File No. 221065 **Committee Item No.** 3
Board Item No. _____

COMMITTEE/BOARD OF SUPERVISORS

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Committee: Land Use and Transportation Committee **Date** November 28, 2022

Board of Supervisors Meeting **Date** _____

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Completed by: Erica Major **Date** November 22, 2022
Completed by: Erica Major **Date** _____

[General Plan - Adopting the 2022 Safety & Resilience Element]

Ordinance amending the San Francisco General Plan by repealing the 2012 Community Safety Element and adopting the 2022 Safety & Resilience Element; affirming the Planning Department's determination under the California Environmental Quality Act; and making findings of public necessity, convenience, and general welfare under Planning Code, Section 340, and findings of consistency with the General Plan, and the eight priority policies of Planning Code, Section 101.1.

NOTE: **Unchanged Code text and uncodified text** are in plain Arial font.
Additions to Codes are in *single-underline italics Times New Roman font*.
Deletions to Codes are in ~~*strikethrough italics Times New Roman font*~~.
Board amendment additions are in double-underlined Arial font.
Board amendment deletions are in ~~strikethrough Arial font~~.
Asterisks (* * * *) indicate the omission of unchanged Code subsections or parts of tables.

Be it ordained by the People of the City and County of San Francisco:

Section 1. Findings.

(a) Section 4.105 of the Charter provides that the Planning Commission shall periodically recommend to the Board of Supervisors, for approval or rejection, proposed amendments to the General Plan.

(b) On October 7, 2022, the Board of Supervisors received from the Planning Department the proposed General Plan amendment which repeals the 2012 Community Safety Element and adopts the 2022 Safety & Resilience Element ("the Safety & Resilience Element Update Amendment"). This amendment is on file with the Clerk of the Board of Supervisors in File No. 221065 and is incorporated herein by reference.

(c) Section 4.105 of the Charter further provides that if the Board of Supervisors fails to act within 90 days of receipt of the proposed Safety & Resilience Element Update Amendment, then the proposed amendment shall be deemed approved.

(d) Planning Code Section 340 provides that an amendment to the General Plan may be initiated by a resolution of intention by the Planning Commission, which refers to, and incorporates by reference, the proposed General Plan amendment. Section 340 further provides that the Planning Commission shall adopt the proposed General Plan amendment after a public hearing if it finds from the facts presented that the public necessity, convenience, and general welfare require the proposed amendment or any part thereof. If adopted by the Commission in whole or in part, the proposed amendment shall be presented to the Board of Supervisors, which may approve or reject the amendment by a majority vote.

(e) On July 21, 2022, the Planning Commission, by Resolution No. 21147, initiated the Safety & Resilience Element Update, as an amendment to the General Plan, at a duly noticed public hearing. Said motion is on file with the Clerk of the Board of Supervisors in File No. 221056 and incorporated herein by reference.

(f) On July 1, 2022, the Planning Department published the Addendum to Final Negative Declaration and complied with the provisions of the California Environmental Quality Act ("CEQA") (California Public Resources Code Sections 21000 et seq.), the CEQA Guidelines (14 Cal. Code Regs. Sections 15000 et seq.), and Chapter 31 of the San Francisco Administrative Code. A copy of the Addendum to Final Negative Declaration is on file with the Clerk of the Board of Supervisors in File No. 221065. The Board affirms this determination.

(g) The Project evaluated in the Addendum to Final Negative Declaration includes amendments to the General Plan related to the Safety & Resilience Element Update Amendment proposed by the Planning Department. The Safety & Resilience Element Update

Amendment is an action proposed by the Planning Department that is within the scope of the Project evaluated in the Addendum to Final Negative Declaration.

(h) The letter from the Planning Department transmitting the proposed General Plan amendments to the Board of Supervisors, the Final Addendum to Negative Declaration, and the Planning Commission's Resolution approving the proposed General Plan Amendments are on file with the Clerk of the Board of Supervisors in File No. 221065. These and any and all other documents referenced in this ordinance have been made available to the Board of Supervisors and may be found in either the files of the Planning Department, as the custodian of records, at 49 South Van Ness Avenue in San Francisco, or in File No. 221065 with the Clerk of the Board of Supervisors at 1 Dr. Carlton B. Goodlett Place in San Francisco, and are incorporated herein by reference.

(i) The Board of Supervisors has reviewed and considered the Final Addendum to Negative Declaration and the environmental documents on file referred to herein. The Board of Supervisors has reviewed and considered the CEQA Findings, and hereby adopts them as its own and incorporates them by reference as though such findings were fully set forth in this ordinance.

(j) The Board of Supervisors finds, pursuant to Planning Code Section 340, that the Safety & Resilience Element Update Amendment set forth in the documents on file with the Clerk of the Board of Supervisors in File No. 221065 will serve the public necessity, convenience, and general welfare for the reasons set forth in Planning Commission Resolution No. 21175 and incorporates those reasons herein by reference.

(k) The Board of Supervisors finds that the proposed General Plan amendments are, on balance, in conformity with the General Plan, as amended by this ordinance, and the priority policies of Planning Code Section 101.1 for the reasons set forth in Planning Commission Resolution No. 21175, and the Board hereby adopts those findings as its own.

Section 2. The San Francisco General Plan is hereby amended by repealing the 2012 Community Safety Element and adopting the 2022 Safety & Resilience Element, as shown in Exhibit A. A copy of the repealed 2012 Community Safety Element is on file with the Clerk of the Board of Supervisors in File No. 211065, and is also on file with the Planning Department.

Section 3. Effective Date. This ordinance shall become effective 30 days after enactment. Enactment occurs when the Mayor signs the ordinance, the Mayor returns the ordinance unsigned or does not sign the ordinance within ten days of receiving it, or the Board of Supervisors overrides the Mayor's veto of the ordinance.

APPROVED AS TO FORM:
DAVID CHIU, City Attorney

By: /s/ Robb Kapla
ROBB KAPLA
Deputy City Attorney

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FILE NO. 221065

LEGISLATIVE DIGEST

[General Plan - Adopting the 2022 Safety & Resiliency Element]

Ordinance amending the San Francisco General Plan by repealing the 2012 Community Safety Element and adopting the 2022 Safety & Resilience Element; affirming the Planning Department's determination under the California Environmental Quality Act; and making findings of public necessity, convenience, and general welfare under Planning Code, Section 340, and findings of consistency with the General Plan, and the eight priority policies of Planning Code, Section 101.1.

Existing Law

The San Francisco General Plan includes the 2012 Community Safety Element.

Amendments to Current Law

The Proposed Legislation would repeal the 2012 Community Safety Element and replace it with the 2022 Safety & Resiliency Element ("SRE"). The SRE integrates planning and policy principles across various City departments to protect community safety and promote resiliency from multiple hazards while minimizing San Francisco's contribution to the climate crisis.

In addition to integrating climate adaptation into the City's hazard mitigation planning, the SRE promotes consideration of racial and social equity and environmental justice in addressing the disproportionate burdens suffered by vulnerable people and neighborhoods that are often hurt first and worst and struggle more to recover from disasters.

Background Information

The San Francisco General Plan's Community Safety Element was last updated in October 2012 and is particularly focused on seismic issues with four main goals: mitigation, emergency preparedness, response, and recovery and reconstruction.

Since 2012, there has been progress in the policies, approaches, and tools for ensuring community safety from natural, climate-induced, and human-made hazards. There have also been California Senate Bills that create new requirements and warrant updating the City's safety element. Specifically, the SRE would ensure consistency between the City's hazards plans and climate resiliency plans, as required by Senate Bill 379, and would coordinate the City's Climate Action Plan with environmental justice directives, as required by Senate Bill 1000.

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San Francisco Planning

49 South Van Ness Avenue, Suite 1400
San Francisco, CA 94103
628.652.7600
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October 6, 2022

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

Re: **Transmittal of Planning Department Case No. 2018-004217GPA: 2022 Safety & Resilience Element Update**
Board File No. [pending]

Planning Commission Recommendation: *Approval*

Dear Ms. Calvillo:

On September 29, 2022, the San Francisco Planning Commission (hereinafter "Commission") conducted a duly noticed public hearing at a regularly scheduled meeting to consider the proposed Ordinance which the Commission initiated on July 21, 2022. The proposed Ordinance would amend the 2012 Community Safety Element of the San Francisco General Plan to the 2022 Safety & Resilience Element.

The proposed amendment would result in no physical impact on the environment. On June 30, 2022, the Planning Department determined that the proposed project could not have a significant effect on the environment and issued an Addendum to Negative Declaration.

At the September 29 hearing, the Commission voted 7-0 to recommend approval of the proposed Resolution.

Please find attached documents relating to the Commission's action. If you have any questions or require further information, please do not hesitate to contact me or Citywide Division Director, AnMarie Rodgers at anmarie.rodgers@sfgov.org.

Sincerely,

Rich Hillis
Director of Planning

Attachments (one copy of the following):
Planning Commission Resolution No. R-21175
Draft Ordinance (signed to form)
Planning Commission Executive Summary for Case No. 2018-004217GPA – September 29, 2022
Addendum to Negative Declaration
2022 Safety & Resilience Element

San Francisco Planning

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PLANNING COMMISSION RESOLUTION NO. 21175

HEARING DATE: SEPTEMBER 29, 2022

Project Name:	Safety & Resilience Element Update Climate Hazards and Safety Element
Case Number:	2018-004217GPA
Initiated by:	Planning Department Staff
Staff Contact:	Danielle Ngo, Senior Planner danielle.ngo@sfgov.org, (628) 652-7591
Reviewed by:	AnMarie Rodgers, Director of Citywide Division anmarie.rodgers@sfgov.org, (628) 652-7471

RESOLUTION ADOPTING AMENDMENTS TO THE SAN FRANCISCO GENERAL PLAN; ADOPTING FINDINGS, INCLUDING FINDINGS OF CONSISTENCY WITH THE GENERAL PLAN, AND THE EIGHT PRIORITY POLICIES OF PLANNING CODE SECTION 101.1, FINDINGS OF PUBLIC NECESSITY, CONVENIENCE, AND GENERAL WELFARE UNDER PLANNING CODE SECTION 340, AND ENVIRONMENTAL FUNDINGS UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT.

WHEREAS, Section 4.105 of the Charter of the City and County of San Francisco mandates that the Planning Commission (hereinafter "Commission") shall periodically recommend to the Board of Supervisors for approval or rejection proposed amendments to the General Plan; and,

WHEREAS, SB 379 (Jackson, 2016) requires jurisdictions to integrate climate adaptation into the general plan upon the next revision to their Local Hazard Mitigation Plan; and,

WHEREAS, the 2020 Hazards and Climate Resilience Plan was approved by the Federal Emergency Management Agency and the California Office of Emergency Services in July 2020 and serves as the City's update to the 2013 Local Hazard Mitigation Plan; and,

WHEREAS, SB 1000 (Leyva, 2016) requires jurisdictions that have Disadvantaged Communities to incorporate environmental justice into their general plans upon the next revision to two or more elements; and,

WHEREAS, the City and County of San Francisco contains Disadvantaged Communities as determined by CalEnviroScreen 4.0; and,

WHEREAS, the Housing Element 2022 Update and these proposed amendments to the 2012 Community Safety Element are beginning such integration of environmental justice policies throughout the General Plan; and,

WHEREAS, the Commission, at a duly noticed public hearing on July 21, 2022 and in accordance with Planning Code Section 340(c), initiated the General Plan Amendments for the 2022 Safety & Resilience Element Update (hereinafter "Update") by Planning Commission Resolution No. 21147; and,

WHEREAS, the Commission conducted a duly noticed public hearing at a regularly scheduled meeting to consider adoption of the Draft Ordinance for the Update on or after August 25, 2022 and in accordance with Planning Code Section 340(d); and,

WHEREAS, the Commission has heard and considered the testimony presented to it at the public hearing and has further considered written materials and oral testimony presented on behalf of Department staff and other interested parties; and

WHEREAS, all pertinent documents may be found in the files of the Department, as the custodian of records, at 49 South Van Ness Avenue, Suite 1400, San Francisco; and

MOVED, the Commission has reviewed the Ordinance for the Update; and

FINDINGS

Having reviewed the materials identified in the preamble above, and having heard all testimony and arguments, this Commission finds, concludes, and determines as follows:

1. The Update will provide a comprehensive set of policies for minimizing San Francisco's contribution to the climate crisis and ensuring local resilience to multiple hazards.

2. The Update will help protect the people and assets of San Francisco, especially areas and communities that face higher vulnerability to disasters.

3. The Update will incorporate policy direction to support climate resilience (per SB 379), environmental justice (per SB 1000), and racial and social equity.

4. General Plan Compliance. The Ordinance for the Update is consistent with the following Objectives and Policies of the General Plan:

   AIR QUALITY ELEMENT

   OBJECTIVE 3
   DECREASE THE AIR QUALITY IMPACTS OF DEVELOPMENT BY COORDINATION OF LAND USE AND TRANSPORTATION DECISIONS.

Policy 3.9
Encourage and require planting of trees in conjunction with new development to enhance pedestrian environment and select species of trees that optimize achievement of air quality goals.

OBJECTIVE 4
IMPROVE AIR QUALITY BY INCREASING PUBLIC AWARENESS REGARDING THE NEGATIVE HEALTH EFFECTS OF POLLUANTS GENERATED BY STATIONARY AND MOBILE SOURCES.

Policy 4.1
Increase awareness and educate the public about negative health effects of pollution caused by mobile sources.

Policy 4.3
Minimize exposure of San Francisco's population, especially children and the elderly, to air pollutants.

OBJECTIVE 5
MINIMIZE PARTICULATE MATTER EMISSIONS FROM ROAD AND CONSTRUCTION SITES.

Policy 5.2
Encourage the use of building and other construction materials and methods which generate minimum amounts of particulate matter during construction as well as demolition.

OBJECTIVE 6
LINK THE POSITIVE EFFECTS OF ENERGY CONSERVATION AND WASTE MANAGEMENT TO EMISSION REDUCTIONS.

Policy 6.3
Encourage energy conservation through retrofitting of existing facilities.

The Update supports these Objectives and Policies in the Air Quality Element by pursuing strategies for reducing greenhouse gas emissions and addressing air pollution (or poor and hazardous air quality). The Update incorporates the Climate Action Plan (climate mitigation) and Hazards and Climate Resilience Plan (climate adaptation) by reference. The Update includes policy language that 1) prioritizes nature-based solutions in adaptation projects to mimic or restore ecological systems and function—including planting local native trees 2) encourages green building practices during the retrofitting of existing buildings and during new construction to emit lower greenhouse gas emissions—including particulate matter—and to conserve energy and 3) encourages the continued use and adaptive reuse of existing buildings to reduce emissions that may otherwise occur from new construction.

ARTS ELEMENT

OBJECTIVE I-1
RECOGNIZE THE ARTS AS NECESSARY TO THE QUALITY OF LIFE FOR ALL SEGMENTS OF SAN FRANCISCO.

Policy I-1.4
Provide access to the creative process and cultural resources for all neighborhoods, cultural communities, and segments of the city and its populations.

The Update supports these Objectives and Policies in the Arts Element by incorporating historic preservation principles and housing security and justice principles. First, the Update includes policy language to document and safeguard diverse elements of the City's living heritage from the climate crisis, particularly in Environmental Justice Communities—including cultural resources, intangible elements, and buildings with cultural character. These policies will help protect the historic, archaeological, and cultural elements that contribute to the arts and cultural identity of the City.

COMMUNITY FACILITIES ELEMENT

OBJECTIVE 1
DISTRIBUTE, LOCATE, AND DESIGN POLICE FACILITIES IN A MANNER THAT WILL ENHANCE THE EFFECTIVE, EFFICIENT AND RESPONSIVE PERFORMANCE OF POLICE FUNCTIONS.

Policy 1.3
Enhance closer police/community interaction through the decentralization of police services that need not be centralized.

OBJECTIVE 2
LOCATE AND DESIGN FACILITIES IN A MANNER THAT ENCOURAGES CONSTRUCTIVE POLICE/NEIGHBORHOOD INTERACTION.

Policy 2.1
Provide expanded police/community relations and police services through outreach programs, primarily utilizing existing facilities.

OBJECTIVE 10
LOCATE WASTEWATER FACILITIES IN A MANNER THAT WILL ENHANCE THE EFFECTIVE AND EFFICIENT TREATMENT OF STORM AND WASTEWATER.

Policy 10.1
Provide facilities for treatment of storm and wastewater prior to discharge into the Bay or ocean. Locate such facilities according to the Wastewater and Solid Waste Facilities Plan.

OBJECTIVE 11
LOCATE SOLID WASTE FACILITIES IN A MANNER THAT WILL ENHANCE THE EFFECTIVE AND EFFICIENT TREATMENT OF SOLID WASTE.

Policy 11.1
Provide facilities for treatment of solid waste and locate such facilities as shown on the Wastewater and Solid Waste Facilities Plan.

The Update supports these Objectives and Policies in the Community Facilities Element by supporting the jurisdiction of and coordination with the Fire Department, Department of Public Health, and Public Utilities Commission. The Fire Department leads the Neighborhood Emergency Response Team (NERT), a community-based training program dedicated to a neighbor-helping-neighbor approach to disaster response. NERT includes increasing public awareness about disaster risks, risk reduction, and emergency response, to risks such as release of hazardous materials and earthquakes. The Department of Public Health coordinates with the Fire Department to administer local safety regulations and enforce state and local health laws around chemical, biological, radiological, nuclear, and explosive substances (CBRNE)—including safe disposal. The San Francisco Public Utilities Commission manages the City's wastewater, solid waste, and energy systems, and the Update includes policy language to ensure these lifeline systems are constantly maintained to be in a state of good repair and available to provide their critical services in the event of a disaster.

COMMUNITY SAFETY ELEMENT

OBJECTIVE 1
REDUCE STRUCTURAL AND NONSTRUCTURAL HAZARDS TO LIFE SAFETY AND MINIMIZE PROPERTY DAMAGE RESULTING FROM FUTURE DISASTERS.

POLICY 1.2
Research and maintain information about emerging hazards such as terrorism threats and communication failures.

OBJECTIVE 2
BE PREPARED FOR THE ONSET OF DISASTER BY PROVIDING PUBLIC EDUCATION AND TRAINING ABOUT EARTHQUAKES AND OTHER NATURAL AND MAN-MADE DISASTERS, BY READYING THE CITY'S INFRASTRUCTURE, AND BY ENSURING THE NECESSARY COORDINATION IS IN PLACE FOR A READY RESPONSE.

POLICY 2.1
Promote greater public awareness of disaster risks, personal and business risk reduction, and personal and neighborhood emergency response - a "culture of preparedness."

OBJECTIVE 3
ESTABLISH STRATEGIES TO ADDRESS THE IMMEDIATE EFFECTS OF A DISASTER.

POLICY 3.11
Ensure historic resources are protected in the aftermath of a disaster.

OBJECTIVE 4
ASSURE THE SOUND, EQUITABLE AND EXPEDIENT RECONSTRUCTION OF SAN FRANCISCO FOLLOWING A MAJOR DISASTER.

POLICY 4.10
View recovery as a partnership with neighborhoods.

The Update supports these Objectives and Policies in the Community Safety Element by enhancing the climate resilience, environmental justice, and racial & social equity aspects of hazards planning and management. The policy language expands the scope of hazards research and decision-making to consider multiple hazards at once, in alignment with the Hazards and Climate Resilience Plan that identifies the 13 top hazards at risk in the City. The policy language includes proactive guidance on climate mitigation, in alignment with the Climate Action Plan and the City's goal of becoming a net-zero emissions City. The policy language emphasizes the preservation, life safety, and adaptive reuse of existing buildings, including historic buildings, from the increasing threats of the climate crisis. Lastly, the policy language designates Environmental Justice Communities, other vulnerable communities, and community-based and community-led efforts to prioritize attention, resources, and partnerships where necessary to expand the reach of community safety.

ENVIRONMENTAL PROTECTION ELEMENT

OBJECTIVE 1
ACHIEVE A PROPER BALANCE AMONG THE CONSERVATION, UTILIZATION, AND DEVELOPMENT OF SAN FRANCISCO'S NATURAL RESOURCES.

Policy 1.1
Conserve and protect the natural resources of San Francisco.

OBJECTIVE 3
MAINTAIN AND IMPROVE THE QUALITY OF THE BAY, OCEAN, AND SHORELINE AREAS.

POLICY 3.1
Cooperate with and otherwise support regulatory programs of existing regional, State, and Federal agencies dealing with the Bay, Ocean, and Shorelines.

OBJECTIVE 5
ASSURE A PERMANENT AND ADEQUATE SUPPLY OF FRESH WATER TO MEET THE PRESENT AND FUTURE NEEDS OF SAN FRANCISCO.

POLICY 5.1
Maintain an adequate water distribution system within San Francisco.

POLICY 5.5
Improve and extend the Auxiliary Water Supply system of the Fire Department for more effective fire fighting.

OBJECTIVE 12
ESTABLISH THE CITY AND COUNTY OF SAN FRANCISCO AS A MODEL FOR ENERGY MANAGEMENT.

POLICY 12.5
Include energy emergency preparedness plans in municipal operations.

OBJECTIVE 13
ENHANCE THE ENERGY EFFICIENCY OF HOUSING IN SAN FRANCISCO.

POLICY 13.1
Improve the energy efficiency of existing homes and apartment buildings.

POLICY 13.5
Emphasize energy conservation in local government housing assistance programs.

OBJECTIVE 14
PROMOTE EFFECTIVE ENERGY MANAGEMENT PRACTICES TO MAINTAIN THE ECONOMIC VITALITY OF COMMERCE AND INDUSTRY.

POLICY 14.1
Increase the energy efficiency of existing commercial and industrial buildings through cost-effective energy management measures.

OBJECTIVE 19
PROMOTE SOURCE REDUCTION THROUGH REDUCED USE OF HAZARDOUS MATERIALS AND GENERATION OF HAZARDOUS WASTE.

POLICY 19.2
Support public education related to lowered use or substitution of hazardous chemicals and on the proper management of hazardous waste.

OBJECTIVE 22
ENSURE EMERGENCY RESPONSE CAPABILITY.

POLICY 22.1
Ensure proper emergency response preparation.

POLICY 22.2
Coordinate and strengthen interagency response efforts.

The Update supports these Objectives and Policies in the Environmental Protection Element by advancing climate resilience through nature-based solutions; climate mitigation through building decarbonization; climate adaptation through interagency and intergovernmental collaboration; lifeline redundancy in the event of a disaster; and emergency preparedness with advance planning. With nature-based solutions, policy language supports the preservation and maintenance of carbon sinks and landscape approaches, enhancing shoreline biodiversity, and propagating local native plants. With building decarbonization, policy language supports electrification and prioritizing investments and resources in Environmental Justice Communities to aid the City becoming a net-zero emissions city by 2040, per the Climate Action Plan. With intergovernmental collaboration, the policy language encourages adaptation efforts around the City's ocean and bay shorelines to be in coordination with regional, state, federal, and tribal governments to address current and future climate flood hazards. With lifeline redundancy, policy language supports

renewable energy being available in the event of a disaster and redundant water sources available for drinking and the Fire Department's firefighting capacity. With emergency preparedness, policy language supports public awareness around the transportation, store, and disposal of chemical, biological, radiological, nuclear, and explosive substances (CBRNE), especially in areas at risk of seismic and flood hazards. The policy language also supports the jurisdiction of the Department of Emergency Management to lead preparedness training, public information campaigns, and advance planning to all hazards.

HOUSING ELEMENT

OBJECTIVE 2
RETAIN EXISTING HOUSING UNITS, AND PROMOTE SAFETY AND MAINTENANCE STANDARDS, WITHOUT JEOPARDIZING AFFORDABILITY.

POLICY 2.1
Discourage the demolition of sound existing housing, unless the demolition results in a net increase in affordable housing.

POLICY 2.4
Promote improvements and continued maintenance to existing units to ensure long term habitation and safety.

POLICY 2.5
Encourage and support the seismic retrofitting of the existing housing stock.

OBJECTIVE 3
PROTECT THE AFFORDABILITY OF THE EXISTING HOUSING STOCK, ESPECIALLY RENTAL UNITS.

POLICY 3.1 Preserve rental units, especially rent controlled units, to meet the City's affordable housing needs.

OBJECTIVE 11
SUPPORT AND RESPECT THE DIVERSE AND DISTINCT CHARACTER OF SAN FRANCISCO'S NEIGHBORHOODS.

POLICY 11.7
Respect San Francisco's historic fabric, by preserving landmark buildings and ensuring consistency with historic districts.

The Update supports these Objectives and Policies in the Housing Element with hazard mitigation policies and recovery and reconstruction policies. With hazard mitigation policies, the Update encourages retrofits of existing buildings and housing units to make them more resilient to hazards and the climate crisis, especially in Environmental Justice Communities. With recovery and reconstruction policies, the Update encourages preservation of the City's stock of lowest cost housing and mitigating the spread of homelessness. The Update encourages the continued use and adaptive use of existing buildings, per life

safety and functional recovery standards, and prioritizing the needs of individuals and families experiencing homelessness, in the event of a disaster.

RECREATION AND OPEN SPACE ELEMENT

OBJECTIVE 1
ENSURE A WELL-MAINTAINED, HIGHLY UTILIZED, AND INTEGRATED OPEN SPACE SYSTEM.

POLICY 1.12
Preserve historic and culturally significant landscapes, sites, structures, buildings and objects.

POLICY 1.13
Preserve and protect character defining features of historic resources in City parks, when it is necessary to make alterations to accommodate new needs or uses.

OBJECTIVE 2
INCREASE RECREATION AND OPEN SPACE TO MEET THE LONG-TERM NEEDS OF THE CITY AND BAY REGION.

POLICY 2.4
Support the development of signature public open spaces along the shoreline.

OBJECTIVE 4
PROTECT AND ENHANCE THE BIODIVERSITY, HABITAT VALUE, AND ECOLOGICAL INTEGRITY OF OPEN SPACES AND ENCOURAGE SUSTAINABLE PRACTICES IN THE DESIGN AND MANAGEMENT OF OUR OPEN SPACE SYSTEM.

POLICY 4.1
Preserve, protect and restore local biodiversity.

POLICY 4.3
Integrate the protection and restoration of local biodiversity into open space construction, renovation, management and maintenance.

POLICY 4.4
Include environmentally sustainable practices in construction, renovation, management and maintenance of open space and recreation facilities.

OBJECTIVE 5
ENGAGE COMMUNITIES IN THE STEWARDSHIP OF THEIR RECREATION PROGRAMS AND OPEN SPACES.

POLICY 5.1
Engage communities in the design, programming and improvement of their local open spaces, and in the development of recreational programs.

The Update supports these Objectives and Policies in the Recreation and Open Space Element by incorporating historic preservation, climate resilience, and community empowerment principles. With historic preservation, the Update supports the climate adaptation and resilience of not just historic buildings, but also landscapes, assets, and other intangible elements that contribute to the City's cultural identity. With climate resilience, the Update supports the practice of nature-based solutions that enhance ecological function, such as along the shoreline, and increasing open space on public and private land. These policies also contribute to low-carbon practices and the City's efforts to become a net-zero emissions city by 2040, per the Climate Action Plan. With community empowerment principles, the Update encourages engaging community members in planning processes, especially Environmental Justice Communities, through existing community-based efforts, partnerships with the City, and other coalitions and working bodies tackling safety and resilience issues.

TRANSPORTATION ELEMENT

OBJECTIVE 11
ESTABLISH PUBLIC TRANSIT AS THE PRIMARY MODE OF TRANSPORTATION IN SAN FRANCISCO AND AS A MEANS THROUGH WHICH TO GUIDE FUTURE DEVELOPMENT AND IMPROVE REGIONAL MOBILITY AND AIR QUALITY.

POLICY 11.2
Continue to favor investment in transit infrastructure and services over investment in highway development and other facilities that accommodate the automobile.

The Update supports these Objectives and Policies in the Transportation Element by supporting the transit network to be utilized in the event of a disaster to facilitate response and recovery. The policy language defines the transit network to include bus, rail, freight rail, transit, ferry, and air, to be used as potential evacuation routes for future emergencies and evacuations.

URBAN DESIGN ELEMENT

OBJECTIVE 2
CONSERVATION OF RESOURCES WHICH PROVIDE A SENSE OF NATURE, CONTINUITY WITH THE PAST, AND FREEDOM FROM OVERCROWDING.

POLICY 2.5
Use care in remodeling of older buildings, in order to enhance rather than weaken the original character of such buildings.

OBJECTIVE 3
MODERATION OF MAJOR NEW DEVELOPMENT TO COMPLEMENT THE CITY PATTERN, THE RESOURCES TO BE CONSERVED, AND THE NEIGHBORHOOD ENVIRONMENT.

POLICY 3.4
Promote building forms that will respect and improve the integrity of open spaces and other public areas.

OBJECTIVE 4
IMPROVEMENT OF THE NEIGHBORHOOD ENVIRONMENT TO INCREASE PERSONAL SAFETY, COMFORT, PRIDE AND OPPORTUNITY.

POLICY 4.12
Install, promote and maintain landscaping in public and private areas.

The Update supports these Objectives and Policies in the Urban Design Element by encouraging historic preservation efforts as part of mitigation, recovery, and reconstruction principles. Depending on life safety and functional recovery standards in the event of a disaster, the Update contains policy language around adaptive reuse the avoid greenhouse gas emissions associated with new construction. The Update also includes policy language that details local native plants and wildlife on public and private property, in order to maintain and enhance ecological function.

5. Planning Code Section 101 Findings. The Ordinance is consistent with the eight Priority Policies set forth in Section 101.1(b) of the Planning Code that:

    1. That existing neighborhood serving retail uses be preserved and enhanced and future opportunities for resident employment in or ownership of such businesses enhanced.

        The proposed update would not negative impact neighborhood serving retail uses or future opportunities for employment. Its hazard mitigation policies towards the City's economy would reduce the likelihood, scale, and severity of impacts from all disasters. Its recovery and reconstruction policies towards the City's economy would rebuild from the long-lasting impacts of disaster with more equity and resilience.

    2. That existing housing and neighborhood character be conserved and protected in order to preserve the cultural and economic diversity of our neighborhoods.

        The proposed update would not have a negative impact on housing and neighborhood character. Its hazard mitigation policies towards the City's existing buildings, including housing and historic and cultural resources, would reduce the likelihood, scale, and severity of impacts from all disasters. These policies include guidance for risk reduction, historic preservation, and retrofitting of existing buildings.

    3. That the City's supply of affordable housing be preserved and enhanced.

        The proposed update would not impact affordable housing. Its hazard mitigation policies towards the City's existing buildings, including affordable housing, would reduce the likelihood, scale, and severity of impacts from all disasters. These policies include guidance for risk reduction, historic preservation, and retrofitting of existing buildings. Its recovery and reconstruction policies towards the City's buildings

and infrastructure, including affordable housing, maximize opportunities to restore and rebuild post-disaster, particularly for individuals and families experiencing homelessness.

4. That commuter traffic not impede MUNI transit service or overburden our streets or neighborhood parking.

   The proposed update would not impede MUNI transit services, overburden streets, or neighborhood parking. Its response policies towards the City's transit network—bus, rail, freight rail, transit, ferry, and air—would encourage its use during and after disaster. These policies utilize the transit network as low-carbon transportation modes, an evacuation resource, and as a lifeline resource.

5. That a diverse economic base be maintained by protecting our industrial and service sectors from displacement due to commercial office development, and that future opportunities for resident employment and ownership in these sectors be enhanced.

   The proposed update would not adversely affect the industrial or service sectors. Its recovery and reconstruction policies towards the City's economy would rebuild from the long-lasting impacts of disaster with more equity and resilience. These policies prioritize Environmental Justice Communities and other communities to minimize long-term displacement, retain neighborhood cohesion, and expand future opportunities.

6. That the City achieves the greatest possible preparedness to protect against injury and loss of life in an earthquake.

   The proposed update would support preparedness at all levels and would significantly increase the City's ability to prevent injury and loss of life in an earthquake. The Element serves a critical function to the City by addressing the great risks posed by seismic hazards and large earthquakes due to the San Andreas and Hayward faults. Its resilience policies towards seismic and other hazards would encourage design and construction for functional recovery, beyond life safety expectations, so that the basic intended functions of a building are restored shortly after a disaster occurs.

7. That landmarks and historic buildings be preserved.

   The proposed update would not have an impact on landmarks or historic buildings. Its hazard mitigation policies towards the City's historic and cultural resources protect them from all hazards and increase their ability to withstand future hazards. These policies include developing an inventory of historic and cultural features, adaptive reuse of historic structures, and safeguarding intangible elements of the City's natural and built environments.

8. That our parks and open space and their access to sunlight and vistas be protected from development.

   The proposed update would not have an effect on parks and open spaces. Its resilience policies towards the City's natural environment would maximize community benefits, including access to open space. These policies include nature-based solutions to mimic or restore ecological systems and function.

Analysis of applicable General Plan Objectives and Policies has determined that the proposed action is, on balance, consistent with the General Plan as it is proposed to be amended.

6. Planning Code Section 340 Findings. The Commission finds from the facts presented that the public necessity, convenience, and general welfare require the proposed amendments to the General Plan as set forth in Section 340(d).

7. Environmental Findings. The Commission finds the Environmental Review has been completed prior to the Commission taking action on this Ordinance.

NOW, BE IT RESOLVED, that the Commission hereby adopts the Ordinance for the Update as described in this Resolution; and

NOW, BE IT FURTHER RESOLVED, that the Commission hereby submits the Ordinance for the Update to the Board of Supervisors for its approval pursuant to Planning Code Section 340(d).

I hereby certify that the foregoing Resolution was adopted by the Commission at its meeting on September 29, 2022.

Jonas P. Ionin
Commission Secretary

AYES: Braun, Diamond, Imperial, Koppel, Moore, Ruiz, Tanner

NOES: None

ABSENT: None

ADOPTED: September 29, 2022

[General Plan - Adopting the 2022 Safety & Resilience Element]

Ordinance amending the San Francisco General Plan by repealing the 2012 Community Safety Element and adopting the 2022 Safety & Resilience Element; affirming the Planning Department's determination under the California Environmental Quality Act; and making findings of public necessity, convenience, and general welfare under Planning Code, Section 340, and findings of consistency with the General Plan and the eight priority policies of Planning Code, Section 101.1.

NOTE: **Unchanged Code text and uncodified text** are in plain Arial font.
Additions to Codes are in *single-underline italics Times New Roman font*.
Deletions to Codes are in ~~*strikethrough italics Times New Roman font*~~.
Board amendment additions are in double-underlined Arial font.
Board amendment deletions are in ~~strikethrough Arial font~~.
Asterisks (* * * *) indicate the omission of unchanged Code subsections or parts of tables.

Be it ordained by the People of the City and County of San Francisco:

Section 1. Findings.

(a) Section 4.105 of the Charter provides that the Planning Commission shall periodically recommend to the Board of Supervisors, for approval or rejection, proposed amendments to the General Plan.

(b) On _____, 2022, the Board of Supervisors received from the Planning Department the proposed General Plan amendment which repeals the 2012 Community Safety Element and adopts the 2022 Safety & Resilience Element ("the Safety & Resilience Element Update Amendment"). This amendment is on file with the Clerk of the Board of Supervisors in File No. _____ and is incorporated herein by reference.

(c) Section 4.105 of the Charter further provides that if the Board of Supervisors fails to act within 90 days of receipt of the proposed Safety & Resilience Element Update Amendment, then the proposed amendment shall be deemed approved.

(d) Planning Code Section 340 provides that an amendment to the General Plan may be initiated by a resolution of intention by the Planning Commission, which refers to, and incorporates by reference, the proposed General Plan amendment. Section 340 further provides that the Planning Commission shall adopt the proposed General Plan amendment after a public hearing if it finds from the facts presented that the public necessity, convenience, and general welfare require the proposed amendment or any part thereof. If adopted by the Commission in whole or in part, the proposed amendment shall be presented to the Board of Supervisors, which may approve or reject the amendment by a majority vote.

