climate Related Strategies

- **Strategy: Adapt shoreline parks to sea level rise and salt water intrusion, using marshes and plant diversity**
- Strategy Code: IN-2.04
- Projected Cost: TBD
- Lead Agency: RPD
- Partners: Port, USACE

- **Strategy: Assess the current stormwater catchment potential of open space managed by the Recreation and Park Department**
- Strategy Code: IN-2.05
- Projected Cost: TBD
- Lead Agency: RPD
- Partners: SFPUC

- **Strategy: Explore increasing tree canopy and shade structures in parks**
- Strategy Code: IN-2.10,
- Projected Cost: TBD
- Lead Agency: RPD
- Partners: Friends of Urban Forest, Capital Planning

- **Strategy: Assess current plant palettes to consider future climate conditions in plant selection**
- Strategy Code: IN-2.11
- Projected Cost: TBD
- Lead Agency: RPD
- Partners: Public Works Bureau of Urban Forestry

- **Strategy: Develop a Citywide Climate Resilience Framework**

- Strategy Code: IN-5.07
- Projected Cost: TBD
- Lead Agency: ORCP
- Partners: Planning, SFE, SFPUC, DBI, Port

- **Strategy: Explore options to use recreation centers as public respite facilities**

- Strategy Code: B-5.05
- Projected Cost: TBD
- Lead Agency: RPD
- Partners: DEM, DPH, ORCP

- **Strategy: Explore toxins abatement workforce development programs**

- Strategy Code: C-4.03
- Projected Cost: TBD
- Lead Agency: OEWD
- Partners: Public Works, DPH

- **Strategy: Establish disaster relief funding and small business resilience fund**

- Strategy Code: C-5.12
- Projected Cost: TBD
- Lead Agency: OEWD
- Partners: MEDA, CON



MEMORANDUM

Date: August 15, 2024
To: Honorable Members, Board of Supervisors
From:  Angela Calvillo, Clerk of the Board
Subject: 2023-2024 CIVIL GRAND JURY REPORT
Come Hell or Highwater: Flood Management in a Changing Climate

We are in receipt of required responses to the San Francisco Civil Grand Jury report released June 11, 2024, entitled “Come Hell or Highwater: Flood Management in a Changing Climate.” Pursuant to California Penal Code, Sections 933 and 933.05, named City Departments shall respond to the report within 60 days of receipt, or no later than August 10, 2024.

For each finding the Department response shall:

- 1) agree with the finding; or
- 2) disagree with it, wholly or partially, and explain why.

As to each recommendation the Department shall report that:

- 1) the recommendation has been implemented, with a summary explanation; or
- 2) the recommendation has not been implemented but will be within a set timeframe as provided; or
- 3) the recommendation requires further analysis. The officer or agency head must define what additional study is needed. The Grand Jury expects a progress report within six months; or
- 4) the recommendation will not be implemented because it is not warranted or reasonable, with an explanation.

The Civil Grand Jury Report identified the following City Departments to submit responses (attached):

- Office of the Mayor
- Office of the Controller
- Office of the City Administrator
- Office of the City Attorney
- Office of Resilience and Capital Planning
- San Francisco Public Utilities Commission
- Port of San Francisco

- Commission on the Environment
- Human Rights Commission.
 - Received August 9, 2024.

These departmental responses are being provided for your information, as received, and may not conform to the parameters stated in California Penal Code, Section 933.05 et seq. The Government Audit and Oversight Committee will consider the subject report, along with the responses, at a hearing in September 2024.

c: Tom Paulino, Liaison to the Board of Supervisors, Mayor's Office
Andres Power, Mayor's Office
Greg Wagner, City Controller
ChiaYu Ma, Office of the Controller
Mark de la Rosa, Office of the Controller
Alisa Somera, Office of the Clerk of the Board
Carmen Chu, City Administrator
Sophie Hayward, Office of the City Administrator
Vivian Po, Office of the City Administrator
Angela Yip, Office of the City Administrator
Brad Russi, Office of the City Attorney
Brian Strong, Program Director, Office of Resilience and Capital Planning
Dennis Herrera, General Manager, Public Utilities Commission
Masood Ordikhani, Public Utilities Commission
Jeremy Spitz, Public Utilities Commission
Donna Hood, Public Utilities Commission
Elaine Forbes, Executive Director, Port of San Francisco
Jenica Liu, Port of San Francisco
Boris Delepine, Port of San Francisco
Sarah Ching-Ting Wan, Commission on the Environment
Tyrone Jue, Executive Director, Department of the Environment
Sheryl Davis, Director, Human Rights Commission
Severin Campbell, Office of the Budget and Legislative Analyst
Nicolas Menard, Office of the Budget and Legislative Analyst
Dan Goncher, Office of the Budget and Legislative Analyst
Amanda Guma, Office of the Budget and Legislative Analyst
Michael Carboy, 2023-2024 Foreperson, San Francisco Civil Grand Jury
Michael Carboy, 2024-2025 Foreperson, San Francisco Civil Grand Jury



August 9, 2024

The Honorable Anne-Christine Massullo
Presiding Judge, Superior Court of California, County of San Francisco
400 McAllister Street, Room 008
San Francisco, CA 94102-4512

Dear Judge Massullo,

In accordance with Penal Code 933 and 933.05, the following is in response to the 2023-2024 Civil Grand Jury Report, *Come Hell or High Water: Flood Management in a Changing Climate*. We would like to thank the members of the 2023-2024 Civil Grand Jury for their interest in the City's flood management process and procedures, especially as it relates to San Francisco's ability to respond to the growing threats of climate change. Your role in holding the City accountable and facilitating learning from the implementation and management of flood mitigation projects across San Francisco is of utmost importance.

We agree with the Jury's six findings that the City can continue to improve governance structures, interdepartmental coordination, transparency, and public outreach, as well as better assess funding constraints and costs. However, the City has taken several steps to address many of the concerns presented in the report. While improvements can be made, the City's diligence in ensuring that flood mitigation responses, preparations, and concerns are continuously addressed, improved, and invested in is important for the Jury and public to understand. We have made significant progress and will continue to build upon the efforts of City departments and staff. The Mayor's Office will direct the departments listed in the report to learn from the findings and work collaboratively with all stakeholders to improve San Francisco's climate resiliency and mitigation efforts.

We appreciate the opportunity to comment on the Civil Grand Jury report findings and recommendations. As we move forward, the City plans to continue working with all departments to enhance these procedures.

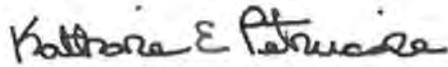
A detailed response from the Mayor's Office, the City Attorney, Public Utilities Commission, Port of San Francisco, Environment Department, the City Administrator, Office of Resilience and Capital Planning, and the Controller's Office is attached.

Sincerely,

A handwritten signature in cursive script that reads "London Breed".

London N. Breed
Mayor

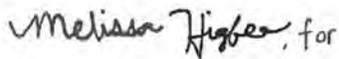

Greg Wagner
Controller



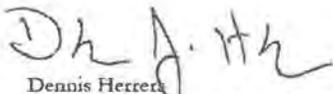
Katie Petrucione
Acting City Administrator



David Chiu
City Attorney


Melissa Higbee, for

Brian Strong
Director, Office of Resilience and Capital Planning



Dennis Herrera
General Manager, San Francisco Public Utilities Commission



Elaine Forbes
Executive Director, Port of San Francisco



Tyrone Jue
Director, San Francisco Environment Department



Sheryl Davis
Director, San Francisco Human Rights Commission

2023-24 CIVIL GRAND JURY FINDINGS, RECOMMENDATIONS, AND RESPONSES TO FINDINGS AND RECOMMENDATIONS

Report Title	F#	Finding	Respondent	Finding Response	Finding Response Text
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	F1	ClimateSF Governance and Coordination Are Inadequate. ClimateSF provides neither the necessary governance nor interdepartmental coordination of projects to address climate change because the currently configured Director level meeting cannot execute the recommendations generated from the staff level meetings.	Mayor [August 10, 2024]	Disagree wholly	The City agrees that it needs to continue to identify, develop, and implement structural governance and interdepartmental coordination improvements in support of climate resilience. ClimateSF is currently in the process of evaluating additional opportunities to improve coordination and effective decision-support, including at the Director level. However, it is not clear that Director engagement has wholly inhibited interdepartmental coordination of projects to address climate change. Despite the noted challenges in convening ClimateSF Director-level meetings, there are numerous examples of initiatives that have been successfully propagated through member departments and actions taken, including the shared (multi-department) resourcing of the ClimateSF Program Manager Position, an interdepartmental partnership with San Francisco Estuary Institute on a Regional Groundwater Study, a successful grant application for the Yosemite Slough Neighborhood Adaptation Plan, and critical decisions regarding the Waterfront Flood Study Draft Plan (Army Corps partnership). As a result, there is evidence of several ClimateSF initiatives, which have successfully been elevated and approved by Directors through existing formal governance structures.
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	F3	Funding of Climate Resilience Is Hampered by Debt Cap and Service Rate Constraints. Absent a citywide plan to fund the necessary adaptation infrastructure, the city is additionally hampered by a self-imposed limit on the use of general obligation bonds (\$0.1201 per \$100 of assessed value). Further, the jury finds the SFPUC, SFMTA, SFO, and Port face service rate constraints or competitive concerns that hamper additional use of revenue bonds.	Mayor [August 10, 2024]	Disagree partially	The City agrees that increased clarity on its anticipated resilience costs could better equip to evaluate its various funding options, including the expanded use of general obligation bonds. The City continuously works to develop cost estimates across its complex landscapes and infrastructure. It generates high-level cost estimates when it develops climate resilience plans (e.g. the Hazards and Climate Resilience Plan, the Climate Action Plan, the Waterfront Resilience Program, the Heat and Air Quality Resilience Plan). These estimates generally indicate the scale of funding needed to implement the overall strategy but also reflect significant uncertainty and lack the precision of a project-level cost estimate. Precise project-level cost estimates take significant resources and time to develop and are often produced over several years. Moreover, there is also a need to adaptively manage (i.e. right-size) future adaptation investments given the uncertainties associated with future climate impacts. Therefore, at any point in time, the City has an incomplete (and uncertain) understanding of its projected resilience costs, which make it challenging to support more precise funding strategies. The City also currently lacks evidence that voters would approve the higher property taxes necessary to raise debt limits and there are other capital investment needs. While the City agrees that increased debt financing is an option that merits further examination, staff continue to pursue numerous other funding options currently available to SF, such as state and federal funding programs.
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	F4	Flood Management Needs Interdepartmental Coordination. Flood management lacks a formal coordination process for an increasing environmental extremity that requires planning and implementation between multiple city departments.	Mayor [August 10, 2024]	Disagree partially	In anticipation of increased flood risks associated with climate change, the City agrees that it should seek additional opportunities to develop formal flood management procedures that foster better coordination and collaboration. The City has taken steps in recent years to establish improved flood management coordination. It currently coordinates flood management through the Sea Level Rise and Flood Hazards Coordinating Committee, which is chaired by the Chief Resilience Officer and Deputy Director of Planning, Citywide Division and meets bi-monthly. This working group is comprised of technical staff from several departments and agencies. It convenes on a regular basis to support the development of projects, plans, tools, and engagement on the topic of flood management and resilience. The group's recommendations are elevated to ClimateSF Directors as appropriate. For example, the Working Group developed the City's Sea Level Rise Guidance and supported the development of the City's Extreme Precipitation Study.

2023-24 CIVIL GRAND JURY FINDINGS, RECOMMENDATIONS, AND RESPONSES TO FINDINGS AND RECOMMENDATIONS

Report Title	F#	Finding	Respondent	Finding Response	Finding Response Text
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	F6	The City Fails to Communicate Impacts of Climate Change. The city is failing to communicate the future impacts of climate change to the residents who will be most affected.	Mayor [August 10, 2024]	Disagree wholly	The City disagrees on this finding, as there are various interdepartmental projects that have been successful. Public engagement and outreach has been at the forefront in projects including the Hazards and Climate Resilience Plan, The Waterfront Resilience Program, Heat and Air Quality Resilience Plan, The Islais Creek Mobility and Resilience Strategy, Safety and Resilience Element, and Climate Action Plan. To engage the public, the Hazards and Climate Resilience Plan hosts an interactive storymap, in which the public can spatially explore identified climate hazards. The Department of the Environment also recently launched a web-based Climate Equity Hub, in which qualifying households can apply for free heat pump water heaters. Public engagement sessions associated with these plans have elicited a significant amount of feedback that influenced the respective adaptation plans, including how investments are developed, prioritized, and located. ClimateSF publishes a quarterly newsletter, which is available to the public and is intended to update the public on resilience planning and programs while also extending departmental outreach. Given the challenges associated with reaching residents who will be most affected by climate change, the City continues to explore and develop better and more effective communication methods, including through ClimateSF.

2023-24 CIVIL GRAND JURY FINDINGS, RECOMMENDATIONS, AND RESPONSES TO FINDINGS AND RECOMMENDATIONS

Report Title	R#	Recommendation	Respondent	Recommendation	Recommendation Response Text
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	R1.1 [for F1]	Henceforth, the quarterly Director level meetings of ClimateSF shall be included as part of the monthly Capital Planning Committee meeting agenda.	Mayor [August 10, 2024]	Will not be implemented because it is not warranted or is not reasonable	ClimateSF will continue to seek ways to improve Director level engagement in its activities, particularly through more effective interdepartmental governance structures. While the Capital Planning Committee (CPC) will continue to play an important role in interdepartmental coordination and governance, adding a new standing monthly CPC agenda item or developing a CPC sub-committee would not be effective for providing Director-level support to ClimateSF. Many ClimateSF initiatives, such as those related to joint planning, interdepartmental workflows, and communications, do not relate to the CPC's purpose. Secondly, not all ClimateSF Directors are on the CPC. Additionally, it would not be an efficient use of administrative resources to support a monthly meeting interval as capital planning initiatives require significant time to develop. As currently configured, many interdepartmental resilience initiatives are presented to the CPC (e.g., the Waterfront Resilience Program) as they achieve the appropriate level of maturity. The City anticipates that future capital investments in resilience will continue to be presented to the CPC as appropriate and as they are developed rather than through a new standing agenda item or an additional sub-committee.
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	R3.1 [for F3]	By December 31, 2024, the Mayor and/or City Administrator shall develop and publish a cross-department financial plan to respond to the anticipated costs of climate change resilience and potential sources of funding.	Mayor [August 10, 2024]	Will not be implemented because it is not warranted or is not reasonable	Significant resources, funding, and time are needed to develop robust cost estimates for the resilience projects that are developed to support the city's climate resilience plans. The cost estimate for the Waterfront Flood Study Draft Plan is just one example of one strategy in the Hazards and Climate Resilience Plan that has taken several years, hundreds of person-hours, and millions of dollars to develop. Therefore, the City currently lacks all the information and resources to accurately implement this recommendation, due in part to the uncertainty described in the Finding 3 Response. The City will continue to develop interdepartmental funding strategies for projects as cost estimates are developed over time (e.g. the Waterfront Flood Study Draft Plan) and incorporate these costs into the 10-Year Capital Planning Plan, which is updated on a 2-year basis. However, the City agrees it should continue to find ways to improve its ability to make informed resilience finance decisions. The City will also continue to seek opportunities to track its anticipated costs and ability to fund its resilience investments through the 10-year Capital Plan.
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	R3.4 [for F3]	By December 31, 2024, the City Administrator shall direct the Capital Planning Committee to include in the 10-Year Capital Plan the likely property tax and enterprise service division rate increases that will be necessary to fund emerging climate resilience measures.	Mayor [August 10, 2024]	Will not be implemented because it is not warranted or is not reasonable	The city agrees that increased clarity on its anticipated resilience costs could better equip it to evaluate its various funding options, including the expanded use of general obligation bonds. The City has a constantly evolving understanding of its projected resilience needs and estimated costs at any point in time. Second, the potential sources of funding that may be applied towards these needs are also constantly evolving. Finally, there are several other unfunded and emerging needs aside from climate resilience identified during each 10-year Capital Planning cycle. As a result, the City maintains that it is impractical to estimate the likely property tax and enterprise service division rate increases that would be necessary to specifically fund emerging climate resilience measures. As previously stated, The City prefers to develop interdepartmental funding strategies for projects as cost estimates are developed over time (e.g., the Waterfront Flood Study Draft Plan) and incorporate these costs into the 10-Year Capital Planning Plan. The City will continue to find ways to better understand its overall resilience financial strategy across its different plans and strategies so that it can continue to better right-size the funding options available to it.