(e) On _____, 2022, the Planning Commission, by Motion No. _____, initiated the Safety & Resilience Element Update, as an amendment to the General Plan, at a duly noticed public hearing. Said motion is on file with the Clerk of the Board of Supervisors in File No. _____ and incorporated herein by reference.

(f) On July 1, 2022, the Planning Department published the Addendum to Final Negative Declaration and complied with the provisions of the California Environmental Quality Act ("CEQA") (California Public Resources Code Sections 21000 et seq.), the CEQA Guidelines (14 Cal. Code Regs. Sections 15000 et seq.), and Chapter 31 of the San Francisco Administrative Code. A copy of the Addendum to Final Negative Declaration is on file with the Clerk of the Board of Supervisors in File No. _____. The Board affirms this determination.

(g) The Project evaluated in the Addendum to Final Negative Declaration includes amendments to the General Plan related to the Safety & Resilience Element Update Amendment proposed by the Planning Department. The Safety & Resilience Element Update

Amendment is an action proposed by the Planning Department that is within the scope of the Project evaluated in the Addendum to Final Negative Declaration.

(h) The letter from the Planning Department transmitting the proposed General Plan amendments to the Board of Supervisors, the Final Addendum to Negative Declaration, and the Planning Commission's Resolution approving the proposed General Plan Amendments are on file with the Clerk of the Board of Supervisors in File No. _____. These and any and all other documents referenced in this ordinance have been made available to the Board of Supervisors and may be found in either the files of the Planning Department, as the custodian of records, at 49 South Van Ness Avenue in San Francisco, or in File No. _____ with the Clerk of the Board of Supervisors at 1 Dr. Carlton B. Goodlett Place in San Francisco, and are incorporated herein by reference.

(i) The Board of Supervisors has reviewed and considered the Final Addendum to Negative Declaration and the environmental documents on file referred to herein. The Board of Supervisors has reviewed and considered the CEQA Findings, and hereby adopts them as its own and incorporates them by reference as though such findings were fully set forth in this ordinance.

(j) The Board of Supervisors finds, pursuant to Planning Code Section 340, that the Safety & Resilience Element Update Amendment set forth in the documents on file with the Clerk of the Board of Supervisors in File No. _____ will serve the public necessity, convenience, and general welfare for the reasons set forth in Planning Commission Resolution No. _____ and incorporates those reasons herein by reference.

(k) The Board of Supervisors finds that the proposed General Plan amendments are, on balance, in conformity with the General Plan, as amended by this ordinance, and the priority policies of Planning Code Section 101.1 for the reasons set forth in Planning Commission Resolution No. _____, and the Board hereby adopts those findings as its own.

Section 2. The San Francisco General Plan is hereby amended by repealing the 2012 Community Safety Element and adopting the 2022 Safety & Resilience Element, as shown in Exhibit A. A copy of the repealed 2012 Community Safety Element is on file with the Clerk of the Board of Supervisors in File No. _____., and is also on file with the Planning Department.

Section 3. Effective Date. This ordinance shall become effective 30 days after enactment. Enactment occurs when the Mayor signs the ordinance, the Mayor returns the ordinance unsigned or does not sign the ordinance within ten days of receiving it, or the Board of Supervisors overrides the Mayor's veto of the ordinance.

APPROVED AS TO FORM:
DAVID CHIU, City Attorney

By: /s/ Robb Kapla_____
ROBB KAPLA
Deputy City Attorney

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EXECUTIVE SUMMARY
GENERAL PLAN AMENDMENT

HEARING DATE: SEPTEMBER 29, 2022

Continued From: September 15, 2022

Project Name:	Safety & Resilience Element Update
Record No.:	2022-004217GPA
Initiated by:	Planning Department Staff
Staff Contact:	Danielle Ngo, Senior Planner danielle.ngo@sfgov.org, (628) 652-7591
Reviewed by:	AnMarie Rodgers, Director of Citywide Division anmarie.rodgers@sfgov.org, (628) 652-7471
Environmental Review:	Addendum to FMND – On May 23, 2012, the Planning Commission adopted Final Mitigated Negative Declaration

Recommendation: Approval

Project Description

The Planning Department is undergoing a multi-year effort to modernize the City's General Plan. The last major element update in 2014 revised the Recreation and Open Space Element. There are four concurrent update efforts, and this 2022 Safety & Resilience Element Update (hereinafter "the Update") is the first element entering the adoption process. At the start of 2023, the Planning and Historic Preservation Commissions will hear the Housing Element and the Environmental Justice Framework & General Plan Introduction. In 2025, the Transportation Element is scheduled to follow.

General Plan policy guides public and private action, with at least a 20-year perspective. In the last 10 years, there have been numerous major disasters severely impacting the City and pointing to the urgency of action. In 2020 alone, the City experienced many compounding disasters. In March, the COVID-19 pandemic catapulted the City into shelter in place, social distancing, mask wearing, and prolonged emergency response.[1] Of California's top 10 largest wildfires (by area burned), 9 out of 10 occurred in the past decade.[2] The 2020 wildfire season was the largest wildfire season recorded in California's modern history, burning more than 4% of the state's land. While none of the wildfires occurred in the City, wildfire smoke and the consequential poor and hazardous air

[1] COVID-19 Phases I and II After Action Report.pdf | Department of Emergency Management (sfdem.org)
[2] Top 20 Largest California Wildfires, January 2022, CalFIRE

quality extended far beyond burn areas. In September, the convergence of wildfire smoke and fog cast a red-orange tint that unnerved the Bay Area and made a visual flashpoint to the climate crisis. Across August and September, the Bay Area Air Quality Management District (BAAQMD) issued Spare the Air restrictions to a record-breaking streak of 28 days.[3] Spare the Air alerts are issued when pollution reaches or is forecasted to reach unhealthy levels. Previously, the Spare the Air streak record was 14 days, issued during the Camp Fire of 2018.

The Update seeks to incorporate climate resilience, environmental justice, and racial & social equity into the comprehensive policies of the San Francisco General Plan. In addition to pandemic, wildfire smoke, and poor air quality, the Safety & Resilience Element ("the Safety Element") provides comprehensive policies for minimizing the City's contribution to the climate crisis and ensuring local resilience to all hazards. The Safety Element was last updated in 2012, as the "Community Safety Element," to strengthen policies on seismic resilience and the post-disaster recovery and reconstruction phase. Guided by state law (SB 379), upon the City's update to the local hazard mitigation plan (LHMP), the City must subsequently update the General Plan and Safety Element for climate resilience. The adoption of the 2020 Hazards and Climate Resilience Plan (serving as the City's LHMP) triggered the start of this Update, in addition to other state and local impetuses described later in this staff report.

Background

The Safety Element is a mandated component of the General Plan, listed in Government Code §65302.

> The goal of the safety element is to reduce the potential short and long-term risk of death, injuries, property damage, and economic and social dislocation resulting from fires, floods, droughts, earthquakes, landslides, climate change and other hazards. (2020, California Office of Planning and Research)

There are many other threats to the people and assets of San Francisco outside the scope of the Safety Element. Through the Planning Department's modernization of the General Plan, staff will be working diligently to address these threats in other elements, as best as possible. For example, challenges in pedestrian and traffic safety can lead to death and injury. These challenges in mobility and circulation may be better addressed in the Transportation Element. As another example, challenges in crime and violence can also lead to death and injury. These challenges in public safety and community health may be better addressed in the Environmental Justice Framework and Community Facilities Element. Overall, the Safety Element holds purview over hazards generally considered to be in the natural environment.

As described in the July 21, 2022 initiation hearing staff report,[4] the Update is responding to state and local impetuses to update policy. Per SB 379, with adoption of the 2020 Hazards and Climate Resilience Plan (HCR), the Update is incorporating climate resilience. Consistent with the 2021 Climate Action Plan (CAP), the Update is incorporating new knowledge pertaining to climate mitigation. With the HCR encapsulating adaptation principles and the CAP encapsulating mitigation principles, The Update also brings attention to the 2017 Emergency Response Plan and the Recovery Plan (forthcoming). The Safety Element brings forth resilience principles so that the City is equipped with comprehensive, advance planning for all phases of disaster: mitigation, preparedness, response, and recovery and reconstruction.

[3] Record-Setting Spare The Air Streak Continues for 28th Day - CBS San Francisco (cbsnews.com)
[4] July 21, 2022 Planning Commission Initiation Hearing Staff Report for Safety & Resilience Element Update

The Update is incorporating interim updates for environmental justice and racial & social equity. The November 4, 2021 informational hearing staff report[5] describes how environmental justice and racial & social equity will be fully integrated as part of the phased updates to modernize the General Plan. Per SB 1000, environmental justice must be addressed in the General Plan, and the Update begins that conversation by tying together environmental justice issues with safety and resilience to all hazards. As the Planning Commission directed in Resolution No. 20738,[6] the General Plan must be updated to incorporate policies supporting the American Indian community, the Black community, and other communities of color. Again, the Update begins this work by addressing racial disparities in people's experiences of hazards—before, during, and after disaster.

There is a strong focus on racial & social equity in the Update. When named, the Update distinguishes Environmental Justice Communities as geographic areas in the City to prioritize attention and resources. Environmental Justice Communities, per the proposed Environmental Justice Communities Map[7], identify areas in the City facing disproportionate burden of pollution exposure and social vulnerabilities. The Environmental Justice Communities Map is published as a draft at the time of writing this staff report. The final Environmental Justice Communities Map will be published and included as part of the Environmental Justice Framework, expected to be adopted during Q1 of 2023. These areas are often low-income communities and communities of color; experience disproportionate environmental injustices; and face hazards first and worst compared to the rest of the City, and take longer to recover. The Environmental Justice Communities Map includes race and ethnicity data—such as American Indian communities, the Black communities, and other communities of color—as well as pollution data and other social indicators. By naming Environmental Justice Communities in citywide policy, the Update indicates where safety and resilience effort should begin action. There are additional opportunities where the Update names other vulnerable people and communities. These communities may be geographically dispersed, such as youth and seniors, people with disabilities, people with limited English proficiency, and rent burdened households. In order to address systemic disparities in the City's experience of hazards, it is critical that the Update designate geographies and communities in the policy language to prioritize attention.

The 2022 Safety & Resilience Element Update is provided in full as Exhibit A. This document represents 2.5 years of work to identify community needs and values pertaining to safety and resilience from hazards and codifying the priorities into General Plan policy. It represents a close collaboration between numerous city agencies, primarily the Office of Resilience and Capital Planning and the San Francisco Department of the Environment, and responds to comments received from community members, city agencies and bodies, and other subject-matter experts. The outreach and engagement process and outcomes are summarized in full as Exhibit C.

Project Updates Since July 21, 2022 Planning Commission Initiation Hearing

Since the July 21, 2022 initiation hearing, the Update concluded outreach and engagement activities (Exhibit C), held public hearings with the Environment Commission and Historic Preservation Commission, and conducted outreach to all Board of Supervisors offices to brief them on this proposed General Plan Amendment.

[5] November 4, 2021 Planning Commission Informational Hearing Staff Report for General Plan Overview and Amendments
[6] Planning Commission Resolution No. 20738 Centering Planning on Racial and Social Equity
[7] Environmental Justice Framework and General Plan Policies | SF Planning

Public Hearings

Staff visited the Environment Commission and Historic Preservation Commission to discuss the Update and the intersectional issues. As part of the staff reports, the Commissioners received copies of the July 21, 2022 Initiation Draft of the Update. At both hearings, there were no comments received from members of the public.

Environment Commission Informational Hearing (July 26, 2022)
The presentation highlighted the Update's essential coordination with SF Environment staff and alignment with the CAP. The CAP is incorporated by reference into Safety Element policy, and it is viewed as the City's foundational climate mitigation document. The presentation noted where climate mitigation principles were integrated in the Update. The third goal in the proposed Safety Element is focused on mitigation. The mitigation goal is the largest of six goals, containing 37 out of 121 policies (30%). The Update's focus on mitigation emphasizes proactive action needed to minimize greenhouse gas emissions and reinforces mitigation principles throughout other phases of disaster planning, such as during recovery and reconstruction. The presentation also reinforced the coordinated outreach among the CAP, HCR, and the Update project teams, to minimize participation fatigue in the community and to maximize the impact of feedback received on these intersecting issues.

The Environment Commissioners expressed support of the Update and appreciation for the depth and thoroughness of the work. The commissioners supported reference to the Environmental Justice Communities Map and its accuracy for depicting environmental burden in the City. The commissioners also expressed interest in the City's monitoring of seismic hazards and the procedural details of a General Plan Amendment.

- Commissioner Ahn expressed interest in discussing the Environmental Justice Communities Map in detail offline. He was pleased that the map aligns with his understanding of environmental burden in the City, including neighborhoods such as Chinatown, Western Addition, and the Mission. He encouraged the project team to communicate the differences between CalEnviroScreen 4.0 and the Environmental Justice Communities Map to the state agencies, CalEPA and OEHHA.

- Commissioner Bermejo was curious about the reception from the Planning Commission and Board of Supervisors to a General Plan Amendment. She was affirming of the focus on environmental justice and racial & social equity being tied more closely to climate and environment concerns.

- Commissioner Hunter was curious as to why some policies are being proposed for removal. He was particularly interested in the policy regarding seismic hazards data and research (Prior Policy 1.17) and encouraged the project team to document the rationale for removing these policies. This can be found in a later subheading, *Changes Between Initiation Draft and Adoption Draft*.

Historic Preservation Commission Informational Hearing (August 17, 2022)
The presentation described how Planning preservation staff integrated the latest climate adaptation strategies specific with contemporary historic and cultural resource planning, inclusive of tangible and intangible assets. When relevant, there is emphasis on historic and cultural assets associated with Environmental Justice Communities.

The Historic Preservation Commissioners expressed support of the Update and interest in the embodied carbon of existing buildings, the multi-hazards approach, and the seismic resilience of the City.

- Commissioner Wright commented on the importance of preserving the embodied carbon in existing buildings, for both historic and non-historic buildings, as a strategy to address the climate crisis. He acknowledged that embodied carbon may be outside the purview of the Historic Preservation Commission, and encouraged improvements and modifications to existing buildings to circumvent greenhouse gas emissions associated with new construction.

- Commissioner Nagaswaran was pleased to hear lessons learned from the COVID-19 pandemic are being incorporated into the Update, per documentation from the Phases I and II After Action Report. She celebrated the City's early action and leadership to respond to COVID-19, such as the Shelter-in-Place Order. The Update also felt relevant to the commissioner because of her awareness and concern of sea level rise and flood hazards along the Embarcadero.

- Commissioner So commented on the seismic resilience of buildings and infrastructure. She cited data from a prior research study from the Office of Resilience and Capital Planning, noting that more than 60% of buildings in the City are seismically unsafe. She desires affordable opportunities for property owners to seismically upgrade their buildings, with historic preservation considerations as relevant, and policies to enable safety for everyone in San Francisco.

Outreach to the Board of Supervisors

The project team coordinated with legislative staff to offer briefings in person and online to the Board of Supervisors. At the time of this staff report writing, the project team continue to brief the Board of Supervisors to advance discussion of the Update.

Changes Between Initiation Draft and Adoption Draft

Since the July 21, 2022 initiation hearing at Planning Commission, minor revisions have been made to the Adoption Draft (Exhibit A). The revisions incorporate feedback gathered in the past two months.

Structure

- The Glossary was moved, from after the Introduction to after the Goals, Objectives, and Policies. This order aligns with the Chicago Manual of Style 17th Edition.

Copyediting

- The Goals, Objectives, and Policies language received copyediting to correct typos, remove redundant clauses, and reorganize ideas. The copyediting was non-substantive to improve writing clarity, brevity, and consistency.

- The policy language was revised to align with the updated structure of General Plan updates and modernization efforts. The policy language for Goals, Objectives, and Policies are intended to be succinct and approachable to all audiences, and the supporting text underneath each policy is intended to contain

sufficient technical detail to expand upon the core policy idea and guide interpretation and implementation.

- The Goals include a short phrase, serving as the goal's title, and one descriptive sentence. All other text is supporting information to the aspirational, long-range goal statement.

- The Objectives include a short phrase and one descriptive sentence. There is no further supporting information to the directive, end-state objective statement.

- The Policies include one sentence and additional supporting text. The policy is a specific statement that works toward the objective and directs decision points. The supporting text describes the core policy intention and offers guidance on interpretation and implementation. The supporting text often begins with a context statement to explain the problem, suggests a way forward, and names existing efforts tackling the problem.

Content Updates

- Combined Policy 3.1.9 and Policy 6.1.6 to streamline content into one policy on adaptive reuse of existing buildings.

    - Prior, Policy 3.1.9 read as, "Encourage the continued use, including adaptive reuse, of San Francisco's existing building stock as a means to reduce greenhouse gas emissions that may otherwise occur from new construction." This policy was organized under Goal 3: Hazard Mitigation, Objective 1: Existing Buildings, and the Historic Preservation subheading. Policy 6.1.6 read as, "Prioritize the repair and rehabilitation of existing buildings during recovery and reconstruction, to mitigate the greenhouse gas emissions of new development." This policy was organized under Goal 6: Recovery and Reconstruction, Objective 1: Buildings and Infrastructure, and the Reinforce Hazard Mitigation subheading.

    - Now, this new, combined policy sits as Policy 6.1.6 and reads as, "Encourage continued and adaptive reuse of San Francisco's existing building stock, including those with architectural and historical merit, to reduce greenhouse gas emissions that may otherwise occur from new construction." This policy is organized under Goal 6: Recovery and Reconstruction, Objective 1: Buildings and Infrastructure, and the Reinforce Hazard Mitigation subheading. This encourages the broadest application of adaptive reuse principles to all existing buildings—not just historic buildings—as a way of circumventing greenhouse gas emissions associated with new construction.

- Revised Policy 6.1.1 to clarify the core policy intention for individuals and families experiencing homelessness.

    - Prior, Policy 6.1.1 read as, "Support the "right to housing" to mitigate the spread of homelessness pre-disaster and that increase the likelihood that the City's stock of lowest cost housing will survive post-disaster."

    - Now, in the revision, the policy reads as, "Support actions to mitigate the spread of homelessness pre-disaster and increase the likelihood that the City's stock of lowest-cost housing will survive post-disaster." The phrase "right to housing" is undefined in the City and lacks specificity as a concept,

and so it was removed for clarity. This is a new policy that did not already exist in the 2012 Community Safety Element, that did not acknowledge that individuals and families experiencing homelessness prior to a disaster are in need of support, just as people newly-made housing insecure in the wake of a disaster. This remains consistent with the General Plan's Housing Element and the City's efforts to increase support to individuals and families experiencing homelessness.

- Remove outdated and irrelevant policies from the 2012 Community Safety Element.
    - Prior, Policy 1.3: Assure that new construction meets current structural and life safety standards.
        - Now, this policy is not suited for the long-range, comprehensive purview of the General Plan. It is best accomplished by the Building Code. The supporting text lacked policy guidance beyond the existing Building Code.
    - Prior, Policy 1.4: Use best practices to review and amend at regular intervals all relevant public codes to incorporate the most current knowledge of structural engineering regarding existing buildings.
        - Now, this policy is not suited for the long-range, comprehensive purview of the General Plan. It is best accomplished by the Building Code. The supporting text lacked policy guidance beyond the existing Building Code and its mandate to be updated triennially, with opportunity for local provisions.
    - Prior, Policy 1.12: Ensure that new development on Treasure Island, Yerba Buena Island and Hunters Point Shipyard are resistant to natural disasters.
        - Now, this policy has been achieved. The supporting text focused on liquefaction risk, and all new development in these neighborhoods have completed their geotechnical work to minimize liquefication risk.
    - Prior, Policy 1.17: Create a database of vulnerable buildings, seismic evaluations, and seismic retrofits to track progress, record inventories, and evaluate and report on retrofit data.
        - Now, this policy is superseded by a new, more comprehensive policy, Policy 3.1.6, that reads as, "Maintain a data clearinghouse of existing housing and building stock that inventories their features' architectural and cultural character, vulnerability and resilience to all hazards, and other resilience features." Policy 3.1.6 addresses multi-hazards (not just seismic hazards), addresses all existing housing and building stock (not just vulnerable buildings), and the supporting text emphasizes citywide baseline data.
    - Prior, Policy 1.23: Enforce state and local codes that regulate the use, storage and transportation of hazardous materials in order to prevent, contain and effectively respond to accidental releases.
        - Now, this policy is redundant as laws, by definition, must be followed. There is no need to make a policy statement about compliance with laws. The supporting text lacked policy guidance beyond existing state and local codes.

- Prior, Policy 2.19: Seek funding for preparedness projects.
    - Now, this policy is superseded by a new, more comprehensive policy, Policy 2.2.3, that reads as, "Seek sufficient funding to address climate hazards through all phases of mitigation, preparedness, response, recovery, and reconstruction." Policy 2.2.3 addresses all phases of disaster planning (not just emergency preparedness) and encourages the 10-Year Capital Plan to prioritize Environmental Justice Communities, specific threats poised in vulnerable areas, areas and functions that serve the most people, projects with matching state and federal funding, and investments that support achieving a state of good repair for existing infrastructure and assets.
- Prior, Policy 4.14: Utilize emergency exemptions for rebuild projects with limited or no environmental impacts.
    - Now, this policy is not necessary. At the state level, the California Environmental Quality Act (CEQA) provides statutory exemptions and other exemptions for emergencies in CEQA Guidelines Section 15269.

Changes to Draft Ordinance

There have been minor updates made to the Draft Ordinance (Exhibit D). The updates are formatting and technical changes to correct typos and to conform to the Clerk of the Board's formatting style. The updates are not expansive to the content of what was initiated at the July 21, 2022 Planning Commission initiation hearing.

There are a few non-substantive edits:

- Under Section 1, removal of subsections (h) and (i), reference to the Commission's specific findings, as the draft ordinance makes the same findings for the Board of Supervisors to approve.
- Under Section 2, includes a reference to document the record keeping of the Element over time, "A copy of the repealed 2012 Community Safety Element is on file with the Clerk of the Board of Supervisors in File No. _____., and is also on file with the Planning Department."
- Removal of Section 4, which references standardized language for when a portion of an element is being amended. However, this Update is removing and replacing the entire element.

Recommendation

The Department recommends that the Commission ***approve*** the proposed Draft Ordinance and adopt the attached Draft Resolution to that effect.

Basis for Recommendation

The proposed 2022 Safety & Resilience Element updates the 83 policies of the 2012 Community Safety Element and proposes 38 new policies to strengthen the City's stance for climate resilience, environmental justice, and racial and social equity. In total, the 121 policies incorporate new knowledge about hazards before, during, and after a hazard event and better addresses the City's objectives for safety and resilience.

> The Safety & Resilience Element Update provides a comprehensive set of policies for minimizing San Francisco's contribution to the climate crisis and ensuring local resilience to multiple hazards. It will help protect the people and assets of San Francisco, especially areas and communities that face higher vulnerability to disasters. As the climate crisis worsens and disasters strike, disproportionate burdens are suffered by increasing numbers of vulnerable people.

The Planning Department recommends the Commission retain the existing structure of the 2012 Community Safety Element, add two new goals, and make changes throughout all existing policies for updates and consistency. In short, here are the six goals of the proposed 2022 Safety & Resilience Element and their highlighted features:

Goal 1: All People Live in Safe & Healthy Communities
This is a new goal with two objectives: 1) Just Empowerment and 2) Continuous Assessment and Evolution. This goal places environmental justice and racial & social equity front and center. It details the importance of determining and prioritizing community needs, and it encourages early and active practice of assessments, outreach and engagement, and collaborative decision-making processes.

Exemplary Policy

> **Policy 1.2.1: In all stages of safety and resilience, prioritize the needs of people most impacted by the adverse impacts of hazards.**
>
> People are the most precious part of cities. As hazards occur, the adverse impacts are felt unevenly throughout the City. There are people who have higher vulnerability to hazard consequences and take longer to recover. Due to systemic inequities, there are people who are more likely to experience a hazard first and worst, and take longer to recover, than the City overall.
>
> In order to support Environmental Justice Communities and other vulnerable people, the City must identify and prioritize the needs of people most impacted by hazards in all safety and resilience efforts. The City must increase baseline understanding of disproportionate inequities (causes), impacts (effects), and opportunities to increase safety and resilience (solutions). The City must continuously update this understanding by identifying critical needs and infrastructure, conducting racial and social equity assessments, conducting outreach and engagement activities, and incorporating racial and social equity indicators into the evaluation and monitoring of programs.

Goal 2: Multi-Benefit Climate and Hazard Resilience
This is a new goal with three objectives: 1) Climate Resilience 2) Multi-Hazard Resilience and Co-Benefits and 3) Nature-Based Solutions. This goal places climate resilience as a standalone goal, distinct from climate mitigation and climate adaptation. The specific emphasis on "resilience" is key to enhancing the City's capacity to survive,

adapt, and grow from all hazards. It extends beyond preparation and response for discrete disasters, and it ties our efforts to the climate crisis, urbanization, and other aspects of daily life. It encourages an advanced, comprehensive approach to disaster planning that confronts the reality of hazards occurring more frequently, intensely, and simultaneously. The policies detail an all-hazards approach to research, planning, and action.

Exemplary Policy

> **Policy 2.1.1: Coordinate the regular update of implementing documents of this General Plan including: the Hazards and Climate Resilience Plan (HCR) and the Climate Action Plan (CAP), both incorporated by reference here, as well as the Emergency Response Plan (ERP) and the Recovery Plan (pending)**.
>
> The Hazards and Climate Resilience Plan (HCR), incorporated by reference here, serves as the City's local hazard mitigation plan to the Federal Emergency Management Agency (FEMA). It addresses all hazards the City is at risk to and strategies to mitigate from harm. It serves as a tracking and monitoring tool, with annual reporting to FEMA. The Climate Action Plan (CAP), incorporated by reference here, guides how the City can reduce greenhouse gas emissions to net-zero by 2040, building on the City's climate and sustainability framework, "0-80-100-Roots." This framework aims for zero waste, 80% of trips taken by low-carbon transportation modes, 100% renewable energy, and carbon sequestration. The Emergency Response Plan (ERP) provides an immediate action plan to coordinate response to disaster. It includes an overview of the emergency management system, detailed and restricted information for the Emergency Command Center, and a set of functional and hazard-specific details.
>
> The Recovery Plan is planned to be produced by the City. The Recovery Plan can serve as the advance planning document to guide long-term recovery and reconstruction post-disaster for all hazards that the City faces.
>
> These documents should be coordinated and be regularly updated to ensure the City is best positioned to equitably protect people from all hazards and the climate crisis.

<u>Goal 3: Hazard Mitigation</u>

This goal holds the most content of both the 2012 and 2022 Safety Elements. In the 2022 Safety & Resilience Element Update, 37 out of 131 policies (30%) are housed within this goal. This underscores the City's proactive approach to reducing greenhouse gas emissions. It encourages programs in the community, with property owners, and in the City's capital planning to reduce emissions within the built environment and to reduce the risk to hazards.

Exemplary Policy

> **Policy 3.2.2: Research and maintain information about all hazards, including adverse impacts on vulnerable communities.**
>
> The field of disaster research is growing in both scope and recognition. In recent decades, the September 11 attacks in 2001, the Indian Ocean earthquake and tsunami in 2004, Hurricane Katrina in 2005, the Haiti earthquake in 2010, and the COVID-19 pandemic starting in 2019 are major examples. While research into disasters focused primarily on natural disasters through environmental management, newer research

strains extend into terrorism and cyber failures, biological and chemical emergencies, and other community-wide crises. They encompass research components such as organizational response to disasters and the social ramifications of hazards, disasters, and large-scale terrorist attacks.

In addition to the science and management of all hazards, the field is increasingly aware of the disproportionate impact of disaster among different groups of people and the need to prioritize attention to the people most vulnerable to risks and consequences. As hazards occur more frequently, intensely, and simultaneously, it is often Environmental Justice Communities and other vulnerable people who experience the impacts of disaster first and more severely, and who take longer to recover compared to the rest of the City. For some people, they have the resources and adaptive capacity to bear a disaster and recover to pre-disaster levels with relative ease. For vulnerable communities, there are higher risks, limited resources, and constrained adaptive capacity, meaning that research on all hazards should account for these dynamics of adverse impact and work to address these community needs.

The Department of Emergency Management should keep abreast of evolutions in this field of research, particularly as new threats emerge and as new methods of mitigating those are developed. The City should also continue grow its partnership with community response teams, such as the Neighborhood Emergency Response Team (NERT) and the Neighborhood Empowerment Network's Empowered Communities Program (ECP). NERT is a community-based training program dedicated to a neighbor-helping-neighbor approach to disaster response. The NERT program trains volunteers to work as members of an emergency response team, preparing them to respond to a personal emergency or assistance to Fire Department response. ECP is a community development approach to neighborhood-level disaster resilience, empowering neighborhoods to develop and implement strategies that strengthen communities during hazard events.

Goal 4: Emergency Preparedness

This goal was lightly updated from the 2012 Community Safety Element. Similar to Goal 3: Hazard Mitigation, it encourages programs with residents and other community members to be aware of hazards, to have disaster supplies on hand, and to be prepared to experience the threats of hazard risks. In these programs, policy language refers to Environmental Justice Communities to prioritize emergency preparedness attention.

Exemplary Policy

Policy 4.4.3: Form effective and clear partnerships with non-government bodies, such as community organizations, institutions, private companies, and development partners to reach all people, especially Environmental Justice Communities and other vulnerable people.

When a disaster strikes, the "all hands on deck" response requires advance collaboration and partnerships across agencies, sectors, and jurisdictions. The overall response provided by government agencies, the private sector, and the public sector must be evidence-based, timely and proportional, multi-objective, and well measured and quantified. The long-term capacity-building partnerships with major institutions, like hospitals and universities, private development partners, and community-based organizations, will support response, recovery, and reconstruction activities meeting the highest resilience strategies.

The response, recovery, and reconstruction strategies must be based on strong, local evidence in order to reach all people at the neighborhood-by-neighborhood or block-by-block level. The strategies must be acutely aware that the climate crisis is an emergency that is already impacting communities and the

> environment, and so there is urgent and transformative actions needed. The strategies must be developed around racial and social equity and long-term sustainability, and they must be tracked as close to real-time as possible, so that adjustments and recalibration can be made in an informed way.

Goal 5: Response

This goal was lightly updated from the 2012 Community Safety Element. This goal pertains to the immediate aftermath of a disaster, with two objectives on 1) lifelines and 2) community partnerships. The lifelines policies focus on preventing further loss of life, establishing community safety, and providing critical information and services. The community partnerships policies focus on collaboration with neighborhood-based organizations and trusted partners to expand the reach and effectiveness of lifelines and other response efforts.

Exemplary Policy

> **Policy 5.3.1: Establish a plan to facilitate the continuity of permitting services in the case of a disaster for building repairs and other essential permitting services.**
>
> Rebuilding the City post-disaster can be facilitated by increasing the points of access where permitting can occur. With certain hazards, it can be challenging and infeasible to maintain permitting continuity through the San Francisco Permit Center's in-person services. The City can offer a fully digital permitting platform and satellite, in-person permitting centers to offer one-stop City permitting services such as Building, Public Works, and Health permits. Through these accessible modes, permitting can increase building owners' access to services for their recovery planning and can reduce the possibility of overload at the central permitting facilities at the Planning Department and the Department of Building Inspection.
>
> The City should develop a fully digital permitting process to be nimble in its continuity of permitting services and remote staffing capabilities in the event of a disaster. The digital platform can support the permitting roles and responsibilities across City agencies, such as the Planning Department, Department of Building Inspection, Public Works, and the Department of Public Health. These satellite centers can be operated on a temporary basis, perhaps until a targeted number of buildings are brought back online. Depending on the hazard and level of damage, the network of satellite centers may depend on building and outdoor safety, ability to congregate, or staffing availability.

Goal 6: Recovery and Reconstruction

This goal is the most recent content in the 2012 Community Safety Element and was lightly updated. Emphasis was placed on individuals and families experiencing homelessness. Previously, policies addressed people who experienced housing insecurity and homelessness due to disasters; now, the policies include unique challenges to people who are already experiencing homelessness prior to disaster. During disasters, people who are homeless and housing insecure may experience compounded challenges to survive and recover, demanding tailored strategies.

Exemplary Policy

> **Policy 6.1.1: Support actions to mitigate the spread of homelessness pre-disaster and increase the likelihood that the City's stock of lowest-cost housing will survive post-disaster.**
>
> Individuals and families experiencing homelessness have high exposure to risks and are especially

vulnerable to hazards. They lack adequate shelter and protection from harm. Post-disaster, especially for catastrophes with potential to destroy housing, the City's existing shortage of affordable housing will be exacerbated. A significant portion of the City's affordable housing stock are provided by some of the neighborhoods most vulnerable to serious damage in an earthquake. Much of the City's lower-cost housing is provided through older buildings, which are more likely to sustain damage in the case of an earthquake. Many of these older units are kept affordable through rent control. Through state-mandated vacancy decontrol, the rent of rent-controlled units may be increased when the unit is vacated, and the unit does not have to be restored if the unit is replaced. Without action, sea level rise and flood hazards may increase risk in lower-cost housing in Environmental Justice Communities. These conditions are likely to exacerbate homelessness and displacement post-disaster.

Damaged affordable housing units and single-room occupancy hotels should be repaired as expediently possible, and if necessary, replaced on a one-to-one basis. Cooperation among the private market, nonprofit agencies, and local, state or federal government sources should pursue achieving a similar level of affordability as units are replaced or made resilient to future hazards. Eviction regulations in the post-disaster period should ensure the disaster is not misused to remove tenants with lower rents.

Pursue policy advocacy at the state and federal levels to enable eviction moratoria and rental relief during disasters, such as the eviction moratoria during the COVID-19 pandemic. This relief should be available to vulnerable people, property owners, and businesses who are displaced by disasters and to facilitate their right to return. In the wake of a disaster, it may be difficult for residents, especially renters, to demonstrate proof of residency and liaise with landlords and property owners. The policy advocacy should identify inclusive eligibility criteria, robust funding sources, and have limited barriers to accessing the relief.

Environmental Review

The proposed Ordinance and General Plan Amendment are not defined as a project under CEQA Guidelines Sections 15378 and 15060(c)(2) because the policies do not result in a physical change to the environment (Exhibit B).

Public Comment

The Department conducted over a year of virtual outreach and engagement from January 2021 through April 2022. The approach, process, and findings are summarized in Exhibit C. The project team will receive additional comment at the Planning Commission adoption hearing scheduled for September 29, 2022, and any subsequent adoption hearings that may be held relating to this amendment.

Required Commission Action

The Commission is being asked to adopt the proposed amendments to the General Plan for the 2022 Safety & Resilience Element Update. The project team recommend that the Commission adopt the Draft Resolution (Exhibit E) approving amendments to the General Plan Amendment and request that the Board of Supervisors adopt the amendments.

Attachments:

Exhibit A:	Adoption Draft of 2022 Safety & Resilience Element
Exhibit B:	Addendum to Negative Declaration
Exhibit C:	Outreach & Engagement Summary
Exhibit D:	Draft Ordinance
Exhibit E:	Draft Resolution

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ADDENDUM TO NEGATIVE DECLARATION

Date of Publication of Addendum:	June 30, 2022
Date of Publication of Final ND:	June 13, 2012
Case No.:	**2018-004217ENV**
Project Title:	**Safety & Resilience Element (formerly Community Safety Element)**
Block/Lot:	N/A - citywide
Project Sponsor:	Danielle Ngo, San Francisco Planning Department (628) 652-7591, danielle.ngo@sfgov.org
Lead Agency:	San Francisco Planning Department
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REMARKS

Background

A final negative declaration (planning department case number 2011.1401E) for the 2012 update to the Community Safety Element of the San Francisco General Plan was adopted and issued on June 13, 2012. The Community Safety Element was last updated in October 2012 with enhanced policies for disaster preparedness and longer-term resilience. The 2012 update was primarily focused on seismic issues and contained four goals related to hazard mitigation, emergency preparedness, response, and recovery and reconstruction.

Proposed Revisions to Project

The purpose of the Safety & Resilience Element (formerly the Community Safety Element) update is to facilitate safety from hazards, achieve racial and social equity, and strengthen community resilience. The proposed update provides a comprehensive set of policies for minimizing San Francisco's contribution to the climate crisis and ensuring local resilience to multiple hazards. The policies seek to protect the people and assets in San Francisco from loss of life, injuries, property loss, environmental damage, and social and economic disruption from natural or technological disasters.

The Safety & Resilience Element focuses on all hazards, both natural and human-made. There is a strong foundation addressing seismic hazards, as earthquakes are the greatest risk to life and property in San Francisco due to the presence of the San Andreas and Hayward Faults. There are numerous other hazards prone to occur in San Francisco, such as flooding, poor air quality, and release of hazardous materials. Additionally, there are human-made hazards that pose threats to the City's health and welfare and must be considered alongside natural hazards for mitigation, preparedness, response, and recovery. Due to the climate crisis, hazards are occurring more frequently, intensely, and simultaneously. The proposed Safety & Resilience Element update aims to address the complexity and severity of all hazards.

The proposed update names Environmental Justice Communities[1] as areas in San Francisco disproportionately experiencing environmental burdens. The Environmental Justice Communities Map[2] identifies communities based on exposure to environmental pollution and other social vulnerabilities. The Safety & Resilience Element also names the American Indian community, the Black community, and other communities of color who are disproportionately experiencing racial and social inequities. These communities, and other vulnerable people, tend to experience hazards more frequently and more intensely as compared to the city as a whole, and take longer to recover. The Safety & Resilience Element seeks to eliminate disparities and burdens related to all hazards and the climate crisis for all San Franciscans, starting with Environmental Justice Communities and other vulnerable people. When named, the Safety & Resilience Element is indicating the geographic areas and/or dispersed communities in the city where policies should begin and target their work. In doing so, the Safety & Resilience Element update offers policies to achieve racial and social equity, through actions and other systemic changes that amend past injustices and enable proactive, community-led solutions for the future.

The proposed update to the Safety & Resilience Element includes the addition of two new goals related to equitable community safety and climate resilience. As shown below, the proposed update would be organized into six goals to achieve racial and social equity, environmental justice, climate mitigation, and climate adaptation.

1. All People Live in Safe & Healthy Communities: The City must recognize that past actions have led to systemic inequities in San Francisco. To ensure equitable safety and resilience, San Francisco must remedy past injustices and eliminate disparities experienced by Environmental Justice Communities and other vulnerable people.

2. Multi-Benefit Climate and Hazard Resilience: The climate crisis is leading to hazards occurring more frequently, intensely, and simultaneously in San Francisco. To approach safety and resilience, San Francisco must pursue multi-hazard risk reductions and maximize community benefits along the way to becoming a net-zero emissions city.

3. Hazard Mitigation: The climate crisis is already adversely impacting San Francisco and influencing how people live, work, and play. To be as proactive as possible, the City must reduce the likelihood, scale, and severity of impacts from all disasters to communities, the economy, and the built and natural environment.

4. Emergency Preparedness: Emergency preparedness at the individual, community, and city level is essential to the readiness of San Francisco in the face of any disaster. To avoid loss of life and damage, the City must ensure San Francisco's residents, workers, and visitors have the knowledge, capacity, and support needed to be prepared.

5. Response: In the immediate aftermath of a disaster, the City's response is paramount to stymie ongoing threats to life safety and neighborhoods. The City must provide San Francisco's residents, workers, and visitors with the essential support and services needed immediately after a disaster for life safety and functional recovery.

[1] Environmental Justice Communities face environmental racism and subsequently bear disproportionate environmental burdens. Environmental Justice Communities are disproportionately low-income communities and communities of color.

[2] San Francisco's Environmental Justice Communities Map can be located here: https://sfplanning.org/project/environmental-justice-framework-and-general-plan-policies#ej-communities. Accessed 6/14/2022.

6. Recovery and Reconstruction: The aftermath of disaster has long-lasting impacts to society, the environment, and the economy. The City must rebuild San Francisco's built, natural, and social assets and communities towards a more equitable and resilient future.

Implementation

The Safety & Resilience Element establishes policies to guide the City's actions in preparation for, response to, and recovery from a major disaster. As a policy document, the Safety & Resilience Element guides city decision making and actions, such as funding programs and regulating development. Implementation of the Safety & Resilience Element is carried out through numerous City plans and programs, as well as actions by the private sector and development.

Notably, there are multi-agency efforts to coordinate climate mitigation and adaptation and ensure San Francisco becomes more resilient to the threats of the climate crisis. Mayor London N. Breed officially launched ClimateSF in 2021, led by the Mayor's Office and the Office of Resilience and Capital Planning, Planning Department, Department of the Environment, Port of San Francisco, and the San Francisco Public Utilities Commission. ClimateSF establishes goals for collective action on climate resilience planning, policy, and guidance across the city. This coordination supports a central focus on racial and social equity, healthy communities, just transition, connection to nature, and innovation. Through ClimateSF, major components of the Safety & Resilience Element are implemented.

Relationship to City-Led Action Plans and Programs

The proposed Safety & Resilience Element update contains broader policies to reduce impacts that will need to be carried out by the City. The City maintains three principal implementation plans that provide more immediate directions, specific strategies, and measurable objectives for monitoring and evaluation: the Hazards and Climate Resilience Plan, Climate Action Plan, and Emergency Response Plan. These plans work in partnership with the Safety & Resilience Element and are incorporated by reference here. A fourth plan, a Recovery Plan, will be produced by the City to facilitate healthy and equitable recovery after disaster.

- **The Hazards and Climate Resilience Plan**[3] (HCR), led by the Office of Resilience and Capital Planning and adopted by the Board of Supervisors, is a climate adaptation plan that responds to all hazards. The HCR serves as the City's local hazard mitigation plan for disasters, adopted by the Federal Emergency Management Agency (FEMA). It is the City's blueprint to understand and prepare for the impacts of natural hazards and climate change on our people and our assets.
- **The Climate Action Plan**[4], released by the Mayor and Department of the Environment, originally was developed to reduce the City's greenhouse gas emissions. Achieving net-zero greenhouse gas (GHG) emissions by 2040 is still a plan driver; the plan now acknowledges the interwoven social and racial inequities of the climate crisis. This plan accordingly advances measurable strategies to achieve net-zero emissions while addressing racial and social equity, public health, a just economy, and community resilience.

[3] https://sfplanning.org/project/hazards-and-climate-resilience-plan
[4] https://sfplanning.org/project/san-francisco-climate-action-plan

- The **Emergency Response Plan**[5], led by the Department of Emergency Management, provides an immediate action plan to coordinate response to disaster. It includes an overview of the emergency management system, detailed and restricted information for the Emergency Command Center, and a set of functional and hazard-specific details. The post-COVID-19 assessment outlined the strengths of the City's plans and suggested further updates to enhance the City's emergency response plan. Specifically, improvements should focus on increasing community equity, improving the City's Disaster Service Working program and providing further clarity and streamlining to both the organization of response services and procurement of emergency supplies.
- A **Recovery Plan** will be produced by the Office of Resilience and Capital Planning. The City needs an advance planning document to guide long-term recovery and reconstruction post-disaster for all hazards that the City faces. A recovery plan can support rebuilding the City in a way that is more equitable and resilient to future disaster, based on the latest citywide goals and values, community needs, and approaches for building back better.

The proposed Safety & Resilience Element update would comply with California State Senate Bill 379 ensuring consistency between the Safety & Resilience Element and the City's local hazard mitigation plan (2020 Hazards and Climate Resilience Plan). It would also comply with Senate Bill 1000 directives around environmental justice and be closely coordinated with the City's Climate Action Plan updates.

The proposed Safety & Resilience Element update is a modification to the 2012 Community Safety Element, which, as discussed above, was evaluated in a negative declaration adopted by the San Francisco Planning Commission and issued on June 13, 2012. Section 31.19(c)(1) of the San Francisco Administrative Code states that a modified project must be reevaluated and that, "If, on the basis of such reevaluation, the Environmental Review Officer determines, based on the requirements of CEQA, that no additional environmental review is necessary, this determination and the reasons therefore shall be noted in writing in the case record, and no further evaluation shall be required by this Chapter."

Analysis of Potential Environmental Effects

The 2012 final negative declaration found that the original project (i.e., the 2012 Community Safety Element update) would result in less than significant impacts and no mitigation measures were required. The negative declaration found no impacts or less than significant impacts related to all of the environmental topics evaluated in the City's initial study checklist. For example, it found that the 2012 Community Safety Element update would not divide an established community or conflict with land use plans, policies, or regulations adopted for the purpose of mitigating an environmental effect and would not have the potential to contribute to a significant cumulative impact related to land use and land use planning. Additionally, the negative declaration found that implementation of the objectives and policies of 2012 Community Safety Element update would not result in adverse impacts to historical resources since they do not recommend the demolition or alteration of historic buildings and do not directly propose material changes to buildings, structures, objects, sites, historic districts and cultural landscapes.

The proposed Safety & Resilience Element (formerly the Community Safety Element) update is organized into 6 goals that would facilitate safety from hazards, achieve racial and social equity, and strengthen

[5] https://sfdem.org/sites/default/files/CCSF%20Emergency%20Response%20Plan_April%202008%20-%20updated%20May%202017_Posted.pdf

community resilience. Within this context, the Safety & Resilience Element sets forth a number of policies that are intended to further the objectives of the goals and guide future decision-making to minimize San Francisco's contribution to the climate crises and ensure local resilience to multiple hazards. The proposed goals, objectives, and policies form the basis of the analysis for this addendum.

The proposed updates to the Safety & Resilience Element include the addition of two new goals related to equitable community safety and climate resilience. The objectives of the equitable community safety-related goal include the following: (i) support the growth of community networks to empower all people; and (ii) act based upon best practices and continuously improve the knowledge base to remedy past injustices. The policies under these two objectives, which relate to community engagement and prioritizing investment/resources in Environmental Justice Communities, do not have the potential to result in either direct or indirect physical changes to the environment.

The proposed climate resilience-related goal includes the following objectives: (i) pursue synergistic efforts that both eliminate greenhouse gases (climate mitigation) and protect people, the built environment, and nature from the unavoidable impacts of the climate crisis (climate adaptation); (ii) maximize risk reduction, and the related community benefits, from multiple simultaneous hazards in all investments to climate adaptation and hazard mitigation; and (iii) amplify nature, biodiversity, and public open space through climate resilience that mimic or restore ecological systems and function. Policies under the climate resilience goal relate to the following: coordination of regular updates to implementing plans; reduction of local contributions towards climate change; creation of a Recovery Plan; ensure large development projects provide adequate community benefits; multi-hazard risk assessments for development; examination of the risk of climate crisis flooding; seek sufficient funding to address climate hazards; development of adaptation strategies to address future coastal hazards; and prioritize nature-based solutions. At the policy level, implementation of the climate resilience goal would also not result in physical changes to the environment.

The proposed objectives and policies under the four existing goals (hazard mitigation, emergency preparedness, response, and recovery and reconstruction) were added to refine the existing content to address gaps and for clarity. These new policies and objectives do not have the potential to result in physical changes to the environment.

The Safety & Resilience Element is a broad policy document and does not approve, fund, or authorize implementation of any specific projects. Any future project proposal related to the Safety & Resilience Element, such as the implementation or construction of adaptation strategies to address the city's bay and ocean shorelines to climate flood hazards, could require project-specific or focused environmental review if the proposal has the potential to result in physical changes to the environment.

The Safety & Resilience Element identifies existing and potential natural and human-made hazards, including hazards related to climate change, and provides policy recommendations and strategies to prepare for, manage, and respond to those hazards. Many of the policy recommendations and strategies reference existing plans, regulations, and programs. The Safety & Resilience Element itself does not establish any new legally binding programs, requirements or funding mechanisms and does not authorize any specific construction or development activities. Therefore, the proposed Safety & Resilience Element update does not have the potential to result in any direct or indirect physical changes to the environment.

In light of the above, the proposed Safety & Resilient Element update would not change the analysis or conclusions reached in the 2012 final negative declaration for the original project (i.e., the 2012 Community Safety Element update) on any of the environmental topics and impacts to all topics would remain less than significant. As in the that negative declaration, no mitigation measures are required.

Conclusion

The analyses conducted and the conclusions reached in the final negative declaration adopted and issued on June 13, 2012 remain valid. No supplemental environmental review is required. The proposed revisions to the project would not cause new significant impacts not identified in the negative declaration, and no mitigation measures would be necessary to reduce significant impacts. No changes have occurred with respect to circumstances surrounding the proposed project that would cause significant environmental impacts to which the project would contribute considerably, and no new information has become available that shows that the project would cause significant environmental impacts. Therefore, no supplemental environmental review is required beyond this addendum.

I do hereby certify that the above determination as been made pursuant to State and Local requirements.

Lisa Gibson
Environmental Review Officer

July 1, 2022
Date of Determination

cc: Planning Commission
Bulletin Board/Master Decision File
Distribution List

2022

Safety and Resilience Element

AN ELEMENT OF THE
SAN FRANCISCO GENERAL PLAN

San Francisco Planning

2022
Safety & Resilience Element

INTRODUCTION

Purpose

The purpose of the Safety & Resilience Element is to facilitate safety from hazards, achieve racial and social equity, and strengthen community resilience. It provides a comprehensive set of policies for minimizing San Francisco's contribution to climate change (or "the climate crisis") and ensuring local resilience to multiple hazards. The policies here seek to protect the people and assets in San Francisco from loss of life, injury, property loss, environmental damage, and social and economic disruption from natural or technological disasters. The City has a profound obligation to protect communities and areas that face higher vulnerability to disasters.

The Safety & Resilience Element focuses on all hazards: natural and human-made. There is a strong foundation addressing seismic hazards, as earthquakes are the greatest risk to life and property in San Francisco due to the San Andreas and Hayward Faults. There are numerous other hazards prone to occur in San Francisco, such as flooding and poor air quality. Additionally, there are human-made hazards that pose threats to the City's health and welfare and must be considered alongside natural hazards for mitigation, preparedness, response, and recovery, such as pandemic and release of hazardous materials. Due to the climate crisis, hazards are occurring more frequently, intensely, and simultaneously. The Safety & Resilience Element aims to address the complexity and severity of all hazards.

The Safety & Resilience Element names Environmental Justice Communities as areas in San Francisco disproportionately experiencing environmental burdens. Environmental Justice Communities, and others, tend to experience hazards more frequently and more intensely as compared to the City as a whole, and they take longer to recover. The Environmental Justice Communities Map identifies communities based on exposure to environmental pollution and other social vulnerabilities, which are often low-income communities and communities of color. Similarly, the Safety & Resilience Element names the American Indian community, the Black community, and other communities of color who are disproportionately experiencing racial and social inequities. The policies also name vulnerable communities with heightened risk and increased sensitivity to potential harms than the City average. The Safety & Resilience Element seeks to eliminate disparities and burdens related to all hazards and the climate crisis for all San Franciscans, starting with Environmental Justice Communities and other vulnerable people. When named, the Safety & Resilience Element is indicating the geographic areas (Environmental Justice Communities) and/or dispersed communities (American Indian community, the Black community, and other communities of color, and other vulnerable communities) in the City where policies should begin and target their work. In doing so, the Safety & Resilience Element offers policies to achieve racial and social equity, through actions and other systemic changes that amend past injustices and enable proactive, community-led solutions for the future.

In brief, the Safety & Resilience Element is organized into six goals to achieve racial and social equity, environmental justice, and climate resilience.

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.

Implementation

The Safety & Resilience Element establishes policies to guide the City's actions in preparation for, response to, and recovery from a major disaster. As a policy document, the Safety & Resilience Element guides city decision making and actions, such as funding programs and regulating development. Implementation of the Safety & Resilience Element is carried out through numerous City plans and programs, as well as actions by the private sector and development.

Notably, there are multi-agency efforts to coordinate climate mitigation and adaptation and ensure San Francisco becomes more resilient to the threats of the climate crisis. Mayor London N. Breed officially launched ClimateSF in 2021, led by the Mayor's Office and the Office of Resilience and Capital Planning, Planning Department, Department of the Environment, Port of San Francisco, and the San Francisco Public Utilities Commission. ClimateSF establishes goals for collective action on climate resilience planning, policy, and guidance across the City. This coordination supports a central focus on racial and social equity, healthy communities, just transition, connection to nature, and innovation. Through ClimateSF, major components of the Safety & Resilience Element are implemented.

Relationship to City-Led Action Plans and Programs

The Safety & Resilience Element contains broader policies to reduce impacts that will need to be carried out by the City. The City maintains three principal implementation plans that provide more immediate directions, specific strategies, and measurable objectives for monitoring and evaluation: the Hazards and Climate Resilience Plan, Climate Action Plan, and Emergency Response Plan. These plans work in partnership with the Safety & Resilience Element and are incorporated by reference here. A fourth plan, a Recovery Plan, is planned to be produced by the City to facilitate healthy and equitable recovery after disaster.

- The *Hazards and Climate Resilience Plan* (HCR), led by the Office of Resilience and Capital Planning and adopted by the Board of Supervisors, is a climate adaptation plan that responds to all hazards. The HCR serves as the City's local hazard mitigation plan for disasters, adopted by the Federal Emergency Management Agency (FEMA). It is the City's blueprint to understand and prepare for the impacts of natural hazards and climate change on our people and our assets.
- The *Climate Action Plan* (CAP), released by the Mayor and Department of the Environment, was originally developed to reduce the City's greenhouse gas emissions. Achieving net-zero greenhouse gas (GHG) emissions by 2040 is still a plan driver; the plan now acknowledges the interwoven social and racial inequities of the climate crisis. Accordingly, the CAP advances measurable strategies to achieve net-zero emissions while addressing racial and social equity, public health, a just economy, and community resilience.
- The *Emergency Response Plan* (ERP), led by the Department of Emergency Management, provides an immediate action plan to coordinate response to disaster. It includes an overview of the emergency management system, detailed and restricted information for the Emergency Command Center, and a set of functional and hazard-specific details. The COVID-19 Phases I and II After Action Report outlined the strengths of the City's plans and suggested further updates to enhance the City's Emergency Response Plan. The suggested improvements include increasing community equity, improving the City's Disaster Service Worker program, and providing further clarity and streamlining to both the organization of response services and procurement of emergency supplies.
- A *Recovery Plan* is planned to be produced by the Office of Resilience and Capital Planning. The City needs an advance planning document to guide long-term recovery and reconstruction post-disaster for all hazards that the City faces. A recovery plan can support rebuilding the City in a way that is more equitable and resilient to future disaster, based on the latest citywide goals and values, community needs, and approaches for building back better.

There are many other plans and programs throughout the City that support the Safety & Resilience Element, such as the Community Action Plan for Seismic Safety, the Neighborhood Empowerment Network, the Neighborhood Emergency Response Team, and the Lifelines Council. In addition to City-led actions, the Safety & Resilience Element relies upon the private sector, community-based organizations, and a range of additional stakeholders to support full and robust implementation of these policies.

Summary of Goals, Objectives, and Policies

GOAL 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.

OBJECTIVE 1.1.
JUST EMPOWERMENT. Support the growth of community networks to empower all people.

POLICY 1.1.1.
Engage the community in the planning process.

POLICY 1.1.2.
During climate mitigation activities, prioritize investment and resources in Environmental Justice Communities, especially through existing community-based efforts.

POLICY 1.1.3.
During emergency preparedness activities, inform all individuals about the risks, vulnerabilities, and consequences of their neighborhood and communities from all hazards through culturally competent and equitable communications.

POLICY 1.1.4.
Establish a network of staff supporting the Equity Officer to advocate and advise on equitable response, recovery, and reconstruction activities during and after a disaster.

POLICY 1.1.5.
During response activities, the City should partner with non-governmental entities to respond to hazard impacts in Environmental Justice Communities.

POLICY 1.1.6.
During recovery and reconstruction activities, rebuild in ways that remedy safety and resilience injustices in Environmental Justice Communities.

OBJECTIVE 1.2.
CONTINUOUS ASSESSMENT AND EVOLUTION. Act based upon best practices and continuously improve the knowledge base to remedy past injustices and eliminate disparities.

POLICY 1.2.1.
In all stages of safety and resilience, prioritize the needs of people most impacted by the adverse impacts of hazards.

POLICY 1.2.2.
Use the latest assessment tools provided by the Office of Racial Equity and Department Racial & Social Equity Action Plans to center racial and social equity into the planning, evaluation, and monitoring of programs.

POLICY 1.2.3.
Prioritize documentation of historic, archaeological, and intangible cultural resources in the most vulnerable areas to the climate crisis, starting in Environmental Justice Communities.

POLICY 1.2.4.
Prioritize funding for infrastructure maintenance and improvements in Environmental Justice Communities.

GOAL 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.

OBJECTIVE 2.1.
CLIMATE RESILIENCE. Pursue synergistic efforts that both eliminate greenhouse gases (climate mitigation) and protect people, the built environment, and nature from the unavoidable impacts of the climate crisis (climate adaptation).

POLICY 2.1.1.
Coordinate the regular update of implementing documents of this General Plan including: the Hazards and Climate Resilience Plan (HCR) and the Climate Action Plan (CAP), both incorporated by reference here, as well as the Emergency Response Plan (ERP) and the Recovery Plan (pending).

POLICY 2.1.2.
Direct City actions to reduce local contributions towards the climate crisis by mitigating greenhouse gasses and by increasing carbon sequestration.

POLICY 2.1.3.
The City create and implement a Recovery Plan to facilitate robust social, economic, and environmental recovery post-disaster.

POLICY 2.1.4.
Ensure that City projects and private developments provide multi-benefit solutions that mitigate hazard risk and contribute to a zero-emission future.

OBJECTIVE 2.2.
MULTI-HAZARD RESILIENCE AND CO-BENEFITS. In adaptation and mitigation investments to multiple and simultaneous hazards, maximize risk reduction strategies and the related community benefits.

POLICY 2.2.1.
Include multi-hazard risk assessments in private development, capital projects, and the City's climate resilience programs.

POLICY 2.2.2.
Examine the risk of flooding and evaluate adaptation actions that will protect people and the built and natural environments, to help inform land use, capital investment, and other policies.

POLICY 2.2.3.
Seek sufficient funding to address climate hazards through all phases of mitigation, preparedness, response, recovery, and reconstruction.

POLICY 2.2.4.
Adapt the City's bay and ocean shorelines to current and future climate flood hazards, including coastal flooding, sea level rise, groundwater rise, and extreme storms.

OBJECTIVE 2.3.
NATURE-BASED SOLUTIONS. Enhance nature, biodiversity, and public open space through climate resilience strategies that mimic or restore ecological systems and function.

POLICY 2.3.1.
Maximize the preservation and maintenance of carbon sinks and landscape approaches that advance the rate of carbon sequestration.

POLICY 2.3.2.
Prioritize nature-based solutions that restore ecosystem function and maximize ecological benefits to plants, animals, and people.

POLICY 2.3.3.
Prioritize nature-based solutions as flood adaptation strategies, to enhance shoreline biodiversity and ecological function, manage stormwater, and protect against sea level rise and coastal flooding.

POLICY 2.3.4.
Reduce the threat of wildfire to San Francisco residents and infrastructure.

POLICY 2.3.5.
Educate and empower stakeholders and communities to know, grow, and steward local native plants and wildlife on private and public property.

GOAL 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.

OBJECTIVE 3.1.
EXISTING BUILDINGS. Ensure retrofits and renovations to existing structures increase building longevity and meet current best practices to protect occupants and structures.

Risk Reduction

POLICY 3.1.1.
Reduce the risks presented by City-owned structures and privately-owned buildings, and provide assistance to vulnerable communities with limited adaptive capacity to reduce those risks.

POLICY 3.1.2.
Reduce the risk of all hazards, especially geological, weather-related, and fire-related hazards, posed by concrete buildings and older, small, wood-frame residential buildings.

POLICY 3.1.3.
Abate structural and non-structural hazards in City-owned properties.

POLICY 3.1.4.
Encourage property owners to evaluate their risks to all hazards.

POLICY 3.1.5.
Support the ability to shelter in place and provide help for vulnerable communities with limited adaptive capacity.

Historic Preservation

POLICY 3.1.6.
Maintain a data clearinghouse of existing housing and building stock that inventories their features' architectural and cultural character, vulnerability and resilience to all hazards, and other resilience features.

POLICY 3.1.7.
Starting with properties associated with Environmental Justice Communities, expand life safety and functional recovery considerations to increase the likelihood that historically valuable architecture and structures will survive all hazards, and encourage the adaptive reuse of historic structures.

POLICY 3.1.8.
Safeguard diverse elements of the City's living heritage through supporting the protection and/or adaptation of intangible elements and their ties to the City's natural and built environments, which collective contribute to San Francisco's cultural identity.

Resilient Retrofits

POLICY 3.1.9.
Reduce hazards from gas-fired appliances and gas lines, removing gas lines when possible, focusing on communities with concentrations of older housing stock.

POLICY 3.1.10.
During building retrofits, follow a comprehensive retrofit strategy to provide support to vulnerable communities, reduce greenhouse gas emissions, and reduce the risk of property loss and damage during wildfires, flooding, and seismic hazards.

POLICY 3.1.11.
For existing housing and building stock, provide training, guidance, and assistance to build resilience against extreme heat, poor and hazardous air quality, and flooding, especially in Environmental Justice Communities and other vulnerable people.

POLICY 3.1.12.
Provide guidance and assistance to residents about the risks associated with their home and their options to improve safety as renters.

OBJECTIVE 3.2.
NEW BUILDINGS. Maximize the safety, environmental performance, and climate adaptability of all new development.

Hazard Information in Decision Making

POLICY 3.2.1.
Continue to support and monitor research about the nature of all hazards in the Bay Area, including prediction and warning systems, community vulnerability and consequences assessments, and improvements to building performance and resilience.

POLICY 3.2.2.
Research and maintain information about all hazards, including adverse impacts on vulnerable communities.

POLICY 3.2.3.
Coordinate interagency Citywide efforts to assess the City's vulnerabilities to multiple hazards, such as poor air quality, flooding, and extreme heat.

POLICY 3.2.4.
Ensure foundations and structural systems are designed with consideration of site soils conditions when reviewing projects in areas subject to liquefaction, slope instability, sea level rise, groundwater rise, and other flood hazards.

POLICY 3.2.5.
Provide training, guidance, and assistance for the geotechnical and foundation issues unique to tall buildings.

POLICY 3.2.6.
Consider hazard information during City decision-making processes about land use, building density, building configurations, and infrastructure.

POLICY 3.2.7.
Monitor emerging industries like bioscience and other lab-based sectors, and ensure that state and local codes manage risks effectively.

Promote Green Building

POLICY 3.2.8.
During retrofits and new construction, prioritize building practices that emit lower greenhouse gasses and build resilience to multiple hazards at once, especially in Environmental Justice Communities.

POLICY 3.2.9.
Continue to promote green stormwater management techniques.

OBJECTIVE 3.3.
INFRASTRUCTURE AND PUBLIC REALM. Ensure the City's lifeline systems, transportation and emergency response facilities, utilities, streets, public spaces, and coasts can withstand and adapt to all hazards.

Public Assets and Awareness

POLICY 3.3.1.
Reduce the risk of all hazards to community facilities and lifeline infrastructure, starting with Environmental Justice Communities.

POLICY 3.3.2.
Identify and replace vulnerable infrastructure and critical service lifelines in high-risk areas.

POLICY 3.3.3.
Conduct capital planning to advance resilient infrastructure prioritizing life safety and functional recovery, as well as the needs of Environmental Justice Communities and other vulnerable people.

POLICY 3.3.4.
Where there are ongoing and known plans for future public infrastructure projects, consider prioritizing maintenance of public access and protecting the public rights-of-way above the needs of private property and development.

POLICY 3.3.5.
Provide training, guidance, and assistance for nearby communities most impacted to potential threats and consequences to public assets and infrastructure within the Sea Level Rise Vulnerability Zone.

Resilience to Future Hazards

POLICY 3.3.6.
Maintain research, monitoring, and guidance related to earthquakes, sea level rise, and flood hazards to inform a framework for future investments and development.

POLICY 3.3.7.
Support the development and updates to building, planning and other municipal code requirements that meet City climate and seismic resilience performance goals.

POLICY 3.3.8.
For new construction and public assets, consider resilience measures against future climate projections and other hazards, beyond current life safety expectations in building codes.

POLICY 3.3.9.
Design and utilize open spaces considering their use as emergency gathering areas, floodable spaces, and ecosystem services, per the Recreation and Open Space Element.

POLICY 3.3.10.
Identify and maintain emergency access areas and potential evacuation routes to support capacity for future emergencies and evacuations.

OBJECTIVE 3.4.
SPECIFIC HAZARDS. Identify and pursue programs and projects that mitigate and safeguard against multiple hazards across multiple assets, especially for Environmental Justice Communities and other vulnerable people.

POLICY 3.4.1.
Assess, mitigate, and provide holistic information about all hazards affecting the City, as identified in the Hazards and Climate Resilience Plan.

POLICY 3.4.2.
Protect against the risks of using, storing, and transporting hazardous materials and increase public awareness, particularly in areas prone to seismic and flooding risks.

POLICY 3.4.3.
Educate the public about hazardous materials procedures, including transport, storage, and disposal.

POLICY 3.4.4.
Develop a plan for supporting Environmental Justice Communities and other vulnerable people during Sheltering-in-Place activities, to protect from poor and hazardous air quality, pandemic, and other hazards.

POLICY 3.4.5.
Prepare for efficient and equitable responses to medical emergencies and pandemics.

POLICY 3.4.6.
Assess and mitigate the risk of flooding by incorporating the Flood Insurance Rate Map for San Francisco and related programs.

POLICY 3.4.7.
Support retrofitting measures for historic buildings vulnerable to current or future flooding, while respecting architectural and historic character, consistent with pertinent local or federal design guidelines.

GOAL 4. EMERGENCY PREPAREDNESS.

Ensure San Francisco's residents, workers, and visitors have the knowledge, capacity, and government support needed to be safe in the face of disasters.

OBJECTIVE 4.1.
AWARENESS AND CAPACITY BUILDING. Increase the understanding and training of equitable emergency preparedness to all hazards among all government, private, and public sectors.

POLICY 4.1.1.
Provide ongoing emergency preparedness and response training to all City employees and other responding agencies.

POLICY 4.1.2.
Promote greater public awareness of disaster risks, personal and business risk reduction, and personal and neighborhood emergency response.

POLICY 4.1.3.
Create a consolidated website linking all the City's disaster-related information for the public and ensure distribution of the information through offline outreach that is accessible and equitable to all people.

POLICY 4.1.4.
For pandemic preparedness, develop a framework of healthcare management that combines the City's physical assets with social and management tools to better respond to public health emergencies.

OBJECTIVE 4.2.
CITY AGENCY CAPABILITIES. Plan for the operational, data, and logistical capacities needed to facilitate community safety during the response, recovery, and reconstruction phases of all hazards.

Water and Energy

POLICY 4.2.1.
Ensure potable water is available in an emergency.

POLICY 4.2.2.
Ensure renewable energy sources are available for redundant energy in the event of an emergency.

POLICY 4.2.3.
Continue to expand the City's fire department prevention and firefighting capability with sufficient personnel and training.

Disaster Response

POLICY 4.2.4.
Ensure the City's designated system of emergency access routes is coordinated with regional activities for both emergency operations and evacuation.

POLICY 4.2.5.
Utilize the City's and region's transit network to facilitate response and recovery during and after a disaster.

OBJECTIVE 4.3.
CITYWIDE COOPERATION. Create proactive plans and programs to prepare readiness and coordination for all disasters.

Emergency Management

POLICY 4.3.1.
Bolster the Department of Emergency Management's role as the City's provider of emergency planning and communication, and prioritize its actions to meet the needs of San Francisco.

POLICY 4.3.2.
Support the Emergency Operations Center and continue maintenance of alternative operations centers in the case of an emergency.

POLICY 4.3.3.
Ensure all response plans are coordinated with the Disaster Council.

POLICY 4.3.4.
Maintain and implement a comprehensive, current Emergency Response Plan with neighborhood-level detail on equitable implementation to guide the response to disasters.

POLICY 4.3.5.
Maintain and implement the San Francisco Disaster Debris Management Plan.

Communications

POLICY 4.3.6.
Utilize advance technology to enhance communication capabilities in preparation for all phases of a disaster, particularly in the high-contact period immediately following a disaster.

POLICY 4.3.7.
Enhance communications with other jurisdictions.

Public Safety

POLICY 4.3.8.
Plan to address safety and violence issues that may arise post-disaster, and balance these issues with the other demands that will be placed on public safety personnel as emergency response providers.

Partnerships

POLICY 4.3.9.
Develop and maintain mutual aid agreements with local, regional, and state governments as well as other relevant agencies.

POLICY 4.3.10.
Continue coordination with water transit agencies, ferries, and private boat operators to facilitate water transportation as emergency transport.

POLICY 4.3.11.
Ensure the City's plan for medical response is coordinated with its privately-owned hospitals.

POLICY 4.3.12.
Develop agreements with private facilities to ensure immediate supply needs can be met.

POLICY 4.3.13.
Develop partnerships with private businesses, public service organizations and local nonprofits to meet disaster-time needs.

OBJECTIVE 4.4.
GOVERNANCE AND COLLABORATION. Increase the City's collective capacity to improve safety and resilience outcomes through effective collaboration among peer agencies, the private sector, and the public sector.

POLICY 4.4.1.
Develop centralized strategies for City safety and resilience functions that hold individual agencies accountable for their roles in disaster planning, coordination, decision-making, funding, cost-sharing, implementation, and risk allocation.

POLICY 4.4.2.
Align safety and resilience work by regional, state, federal, and tribal government bodies to expand the reach and strength of local government support in the face of all hazards.

POLICY 4.4.3.
Form effective and clear partnerships with non-government bodies, such as community organizations, institutions, private companies, and development partners to reach all people, especially Environmental Justice Communities and other vulnerable people.

GOAL 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.

OBJECTIVE 5.1.
LIFELINES. Provide critical information and services to prevent further loss of life and establish community safety during the immediate aftermath of disasters.

POLICY 5.1.1.
Ensure the City's lifeline systems are constantly maintained to be in a state of good repair.

POLICY 5.1.2.
Ensure plans are in place to support people most at risk during breaks in lifeline services.

POLICY 5.1.3.
Mitigate threats posed by digital hazards, such as terrorism and communication failures, to City systems and infrastructure.

POLICY 5.1.4.
Increase communication capabilities in preparation for all phases of a disaster, and ensure communication abilities extend to hard-to-reach communities.

POLICY 5.1.5.
Develop a system to convey information during and immediately after a disaster.

POLICY 5.1.6.
Follow the National Incident Management System (NIMS) procedures in declared emergency scenarios.

POLICY 5.1.7.
After an emergency, follow the mandates of the Emergency Response Plan and Citywide Earthquake Response Plan.

OBJECTIVE 5.2.
COMMUNITY PARTNERSHIPS. Work with neighborhood-based organizations and trusted partners to expand disaster response activities across the City.

POLICY 5.2.1.
Work collaboratively with nonprofit and community partners to assist Environmental Justice Communities and other vulnerable people during and immediately after a disaster to ensure resumption of social services.

POLICY 5.2.2.
Identify and retain vendors and contractors to be readily available to respond immediately after a disaster.