2023-24 CIVIL GRAND JURY FINDINGS, RECOMMENDATIONS, AND RESPONSES TO FINDINGS AND RECOMMENDATIONS

Report Title	R#	Recommendation	Respondent	Recommendation	Recommendation Response Text
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	R4.1 [for F4]	By December 31, 2024, the Mayor and the Board of Supervisors shall request a report from the City Administrator, as Floodplain Administrator, on the optimal governance structure (for example, CPC, Deputy City Administrator, Floodplain Administrator) to implement interdepartmental flood adaptation procedures.	Mayor [August 10, 2024]	Requires further analysis	The City recognizes that climate change and the types of resilience investments currently under consideration may require changes to the way it manages flood risk and the governance structure that support effective interdepartmental collaboration. It also agrees that more formal structures are needed to effectively coordinate the implementation of flood resilience projects and initiatives. In addition to the Sea Level Risk and Flood Hazards Coordinating Committee, which currently coordinates flood management, the City is currently investigating additional flood resilience policy and governance options that enhance interdepartmental coordination. Before committing to structural governance changes, we intend to complete this investigation to determine what, if any, changes are needed. Upon completion of this analysis, staff will consider how potential changes should connect with shoreline resilience implementation structures being developed through the Waterfront Resilience Program and other coastal resilience efforts. This investigation will not be completed by the requested due date of this recommendation.
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	R4.2 [for F4]	By December 31, 2025, the Mayor, the City Administrator, and all city agencies that interface with flood management planning shall sign a Memorandum of Understanding that specifies governance, budget, and priorities for Flood Management planning, and that clearly describes the responsibilities of core agencies and ancillary agencies.	Mayor [August 10, 2024]	Requires further analysis	Establishing a Memorandum of Understanding between agencies and departments with a role in flood management is one option that the City will consider implementing. Per the Finding 4 and Recommendation 4.1 Response Text, the City is currently in the process of evaluating different potential formal governance structures. Before responding to this finding, it intends to complete its investigation of flood resiliency policy and governance options to determine if a Memorandum of Understanding or a different option provides the most beneficial structure for interdepartmental flood adaptation management.
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	R6.1 [for F6]	Starting October 1, 2024, ClimateSF shall coordinate the communication of the projected impacts of climate change and the city's mitigation and adaptation efforts.	Mayor [August 10, 2024]	Requires further analysis	A significant amount of material regarding projected impacts of climate change, including to those who will be most affected has been developed and disseminated in association with recent planning initiatives. ClimateSF is in the process of reviewing its communications strategy. To the extent that available resources allow, ClimateSF will assess opportunities to enhance its coordination role with agency communications teams and augment the distribution of information through its web presence and other available communications methods.

2023-24 CIVIL GRAND JURY FINDINGS, RECOMMENDATIONS, AND RESPONSES TO FINDINGS AND RECOMMENDATIONS

Report Title	F#	Finding	Respondent	Finding Response	Finding Response Text
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	F5	Flood Damage Claims Are Not Funded by Insurance. The city is compensating claims for flood damage from the General Fund that might be obtained by insurance underwriting.	City Attorney [August 10, 2024]	Disagree partially	Claims against the City for flood damage are evaluated by the City Attorney on a case-by-case basis. The source of any compensation depends on the nature of the claim. In circumstances where compensation is authorized for claims alleging flood damage associated with the combined sewer system, that compensation comes from SFPUC's Wastewater Enterprise rate payer revenue, not the General Fund. Settlements of such claims require submission by the property owner of an interest form to the SFPUC's Floodwater Grant Program. Under the Grant Program, eligible property owners can receive up to \$100,000 to install flood protection projects to reduce the risk of future flood damage.

2023-24 CIVIL GRAND JURY FINDINGS, RECOMMENDATIONS, AND RESPONSES TO FINDINGS AND RECOMMENDATIONS

Report Title	R#	Recommendation	Respondent	Recommendation	Recommendation Response Text
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	R5.2 [for F5]	By December 31, 2024, the City Administrator, as Floodplain Administrator in coordination with the City Attorney and the Mayor, shall develop procedures to inform and encourage property owners to voluntarily purchase flood insurance.	City Attorney [August 10, 2024]	Has been implemented	<p>Because there are no natural riverine flood sources within the county limits, San Francisco’s Flood Insurance Rate Map (FIRM) only includes coastal flood hazard data. The City is a participant in the National Flood Insurance Program (NFIP). There are approximately 200 parcels (~1,400 people) located within FEMA FIRM Special Flood Hazard Areas of San Francisco. According to the NFIP Redacted Claims Dataset, there are no repetitively flooded properties within San Francisco. However, since 2017, 15 claims have been reported in San Francisco according to the NFIP Redacted Claims Dataset. The City is actively seeking to further reduce risk in these hazard zones, including through the WRP and other shoreline resilience initiatives.</p> <p>The SFPUC, along with city agency partners, has also been working to educate residents about their flood risk and raise awareness of tools available to reduce flood risk. The 100-year storm flood risk map was published in 2019 along with the Flood Risk Disclosure Ordinance, which requires sellers and lessors to disclose to buyers and tenants if they are in the flood risk zone. The 100-year storm flood risk map shows potential flooding from stormwater runoff only. There are approximately 2,000 parcels (~24,000 people) in the 100-year flood risk zone. To increase resilience in this zone, the SFPUC sends RainReadySF postcards to residents in the 100-year flood risk zone annually, before each rainy season, to remind them of their risk and responsibilities. These mailers reach 4,000 units and encourage recipients to purchase flood insurance and learn about the City’s Floodwater Grant Program. The SFPUC has also previously engaged with local insurance brokers to increase the sale of NFIP insurance products within the 100-year storm flood risk zone. Additionally, the SFPUC has promoted the voluntary purchase of flood insurance through its website, press events, workshops, public meetings, one-on-one interactions, collateral for homeowners and brokers, and booths at resource fairs and neighborhood events.</p>

2023-24 CIVIL GRAND JURY FINDINGS, RECOMMENDATIONS, AND RESPONSES TO FINDINGS AND RECOMMENDATIONS

Report Title	F#	Finding	Respondent	Finding Response	Finding Response Text
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	F1	ClimateSF Governance and Coordination Are Inadequate. ClimateSF provides neither the necessary governance nor interdepartmental coordination of projects to address climate change because the currently configured Director level meeting cannot execute the recommendations generated from the staff level meetings.	City Administrator [August 10, 2024]	Disagree wholly	The City agrees that it needs to continue to identify, develop, and implement structural governance and interdepartmental coordination improvements in support of climate resilience. ClimateSF is currently in the process of evaluating additional opportunities to improve coordination and effective decision-support, including at the Director level. However, it is not clear that Director engagement has wholly inhibited interdepartmental coordination of projects to address climate change. Despite the noted challenges in convening ClimateSF Director-level meetings, there are numerous examples of initiatives that have been successfully propagated through member departments and actions taken, including the shared (multi-department) resourcing of the ClimateSF Program Manager Position, an interdepartmental partnership with San Francisco Estuary Institute on a Regional Groundwater Study, a successful grant application for the Yosemite Slough Neighborhood Adaptation Plan, and critical decisions regarding the Waterfront Flood Study Draft Plan (Army Corps partnership). As a result, there is evidence of several ClimateSF initiatives, which have successfully been elevated and approved by Directors through existing formal governance structures.
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	F3	Funding of Climate Resilience Is Hampered by Debt Cap and Service Rate Constraints. Absent a citywide plan to fund the necessary adaptation infrastructure, the city is additionally hampered by a self-imposed limit on the use of general obligation bonds (\$0.1201 per \$100 of assessed value). Further, the jury finds the SFPUC, SFMTA, SFO, and Port face service rate constraints or competitive concerns that hamper additional use of revenue bonds.	City Administrator [August 10, 2024]	Disagree partially	The City agrees that increased clarity on its anticipated resilience costs could better equip to evaluate its various funding options, including the expanded use of general obligation bonds. The City continuously works to develop cost estimates across its complex landscapes and infrastructure. It generates high-level cost estimates when it develops climate resilience plans (e.g. the Hazards and Climate Resilience Plan, the Climate Action Plan, the Waterfront Resilience Program, the Heat and Air Quality Resilience Plan). These estimates generally indicate the scale of funding needed to implement the overall strategy but also reflect significant uncertainty and lack the precision of a project-level cost estimate. Precise project-level cost estimates take significant resources and time to develop and are often produced over several years. Moreover, there is also a need to adaptively manage (i.e. right-size) future adaptation investments given the uncertainties associated with future climate impacts. Therefore, at any point in time, the City has an incomplete (and uncertain) understanding of its projected resilience costs, which make it challenging to support more precise funding strategies. The City also currently lacks evidence that voters would approve the higher property taxes necessary to raise debt limits and there are other capital investment needs. While the City agrees that increased debt financing is an option that merits further examination, staff continue to pursue numerous other funding options currently available to SF, such as state and federal funding programs.

2023-24 CIVIL GRAND JURY FINDINGS, RECOMMENDATIONS, AND RESPONSES TO FINDINGS AND RECOMMENDATIONS

Report Title	F#	Finding	Respondent	Finding Response	Finding Response Text
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	F4	Flood Management Needs Interdepartmental Coordination. Flood management lacks a formal coordination process for an increasing environmental extremity that requires planning and implementation between multiple city departments.	City Administrator [August 10, 2024]	Disagree partially	In anticipation of increased flood risks associated with climate change, the City agrees that it should seek additional opportunities to develop formal flood management procedures that foster better coordination and collaboration. The City has taken steps in recent years to establish improved flood management coordination. It currently coordinates flood management through the Sea Level Rise and Flood Hazards Coordinating Committee, which is chaired by the Chief Resilience Officer and Deputy Director of Planning, Citywide Division and meets bi-monthly. This working group is comprised of technical staff from several departments and agencies. It convenes on a regular basis to support the development of projects, plans, tools, and engagement on the topic of flood management and resilience. The group's recommendations are elevated to ClimateSF Directors as appropriate. For example, the Working Group developed the City's Sea Level Rise Guidance and supported the development of the City's Extreme Precipitation Study.
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	F5	Flood Damage Claims Are Not Funded by Insurance. The city is compensating claims for flood damage from the General Fund that might be obtained by insurance underwriting.	City Administrator [August 10, 2024]	Disagree partially	Claims against the City for flood damage are evaluated by the City Attorney on a case-by-case basis. The source of any compensation depends on the nature of the claim. In circumstances where compensation is authorized for claims alleging flood damage associated with the combined sewer system, that compensation comes from SFPUC's Wastewater Enterprise rate payer revenue, not the General Fund. Settlements of such claims require submission by the property owner of an interest form to the SFPUC's Floodwater Grant Program. Under the Grant Program, eligible property owners can receive up to \$100,000 to install flood protection projects to reduce the risk of future flood damage.

2023-24 CIVIL GRAND JURY FINDINGS, RECOMMENDATIONS, AND RESPONSES TO FINDINGS AND RECOMMENDATIONS

Report Title	F#	Finding	Respondent	Finding Response	Finding Response Text
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	F6	The City Fails to Communicate Impacts of Climate Change. The city is failing to communicate the future impacts of climate change to the residents who will be most affected.	City Administrator [August 10, 2024]	Disagree wholly	The City agrees that it should continue to improve its ability to coordinate climate change policy communications. However, the City respectfully disagrees that it is “failing to communicate the future impacts of climate change to the residents who will be most affected”. While it is generally true that “departments continue to rely on their own robust public affairs organs of communication” to disseminate information and engage with the public, this in and of itself does not constitute “failure”. There are numerous recent interdepartmental planning processes in which future impacts of climate change were communicated, including to the residents who will be most affected. Public engagement associated with the Hazards and Climate Resilience Plan, The Waterfront Resilience Program, Heat and Air Quality Resilience Plan, The Islais Creek Mobility and Resilience Strategy, Safety and Resilience Element, and Climate Action Plan have all occurred within the last three years. All these outreach efforts included purposeful engagement with vulnerable communities. The Hazards and Climate Resilience Plan hosts an interactive storymap, in which the public can spatially explore identified climate hazards. The Department of the Environment recently launched a web-based Climate Equity Hub, in which qualifying households can apply for free heat pump water heaters. Public engagement sessions associated with these plans have elicited a significant amount of feedback that influenced the respective adaptation plans, including how investments are developed, prioritized, and located. Various agencies and departments regularly update the public on resilience planning and programs. ClimateSF publishes a quarterly newsletter, which is available to the public and is intended to extend departmental outreach. Given the challenges associated with reaching residents who will be most affected by climate change, the City continues to explore and develop better and more effective communication methods, including through ClimateSF.

2023-24 CIVIL GRAND JURY FINDINGS, RECOMMENDATIONS, AND RESPONSES TO FINDINGS AND RECOMMENDATIONS

Report Title	R#	Recommendation	Respondent	Recommendation	Recommendation Response Text
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	R1.1 [for F1]	Henceforth, the quarterly Director level meetings of ClimateSF shall be included as part of the monthly Capital Planning Committee meeting agenda.	City Administrator [August 10, 2024]	Will not be implemented because it is not warranted or is not reasonable	ClimateSF will continue to seek ways to improve Director level engagement in its activities, particularly through more effective interdepartmental governance structures. While the Capital Planning Committee (CPC) will continue to play an important role in interdepartmental coordination and governance, adding a new standing monthly CPC agenda item or developing a CPC sub-committee would not be effective for providing Director-level support to ClimateSF. Many ClimateSF initiatives, such as those related to joint planning, interdepartmental workflows, and communications, do not relate to the CPC's purpose. Secondly, not all ClimateSF Directors are on the CPC. Additionally, it would not be an efficient use of administrative resources to support a monthly meeting interval as capital planning initiatives require significant time to develop. As currently configured, many interdepartmental resilience initiatives are presented to the CPC (e.g., the Waterfront Resilience Program) as they achieve the appropriate level of maturity. The City anticipates that future capital investments in resilience will continue to be presented to the CPC as appropriate and as they are developed rather than through a new standing agenda item or an additional sub-committee.
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	R1.2 [for F1]	Henceforth, the monthly Capital Planning Committee meetings shall include a permanent agenda item with an update on the status of resilience plans.	City Administrator [August 10, 2024]	Will not be implemented because it is not warranted or is not reasonable	As stated in the Finding 1 Response Text, the City will continue to seek ways to improve Director level engagement in its activities, including interdepartmental resilience planning. While the City agrees that Directors play an important role in the planning process, including a permanent agenda item on the status of resilience plans would not be the best means for providing Director-level support to ClimateSF for several reasons. Many ClimateSF initiatives, such as those related to joint planning, interdepartmental workflows, and communications, do not relate to the CPC's purpose. Secondly, not all ClimateSF Directors are on the CPC. Finally, it would not be an efficient use of administrative resources to support a monthly meeting interval as resilience plans are typically developed and implemented over multiple years. Directors are regularly updated on coordinated plan development through other communication channels and provide direction when requested. The City anticipates that future resilience plans will continue to be presented to the CPC as appropriate and as they are developed rather than through a new standing agenda item or an additional sub-committee.

2023-24 CIVIL GRAND JURY FINDINGS, RECOMMENDATIONS, AND RESPONSES TO FINDINGS AND RECOMMENDATIONS

Report Title	R#	Recommendation	Respondent	Recommendation	Recommendation Response Text
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	R1.3 [for F1]	Beginning 2025, ClimateSF shall prepare an annual report for the public, summarizing the status of the ongoing climate resilience projects, using standardized metrics, including a description of the project, the Core agency in charge, the intended climate resilience measures, a projected cost, budget status and project timeline. This recommendation may and should be implemented administratively.	City Administrator [August 10, 2024]	Requires further analysis	The City agrees that it could provide more clarity on the status of projects that support its resilience goals and that doing so could facilitate better climate change governance. However, ClimateSF is not currently resourced to implement this recommendation as stated within the recommended timeframe. Additionally, inserting ClimateSF into the City’s project tracking and reporting structure may not be the most efficient workflow. ClimateSF is currently in the process of identifying alternate approaches for tracking resilience projects through existing budget and capital planning structures and processes. Resilience strategies are primarily developed and tracked through the Hazards and Climate Resilience Plan (by the Office of Resilience and Capital Planning) and the Climate Action Plan (by the Department of Environment). As projects are developed to support planned resilience strategies, they are formally incorporated into the budget and Capital Planning processes. Ideally, a robust tracking process would serve to connect resilience projects both ‘backwards’ to resilience plans and ‘forwards’ to the budget and the Capital Plan. ClimateSF will investigate the most efficient process changes necessary to build this in this connectivity and enable staff to track and report on the status of ongoing climate resilience projects.
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	R3.1 [for F3]	By December 31, 2024, the Mayor and/or City Administrator shall develop and publish a cross-department financial plan to respond to the anticipated costs of climate change resilience and potential sources of funding.	City Administrator [August 10, 2024]		Significant resources, funding, and time are needed to develop robust cost estimates for the resilience projects that are developed to support the city’s climate resilience plans. The cost estimate for the Waterfront Flood Study Draft Plan is just one example of one strategy in the Hazards and Climate Resilience Plan that has taken several years, hundreds of person-hours, and millions of dollars to develop. Therefore, the City currently lacks all the information and resources to accurately implement this recommendation, due in part to the uncertainty described in the Finding 3 Response. The City will continue to develop interdepartmental funding strategies for projects as cost estimates are developed over time (e.g. the Waterfront Flood Study Draft Plan) and incorporate these costs into the 10-Year Capital Planning Plan, which is updated on a 2-year basis. However, the City agrees it should continue to find ways to improve its ability to make informed resilience finance decisions. The City will also continue to seek opportunities to track its anticipated costs and ability to fund its resilience investments through the 10-year Capital Plan.

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Report Title	R#	Recommendation	Respondent	Recommendation	Recommendation Response Text
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	R3.4 [for F3]	By December 31, 2024, the City Administrator shall direct the Capital Planning Committee to include in the 10-Year Capital Plan the likely property tax and enterprise service division rate increases that will be necessary to fund emerging climate resilience measures.	City Administrator [August 10, 2024]	Will not be implemented because it is not warranted or is not reasonable	The city agrees that increased clarity on its anticipated resilience costs could better equip it to evaluate its various funding options, including the expanded use of general obligation bonds. The City has a constantly evolving understanding of its projected resilience needs and estimated costs at any point in time. Second, the potential sources of funding that may be applied towards these needs are also constantly evolving. Finally, there are several other unfunded and emerging needs aside from climate resilience identified during each 10-year Capital Planning cycle. As a result, the City maintains that it is impractical to estimate the likely property tax and enterprise service division rate increases that would be necessary to specifically fund emerging climate resilience measures. As previously stated, The City prefers to develop interdepartmental funding strategies for projects as cost estimates are developed over time (e.g., the Waterfront Flood Study Draft Plan) and incorporate these costs into the 10-Year Capital Planning Plan. The City will continue to find ways to better understand its overall resilience financial strategy across its different plans and strategies so that it can continue to better right-size the funding options available to it.
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	R4.1 [for F4]	By December 31, 2024, the Mayor and the Board of Supervisors shall request a report from the City Administrator, as Floodplain Administrator, on the optimal governance structure (for example, CPC, Deputy City Administrator, Floodplain Administrator) to implement interdepartmental flood adaptation procedures.	City Administrator [August 10, 2024]	Requires further analysis	The City recognizes that climate change and the types of resilience investments currently under consideration may require changes to the way it manages flood risk and the governance structure that support effective interdepartmental collaboration. It also agrees that more formal structures are needed to effectively coordinate the implementation of flood resilience projects and initiatives. In addition to the Sea Level Risk and Flood Hazards Coordinating Commttee, which currently coordinates flood management, the City is currently investigating additional flood resilience policy and governance options that enhance interdepartmental coordination. Before committing to structural governance changes, we intend to complete this investigation to determine what, if any, changes are needed. Upon completion of this analysis, staff will consider how potential changes should connect with shoreline resilience implementation structures being developed through the Waterfront Resilience Program and other coastal resilience efforts. This investigation will not be completed by the requested due date of this recommendation.
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	R4.2 [for F4]	By December 31, 2025, the Mayor, the City Administrator, and all city agencies that interface with flood management planning shall sign a Memorandum of Understanding that specifies governance, budget, and priorities for Flood Management planning, and that clearly describes the responsibilities of core agencies and ancillary agencies.	City Administrator [August 10, 2024]	Requires further analysis	Establishing a Memorandum of Understanding between agencies and departments with a role in flood management is one option that the City will consider implementing. The City is currently in the process of evaluating different potential formal governance structures. Before responding to this finding, it intends to complete its investigation of flood resiliency policy and governance options to determine if a Memorandum of Understanding or a different option provides the most beneficial structure for interdepartmental flood adaptation management.

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Report Title	R#	Recommendation	Respondent	Recommendation	Recommendation Response Text
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	R5.2 [for F5]	By December 31, 2024, the City Administrator, as Floodplain Administrator in coordination with the City Attorney and the Mayor, shall develop procedures to inform and encourage property owners to voluntarily purchase flood insurance.	City Administrator [August 10, 2024]	Has been implemented	<p>Because there are no natural riverine flood sources within the county limits, San Francisco’s Flood Insurance Rate Map (FIRM) only includes coastal flood hazard data. The City is a participant in the National Flood Insurance Program (NFIP). There are approximately 200 parcels (~1,400 people) located within FEMA FIRM Special Flood Hazard Areas of San Francisco. According to the NFIP Redacted Claims Dataset, there are no repetitively flooded properties within San Francisco. However, since 2017, 15 claims have been reported in San Francisco according to the NFIP Redacted Claims Dataset. The City is actively seeking to further reduce risk in these hazard zones, including through the WRP and other shoreline resilience initiatives.</p> <p>The SFPUC, along with city agency partners, has also been working to educate residents about their flood risk and raise awareness of tools available to reduce flood risk. The 100-year storm flood risk map was published in 2019 along with the Flood Risk Disclosure Ordinance, which requires sellers and lessors to disclose to buyers and tenants if they are in the flood risk zone. The 100-year storm flood risk map shows potential flooding from stormwater runoff only. There are approximately 2,000 parcels (~24,000 people) in the 100-year flood risk zone. To increase resilience in this zone, the SFPUC sends RainReadySF postcards to residents in the 100-year flood risk zone annually, before each rainy season, to remind them of their risk and responsibilities. These mailers reach 4,000 units and encourage recipients to purchase flood insurance and learn about the City’s Floodwater Grant Program. The SFPUC has also previously engaged with local insurance brokers to increase the sale of NFIP insurance products within the 100-year storm flood risk zone. Additionally, the SFPUC has promoted the voluntary purchase of flood insurance through its website, press events, workshops, public meetings, one-on-one interactions, collateral for homeowners and brokers, and booths at resource fairs and neighborhood events.</p>
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	R6.1 [for F6]	Starting October 1, 2024, ClimateSF shall coordinate the communication of the projected impacts of climate change and the city’s mitigation and adaptation efforts.	City Administrator [August 10, 2024]	Requires further analysis	A significant amount of material regarding projected impacts of climate change, including to those who will be most affected has been developed and disseminated in association with recent planning initiatives. ClimateSF is in the process of reviewing its communications strategy. To the extent that available resources allow, ClimateSF will assess opportunities to enhance its coordination role with agency communications teams and augment the distribution of information through its web presence and other available communications methods.

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Report Title	F#	Finding	Respondent	Finding Response	Finding Response Text
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	F1	ClimateSF Governance and Coordination Are Inadequate. ClimateSF provides neither the necessary governance nor interdepartmental coordination of projects to address climate change because the currently configured Director level meeting cannot execute the recommendations generated from the staff level meetings.	Office of Resilience and Capital Planning [August 10, 2024]	Disagree wholly	The City agrees that it needs to continue to identify, develop, and implement structural governance and interdepartmental coordination improvements in support of climate resilience. ClimateSF is currently in the process of evaluating additional opportunities to improve coordination and effective decision-support, including at the Director level. However, it is not clear that Director engagement has wholly inhibited interdepartmental coordination of projects to address climate change. Despite the noted challenges in convening ClimateSF Director-level meetings, there are numerous examples of initiatives that have been successfully propagated through member departments and actions taken, including the shared (multi-department) resourcing of the ClimateSF Program Manager Position, an interdepartmental partnership with San Francisco Estuary Institute on a Regional Groundwater Study, a successful grant application for the Yosemite Slough Neighborhood Adaptation Plan, and critical decisions regarding the Waterfront Flood Study Draft Plan (Army Corps partnership). As a result, there is evidence of several ClimateSF initiatives, which have successfully been elevated and approved by Directors through existing formal governance structures.
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	F6	The City Fails to Communicate Impacts of Climate Change. The city is failing to communicate the future impacts of climate change to the residents who will be most affected.	Office of Resilience and Capital Planning [August 10, 2024]	Disagree wholly	The City disagrees on this finding, as there are various interdepartmental projects that have been successful. Public engagement and outreach has been at the forefront in projects including the Hazards and Climate Resilience Plan, The Waterfront Resilience Program, Heat and Air Quality Resilience Plan, The Islais Creek Mobility and Resilience Strategy, Safety and Resilience Element, and Climate Action Plan. To engage the public, the Hazards and Climate Resilience Plan hosts an interactive storymap, in which the public can spatially explore identified climate hazards. The Department of the Environment also recently launched a web-based Climate Equity Hub, in which qualifying households can apply for free heat pump water heaters. Public engagement sessions associated with these plans have elicited a significant amount of feedback that influenced the respective adaptation plans, including how investments are developed, prioritized, and located. ClimateSF publishes a quarterly newsletter, which is available to the public and is intended to update the public on resilience planning and programs while also extending departmental outreach. Given the challenges associated with reaching residents who will be most affected by climate change, the City continues to explore and develop better and more effective communication methods, including through ClimateSF.

2023-24 CIVIL GRAND JURY FINDINGS, RECOMMENDATIONS, AND RESPONSES TO FINDINGS AND RECOMMENDATIONS

Report Title	R#	Recommendation	Respondent	Recommendation	Recommendation Response Text
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	R1.1 [for F1]	Henceforth, the quarterly Director level meetings of ClimateSF shall be included as part of the monthly Capital Planning Committee meeting agenda.	Office of Resilience and Capital Planning [August 10, 2024]	Will not be implemented because it is not warranted or is not reasonable	ClimateSF will continue to seek ways to improve Director level engagement in its activities, particularly through more effective interdepartmental governance structures. While the Capital Planning Committee (CPC) will continue to play an important role in interdepartmental coordination and governance, adding a new standing monthly CPC agenda item or developing a CPC sub-committee would not be effective for providing Director-level support to ClimateSF. Many ClimateSF initiatives, such as those related to joint planning, interdepartmental workflows, and communications, do not relate to the CPC's purpose. Secondly, not all ClimateSF Directors are on the CPC. Additionally, it would not be an efficient use of administrative resources to support a monthly meeting interval as capital planning initiatives require significant time to develop. As currently configured, many interdepartmental resilience initiatives are presented to the CPC (e.g., the Waterfront Resilience Program) as they achieve the appropriate level of maturity. The City anticipates that future capital investments in resilience will continue to be presented to the CPC as appropriate and as they are developed rather than through a new standing agenda item or an additional sub-committee.
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	R1.3 [for F1]	Beginning 2025, ClimateSF shall prepare an annual report for the public, summarizing the status of the ongoing climate resilience projects, using standardized metrics, including a description of the project, the Core agency in charge, the intended climate resilience measures, a projected cost, budget status and project timeline. This recommendation may and should be implemented administratively.	Office of Resilience and Capital Planning [August 10, 2024]	Requires further analysis	The City agrees that it could provide more clarity on the status of projects that support its resilience goals and that doing so could facilitate better climate change governance. However, ClimateSF is not currently resourced to implement this recommendation as stated within the recommended timeframe. Additionally, inserting ClimateSF into the City's project tracking and reporting structure may not be the most efficient workflow. ClimateSF is currently in the process of identifying alternate approaches for tracking resilience projects through existing budget and capital planning structures and processes. Resilience strategies are primarily developed and tracked through the Hazards and Climate Resilience Plan (by the Office of Resilience and Capital Planning) and the Climate Action Plan (by the Department of Environment). As projects are developed to support planned resilience strategies, they are formally incorporated into the budget and Capital Planning processes. Ideally, a robust tracking process would serve to connect resilience projects both 'backwards' to resilience plans and 'forwards' to the budget and the Capital Plan. ClimateSF will investigate the most efficient process changes necessary to build this in this connectivity and enable staff to track and report on the status of ongoing climate resilience projects.

2023-24 CIVIL GRAND JURY FINDINGS, RECOMMENDATIONS, AND RESPONSES TO FINDINGS AND RECOMMENDATIONS

Report Title	R#	Recommendation	Respondent	Recommendation	Recommendation Response Text
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	R6.1 [for F6]	Starting October 1, 2024, ClimateSF shall coordinate the communication of the projected impacts of climate change and the city’s mitigation and adaptation efforts.	Office of Resilience and Capital Planning [August 10, 2024]	Requires further analysis	A significant amount of material regarding projected impacts of climate change, including to those who will be most affected has been developed and disseminated in association with recent planning initiatives. ClimateSF is in the process of reviewing its communications strategy. To the extent that available resources allow, ClimateSF will assess opportunities to enhance its coordination role with agency communications teams and augment the distribution of information through its web presence and other available communications methods.

2023-24 CIVIL GRAND JURY FINDINGS, RECOMMENDATIONS, AND RESPONSES TO FINDINGS AND RECOMMENDATIONS

Report Title	F#	Finding	Respondent	Finding Response	Finding Response Text
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	F2	Resilience Projects Are Not Easily Identifiable. The city infrastructure projects designed for climate resilience are not transparently identifiable, hindering management and audits.	Controller [August 10, 2024]	Disagree partially	The Controller's Office is conducting research on this topic.
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	F3	Funding of Climate Resilience Is Hampered by Debt Cap and Service Rate Constraints. Absent a citywide plan to fund the necessary adaptation infrastructure, the city is additionally hampered by a self-imposed limit on the use of general obligation bonds (\$0.1201 per \$100 of assessed value). Further, the jury finds the SFPUC, SFMTA, SFO, and Port face service rate constraints or competitive concerns that hamper additional use of revenue bonds.	Controller [August 10, 2024]	Disagree partially	The City agrees that increased clarity on its anticipated resilience costs could better equip to evaluate its various funding options, including the expanded use of general obligation bonds. The City continuously works to develop cost estimates across its complex landscapes and infrastructure. It generates high-level cost estimates when it develops climate resilience plans (e.g. the Hazards and Climate Resilience Plan, the Climate Action Plan, the Waterfront Resilience Program, the Heat and Air Quality Resilience Plan). These estimates generally indicate the scale of funding needed to implement the overall strategy but also reflect significant uncertainty and lack the precision of a project-level cost estimate. Precise project-level cost estimates take significant resources and time to develop and are often produced over several years. Moreover, there is also a need to adaptively manage (i.e. right-size) future adaptation investments given the uncertainties associated with future climate impacts. Therefore, at any point in time, the City has an incomplete (and uncertain) understanding of its projected resilience costs, which make it challenging to support more precise funding strategies. The City also currently lacks evidence that voters would approve the higher property taxes necessary to raise debt limits and there are other capital investment needs. While the City agrees that increased debt financing is an option that merits further examination, staff continue to pursue numerous other funding options currently available to SF, such as state and federal funding programs.

2023-24 CIVIL GRAND JURY FINDINGS, RECOMMENDATIONS, AND RESPONSES TO FINDINGS AND RECOMMENDATIONS

Report Title	R#	Recommendation	Respondent	Recommendation	Recommendation Response Text
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	R2.1 [for F2]	By April 30, 2025, the Controller shall aggregate and publish departmental expenditures that address climate change adaptation and mitigation. This information shall be given consistent search tags describing resilience projects that allow for efficient tracking of expenditures.	Controller [August 10, 2024]	Requires further analysis	CON will work with the Capital Planning Committee (CPC) to conduct further analysis.
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	R3.3 [for F3]	By December 31, 2024, the Controller's Office of Public Finance shall add a disclosure of the property tax limit to the Debt Policy of the City and County of San Francisco, Section VII Debt Limitations Section A General Obligation Bonds.	Controller [August 10, 2024]	Has not yet been implemented but will be implemented in the future	This recommendation will be added to the City's Debt Policy by the end of the calendar year of 2024.

2023-24 CIVIL GRAND JURY FINDINGS, RECOMMENDATIONS, AND RESPONSES TO FINDINGS AND RECOMMENDATIONS

Report Title	F#	Finding	Respondent	Finding Response	Finding Response Text
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	F4	Flood Management Needs Interdepartmental Coordination. Flood management lacks a formal coordination process for an increasing environmental extremity that requires planning and implementation between multiple city departments.	Port of San Francisco [August 10, 2024]	Disagree partially	In anticipation of increased flood risks associated with climate change, the City agrees that it should seek additional opportunities to develop formal flood management procedures that foster better coordination and collaboration. The City has taken steps in recent years to establish improved flood management coordination. It currently coordinates flood management through the Sea Level Rise and Flood Hazards Coordinating Committee, which is chaired by the Chief Resilience Officer and Deputy Director of Planning, Citywide Division and meets bi-monthly. This working group is comprised of technical staff from several departments and agencies. It convenes on a regular basis to support the development of projects, plans, tools, and engagement on the topic of flood management and resilience. The group’s recommendations are elevated to ClimateSF Directors as appropriate. For example, the Working Group developed the City’s Sea Level Rise Guidance and supported the development of the City’s Extreme Precipitation Study.

2023-24 CIVIL GRAND JURY FINDINGS, RECOMMENDATIONS, AND RESPONSES TO FINDINGS AND RECOMMENDATIONS

Report Title	R#	Recommendation	Respondent	Recommendation	Recommendation Response Text
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	R4.2 [for F4]	By December 31, 2025, the Mayor, the City Administrator, and all city agencies that interface with flood management planning shall sign a Memorandum of Understanding that specifies governance, budget, and priorities for Flood Management planning, and that clearly describes the responsibilities of core agencies and ancillary agencies.	Port of San Francisco [August 10, 2024]	Requires further analysis	Establishing a Memorandum of Understanding between agencies and departments with a role in flood management is one option that the City will consider implementing. The City is currently in the process of evaluating different potential formal governance structures. Before responding to this finding, it intends to complete its investigation of flood resiliency policy and governance options to determine if a Memorandum of Understanding or a different option provides the most beneficial structure for interdepartmental flood adaptation management.

2023-24 CIVIL GRAND JURY FINDINGS, RECOMMENDATIONS, AND RESPONSES TO FINDINGS AND RECOMMENDATIONS

Report Title	F#	Finding	Respondent	Finding Response	Finding Response Text
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	F4	Flood Management Needs Interdepartmental Coordination. Flood management lacks a formal coordination process for an increasing environmental extremity that requires planning and implementation between multiple city departments.	San Francisco Public Utilities Commission [August 10, 2024]	Disagree partially	In anticipation of increased flood risks associated with climate change, the City agrees that it should seek additional opportunities to develop formal flood management procedures that foster better coordination and collaboration. The City has taken steps in recent years to establish improved flood management coordination. It currently coordinates flood management through the Sea Level Rise and Flood Hazards Coordinating Committee, which is chaired by the Chief Resilience Officer and Deputy Director of Planning, Citywide Division and meets bi-monthly. This working group is comprised of technical staff from several departments and agencies. It convenes on a regular basis to support the development of projects, plans, tools, and engagement on the topic of flood management and resilience. The group’s recommendations are elevated to ClimateSF Directors as appropriate. For example, the Working Group developed the City’s Sea Level Rise Guidance and supported the development of the City’s Extreme Precipitation Study.