POLICY 5.2.3.
Develop and implement plans to accept, train, organize, and utilize volunteers in the delivery of basic emergency management tasks.

POLICY 5.2.4.
Develop strategies for cooperating with the media.

OBJECTIVE 5.3.
HAZARD-SPECIFIC RESPONSE. Address any specific, shared, or compounding needs for community safety in the aftermath of a disaster.

POLICY 5.3.1.
Establish a plan to facilitate the continuity of permitting services in the case of a disaster for building repairs and other essential permitting services.

POLICY 5.3.2.
Ensure historic resources are protected in the aftermath of a disaster and support post-disaster restoration of damaged historic buildings.

POLICY 5.3.3.
Address hazardous material and other spills by requiring appropriate clean up by property owners, per local, state, and federal environmental laws.

GOAL 6. RECOVERY AND RECONSTRUCTION.

Rebuild San Francisco's built, natural, and social assets and communities towards a more equitable and resilient future.

OBJECTIVE 6.1.
BUILDINGS AND INFRASTRUCTURE.
Maximize the opportunities to restore and rebuild the built environment with resilience to all hazards.

Housing Security and Justice

POLICY 6.1.1.
Support actions to mitigate the spread of homelessness pre-disaster and increase the likelihood that the City's stock of lowest-cost housing will survive post-disaster.

POLICY 6.1.2.
Provide adequate interim accommodation for residents and businesses displaced by a major disaster in ways that maintain neighborhood ties and cultural continuity.

POLICY 6.1.3.
Repair damaged neighborhoods in a manner that facilitates resident return and minimizes long-term displacement, prioritizing Environmental Justice Communities and other communities disproportionately impacted by housing disparities.

POLICY 6.1.4.
Protect individuals and families experiencing homelessness in the wake of disaster.

POLICY 6.1.5.
Ensure sufficient affordable housing and workforce housing during reconstruction.

Reinforce Hazard Mitigation

POLICY 6.1.6.
Encourage continued and adaptive reuse of San Francisco's existing building stock, including those with architectural and historic merit, to reduce greenhouse gas emissions that may otherwise occur from new construction.

POLICY 6.1.7.
Apply sustainability practices in rebuilding projects, consistent with the City's Climate Action Plan and greenhouse gas emissions reduction targets.

POLICY 6.1.8.
Ensure equitable outcomes in the consideration of design character and quality in all rebuilding projects.

OBJECTIVE 6.2.
ADVANCE RECOVERY PLANNING.
Comprehensively plan for the restoration of City function and economic activity, with flexibility to known and unknown hazards.

POLICY 6.2.1.
Before an emergency occurs, establish an interdepartmental working group to develop an advance recovery framework that will guide long-term recovery, manage reconstruction activities, and coordinate expedient rebuilding aligned with City policies.

POLICY 6.2.2.
As a part of the advance recovery framework, develop and adopt a repair and reconstruction ordinance.

POLICY 6.2.3.
As a part of the advance recovery framework, coordinate the realignment of government post-disaster, so City employees' skills can be used effectively towards recovery and reconstruction efforts.

POLICY 6.2.4.
Update the advance recovery framework on a regular basis so that it continues to be aligned with City goals and values.

POLICY 6.2.5.
Develop and maintain broad public support for the advance recovery framework to ensure its eventual implementation.

POLICY 6.2.6.
Post-disaster, build upon the advance recovery framework to create a recovery and reconstruction plan to direct the City's reconstruction activities, manage the long-term recovery period, and coordinate rebuilding activity.

POLICY 6.2.7.
Rebuild after a major disaster consistent with established General Plan objectives and policies.

POLICY 6.2.8.
Ensure that an equitable recovery and reconstruction plan is adopted that is comprehensive and consistent with already established City goals, policies, and programs.

POLICY 6.2.9.
Where necessary, use the City's public authority to expedite repair, reconstruction, and rebuilding in a just and equitable manner.

OBJECTIVE 6.3.
EQUITABLE INVESTMENT. Pursue plans and strategies that would equitably rebuild San Francisco for everyone, starting with Environmental Justice Communities.

POLICY 6.3.1.
Develop an economic recovery strategy to guide planning and implementation before the disaster strikes.

POLICY 6.3.2.
Support the efforts of the Controller's Office to ensure service continuation and financing of post-disaster recovery and reconstruction efforts.

POLICY 6.3.3.
Provide the basic needs of all people while normal lifeline support is interrupted.

POLICY 6.3.4.
Explore expanding the scope of the City's disaster relief programs.

POLICY 6.3.5.
Ensure effective use of public emergency funds and expenditures, and recovery of those expenditures.

Goals, Objectives, and Policies

GOAL 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.

This goal includes eliminating disproportionate impact from the climate crisis and other hazards and ensuring environmental justice for all. The City should foster actions and systems that address, mitigate, and amend past injustices that affect safety and resilience in the City. The injustices include, but are not limited to, disparities and advantages in racial and social equity, health outcomes, and quality of life and neighborhoods—all circumstances that contribute to the lived experiences and adaptive capacity of people in the event of a disaster.

OBJECTIVE 1.1.
***JUST EMPOWERMENT.* Support the growth of community networks to empower all people.**

POLICY 1.1.1.
Engage the community in the planning process.

All stages of hazard management—mitigation, preparedness, response, recovery and reconstruction—are too important and too big a task for City agencies to take on their own. It would also be ineffective and may cause further harm to do so in a vacuum, without the involvement of the people most affected by hazards. Residents and community members themselves must play a central role in decision-making.

The planning process must develop an education-based involvement opportunities that supports community leadership development. Planning efforts should not only identify, but actively engage, the varied interests of the community. These processes should include holistic information around hazards and impacts; contribute to the vision for the City's future per the General Plan and community outreach and engagement; and support the achievement of racial and social equity. As possible, identify responsible agencies, institutions, and other partners responsible for implementing strategies for safety and resilience.

The City should also help to develop community skillsets pre-disaster, on both an individual and neighborhood level, to empower community members to meaningfully participate in a post-disaster reconstruction planning process, work

effectively together to identify and prioritize community needs, and work collaboratively with the City to communicate these needs and ensure that they are met. Programs such as the Neighborhood Empowerment Network (NEN) help to build community capacity and develop these essential skills before disaster strikes, so that everyone can participate effectively in the reconstruction process after the disaster.

POLICY 1.1.2.

During climate mitigation activities, prioritize investment and resources in Environmental Justice Communities, especially through existing community-based efforts.

During climate mitigation activities, the goal is to support the City become a net-zero emissions City by 2040 by reducing the amount and rate of greenhouse gas emissions. For many mitigation approaches, such as utilizing low-carbon transportation modes and electrifying buildings, it takes investment and resources to make these shifts in behavior at the individual and community level. Environmental Justice Communities and other vulnerable people should benefit from targeted investment and resources to make these changes. By prioritizing investment and resources into these communities, financial responsibility for climate action is shifted away from the people most adversely impacted by the climate crises. During project design and planning, specify how the scope, outreach, implementation, and budget serves the needs of these communities to mitigate their contributions to greenhouse gas emissions. In addition to reducing the amount and rate of greenhouse gas emissions, there can be additional community benefits in public health, local businesses, and quality of life. There can be opportunities to partner with existing community-based organizations and neighborhood-level efforts to effectively reach Environmental Justice Communities and other vulnerable people.

POLICY 1.1.3.

During emergency preparedness activities, inform all individuals about the risks, vulnerabilities, and consequences of their neighborhood and communities from all hazards through culturally competent and equitable communications.

Everyone should be equipped with the public awareness of how all hazards may affect the City, the potential impact on their lives, and what to do to exercise their resilience. The City must support widespread, current, and actionable public awareness activities for robust emergency preparedness. With greater awareness, the less likelihood of loss of life and harm and the more likelihood that people are safe and able to bounce back after disaster. As hazards are felt disproportionately across the City, it is vital that this information be made in culturally competent methods and equitably distributed to communities that are hard to reach, such as linguistically isolated communities and communities across the digital divide. As part of racial and social equity assessments and vulnerability and consequences assessments, the City can support a centralized repository of hazards information, directories to resources and training, and accessible, neighborhood-level information. The City can support conducting research and training materials, distribution across culturally competent and mass communications streams, and identify resources that can activate readily in the event of a disaster.

POLICY 1.1.4.

Establish a network of staff supporting the Equity Officer to advocate and advise on equitable response, recovery, and reconstruction activities during and after a disaster.

In the Incident Command System (ICS) of the Emergency Operations Center (EOC), there is an Equity Officer responsible for incorporating equity, inclusion, and community needs into emergency

response. The Equity Officer is built into the emergency response structure that will help reach all parts of the City in the event of a disaster. Based on lessons learned from the COVID-19 After Action Report for Phase I and Phase II, there is a strong need and opportunity to establish a network of staff during emergency response that have built trust with communities and neighborhoods.

This network of staff can serve as experts of neighborhood-specific and potentially block-level conditions, liaisons to community-based organizations and other stakeholders, and trusted messengers to vulnerable people. The staff should represent and work strongly with the American Indian, Black, and other communities of color and other vulnerable people. During all EOC activations, this network would coordinate to equitably implement response, recovery, and reconstruction activities. This network may have memorandums of understanding with key agencies and community stakeholders to support their integration into emergency management best practices.

POLICY 1.1.5.

During response activities, the City should partner with non-governmental entities to respond to hazard impacts in Environmental Justice Communities.

Partnerships with non-governmental entities can be critical to respond to the widespread impacts of a disaster. In the immediate aftermath of a disaster, these partnerships will facilitate the "all hands on deck" response to prevent further loss of life and ensure the City recovers more equitably and resiliently.

By laying the groundwork necessary for strong public-private partnerships in advance—by establishing relationships with universities, corporations, and foundations—the City can put itself in a strong position to receive support outside of regional, state, and federal aid, which could be critical if disaster is widespread and government resources must be extended. The City can activate public-private partnerships and partnerships with community-based organizations as a strong tool in revitalization after a community disaster.

Relationships with corporate entities, particularly those with local ties, can lead to financial and other support in reconstruction and restoration efforts. Relationships with community-based organizations and other neighborhood-level efforts can lead to increased outreach to people who are in need of support. Their local knowledge can support distribution of resources and programs, identify neighborhood-level or block-level challenges, and serve as trusted messengers of key information.

POLICY 1.1.6.

During recovery and reconstruction activities, rebuild in ways that remedy safety and resilience injustices in Environmental Justice Communities.

The City's response efforts can be made stronger with robust partnership with its neighborhoods. Neighborhoods can be a driving force in recovery efforts. Residents, leaders, and community members understand the lived experiences and priorities of their neighbors, and they have more personal motivation to ensure projects and programs are carried out successfully. Often a lynchpin for rebuilding, preexisting community efforts and community-based organizations can readily provide a strong local force to extend the reach of government-provided recovery and reconstruction.

In recognition of neighborhoods' critical role in recovery, the City should work to increase the capacity of neighborhoods and neighborhood groups. The City currently maintains a number of programs, such as Neighborhood Emergency

Response Team (NERT) and the Neighborhood Empowerment Network (NEN), that empower community members and community-based efforts to participate in climate mitigation and disaster recovery efforts.

These programs should be viewed as part of developing a framework of efforts to prepare communities in advance of a disaster. This framework should encompass community outreach and the provision of information; emergency preparedness exercises such as mapping and planning; and other problem-solving activities to tackle the range of potential hazards.

By building the capacity of neighborhoods pre-disaster, neighborhoods are more capable to support post-disaster decision-making around issues such as land use, transportation, and economic development.

The City should expand opportunities for community members to organize at a neighborhood- or block-level to facilitate strong social ties that serve in resilient recovery and reconstruction activities. Identify incentives to convene, share resources and tools, and identify community-level leadership development.

OBJECTIVE 1.2.

***CONTINUOUS ASSESSMENT AND EVOLUTION.* Act based upon best practices and continuously improve the knowledge base to remedy past injustices and eliminate disparities.**

POLICY 1.2.1.

In all stages of safety and resilience, prioritize the needs of people most impacted by the adverse impacts of hazards.

People are the most precious part of cities. As hazards occur, the adverse impacts are felt unevenly throughout the City. There are people who have higher vulnerability to hazard consequences and take longer to recover. Due to systemic inequities, there are people who are more likely to experience a hazard first and worst, and take longer to recover, than the City overall.

In order to support Environmental Justice Communities and other vulnerable people, the City must identify and prioritize the needs of people most impacted by hazards in all safety and resilience efforts. The City must increase baseline understanding of disproportionate inequities (causes), impacts (effects), and opportunities to increase safety and resilience (solutions). The City must continuously update this understanding by identifying critical needs and infrastructure, conducting racial and social equity assessments, conducting outreach and engagement activities, and incorporating racial and social equity indicators into the evaluation and monitoring of programs.

POLICY 1.2.2.

Use the latest assessment tools provided by the Office of Racial Equity and Department Racial & Social Equity Action Plans to center racial and social equity into the planning, evaluation, and monitoring of programs.

In City efforts for safety and resilience, racial and social equity must be incorporated into the planning, evaluation, and monitoring of all programs. For applicable programs, perform racial and social equity assessments and the latest tools provided by the respective agency's Racial & Social Equity Action Plan and the Office

of Racial Equity. These tools provide high-level guidance to understanding and centering racial and social equity into projects and programs. The tools require consideration at each step of the decision-making process, as to who would benefit or be harmed by a certain action, and by iteratively considering these questions to generate better results.

POLICY 1.2.3.

Prioritize documentation of historic, archaeological, and intangible cultural resources in the most vulnerable areas to the climate crisis, starting in Environmental Justice Communities.

San Francisco's historic and cultural resources are critical to the City's identity. They contribute to the City's unique character, support heritage tourism and economic development, and hold stories of the diverse communities who have called San Francisco their home. The City must continuously understand and preserve these resources and offer reasonable protection from current and future hazards. The City should prioritize documentation of historic, archaeological, and intangible cultural resources in areas most vulnerable to the climate crisis, such as areas within the Sea Level Rise Vulnerability Zone, as these resources may be experience irreparable damage or be completely lost.

Efforts are underway to document, preserve, and protect these assets, including resources that may become inundated by sea level rise or may collapse from an earthquake. However, the timing, severity, and impact of hazards such as earthquakes, floods, and fires are not fully understood. Hazards could severely damage or completely destroy buildings, building features, or artifacts within buildings.

Having a comprehensive cultural resource survey is critical for both hazard risk assessment and post-disaster recovery. The San Francisco Citywide Cultural Resources Survey identifies important individual historic or cultural resources and potential districts throughout the City. Additionally, the City can employ tools such as photographs, architectural drawings, oral histories with community knowledge and culture bearers, 3D laser surveys, and/or digital technology to archive and research these resources. The City can also explore the latest approaches to documenting these resources, as more is learned about preservation and adaptation from hazards such as poor and hazardous air quality and extreme storms.

POLICY 1.2.4.

Prioritize funding for infrastructure maintenance and improvements in Environmental Justice Communities.

Environmental Justice Communities and other vulnerable people often rely more heavily on critical pieces of City infrastructure than communities with more resources, higher quality options, and privilege. Infrastructure provides public services such as transportation, water, energy, and internet. These infrastructure assets and systems are essential for people living, working, and playing in the City. It is important to fund the operation, maintenance, and improvements of such infrastructure and prioritize the needs of the communities who are more reliant on their services.

GOAL 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.

OBJECTIVE 2.1.

CLIMATE RESILIENCE. **Pursue synergistic efforts that both eliminate greenhouse gases (climate mitigation) and protect people, the built environment, and nature from the unavoidable impacts of the climate crisis (climate adaptation).**

POLICY 2.1.1.

Coordinate the regular update of implementing documents of this General Plan including: the Hazards and Climate Resilience Plan (HCR) and the Climate Action Plan (CAP), both incorporated by reference here, as well as the Emergency Response Plan (ERP) and the Recovery Plan (pending).

The Hazards and Climate Resilience Plan (HCR), incorporated by reference here, serves as the City's local hazard mitigation plan to the Federal Emergency Management Agency (FEMA). It addresses all hazards the City is at risk to and strategies to mitigate from harm. It serves as a tracking and monitoring tool, with annual reporting to FEMA. The Climate Action Plan (CAP), incorporated by reference here, guides how the City can reduce greenhouse gas emissions to net-zero by 2040, building on the City's climate and sustainability framework, "0-80-100-Roots." This framework aims for zero waste, 80% of trips taken by low-carbon transportation modes, 100% renewable energy, and carbon sequestration. The Emergency Response Plan (ERP) provides an immediate action plan to coordinate response to disaster. It includes an overview of the emergency management system, detailed and restricted information for the Emergency Command Center, and a set of functional and hazard-specific details.

The Recovery Plan is planned to be produced by the City. The Recovery Plan can serve as the advance planning document to guide long-term recovery and reconstruction post-disaster for all hazards that the City faces.

These documents should be coordinated and be regularly updated to ensure the City is best positioned to equitably protect people from all hazards and the climate crisis.

POLICY 2.1.2.

Direct City actions to reduce local contributions towards the climate crisis by mitigating greenhouse gasses and by increasing carbon sequestration.

Globally, scientific consensus on the threats of climate change and the current climate crisis has been widely agreed upon for many years. The climate crisis increases the frequency of natural disasters and threatens life and wellbeing, the economy, and more. In 2019, the City declared a climate emergency and strengthened plans for net-zero greenhouse gas emissions.

According to the 2022 Intergovernmental Panel on Climate Change Sixth Assessment Report, human-induced global heating is causing dangerous and widespread disruption in nature and affecting the lives of billions of people around the world, despite efforts to reduce the risks. Multiple climate hazards will occur simultaneously, and multiple climatic and non-climatic risks will interact, resulting in compounding the overall risks cascading across sectors and regions. For example, increased heatwaves, droughts, and floods are already exceeding the tolerance thresholds of plants and animals, driving mass mortalities in species such as trees and corals. These weather extremes are occurring simultaneously, causing cascading impacts that are increasingly difficult to manage. They have exposed millions of people to acute food and water insecurity, especially in Africa, Asia, Central and South America, on Small Islands, and in the Arctic.

To avoid mounting loss of life, biodiversity, and infrastructure, ambitious and accelerated climate adaptation is required, at the same time as making rapid, deep cuts in greenhouse gas emissions. So far, adaptation progress is uneven and there are increasing gaps between action taken and what is needed to deal with the increasing risks, the new report finds. These gaps are largest among lower-income populations.

The United Nations Intergovernmental Panel on Climate Change reported a dire warning about the consequences of inaction on the climate crisis, that due to human-induced global heating, the world "faces unavoidable multiple climate hazards" over the next two decades with global warming of 2.7°F (1.5°C). San Francisco has committed to local action to limit further warming through a goal of net-zero sector-based emissions by 2040, a 90% reduction from 1990 levels, and an interim target of cutting sector-based emissions 61% below 1990 levels by 2030.

The Climate Action Plan describes the strategies necessary to reach emissions reductions goals by sector:

- Zero Waste: By 2030, reduce solid waste generation by at least 15% below 2015 levels, and reduce solid waste disposed of by incineration or deposit in landfill by at least 50% below 2015 levels.
- Transportation: By 2030, increase low-carbon trips to at least 80% of all trips measured, and increase electrification of vehicles to at least 25% of all private vehicles registered. By 2040, in-crease electrification of vehicles to 100% of all private vehicles registered.
- Energy: By 2025, supply 100% renewable electricity, and by 2040, supply 100% renewable energy.
- Housing: Build at least 5,000 new housing units per year with maximum affordability, including not less than 30% affordable units, with an emphasis on retaining and rehabilitating existing housing.
- Buildings: By 2021, require zero onsite fossil fuel emissions from all new buildings, and by 2035, require zero onsite fossil fuel emissions from all large existing commercial buildings.
- Roots: Sequester carbon through ecosystem restoration, including increased urban tree canopy, green infrastructure, and compost application.

POLICY 2.1.3.

The City shall create and implement a Recovery Plan to facilitate robust social, economic, and environmental recovery post-disaster.

The experiences of New Orleans, Louisiana and the Gulf after Hurricane Katrina in 2005 illustrate the need for local jurisdictions to perform advance planning. Before a disaster strikes, there may be more resources within the community and within local government available. While the specifics of recovery would vary depending on hazards and impacts, certain aspects of recovery can be facilitated by advance planning.

The Association for Bay Area Governments produced a model recovery plan for the City of Oakland. A local recovery plan for the City should be centered in racial and social equity and should include, but not be limited to, the following topics discussed in Oakland's plan: financing recovery issues; recovery of government facilities and services; land use change; and the long-term recovery of housing, business, health care, schools, utilities, and transportation.

POLICY 2.1.4.

Ensure that City projects and private developments provide multi-benefit solutions that mitigate hazard risk and contribute to a zero-emission future.

With limited resources and capacity, it becomes more important that large development projects provide as much comprehensive benefit to the community as possible. The climate crisis is worsening conditions on the ground, and hazards are occurring more frequently, intensely, and simultaneously. A development project must consider a broad set of hazards and prepare holistically for the project's climate resilience, while actively reducing greenhouse gas emissions to contribute to Climate Action Plan targets and goals. Options for projects to reduce emissions include carbon sequestration through urban greening and native planting, building electrification, and connection to renewable energy.

OBJECTIVE 2.2.

MULTI-HAZARD RESILIENCE AND CO-BENEFITS. **In adaptation and mitigation investments to multiple and simultaneous hazards, maximize risk reduction strategies and the related community benefits.**

POLICY 2.2.1.

Include multi-hazard risk assessments in private development, capital projects, and the City's climate resilience programs.

With limited resources, and the worsening effects of the climate crisis, the City must extend the reach of every dollar spent on climate adaptation. The City must evolve the approach to climate adaptation and address how hazards are occurring more frequently, intensely, and simultaneously. In the project design and planning, incorporate how projects can deliver on a broad set of values and goals of the City.

With multi-hazard risk assessments, programs and projects need to consider the near- and long-term risks of all hazards. ClimateSF, the City's coordinated climate resilience interagency group, can support connecting climate resilience to intersecting issues across housing, health, transportation, and other public benefits. The

General Plan can also determine opportunities for projects to support public benefits.

In private development and capital projects, development plans should ensure new development is designed and constructed to ensure functional recovery—beyond life safety expectations—in the event of all hazards. For known hazard risks, such as liquefaction on landfill areas, development should seek a performance equivalent to that of similar structures built on firm ground. For development within the Air Pollution Exposure Zone (APEZ), the plan should provide as healthy indoor air as projects that are outside the APEZ.

The project teams should conduct outreach and engagement to assess and understand the complete set of hazards and associated vulnerabilities in a project geography, especially as they relate to environmental justice. The assessments should support expanding the impact of resources directed at a singular hazard to develop multi-benefit strategies and solutions for projects and communities. Work with stakeholders, community members, and the private sector to assess and understand the complete set of hazards and associated vulnerabilities in a major development's surrounding area.

POLICY 2.2.2.

Examine the risk of flooding and evaluate adaptation actions that will protect people and the built and natural environments to help inform land use, capital investment, and other policies.

Despite best efforts to reduce greenhouse gas emissions and mitigate against the climate crisis, current CO_2 levels are already causing changes in weather patterns, more extreme weather events, and an increase in sea levels. Even if greenhouse gas emissions were halted today, the long half-life of many greenhouse gasses and the change in global ocean temperatures mean that we will be experiencing consequences of increased CO_2 in the atmosphere for centuries.

There is potential for permanently inundated land to greatly increase from the climate risk and associated flooding from storm surges, increased participation, sea level rise, and groundwater rise. With worsening conditions and without adaptation action, flood hazards will expand and alter the current 100-year floodplain and Sea Level Rise Vulnerability Zone, making many more people and structures vulnerable than currently. The City should continue to review scientific emissions and sea level rise projections to become fully aware of risks to health, safety, and reliable functioning of City infrastructure systems due to flooding, as well as support the institutions, professional organizations and individuals who carry out climate research. In certain areas of the City, such as Environmental Justice Communities, neighborhoods may be affected by the intersection of increased flooding and increased exposure to toxic substances. There is ongoing research to explore how flooding, especially groundwater rise, affects the mobilization of toxic substances from contaminated soils, and the related public and environmental health impacts.

The risk of flooding needs to be taken into account when making land use decisions, bearing in mind that perceptions of acceptable risk may change in the future. These risks should also be incorporated into appropriate City plans and policies, such as the Planning and Zoning Codes, and capital planning. The Planning Commission, Board of Supervisors, and other City decision-making bodies should be fully apprised of these risks as they conduct reviews.

The City should review best practices, case studies, and current technology to mitigate these potentially harmful effects and adapt to future conditions that will reduce loss of life, build structures, and infrastructure. Adaptation actions should be considered for feasibility, and they

should be incorporated into seismic upgrades and routine maintenance if possible. The adaptation strategies can include, but are not limited to: building elevation, floodproofing, green infrastructure and ecological/habitat features, hard engineering, zoning/code changes, and relocation of sensitive assets.

POLICY 2.2.3.

Seek sufficient funding to address climate hazards through all phases of mitigation, preparedness, response, recovery, and reconstruction.

Each phase of disaster planning (mitigation, preparedness, response, recovery, and reconstruction) requires their own planning, design and engineering, construction, maintenance and operations, and ongoing monitoring. Providing sufficient staff and budget resources for interagency coordination is no small feat. Further, equitable distribution of funding—considering historic disinvestment in certain communities—requires heightened consciousness to resource allocation and providing opportunities for community input and decision making.

The 10-Year Capital Plan provides an approach for long-term efforts to be balanced with immediate needs. The Capital Plan should prioritize funding for 1) Environmental Justice Communities for the specific threats they face being compounded by systemic inequities; 2) specific hazard threats poised in vulnerable areas; 3) areas and functions that serve the most people 4) projects with matching state and federal funding; and 5) investments that support achieving a state of good repair of existing infrastructure and assets. The traditional cost-benefit models to determine funding needs have been built around tax and economic revenue, which continues cycles of disinvestment in historically disadvantaged and disinvested areas. Instead, holistic cost-benefit models should consider social, economic, and environmental costs and benefits.

POLICY 2.2.4.

Adapt the City's bay and ocean shorelines to current and future climate flood hazards, including coastal flooding, sea level rise, groundwater rise, and extreme storms.

The City faces threats from the slow-moving disasters of sea level rise and flood hazards. Surrounded on three sides by water, the City must adapt the bay and ocean shorelines to these hazards to prevent inundation; spread of environmental pollutants; disrupted services of key assets such as utilities and underground rail; assets and property damage; and loss of open space, neighborhoods, and communities.

The City should develop adaptation strategies to address current and future hazards for the bay and ocean shorelines. Building off of the Sea Level Rise Action Plan, the City should develop a citywide adaptation plan that addresses the interaction between sea level rise, coastal and inland flood hazards, and extreme storms. The adaptation plan should include a model of these joint hazards and have neighborhood-specific analysis, especially in low-lying areas in the Sea Level Rise Vulnerability Zone, like Mission Creek, Islais Creek, and Yosemite Slough.

The adaptation strategies may use a combination of measures, including flood defenses, accommodation strategies such as floodproofing, elevating sensitive equipment, operational policies, and removal or relocation of sensitive assets. Flood defense measures should incorporate natural or ecological features as much as possible. Adaptation strategies should be reviewed and amended over time as conditions and flood projections evolve. They should build in redundancy to provide extra protection should flood defense structures fail.

OBJECTIVE 2.3.

NATURE-BASED SOLUTIONS. **Enhance nature, biodiversity, and public open space through climate resilience strategies that mimic or restore ecological systems and function.**

POLICY 2.3.1.

Maximize the preservation and maintenance of carbon sinks and landscape approaches that advance the rate of carbon sequestration.

An essential element of becoming a net-zero emissions City is pursuing carbon sequestration, the capture and storage of greenhouse gas emissions. Trees, other flora, especially native plants, should be preserved, maintained, and increased as carbon sinks in the City. Native plants should be prioritized in pursuit of the City's carbon sequestration, water management, and biodiversity goals.

There are many City agencies involved in this work, such as Public Works, Recreation and Parks, Department of the Environment, the Public Utilities Commission, and the Port. Public Works has ongoing efforts to plant trees throughout the City that are sequestering carbon through tree photosynthesis. Recreation and Parks offers plant palettes to maximize climate resilience in park landscapes and engages in climate resilient land management by repurposing green waste as mulch and chip cover.

POLICY 2.3.2.

Prioritize nature-based solutions that restore ecosystem function and maximize ecological benefits to plants, animals, and people.

For climate resilience, nature-based solutions offer approaches to restore ecosystem function and maximize ecological benefits. In capital, development, and other projects, incorporate greening and plantings that are climate appropriate, non-invasive, and native species into the building and surrounding infrastructure. Where possible, design solutions that make ecosystem function visible so that relationships between people and nature can be understood, cultivated, and appreciated. For open space projects, it is important to coordinate with the American Indian and Alaska Native community to preserve existing culturally significant areas and ensure access to culturally significant practices, such as harvesting food from the area.

POLICY 2.3.3.

Prioritize nature-based solutions as flood adaptation strategies, to enhance shoreline biodiversity and ecological function, manage stormwater, and protect against sea level rise and coastal flooding.

Against the present and increasing threats of sea level rise and flood hazards, prioritize the use of nature-based solutions and green infrastructure to increase climate resilience. The unique characteristics of these water-related hazards present the opportunities for both site-specific and district-scale solutions to manage stormwater and protect against sea level rise and coastal flooding. For greater climate resilience, prioritize nature-based solutions that enhance ecological function, preserve the natural aspects of the shoreline, and reconnect people to these systems.

The nature-based solutions, such as wetlands, should be adapted to the condition of the shoreline. Where possible, consider soft landscape transitions to the bay, ocean, and creeks that maintain public access, especially visual access, to these water features. In areas with limited space for soft landscape transitions, consider vertical strategies such as living or ecological seawalls.

POLICY 2.3.4.

Reduce the threat of wildfire to San Francisco residents and infrastructure.

Though the probability of wildfires within San Francisco is low, it remains high for areas outside the county where City-owned infrastructure is located. Significant portions of the Hetch Hetchy Regional Water System in San Mateo, Alameda, Santa Clara, and Tuolumne Counties are located in very high fire hazard lands. Coordinate with Yosemite National Park, Stanislaus National Forest, CAL FIRE, and adjacent communities on risk reduction, and properly care for City-owned land and facilities to reduce wildfire risk.

A small portion of the Crocker Amazon neighborhood has been designated as a high fire hazard area by the State. There are potable water mains and hydrants along the perimeter of John McLaren Park, as well as a 2015 era 75,000 gallon Emergency Firefighting System cistern at the corner of Moscow and Geneva.

POLICY 2.3.5.

Educate and empower stakeholders and communities to know, grow, and steward local native plants and wildlife on private and public property.

Property owners and other stakeholders can take the lead in nature-based solutions and urban greening with more support from the City. The City should develop a centralized repository of information and training to increase public awareness of climate appropriate, non-invasive, and native plants and wildlife on private and public property. For public property and open space, it is important to ensure the American Indian and Alaska Native community have access to conduct cultural practices, such as harvesting.

GOAL 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.

The climate crisis already adversely impacts San Francisco and influences how people live, work, and play. The climate crisis will accelerate impacts for decades to come. In San Francisco, there are 13 main hazards that have the most potential impact to the City. Of these hazards, seismic hazards pose the greatest direct risk to human life and safety via the failure of buildings and other structures during shaking or ground failure. In addition to tragedy, there will be substantial economic losses and severe social, cultural, and economic dislocations. These same consequences are threats across all other hazards, including slow-moving hazards such as sea level rise and emerging hazards such as poor and hazardous air quality. As the climate crisis worsens, hazards are occurring more frequently, intensely, and simultaneously—with compounding impacts. It is critical to ensure robust levels of safety and resilience relative to all hazards, by learning more about the risks posed to vulnerable communities and developing plans to reduce those risks; and by considering hazards in all land use, infrastructure, and capital planning.

OBJECTIVE 3.1.

EXISTING BUILDINGS. **Ensure retrofits and renovations to existing structures increase building longevity and meet current best practices to protect occupants and structures.**

Risk Reduction

POLICY 3.1.1.

Reduce the risks presented by City-owned structures and privately-owned buildings and provide assistance to vulnerable communities with limited adaptive capacity to reduce those risks.

In the City, seismic hazards are a major threat. Hazards such as earthquakes can cause damage to buildings that render them unsafe to occupy or cause them to collapse. Sea level rise and flood hazards can cause permanent inundation. Poor and hazardous air quality can exacerbate indoor and outdoor air pollution. The City needs a comprehensive approach to address the resilience of all at-risk structures and buildings where people live, gather, and work.

While the City has numerous programs in place to bring public buildings into seismic compliance, addressing privately-owned buildings is a political, legislative, and financial challenge. The Community Action Plan for Seismic Safety

(CAPSS) and Earthquake Safety Implementation Program (ESIP) is a 30-year implementation plan to support the City's resilience in the face of probable earthquakes along the San Andreas and Hayward Faults. These programs address seismic risk reduction for many building uses, such as residential and commercial.

The City should create additional action plans and implementation plans to address the range of hazards that are occurring more frequently, intensely, and simultaneously. These actions should address non-ductile concrete frame buildings, old construction in need of retrofits, pre-cast concrete tilt-up buildings, and housing units that serve low- and very low-income residents.

POLICY 3.1.2.

Reduce the risk of all hazards, especially geological, weather-related, and fire-related hazards, posed by concrete buildings and older, small, wood-frame residential buildings.

The City's current programs for unreinforced masonry buildings and soft-story wood-frame buildings apply to larger scale and commercial structures. Individual homes or buildings under 5 units are not required to be seismically strengthened. Some individual homeowners make upgrades to their buildings voluntarily, but that number could be substantially increased with more programs designed for safety improvements by homeowners. "Soft-story" buildings, in which the ground story has much less rigidity and strength than the rest of the structure, pose significant hazards. Often, the soft story is the result of multiple garage door openings or ground floor parking. Soft-story failure was responsible for nearly half of all homes that became uninhabitable in the 1989 Loma Prieta Earthquake. Photographs of the Marina District became iconic symbols of the compounded seismic risks from earthquake and liquefaction for housing built on top of landfill, loose, or saturated soils. The City estimates 43% to 85% of un-retrofitted soft-story buildings will be uninhabitable following a major earthquake.

The City should adopt incentives and regulations to encourage relatively simple retrofit approaches that increase the structural stability and safety of smaller wood-frame residential buildings, as well as consider a phased mandate for retrofits over a 30-year timeframe as directed by the Community Action Plan for Seismic Safety and the Earthquake Safety Implementation Plan. The City's Mandatory Soft Story Retrofit Ordinance established an inventory of buildings with five or more units and required their owners to evaluate and retrofit at-risk buildings. This program has been successful, with an 85% compliance rate for buildings that fall within the program's purview. Next, the City should enact a concrete building retrofit program, in accordance with the Earthquake Safety Implementation Plan. Older non-ductile concrete frame buildings and rigid wall flexible diaphragm buildings, aka "tilt-ups" with high-level risk should be addressed.

POLICY 3.1.3.

Abate structural and non-structural hazards in City-owned properties.

Both technical and financial resources are needed to repair and retrofit City-owned properties. The City shall use its capabilities to assess hazards and to create and implement bond and other funding opportunities to carry out retrofit projects. Through bond financing, numerous City buildings have already been structurally upgraded.

There still remain important City-owned buildings that present seismic risks, as identified in the 10-Year Capital Plan, Hazards and Climate Resilience Plan, and other studies and plans.

The City's Capital Improvement Advisory Committee (CIAC) acts as the policy body advising the City's capital-planning process. Recognizing that certain kinds of public buildings are critical to the community's functioning, the

CIAC should work to establish a clear prioritization for these projects, develop an implementation program for their upgrade including funding sources (such as bond measures), and establish a timeline for the improvements.