2023-24 CIVIL GRAND JURY FINDINGS, RECOMMENDATIONS, AND RESPONSES TO FINDINGS AND RECOMMENDATIONS

Report Title	R#	Recommendation	Respondent	Recommendation	Recommendation Response Text
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	R4.2 [for F4]	By December 31, 2025, the Mayor, the City Administrator, and all city agencies that interface with flood management planning shall sign a Memorandum of Understanding that specifies governance, budget, and priorities for Flood Management planning, and that clearly describes the responsibilities of core agencies and ancillary agencies.	San Francisco Public Utilities Commission [August 10, 2024]	Requires further analysis	Establishing a Memorandum of Understanding between agencies and departments with a role in flood management is one option that the City will consider implementing. The City is currently in the process of evaluating different potential formal governance structures. Before responding to this finding, it intends to complete its investigation of flood resiliency policy and governance options to determine if a Memorandum of Understanding or a different option provides the most beneficial structure for interdepartmental flood adaptation management.

2023-24 CIVIL GRAND JURY FINDINGS, RECOMMENDATIONS, AND RESPONSES TO FINDINGS AND RECOMMENDATIONS

Report Title	F#	Finding	Respondent	Finding Response	Finding Response Text
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	F6	The City Fails to Communicate Impacts of Climate Change. The city is failing to communicate the future impacts of climate change to the residents who will be most affected.	Human Rights Commission [August 10, 2024]	Disagree wholly	The City disagrees on this finding, as there are various interdepartmental projects that have been successful. Public engagement and outreach has been at the forefront in projects including the Hazards and Climate Resilience Plan, The Waterfront Resilience Program, Heat and Air Quality Resilience Plan, The Islais Creek Mobility and Resilience Strategy, Safety and Resilience Element, and Climate Action Plan. To engage the public, the Hazards and Climate Resilience Plan hosts an interactive storymap, in which the public can spatially explore identified climate hazards. The Department of the Environment also recently launched a web-based Climate Equity Hub, in which qualifying households can apply for free heat pump water heaters. Public engagement sessions associated with these plans have elicited a significant amount of feedback that influenced the respective adaptation plans, including how investments are developed, prioritized, and located. ClimateSF publishes a quarterly newsletter, which is available to the public and is intended to update the public on resilience planning and programs while also extending departmental outreach. Given the challenges associated with reaching residents who will be most affected by climate change, the City continues to explore and develop better and more effective communication methods, including through ClimateSF.

2023-24 CIVIL GRAND JURY FINDINGS, RECOMMENDATIONS, AND RESPONSES TO FINDINGS AND RECOMMENDATIONS

Report Title	R#	Recommendation	Respondent	Recommendation	Recommendation Response Text
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	R6.5 [for F6]	By December 31, 2025, the Human Rights Commission shall hold annual public hearings on the differential harms of climate change resilience projects within the impacted communities. The annual public hearing may, but need not, occur in conjunction with the annual public hearing of the Commission on the Environment referenced in	Human Rights Commission [August 10, 2024]	Has not yet been implemented but will be implemented in the future	The Human Rights Commission will hold at least one annual hearing on the differential harms of climate change resilience projects with the City's impacted communities, in conjunction and coordination with other City and County of San Francisco agencies and departments as appropriate, and will report out as to outcomes as requested.

Report Title	F#	Finding	Respondent	Finding Response	Finding Response Text
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	F6	The City Fails to Communicate Impacts of Climate Change. The city is failing to communicate the future impacts of climate change to the residents who will be most affected.	Commission on the Environment [August 10, 2024]	Disagree wholly	The City agrees that it should continue to improve its ability to coordinate climate change policy communications. However, the City respectfully disagrees that it is “failing to communicate the future impacts of climate change to the residents who will be most affected”. While it is generally true that “departments continue to rely on their own robust public affairs organs of communication” to disseminate information and engage with the public, this in and of itself does not constitute “failure”. There are numerous recent interdepartmental planning processes in which future impacts of climate change were communicated, including to the residents who will be most affected. Public engagement associated with the Hazards and Climate Resilience Plan, The Waterfront Resilience Program, Heat and Air Quality Resilience Plan, The Islais Creek Mobility and Resilience Strategy, Safety and Resilience Element, and Climate Action Plan have all occurred within the last three years. All these outreach efforts included purposeful engagement with vulnerable communities. The Hazards and Climate Resilience Plan hosts an interactive storymap, in which the public can spatially explore identified climate hazards. The Department of the Environment recently launched a web-based Climate Equity Hub, in which qualifying households can apply for free heat pump water heaters. Public engagement sessions associated with these plans have elicited a significant amount of feedback that influenced the respective adaptation plans, including how investments are developed, prioritized, and located. Various agencies and departments regularly update the public on resilience planning and programs. ClimateSF publishes a quarterly newsletter, which is available to the public and is intended to extend departmental outreach. Given the challenges associated with reaching residents who will be most affected by climate change, the City continues to explore and develop better and more effective communication methods, including through ClimateSF.

2023-24 CIVIL GRAND JURY FINDINGS, RECOMMENDATIONS, AND RESPONSES TO FINDINGS AND RECOMMENDATIONS

Report Title	R#	Recommendation	Respondent	Recommendation	Recommendation Response Text
Come Hell or High Water Flood Management in a Changing Climate [June 11, 2024]	R6.4 [for F6]	By December 31, 2025, the Commission on the Environment shall hold annual public hearings on the differential harms of climate change resilience projects within the impacted communities. The annual public hearing may, but need not, occur in conjunction with the annual public hearing of the Human Rights Commission referenced in	Commission on the Environment [August 10, 2024]	Has not yet been implemented but will be implemented in the future	The Commission on the Environment will hold an annual hearing on the differential harms of climate change resilience projects within the impacted communities.

BOARD of SUPERVISORS



City Hall
1 Dr. Carlton B. Goodlett Place, Room 244
San Francisco, CA 94102-4689
Tel. No. (415) 554-5184
Fax No. (415) 554-5163
TDD/TTY No. (415) 554-5227

MEMORANDUM

TO: Tom Paulino, Liaison to the Board of Supervisors, Office of the Mayor
Greg Wagner, City Controller, Office of the Controller
Anne Pearson, Deputy City Attorney, Office of the City Attorney
Carmen Chu, City Administrator, Office of the City Administrator
Brian Strong, Director, Office of Resilience and Capital Planning
Leah Pimentel, Chair, San Francisco Human Rights Commission
Sarah Ching-Ting Wan, President, Commission on the Environment
Dennis Herrera, General Manager, San Francisco Public Utilities
Commission
Elaine Forbes, Executive Director, Port of San Francisco

FROM: Monique Crayton, Assistant Clerk, Government Audit and Oversight
Committee, Board of Supervisors

DATE: June 18, 2024

SUBJECT: Civil Grand Jury Report Received

The Board of Supervisors' Government Audit and Oversight Committee is in receipt of the San Francisco Civil Grand Jury (CGJ) report released June 11, 2024, entitled: **"Come Hell or Highwater: Flood Management in a Changing Climate"**:

Pursuant to California Penal Code Sections 933 and 933.05, the departments must:

Respond to the report within 60 days of receipt, or no later than August 10 2024.
For each finding the Department response shall:

- 1) agree with the finding; or
- 2) disagree with it, wholly or partially, and explain why.

As to each recommendation the Department shall report that:

- 1) the recommendation has been implemented, with a summary explanation; or
- 2) the recommendation has not been implemented but will be within a set timeframe as provided; or
- 3) the recommendation requires further analysis. The officer or agency head must define what additional study is needed. The Grand Jury expects a progress report within six months; or
- 4) the recommendation will not be implemented because it is not warranted or reasonable, with an explanation.

The Civil Grand Jury Report identified the following City Departments to submit responses:

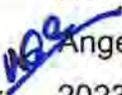
- Office of the Mayor
- Office of the Controller
- Office of the City Attorney
- Office of the City Administrator
- Office of Resilience and Capital Planning
- Human Rights Commission
- Commission on the Environment
- Public Utilities Commission
- Port of San Francisco

When submitting responses to the Civil Grand Jury, please forward a copy to me at the Board of Supervisors, City Hall, Room 244, 1 Dr. Carlton B. Goodlett Place, San Francisco, CA 94102 or email at: monique.crayton@sfgov.org.

cc: Melissa Hernandez, Office of Chair Preston
Andres Power, Office of the Mayor
Todd Rydstrom, Office of the Controller
Mark de la Rosa, Office of the Controller
Severin Campbell, Office of the Budget and Legislative Analyst
Amanda Guma, Office of the Budget and Legislative Analyst
Masood Ordikhani, San Francisco Public Utilities Commission
Jeremy Spitz, San Francisco Public Utilities Commission
Sophie Hayward, Office of the City Administrator
Vivian Po, Office of the City Administrator
Angela Yip, Office of the City Administrator
Tyrone Jue, Director, Department of the Environment
Peter Brastow, Department of the Environment
Charles Sheehan, Department of the Environment
Kyle Wehner, Department of the Environment
Sheryl Davis, Director, Human Rights Commission



MEMORANDUM

Date: June 11, 2024
To: Honorable Members, Board of Supervisors
From:  Angela Calvillo, Clerk of the Board
Subject: 2023-2024 CIVIL GRAND JURY REPORT
Come Hell or Highwater: Flood Management in a Changing Climate

On June 11, 2024, the 2023-2024 San Francisco Civil Grand Jury issued a press release, announcing the issuance of their report, entitled:

Come Hell or Highwater: Flood Management in a Changing Climate

Pursuant to California Penal Code, Sections 933 and 933.05, the Board must:

1. Respond to the report within 90 days of receipt, or no later than September 9, 2024; and
2. For each finding the Department response shall:
 - agree with the finding; or
 - disagree with the finding, wholly or partially, and explain why.
3. For each recommendation the Department shall report that:
 - the recommendation has been implemented, with a summary of how it was implemented;
 - the recommendation has not been, but will be, implemented in the future, with a timeframe for implementation;
 - the recommendation requires further analysis, with an explanation of the scope of the analysis and timeframe of no more than six months from the date of release; or
 - the recommendation will not be implemented because it is not warranted or reasonable, with an explanation.

Pursuant to San Francisco Administrative Code, Section 2.10, in coordination with the Committee Chair, the Clerk will schedule a public hearing before the Government Audit and Oversight Committee to allow the Board the necessary time to review and formally respond to the findings and recommendations.

The Budget and Legislative Analyst will prepare a resolution, outlining the findings and recommendations for the Committee's consideration, to be heard at the same time as the hearing on the report. These matters are anticipated for hearing in Government Audit and Oversight during a regular committee meeting in September of 2024.

Attachments: June 11, 2024 Press Release
 June 11, 2024 Civil Grand Jury Report

cc: Honorable Anne-Christine Massullo, Presiding Judge
 Tom Paulino, Mayor's Office
 Andres Power, Mayor's Office
 Carmen Chu, City Administrator
 Sophie Hayward, Office of the City Administrator
 Vivian Po, Office of the City Administrator
 Angela Yip, Office of the City Administrator
 Greg Wagner, City Controller
 Todd Rydstrom, Office of the Controller
 Mark de la Rosa, Office of the Controller
 Anne Pearson, Office of the City Attorney
 Alisa Somera, Office of the Clerk of the Board
 Severin Campbell, Office of the Budget and Legislative Analyst
 Amanda Guma, Office of the Budget and Legislative Analyst
 Brian Strong, Program Director, Office of Resilience and Capital Planning
 Dennis Herrera, General Manager, Public Utilities Commission
 Masood Ordikhani, San Francisco Public Utilities Commission
 Jeremy Spitz, San Francisco Public Utilities Commission
 Donna Hood, San Francisco Public Utilities Commission
 Elaine Forbes, Executive Director, SF Port Department
 Tyrone Jue, Director, Department of the Environment
 Sarah Ching-Ting Wan, President, Commission on the Environment
 Peter Brastow, Department of the Environment
 Charles Sheehan, Department of the Environment
 Kyle Wehner, Department of the Environment
 Sheryl Davis, Director, Human Rights Commission
 Leah Pimentel, Chair, Human Rights Commission
 Michael Carboy, 2023-2024 Foreperson, San Francisco Civil Grand Jury



CITY AND COUNTY OF SAN FRANCISCO

2023–2024 CIVIL GRAND JURY

Press Release

FOR IMMEDIATE RELEASE

Contacts: sfcgj2024@gmail.com

Michael Carboy, Foreperson, +1 415 551-3635

Grand Jury: Flood Management “Come Hell or High Water”

2023–2024 San Francisco Civil Grand Jury Report identifies unpreparedness for climate change.

SAN FRANCISCO (PR NEWSWIRE) JUNE 5, 2024—Climate change is bringing higher seas and greater storms that threaten to inundate San Francisco with flooding, and the San Francisco Public Utilities Commission (SFPUC) has reported that the city’s sewer system cannot handle the change, the San Francisco Civil Grand Jury reported today.

A new jury report released findings that San Francisco lacks a comprehensive funding plan for climate change adaptation, that interdepartmental coordination is hampered by siloed agency planning, that the city pays for avoidable flooding costs, and debt policies impose limits on the city’s ability to fund essential adaptation projects. All of this is aggravated by a lack of transparency about what is currently being done, and what will need to be done, to maintain resilience in the face of climate change.

In 2021, ClimateSF, a partnership of the SFPUC and the Port, along with the Planning Department, the San Francisco Environment Department, and the Office of Resilience and Capital Planning, was created by the Mayor’s Office to coordinate and oversee existing and

future climate resilience projects. The partnership's charter includes the objectives of "coordinated planning and performance management," and "aligned communications and engagement."

The Jury's report evaluates the city's progress towards these objectives, with an emphasis on flood management.

The report's recommendations include:

- Reforming the process of decision making in the Climate Resilience Program;
- Providing more transparency in planning for climate adaptation in the city;
- Reassessing likely shortfalls in funding to respond to climate change;
- Improving interdepartmental coordination by the city to address expected flooding; and
- Stronger messaging by the city to notify the public about flood insurance options and to identify the areas of the city most likely to be affected.

"With at least 23,700 residents likely harmed by inland flooding, the city needs a more comprehensive and integrated plan to adapt to climate change," said Michael Carboy, Jury Foreperson. "How the city will pay for the adaptation and execute the projects should be made transparent to all residents."

To read the full report, please visit

<https://www.sf.gov/resource/2024/civil-grand-jury-reports-2023-2024>.

About the San Francisco Civil Grand Jury

The Superior Court selects 19 San Franciscans to serve year-long terms as Civil Grand Jurors. The Jury has the authority to investigate City and County government by reviewing documents and interviewing public officials and private individuals. At the end of its inquiries, the Jury issues reports of its findings and recommendations. Agencies identified in the report must respond to these findings and recommendations within either 60 or 90 days, and the Board of Supervisors conducts a public hearing on each Civil Grand Jury report after those responses are submitted. For more information, visit the San Francisco Civil Grand Jury website:

<https://www.sf.gov/departments/civil-grand-jury>.

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CITY AND COUNTY OF SAN FRANCISCO

2023-2024 CIVIL GRAND JURY

June 7, 2024

Angela Calvillo
Clerk of the Board, San Francisco Board of Supervisors
City Hall, Room 244
1 Dr. Carlton B. Goodlett Place
San Francisco, CA 94102

Dear Ms. Calvillo,

The 2023-2024 Civil Grand Jury will release a report entitled, "Come Hell or Highwater: Flood Management in a Changing Climate," to the public on June 11, 2024. Enclosed is an advance copy. By order of the Presiding Judge of the Superior Court, Hon. Anne-Christine Massullo, this report is to be kept confidential until the date of release.

California Penal Code §933(c) requires a response to be submitted to the Presiding Judge no later than September 9, 2024.

California Penal Code §933.05 states that as to each finding, the response must indicate one of the following:

1. The respondent agrees with the finding; or
2. The respondent disagrees with the finding, wholly or partially, with an explanation.

As to each recommendation, the response must indicate one of the following:

1. The recommendation has been implemented, with a summary of the implementation;
2. The recommendation has not yet been, but will be implemented in the future, with a timeframe for implementation;
3. The recommendation requires further analysis, with an explanation, scope, and parameters of that analysis, and a timeframe for discussion not more than six months from the publication of the grand jury report; or
4. The recommendation will not be implemented because it is not warranted or reasonable, with an explanation.

Please e-mail your response to Presiding Judge Anne-Christine Massullo at CGrandJury@sftc.org or mail to 400 McAllister Street, Room 008, San Francisco, CA 94102-4512.

Respectfully,

Michael E Carboy

Michael Edsall Carboy, Foreperson



CITY AND COUNTY OF SAN FRANCISCO

2023-2024 CIVIL GRAND JURY

June 7, 2024

Connie Chan
Supervisor, San Francisco Board of Supervisors
City Hall, Room 244
1 Dr. Carlton B. Goodlett Place
San Francisco, CA 94102

Dear Supervisor Chan,

The 2023-2024 Civil Grand Jury will release a report entitled, "Come Hell or Highwater: Flood Management in a Changing Climate," to the public on June 11, 2024. Enclosed is an advance copy. By order of the Presiding Judge of the Superior Court, Hon. Anne-Christine Massullo, this report is to be kept confidential until the date of release.

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Respectfully,

Michael E Carboy

Michael Edsall Carboy, Foreperson



CITY AND COUNTY OF SAN FRANCISCO

2023-2024 CIVIL GRAND JURY

June 7, 2024

Catherine Stefani
Supervisor, San Francisco Board of Supervisors
City Hall, Room 244
1 Dr. Carlton B. Goodlett Place
San Francisco, CA 94102

Dear Supervisor Stefani,

The 2023-2024 Civil Grand Jury will release a report entitled, "Come Hell or Highwater: Flood Management in a Changing Climate," to the public on June 11, 2024. Enclosed is an advance copy. By order of the Presiding Judge of the Superior Court, Hon. Anne-Christine Massullo, this report is to be kept confidential until the date of release.

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Respectfully,

Michael E Carboy

Michael Edsall Carboy, Foreperson



CITY AND COUNTY OF SAN FRANCISCO

2023-2024 CIVIL GRAND JURY

June 7, 2024

Joel Engardio
Supervisor, San Francisco Board of Supervisors
City Hall, Room 244
1 Dr. Carlton B. Goodlett Place
San Francisco, CA 94102

Dear Supervisor Engardio,

The 2023-2024 Civil Grand Jury will release a report entitled, "Come Hell or Highwater: Flood Management in a Changing Climate," to the public on June 11, 2024. Enclosed is an advance copy. By order of the Presiding Judge of the Superior Court, Hon. Anne-Christine Massullo, this report is to be kept confidential until the date of release.

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Please e-mail your response to Presiding Judge Anne-Christine Massullo at CGrandJury@sftc.org or mail to 400 McAllister Street, Room 008, San Francisco, CA 94102-4512.

Respectfully,

Michael E Carboy

Michael Edsall Carboy, Foreperson



CITY AND COUNTY OF SAN FRANCISCO

2023-2024 CIVIL GRAND JURY

June 7, 2024

Dean Preston
Supervisor, San Francisco Board of Supervisors
City Hall, Room 244
1 Dr. Carlton B. Goodlett Place
San Francisco, CA 94102

Dear Supervisor Preston,

The 2023-2024 Civil Grand Jury will release a report entitled, "Come Hell or Highwater: Flood Management in a Changing Climate," to the public on June 11, 2024. Enclosed is an advance copy. By order of the Presiding Judge of the Superior Court, Hon. Anne-Christine Massullo, this report is to be kept confidential until the date of release.

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Please e-mail your response to Presiding Judge Anne-Christine Massullo at CGrandJury@sftc.org or mail to 400 McAllister Street, Room 008, San Francisco, CA 94102-4512.

Respectfully,

Michael E Carboy

Michael Edsall Carboy, Foreperson



CITY AND COUNTY OF SAN FRANCISCO

2023-2024 CIVIL GRAND JURY

June 7, 2024

Matt Dorsey
Supervisor, San Francisco Board of Supervisors
City Hall, Room 244
1 Dr. Carlton B. Goodlett Place
San Francisco, CA 94102

Dear Supervisor Dorsey,

The 2023-2024 Civil Grand Jury will release a report entitled, "Come Hell or Highwater: Flood Management in a Changing Climate," to the public on June 11, 2024. Enclosed is an advance copy. By order of the Presiding Judge of the Superior Court, Hon. Anne-Christine Massullo, this report is to be kept confidential until the date of release.

California Penal Code §933(c) requires a response to be submitted to the Presiding Judge no later than September 9, 2024.

California Penal Code §933.05 states that as to each finding, the response must indicate one of the following:

1. The respondent agrees with the finding; or
2. The respondent disagrees with the finding, wholly or partially, with an explanation.

As to each recommendation, the response must indicate one of the following:

1. The recommendation has been implemented, with a summary of the implementation;
2. The recommendation has not yet been, but will be implemented in the future, with a timeframe for implementation;
3. The recommendation requires further analysis, with an explanation, scope, and parameters of that analysis, and a timeframe for discussion not more than six months from the publication of the grand jury report; or
4. The recommendation will not be implemented because it is not warranted or reasonable, with an explanation.

Please e-mail your response to Presiding Judge Anne-Christine Massullo at CGrandJury@sftc.org or mail to 400 McAllister Street, Room 008, San Francisco, CA 94102-4512.

Respectfully,

Michael E Carboy

Michael Edsall Carboy, Foreperson



CITY AND COUNTY OF SAN FRANCISCO

2023-2024 CIVIL GRAND JURY

June 7, 2024

Myrna Melgar
Supervisor, San Francisco Board of Supervisors
City Hall, Room 244
1 Dr. Carlton B. Goodlett Place
San Francisco, CA 94102

Dear Supervisor Melgar,

The 2023-2024 Civil Grand Jury will release a report entitled, "Come Hell or Highwater: Flood Management in a Changing Climate," to the public on June 11, 2024. Enclosed is an advance copy. By order of the Presiding Judge of the Superior Court, Hon. Anne-Christine Massullo, this report is to be kept confidential until the date of release.

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Respectfully,

Michael E Carboy

Michael Edsall Carboy, Foreperson



CITY AND COUNTY OF SAN FRANCISCO

2023-2024 CIVIL GRAND JURY

June 7, 2024

Rafael Mandelman
Supervisor, San Francisco Board of Supervisors
City Hall, Room 244
1 Dr. Carlton B. Goodlett Place
San Francisco, CA 94102

Dear Supervisor Mandelman,

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Respectfully,

Michael E Carboy

Michael Edsall Carboy, Foreperson



CITY AND COUNTY OF SAN FRANCISCO

2023-2024 CIVIL GRAND JURY

June 7, 2024

Hillary Ronen
Supervisor, San Francisco Board of Supervisors
City Hall, Room 244
1 Dr. Carlton B. Goodlett Place
San Francisco, CA 94102

Dear Supervisor Ronen,

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Respectfully,

Michael E Carboy

Michael Edsall Carboy, Foreperson



CITY AND COUNTY OF SAN FRANCISCO

2023-2024 CIVIL GRAND JURY

June 7, 2024

Shamann Walton
Supervisor, San Francisco Board of Supervisors
City Hall, Room 244
1 Dr. Carlton B. Goodlett Place
San Francisco, CA 94102

Dear Supervisor Walton,

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Respectfully,

Michael E Carboy

Michael Edsall Carboy, Foreperson



CITY AND COUNTY OF SAN FRANCISCO

2023-2024 CIVIL GRAND JURY

June 7, 2024

Ahsha Safai
Supervisor, San Francisco Board of Supervisors
City Hall, Room 244
1 Dr. Carlton B. Goodlett Place
San Francisco, CA 94102

Dear Supervisor Safai,

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Respectfully,

Michael E Carboy

Michael Edsall Carboy, Foreperson



CITY AND COUNTY OF SAN FRANCISCO

2023-2024 CIVIL GRAND JURY

June 7, 2024

Aaron Peskin
President, San Francisco Board of Supervisors
City Hall, Room 244
1 Dr. Carlton B. Goodlett Place
San Francisco, CA 94102

Dear President Peskin,

The 2023-2024 Civil Grand Jury will release a report entitled, "Come Hell or Highwater: Flood Management in a Changing Climate," to the public on June 11, 2024. Enclosed is an advance copy. By order of the Presiding Judge of the Superior Court, Hon. Anne-Christine Massullo, this report is to be kept confidential until the date of release.

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Respectfully,

Michael E Carboy

Michael Edsall Carboy, Foreperson

Grand Jury Report: Come Hell or High Water Flood Management in a Changing Climate **Opportunities and Next Steps**

Government Accountability & Oversight Cmte
Office of Resilience & Capital Planning
September 19, 2024

F1: ClimateSF Governance and Coordination Are Inadequate.

- There are numerous examples of coordinated actions approved and implemented through ClimateSF
- There is some overlap, but having a standing agenda item with the Capital Planning Committee is not an effective vehicle for ClimateSF decision-making.
- (R1.4) ClimateSF has limited resources for directly tracking all resilience projects city-wide but will explore ways to implement process improvements.

F2: Resilience Projects are Not Easily Identifiable.

- Increased clarity on climate resilience expenditures would support better tracking and management key gaps and implementation progress.
- The Controller's Office will work with the Capital Planning Committee (CPC) to conduct further analysis on this topic.

F3: Funding of Climate Resilience Is Hampered by Debt Cap and Service Rate Constraints.

- Increased cost clarity could better equip the City to evaluate its various funding options, including the expanded use of general obligation bonds, but this is hampered by an uncertain picture of the future cost of adaptation.
- It is infeasible to estimate likely future increases in taxes and service rates in isolation relative to the range of options the City employs to fund projects across a wide range of needs.
- The Controller's Office will add a disclosure of the property tax limit to the Debt Policy of the City and County of San Francisco by the end of 2024.

F4: Flood Management Needs Interdepartmental Coordination.

- The City has taken numerous steps in recent years to improve interdepartmental flood management coordination.
- New formal coordination processes are likely needed to manage increased flood risk associated with climate change.
- SFPUC, supported by ClimateSF, is currently exploring flood resilience policy and governance options that aim to enhance interdepartmental coordination. The City will complete the study before committing to a specific formal approach such as the recommended MOU.

F5: Flood Damage Claims Are Not Funded by Insurance.

- No flood damage claims are compensated through the general fund. Claims against the City for flood damage are evaluated by the City Attorney on a case-by-case basis. In some cases, that compensation has come from SFPUC Wastewater Enterprise rate payer revenue.
- SFPUC actively supports and encourages property owners to be more flood resilient, including promoting the voluntary purchase of flood insurance.
- SFPUC also offers Floodwater Grants to eligible property owners who can receive up to \$100,000 to install flood protection projects to reduce the risk of future flood damage.

F6: The City Fails to Communicate Impacts of Climate Change.

- There are numerous recent examples of communications, including its web-based Hazards and Climate Resilience Storymap. The City will continue to improve its ability to coordinate and deliver climate change communications,
- Recent climate resilience planning initiatives have featured robust outreach efforts featuring purposeful engagement with vulnerable communities.

Questions

onesanfrancisco.org

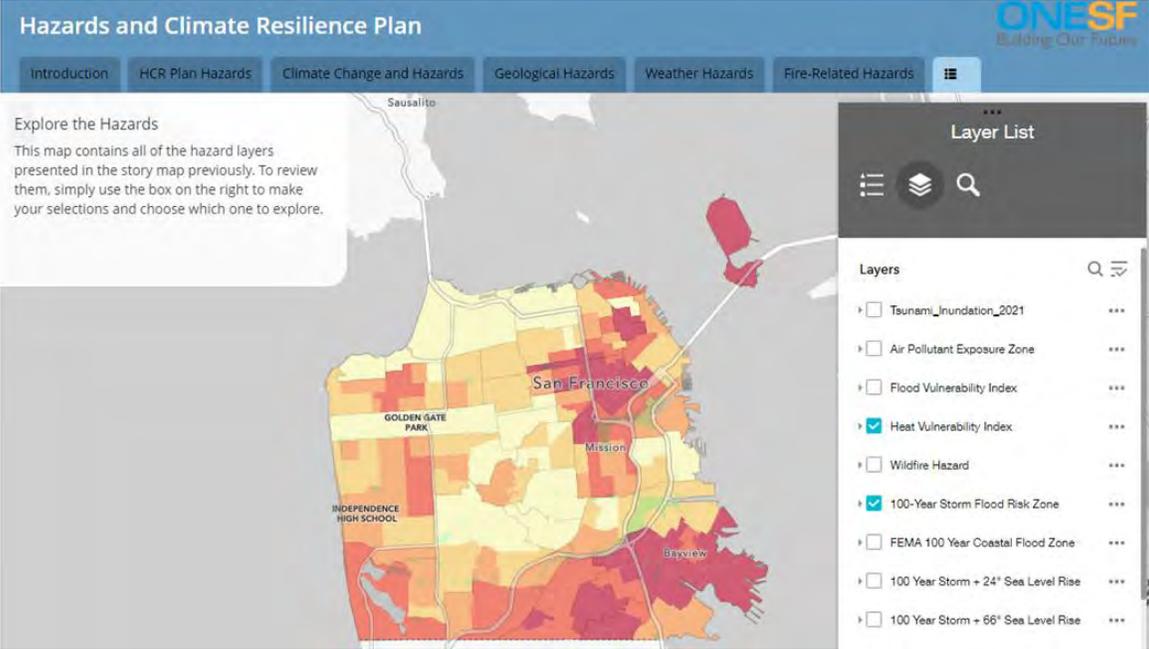
Brian Strong, Chief Resilience Officer & Director
Eric Vaughan, ClimateSF Program Manager



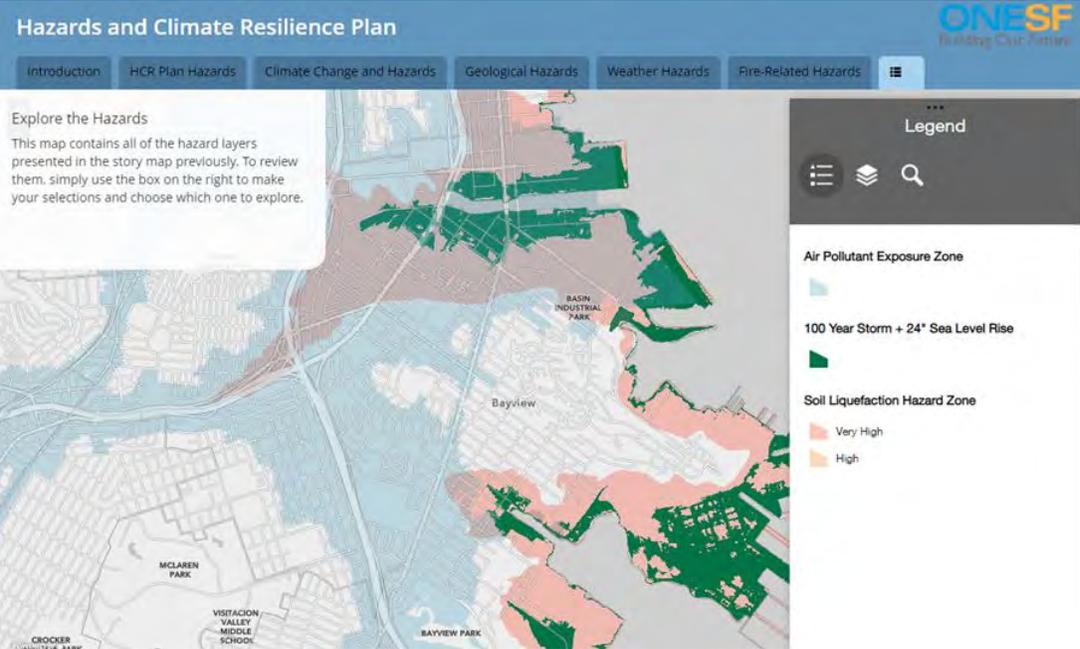
Appendix: Additional Context Slides

F6: Hazards and Climate Resilience StoryMap

OneSanFrancisco.org/hazards

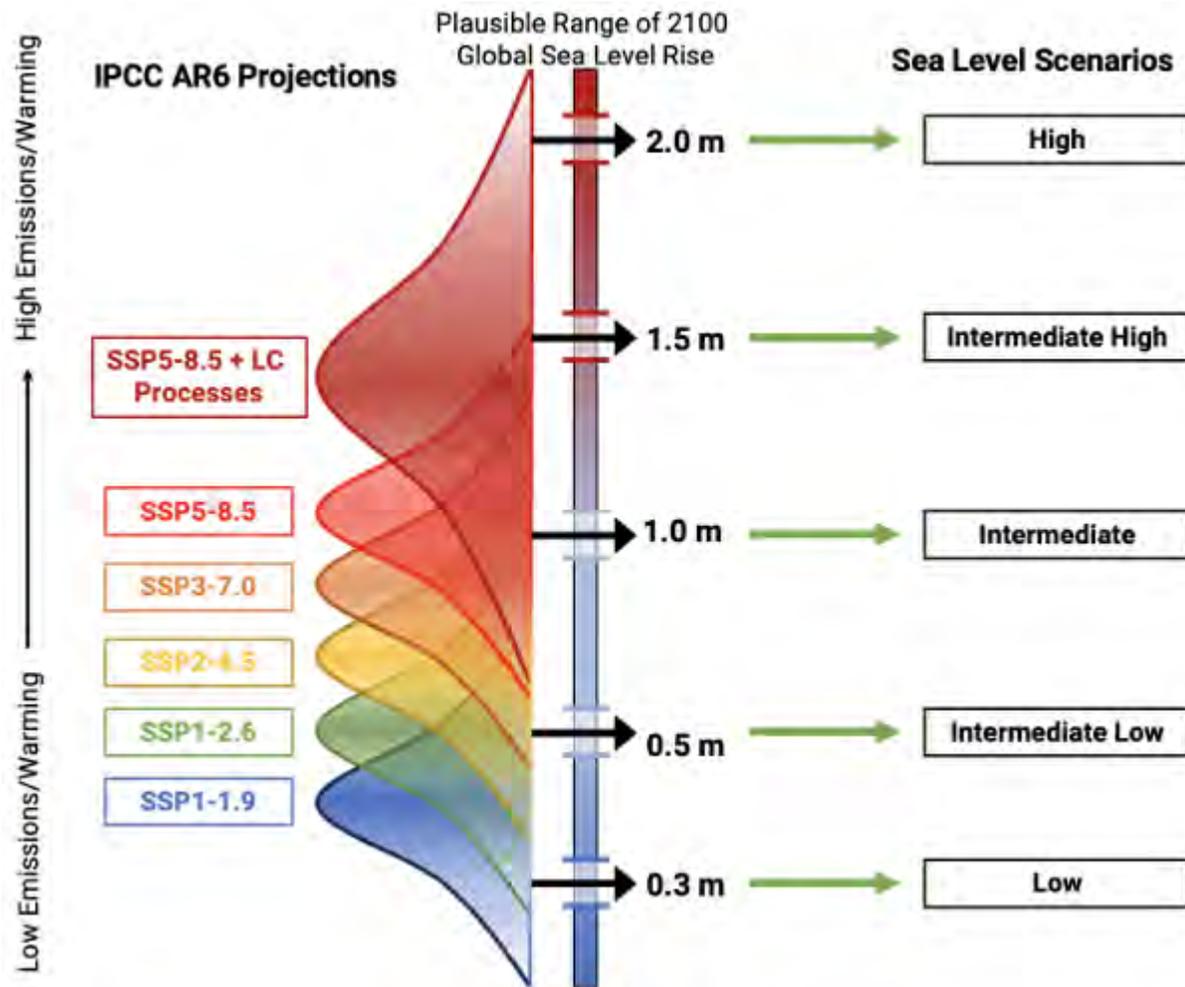


Toggle on and off a wide range of climate-related hazards, such as extreme heat and 100-year storm flood risk.