POLICY 3.1.4.
Encourage property owners to evaluate their risks to all hazards.

Many property owners hold a misguided perception that federal and state sources will provide financial assistance after a disaster. But, federal aid provided in a declared disaster does not protect individual homeowners. When a major disaster hits an entire area, local governments are often strapped with simply providing funds necessary to repair major public infrastructure and buildings.

The City can encourage residents and businesses to evaluate their own risk and the repercussions they might face from reasonably foreseeable hazards. Whether through a formal risk assessment through a qualified consultant or simply through a personal assessment that evaluates the potential for damage, property owners should consider the full range of opportunities for decreasing their risk. This risk should be clearly communicated to tenants, upon sale of buildings, and be made part of public City records.

POLICY 3.1.5.
Support the ability to shelter in place and provide help for vulnerable communities with limited adaptive capacity.

The term "shelter in place" refers to people's ability to remain in their home or another place of shelter and stay there until instructed otherwise, due to ongoing hazards outside of the home that threaten health and life safety.

Seismically, for a building to have shelter-in-place capacity, it must be strong enough to withstand a major earthquake without substantial structural or non-structural damage. This is a different standard than that employed by the Building Code, which requires buildings to meet life-safety standards. In some cases, a building may not collapse, but might be deemed unusable because of the level of damage. Shelter-in-place housing standards would mean that a building is safe enough to live in during the months after an earthquake, but it may not be fully functional as a hospital or other public facilities would need to be.

Supporting shelter-in-place capacity can help minimize the need for emergency housing and services post-disaster, keep current residents in their homes, and minimize disruption of society and the economy. This could greatly minimize recovery costs and allow communities to remain intact.

Historic Preservation

POLICY 3.1.6.
Maintain a data clearinghouse of existing housing and building stock that inventories their features' architectural and cultural character, vulnerability and resilience to all hazards, and other resilience features.

In order to make holistically-informed approaches and strategies to improve the safety and resilience of the City's housing and building stock, the City needs a complex set of readily available, current, and high-quality data. The data on housing and building stock, including its location, specifications, conditions, and use, is managed by a number of City agencies and private sector actors, making it difficult to conduct research, assess the vulnerability and consequences to hazards, and identify opportunities to increase safety and resilience.

The City should develop and maintain a data clearinghouse that supports existing and projected housing and their interaction with all hazards. This clearinghouse can demarcate types of structures

and buildings with known vulnerability to hazards, such as concrete buildings and wood-frame buildings, and denote opportunities for improving resilience, such as removing gas lines. The clearinghouse can utilize property information from past and current building surveying efforts, including the San Francisco Citywide Cultural Resources Survey (SF Survey), as well as existing information found on the Planning Department's Property Information Map.

POLICY 3.1.7.

Starting with properties associated with Environmental Justice Communities, expand life safety and functional recovery considerations to increase the likelihood that historically valuable architecture and structures will survive all hazards, and encourage the adaptive reuse of historic structures.

Older buildings are among those most vulnerable to destruction or heavy damage from a large earthquake. They are less likely to have more recent engineering features or be built to current codes. This makes these buildings less resilient to ground shaking, and many of them are located in areas near the bay and the historic bay inlets with the City's softest soil conditions. These buildings may also have ornate façade structures that, in the event of an earthquake, can detach and threaten people on the street.

A major earthquake could result in an irreplaceable loss of the historic built fabric and social communities of San Francisco. Part of the City most vulnerable to fire also contains many historic structures. North Waterfront, South Beach, Mission Bay, Potrero Hill, Hunters Point, Civic Center, Downtown, Tenderloin, and Hayes Valley neighborhoods have moderate risk for large urban fires. Additionally, San Francisco's waterfront is lined with historic structures, including historic pier structures, vulnerable to risks posed by current flooding and accelerating sea level rise.

Furthermore, stormwater flooding may pose risks to properties more inland in neighborhoods including the Mission, South of Market, and Bayview. The City should mitigate these hazards in a way that preserves the historic structures and fabric of the different neighborhoods.

When new programs are being considered to abate hazards posed by existing buildings and structures, the likely impacts of those programs on historic buildings must also be thoroughly investigated. The resulting programs should encourage the retrofit of older buildings in ways that preserve their architectural and historical character while increasing life safety and functional recovery. When development concessions, transfers of development rights, or City funds are granted to promote preservation of historic buildings, there should be reasonable measures taken to increase the building's resiliency to environmental hazards.

POLICY 3.1.8.

Safeguard diverse elements of the City's living heritage through supporting the protection and/or adaptation of intangible elements and their ties to the City's natural and built environments, which collectively contribute to San Francisco's cultural identity.

In the event of a hazard, there may be damage to the people, resources, and opportunities that contribute to San Francisco's living heritage. These diverse and intangible elements of living heritage, such as performing arts, traditional crafts, foodways, rituals, and festivals, must be protected and adapted against the threats of all hazards.

After a hazard, the unique materials and supplies necessary for living heritage may be destroyed or heavily damaged beyond function. The opportunities and space to come together and practice rituals and festivals may be lost or deemed unsafe. The people and communities

who own, practice, and appreciate acts of living heritage may be lost or displaced.

The City should identify the elements that contribute to San Francisco's cultural identity, as that identity has been and may be evolving over time, and work to safeguard these elements from the threats of all hazards.

Resilient Retrofits

POLICY 3.1.9.

Reduce hazards from gas-fired appliances and gas lines, removing gas lines when possible, focusing on communities with concentrations of older housing stock.

In support of the City's goals of becoming a net-zero emissions City by 2040, the City is minimizing reliance on gas and instead electrifying the future. For the remaining gas lines, the City must protect people and assets from seismic, combustion, and related hazards.

A large earthquake is likely to result in fires at a time when the water systems may be disrupted and fire-fighting personnel may be overtaxed. One of the common sources of ignition will be gas leaks from appliances. As part of removing gas lines, support the infrastructure for building electrification. In existing buildings, the San Francisco Lifelines Council recommends the Department of Building Inspection to require electrification with gas shut-off valves as an interim measure to full building electrification.

POLICY 3.1.10.

During building retrofits, follow a comprehensive retrofit strategy to provide support to vulnerable communities, reduce greenhouse gas emissions, and reduce the risk of property loss and damage during wildfires, flooding, and seismic hazards.

During building retrofits, there is opportunity to address a broad range of hazards at once. In addition to improving building resilience, there are improved protections for human safety and prevention of damage and loss of life. The retrofit strategy should address the main hazards the area is susceptible to, including seismic hazards, sea level rise and flooding, urban fire, and poor and hazardous air quality. Building retrofits, which include weatherization and electrification, are needed to meet San Francisco's goal of net-zero greenhouse gas emissions by 2040.

POLICY 3.1.11.

For existing housing and building stock, provide training, guidance, and assistance to build resilience against extreme heat, poor and hazardous air quality, and flooding, especially in Environmental Justice Communities and other vulnerable people.

There is a set of emerging hazards occurring more frequently and severely in the City, exacerbated by the climate crisis. These hazards, such as extreme heat, poor and hazardous air quality, and sea level rise and flooding, are challenging existing approaches to make existing housing and building stock resilient to hazards. As compared to new and projected housing units, the existing housing and building stock—especially older stock—often serve as the City's valuable resource of affordable housing.

For housing security and housing that is safe, healthy, and affordable to people, the City should provide training, guidance, and assistance to weatherize and retrofit. For example, the City can address temperature control, indoor air quality, and elevating property. These resources should be targeted to Environmental Justice Communities and other vulnerable people.

POLICY 3.1.12.

Provide guidance and assistance to residents about the risks associated with their home and their options to improve safety as renters.

San Francisco residents should be informed about the hazard risk profile of their homes and

neighborhoods. For existing buildings and new construction, property owners and residents should be notified and informed. The City should pursue policies around mandatory reporting around seismic risk, such as during the time of sale or as permanent notice in building entryways. The City should pair notification with opportunities to learn more, such as pointing to an online directory of hazard and neighborhood profile information and opportunities to increase resilience of housing units.

OBJECTIVE 3.2.

***NEW BUILDINGS.* Maximize the safety, environmental performance, and climate adaptability of all new development.**

Hazard Information in Decision Making

POLICY 3.2.1.

Continue to support and monitor research about the nature of all hazards in the Bay Area, including prediction and warning systems, community vulnerability and consequences assessments, and improvements to building performance and resilience.

Knowledge about hazard risks in the Bay Area is substantial, but always evolving. The City needs to stay informed, through City staff, state and federal agencies like CalOES and the United States Geological Survey, and other professional contacts about advances in the field. New information will be shared with the public and decision makers.

Similarly, new techniques are continually developing in the structural design of structures, and new data is emerging about the actual functional performance of previously retrofitted buildings. For example, the risks of damage to life and property from seismic hazards can be reduced by improved engineering practices. The City should continue to support the institutions, professional organizations, and individuals who carry out research in structural safety. Special attention should be paid to support and seek out research that identifies innovative and low-cost retrofit concepts. Once the City sets new acceptable safety levels, this research should support the engineering requirements to meet safety levels. Similarly, new techniques are continually developing to protect building occupants from poor and hazardous air quality, extreme storms and flooding, and pandemic.

POLICY 3.2.2.

Research and maintain information about all hazards, including adverse impacts on vulnerable communities.

The field of disaster research is growing in both scope and recognition. In recent decades, the September 11 attacks in 2001, the Indian Ocean earthquake and tsunami in 2004, Hurricane Katrina in 2005, the Haiti earthquake in 2010, and the COVID-19 pandemic starting in 2019 are major examples. While research into disasters focused primarily on natural disasters through environmental management, newer research strains extend into terrorism and cyber failures, biological and chemical emergencies, and other community-wide crises. They encompass research components such as organizational response to disasters and the social ramifications of hazards, disasters, and large-scale terrorist attacks.

In addition to the science and management of all hazards, the field is increasingly aware of the disproportionate impact of disaster among

different groups of people and the need to prioritize attention to the people most vulnerable to risks and consequences. As hazards occur more frequently, intensely, and simultaneously, it is often Environmental Justice Communities and other vulnerable people who experience the impacts of disaster first and more severely, and who take longer to recover compared to the rest of the City. For some people, they have the resources and adaptive capacity to bear a disaster and recover to pre-disaster levels with relative ease. For vulnerable communities, there are higher risks, limited resources, and constrained adaptive capacity, meaning that research on all hazards should account for these dynamics of adverse impact and work to address these community needs.

The Department of Emergency Management should keep abreast of evolutions in this field of research, particularly as new threats emerge and as new methods of mitigating those are developed. The City should also continue grow its partnership with community response teams, such as the Neighborhood Emergency Response Team (NERT) and the Neighborhood Empowerment Network's Empowered Communities Program (ECP). NERT is a community-based training program dedicated to a neighbor-helping-neighbor approach to disaster response. The NERT program trains volunteers to work as members of an emergency response team, preparing them to respond to a personal emergency or assistance to Fire Department response. ECP is a community development approach to neighborhood-level disaster resilience, empowering neighborhoods to develop and implement strategies that strengthen communities during hazard events.

POLICY 3.2.3.

Coordinate interagency Citywide efforts to assess the City's vulnerabilities to multiple hazards, such as poor air quality, flooding, and extreme heat.

As the City continues to experience more extreme, more frequent, and more simultaneous hazards, the interagency climate resilience program should be empowered to assess the City's vulnerabilities to a complex set of hazards. The City should develop a citywide assessment, at the neighborhood level, to generate baseline information around the vulnerabilities and consequences to all hazards. This assessment should include impacts on Environmental Justice Communities and other vulnerable people, businesses and the economy, historical and cultural resources, and critical infrastructure. This assessment should support increasing public awareness for emergency preparedness. Currently, there is ClimateSF as an interagency collaboration to advance the City's climate resilience activities, including the Office of Resilience and Capital Planning, Planning Department, Department of the Environment, the Port, and Public Utilities Commission.

POLICY 3.2.4.

Ensure foundations and structural systems are designed with consideration of site soils conditions when reviewing projects in areas subject to liquefaction, slope instability, sea level rise, groundwater rise, and other flood hazards.

The Building Code considers soil conditions at a very general scale. But, soil conditions vary enormously throughout the City. Different soil conditions can result in very different earthquake impacts and can result in damage at other times, such as with landslides. Because of the importance of soil conditions, the California Seismic Hazards Mapping Act requires that a geotechnical investigation and geotechnical report be prepared for new or renovated buildings that are constructed in Seismic Hazard Zones.

Pursuant to this act, the Department of Building Inspection (DBI) requires geotechnical reports prepared by a licensed geologist and

geotechnical engineer for projects in areas with susceptibility to ground failure, including liquefaction and landslides. DBI has procedures in codes and bulletins identifying when projects are subjected to additional geotechnical review and requirements based on site conditions and/or proposed scope of work to support these efforts.

Additionally, there is ongoing research of the interaction of sea level rise and flood hazards with the potential mobilization of soil contamination.

POLICY 3.2.5.

Provide training, guidance, and assistance for the geotechnical and foundation issues unique to tall buildings.

In San Francisco, there is a unique concentration of tall buildings that are 240 feet or taller. These tall buildings have advanced and complex characteristics and demands for seismic safety. Their structural systems preclude generic performance assumptions and prescriptive engineering solutions, and they are increasingly being used to house residents.

Based on the Tall Buildings Study and Earthquake Safety Improvement Program, the City should implement mandatory training and guidance to property managers and tenants around the seismic safety of tall buildings, as well as offer assistance to improve the geotechnical and foundational issues in the event of an earthquake. The Department of Building Inspection (DBI) developed guidelines for preparing geotechnical and earthquake ground motion reports for the foundation design and construction of tall buildings. DBI also requires performance-based structural design reviews for buildings above 240 feet tall (and some building types above 160 feet tall), and they convene an engineering design review team of external consultants to review and advise on proposals of new tall buildings.

As tall buildings are increasingly being used for housing purposes, in addition to business purposes, the City should set up data monitoring to track building use and resident demographics in order to address additional vulnerabilities.

POLICY 3.2.6.

Consider hazard information during City decision-making processes about land use, building density, building configurations, and infrastructure.

Land use decisions should be made with hazards in mind. The Planning Commission, the Board of Supervisors, and other City decision makers shall be aware of and consider hazards when making decisions that will affect the types and structures that will exist in the future, including existing and potential structures, land uses and their associated densities, transportation, and other infrastructure.

Changes to the General Plan, Area Plans, and Planning Code should take into consideration the prevalent disasters affecting the City and the effects they may have on the safety of future development. These considerations should balance with other environmental justice and community welfare concerns, ranging from safety to community health to economic security to quality of life.

In order to protect City property, building codes and technical knowledge must be as up to date as possible as new engineering expertise is gained. Keeping abreast of such information and technologies should be a priority for the City.

POLICY 3.2.7.

Monitor emerging industries like bioscience and other lab-based sectors, and ensure that state and local codes manage risks effectively.

The City has made it a goal to encourage the bioscience industry, as well as other lab-based industries, in the City because of its economic development potential. The University of California, San Francisco (UCSF) is a generator of

life science and bioscience companies, it and has made the Bay Area a center for the industry. The number of companies located or seeking space in the City is expected to grow.

Many medical research laboratories handle biological materials, which may generate radioactive or otherwise hazardous materials and waste. Because of this, bioscience and biotechnology lab facilities in the City are subject to hazardous materials safety regulation by the federal government, state government, and the San Francisco Department of Public Health. Firms are required to generate Hazardous Materials Business Plans including storage and secondary containment policies; Emergency Response Plans; and training plans to educate staff about handling and disposal. Currently, state and federal regulations are adequate and sufficient to govern bioscience activities. In addition, San Francisco has adopted more stringent threshold reporting requirements for labs resulting in greater local oversight.

Lab-based sectors such as bioscience are likely to evolve, and the functions of the firms located in the City may shift. The City should monitor these industries to ensure safety regulations continue to be applicable. The City should encourage performance-based design and engineering technologies to protect the safety of critical research projects, particularly if facilities are vulnerable to hazards.

Promote Green Building

POLICY 3.2.8.

During retrofits and new construction, prioritize building practices that emit lower greenhouse gasses and build resilience to multiple hazards at once, especially in Environmental Justice Communities.

When retrofitting existing construction and developing new construction, use the latest building practices to emit lower greenhouse gasses and increase resilience to multiple hazards at once. In Environmental Justice Communities, where there are disparities in the prevalence of safe, healthy, and affordable homes, it is especially important to prioritize low-carbon building practices without jeopardizing housing affordability. In addition to the latest building standards, pursue building electrification, urban greening, low-carbon building materials, weatherization, interactions with the public realm, and other green building practices.

POLICY 3.2.9.

Continue to promote green stormwater management techniques.

The City has an abundance of impervious surfaces. Buildings, streets, parking lots, and other paved surfaces prevent the absorption of rainfall, so low-lying areas of the City are particularly susceptible to flooding in heavy rains. In addition, urban stormwater runoff can be highly polluted, and pollutants that go down storm drains can have negative impacts on the sewer and storm system, contributing to system overflows. Natural systems can often be an effective supplement, helping to absorb the overflow and filter out pollutants from that runoff.

Building and site development should include natural systems wherever possible. Natural vegetation, landscaped swales, and gardens included in site designs can reduce, filter, or slow the spread of stormwater runoff. “Green streets” that include pervious concrete, planters, and landscaped strips adjacent to sidewalks can assist the City’s sewer discharge capabilities. Green roofs incorporated into buildings provide another method of absorption. Similarly, sustainable construction techniques can be used to mitigate against the effects of future disasters. Green building technologies now allow for buildings that can provide their own power and filter their own water from runoff. This helps reduce two problems associated with disasters, the need for power and the need for potable water.

The City needs bolstered flood control structures and flood proofing to respond to the anticipated impacts of extreme storms. To prepare, the Public Utilities Commission can continue upgrading the City sewer system, and also critical are more imaginative solutions, like capturing stormwater for irrigation, increasing urban forestry activities, and other green uses.

OBJECTIVE 3.3.

INFRASTRUCTURE AND PUBLIC REALM. **Ensure the City's lifeline systems, transportation and emergency response facilities, utilities, streets, public spaces, and coasts can withstand and adapt to all hazards.**

Public Assets and Awareness

POLICY 3.3.1.

Reduce the risk of all hazards to community facilities and lifeline infrastructure, starting with Environmental Justice Communities.

For safety and resilience, community facilities and lifeline infrastructure serve as key assets in emergency management. Many types of community facilities can be areas for refuge and evacuation, storing and distributing disaster supplies, and providing critical services like medical care. Community facilities provide public services, such as public schools, childcare facilities, fire stations, police stations, recreation centers and parks, public and non-profit health facilities, libraries, arts and culture facilities, social welfare facilities, and facilities serving the homeless. In addition to facilities supported by the Community Facilities Element, the City can coordinate with other institutions such as private schools and places of worship. Identify the network of these facilities, assess their vulnerability and consequences to hazards, and create a set of strategies to mitigate harm so that these are available and functional to the community during disaster.

POLICY 3.3.2.

Identify and replace vulnerable infrastructure and critical service lifelines in high-risk areas.

In the event of a disaster, two of the most critical networks will be the City's water system and its sewer and sanitation lines. Upgrades are already underway: the San Francisco Public Utilities Commission (SFPUC) and Public Works have ongoing programs to replace vulnerable water mains and sewers and to improve performance of the systems during earthquakes—by including system segmentation, safety shut-off systems, and redundant back-up systems or other methods of reducing damage—and providing alternative sources of service. SFPUC is undertaking a Water System Improvement Program to strengthen the Hetch Hetchy water transmission system against earthquake damage. A connecting pipeline is currently under construction to connect the region's major water supply systems of the Hetch Hetchy, managed by the SFPUC, and the reservoirs in Calaveras, Amador, and Alpine counties managed by the East Bay Municipal Utility District (EBMUD), which will enable water to be distributed from one Bay Area system to another in the case of failure. However, aging infrastructure in the City's sewer and sanitation system is a concern—beyond ailing pipes, the City's tunnels, pump stations, and treatment plants need upgrades and repairs. The San Francisco Sewer System Master Plan project currently underway at the SFPUC will eventually provide a detailed roadmap for these major

improvements and provide a plan for funding these improvements.

Other upgrades underway include Pacific Gas and Electric's seismic program replacing vulnerable gas lines, and Caltrans' bridge and highway retrofit programs. BART is in the midst of a system wide seismic upgrade project; the City should lobby for continued seismic retrofit and disaster-resistance measures on our regional transportation systems such as Caltrans and AC Transit. More upgrades are needed to PG&E's electric system to reduce the risk of service disruption to customers, including transmission improvements, replacement of vulnerable transformers, circuit breakers, and other at-risk components of the electric system. The City should require a specific plan detailing these improvements, and a timeline for their implementation.

POLICY 3.3.3.

Conduct capital planning to advance resilient infrastructure prioritizing life safety and functional recovery, as well as the needs of Environmental Justice Communities and other vulnerable people.

In capital planning, incorporate environmental justice analysis of community facilities and other critical infrastructure that serve, impact, and are more used by Environmental Justice Communities and other vulnerable people. Community facilities provide public services, such as public schools, child-care facilities, fire stations, police stations, recreation centers and parks, public and non-profit health facilities, libraries, arts and culture facilities, social welfare facilities, and facilities serving the homeless. With community outreach and engagement, listen to resident needs and priorities of their built environment and public realm. Explore how public infrastructure projects can limit environmental justice burdens and improve outcomes for active transportation, open space access, and climate resilience.

POLICY 3.3.4.

Where there are ongoing and known plans for future public infrastructure projects, consider prioritizing maintenance of public access and protecting the public rights-of-way above the needs of private property and development.

Public infrastructure projects often depend upon the system of public rights-of-way for accommodation. For this reason, the City should prioritize maintaining and protecting the public rights-of-way, above and below street level, for future public use. The City should refrain from issuing encroachment permits to private development without considering these priorities.

For certain public infrastructure projects to deliver lifeline and other public services, they can be so large and complex that they cross multiple jurisdictional boundaries and rights-of-way between public and private spaces. The City must protect the public-rights-of-way, especially above the needs of private development projects, to have a space to deliver public services. Ensure that private encroachment permits do not interfere with future public infrastructure projects.

POLICY 3.3.5.

Provide training, guidance, and assistance for nearby communities most impacted to potential threats and consequences to public assets and infrastructure within the Sea Level Rise Vulnerability Zone.

In the Sea Level Rise Vulnerability Zone, over six percent of the City's land (about four square miles) could be inundated by temporary or permanent flooding by 2100. This will affect people, jobs, and vital infrastructure in the City. There are public assets and infrastructure like the Muni yard and San Francisco Public Utilities Commission water stations that are at risk. The City should develop training, guidance, and assistance to communities in and adjacent to the vulnerability zone on how these assets may be affected and how their lives may be impacted.

These resources should increase the City's understanding of how sea level rise and inundation is a potential threat and consequence to the vulnerable communities; increase communities' understanding of adaptation efforts underway; how to stay involved; increase adaptation capacity; and decrease disruptions in service.

Resilience to Future Hazards

POLICY 3.3.6.

Maintain research, monitoring, and guidance related to earthquakes, sea level rise, and flood hazards to inform a framework for future investments and development.

In San Francisco, earthquakes are the greatest hazard risk to life and property due to the San Andreas and Hayward Faults. Within the next 30 years, the probability of the San Francisco Bay region experiencing an earthquake measuring magnitude 6.7 is 72%. Unlike other hazards, earthquakes strike without warning. Even if the next earthquake was accurately predicted with a week's warning, without advance planning and action, there are tens of thousands of seismically vulnerable buildings throughout the region that would be severely damaged or collapsed. On the other hand, sea level rise is a slow-moving threat that also demands immediate action. By 2030—without taking any adaptation actions—the City is at risk of sea level rise negatively impacting 5,000+ residents, 10,000+ jobs, 200+ acres of open space, and other communities, buildings, and assets.

The City needs to learn more about the evolving science of earthquakes, sea level rise, and flood hazards, monitor the impacts and potential threats to the people and assets of the City, and guide adaptation and response activities to these hazards. It is especially important to understand the interactions of these hazards, and with other hazards like biological hazards (e.g., hazardous materials), to inform effective investment and development of strategies for resilience.

POLICY 3.3.7.

Support the development and updates to building, planning, and other municipal code requirements that meet City climate and seismic resilience performance goals.

The design and construction methods used in buildings are critical to community safety and resilience. At regular intervals, use best practices to review and amend all relevant public codes to incorporate the most current knowledge of structural engineering regarding seismic risks; design and site new buildings considering flood and sea level rise elevations; and green building practices relative to best biologic and ecosystem processes.

Among U.S. cities in areas of very high seismic hazard, the City is unique because of its geography, urbanization, and reliance on public transportation. Current seismic codes ensure that new buildings are earthquake- and fire-resilient, and protect people inside buildings by preventing collapse and allowing for safe evacuation. However, current code requirements do not necessarily limit damage to a structure, or ensure its function post-earthquake. Damage to new buildings and developments can have magnified impacts that affect adjacent structures and the City's lifelines.

A number of factors support the idea that new and retrofitted buildings in the City should be built for better seismic performance than the default level provided by the current Building Code. Consider creating tiered, "enhanced" levels of seismic performance that are performance-based by offering incentives such as priority processing (similar to a LEED certification for sustainable design).

There are additional nature-based solutions that support the built environment's contribution to

enhanced natural ecosystem function. Consider higher floor elevations, softscape and natural buffers, and other flood proofing approaches within the Sea Level Rise Vulnerability Zone. Use the latest climate resilient expectations in the Building Code.

POLICY 3.3.8.

For new construction and public assets, consider resilience measures against future climate projections and other hazards, beyond current life safety expectations in building codes.

Many hazards, such as sea level rise and extreme heat, are occurring more frequently and intensely. The research shows nonlinear projections of how these hazards occur and impact the City. While building codes prioritize life safety and seek the latest best practices, the Safety & Resilience Element encourages resilience measures in new construction and public assets to act aggressively against all hazards and their future climate projections. As the climate crisis worsens, it is beneficial to act out of an abundance of caution to protect the safety and increase resilience of people and assets. The City encourages utilizing resilience measures that may not be reflected in building codes yet or may not yet have been applied.

POLICY 3.3.9.

Design and utilize open spaces considering their use as emergency gathering areas, floodable spaces, and ecosystem services, per the Recreation and Open Space Element.

For certain hazards, such as earthquakes, flooding, pandemic, and extreme heat, open spaces in the public realm can serve as critical spaces for emergency gathering (evacuation, shelter) and buffers (retreat). Per the Recreation and Open Space Element, design and utilize open spaces to act as emergency gathering areas that are low-risk, flexible use, and resilient. Additionally, these open spaces along and near the ocean and bay shorelines can serve as floodable spaces as part of nature-based solutions to sea level rise and flood hazards.

POLICY 3.3.10.

Identify and maintain emergency access areas and potential evacuation routes to support capacity for future emergencies and evacuations.

During certain disasters, the City must maintain an essential transportation network to facilitate disaster response and safety. Public Works maintains an Emergency Priority Route Map which is integrated into the Department of Emergency Management's Emergency Response Plan. The map identifies a priority route network for City agencies to conduct damage assessment and maintain critical facilities and services post-disaster, such as a major earthquake.

For evacuation needs, the City must also maintain the safety and function of streets and roads to activate as evacuation routes and emergency access areas at any time. These transportation corridors will need to support an influx of users and maintain structural integrity and function during a large earthquake or other disaster. As part of identifying potential evacuation routes, the City must identify accessibility needs of people with limited mobility options and other vulnerable people, such as people with disability, access, and other functional needs.

Where known, consult with relevant authorities governing major transportation corridors and access areas to ensure all levels of government are aware of the current and future capacity expectations for safe evacuation. These activities should include sub-surface, ground, air, and water transportation routes.

OBJECTIVE 3.4.

SPECIFIC HAZARDS. **Identify and pursue programs and projects that mitigate and safeguard against multiple hazards across multiple assets, especially for Environmental Justice Communities and other vulnerable people.**

POLICY 3.4.1.

Assess, mitigate, and provide holistic information about all hazards affecting the City, as identified in the Hazards and Climate Resilience Plan.

The City should advance research and understanding of all hazards and their impact to the people and assets of San Francisco. The Hazards and Climate Resilience Plan (HCR) serves as the City's Local Hazard Mitigation Plan (LHMP). The City should work with the academic community, appropriate government agencies, and other stakeholders to assess the threat and impact of the 13 main hazards to the City. Coordinate this basic research with the appropriate data clearinghouses in the City that relate to achieving racial and social equity, public awareness, and informing decisions around capital planning and development.

These hazards include geologic hazards (earthquake, tsunami, landslide, and dam or reservoir failure), weather-related hazards (flooding, high wind, extreme heat, and drought), fire-related hazards (large urban fire, wildfire, and poor air quality), and biologic and toxic hazards (pandemic and hazardous materials).These hazards can include the latest emerging hazards that may not be reflected in the Hazards and Climate Resilience Plan, such as sea level rise and noise pollution.

POLICY 3.4.2.

Protect against the risks of using, storing, and transporting hazardous materials and increase public awareness, particularly in areas prone to seismic and flooding risks.

The City should coordinate with the appropriate regulatory and monitoring agencies for the use, storage, and transportation of hazardous materials. The location of hazardous materials, existing and potential, should be in areas resilient to seismic and flooding hazards to minimize the spread as an environmental pollutant and threat to public health. Where hazardous materials are close to people, and critical assets like the water table, the public should be notified and empowered to seek more information and resources to protect health and safety.

POLICY 3.4.3.

Educate the public about hazardous materials procedures, including transport, storage, and disposal.

Hazardous materials include chemical, biological, radiological, nuclear, and explosive substances (CBRNE). Accidents such as toxic releases from facilities and vehicles, fires and explosions caused by chemical releases, and oil spills in the bay are not uncommon. There is also increasing awareness and research about the mobility of hazardous materials during inundation and flood hazards, particularly towards the groundwater table. The Federal Emergency Management Agency (FEMA) has estimated that an average of 60,000 accidents and over 200 deaths involving chemicals occur in this country every year. The City should support research about the interaction of toxic substances with groundwater threats.

Several of the City's agencies provide businesses and residents with information about safe disposal of hazardous materials, primarily the Fire Department and Department of Public Health. The City's Fire Department is responsible for

administering local safety regulations for business operating with hazardous materials, and it is the first responder to chemical and hazardous spill accidents. The Fire Department is also the point of contact for risk/hazard assessments, capability assessments, and detailed response planning. The Department of Public Health enforces state and City environmental health laws, including hazardous materials storage; issues hazardous materials use permits; and investigates illicit discharge and disposal of hazardous materials.

For common CBRNE hazards at the household-level, the Neighborhood Emergency Response Team (NERT) educates the community about their indicators and safe disposal methods. The Public Utilities Commission also provides residents and businesses with information (through ads and website resources) on how to properly dispose of hazardous materials including waste oils, such as motor oil.

POLICY 3.4.4.

Develop a plan for supporting Environmental Justice Communities and other vulnerable people during Sheltering-in-Place activities, to protect from poor and hazardous air quality, pandemic, and other hazards.

During a disaster, sheltering in place may be necessary to social distance, prevent the spread of disease, protect from threats to health and safety, and support public health. Sheltering In Place requires safe, healthy, and affordable housing be available to all. It limits the ability for people to conduct their routine behaviors for living and working, such as grocery shopping, going to work, and going outdoors for physical and mental health. The City should develop a plan for supporting Environmental Justice Communities and other vulnerable people during shelter in place, including assessing information and resource needs, culturally competent communication, outreach of public services, and disaster supplies.

POLICY 3.4.5.

Prepare for efficient and equitable responses to medical emergencies and pandemics.

On January 21, 2020, the City activated its Emergency Operations Center to support the response to COVID-19 and coordinate with active Department Operations Centers. Mayor Breed's early decision to proclaim a local emergency was instrumental to San Francisco's ultimate success responding to the pandemic, allowing City agencies to enact emergency procedures that helped save lives. As of December 2021, the City continued to have the lowest cumulative per capita COVID-19 mortality rate among other large jurisdictions.

The COVID-19 Pandemic Response After Action Report outlined the strengths of the City's response and suggested further updates to enhance the City's emergency response plan. In addition to early and rapid action, the City's successful response can be attributed to the unified priorities, pooled resources, and clear communications that came from the coordinated COVID Command Center, as well as the flexibility and capacity provided by the Disaster Service Workers. Specifically, improvements should focus on increasing racial and social equity in the community, improving the City's Disaster Service Worker program, and providing further clarity and streamlining to both the organization of response services and procurement of disaster supplies.

For all future pandemics and other medical emergencies, the City should create an advance plan to prepare for a similarly successful early and rapid response. This plan should include the disease testing and response capacity of hospitals; disaster supply needs at the household, neighborhood, and citywide level; community health capacity of community facilities; and accessibility capacity of public information. The City should ensure the public is kept well informed about evolving information regarding the public

health emergency. The City should ensure systems are in place to ensure continuity of public services, such as public transportation and utilities service with staff absences. The City should solidify plans to ensure access to a stockpile of emergency services to use and distribute, such as medicine and protective equipment.

POLICY 3.4.6.

Assess and mitigate the risk of flooding by incorporating the Flood Insurance Rate Map for San Francisco and related programs.

The National Flood Insurance Program (NFIP), managed by the Federal Emergency Management Agency (FEMA), provides low-cost flood insurance for communities that adopt floodplain management programs to help mitigate flood losses and damages. FEMA uses the Flood Insurance Rate Map (FIRM) to identify areas with 1% annual chance of flooding, and it uses this as the basis for insurance rating.

FEMA approved the City's application for participation in the NFIP in April 2010, and subsequently, the City has amended the 2008 Floodplain Management Ordinance in order to meet NFIP requirements. The established flood damage reduction program provides homeowners and other property owners the opportunity to purchase federally-subsidized flood insurance at affordable rates. FEMA issued a preliminary FIRM for San Francisco in 2007. The final map and ordinance was adopted in 2020.

The Floodplain Management Ordinance requires the first floor of structures in flood zones to be constructed above the floodplain or to be flood-proofed with variances for exceptional circumstances. The map, as proposed, would designate portions of waterfront piers, Mission Bay, Bayview Hunters Point, Hunters Point Shipyard, Candlestick Point, and Treasure Island in coastal flood hazard zones, which may have implications for development plans and insurance requirements in those areas.

To mitigate against potential risks, the City should maintain NFIP participation and use the information provided by FEMA to engage in additional floodplain improvements to at-risk areas. The City should continue to implement ordinance requirements for new construction, address flood hazards in wastewater projects, and pursue ordinance requirements for substantial improvements projects located in Special Flood Hazard Areas.

POLICY 3.4.7.

Support retrofitting measures for historic buildings vulnerable to current or future flooding, while respecting architectural and historic character, consistent with pertinent local or federal design guidelines.

Consistent with design guidelines at the local and federal levels, address the unique retrofitting measures required for historic buildings that are vulnerable to sea level rise and flood hazards. The U.S. Secretary of the Interior issued flood mitigation design guidelines for historic properties, and the City can explore additional design guidelines that respect the architectural and historic character that is vulnerable to damage.

GOAL 4. EMERGENCY PREPAREDNESS.

Ensure San Francisco's residents, workers, and visitors have the knowledge, capacity, and government support needed to be safe in the face of disasters.

The City must be prepared to respond quickly and effectively in the case of a disaster. In order to meet the needs of its people and assets after a disaster, response, recovery, and reconstruction plans must be prepared in advance to the extent possible. The City must have the coordination necessary to execute them rapidly. In addition to readying its own agencies and departments, the City must ensure all people are aware and prepared for the possibility of disaster. State and local emergency responders advise people to be prepared for a minimum of 72 hours of self-sufficiency after a large earthquake. Achieving preparedness is even more critical for vulnerable populations and those in geographic areas and building types that are more vulnerable to earthquake damage.