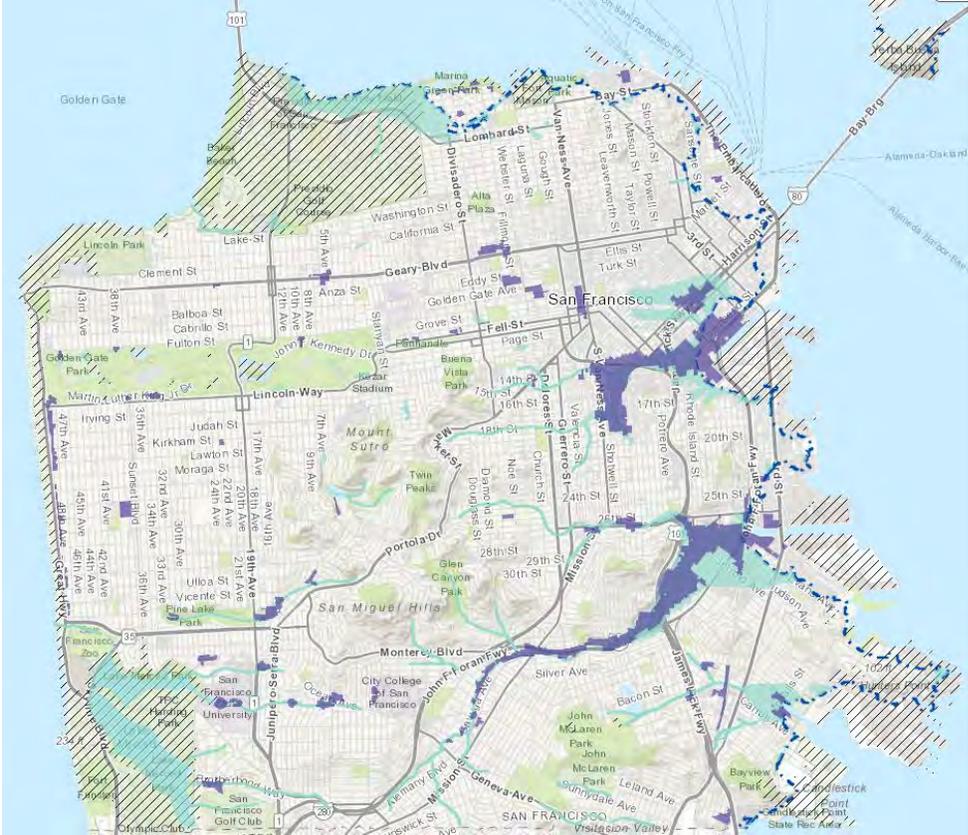
Zoom into a neighborhood of interest.

F3 Example: How much sea level rise should we plan for?



- The cost of future SLR adaptation is uncertain because of the accuracy of global SLR models and future emissions-reduction policies at a global scale.
- The City employs an “Adaptive Pathways” approach to manage this uncertainty. This approach provides the City with a range of investment options and associated costs.
- This prevents the City from establishing a precise estimate of future SLR adaptation costs.

F5: Background on Flood Risk in San Francisco



FEMA Designated (1%) flood risk is limited to coastal locations.

SFPUC has identified additional areas of San Francisco where significant flooding from storm runoff is highly likely to occur during a 100-year storm.

The background features a series of concentric circles in light gray, some solid and some dashed, creating a ripple effect. A large blue rectangular box is centered on the page, containing white text. The box has a small downward-pointing triangle at its bottom center.

Come Hell or High Water

Flood Management in a Changing Climate

SFCGJ Response at BoS' GAO

A Climate of Complacent Denial

September 19, 2024

The City Disagreed...

- ...that ClimateSF governance was inadequate...yet acknowledge the need to improve.
- ...that additional debt funding capacity is needed yet the City reports a lack of understanding of projected adaptation costs.
- ...that more formal flood coordination is needed, yet subsequently established a *Sea Level Rise and Flood Hazard Coordinating Committee*.
- ...that the City is failing to communicate future impacts of climate change – physical and financial – yet the City concedes the need to communicate more effectively.

The City's Responses To Our Findings Are Inadequate

- The City's disagreement with Findings 1, 3, 4, and 6 et al, represent a denial of the reality of our investigative interviews and 3rd party studies.
- The City government has not adequately organized for City-wide implementation of plans for adaptation to Climate Change.
- The City has not provided adequate transparency to San Francisco voters and taxpayers on how necessary climate adaptation projects will be funded and delivered.
- Civic leadership must engage unpleasant and difficult challenges, not make "too hard, too complicated" excuses.
- The defensive response to our report lacks the leadership needed to address effectively the climate adaptation challenges facing all Districts, particularly Districts 2, 6, 7, 9, and 10.

The SFCGJ
recommends to
the Board of
Supervisors...

- R1.4 Require an annual report for the public summarizing the ongoing climate resilience projects with standardized metrics, parties accountable, budget status and, project timelines.
- R3.2 Direct the BLA to perform an analysis of the impact on the General Fund of increasing the current limits on General Obligation debt.
- R4.1 Request the City Administrator to report on optimal governance structure for implementation of flood adaptation procedures.
- R6.2 Direct the BLA to prepare a financial analysis of the adverse impacts of climate resilience projects on marginalized communities.
- R6.3 Hold annual public hearings on the adverse environmental justice effects of climate resilience projects.

**Districts 2, 6, 7, 9,
and 10 likely
experience unequal
and serious impacts
of Climate Change**

- Districts 6, 7, 9, and 10 - some of the most affected - are absent from this hearing.
- Supervisors from these Districts must be part of the public hearing process.
- Considering the lack of executive branch leadership, The Board of Supervisors, sitting as a Committee of the Whole, is the proper forum for investigation and debate on this important existential issue.

Thank You!

**The San Francisco Civil Grand Jury
appreciates the Government Audit & Oversight
Committee's and the Board of Supervisors' attention to
these critically important topics.**

Crayton, Monique (BOS)

From: S.H. Boxx <solarholmes2@hotmail.com>
Sent: Thursday, September 19, 2024 11:30 AM
To: Crayton, Monique (BOS)
Subject: Attn: Supervisor Dean Preston re: the urgency of addressing climate change NOW (item 1 240667)
Attachments: Screenshot_20230228_154458_Gallery.jpg

This message is from outside the City email system. Do not open links or attachments from untrusted sources.

This is on a public SFCity Street Palou and Griffith Street in the Jan/February 2023 Atmospheric River. This is the only picture on this phone. I will send others when I get back to our office @ Greenaction for Health and Environmental Justice. I will be forwarding more pictures of the overflow from Parcel E-2 onto the City of SF Streets. HUMAN PROTECTIVENESS IS A MAJOR CONCERN AND SHOULD BE ACTED ON NOW. Studies are showing the contamination from the HPNS is impacting groundwater which means the total City and Bay is impacted.

Thank you

Shirletha Holmes-Boxx

415-589-1959

Ps I have relocated to District 5 from being a legacy resident of D10 due to my health.

Sent from my T-Mobile 5G Device

Get [Outlook for Android](#)

Crayton, Monique (BOS)

From: S.H. Boxx <solarholmes2@hotmail.com>
Sent: Thursday, September 19, 2024 11:42 AM
To: Crayton, Monique (BOS)
Subject: Attn: GAO (item 1 240667) Climate change and the URGENCY NOW IN D10. THE GRAND JURY REPORTS ON FLOOD MANAGEMENT...
Attachments: Resized_20230104_122129_290396302729898.jpeg; Resized_20230104_122103.jpeg; Resized_20230104_122410_290396026646564.jpeg; Resized_20230104_122507.jpeg

This message is from outside the City email system. Do not open links or attachments from untrusted sources.

These are the other pictures outside the fence of Parcel E2 from 2023.

This year wasn't as bad as 2023 but the pictures will be forwarded to demonstrate the Urgency of FLOOD MANAGEMENT IN D10 AND BEYOND...Especially since the contaminants of the shipyard Parcel E-2 overflow onto SF City streets potentially compromising human health.

Thank you

Shirletha Holmes-Boxx

Greenaction for health and environmental justice

415-589-1959

Sent from my T-Mobile 5G Device

Get [Outlook for Android](#)





Nuclear Cluster @ Hunters Point/Hunters Point Community Toxic Registry 09/15/24

HP Bio Unique Identifier	JDM Sample #	Intersection/GPS Coordinates #1	Intersection/GPS Coordinates #2	CUEP Detections #1: Date	CUEP Detections #2: Date	Speciated Detections: Date	Fissile/Fissionable/Fertile Detections: Date	Health Effects	Age	Gender/Sexual Orientation	Ethnicity/Race	Notes
HP00027/AH	2206381-1	Quesada/3rd	Innes/Donahue	01/19/21: Cs,Cd,Tl, Rb	06/24/22: Cd	06/11/2022: K-40, Pu-244, U-233/234, Total Uranium	U-233/234, Total Uranium	Familial Cancer, Familial Cardiorespiratory, Metabolic		57 F	AA	Legacy Family Nuclear Cohort
HP00048/TR	2206381-2	Kiska /Ingalls		03/14/22: Cs,Gd,Tl	06/24/22: As[Extreme],Al,Cs, Rb,Tl, Mn	06/11/22: K-40 [Extreme]		Maternal Brain Cancer		60 F	AA	Hair Analysis: Tl, Ti,Sb,Zr [Exceed 68th percentile]
HP00049/MR	2206381-3	3rd/Palou		02/24/20: Ni,Rb,Tl,K+ [Extreme]	12/20/21: Ba,Gd,Tl,Ni,U	06/11/22: K-40 [Extreme]		Breast Cancer, Basal Cell Skin Cancer, Tumor foot		82 F	EA	Husband HP00050: High Uranium on CUEP.
HP00031/MI	220381-4	3rd/Armstrong		12/13/21: Cd,Gd,Pt,Rb,W	05/31/22: Cd,Gd,Pt,Rb,W	06/11/2022: K-40 [Extreme],Pu-239/240[Extreme],Pu-244, U-235/236[Extreme]	Pu-239/240,U-235/236	Terminal AML, Basal Cell Skin, Neurological, Cardiorespiratory		77 F - LGBTQ	Multiracial/ Hispanic	Former smoker - long term HP resident/business owner. Nuclear Cohort
HP00063/KT	2206749-1	Revere/Fitch		08/19/21: As[Extreme],Cs,Rb, Tl,U,K+[Extreme]	08/07/23: Cs,Rb,Tl,W,U	06/19/22:K-40,Pu-238,Pu-244,U-233/234, U-235/236,U-238, Total Uranium [Extreme]	Pu-238, U-233/234, U-235/236, Total Uranium[Extreme]	Global: Dermatological, Cognitive Deficits, Neurological, Fingernails, Mood Instability		58 F	EA	Seven CUEP Tests, multiple domestic and wild animal deaths.Referred to UCSF Robert Harrison OEM, Chelation Rx in Mexico 2023, Seen by three Toxicology Experts.Nuclear Cohort
HP00039/ML	2206749-2	Revere/Fitch		08/19/21: Pb,Tl		06/19/22: K-40, U-233/234, Pu-244	U-233/234	Liver Failure - Hospitalized SFGH, Dermal, Cognitive		67 M	European Foreign National	Has lived at HPNS Fence line at Parcel E-2 Landfill in Industrial Park for 20 years. Multiple domestic animal cancer deaths. Nuclear Cohort
HP00011/KC	2206749-3	Revere/Ingalls [Childhood] & Jerrold/Earl [Hunters Point hilltop]	Gilman/Ingalls	05/07/21: Sn,Tl,W,U,Mn,V [Extreme]		06/19/22: K-40,Pu-244				45 F	AA	Familial Cancer, Familial Mental Illness, Permanent Disability, Migraine Headaches, ophthalmic artery aneurysm, Musculoskeletal, Neurological, Mood Disorder, Nutrient Deficiencies
HP00013/JM	2206749-4	Jerrold/Earl [Born - Hunters Point hilltop]	Gilman/Ingalls	05/7/2021: U		6/19/22: K-40,Pu-244		Cachexia, Anorexia, Anxiety, Global nutrient deficiencies,		24 F - Non Binary	AA	Daughter HP00011- Deficient Fe, Mo, Se,Sr,Ca,Mg,K+,S
HP00012/BG	2206749-5	Gilman/Ingalls [Suspected Exposure]		06/11/21:Sn,Tl,Mn, V,W,U [Extreme]		6/19/2022: K-40		Global Neurodevelopment, Food allergy/ intolerances		15 M	AA	Son HP00011 - Suspected intrauterine transmission or breast feeding transmission. [Mother & son share similar body burdens]

HP Bio Unique Identifier	JDM Sample #	Intersection/GPS Coordinates #1	Intersection/GPS Coordinates #2	CUEP Detections #1: Date	CUEP Detections #2: Date	Speciated Detections: Date	Fissile/Fissionable/Fertile Detections: Date	Health Effects	Age	Gender/Sexual Orientation	Ethnicity/Race	Notes
HP000**/MG	2207179-2	Gilman/Ingalls [Suspected Exposure]				07/03/22: U-233/234, U-238, Total Uranium [Extreme]	U-233/234, U-238, Total Uranium [Extreme]			M	AA	Anonymous - Family member HP00011
HP00061/TW	2206381-3	Yosemite/Ingalls	Cashmere/LaSalle	10/15/20: Cd, Gd, Al, Ni, Cu, Fe, Mn, Mo, V		07/03/22: K-40, Pu-244, U-238, Total Uranium [Extreme]	U-238, Total Uranium [Extreme]	Brainstem glioma, hemiparesis, thyroid cancer,	36	F	AA	Early childhood resident Yosemite Slough & Hunters Point hilltop



HUNTERS POINT BIOMONITORING FOUNDATION, INC

HUNTERS POINT COMMUNITY TOXIC REGISTRY PHASE III COHORT

RADIONUCLIDES OF CONCERN/RADIOGENIC CANCER CLUSTER

PHI Protected

Residents & Workers

UPDATED 05/30/24



COMMUNITY ROSTER

ID Code: HP00000	DOB	Coordinates/ Intersection	Currently at this address yes/no	Duration of Exposure/Years	Period of Exposure/Years	Free/Evidence of Exposure yes/no	Significant CUEP Detections	Test Date(s)	Significant CUEP Detections Retesting(s)	Speciated Urinary Screen Detections	Associated Adverse Health Impacts	Nutrient Element Deficiencies	Plaintiff yes/no	Deceased/Date of Death	Notes	ROC CLUSTER DETECTIONS	Type(s) of Tumor/ Cancer	Referred by:
HP00001	05/19/92	3rd/Revere	No	5	2018-current	Yes	Mn	01/02/20 & 02/28/23	Cs,Cd,W		Occupational Risk of Exposure/ mood	Fe	No		FI - HP Bio. Moved to 3021 3rd Street 12/01/19 - relocated Candlestick Cove 03/10/23	Ca, Cd		
HP00002	12/21/54	3rd/McKinnon & Amador/Evans	Yes	20	2000-current	Yes	Bi, Ga, Al	01/30/19 & 01/18/20	Mn		Laryngeal Cancer, Occupational Asthma, GERD	Mg	Yes		Worker & Resident in target zone. Non smoker, healthy lifestyle		Laryngeal	
HP00003	07/25/45	3rd/Jamestown	Yes	40	1980-current	Yes	As, Gd, Rb,Cu,Mn	01/30/20			Pituitary adenoma, pulmonary nodule, acoustic neuroma and meningioma	Ca, Mg	Yes		Lived on Hunters Point hilltop - pulmonary nodule diagnosed and pituitary tumor. PhD	Gd,Rb	Pulmonary Nodule, Pituitary Adenoma, Acoustic Neuroma, Meningioma	
HP00004	09/03/57	Keith/Shafter	Yes	20	2000-current	Yes	As,Ca,Tl,Gd, Rb, Ni, Mn, V	08/22/20 & 12/11/21			Pituitary tumor, mental illness	Co,Fe,Mg	Yes		Sister HP00005	Ca,Gd,Rb,Tl	Pituitary Adenoma	
HP00005	01/08/62	Keith/Shafter	No	20	2000-current	Yes	As,Cd,Tl,Ni, Rb,Mn,V	08/22/20				Co	Yes		Sister & Caregiver HP00004	Gd,Rb,Tl		
HP00006	01/01/65	Carroll/Arelvius Walker Dr	Yes	2	2019-current	Yes	Tl,Hg,Pt,Nb, Mn, V	02/25/21 & 04/29/22			Metabolic	Fe, Sr, Mg, Zn, V, S	?		Wife HP00007	Tl,Pt		
HP00007	10/19/58	Carroll/Arelvius Walker Dr	Yes	2	2019-current	Yes	Mn	02/25/21 & 04/29/22				Mo, Sr, Mg	?		Husband HP00006			
HP00008	03/09/52	Underwood/ Keith	Yes	Birth	1992-current	Yes	As,Gd,Tl,Mn	12/10/19 &	Cd,Gd,Ga		Urticaria, anaphylaxis, metabolic	Cr,LL,Sr,V,Ca,Mg, Sulfur, Fe, Co	Yes		Fish allergy	Cd,Gd		
HP00009	10/12/60	Underwood/ Keith	Yes	Birth	1960-current	Yes	Mn	02/29/20			Environmental & Occupational Exposures	Mo, Sr, Fe, LL, Mg	Yes		Worker Southeast Treatment Plant			
HP00010	03/27/71	Ingalls/Kiska Road	No	50	1971-2021	Yes	As,Mn	01/17/20			Husband died FTCL 2018/7/parcel A worker - HP00064	Cu,Fe,LL,Mo,Se,M g,K+S	Yes		Husband - Deceased plaintiff HP00064			
HP00011	03/06/79	Gilman/Ingalls	No	Former resident hilltop & Revere Avenue since early childhood	1979-2006	Yes	U, Tl, Sn	05/07/21		Fissile products detected	GAD, DJD	Ca, Mg, Su	Yes			U, Tl		
HP00012	02/19/2009	N/A	No	Intrauterine/ Birth		Yes	U, Tl, W, Sn	06/11/21			Neurodevelopmental disabilities/ global allergies	Fe	Yes		Intrauterine or perinatal transmission?	U, Tl		
HP00013	10/07/2000	Gilman/Ingalls	No	Childhood		Yes	U	06/11/21			Cachexia developmental disabilities	Cu, Fe, LL, Mn, Mo, Se, Sr, Ca, Mg, Su	Yes		Malnutrition	U		
HP00014	11/23/83	Gilman/Ingalls	No	Childhood		Yes	Ga, V, U (0.016)	07/02/21			Mental illness	Cr, Co, Se, Mg, Su			Separated from family by incarceration	U		
HP00015	07/14/84	Keith/Commer Ct	Yes	3	2017-current	Yes	Mn	04/24/20			Bronchitis	Mg, Sr, Ca, Su	No					
HP00016	02/09/77	Ingalls/Ingenson and Ingalls/ Kiska Rd	Yes	6	2012-current	Yes	As, Tl, Mn	08/15/19 & 06/03/23			Metabolic, Migraines, history bronchitis and migraines	Cr, Cu, Fe, Mn, Mg	Yes		HP00018-20 Vanadium detected in family of four residing at same address. HP00018 symptomatic with asthmatic bronchitis in 2006 during grading of hilltop	Tl		
HP00017	04/25/45	Falou/Ingalls	Yes	1	2019-2020	Yes	Ni, V, Zn	10/30/20			Acute bronchitis		No		Upper airway symptoms emerged upon relocation to 3rd & Falou			
HP00018	06/17/84	Ingalls/Ingenson and Ingalls/ Kiska Rd	Yes	6	2016-current	Yes	Gd, Mn	08/28/19			Neck mass		Yes		Lived on Kiska Road prior to Ingenson	Gd	Benign neck tumor	

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HP0001	05/19/52	3rd/Revere	No	5	2018-current	Yes	Mn	01/02/20 & 02/28/23	Cs,Cd,W		Occupational Risk of Exposure/mood	Fe	No		FI - HF Bio. Moved to 5021 3rd Street 12/01/19 - relocated Candlestick Cove 03/10/23	Cs, Cd		
HP00019	03/01/04	Ingalls/Ingerson	Yes			Yes	V	08/07/19			Epistaxis, migraines		Yes					
HP00020	04/11/97	Ingalls/Ingerson	Yes			Yes	V	08/07/19					Yes					
HP00021	10/27/47	3rd/Revere	Yes	20	2000-current	Yes	No Toxic Elements above reference - see notes	10/07/22			Endocrine/ Metabolic	Fe,Sr,Ca,Su	No		Toxins in reference range: As,Cs,Ni,Rb,Tl,Tn			
HP00022	12/01/78	Carroll/Areliaus Walker Dr	Yes	20	1978-current	Yes	Pt	03/18/23			Asthma/Metabolic	Cr,Fe,Mn,Se,Sr,Vn,Ca,Mn,S	No		Smoking history	Pt		
HP00023	05/12/56	Ingalls/Shafter	Yes	1	2020-2021	Yes	Cd,Mn,V	01/22/21			Recurrent epistaxis		No		Legal Professional in live work setting			
HP00024	03/20/64	Carroll/Areliaus Walker Dr	Yes	12	2008-current	Yes	Gd	11/09/20			Mental illness	Cu,Fe,LI,Mo,Se,Mn,Zn,Ca,Mg,Su				Gd		
HP00025	08/13/52	Griffith/Revere	Yes	10	2002-current	Yes	Bu, Ca,Pt,TL,Cu,LI,Zn, Mg	07/16/22			Occupational & Environmental Exposures/non smoker				Elevated Zn and Mg may be dietary supplements. Live/work exposures	Ca,Pt,TL		
HP00026	02/18/81	Falou/Rankin	Yes	6	1990-current	Yes	BLPt, AI	06/19/20			PTSD, Fe deficiency, dermatitis, hearing loss, back injury	Fe,Sr,Ca,Mg,K,Su	?		Smoker, industrial and auto exposures	Pt		
HP00027	06/27/87	Innes/Donahue and Quesada/ Falou	Yes	86	Childhood - current	Yes	Ca,Tl,Cd,Ni,Cr,Cu,Mn,Sb,V,Zn, Rb	01/09/21		Uranium & Plutonium species	Metabolic/Melther old pulmonary fibrosis, father prostate/colon cancer/77 year old sister breast cancer	Ca,S	Yes		Family exposures:HP00062, HP00063, HP00071	Cs,Cd,TLRb	Familial Cancer	
HP00028	12/07/79	Richards Circle/ Cashmere	Yes - Family of 4	2	2020-current	Yes	Gd, Pt, Sn, V	12/03/22			PTSD, DDD,CTS	Fe,Se,K	No		Homelessness, domestic violence, second hand smoke exposure	Gd,Pt		
HP00029	02/12/2002	Richards Circle/ Cashmere	Yes - surviving family	2	2020-current	Yes	As, Cu,Ga,Pt,Rb, TL,Cu,Mn,V,Zn,Sn	12/03/22			ASD, IDDM- ketacidosis	Fe,Mg	No		Uncontrolled IDDM, neurobehavioral disorder and second hand smoke exposure	Cs,Pt,Rb,TL		
HP00030	TBD	3rd/Ingerson	Yes	5	Current	Yes	Pending				Adult asthma/ family hx of childhood cancer		No				Familial Cancer	
HP00031	12/05/47	3rd/Armstrong	Yes	12		Yes	Cd,Cs,Ni,Pt,Rb, TL,W,Cu,Mn, V	12/04/21 & 05/23/22	Hg,Al,Sb,Cd, Gd,Pt,Rb,Sn, W,Mn		Acute leukemia, basal cell carcinoma, neuromuscular	Fe	No		Diagnosed with acute leukemia given months to live. Former heavy smoker, lives & works in 94124	Cd,Cs,Gd,Pt,Rb,	Acute Myelocytic Leukemia, Basal Cell Carcinoma	
HP00032	11/27/48	Oakdale/Ingalls	Yes	Birth	Birth-current	Yes	As, Gd,Zn	09/14/21			Pituitary adenoma/ brainstem glioma	Fe, Mg, K, Su	No		Minister in church built by father near Shippard Crisp Road Main Gate	Gd	Pituitary Adenoma, Brainstem Glioma	
HP00033	TBD	Oakdale/Ingalls	Yes	20	Current	Yes	Pending						Yes		Wife of Minister HP00032			
HP00034	07/16/56	3rd & Revere	Yes	15	Current	Yes	Gd,Mn,V				Asthmatic bronchitis/GAD/ Metabolic syndrome/ familial cancers	Fe,	Yes		Exposed family members/ plaintiffs	Gd	Familial Cancer	
HP00035	11/13/73	Quint/Thomas	Yes	1	Current	Yes	Nutrient Deficiencies				10 year old son died Brainstem Glioma September 2021	Fe,Cr,LLSr,Ca,Mg, Su	No		Mother of deceased minor HP00035			
HP00036- minor son	01/13/2011	Quint/Thomas	No	1		Yes					Diffuse Pontine Glioma		No	September 2021	Exposed at Hunters Point & TI		Diffuse Pontine Glioma	
HP00037	03/24/48	Ardath Ct/ Harbor Rd	Yes	20	Current	Yes	As, Cs, Cd,Ni,Rb,TL, Ca,Cu,LL,Mn, Se,V,K	10/07/22			Colon Cancer	Fe,Zn			Osteopenia, fractures - Orchard manager Northridge coop	Cs,Cd,Rb,TL,Sr,Co, K+	Colon Cancer	

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HP0000																		
HP0001	05/19/52	3rd/Revere	No Yes	5 3rd/Meade	2018-Current	Yes	Mn	01/02/20 & 02/28/23	Cs,Cd,W		Occupational Risk of Exposure/mood	Fe	No		PI - HP Bio. Moved to 5021 3rd Street 12/01/19 - relocated Candisstick Cove 03/10/23	Cs, Cd		
HP00038	03/20/66	Innes/Lane and Crisp Road/ Griffith	Yes	Age 5 to current	Current	Yes	As,Tl,Tn,Cu, Mn	03/20/20			Asthma- occupational removed from workplace - mother died of lung cancer/non-smoker		Yes		Resident & UCSF Worker Building 830 Crisp Road- Mother died of lung cancer HP00072	Tl	Familial Cancer	
HP00039	01/07/57	Revere/Fith	Yes	30	Current	Yes	Pb,Nl,Tl	09/12/21		Uranium & Plutonium species	Liver Disease/ Hemochromatosis	Mn, Se	Yes		Hospitalized for liver failure at SFGH	U,Pu,Tl		
HP00040	05/08/81	Cleo Rand Ln/ Donahue	Yes	8	Current	Yes	Cd,Mn,K	01/17/20			Metabolic						Cd,K+	
HP00041	01/21/72	Ingalls/ Jamestown	Yes	8	Current	Yes	W	06/29/20			Metabolic/ Obesity	Cu,Fe,Se,Sc,Ca,M G,Su						
HP00042	03/01/42	Oakdale/Keith	Yes	20	Current	Yes	Cs,Gd,Nl,Rb, Tl,Sc,Mn,V	05/01/20 & 11/20/21	Gd,Nl,Nn,Tl, Pb,Al,Antimony,As,Cu,Mg		Breast Ca, Brain tumors, Auditory tumors, canine cancer death	Fe, K		CUEP documents worsening exposures	Gd, Tl,Cs,Rb, Sr	Breast Cancer, Multiple craniotomy frontal meningioma and auditory nerve, canine sarcoma		
HP00043	01/01/54		Yes	23	Current	Yes	As,Gd,Mn,V	05/22/20			Metabolic	Strontium, Ca					Gd	
HP00044	11/30/43	Mabrey Ct/ Hudson	Yes	30	Current	Yes	Nl,Rb,Tl,Mn, V,Sr,K	02/03/22 & 12/19/19	Tl, Mn		Adult Asthma, Borderline T2D	Fe, Ca, Mg	Yes	12/19/2019 screening conducted during asthma attack		Rb,Tl,Sr,K+		
HP00045	10/15/76	3rd/Quisada	Yes	5	2016-current	Yes	Cs,Nl,Tl,Al, No	07/08/22				Fe,Su	No		Mother of HP00046 & Husband HP00047	Cs,Tl		
HP00046	07/25/2017	3rd/Quisada	Yes	4	2017-current	Yes	Bl,Sn,Cu,Cs, Nl,Tl,Zn,V	07/15/22			Eczema		No		Mother HP0005	Cs,Tl		
HP00047	11/13/67	3rd/Quisada	Yes	20	2003-current	Yes	U, Fe, Mn, V	08/10/22			Bronchitis	Sr,Ca, Mg	No		Gardener - son HP00046 & wife HP00048		U	
HP00048	05/16/54	Ingalls/Kiska Road	Yes	20	Childhood - current	Yes	Cs,Gd,Tl	03/05/22 & 06/11/22	As,Cs,Rb,Gd, Tl,Mn	Plutonium species	Maternal brain cancer	Fe, Mg, Su	Yes		Hair analysis: Sb,Tl,Sn,Mn,S,Zr - Worsening Exposure	Cs,Gd,Tl,Pu	Familial Cancer	
HP00049	03/05/39	3rd/Palou	Yes	20	2000-current	Yes	Nl,Rb,Tl,Mn, V,Sr,K	12/11/21 & 02/15/20	Hg, Ba, Gd,Nl, Tl, U, Mn, Ca	K-40	Breast Ca, Skin Ca,Tumor foot	Fe, Co		Worsening exposure on retesting and detection of uranium		U,Rb, Gd,Tl, Sr, K-40	Breast Cancer, Skin Cancer, Bone Tumor on foot linked to PCB exposure	
HP00050	09/18/32	3rd/Palou	Yes	20	2000-current	Yes	Sn,U, Mn, V	02/29/20		Pending	Alzheimers	Fe, Se, Sr,Ca, Mg, Su					U	
HP00051	09/03/71	Quisada/Ingalls and Crisp Road/ Griffith	Yes	16	2004-current	Yes	Nl,Cs,Mn,V	08/28/20			Premature CAD/ Lumbar HNN/ UCSF Worker/ Occupational sinusitis/ conjunctivitis/ Resident - 6 block perimeter		Yes	Occupational Spinal Injury and occupational exposure		Cs,Cd,Tl,Rb		
HP00052	03/27/46	Hudson/Keith	Yes	20	2000-current	Yes	Co, Cr, Gd	07/17/21			Metal hip, Cognitive disorder, Acoustic neuroma		Yes			Gd	Acoustic Neuroma	
HP00053	03/29/66	Revere/Fitch	Yes	20	2000-current	Yes	Pb,Al,Ba,Cd, Cs, Co, Ga, Pb, Tl, U, Sr, V, Zn, Ca, K+	08/06/21, 11/19/21	Al,Rb,Cd,Cs, Gd,GP,LRb, Tl,W, U, Cu, Mn, Nb, Sr, V, Zn, Ca, K	Plutonium species & Uranium species	Neuropsychiatric/ Dermatologic/ Systemic	Fe	Yes	Lives within 100 feet of Fitch/ Revere fence line/ Findings confirmed by 4 MDs	Cd,Cs,Gd,Pb,LRb, Tl, U, Sr, Pu, K-40			
HP00054	09/04/45	McKinnon/Lane	Yes	8	2012-current	Yes	As	10/17/20			Psychosis	Fe, Sr, Ca, Mg, Su						
HP00055	11/12/61	3rd/McKinnon	Yes	11	2010-current	Yes	Ba	10/01/21			Obesity/GI/ Metabolic	Fe, Mg, Mb						
HP00056		Ingalls/Redondo	Yes	20	2000-current	Yes				Pending	Metabolic				Shipyards worker as teen			
HP00057	01/20/81	Thomas/Ingalls	Yes	5	2018-current	Yes	Cs,U, Mn	08/14/20			Dermatologic	Fe, Su			Shipyards artist Parcel B & resident		Cs,U	
HP00058	10/09/48	Thomas/Ingalls	Yes	20	2000-current	Yes	As,Gd,Mn	07/24/20 & 12/20/2022	Cs,Gd,Nl,Cu, Mn,V,Zn		T2D, colonic polyp	Fe,Cu,Sr,Se,Ca,M G	Yes		Worsening Exposure Possible zinc supplementation - Note castum 9.1 up from 1.9	Cs,Gd	Colonic Polyp	
HP00059	03/06/53	Keith/Bowman Ct	Yes	30	1990-current	Yes	Al,Zn	01/07/22			Asthma, Sinusitis OERD, Dust allergy, rashes	Sr,Mg,S						