OBJECTIVE 4.1.

AWARENESS AND CAPACITY BUILDING. **Increase the understanding and training of equitable emergency preparedness to all hazards among all government, private, and public sectors.**

POLICY 4.1.1.

Provide ongoing emergency preparedness and response training to all City employees and other responding agencies.

Under state law, all public employees are designated Disaster Service Workers. At any time during an emergency that results in conditions of disaster or in extreme peril to life, property, and resources, City employees could be assigned to any disaster service activity that promotes the protection of public health and safety. The Department of Human Resources (DHR) manages the City's Disaster Service Worker Program, which includes mandatory training for all City employees. The Department of Emergency Management (DEM) is responsible for ensuring that City employees are trained to perform as needed under the City's emergency plans.

The City should also continue to hold multi-agency drills on a regular basis to test and refine emergency plans. During the COVID-19 pandemic, the Disaster Service Worker Program was a vital source of staffing for the Emergency Operations Center and for responding to community needs. DHR, in consultation with DEM and other City agencies, should continue to refine the Disaster Service Worker program so that is deployed equitably continues to be used effectively to bring response activities to the community.

POLICY 4.1.2.

Promote greater public awareness of disaster risks, personal and business risk reduction, and personal and neighborhood emergency response.

People and organizations that are well informed about possible disasters can take effective private measures to reduce their vulnerability to risks. They can also increase their effectiveness in responding to a disaster and helping others when public agencies are overwhelmed. Several of the City's agencies, including the Department of Emergency Management, the Fire Department, the Police Department, Public Works, and the Department of Building Inspection, provide information to the public on what to do in a disaster. As an example, the Fire Department administers the Neighborhood Emergency Response Team (NERT) to deliver on these goals. The Department of Building Inspection maintains a list of earthquake information and emergency power shut down information at its public reception and on its website.

However, information access can be increased beyond these sources, especially to reach populations who may be less familiar with the City system and are less frequent visitors to City buildings. Materials should be placed in everyday materials such as newspapers; alternative venues such as social clubs, community facilities, or service agencies; and distributed via mobile sources at gatherings such as fairs and festivals. Information should be available in large print and on audio cassette for the visually impaired, as well as in a variety of non-English languages.

POLICY 4.1.3.

Create a consolidated website linking all the City's disaster-related information for the public and ensure distribution of the information through offline outreach that is accessible and equitable to all people.

Just as the responsibilities for disaster planning programs is distributed among many agencies and departments within the City, the related information about those programs and operations is dispersed. Much information is housed within the agencies responsible, and it can be difficult for the layperson to access all the information that exists.

The City should utilize technology to redress this issue—a simple solution would be to bring together all the varied information that exists into one website. This site should contain links to hazard maps of geologic hazards and soil conditions; to the City's adopted emergency response plans and other related plans and documents; to programs such as Building Occupancy Resumption Program (BORP) and Neighborhood Emergency Response Team (NERT); to programs for property owners, incentives, and other action items; and to information about emergency services and locations. It should map relevant public information such as drinking areas, evacuation routes, emergency transport pick-up locations and locations of Public Information Centers to be set up in an emergency.

This consolidated website should be accessible to equitably reach all people, through availability on both web and mobile platforms, translation into many non-English languages, and accessible to screen readers.

POLICY 4.1.4.

For pandemic preparedness, develop a framework of healthcare management that combines the City's physical assets with social and management tools to better respond to public health emergencies.

The COVID-19 pandemic transformed society overnight. It rapidly altered how people interacted with one other and the built environment, as society wrestled with how to apply public health principles to stop the spread of the virus and

prevent further loss of life. Building on these lessons from COVID-19, as well as other infectious diseases, the City should develop a comprehensive framework of healthcare management that includes physical and intangible resources to maximize public health outcomes. For physical assets, there are medical institutions, public infrastructure, and land use patterns. For intangible resources, there is social cohesion (strength of relationships and sense of solidarity among community members), trust in government, and socio-cultural factors. These two groups of assets can be managed holistically to manage the transmission and control of infectious disease and maximize public health outcomes.

OBJECTIVE 4.2.

***CITY AGENCY CAPABILITIES.* Plan for the operational, data, and logistical capacities needed to facilitate community safety during the response, recovery, and reconstruction phases of all hazards.**

Water and Energy

POLICY 4.2.1.

Ensure potable water is available in an emergency.

The San Francisco Public Utilities Commission (SFPUC) has various strategies for supplying and/or distributing alternative water supplies during an emergency. Emergency disinfection may be necessary. The California Department of Public Health has issued guidelines for the use of alternate water sources and the issuance of Unsafe Water Alerts and Boil Water Orders. Usage of alternative water supplies will require coordination with appropriate agencies, such as San Francisco Department of Public Health, California Department of Public Health, San Francisco Fire Department, and others.

At the supply and source level, SFPUC has redundancy of sources under the operational responsibilities of Water Enterprise and Operating Divisions. These include Upcountry reservoirs, East Bay reservoirs, Peninsula reservoirs, and local groundwater. At the treatment level, SFPUC has plans and procedures for responding to treatment issues and disruptions. At the distribution level, SFPUC maintains a range of equipment and procedures for alternate delivery. Equipment includes water trailers, portable disinfection units, and 40 hydrant distribution manifolds. Manifolds, water trailers, and other equipment is stored at either CDD Corporation Yard or storage facility at University Mound. Bottled water is identified as a needed alternate water strategy, and supplies and distribution points would be coordinated and acquired at the City Emergency Operations Center level, through citywide logistics.

The SFPUC has installed 6 groundwater wells on the westside of San Francisco. The groundwater wells currently pump less than 1 million gallons per day (mgd) and is expected to increase to 4 mgd by 2030. Additionally, SFPUC is studying the opportunity to produce and serve purified water in San Francisco.

POLICY 4.2.2.

Ensure renewable energy sources are available for redundant energy in the event of an emergency.

More frequently, the threat of Public Safety Power Shutoffs (PSPS) is affecting San Francisco. The

increased frequency of wildfires occurring at the regional and state levels pressure PG&E to turn off power lines during high winds or dry conditions. Fortunately, San Francisco is less likely to experience a PSPS compared to other jurisdictions due to the lower likelihood of wind-induced fire events with the City and its location on the transmission grid. However, the disruption in energy service is an inconvenience and threat to wellbeing that should be addressed through resilience of the energy grid.

There are many people who rely on continuous, affordable energy for their health and safety, such as storing life-saving medication and motorized wheelchairs. There are also public assets and infrastructure that relies on energy for safety and function, such as broadband internet and traffic lights. PSPS events occur due to a number of potential hazards, such as high winds, drought, and wildfire. The City should pursue strategies for redundant energy sources and use in the event of an emergency, and seek renewable sources of energy that do not contribute to the climate crisis. The City should continue to work with relevant government agencies, the private sector, and other stakeholders to assess capacity to generate, store, and distribute renewable energy for essential lifeline and recovery activities.

POLICY 4.2.3.

Continue to expand the City's fire department prevention and firefighting capability with sufficient personnel and training.

The City faces risk from fires associated with earthquakes. A great number of structures were lost in the 1906 earthquake, not due to the ground shaking itself, but because of the spread of fires that were difficult to battle in the aftermath of the quake. Fires continue to be a great threat, particularly in densely developed areas.

The supplemental water supply systems have been extended and strengthened since the Loma Prieta earthquake, including the Auxiliary Water Supply System, the Portable Water Supply System, cisterns, Bay water suction devices, and fire boats. Staffing and equipment needs of the Fire Department must be foreseen in advance and met. The City needs to improve water supply systems to cover those neighborhoods not served by the Auxiliary Water Supply.

The Fire Department should consider expanding the scope and training of Neighborhood Emergency Response Training (NERT) to include fire suppression, fire reporting, and other neighborhood recovery assistance, and consider coordination with neighborhood-level disaster planning.

Disaster Response

POLICY 4.2.4.

Ensure the City's designated system of emergency access routes is coordinated with regional activities for both emergency operations and evacuation.

After a large earthquake or other disaster, it is likely that many streets will be impassable. This will make firefighting and other emergency response actions more difficult, hinder the movement of people, and interfere with debris removal and other short-term recovery activities. In order to support post-disaster transportation movement, Public Works has developed priority routes for opening during an emergency or disaster. These routes include routes which connect fire and police stations, hospitals, and other critical facilities; routes to emergency drinking water distribution sites and City shelters; and routes to staging areas for disaster service work around the City. These routes enable the necessary clearance width for emergency vehicles and support trucks, and they have been prioritized for debris clearance immediately following a disaster.

The City should ensure that the regional sequence of clearance activities is coordinated to connect with these priority routes, and that the route openings are well-timed to sync with the opening of bridges and regional highways. This coordination can be directed using information from the Transportation Management Center (TMC) staffed by Caltrans, California Highway Patrol, and MTC, specifically its Emergency Operations Center (EOC) which was created for procedural disaster management. In addition, the Regional Emergency Operations Center (REOC) Transportation Branch will distribute a transportation service plan which shall include information related to regional evacuation and route openings. For Caltrans District 4, the EOC is activated to serve as the central location to manage and coordinate responses to major incidents/disasters affecting State transportation facilities.

POLICY 4.2.5.

Utilize the City's and region's transit network to facilitate response and recovery during and after a disaster.

The transit network—bus, rail, freight rail, transit, ferry, and air—will be a critical component of response during a disaster. As dependence on cars will not work well in a state of emergency, the transit network will be a critical component of response during a disaster. The City's vehicular network is limited by bridges and freeways with little redundancy; damage caused by the event to roadway networks, security considerations, and traffic control may require the restriction of private automobile use for months after the event. As of 2022, one in five residents in San Francisco does not have access to a personal vehicle and will require public transportation to access essential services. The transit network provides safe and efficient use of resources and is capable of moving significant numbers of people and equipment with relatively few resources. The San Francisco Municipal Transportation Agency has emergency reserves of fuel and is able to continue operations even when the region faces significant disruption.

Transit may be used in emergency situations to move emergency workers and deliver equipment to sites. Evacuation plans should incorporate public transportation to efficiently evacuate people quickly and efficiently without snarling roadways and impeding emergency operations.

Immediately following a disaster, the City should utilize its transit network to restore mobility—to help bring evacuees back to their neighborhoods, to move daily workers to jobs, and to resume day-to-day life. Coordinated transit services can be used to provide long-range links across counties. Additional temporary transportation improvements such as limited stop buses, bus-only lanes, and the addition of high-occupancy vehicle lanes may help relieve overtaxed freeway segments. The clear conveyance of route information and service maps, such as real-time road safety conditions and available public transit options, can help connect riders to services.

The Bay Area region, under the leadership of a task force that includes the CalOES, Caltrans, the Metropolitan Transportation Commission (MTC) and Bay Area transportation agencies, has developed a Trans Response Plan (TRP). The TRP sets out a framework for a coordinated, multi-modal, and timely response by Bay Area transportation providers to a major earthquake or other significant emergency in the region. The resulting procedures are tested on an annual basis through tabletop or functional exercises. The procedures have also been integrated into individual operator emergency plans so that the regional response can be automatically invoked, if needed.

The City, in cooperation with MTC, also has plans that address immediate emergency transportation needs, and the day-to-day transportation routes

that will need to be reinstated in order for the region's activities to resume. The Transportation Coordination and Recovery Plan (TCRP) focuses on emergency transportation, evacuations, and the movement of emergency workers. The Regional Transportation Emergency Management Plan (RTEMP) addresses how agencies will coordinate with each other to assist with the movement needs of the public following a major disaster. Together, the two plans are expected to result in a single, unified program to direct the region's transportation resources.

OBJECTIVE 4.3.

***CITYWIDE COOPERATION.* Create proactive plans and programs to prepare readiness and coordination for all disasters.**

Emergency Management

POLICY 4.3.1.

Bolster the Department of Emergency Management's role as the City's provider of emergency planning and communication, and prioritize its actions to meet the needs of San Francisco.

The Department of Emergency Management (DEM) has responsibility for developing the City's Emergency Response Plan, annexes, and other emergency plan elements; supporting the coordination of the response and recovery agencies; providing emergency training opportunities; conducting and advising on functional and discussion-based exercises, coordinating activities with regional, State and federal agencies; and maintaining the Emergency Operations Center. This agency must be maintained at an appropriate level, with sufficient personnel and resources to carry out these tasks.

The agency also manages Homeland Security Grants disbursed by the federal government. In recent years, the City has been the recipient of a significant amount of homeland security funds, most of which were targeted for urban centers. In the future, DEM should work with the state to improve its homeland security spending, to ensure that grant money can be effectively utilized and will not revert back to the federal government.

POLICY 4.3.2.

Support the Emergency Operations Center and continue maintenance of alternative operations centers in the case of an emergency.

The City's Emergency Operations Center (EOC) is designed to serve as a secure well-equipped location for centralized communications and direction. This center houses the Department of Emergency Management, including its Division of Emergency Communication, and consolidates 911 calls and Fire, Police, and Medical Dispatch. It is managed by the Department of Emergency Management.

However, emergency centers may be destroyed or rendered inaccessible in a major catastrophe. The City should prepare for this possibility in advance, by ensuring duplication of information and systems in multiple locations, by identifying alternative sites for temporary EOCs, and by establishing a mobile command center with the necessary technology and information infrastructure for flexible operations.

POLICY 4.3.3.

Ensure all response plans are coordinated with the Disaster Council.

The San Francisco Disaster Council is the City's central body for emergency planning, and it has been accredited by the California Emergency

Council. The Disaster Council is codified by the San Francisco Administrative Code, Chapter 7. The Disaster Council is chaired by the Mayor and composed of the Director of Emergency Services, key department heads and City officials, three members of the Board of Supervisors, and representatives of private organizations having official emergency responsibilities. The Council reviews the efforts of the Emergency Response Planning Task Force and recommends emergency actions such as mutual aid plans and for adoption by the Board of Supervisors.

In order to coordinate the actions of the various agencies throughout the City, the Disaster Council should serve as a central repository for all hazard mitigation, preparedness, and response and recovery activities. The Disaster Council, through its contact with the State Emergency Council and the several local disaster councils within this metropolitan area, can ensure that the work of the City is coordinated with those of the surrounding region. All actions recommended by the Safety & Resilience Element, and developed in other efforts or documents, should be brought forth to the Disaster Council for their review and approval.

POLICY 4.3.4.

Maintain and implement a comprehensive, current Emergency Response Plan with neighborhood-level detail on equitable implementation to guide the response to disasters.

The Emergency Response Plan (ERP) ensures that the roles of City agencies and others are well defined, in compliance with applicable state and federal regulations. The ERP utilizes an all-hazards approach to emergency planning and encompasses all natural and human-made hazards applicable to the City. Specifically, the ERP identifies and describes City interactions with regional, state, and federal entities; the role of the San Francisco Emergency Operations Center (EOC); and the coordination that occurs between the EOC and City agencies. The ERP should include the responsibilities of Equity Officers and neighborhood-level planning to ensure equitable outreach. There should be periodic functional and discussion-based exercises of the ERP to test plans and identify gaps in emergency management practices.

POLICY 4.3.5.

Maintain and implement the San Francisco Disaster Debris Management Plan.

The City's Emergency Response Plan includes a response strategy, identifying post-disaster debris management as a key function. The Post Disaster Debris Management Plan establishes a strategy for removal and disposal of disaster debris. Designating appropriate temporary and permanent disposal sites as part of this plan is critical for long-term land use planning.

Post-disaster, the Plan aims to incorporate existing waste ordinances, diverting as much waste as possible from landfills though reuse and recycling. All vegetative debris should be composted; metals should be recycled; other wastes should be separated and reused or recycled wherever possible. Disaster recycling programs seeks to follow the City's recycling program already in place, so as not to require new permits or other legal permission to be developed. The City should develop clear guidelines to direct businesses and residents as they deal with their own debris and trash removal after the disaster.

Communications

POLICY 4.3.6.

Utilize advance technology to enhance communication capabilities in preparation for all phases of a disaster, particularly in the high-contact period immediately following a disaster.

Reducing the impacts of natural and technological hazards requires extraordinary cooperation and

coordination among City agencies, and between departments and other governments and non-government agencies. During the immediate response period, the City will need to determine the extent and location of damage, marshal resources for response, provide information to the public, and provide critically needed services to the affected populations. The Division of Emergency Communications of the Department of Emergency Management maintains responsibility for coordinating communication among emergency responders, private partners, and people in San Francisco to ensure an effective and successful emergency operations system.

The City currently uses technologies such as geographic information systems and global positioning to allow wide access to everyday information, and is extending these networks to enhance disaster communication. The City has developed an emergency text-message alerting system, AlertSF, which delivers disaster notifications to registered users, and allows users to access neighborhood specific information. It has reestablished the World War II-era sirens to provide alerts, and it is further upgrading the system to broadcast voice instructions for responding to an emergency. There is the 311 City phone service, where callers will get assistance from an agent 24 hours a day, 7 days a week, and will provide real-time instructions during an actual emergency.

Continuing advances in technology and information systems will enable information to be more widely, quickly, and reliably. Under the direction of CalOES, the City should keep abreast of these advances and utilize them to bolster the existing local information network. The Department of Technology and Office of Economic and Workforce Development should explore opportunities to use technology to keep all people informed during an emergency, using the full potential of rapid, online, and offline communications mediums. The City should ensure redundant networks exist to communicate at all levels, to internal staff and emergency response personnel, to convey public information, to ensure communication with special needs populations such as the hearing impaired or non-English speakers.

The City should explore work to improve inter-departmental communications during a disaster. The City's police, fire and most other agencies are on the same radio system, but other agencies such as the City's Municipal Railway and the California Highway Patrol use separate systems. The City should work internally to coordinate the radio frequencies used for its various agencies to aid smoother communications during a disaster. The public safety agencies throughout the Bay Area use a varied network of radio frequencies and equipment, making direct intercommunication difficult. The City should also coordinate with other municipalities to coordinate frequencies across the Bay Area, perhaps using a model similar to that used by the San Diego area, where a regional radio communications network links all of the areas public safety agencies.

POLICY 4.3.7.
Enhance communications with other jurisdictions.

Local Emergency Planning Committees (LEPCs) are regional entities set up to enhance coordination among adjacent municipalities. LEPCs are comprised of representatives from local government, the fire service, law enforcement, the local community, and industry; and they are intended to facilitate the coordination and flow of mutual aid. CalOES Coastal Regional Branch-Mutual Aid Region 2 is the LEPC for the San Francisco Bay Area and nearby counties.

The City is acting as the lead agency to develop a Regional Emergency Coordination Plan (RECP) to help the Coastal Region CalOES address gaps in regional emergency plans. The plan will detail how

the communities which make up the LEPC will work together on evacuation, housing and transportation of displaced people. It also will outline how medical professionals will interact and how to cope with threats to the water supply, among other issues. Once complete, the City should utilize this plan as a basis for emergency operations issues that transcend City boundaries, such as emergency transportation, evacuation, and the movement of emergency workers.

Public Safety

POLICY 4.3.8.

Plan to address safety and violence issues that may arise post-disaster, and balance these issues with the other demands that will be placed on public safety personnel as emergency response providers.

Violence in the community, including looting and rioting, can occur in the aftermath of disaster. Desperate situations, such as being without food or being stranded with no expectation of rescue, can lead to despair and risky personal actions. Experts state that perceptions of widespread community violence are often based on misinformation, citing human tendency to misread crowds as more malevolent than they really are.

The Centers for Disease Control recommends that efforts to prevent violence after a natural disaster should focus on supporting the physical and emotional needs of individuals and families as well as restoring community-based services. De-escalation training should be provided to all City employees and volunteer emergency responders. San Francisco recently started a program called, Street Crisis Team, that sends Fire and Health teams to respond to behavioral issues, instead of police. Similar programs should be pursued to prioritize the deployment of police officers for interventions where they are most needed.

During a disaster, police will be needed for public safety including activities such as search-and-rescue activities, directing traffic, or dealing with other emergency duties. Police response must be coordinated so that it can respond to both social and physical needs in the face of disaster. Law enforcement agencies, including the San Francisco Police Department and the Sheriff's Department, District Attorney's Office, agency forces such as San Francisco Municipal Railway Police Department, and institutional agencies such as the San Francisco Community College District Police Department, should work to ensure better organization among agencies, so that their magnitude can be leveraged towards the many services that will be required. The City should also maintain relationships with state and federal level peacekeepers that may be needed in an emergency, such as the Coast Guard and National Guard. Finally, security forces should establish communication with Disaster Service Workers to mobilize civilians if necessary to support their efforts.

Partnerships

POLICY 4.3.9.

Develop and maintain mutual aid agreements with local, regional, and state governments as well as other relevant agencies.

Many state and local governments and private nonprofit organizations enter into mutual aid agreements to provide emergency assistance to each other in the event of disasters or other crises. The California Master Mutual Aid Agreement has been adopted by the City, as well as most cities and counties in the state. This agreement creates a formal structure for giving and receiving assistance in emergency situations. The City should expand its network of mutual aid beyond local governments to include relevant agencies such as transit providers, utilities, volunteer agencies and professional organizations for groups like health workers and emergency managers. Numerous agencies and businesses may have resources—facilities, trained staff,

transportation or equipment—that can be valuable in emergencies. The City should pursue Memorandums of Understanding or other contracts with any local agencies or businesses that can be identified as resources, including the Unified School District. Discipline-specific mutual aid agreements, such as those for public works, engineering, or public information, may also be useful.

POLICY 4.3.10.

Continue coordination with water transit agencies, ferries, and private boat operators to facilitate water transportation as emergency transport.

Water transit can provide vital transportation support in response to a natural or human-made disaster. Following the 1989 Loma Prieta Earthquake, ferries were heralded for providing much-needed commute service and moving goods. Commercial boats can supplement the role of ferries in evacuating people and provide transit to emergency personnel and equipment in reaching disaster sites.

Vessels must be quickly deployed where most needed, and the response needs to be coordinated with land transit providers to get evacuees to/from the shoreline. The Trans Response Plan (TRP) includes a Regional Maritime Contingency Plan, which aims to establish this coordination through its guidelines and procedures for utilizing the Bay's waters in the recovery phase of a major disaster.

The Water Emergency Transit Authority (WETA) manages the Emergency Water Transportation System Management Plan which lays out emergency response and communication procedures in the case of an emergency. WETA also has plans to add seven new routes through its Ferry Implementation and Operations Plan, and will add a number of new boats and terminals. The increase in capacity gained by these new improvements would allow the Bay Area's ferries to carry over 20,000 trips per hour during a response to disaster, which is almost the evacuation capacity provided during the Loma Prieta earthquake by ferries. The City should support these plans and should ensure coordination is in place. While existing public transportation ferry services within the Bay Area are being transitioned to WETA management and ownership, the City should coordinate with private operators not yet transitioned to WETA, with the aim of establishing emergency aid agreements for the boats as well as the operators in the case of need.

POLICY 4.3.11.

Ensure the City's plan for medical response is coordinated with its privately-owned hospitals.

The Department of Public Health is the City's lead health response agency in the event of a hazard that leads to a major health emergency. They should continue efforts to coordinate with Bay Area private hospitals, community-based clinics, and community-based organizations in the Bay Area.

POLICY 4.3.12.

Develop agreements with private facilities to ensure immediate supply needs can be met.

Supplies that may be critical and in short supply after a disaster include food, water, medical supplies. Hospitals and service providers may also have difficulty in obtaining replacement equipment and medication. The City should coordinate agreements with private facilities such as hospitals, private schools, and warehouses to ensure that reasonable quantities of these necessities can be made available to the City and its people in case of a disaster. The City should also maintain its up-to-date list of rental agreements, for use of temporary supplies and facilities should they be necessary.

POLICY 4.3.13.

Develop partnerships with private businesses, public service organizations and local nonprofits to meet disaster-time needs.

The City should seek opportunities to partner with private sector businesses and organizations where possible. For example, drug stores can be used to distribute medical supplies and pharmaceuticals during emergencies. Medical institutions and university health centers can be set up to provide medical treatment such as inoculations in the event of a chemical or biological emergency.

Private and community-based organizations can assist with recovery activities, and in the dissemination of disaster information. The American Red Cross, Habitat for Humanity, Salvation Army, as well as numerous local groups, can be supportive partners in providing emergency shelter, food, clothing, and physical and mental health support. The City's relationships with these agencies and organizations should be mutually supportive. Local services, particularly in lower-income areas, such as food banks, senior centers, childcare centers, may be ill-prepared to cope with disaster. The City should assist in developing support networks for these organizations, providing them with employee response training, assisting them in securing insurance coverage and helping to develop contingency plans for their continued operations post-disaster.

OBJECTIVE 4.4.

GOVERNANCE AND COLLABORATION. **Increase the City's collective capacity to improve safety and resilience outcomes through effective collaboration among peer agencies, the private sector, and the public sector.**

POLICY 4.4.1.

Develop centralized strategies for City safety and resilience functions that hold individual agencies accountable for their roles in disaster planning, coordination, decision-making, funding, cost-sharing, implementation, and risk allocation.

The City must be prepared to deliver life safety and functional recovery services at all times. Beyond basic life-safety functions, critical government programs need to continue in the aftermath of disaster. While it is incumbent on each City agency to do their own planning, centralizing plans across departments is needed to ensure that efforts by individual departments complement each other and provide a continuous service to the public. These centralized strategies need to systematically ensure advanced planning results in the proper preparation activities, disaster response activities, and adjustments necessary for life safety and functional recovery. These strategies must also include securing dedicated funding essential to a sustained effort with program longevity and consistent engagement and outreach to connect with the private and public sectors.

POLICY 4.4.2.

Align safety and resilience work by regional, state, federal, and tribal government bodies to expand the reach and strength of local government support in the face of all hazards.

Actions that the City take should be consistent with regional, state, and federal plans and projections. the City should take steps to assist these larger governmental agencies in meeting

local needs. The City can pursue cooperative actions with other jurisdictions such as recommending localized and evidence-based strategies, exploring policy advocacy and funding opportunities for alignment, and developing mutual aid agreements.

POLICY 4.4.3.

Form effective and clear partnerships with non-government bodies, such as community organizations, institutions, private companies, and development partners to reach all people, especially Environmental Justice Communities and other vulnerable people.

When a disaster strikes, the "all hands on deck" response requires advance collaboration and partnerships across agencies, sectors, and jurisdictions. The overall response provided by government agencies, the private sector, and the public sector must be evidence-based, timely and proportional, multi-objective, and well measured and quantified. The long-term capacity-building partnerships with major institutions, like hospitals and universities, private development partners, and community-based organizations, will support response, recovery, and reconstruction activities meeting the highest resilience strategies.

The response, recovery, and reconstruction strategies must be based on strong, local evidence in order to reach all people at the neighborhood-by-neighborhood or block-by-block level. The strategies must be acutely aware that the climate crisis is an emergency that is already impacting communities and the environment, and so there is urgent and transformative actions needed. The strategies must be developed around racial and social equity and long-term sustainability, and they must be tracked as close to real-time as possible, so that adjustments and recalibration can be made in an informed way.

GOAL 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.

The first days after a disaster make up the response phase. Immediate response will focus on saving life and property damaged by the disaster and restoring functional recovery. The City has a network of emergency response strategies in place. The response activities will provide aid for the community, stabilization of day-to-day conditions, and support reestablishment of the critical economic welfare, social networks, and emotional well-being of the City.

OBJECTIVE 5.1.

***LIFELINES.* Provide critical information and services to prevent further loss of life and establish community safety during the immediate aftermath of disasters.**

POLICY 5.1.1.

Ensure the City's lifeline systems are constantly maintained to be in a state of good repair.

In 2010, the Federal Transit Administration (FTA) launched an initiative to maintain the nation's bus and rail systems. With state of good repair, there are well maintained and reliable bus and rail systems that provide safe, dependable, and accessible services at a full level of performance. These initiatives include having an inventory of all assets; reporting their performance and performance restrictions; and managing assets for preservation, maintenance, and operation.

As example, the transportation system is infrastructure essential to disaster response, such as serving as evacuation routes to move people out of harm's way and limit further loss of life. It is important that the transportation system is maintained to be in a state of good repair, meaning it remains in function or can soon return to function immediately after a catastrophic event. The City should coordinate with relevant government agencies, such as Caltrans and Federal Transit Administration, to preserve and expand transportation investments and financing for a well-maintained and reliable transportation infrastructure.

In San Francisco, the City can extend state of good repair principles to all lifeline systems. Lifelines are systems and facilities that provide services vital to the function of society and are important to the emergency response, recovery,

and reconstruction after disaster. These systems and facilities include communication (phone, radio, television, internet), power (electric, fuel, gas), transportation (airports, highways, ports, rail, transit), water and wastewater, and more.

To extend to other lifeline systems, the City should pursue an inventory, reporting system, and asset management plan to ensure the City's lifeline systems and facilities are constantly maintained to be in a state of good repair.

POLICY 5.1.2.

Ensure plans are in place to support people most at risk during breaks in lifeline service.

As events have repeatedly shown, from the Loma Prieta earthquake in 1989 to SARS-CoV-2 in 2019, the most vulnerable populations become even more vulnerable when the City is disrupted by disasters. Gaps in transit service can drastically impact immobile populations such as the elderly, low-income, and medically fragile, especially in terms of their access to medical care. Loss of electrical power can also be a problem for homebound and medically-dependent individuals. Programs to notify officials, especially power providers, of these individual locations should be developed so that patients who may be unable to help themselves during a power outage or any other emergency can get the necessary support, including continuing medical care for chronic conditions and delivery of prescription refills.

POLICY 5.1.3.

Mitigate threats posed by digital hazards, such as terrorism and communication failures, to City systems and infrastructure.

While the City does maintain some risk of terrorism, it is more likely at risk of deliberate acts intended to impact its service and communication networks. Often the objective of such acts is not destruction or death, but disturbance—a visible impact to the City's public services, economies, and social networks. Critical facilities include the City's communication systems, such as its fiber-optic data network and network data, its physical infrastructure, such as its water and power systems. It is important to upgrade public facilities to enhance security, through physical security measures, cyber protection measures, and tight security procedures and policies as technology and practices improve. Redundant networks will help ensure that incidental failures do not have grave impacts.

The communications asset class transmits voice and data communications by cable, telephone, or broadcasting. San Francisco Department of Technology manages a wide array of communications systems, including radio, TV, internet, City internal data network, public warning sirens, emergency call boxes, communication path for traffic signals, and the Mayor's Emergency Telephone Systems (METS). In addition, private communication operators own TV and radio antennas, cell sites, hubs, fiber networks, and switches for TV, radio, internet, cell phone, and voice communications.

The key City-owned systems include the municipal fiber optics network, data centers, and an 800 Mhz radio system.

- Fiber optics network: This fiber network provides internet access, email, and VoIP communications. There are hundreds of miles of fiber optic cable connecting every municipal building in San Francisco.
- Data centers: The primary data center located in San Francisco stores, manages, and disseminates the data for most of the City's communications systems. A back up data center has been established in Rancho Cordova, CA. There are two separate network paths to Rancho Cordova for redundancy.
- 800 Mhz radio system: The City is transitioning to a new 800 MHz radio system for emergency communications. The system relies on 11

antennas placed on buildings or high locations throughout the city, with two antennas located outside of San Francisco in Daly City and San Bruno. Most antennas are located on shared radio tower sites on buildings or high ground. The towers are not owned by the City. They are built to the highest seismic standards, but the performance of the buildings on which they are placed is generally not known. Loss of one or more antennas in the network will degrade communications, but the system is designed so it can remain operational despite loss of several antennas. The antennas are connected to each other by fiber cables and microwave paths. The radio towers have back up power.

The private communications systems are owned by a wide range of operations, including Verizon, AT&T, T-Mobile, and Comcast, as well as private fiber optics networks and data centers that these operators rely on.

POLICY 5.1.4.

Increase communication capabilities in preparation for all phases of a disaster, and ensure communication abilities extend to hard-to-reach communities.

Communication will be necessary and critical to the City in the response phase immediately following a disaster and in the recovery and reconstruction period. The City should have redundant networks in place to communicate at all levels, to coordinate internal staff and emergency response personnel, and to convey public information. The public communication should be equitably disseminated to ensure outreach to special needs populations, such as the hearing impaired or non-English speakers. The communication methods should be culturally competent, address the digital divide, and be independent from reliable cell service, such as outdoor public warning systems.

In addition, existing neighborhood organizations can develop local models that serve the same purpose. Development of a neighborhood communications plan can allow community members to keep in touch with, and keep track of, their neighbors, particularly the elderly or disabled that may be most in need of support during a time of emergency. Elements of this plan could include phone trees, text message trains, and the establishment of physical block captains to perform door-to-door checks if necessary.

The Department of Public Health's Community Response Plan calls for community members and organizations to have the means necessary to be inform policy makers about the damage and critical needs of each neighborhood throughout the City. By having a method for communicating at the neighborhood level, community members will be able to notify officials and seek out help in areas of the City that might be difficult to reach after a disaster.

POLICY 5.1.5.

Develop a system to convey information during and immediately after a disaster.

In addition to conveying general public information about the disaster to people and the outside world, the City will also need to respond to more personal inquiries by impacted people. This can include questions about what services and aid is available, as well as inquiries about the location, health, and welfare of relatives or other community members.

The City should plan for an information system composed of a series of local Public Information Centers intended to convey more personalized information to the public. These centers should be located in accessible community locations, such as libraries, but should also be sited away from the centers of emergency activity, such as lifeline facilities. They can be outdoor public warning systems, centralized online systems, and

decentralized offline systems. These centers should be connected to receive up-to-date information from law enforcement agencies, other City agencies, the school district, public shelters, local hospitals, and the coroner, and they should also be linked to regional centers in other parts of the Bay Area. During a disaster, these regional information centers should be directly linked to consumers via the 311 City phone service.

POLICY 5.1.6.
Follow the National Incident Management System (NIMS) procedures in declared emergency scenarios.

A major disaster will entail assistance from beyond the City's borders, potentially involving assistance of other Bay Area jurisdictions, the state of California, and even the federal government. To coordinate this assistance, the federal government has developed a national approach to incident management, called the National Incident Management System (NIMS), to act as the common language and procedural guide bridging different entities. NIMS was developed so responders from different jurisdictions and disciplines could talk to each other in a common language and work together better to respond to natural disasters and emergencies, including acts of terrorism. NIMS uses a systems approach to integrate the best of existing processes and methods into a unified national framework for incident management. Its concepts and practices cover incident management; standard command and management structures; and emphasis on preparedness, mutual aid, and resource management.

The City's various agencies, particularly those who are its first responders, are already familiar with the NIMS system and utilize its framework in the development of emergency response and other plans. The City should continue this practice, and ensure it is kept up-to-date with current NIMS practices. New approaches that will improve effectiveness are likely to result in refinement of the NIMS over time, so the City should maintain an awareness of any changes and incorporate them into its response planning and practices.

POLICY 5.1.7.
After an emergency, follow the mandates of the Emergency Response Plan and Citywide Earthquake Response Plan.

The Emergency Response Plan directs the City's actions after a disaster, assigning responsibility to agencies and departments. Many of the immediate actions needed to begin the recovery process are described in the Emergency Response Plan, such as debris removal, emergency building assessment and repairs, and meeting the immediate needs of federal and state agencies for information.

The Citywide Earthquake Response Plan supports this plan by providing response actions for the incident of an earthquake. Both plans should be used to guide all responsibilities and activities in the case of a disaster.

OBJECTIVE 5.2.

***COMMUNITY PARTNERSHIPS.* Work with neighborhood-based organizations and trusted partners to expand disaster response activities across the City.**

POLICY 5.2.1.

Work collaboratively with nonprofit and community partners to assist Environmental Justice Communities and other vulnerable people during and immediately after a disaster to ensure resumption of social services.

In addition to disrupted infrastructure, such as transit and transportation, power, water, gas and sewer, phone service, the City will also face disruptions to its social services at a time when they may be most needed. The City's most vulnerable populations will be at risk of service disruption and delayed resumption, including seniors, people with disabilities and other functional needs, institutionalized or incarcerated people, youth who have been separated from their families due to the disaster, and residents of single-room occupancy hotels and public housing. Hospitals and clinics may be damaged or overcrowded, schools and daycare centers will be closed, and families may be separated. Centers for special needs populations may be temporarily shut down, due to damage or unavailability of employees. Local services, particularly those meeting the needs of low-income residents, may be ill-prepared to cope.

The City should have continuity policies and plans in place for its services. One way of supporting their immediate resumption would be to establish a policy clarifying that for specified City employees, their primary role as Disaster Service Workers is to carry out their everyday positions in social service provision. In advance of a disaster, processes should be established to ensure the continuity of payments to social service organizations under contract with the City.

The City is not, however, the only service provider that needs to plan for disasters. The City should assist local service providers so that they can resume services immediately following a disaster, including mental health centers, substance abuse services, homeless shelters, community health centers, and senior services. But in past disasters, lack of coordinated planning—between the City and among agencies—has resulted in gaps in aid or in redundant services.

Community-based organizations and neighborhood-level emergency planning efforts should plan for disasters and be in coordination and partnership with the City. Nonprofit groups are key players in disaster response, providing food and shelter in the short-term and assisting in longer-term recovery through services such as health care and job placement. In advance of disasters, the City can support community-based organizations by providing them with employee response training, insurance coverage, encouraging development of contingency plans, and offering opportunities for financial resources.

POLICY 5.2.2.

Identify and retain vendors and contractors to be readily available to respond immediately after a disaster.

When a disaster strikes, there will be a strain on needed goods and services, such as shelter, food, and waste removal. One way to address the urgency of post-disaster needs is to make arrangements with local and regional contractors before disaster strikes. Pre-qualifying of contractors who can respond in emergency scenarios and who have equipment to handle the work is another solution for immediate response.

The Office of Contract Administration maintains an emergency list of supply vendors. The Office should work with other departments to understand the types of supplies that may be necessary in the case of a disaster and have contracting options readily available, including an up-to-date list of qualified contractors. The list should contain sufficient sources for the kinds of goods that will be most in demand after a disaster—tents, food, etc. As-needed contracts should be readily implementable to meet emergency need, and existing contracts and franchise agreements should be reviewed for their applicability in the case of a disaster.

Public Works maintains a registry of construction-related contractors. This list can be a valuable resource after a disaster. The agency should ensure it is kept up-to-date, and that old or unavailable contractors are removed on an annual basis. The City should also explore methods that will enable small and local firms, including minority- and women-owned businesses, to take a more active role in the response and rebuilding process, it may be beneficial to develop a program to train and qualify local contractors for government-backed projects.

POLICY 5.2.3.

Develop and implement plans to accept, train, organize, and utilize volunteers in the delivery of basic emergency management tasks.

Post-disaster, it is likely that the City will see an outpouring of people willing and wanting to help with recovery efforts. The mobilization and reinforcement of these resources will require significant management by City responders. If no system is in place to harness the potential provided by these spontaneous, or "convergent," volunteers, this resource will be lost. Volunteers are convergent when they are unexpected, typically community members who wish to render aide following a large-scale emergency.

During the City's COVID-19 efforts, the Department of Human Resources (DHR) established an Emergency Volunteer Center (EVC) where it credentialed over 1,000 volunteers in the State's Disaster Service Worker Volunteer Program. DHR deployed over 600 of those volunteers to perform volunteer services with the Department of Public Health. The City should ensure that the lessons learned from its COVID-19 volunteer management and response efforts are incorporated into a revised plan for organizing and mobilizing convergent volunteers. This revised plan should encourage working in concert with the City's ongoing disaster service volunteer programs, such as the Neighborhood Emergency Response Team (NERT).

POLICY 5.2.4.

Develop strategies for cooperating with the media.

Having a media communication strategy is an important component of responding to a disaster. Beyond communicating locally and to the region, the media is the means by which the outside world understands what has happened. Media coverage leads to national, and potentially global understanding, of a disaster and its impacts. Media coverage can be a primary factor in attracting public and private aid. It can fuel demands for action and stimulate public support for actions to prevent or mitigate future disasters.

The Mayor's Office of Communication will direct all high-level strategic messaging regarding the City's overall emergency response. The Joint Information Center (JIC) will integrate Mayor's Office of Communication strategic messaging into the myriad of communications produced within the JIC, including media responses, public information alerts and notifications, and proactive social and traditional media content. The Mayor's Office's crisis communications plan should include strategies for openly and honestly dealing with the media. Procedures for disaster media

relations should also ensure that the designated spokesperson—and in the case of a disaster, this may not be the usual media spokesperson—understands the depth of the disaster and the details of its impacts. Media kits should be prepared and ready for distribution as soon as possible.

There are frequently concerns about the negative impact of media coverage on a community post-disaster. Because of the nature of media, stories can often be overtaken by a focus on deaths and damage to property. Political leaders may be concerned about the negative publicity's impact on tourism and external investment, or fear that it could incite mass departure of business and residents. Even in the face of these fears, it is important that the City take a positive view of media operations and cooperate with the media based on a policy of openness.

Rather than restricting information, the City should work to present media organizations with a balance of information about the kinds of public actions and safety measures that have succeeded, as well as those that have failed, so that coverage can go beyond simply accounting for totals of loss. A news story focusing on the amount of earthquake damage inflicted could just as easily include information about the number and types of structures that survived because of hazard mitigation measures, and provide information about shelter locations, response and recovery efforts and priorities, and more.

OBJECTIVE 5.3.

HAZARD-SPECIFIC RESPONSE. **Address any specific, shared, or compounding needs for community safety in the aftermath of a disaster.**

POLICY 5.3.1.

Establish a plan to facilitate the continuity of permitting services in the case of a disaster for building repairs and other essential permitting services.

Rebuilding the City post-disaster can be facilitated by increasing the points of access where permitting can occur. With certain hazards, it can be challenging and infeasible to maintain permitting continuity through the San Francisco Permit Center's in-person services. The City can offer a fully digital permitting platform and satellite, in-person permitting centers to offer one-stop City permitting services such as Building, Public Works, and Health permits. Through these accessible modes, permitting can increase building owners' access to services for their recovery planning and can reduce the possibility of overload at the central permitting facilities at the Planning Department and the Department of Building Inspection.

The City should develop a fully digital permitting process to be nimble in its continuity of permitting services and remote staffing capabilities in the event of a disaster. The digital platform can support the permitting roles and responsibilities across City agencies, such as the Planning Department, Department of Building Inspection, Public Works, and the Department of Public Health. These satellite centers can be operated on a temporary basis, perhaps until a targeted number of buildings are brought back online. Depending on the hazard and level of damage, the network of satellite centers may depend on building and outdoor safety, ability to congregate, or staffing availability.

POLICY 5.3.2.

Ensure historic resources are protected in the aftermath of a disaster and support post-disaster restoration of damaged historic buildings.

Preservation of the City's historic resources is an immediate concern when damage is being assessed. The older construction techniques of historic buildings make them more vulnerable to damage, and if the damage is noted without recognition of the resource's historic value, the building can be at risk of further damage or demolition. Having complete and accurate information to document historic resources is fundamental to ensuring they are not lost. This information can be mapped and used by assessors in the tagging of buildings post-disaster.

The Planning Department has been actively engaged in survey work through the Citywide Survey Program. The focus of the program is on neighborhoods that are undergoing long-range planning efforts or are the focus of intense development activity. The Citywide Survey Program will continue survey efforts in neighborhoods outside of Area Plan study areas as resources become available. While that Citywide Survey is underway, the City should make use of existing survey information, including privately developed property reviews, and ensure it is made available to the Department of Building Inspection and any other relevant contractors who may be charged with doing evaluations of damaged buildings.

Post-disaster assessment should include an analysis of the extent of damage to historic areas and resources. In a typical assessment scenario, assessors will attach a green tag if a building is structurally sound, a yellow tag where repairs are needed, and a red tag if the structure is uninhabitable. This system should ensure sufficient protection for historic resources post-disaster, in that all tagged buildings receive more detailed evaluation that considers survey information before any steps towards demolition are taken. The system could also include separate placards identifying the building as a historic resource. Without such identification, the buildings are at risk.

POLICY 5.3.3.

Address hazardous material and other spills by requiring appropriate clean up by property owners, per local, state, and federal environmental laws.

Spills, leakages, and releases of hazardous waste and substances can cause severe damage not only to the environment, but to public health. This is a particular issue for older industrial properties with historic contamination issues, as they convert to other uses or forms of development. In cases where environmental damage or hazardous spills have occurred, the City shall require all property owners and other responsible parties to report and to perform clean up to the level required by local, state, and federal environmental laws. Where such parties delay in this required clean up, the City, working with other regulatory agencies, shall take all measures necessary to ensure public health and safety is protected.

GOAL 6. RECOVERY AND RECONSTRUCTION.

Rebuild San Francisco's built, natural, and social assets and communities towards a more equitable and resilient future.

Short-term recovery actions—ensuring reconnection of utilities and services, temporary housing—are often an outgrowth of the response phase. Long-term recovery begins once many of those short-term actions are underway or have been completed—as the rubble and debris have been cleared, major services are restored, and daily operations are reinitiated. The actual reconstruction phase typically takes 5 to 10 years, but it can be much longer. Even across the City, full recovery—return to or improvement beyond the pre-disaster state—can vary considerably from neighborhood to neighborhood. Some areas might be best repaired and rebuilt similar to their pre-disaster conditions, while other areas with pervasive damage may need new area plans applying citywide objectives. Advance planning will improve the City's ability to make decisions quickly and equitably. Longer-term recovery and reconstruction decisions will need to be made by decision makers—including the Mayor, the Board of Supervisors, the Planning Commission, and others—with considerable public involvement by the people most impacted by hazards and their consequences.

OBJECTIVE 6.1.

BUILDINGS AND INFRASTRUCTURE. **Maximize the opportunities to restore and rebuild the built environment with resilience to all hazards.**

Housing Security and Justice

POLICY 6.1.1.

Support actions to mitigate the spread of homelessness pre-disaster and increase the likelihood that the City's stock of lowest-cost housing will survive post-disaster.

Individuals and families experiencing homelessness have high exposure to risks and are especially vulnerable to hazards. They lack adequate shelter and protection from harm. Post-disaster, especially for catastrophes with potential to destroy housing, the City's existing shortage of affordable housing will be exacerbated. A significant portion of the City's affordable housing stock are provided by some of the neighborhoods most vulnerable to serious damage in an earthquake. Much of the City's lower-cost housing is provided through older buildings, which are more likely to sustain damage in the case of an earthquake. Many of these older units are kept affordable through rent control. Through state-mandated vacancy decontrol, the rent of rent-controlled units may be increased when the unit is vacated, and the unit does not have to be restored if the unit is replaced. Without action, sea level rise

and flood hazards may increase risk in lower-cost housing in Environmental Justice Communities. These conditions are likely to exacerbate homelessness and displacement post-disaster.

Damaged affordable housing units and single-room occupancy hotels should be repaired as expediently possible, and if necessary, replaced on a one-to-one basis. Cooperation among the private market, nonprofit agencies, and local, state or federal government sources should pursue achieving a similar level of affordability as units are replaced or made resilient to future hazards. Eviction regulations in the post-disaster period should ensure the disaster is not misused to remove tenants with lower rents.

Pursue policy advocacy at the state and federal levels to enable eviction moratoria and rental relief during disasters, such as the eviction moratoria during the COVID-19 pandemic. This relief should be available to vulnerable people, property owners, and businesses who are displaced by disasters and to facilitate their right to return. In the wake of a disaster, it may be difficult for residents, especially renters, to demonstrate proof of residency and liaise with landlords and property owners. The policy advocacy should identify inclusive eligibility criteria, robust funding sources, and have limited barriers to accessing the relief.

POLICY 6.1.2.

Provide adequate interim accommodation for residents and businesses displaced by a major disaster in ways that maintain neighborhood ties and cultural continuity.

While the City's first priority should be to encourage and enable the retrofit of residential buildings, to minimize damage and allow residents to shelter-in-place following a disaster, the Department of Emergency Management estimates that after a major earthquake, between 20,000 to 90,000 housing units may be destroyed or substantially damaged. Many businesses that provide necessary services to residents will also be displaced. The Care and Shelter Plan establishes a framework for the provision of emergency shelter for the general population. The Care and Shelter Plan should be expanded to accommodate people experiencing homelessness at the time of disaster. Currently, no specific agency is tasked with the responsibility of interim housing, nor with finding temporary space for displaced businesses. Future implementation plans should address these issues.

The City should designate a lead agency to plan for interim housing and business needs. This agency should work in collaboration with state and federal agencies to consider City goals and advocate for the affected communities. To maintain relationships and connections within the community, interim housing and other facilities should prioritize keeping residents in their neighborhoods and near their pre-disaster homes as much as possible.

POLICY 6.1.3.

Repair damaged neighborhoods in a manner that facilitates resident return and minimizes long-term displacement, prioritizing Environmental Justice Communities and other communities disproportionately impacted by housing disparities.

San Francisco neighborhoods have distinct characteristics, and often have long-term residents, businesses, and institutions. Many neighborhoods have distinct cultural identities and provide the bonds of community for their residents. The City, in cooperation with state and federal agencies and community-based organizations, must manage rebuilding to minimize long-term displacement, retain neighborhood cohesion, and expand housing opportunities for communities disproportionately impacted by housing disparities.

As such, plans should provide opportunities for those who lived in the area to return to new or

repaired homes and other facilities there. The City should explore methods of providing return rights to tenants that must vacate their unit because of reconstruction, renovation, or improvement. These methods may include the "right-to-return," down payment assistance, lottery preference, and other financial assistance that would relate to accessing private market, below-market-rate housing, and public housing.

POLICY 6.1.4.
Protect individuals and families experiencing homelessness in the wake of disaster.

Homelessness, and the risk of becoming homeless, will be exacerbated by hazards. The 1989 Loma Prieta earthquake damaged homeless shelters and numerous single-room-occupancy hotels that were an important source of housing for the very poor.

In preparation for disasters, the City should inventory its stock of homeless shelters, single-room-occupancy hotels, and transitional living facilities. The City must ensure its post-disaster plans consider major social issues like homelessness. With many properties destroyed or uninhabitable, it will be even more difficult for this challenged population to find suitable housing after an earthquake. Transition to long-term shelter will be needed for those already homeless, requiring long-term aid and greater assistance than is typically required by disaster victims. When a disaster strikes, it can be traumatizing to a community already disproportionately impacted by mental health. The City should pair long-term shelter and aid with comprehensive, evidence-based systems that offer a continuum of care, such as mental health and substance abuse care, social work, and other supportive systems.

POLICY 6.1.5.
Ensure sufficient affordable housing and workforce housing during reconstruction.

Lack of housing can have a severe impact on economic recovery. If the labor pool has nowhere to live, they are unable to work. Limited housing opportunities, particularly for low-income communities and low-wage workers, can curtail the available labor pool for construction activities during rebuilding, and the absence of permanent housing once businesses have come back online may cause local employees to seek work elsewhere.

The City should partner with the business community in restoring workforce housing for the community after a disaster. The most useful assistance local businesses can provide may be financial contributions, whether they are at-large contributions coordinated by the City or direct subsidies offered to their own workers. Some possible methods include the development of employer-directed community land trusts or rental deposit and down payment grants for displaced workers.

Reinforce Hazard Mitigation

POLICY 6.1.6.
Encourage continued and adaptive reuse of San Francisco's existing building stock, including those with architectural and historical merit, to reduce greenhouse gas emissions that may otherwise occur from new construction.

Post-disaster, the City should prioritize the repair and rehabilitation of existing buildings. As feasible, existing buildings should follow life safety and functional recovery standards, and then, be recovered as close as possible to pre-disaster conditions and use. This repair and rehabilitation of existing buildings, as compared to new development, will mitigate greenhouse gas emissions, especially when reinforcing climate mitigation principles.

In addition to those with architectural and historical merit, existing bodies contain embodied energy, and thus, their preservation can be a

sustainable practice when compared to new construction. The practice of reuse can reduce or completely eliminate greenhouse gasses that are emitted as the result of demolition, manufacturing and transport of building materials, and new construction—the greenest building is one that is already built. Furthermore, less environmental strain is caused from the reduced extraction of natural resources from materials development and reduced solid waste from demolition. Promoting the reuse, rehabilitation, and restoration of existing buildings can thus help to reduce the City's carbon footprint, serving as a valuable climate mitigation technique.

POLICY 6.1.7.

Apply sustainability practices in rebuilding projects, consistent with the City's Climate Action Plan and greenhouse gas emissions reduction targets.

Particularly with large-impact earthquakes, buildings and infrastructure may be compromised or destroyed. Salvaging their materials not only aids in reducing the amount of debris going to a landfill and reducing air quality emissions associated with demolition, it also contributes to the local economy and supports the rebuilding process. The City should support the establishment of new businesses that can reclaim, warehouse, and resell salvaged materials. The City should also provide incentives to promote incorporating salvaged materials in construction.

One way the City could support a market for these materials is to develop policy that requires rescue and reuse of salvaged materials in new development and rebuilding projects. The City has many green building requirements already in place that should be reconsidered and perhaps expanded in light of projected post-earthquake rebuilding needs.

POLICY 6.1.8.

Ensure equitable outcomes in the consideration of design character and quality in all rebuilding projects.

A disaster may damage many of the neighborhoods and buildings that contribute to the City's urban design character, and it is imperative that reconstruction be done in a way that will strengthen urban design character, as the city continues to grow and evolve. The City's attitude toward rebuilding will have to balance sometimes competing objectives—the need to rebuild quickly, the need to rebuild equitably and with robust input and participation of the affected communities, and the desire to maintain or improve design character. All reconstruction should be centered in racial and social equity and should follow the framework put in place by the post-disaster recovery and reconstruction plan, as well as the urban design standards and design guidelines already in place in the city.

It is important that large-scale rebuilding does not succumb to the political pressure of property owners to rebuild, at the sake of important interests in racial and social equity, community participation and engagement, urban design, historic and cultural preservation, and hazard mitigation and resilience opportunities. While other policies speak to the need for timeliness in reviewing reconstruction projects, the policies developed must ensure humane outcomes for vulnerable communities and that design character and quality are not ignored in the urgency of rebuilding.

OBJECTIVE 6.2.

***ADVANCE RECOVERY PLANNING*. Comprehensively plan for the restoration of City function and economic activity, with flexibility to known and unknown hazards.**

POLICY 6.2.1.

Before an emergency occurs, establish an interdepartmental working group to develop an advance recovery framework that will guide long-term recovery, manage reconstruction activities, and coordinate expedient rebuilding aligned with City policies.

Advance recovery planning is critical role for the City's resilience. A framework for recovery and reconstruction can expedite decision-making based on already agreed-upon priorities and goals. The City's history of disaster has proved that pressures for speedy rebuilding are strong. Therefore, it is critical that the governance and planning framework for recovery and reconstruction be established before disaster occurs.

To provide direction for any planning that happens post-disaster, the Mayor and the Board of Supervisors should establish an interdepartmental working group to create a framework for recovery and reconstruction. The working group should be comprised of representatives from the following departments: the Mayor's Office, Mayor's Office of Economic and Workforce Development, Mayor's Office of Housing and Community Development, Controller's Office, Chamber of Commerce, City Attorney's Office, City Administrator's Office, Office of Resilience and Capital Planning, Office of Community Investment and Infrastructure, Office of Racial Equity, Department of Building Inspection, Department of Emergency Management, Department of the Environment, Planning Department, Public Works, Public Utilities Commission, Human Rights Commission, the Board of San Francisco Travel, the Academy of Sciences, among others.

The framework should outline the City's priorities and guidelines for the City's post-disaster recovery and reconstruction. This framework should be tested through scenario planning before being developed fully into a post-disaster recovery and reconstruction plan. While such an effort cannot anticipate the impact of every disaster, the effort can reduce the demands of rebuilding after a disaster.

POLICY 6.2.2.

As a part of the advance recovery framework, develop and adopt a repair and reconstruction ordinance.

The rebuilding and reconstruction efforts that will need to be undertaken after a disaster will need to be swift in repairing lifelines, homes, and other resources the City depends upon. After a disaster, the Departments of Building Inspection and Planning will likely see a surge in permit applications. While the Department of Building Inspection already maintains procedures to deal with emergency repairs, the City does not have plans to deal with the sustained demand that may result from large-scale reconstruction. Upon completion of the advance recovery framework, the task force should develop a recovery and repair ordinance that help implement the framework and facilitate the repair and reconstruction of buildings following disaster.

The recovery and repair ordinance should build upon existing building and planning code standards and policies to facilitate an efficient reconstruction process, help to simplify and expedite the permitting and review process, support integration of racial and social equity and resilience principles, while avoiding a hastily administered permitting process. The ordinance

should establish clear permit processing and review procedures to expedite rebuilding in the post-disaster period, while providing the amount of review necessary to ensure that reconstruction meets the City's objectives and appropriate local policies, plans, and code standards, yet is economically feasible.

The ordinance should consider policies to address nonconforming uses and buildings, explore modifications to outdated codes and standards, consider the applicability of the City's notification or other review procedures, and address historic buildings to ensure that, to the greatest extent possible, repairs maintain the integrity of the structure without adversely affecting its historic nature. The ordinance should also revise post-earthquake building inspection protocols to identify buildings that have reached functional recovery that can be occupied safely despite damage and loss of utilities, allowing residents to safely shelter in place while waiting to make repairs.

The ordinance should create priority categories for building types, prioritizing critical response facilities first. The ordinance should also be clear on the length of time during which it is applicable. It is important that the ordinance not work in conflict with other City goals. Large-scale damage to confined areas might warrant specific neighborhood-level plans or reconstruction guidelines, and these will take time to prepare. If necessary, the ordinance should allow for periods of non-building while important changes are adopted into law. The ordinance should also include sufficient provisions to ensure that it is evaluated, and amendments can be made as needed, post-disaster, to appropriately address the disaster impacts.

POLICY 6.2.3.

As a part of the advance recovery framework, coordinate the realignment of government post-disaster, so City employees' skills can be used effectively towards recovery and reconstruction efforts.

New roles and responsibilities for governments will emerge after a disaster strikes. It is imperative that government be nimble enough to adjust to the various new roles after the disaster. The City should be willing to reconfigure offices, departments, and services to be best serve the public after a disaster. The Disaster Service Workers program may extend into recovery and reconstruction phases.

For instance, there might be the need for the Planning Department, Public Works, or Department of Building Inspection to work together in teams and be decentralized with satellite offices set up in neighborhoods that were particularly devastated by a disaster. By placing them in neighborhoods, their time can be better spent on the ground understanding what type of reconstruction is necessary and possible, through inspections and site visits with building owners and residents.

POLICY 6.2.4.

Update the advance recovery framework on a regular basis so that it continues to be aligned with City goals and values.

The advance recovery framework should be updated as necessary to reflect changing conditions, changes in City policy and technology, and changes in state and federal regulations that affect post-disaster recovery management, financing, and other processes. The task force should set, in its creation of the plan, a schedule for regular updates to ensure it keeps up with shifting community priorities as well as to keep it present and important in the public's mind. The community must be involved in the process to identify and develop the community priorities,

along with the specific core values of recovery. The advance recovery framework can inform more targeted resilience planning processes that are place-based or site-specific, such as in Environmental Justice Communities or other areas vulnerable to disaster.

POLICY 6.2.5.

Develop and maintain broad public support for the advance recovery framework to ensure its eventual implementation.

Once an advance recovery framework is developed, its work is not over. Implementation of the framework post-disaster is its critical mission, and achieving this in the aftermath of a disaster will require vigilance on the City's part. Community demands for rapid reconstruction will likely be perceived by many to be in conflict with calls for post-disaster planning and time needed to complete such a process.

The City should develop an ongoing program to regularly train the City's leadership and build community support for the framework to ensure its implementation in a time-compressed and high-pressure post-disaster environment. While there will always be tensions to rebuild quickly post-disaster, the desire for haste should not preempt the implementation of the recovery framework or undermine a potentially necessary recovery and rebuilding process. The community outreach process for the advance recovery framework should provide a vehicle to strengthen community support.

POLICY 6.2.6.

Post-disaster, build upon the advance recovery framework to create a recovery and reconstruction plan to direct the City's reconstruction activities, manage the long-term recovery period, and coordinate rebuilding activity.

Using the pre-disaster framework as the basis for all planning, the next step is turning that framework into tangible actions to direct and manage the specific impacts of an actual disaster.

Therefore, after a disaster occurs, the City shall establish a recovery and reconstruction task force to guide the planning process and plan development built upon the City's recovery framework. The task force should be made up not only of City agencies represented in the working group, but also a range of community representatives, including business interests, nonprofits and industry leaders, policy advocates, and neighborhood representatives. The task force should also engage with and involve representatives of other counties, state, and federal agencies. The task force's efforts should be directed by a designated lead agency or individual who can facilitate the recovery and reconstruction planning process and oversee its implementation.

The task force will be responsible for the development, drafting, and adoption of the post-disaster recovery and reconstruction plan, following the established framework and guidelines. Perversely, a disaster may present the City with a unique opportunity to physically, economically, and socially strengthen the City and the region equitably; the recovery and reconstruction plan should take advantage of this opportunity.

POLICY 6.2.7.

Rebuild after a major disaster consistent with established General Plan objectives and policies.

The General Plan has been adopted, after much public consideration, to assure the preservation, enhancement, and safety of this very desirable urban environment. In efforts to restore damaged areas of the City, existing development policies and regulations should be respected. Opportunities may be created for realizing General Plan policies, such as increasing affordable

housing, improving circulation systems, and providing public or private open space. In areas with extensive building and infrastructure damage, an area plan may be the best approach to coordinate rebuilding to take advantage of opportunities for neighborhood improvement. The rebuilding process may also enable possibilities for advancing environmental justice, increasing mobility through improved and increased public transit, as well as other alternatives to the private automobile. Future Elements and Area Plans of the General Plan should be formulated with an awareness of their potential applicability in relation to disaster recovery.

POLICY 6.2.8.

Ensure that an equitable recovery and reconstruction plan is adopted that is comprehensive and consistent with already established City goals, policies, and programs.

The recovery and reconstruction plan will need to prepare the City to meet immediate changing needs after a disaster. Special services and facilities will be needed on a short-term basis, including temporary housing, commercial facilities, and health and human services. During the recovery period, it may be necessary to temporarily locate these facilities in areas not normally available for development, or at higher densities than is normally allowed. Extensive damage may warrant reconsideration of large-scale issues such as housing locations, transit, and public infrastructure such as streets and freeways. A detailed recovery and reconstruction plan may require planning at scales that exceed existing policies and controls.

The recovery and reconstruction plan should build upon established General Plan goals, objectives, and policies, and ensure consistency with City programs, policies, and regulations. The plan should include clear policies and programs addressing the following at a minimum:

- Coordination with federal and state agencies
- Coordination with other regional cities and counties
- Protection of Environmental Justice Communities and other vulnerable people
- Plans for interim housing (considered to be a part of long-term planning, because many of the housing solutions may become permanent)
- Plans for financing and incentivizing housing repairs and construction of potentially large numbers of replacement housing units, including consideration for affordability needs
- Plans for land use decisions and recommended changes in response to local opportunities
- Establishment of public reconstruction priorities

The recovery and reconstruction plan may also consider potential changes to the City's physical framework and development pattern, potentially reviewing issues such as:

- Structurally and geologically hazardous conditions and mitigation options
- Re-examination of street patterns, street design, and standards such as required width, etc
- Designation of areas for consideration of land acquisitions, reconfigurations, consolidations, and subdivisions
- Comprehensively addressing environmental justice issues
- Recommendations for changes and improvements to major transportation routes, transit networks, and other lifelines

- Revisions to City infrastructure networks, including possible undergrounding of utilities, and use of new technologies in service provision
- Guidance for financing and advancing the City's long-term economic recovery.

While the specific uses of public lands may vary after a large-scale disaster, public lands must be preserved for public purposes. As circumstances allow, pursue opportunities for expanding public lands for public purposes.

POLICY 6.2.9.

Where necessary, use the City's public authority to expedite repair, reconstruction, and rebuilding in a just and equitable manner.

In the aftermath of a disaster, there may be properties that lie fallow for some time. The damage may be so severe that owners without insurance simply abandon properties; absentee owners and landlords could choose simply to not return; and there may be cases where it is not economically feasible or possible for owners to rebuild.

The City maintains the authority to impose policies, rules, and regulations to protect the public welfare, order, and security. If public welfare is at stake—for example, in damaged rental properties that remain unrepaired and unoccupied, are a safety or health hazard, or have deteriorated to such a degree that they are unlikely to be restored to quality housing—the City may need to explore ways of restoring these units through partnerships with community-based organizations, neighborhood-based efforts, and other key stakeholders.

The City should carefully consider the lessons from history prior to exercising eminent domain. There have been historic misuses of the power of eminent domain that have significantly harmed communities. In the 1940s, eminent domain harmed the Japanese American community during internment with forcible loss of property and belongings. In the 1950s, the City exercised eminent domain once again and harmed the African American community during redevelopment of the Western Addition and the Fillmore. These pernicious events should be used as cautionary tales for future uses of this tool. The power of eminent domain can be used to expand public benefits, such as the Hualapai Nation of Arizona exercising its authority to reclaim land for tribal ownership and use. The City also used eminent domain to expand public benefits through the Central Subway, extending Muni light rail service.

In addition to health and safety, the City should prioritize housing equity in the community. The City can consider the return and retention of the American Indian community, Black community, and other communities of color post-disaster; the housing needs for individuals and families with experience of homelessness; the community needs for low-income and other vulnerable people; and the recovery and growth of the local business community.

OBJECTIVE 6.3.

EQUITABLE INVESTMENT. **Pursue plans and strategies that would equitably rebuild San Francisco for everyone, starting with Environmental Justice Communities.**

POLICY 6.3.1.

Develop an economic recovery strategy to guide planning and implementation before the disaster strikes.

A disaster can have a major impact on the economic landscape of the City. Previous earthquakes have resulted in dramatic losses in office space and subsequent relocation of businesses; in drops in tourism, which is one of the City's major industries; and disproportionate impacts on small businesses, who have fewer resources with which to recover. The City should ensure an economic recovery strategy is in place to equitably foster business resumption and growth post-disaster.

In the wake of a disaster, many local businesses, particularly small businesses, will struggle to resume activity. They may have lost assets, necessary facilities or equipment, access to employees, and even their customer base. While the City's own funds will be limited from providing direct financial assistance, there are many other things it can do to support businesses. For example, in response to the COVID-19 pandemic, the social distancing and masking requirements, as well as discouragement of sharing indoor space, made it challenging for businesses such as restaurants and small retail shops from operating normally. The City's Shared Spaces Program supported small businesses by allowing them to expand their operations to outdoor places like sidewalks, streets, and open lots.

The City can encourage loan and grant funding from non-government sources, and further affected businesses' ability to secure loans from local banks or unions by offering government guarantees on loans. Tax incentives should be explored to encourage reinvestment and growth of business, including temporary payroll tax exclusion, sales tax exemption and tax write-offs on replaced business equipment and furniture, and property tax abatements.

The economic recovery strategy should prioritize the elements of the City necessary to support business activity, starting in Environmental Justice Communities, such as the restoration of transit and regional roadways; utilities and services available to the business community; and housing availability for the local workforce and customers. The City should work with the business community to develop this strategy, and solicit wide advice on how to facilitate business revitalization. The strategy should use the latest assessment tools provided by the Office of Racial Equity and center the needs of businesses that are owned by and/or serve residents in Environmental Justice Communities. The strategy may include recommendations to hasten the resumption of business such as loans, funding for workplace building repair, and financial assistance. Updates to the City's Economic Strategy, created by the Office of Economic and Workforce Development, should include plans for economic recovery in case of a disaster.

POLICY 6.3.2.

Support the efforts of the Controller's Office to ensure service continuation and financing of post-disaster recovery and reconstruction efforts.

The Controller's Office is the designated lead agency for the Finance and Administration Section of the Emergency Response Plan, supported by the Department of Administrative Services and the Office of the Treasurer. These groups are tasked

with ensuring employee payment and compensation, and with payment of contractor and vendor accounts, in the immediate response phase of a disaster through recovery to pre-disaster service. These elements will be critical to the continuing operation of City services.

In order to ensure continuation, the Controller's Office has programs underway to ensure that payroll continues to be processed for all City workers, implementing off-site payroll processing if needed; that employee compensation is resumed; that financial and accounting computer systems can recover and resume as soon as possible; and that all payments, both to City workers and to outside vendors, are processed within a reasonable time.

The City should actively encourage the use of direct deposit by all City employees, and inform all employees of the potential loss of pay in the event of a disaster for those who do not use direct deposit. Additionally, the Controller's Office should work with City employees not currently using direct deposit in order to provide backup account information that can be switched to direct deposit in the event of a disaster. The City should assist those employees without access to a bank account to open an account with a bank or credit union.

The Controller's Office will also direct the established financial policies to guide the City in its response and recovery to an emergency, particularly as it relates to personnel time, contracts, and equipment and supplies relating to the emergency. As a part of this responsibility, the Office should work with other City agencies to determine need for contracts with vendors who do not already occur on existing approved vendor lists, and it should set up these new vendor contracts well before the emergency occurs.

POLICY 6.3.3.
Provide the basic needs of all people while lifeline support is interrupted.

Beyond the immediate aftermath of a disaster, and beyond the assurance of infrastructure with explicit life safety purpose, there may still be persistent and critical basic needs for the people of San Francisco as the City recovers from disaster. The City should make a plan and provide support to cover the basic needs for all people while systems are reestablished and communities return to self-sufficiency. The plan should include basic shelter, health, and food needs, and focused on those with the least adaptive capacity for self-care. This includes Environmental Justice Communities, people with disabilities and other functional needs, the young and the elderly, and other vulnerable people.

POLICY 6.3.4.
Explore expanding the scope of the City's disaster relief programs.

The City provides financial relief to property owners through tax programs including disaster relief on property taxes, and participation in the state's Section 69.3 property tax disaster relief program which enables former residents who move to other counties to maintain their previous level of property taxation prior to the disaster.

The City should review other forms of tax relief to affected residents and business owners, including reductions on other fees and taxes. There are many local taxes and fees that are under the jurisdiction of the City, and the City has the authority to waive or defer such taxes and fees in an emergency.

Educating residents about the lack of access to funds in the event of a disaster is critical. The Office of the Treasurer and Tax Collector should be involved in working with financial institutions and educating the public on how to access private funds during a time when typical procedures will

not be possible. For example, the City can leverage banking contracts to assist residents directly with cash payments.

POLICY 6.3.5.
Ensure effective use of public emergency funds and expenditures, and recovery of those expenditures.

The Controller's Office is responsible for tracking expenditures for the cost of responding to, and recovering from, the disaster. This includes tracking, recording, and reporting on all payments made in response to the emergency, including personnel working during the emergency, outside contractor work, and expenses such as supplies, materials, equipment, and vehicles.

It is important that the tasks that are authorized are relevant and necessary, and that their completion is well-documented by the Controller's Office and its supporting agencies. This documentation will be critical in submitting disaster reimbursement claims to the state and federal government and ensuring support funding is received.

Glossary

This Glossary is intended to define key words and phrases used throughout the Safety & Resilience Element of the San Francisco General Plan, to guide interpretation of the goals, objectives, and policies.

adaptation, adaptive capacity

- Adaptation is the ability, competency, and capacity of a system to adjust to variables. Climate Adaptation is the proactive measures taken to adjust the built environment and human systems to reduce harm from the impacts of the climate crisis.
- Adaptive capacity refers to the ability to adjust functions to reduce harm. In social systems, it refers to the ability of institutions and people to problem solve and take opportunities for recovery and reconstruction. It includes the ability of San Francisco's individuals, communities, institutions, businesses, and systems to survive, adapt, and grow, no matter what kind of chronic stresses and acute shocks they may experience. For San Francisco this means (1) the ability to quickly respond and recovery from a disaster or large shock; (2) the ability to address systemic crises such as lack of economic mobility, inequity, poverty, and housing shortages; and (3) the ability to prepare for and address slow-moving disasters like climate change and sea level rise.

disaster

- A disaster is a hazard that has occurred, or a hazard event. A disaster is often—but not always—sudden and causes loss of life or great damage. The terms “disaster” and “hazard” are often used interchangeably. See *Hazard.*

environmental justice, Environmental Justice Communities

- Environmental justice is the equitable distribution of environmental benefits and elimination of environmental burdens to promote healthy communities where everyone in San Francisco can thrive. Government should foster environmental justice through processes that address, mitigate, and amend past injustices while enabling proactive, community-led solutions for the future.
- Environmental Justice Communities face environmental racism and subsequently bear disproportionate environmental burdens. Environmental Justice Communities are disproportionately low-income communities and communities of color. Leadership by Environmental Justice Communities must be involved in the creation and decision-making of environmental justice solutions. In San Francisco, Environmental Justice Communities are identified through the Environmental Justice Communities Map incorporated here by reference, and are defined as the census tracts with the top 30% of cumulative environmental and socioeconomic vulnerability across the City. The Environmental Justice Communities Map was developed in response to California Senate Bill 1000 (SB 1000) which requires cities and counties to adopt a map of “disadvantaged communities” and adopt environmental justice policies in their General Plan to address “unique or

compounded health risks." The Environmental Justice Map and Framework is expected to be adopted into the General Plan in 2023.

functional recovery

- Functional recovery is a standard for buildings and lifeline infrastructure to be designed and constructed to support the basic intended functions of a building soon after an earthquake or other severe hazard, such as eating, sleeping, shopping, or learning. This standard includes maintenance and the restoration of occupancy within a determined maximum acceptable time, and goes beyond life safety standards.

green building, green infrastructure

- The principles of green building lead building design, construction, and operation to reduce or eliminate negative impacts, and can create positive impacts, on climate and the natural environment. The local context, such as climate conditions, building types and age, and cultural traditions, contribute to green building approaches. In San Francisco, these principles are supported by the Green Building Code.
- green infrastructure is an approach to water management that protects, restores, or mimics the natural water cycle. It can be effective, economical, and enhance community safety and quality of life. Green Infrastructure incorporates both the natural environment and engineered systems to provide clean water, conserve ecosystem values and functions, and provide a wide array of benefits to people and wildlife.

hazard

- A hazard is a source of potential danger or an adverse condition that could harm people, socioeconomic systems, or built and natural environments. Hazards can occur naturally and/or by human influence. As interactions between society and the natural environment are complex, it can be difficult to delineate a singular source of hazards (e.g., human-influenced ignition of fires during drought conditions, development in low-lying areas prone to flooding).
    - Geological Hazards include: Earthquake, Tsunami, Landslide, Dam or Reservoir Failure
        - An earthquake is a sudden slip on a fault in the earth's crust, and the resulting ground shaking and radiated seismic energy caused by the slip.
        - A tsunami is a series of ocean waves caused by sudden movement of the sea floor, typically as a result of major earthquakes.
        - Landslide is a general term used to describe the downslope movement of soil, rock, and organic materials under the effects of gravity.
        - A dam or reservoir failure is an unplanned release of water resulting from the structural compromise or collapse of a dam or other structural element, such as the wall of a tank.
    - Weather-Related Hazards include: Flooding, High Wind, Extreme Heat, Drought

- Flooding is covering or inundation of normally dry land with large amounts of water, can be caused by the overflow of water from a stream, river, lake, coastal body, or a water control feature such as a pipe, dam, or levee.
- The National Weather Service defines “high winds” as sustained wind speeds of 40 miles per hour (mph) or greater lasting for one hour or longer, or winds of 58 mph or greater for any duration.
- According to the National Weather Service, extreme heat occurs when the temperature reaches extremely high levels or when the combination of heat and humidity causes the air to become oppressive and stifling. Generally, extreme heat is 10 degrees above the normal temperature over an extended period.
- Drought is insufficient water over a prolonged period.

- Combustion-Related Hazards include: Large Urban Fire, Wildfire, Poor Air Quality
  - A Large Urban Fire is a large, destructive fire that spreads across one or more City streets.
  - A Wildfire is an unplanned, uncontrolled fire in an area of combustive vegetation or fuel.
  - Poor Air Quality is the condition of ambient air quality having high concentrations of air pollutants that are unhealthy to public health and the environment. The U.S. Environmental Protection Agency measures air quality with the Air Quality Index (AQI), which measures the concentration of five pollutants regulated by the Clean Air Act: ground-level ozone, particulate matter, carbon monoxide, sulfur dioxide, and nitrogen dioxide. When AQI exceeds 100, air quality becomes unhealthy for certain sensitive groups of people, then everyone as air quality worsens.
- Biological and Toxic Hazards include: Pandemic, Hazardous Materials
  - A Pandemic is when an infectious disease outbreak occurs worldwide, or over a very wide area and affects many people.
  - Hazardous Materials are harmful both to human health and to the environment. An accidental hazardous material release can occur wherever hazardous materials are manufactured, stored, transported, or used.

infrastructure

- The assets and systems that deliver public services to a community, such as roads delivering goods and transportation options, telephone lines and fiber optic cables delivering internet, pipes and pumps delivering water, and the power grid delivering energy.

lifelines

- Lifelines are the systems, assets, and facilities that provide services vital to the function of society and important to emergency response and recovery after disaster. These lifelines include water, sewer, and power provision; communication networks such as phone, radio, television, and internet;

transportation; food; shelter; health; and more. By definition, these lifelines can extend beyond City boundaries. For example, state and private agencies operate some regional lifelines, like highways or internet.

mitigation, hazard mitigation

- Mitigation is the reduction of vulnerabilities, risks, and impacts of hazards on people, assets, and the environment. Often strategic nearer-term investments, mitigation actions can lessen the scale and intensity of potential future damage, thereby reducing response and recovery expenditures. Proactive hazard mitigation is particularly important for protecting the most vulnerable populations.

- Hazard mitigation is a series of sustained actions taken to reduce or eliminate short- and long-term risks to life and property from hazards.

racial advantage (or privilege)

- Racial advantage, or privilege, is the unquestioned and unearned set of advantages, entitlements, benefits and choices bestowed on people solely because of their race.

racial and social equity

- Racial equity is the systematic fair treatment of people of all races that results in equal outcomes, while recognizing the historical context and systemic harm done to specific racial groups.

- Social equity is the systemic fair treatment of people of all social groups that results in equal outcomes, while recognizing the historical context and systematic harm done to specific groups, such as along gender identity, sex, religion, and disability status.

racial disparity

- Racial disparity is a condition where one racial group systemically and disproportionately experiences worse outcomes in comparison to another racial group.

recovery and reconstruction

- Recovery and reconstruction involve activities that restore and rebuild communities post-disaster—with fundamentals such as housing security, business resumption, lifeline restoration, and provision of essential services. The thoughtful rebuilding of day-to-day livelihoods can advance San Francisco towards a more equitable, sustainable, and resilient future.

resilience

- Resilience in San Francisco describes the capacity of individuals, communities, institutions, businesses, and systems within the City to survive, adapt, and grow, no matter what kind of chronic stresses and acute shocks they may experience. It is important to note that resilience is a concept that extends beyond preparation for discrete natural disasters and should be defined in connection to issues such as climate change, escalating urbanization, and other disruptions of daily life.

response

- Response efforts provide critical information and emergency services during and immediately after disasters. It focuses on saving lives and preventing further injury to people and places, particularly

focused on vulnerable populations. Response activities bring immediate support and relief against the social, economic, and environmental consequences of disasters.

risk, risk reduction

- Risk is the chance that a given hazard could occur multiplied by the understood consequences of an impact on people, socioeconomic systems, or the built and natural environment.
- Risk reduction includes regulatory controls, plans, policies, programs, projects, initiatives, and anything else employed to eliminate, avoid, or minimize risks.

safety, life safety

- Safety is the state of being protected from harm or danger. This includes physical and mental harm from external and internal dangers.
- Life safety refers to building performance that prevents partial or total structural collapse and limits damage to nonstructural and non-life-threatening levels.

vulnerable communities

- For the purposes of the Safety & Resilience Element, vulnerable communities describe communities who experience heightened risk and increased sensitivity to potential harms than the City average. To be vulnerable means possessing a lower adaptive capacity to withstand stresses, and often means that these people and places are hit the "first and worst" by disasters. These disproportionate effects are caused by physical (built and environmental), social, political, and/or economic factor(s), which are exacerbated by adverse climate impacts. The specific population groups encompassed by this term vary from issue to issue, and vulnerability can be defined by a variety of factors, such as geography, demographics, health disparities, and asset ownership. For example, vulnerable communities can include seniors, people with disabilities and other function needs, institutionalized or incarcerated people, youth who have been separated from their families, residents of single-room occupancy hotels and public housing, and others. The designation does not describe any intrinsic characteristic of a group of people, but rather a failure of society and systemic actions which have rendered them vulnerable.

COMMUNITY SAFETY

SAN FRANCISCO GENERAL PLAN

AN ELEMENT OF THE GENERAL PLAN OF THE CITY AND COUNTY OF SAN FRANCISCO

DRAFT FOR ADOPTION JUNE 2012 | SAN FRANCISCO PLANNING DEPARTMENT

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OBJECTIVE 1

REDUCE STRUCTURAL AND NON-STRUCTURAL HAZARDS TO LIFE SAFETY AND MINIMIZE PROPERTY DAMAGE RESULTING FROM FUTURE DISASTERS.

POLICY 1.1

Continue to support and monitor research about the nature of seismic hazards in the Bay Area, including research on earthquake prediction, warning systems and ground movement measuring devices, and about earthquake resistant construction and the improved performance of structures.

POLICY 1.2

Research and maintain information about emerging hazards such as terrorism threats and communication failures.

POLICY 1.3

Assure that new construction meets current structural and life safety standards.

POLICY 1.4

Use best practices to review and amend at regular intervals all relevant public codes to incorporate the most current knowledge of structural engineering regarding existing buildings.

POLICY 1.5

Support development and amendments to buildings code requirements that meet City seismic performance goals.

POLICY 1.6

Consider site soils conditions when reviewing projects in areas subject to liquefaction or slope instability.

POLICY 1.7

Consider information about geologic hazards whenever City decisions are made that will influence land use, building density, building configurations or infrastructure are made.

POLICY 1.8

Direct City actions to reduce its contributions towards climate change, and mitigate future releases of greenhouse gasses.

POLICY 1.9

Mitigate and assess the risk of flooding in San Francisco by incorporating the Flood Insurance Rate Map for San Francisco and related programs from this map to mitigate against flood risks.

POLICY 1.10

Examine the risk of flooding due to climate change-related effects, such as storm surges, changes in precipitation patterns, and sea level rise as well as adaptation actions that will reduce population, built environment, and ecosystem vulnerability due to these threats.

POLICY 1.11

Continue to promote green stormwater management techniques.

POLICY 1.12

Ensure that new development on Treasure Island, Yerba Buena Island and Hunters Point Shipyard are resistant to natural disasters.

POLICY 1.13

Reduce the risks presented by the City's most vulnerable structures, particularly privately owned buildings and provide assistance to reduce those risks.

POLICY 1.14

Reduce the earthquake and fire risks posed by older small wood-frame residential buildings.

POLICY 1.15

Abate structural and non-structural hazards in City-owned structures.

POLICY 1.16

Preserve, consistent with life safety considerations, the architectural character of buildings and structures important to the unique visual image of San Francisco, and increase the likelihood that architecturally and historically valuable structures will survive future earthquakes.

POLICY 1.17

Create a database of vulnerable buildings, seismic evaluations, and seismic retrofits to track progress, record inventories, and evaluate and report on retrofit data.

POLICY 1.18

Identify and replace vulnerable infrastructure and critical service lifelines in high-risk areas.

POLICY 1.19

Mitigate against damage to City systems and infrastructure through awareness of threats posed by new forms of hazards such as terrorism and communication failures.

POLICY 1.20

Increase communication capabilities in preparation for all phases of a disaster, and ensure communication abilities extend to hard-to-reach areas and special populations.

POLICY 1.21

Ensure plans are in place to support populations most at risk during breaks in lifelines.

POLICY 1.22

Reduce hazards from gas fired appliances and gas lines.

POLICY 1.23

Enforce state and local codes that regulate the use, storage and transportation of hazardous materials in order to prevent, contain and effectively respond to accidental releases.

POLICY 1.24

Educate public about hazardous materials procedures, including transport, storage and disposal.

POLICY 1.25

Prepare for medical emergencies and pandemics.

POLICY 1.26

Monitor emerging industries like bioscience, and ensure that state and local codes manage risks effectively.

OBJECTIVE 2

BE PREPARED FOR THE ONSET OF DISASTER BY PROVIDING PUBLIC EDUCATION AND TRAINING ABOUT EARTHQUAKES AND OTHER NATURAL AND MAN-MADE DISASTERS, BY READYING THE CITY'S INFRASTRUCTURE, AND BY ENSURING THE NECESSARY COORDINATION IS IN PLACE FOR A READY RESPONSE.

POLICY 2.1

Promote greater public awareness of disaster risks, personal and business risk reduction, and personal and neighborhood emergency response - a "culture of preparedness."

POLICY 2.2

Encourage businesses and homeowners to evaluate their earthquake risks.

POLICY 2.3

Provide on-going disaster preparedness and hazard awareness training to all City employees and other responding agencies.

POLICY 2.4

Bolster the Department of Emergency Management's role as the City's provider of emergency planning and communication, and prioritize its actions to meet the needs of San Francisco.

POLICY 2.5

Maintain a comprehensive, current Emergency Response Plan, in compliance with applicable state and federal regulations, to guide the response to disasters.

POLICY 2.6

Create a consolidated website linking all of the City's disaster-related information for the general public.

POLICY 2.7

Continue to expand the City's fire department prevention and firefighting capability with sufficient personnel and training.

POLICY 2.8

Ensure potable water is available in an emergency.

POLICY 2.9

Develop agreements with private facilities to ensure immediate supply needs can be met.

POLICY 2.10

Maintain the San Francisco Disaster Debris Management Plan.

POLICY 2.11

Ensure the City's designated system of emergency access routes is coordinated with regional activities for both emergency operations and evacuation.

POLICY 2.12

Utilize the City's and the region's bus and rail transit network to facilitate response and recovery during and after a disaster.

POLICY 2.13

Continue coordination with water transit agencies, ferries and private boat operators to facilitate water transportation as emergency transport.

POLICY 2.14

Support the Emergency Operations Center, and continue maintenance of alternative operations centers in the case of an emergency.

POLICY 2.15

Utilize advancing technology to enhance communication capabilities in preparation for all phases of a disaster, particularly in the high-contact period immediately following a disaster.

POLICY 2.16

Plan to address security issues that may arise post-disaster, and balance these issues with the other demands that will be placed on public safety personnel as emergency response providers.

POLICY 2.17

Ensure the City's plan for medical response is coordinated with its privately owned hospitals.

POLICY 2.18

Ensure all Response Plans are coordinated with the Disaster Council.

POLICY 2.19

Seek funding for preparedness projects.

POLICY 2.20

Enhance communications with nearby jurisdictions.

POLICY 2.21

Develop and maintain mutual aid agreements with local, regional and state governments as well as other relevant agencies.

POLICY 2.22

Develop partnerships with private businesses, public service organizations and local nonprofits to meet disaster-time needs.

OBJECTIVE 3

ESTABLISH STRATEGIES TO ADDRESS THE IMMEDIATE EFFECTS OF A DISASTER.

POLICY 3.1

After an emergency, follow the mandates of the Emergency Response Plan and Citywide Earthquake Response Plan.

POLICY 3.2

Follow the National Incident Management System (NIMS) Procedures in declared emergency scenarios.

POLICY 3.3

Have plans to accept, organize and utilize convergence workers.

POLICY 3.4

Have vendors and contractors available to respond immediately after a disaster.

POLICY 3.5

Develop strategies for cooperating with the media.

POLICY 3.6

Support the ability to shelter-in-place for residents.

POLICY 3.7

Develop a system to convey personalized information during and immediately after a disaster.

POLICY 3.8

Establish centers to facilitate permits for repairs.

POLICY 3.9

Work collaboratively with nonprofit partners to assist vulnerable populations during and immediately after a disaster and to ensure resumption of social services directly after a disaster.

POLICY 3.10

Support the efforts of the Controller's Office to ensure service continuation and financing of post-disaster.

POLICY 3.11

Ensure historic resources are protected in the aftermath of a disaster.

POLICY 3.12

Address hazardous material and other spills by requiring appropriate cleanup by property owners per local, state, and federal environmental laws.

OBJECTIVE 4

ASSURE THE SOUND, EQUITABLE AND EXPEDIENT RECONSTRUCTION OF SAN FRANCISCO FOLLOWING A MAJOR DISASTER.

POLICY 4.1

Before an emergency occurs, establish an interdepartmental working group to develop an advance recovery framework that will guide long-term recovery, manage reconstruction activities, and coordinate rebuilding activity.

POLICY 4.2

As a part of the advance recovery framework, develop and adopt a repair and reconstruction ordinance, to facilitate the repair and reconstruction of buildings.

POLICY 4.3

As a part of the advance recovery framework, coordinate the realignment of government post-disaster, so City employee's skills can be used effectively towards recovery and reconstruction efforts.

POLICY 4.4

Update the advance recovery framework on a regular basis.

POLICY 4.5

Develop and maintain public support for the advance recovery framework to ensure its eventual implementation.

POLICY 4.6

Post-disaster, build upon the advance recovery framework to create a recovery and reconstruction plan to direct the City's reconstruction activities, manage the long-term recovery period, and coordinate rebuilding activity.

POLICY 4.7

Ensure the recovery and reconstruction plan is comprehensive and consistent with already established City programs and policies.

POLICY 4.8

Where necessary, use public authority to expedite repair, reconstruction and rebuilding.

POLICY 4.9

Engage the community in the reconstruction planning process.

POLICY 4.10

View recovery as a partnership with neighborhoods.

POLICY 4.11

Promote partnerships with non-governmental agencies, including public/private partnerships, to ensure support is ready to step in after a disaster.

POLICY 4.12

Rebuild after a major disaster consistent with established General Plan objectives and policies.

POLICY 4.13

Support existing policies to create and maintain affordable housing choices.

POLICY 4.14

Utilize emergency exemptions for rebuild projects with limited or no environmental impacts.

POLICY 4.15

Utilize green building practices in rebuilding.

POLICY 4.16

Ensure design character and quality is paramount in consideration of all rebuilding projects.

POLICY 4.17

Provide adequate interim accommodation for residents and businesses displaced by a major disaster in ways that maintain neighborhood ties and cultural continuity to the extent possible.

POLICY 4.18

Repair damaged neighborhoods in a manner that facilitates resident return and maintains neighborhood community quality.

POLICY 4.19

Consider homelessness in the wake of disaster.

POLICY 4.20

Ensure sufficient workforce housing during reconstruction.

POLICY 4.21

Have an economic recovery plan in place before the disaster strikes.

POLICY 4.22

Explore expansion of the City's disaster relief programs.

POLICY 4.23

Ensure effective use of public emergency funds and expenditures, and recovery of those expenditures.

Photo by Scott Beale / Laughing Squid

II. Introduction

The purpose of the Community Safety Element is to facilitate community resilience and reduce future loss of life, injuries, property loss, environmental damage, and social and economic disruption from natural or technological disasters. There are several assumptions behind this Element:

- Creating a greater public awareness of the hazards and risks that face San Francisco will result in an informed commitment by public agencies, private organizations and individuals to prepare for future disasters.
- Development and implementation of programs to increase safety and economic resilience, mitigate risk, increase preparedness and respond to emergencies are the responsibility of many different agencies. Cooperation among City and County agencies, Bay Area Communities, federal and state agencies, community-based organizations, and the private sector is essential for these programs to be effective.
- New policies and programs must be developed and funding vehicles identified that will minimize risks from natural hazards and expedite the recovery process.
- Existing hazardous structures have the greatest potential for loss of life, extended economic interruption and other serious impacts as a result of an earthquake. The City should continue to explore ways to reduce these risks.

The Community Safety Element focuses on seismic hazards, because the greatest risks to life and property in San Francisco result directly from the ground shaking, ground failure, and other impacts associated with large earthquakes. Other hazards common in other California communities, such as ground failure, inundation, landslides, hazardous materials releases and fire, are most likely to occur in San Francisco in association with an earthquake, and are addressed in that capacity. Additionally, other hazards, particularly man-made hazards, pose threats to the City's health and welfare, and must be considered here in terms of hazard mitigation, preparedness, response and recovery.

The Community Safety Element establishes policies to guide the City's actions in preparation for, response to, and recovery from a major disaster. Implementation of the Community Safety Element is carried out through a number of City plans and programs, as described below-most specifically the City's Hazard Mitigation Plan and the programs developed under the Resilient San Francisco Initiative (ResilientSF) – as well as by the agencies and entities referenced in relevant policies.

Relationship to Other Plans and Programs

While the Community Safety Element also establishes policies to guide the longer-term recovery and rebuilding of the City, a more detailed plan will be needed to coordinate the specific efforts of the City, its residents, and its economy in recovery and rebuilding following a major disaster. Therefore, this Element calls for a recovery framework to be developed prior to any disaster, to set the stage for a recovery and rebuilding plan to be developed after a disaster. This eventual recovery and rebuilding plan will make clear the community's vision for how our City – its physical infrastructure, transportation systems, and neighborhoods – will be rebuilt in the case of a major disaster or catastrophe.

Plans

The Community Safety Element, and its related components described above, contains broader policies to reduce impacts, occurring over a longer time frame, that will need to be carried out by the Planning Commission and other City agencies. The City also maintains several policy documents and response plans that provide more immediate direction to specific agencies in the case of disaster. These include:

CCSF Emergency Response Plan

The City's Emergency Response Plan is maintained and updated by the Department of Emergency Management. The Emergency Response Plan implements many of the emergency response policies of this Community Safety Element.

The Emergency Response Plan provides for a coordinated response to disaster by describing specific responses to be undertaken by the emergency response agencies, and other supporting City departments. The Emergency Response Plan is divided into three parts. Part 1 provides an overview of the emergency management system at the policy and operations levels, and is intended to educate the City's agencies about emergency operations in San Francisco. Part 2 (under development at the time of drafting) consists of detailed and restricted information that will be used by Emergency Command Center personnel in response actions; and is intended for internal and authorized emergency management staff. Part 3 (under development at the time of drafting) is a set of functional and hazard-specific annexes that provide additional detailed response, resource and recovery information on specific areas of response, such as Care and Shelter, Evacuation and Volunteer Management. Examples of hazard-specific annexes are Earthquake, Oil Spill and National Security Emergency.

CCSF Hazard Mitigation Plan

Another related plan is the Hazard Mitigation Plan, required by federal law as a condition of receiving hazard mitigation grants after a declared disaster. By law, a Hazard Mitigation Plan must describe the type, location, and extent of all natural hazards that can affect the jurisdiction; describe the jurisdiction's vulnerability to these hazards; include a mitigation strategy that provides the jurisdiction's blueprint for reducing the potential losses; and, contain a plan maintenance process. The Hazard Mitigation Plan serves as one of the Implementation Programs of the Community Safety Element, and contains programs that implement its policies. The Board of Supervisors regularly adopts updates to the San Francisco Hazard Mitigation Plan.

Citywide Earthquake Response Plan

The Citywide Earthquake Response Plan is designed to support the Emergency Response Plan (ERP), by providing considerations for a response to a major earthquake in the Bay Area that has a significant effect on the City of San Francisco. While the EOP focuses on preparedness and mitigation, this Response Plan is primarily focused on response and short-term recovery operations. The Response Plan provides direct response strategies for all of the City's agencies in various functions that must be performed in the wake of a major earthquake. Also, for a comprehensive analysis of the potential impact of a range of earthquake magnitudes on the City, and their cumulative effects on our population and built environment, see Appendix A: Hazard Analysis of the Catastrophic Earthquake Response Plan.

Regional Emergency Coordination Plan

The San Francisco Department of Emergency Management is the lead agency to develop a Regional Emergency Coordination Plan (RECP), which is focused on the responsibilities and procedures between California's Emer-

gency Management Agency (CalEMA) and the counties. The plan is designed to enhance coordination in governance, fire response, law enforcement, and industry across municipalities in the region; and will facilitate the flow of mutual aid. The RECP is intended to reflect existing plans and interagency agreements, and to address any gaps or inconsistencies between the existing plans. The RECP entails a Baseline Plan and nine subsidiary elements, including the Transportation Coordination and Recovery Plan (TCRP).

San Francisco All-Hazards Strategic Plan

The San Francisco All-Hazards Strategic Plan contains a five-year vision and strategy for the City's disaster management program and is intended to enhance the City's ability to deter, prevent, respond to, and recover from acts of terrorism and natural and human-caused disasters. The Strategic Plan is designed to serve as a long-term guide that is able to direct both short- and long-term planning and preparedness efforts of City and non-governmental agencies to accomplish a single emergency management and homeland security vision and mission. This plan uses the Department of Homeland Security Target Capabilities List to identify a desired end state of the City's emergency management and homeland security capabilities, and provides objectives and performance metrics to twenty strategic goals for enhancing the City's resilience identified by senior leadership and major stakeholders. The Strategic Plan is designed to assist citywide senior leadership in directing programmatic efforts, accomplishing results, ensuring accountability, and properly allocating limited resources through the duration of the plan.

State of California Seismic Hazards Mapping Act

In 1990, the California Legislature enacted the Seismic Hazards Mapping Act (SHMA). As a result, the Department of Conservation, California Geological Survey (CGS) (formerly known as the California Division of Mines and Geology) published a report entitled "Seismic Hazard Zone Report for the City and County of San Francisco, California" in 2000 and the Seismic Hazard Zones map for the City and County of San Francisco in 2001. The Seismic Hazard Zones (SHZ) map is included in this Element, and shows the areas with potential liquefaction and earthquake-induced landslides.

The City must take the information contained in the maps into account when preparing the Community Safety Element, or when adopting or revising land use ordinances. When development projects are proposed within the SHZs, the project sponsor is required to conduct a site investigation and prepare a seismic hazard report assessing the nature and severity of the hazard, and suggesting appropriate geotechnical measures and structural design features. When approving any project in a SHZ, the City will use the information and recommendations included in the report to achieve a reasonable protection of public safety.

Programs

The City of San Francisco has developed several local programs to address hazard mitigation, reduce losses, and deal with post-disaster reconstruction issues. The programs outlined below are not an exhaustive list, but rather meet the current needs at the time the Element was adopted. Additional programs may be developed.

Building Occupancy Resumption Program (BORP)

The usual building inspection and posting program, instituted after a damaging earthquake, is organized to allow volunteer inspectors to post buildings that need to be reviewed by qualified structural engineers before they can be reoccupied. The BORP, coordinated by the Department of Building Inspection, is an emergency inspection program designed to facilitate rapid decisions regarding reoccupancy by eliminating the step by volunteer inspectors. The program provides pre-certification for private emergency inspection by qualified Structural Engineers who are retained by the building owner to evaluate and post buildings on behalf of the City. Building owners must request participation in this program prior to an earthquake, or other disaster, sponsor a pre-earthquake evaluation of their building, and meet the program requirements for setting specific criteria for posting. This program allows knowledgeable, pre-approved engineers to inspect and definitively post a building immediately without the need for another level of inspection. The City does not charge a fee for participation in this program.

Community Action Plan for Seismic Safety (CAPSS) and the Earthquake Safety Implementation Program (ESIP)

The Community Action Plan for Seismic Safety (CAPSS) was a ten-year project and study contracted with the Applied Technology Council (ATC) to understand the seismic vulnerability of San Francisco's privately owned buildings. The follow-up to CAPSS is the Earthquake Safety Implementation Program (ESIP), a program intended to implement the recommendations of the CAPSS study. CAPSS and ESIP are based on five objectives: that residents will be able to stay in their own homes following a disaster, that residents will quickly have access to important privately-run community services, that no building will collapse catastrophically, that businesses and the economy will quickly return to functionality, and that the City's sense of place will be preserved. These objectives are supported by seventeen recommendations.

The CAPSS project was divided into three phases: Its first phase involved preliminary evaluations of seismic risks and public meetings to gain input on ways to reduce that risk. The second phase of CAPSS included several components: a vulnerability assessment identifying the City's most at-risk private buildings, which led to the development of a section on earthquake safety for soft-story buildings; the formulation of requirements for the evaluation of, and subsequent repair or demolition of, buildings that are significantly damaged by earthquakes; and an implementation plan to carry out the seventeen recommendations laid out by the program. This last component carries on the work of CAPSS as ESIP.

Community Engagement

The Department of Emergency Management Community Engagement team partners with and works to support the efforts of the government, private sector, and non-profit-, faith-based, and community-based organizations that have a role in San Francisco's resilience. The goal of this program is to enhance the community's capacity to participate in the City's rapid and effective recovery.

The Community Engagement team promotes personal and organizational preparedness among partners by providing all-hazards education, multi-media, promotional campaigns, toolkits and guidance for organizational continuity, planning, and exercises to help ensure that plans can be effectively carried out in the case of a disaster. During an emergency, the Community Engagement team integrates the efforts, resources, and on the ground awareness of private sector partners into emergency operations through the use of communication technologies and by including representatives from those sectors at the Community Branch of the Emergency Operations. *Coordinated Assistance Network*

The Bay Area Coordinated Assistance Network (Bay Area CAN) is a collaborative group of nonprofit, community-based, faith-based, and government agencies working together to strengthen the region's disaster response and recovery systems. The primary purpose is to coordinate and utilize a shared client and resource information database that shares complete client data among members to enhance services to clients after a disaster. Bay Area CAN uses information and referral systems such as 2-1-1 to help organizations to effectively match the needs of disaster clients with available resources. The core agencies involved in Bay Area CAN are American Red Cross Bay Area, The Salvation Army, United Way of the Bay Area, HELPLINK / 211, The Volunteer Center, SF VOAD, Catholic Charities CYO, SF CARD, SF Dept. of Emergency Management, and San Francisco Human Services Agency

Give2SF

Established under Sec. 10.100-100 of the San Francisco Administrative Code, Give2SF is an on-line donations program created in 2011 to provide an opportunity for individuals or organizations to make on-line as well as mail-in donations to a group of City programs, including the San Francisco Disaster Recovery Fund. These funds can only be used to replace, repair and rebuild essential buildings, roadway systems, transportation, water services and other critical infrastructure damaged in an emergency such as an earthquake. These funds will help San Francisco rebound so services can be delivered, commerce can continue, and residents can get to schools, hospitals and their jobs as soon as possible after a disaster. Following a declaration of disaster, the Mayor can direct the administrator of Give2SF to remove links to the other five programs and disable those funds so that the only donation option is the San Francisco Disaster Fund .

Lifelines Council

In 2009, the City and County of San Francisco convened a Lifelines Council under the Citywide Post-Disaster Resilience and Recovery Initiative with a purpose and scope focused on post-disaster reconstruction and recovery (*http://sfgsa.org/lifelinescouncil/*). The Lifelines Council seeks to:

- Develop and improve collaboration in the City and across the region.
- Understand inter-system dependencies to enhance planning, restoration and reconstruction.
- Share information about recovery plans, projects and priorities.
- Establish coordination processes for lifeline restoration and recovery following a major disaster event.

Membership consists of executive officers and senior-level operational deputies of City and County of San Francisco agencies, and other local and regional providers of transportation, water, power, communications, and other essential services.

Neighborhood Emergency Response Team (NERT) and NERT Medical Reserve Corps (NERT MRC)

The Neighborhood Emergency Response Team Training Program was developed by the San Francisco Fire Department after the residential response to the 1989 earthquake. The program provides hands-on training in disaster skills and emergency response to various engaged groups, such as individual residents, neighborhood groups, response staff for the medical and hospitality sectors, and members of partnership agencies, and prepares them to be members of a team to respond to personal emergencies or as an adjunct to the SFFD response. The training prepares volunteers for all phases of emergency - preparedness, mitigation, response and recovery.

The San Francisco Fire Department makes the 20-hour NERT training available for people who live or work in San Francisco at no cost. The classes are taught by first responders of the San Francisco Fire Department. NERT also makes available continuing training opportunities for NERT graduates.

The SFFD also coordinates San Francisco's Medical Reserve Corps (NERT MRC), a volunteer organization of EMTs, Paramedics, first responders, fire service volunteers, medical professionals, students and retirees of these disciplines, and community members to serve San Franciscans with non-clinical needs by establishing local teams of medical, health and other volunteers to strengthen the public health infrastructure, improve emergency preparedness, and provide logistical support to professional responders.

Neighborhood Empowerment Network (www.empowersf.org)

The "Neighborhood Empowerment Network"is a colaition of residents, neighborhood and merchant organizations, nonprofits, academic and faith-based instiutions, foundations and government agencies whose mission is to empower residents and their communities with the capacity and resources to build strong communities. The NEN accomplishes this by leveraging the assets of Network members to build programs, tools and technical resources that neighborhood stakeholders can leverage as they create safe, clean, healthy, inclusive and economically resilient communities *(empowersf.org)*.

Resilient San Francisco Initiative (Resilient SF)

The Resilient San Francisco Initiative (ResilientSF) advances San Francisco's overall resilience by providing a framework, and road map, that coordinates plans, programs, resources and relationships that increase the capacity of individuals, organizations and communities to collectively solve problems and capture opportunities. Organizatinally hosted by the City Adminstrator, the Department of Emergency Management and the Controller's Office, ResilientSF acts as a comprehensive planning platform, residing in the Department of Emergency Management, which tracks and coordinates plans and programs cross-sector to ensure the City's overall ability to both respond rapidly to a disaster as well as achieve an accelerated recovery. ResilientSF accomplishes its goals by leveraging existing capacity programs, such as the Lifelines Council, CAPSS/ESIP, the Capital Planning Program, and NEN, as well as developing a suite of initiatives to advance the overarching mission. ResilientSF incorporates the work of the 2009 Citywide Post-Disaster Resilience and Recovery Initiative.

San Francisco Community Agencies Responding to Disasters (SFCARD)

SFCARD works with human service agencies serving vulnerable populations in San Francisco to ensure business continuity after a disaster. They provide extensive disaster preparedness training to support the capacity of local agencies and the vulnerable populations that they serve. In partnership with HELPLINK and the Volunteer Center, SFCARD is working a creating a Disaster Database to assist Health and Human Service agencies before, during, and after a disaster.

San Francisco Coordinated Assistance Network (SF CAN)

SF CAN is a collaborative group of nonprofit and faith-based agencies working together to strengthen San Francisco's disaster response and recovery systems. The primary purpose is to coordinate and utilize a shared client and resource information database that shares client data among members to enhance services to clients after a disaster. In addition, the collaboration works to create joint response and recovery plans that are integrated into the City's overall response plan and enhance existing community collaboration efforts. The core agencies involved in CAN are American Red Cross Bay Area, The Salvation Army, United Way of the Bay Area, HELPLINK / 211, The Volunteer Center, VOAD, Catholic Charities CYO, SF CARD, SF Dept. of Emergency Management, and San Francisco Human Services Agency.

San Francisco Urban Planning and Research Association – "Resilient City" Initiative (SPUR)

In 2006, earthquake professionals and policymakers in San Francisco joined forces in an initiative to identify and prioritize policies and actions that are needed to help ensure that San Francisco can rebound quickly from a major earthquake. Their efforts resulted in four major policy papers (to date