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HP00001	05/19/52	3rd/Revere	No	5	2018-Current	Yes	Mn	01/02/20 & 02/28/23	Cs,Cd,W		Occupational Risk of Exposure/ mood	Fe	No		PI - HF Bio. Moved to 8021 3rd Street 12/01/19 - relocated Cassidestick Cove 03/10/23	Cs, Cd		
HP00060	10/20/53	Maris/Innes	Yes	10	2010-current	Yes	B,U	03/18/22			Familial cancer (sister with BC on Armstrong & 3rd)	Co,Mg	No		Sister 3rd & Armstrong Breast Cancer Cluster	U	Familial Cancer	
HP00061	07/21/88	Cashmere/ Laballe	Yes	2	Childhood	Yes	Al,Gd,Ni,Cu, Fe,Mn,V	10/09/20			Brainstem glioma/ thyroid cancer	Sr,Ca,Mg	Yes			Gd	Brainstem Glioma, Thyroid Cancer	
HP00062	01/20/48	3rd/Quisada	Yes	20		Yes					Pulmonary fibrosis/familial cancer		Yes	Deceased 05/05/19	Daughter- HP00027		Familial Cancer	
HP00063		3rd/Quisada	No	20		Yes					Colon Cancer, Prostate Cancer		No	Deceased 2016	Daughter- HP00027		Prostate Cancer & Colon Cancer	
HP00064		Ingalls/Kiska Road	No	>10		Yes - HF worker exposed in 2006	Wife HP00010				Peripheral T cell Lymphoma		Yes	Deceased 03/06/16	Shipyards worker 2005 & life long resident		PTCL	
HP00065	TBD	Navy Road/ Griffith	No - surviving family here	4	Birth	Yes					Brainstem cancer		No	Deceased 04/2022	Uncle HP Resident - L Holmes		Childhood Brainstem Cancer	Bonner & Bonner
HP00066	02/10/58	King/Berry	No - Mission Bay	Childhood - current		Yes	Sb,Zn,Cd,Cs, Rb,Tl,W,U detected within reference range	04/14/23			Low BMI, asthma, occupational exposures (Navy)	Cr,Fe,Mn,Sr,Ca,Mg	No		Siblings - Hightower HP00066-67-68 Daughter with congenital deformities. Toxic detections below reference range: Rb, Tl, W,Cs,Cd		Familial Cancer	
HP00067		King/Berry	No - Mission Bay	Childhood - current		Yes		05/05/23			Severe congenital deformities		No		Mother HP00066-Grandfather died CLL 2023		Familial Cancer	
HP00068	05/18/59	King/Berry	No-Mission Bay & 196 Bradford Street & Oakland	Childhood	1959-1971	Yes	Cd, (Ni,Rb,Tl in reference range)	04/14/23			Asthma, smoking history and occupational exposures (Navy)	Mg,Cr	No		Siblings HP00066-67-68 with childhood exposure living within 3 mile radius - Father died CLL 2023 and sister Zenia diagnosed with leukemia	Cd	Familial Cancer	
HP00069	04/03/85	Shaffer/Ingalls	Yes	2	Current	Yes	As, Gd, Tl, Zn	04/28/23			Intractable migraines, fatigue, recurrent URI's - term	Cr,Fe,Mn,	No		Lives within quarter of a mile of Parcel E-2 landfill gardener	Cs, Gd, Tl		
HP00070	TBD	Shaffer/Ingalls	Yes	2	Current	Yes	Pending				Recurrent URI's				Lives quarter of a mile from Parcel E-2 landfill symptoms emerged on relocation			
HP00071	06/04/71	Evans/Amador and Quisada/3rd	Yes	Childhood - current	Lifetime	Yes	Pending	Rescheduled			Inflammatory Breast Cancer Dx Age 27		No		Sister- HP00027 Mother-HP00062 Father-HP00063		Breast Cancer	
HP00072	05/21/58	Lane/Innes	Deceased	1989-2023	1989-2023	Yes	Son has As,Tl,Tn,Cu, Mn in aggregate	N/A			Mother of UCSF worker taken off job for occupational asthma, non-smoker died of lung cancer on Innes Street in 2023		No	Deceased 4/2023	Mother HP00038- non smoker lung cancer death 2023		Familial Cancer	
HP00073	06/28/1960	Navy Road/ Griffith	No - Born on Navy Road	Childhood to age 15	15	Yes-proximity and duration of exposure to HYNIS		Scheduled			Sinusitis, Conjunctivitis		No		Siblings HP00066-68/Sibs have evidence of exposure. Father died 08/15/23 of CLL, sister diagnosed leukemia, sister with congenital deformities			
HP00074	02/21/53	Ingalls/Egbert	Yes	26	1997-current	Yes		Pending			Breast Ca - Left Diagnosed 2016		No		Sister & Daughter have Triple +, BRCA - left breast cancer Daughter HP00075		Breast Cancer	
HP00075	09/19/79	Ingalls/Egbert	No - moved 4 years ago	Childhood to 2020	1997-2020	Yes		Scheduled			Breast Ca - Left Triple + BRCA - Diagnosed at age 40 in 2021 - Recurrence 2022		No		Mother - HP00074 Aunt (mother's sister) now lives in Elk Grove, CA diagnosed with Breast Ca left while in Hunter Point		Breast Cancer	

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HP0000																		
HP0001	05/19/52	3rd/Revere	No	5	2018-Current	Yes	Mn	01/02/20 & 02/28/23	Cs,Cd,W		Occupational Risk of Exposure/ mood	Fe	No		PI - HP Bio. Moved to 5021 3rd Street 12/01/19 - relocated Candlestick Cove 03/19/23	Cs, Cd		
HP00076	TBD	3rd & Armstrong	Yes	>20	Current	Yes					Breast Ca		No		Sister: HP00060		Breast Cancer	
HP00077		3rd & Revere	No	>20		Yes	See notes				Metastatic Breast Ca		Yes	12/15/23	Resident & Commercial Business owner		Breast Cancer	
HP00078	TBD	3rd/Jennings & Underwood/ Keith	No	Lifetime	Birth - 2022	Yes					Breast Ca		No	2022	Sister: HP00008		Breast Cancer	
HP00079	TBD	Ingalls/Egbert	No - Moved to Elk Grove, Sac								Breast Ca		No		Sister: HP00074 & HP00075		Breast Cancer	
HP00080	07/29/46	Ingalls/ Fitzgerald	Yes	>20		Yes	Gd (Cd,Cs,Tl in reference range)	03/04/22			Breast Ca	Fe,Se,Ca,Mg,X,Su	No		Husband: HP00081 Prostate Ca	Gd	Breast Cancer	
HP00081	10/02/44	Ingalls/ Fitzgerald	Yes	>20		Yes	Ax,Ni (Reference range detections: Cd,Ca,Gd,Rb, Tl)	03/04/22			Prostate Ca	Ca, Mg	No		Wife: HP00080		Prostate Cancer	
HP00082	TBD	West Point Road/Catalina	No	Unk	Unk	Yes					Breast Ca				Daughter "Teaches" died in 2020 of rare childhood cancer. Legal settlement and relocation		Breast Cancer	Aunt & Witness
HP00083	TBD	Fitch/Revere	No	1	2016-2018	Yes		Pending			Breast Ca BRAC-Dx2018		No		Lived while homeless in RV parked at Fitch Street fence line between Quisada and Revere		Breast Cancer	
HP00084	TBD	3rd/Williams	No - moved to Hunters Point hilltop Dc: Multiple Myeloma	Current		Yes					Breast Ca - Multiple Myeloma				Verified by phone interview		Breast Cancer, Multiple Myeloma	
HP00085	TBD	Jernold/Donahue									Breast Ca						Breast Cancer	
HP00086	TBD	LaSalle/Keith	Unk	Unk							Breast Ca						Breast Cancer	Ray Tompkins
HP00087	11/01/82	Nautilus Ct/ Kirkwood	No	Lifetime	>30	Yes	Pb,Gd,Ga,Ni, TLW	02/23/24			Chronic asthma, sinusitis, eczema, stillbirth, familial cancer	Cr	No		Stillbirth in aunt: HP00084	Gd,Tl	Familial Cancer	
HP00088	07/17/82	Nautilus Ct/ Kirkwood	Yes	Lifetime	>60	Yes	See notes	03/01/24			Chronic sinusitis, nasal congestion, metabolic syndrome	Cr,Fe,Se,Sc,V,Ca, Mg,Su	No		Residence is north of Crisp Road and adjacent to parking lot. Non smoker. Daughter: HP00082. Significant profile in reference range: Cd,Cs,Rb,Tl,W,U		Familial Cancer	
HP00089	02/10/60	Kiska Road/ Ingalls	Yes	Lifetime	>60	Yes	See notes	03/01/24			Carcinoid polyp rectum 1988, stillbirth 1999, metabolic syndrome	Cr,Cu,Fe,Se,Sc,Ca, Mg,Su	No		Still birth in niece - HP00082. Brother dx colon cancer 2020. Significant profile of detections in reference range: Cd,Cs,Ni,Rb,Tl,Pb		Familial Cancer	
HP00090	Born 1940	Kiska Road/ Ingalls	Yes	>70 years	1980 - current	Yes		Pending	Pending		Thyroid nodule - active and excised 2019. Breast Ca diagnosed age 80 in 2020.		No		Grandmother: HP00082. Mother: HP00082-84. Family of non smokers		Thyroid Nodule - Toxic, Breast Cancer, Familial Cancer	Daughters/ Granddaughter
HP00091	11/04/83	McKinnon/ Newhall	Yes	2	2022-Current	Yes	Ba, Ni, Pt, W	04/29/24			Atopic Dermatitis, w/ Nickel. Eczema, fatigue, "brain fog"	N/A	No		Teacher in San Mateo moved to home at transit corridor, SE treatment facility, HPNS- 2023 storm damage to home	Pt		
HP00092	03/03/87	McKinnon/ Newhall	Yes	1	2023-Current	Yes	Bi, Ni	04/29/24			Facial Urticaria preceding onset Atopic Dermatitis of bilateral wrists w/ Nickel. Eczema, Dyspepsia	N/A	No		Moved from Santa Clara County in 2023 to live with partner in BVEP. Immediate onset idiopathic facial "hives" and eczema of wrists.			

ID Code:	DOB	Coordinates/ Intersection	Currently at this address yes/no	Duration of Exposure/Years	Period of Exposure/Years	Proof/Evidence of Exposure yes/no	Significant CUEP Detections	Test Date(s)	Significant CUEP Detections Retesting(s)	Specialized Urinary Screen Detections	Associated Adverse Health Impacts	Nutrient Element Deficiencies	Plaintiff yes/no	Deceased/Date of Death	Notes	ROC CLUSTER DETECTIONS	Type(s) of Tumors/ Cancer	Referred by:
HP00001	05/19/92	3rd/Evere	No	5	2018-current	Yes	Mn	01/02/20 & 02/28/23	Cs,Cd,W		Occupational Risk of Exposure/ mood	Fe	No		PI - HF Bio. Moved to 5021 3rd Street 12/01/19 - relocated Candlestick Cove 03/10/23	Cs, Cd		
UC00001	07/26/88	Crisp Road/ Griffith	Yes	>5	2018-current	Yes	Hg, Mn, V	02/22/20 & 05/13/22			Occupational asthma, eczematous rash on wrists, bronchitis with cough productive of "black specks"	Fe, Mg, K+, S, Sr, Mo, Ca	Yes		Father UC00003 - worsening nutrient deficiencies			
UC00002	03/01/67	Crisp Road/ Griffith	Yes	24	2002-current	Yes	As [extreme 230ug/ g], Cd, Ti, W, U, Mn, Sr, V, Z	03/06/20			Chronic fatigue, Shift Work Disorder		No		San Francisco Resident - West Portal	Cd, Ti, U		
UC00003	01/26/66	Crisp Road/ Griffith	Yes	>20	1992-2012	Yes	As, Cu, Mn, V, Z	02/22/20			Occupational injuries, Metabolic, GERD, Upper Airway Irritation	Fe, Sr, Ca, Mg	Yes		Son: UC00001			
UC00004	06/12/81	Crisp Road/ Griffith	Yes	21	2003-current	Yes	Al, Ba, U, Cu, F, e, Mn, V	02/14/20			Metabolic, Occupational strain & shift work disorder, GAD	Mg, K+, S	No		Daughter: UC00013	U [extreme]		
UC00005	04/24/88	Crisp Road/ Griffith	No	16		Yes	Ca, Ga, Pt, Rb, Tl, Mn, V, Zn, Ca, K	05/01/20			RSI	Co, Mo, Mg	Yes		Documented Cesium-137 exposure Chernobyl 1980's	Cs, Pt, Rb, Tl, K+		
UC00006	05/15/88	Crisp Road/ Griffith	No	17	1995-2012	Yes	Tl, Mn,	03/14/20			Hyperactive thyroid nodule emerged at 79 Crisp Road, occupational injuries, shift work disorder	Se, Mg, S	Yes		Exposed to landfill fire & chemical emissions. Currently employed at Mission Bay	Tl	Thyroid Nodule - Toxic	
UC00007	02/19/87	Crisp Road/ Griffith	Yes - PT	2	2008-2010 -PT	Yes	Tl, Mn, V	06/09/20			Musculoskeletal	Ca, Mg	No		Has worked for UCSF LARC for 27 years - currently PT at Mission Bay and PT Building 830	Tl		
UC00008	04/14/72	Crisp Road/ Griffith	Yes	7	2018-current	Yes	Tl, Gd	05/21/22			Occupational asthma, pulmonary nodules	Cu, Sr, Z, Ca, Mg	No		Followed with MRI for multiple pulmonary nodules	Tl	Multiple Pulmonary Nodules	
UC00009	01/27/59	Crisp Road/ Griffith	No	10	2014-current	Yes	V	03/06/20			Shift work disorder, occupational hearing loss, DJD and occupational strain	Mg, K+, S	No		Manganese high normal 0.78g/mcg. Commercial Class B Driver from Mission Bay to Hunters Point			
UC00010	06/09/66	Crisp Road/ Griffith	Yes	1987-current		Yes	Mn	02/01/20 & 04/23/22	Increase in concentration e: Ba, Cs, Rb, Tl		Chronic URI's, headaches, GERD, Shift Work Disorder	Fe, Mg, K+, S, Co	Yes		Highest manganese level detected in cohort-364 mcg/g. Interval increase in Cs, Rb, Tl, Pt, Ba			
UC00011	05/17/68	Crisp Road/ Griffith	No	6		Yes	Tl, Mn	02/22/20			GAD, Shift Work Disorder, Colon Cancer, colonic resection 2023, Hx colonic diverticula worsened by work	Se, Fe, Mg, S	No		Operations Manager Building 830 Lab Animal Resources - 30 years	Tl	Colon Cancer	
UC00012	04/04/66	Crisp Road/ Griffith	No		1989-1998	Yes	Mn, V, As (33)	02/22/20			Shift work disorder, CTD, metabolic syndrome, rotator cuff injury, sinusitis & angioedema rabbit exposure	Fe,	No		South Basin Cluster-Extreme Mn level 3.04			
UC00013	01/14/62	Crisp Road/ Griffith	No	26	1992-2018	Yes	M		Co, Gd, Tl, Mn		Heart failure, metabolic, occupational asthma, reactive airways wheezing triggered by dust exposure, interstitial lung disease on PFT's	Fe, Sr, Ca, Mg,	Yes			Co, Gd, Tl		
RCC00001	2018	W Point Rd/ Catalina	No	2	2018-2020	Yes					Childhood Hematopoietic Cancer		Yes	2020	Located adjacent to Hunters View Phase II, mother diagnosed with Breast Ca in 2021, legal settlement and relocation		Childhood Hematopoietic, Familial Cancer	

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HP00001	05/19/52	3rd/Revere	No	5	2018-Current	Yes	Mn	01/02/20 & 02/28/23	Cs,Cd,SV		Occupational Risk of Exposure/ mood	Fe	No		FI - HP Bia. Moved to 5021 3rd Street 12/01/19 - relocated Candlestick Cove 03/10/23	Cs, Cd		
RCC00002	TBD	Kiska Road/ Kirkwood	No	>10	2007-2017	Yes							Yes		Full time teacher at MUI for 10 years during occupations		Thyroid Cancer	Bonner & Bonner
RCC00003	TBD	Drydock 4/3rd & Falou/Yosemite Slough	No	>20	1994-2016	Yes - Exposed at Drydock 4 - lawsuit filed					Malignant Glioma		Yes		Director - Arc Ecology located 3rd & Falou, documented exposures Astoria Heavy Metals and Yosemite Slough		Malignant Glioma	Obituary
RCC00004	TBD	Shafter/Keith	No	>5	2015-2020	Yes - Proximity Parcel E-2					Uterine		No	2020	Administrator for CCLP in live/ work setting		Uterine	CCLP
RCC00005	TBD	Quesada/3rd	Yes	>20	2000-current	Yes - Proximity Parcel E-2 Landfill	Pending				Waldenstrom B cell lymphoma		No		Requested CUEP screening. Rescheduled		Waldenstrom B cell Lymphoma- macroglobulinemi a	
RCC00006	TBD	Quesada/Keith	Yes	Unk	Current	Yes - Proximity Parcel E-2 Landfill					Pancreatic Cancer, Son died of lymphoma in 2018		Unk		Son: UC00007		Pancreatic Cancer, Familial Cancer	Rupa Marya, MD
RCC00007	TBD	Quesada/Keith	No	Unk	Unk	Yes-Proximity Parcel E-2 Landfill					Lymphoma		Unk	2018	Mother: RCC00006		Lymphoma, Familial Cancer	Rupa Marya, MD
RCC00008	TBD	Quesada/3rd	No	Unk	Unk	Yes-Proximity Parcel E-2 Landfill					Throat Cancer		Unk		Two men in shared household		Throat Cancer	Gardner
RCC00009	TBD	Quesada/3rd	No	Unk	Unk	Yes-Proximity Parcel E-2 Landfill					Throat Cancer		Unk		Two men in shared household		Throat Cancer	Gardner
RCC00010	TBD	Quesada/3rd	No	Unk	Unk	Yes-Proximity Parcel E-2 Landfill					Brain Cancer Death Age 80		Unk				Brain Cancer	Gardner

Introduction Form

(by a Member of the Board of Supervisors or the Mayor)



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

- 1. For reference to Committee (Ordinance, Resolution, Motion or Charter Amendment)
- 2. Request for next printed agenda (For Adoption Without Committee Reference)
(Routine, non-controversial and/or commendatory matters only)
- 3. Request for Hearing on a subject matter at Committee
- 4. Request for Letter beginning with "Supervisor inquiries..."
- 5. City Attorney Request
- 6. Call File No. from Committee.
- 7. Budget and Legislative Analyst Request (attached written Motion)
- 8. Substitute Legislation File No.
- 9. Reactivate File No.
- 10. Topic submitted for Mayoral Appearance before the Board on

The proposed legislation should be forwarded to the following (please check all appropriate boxes):

- Small Business Commission Youth Commission Ethics Commission
- Planning Commission Building Inspection Commission Human Resources Department

General Plan Referral sent to the Planning Department (proposed legislation subject to Charter 4.105 & Admin 2A.53):

- Yes No

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

Sponsor(s):

Subject:

Long Title or text listed:

Signature of Sponsoring Supervisor: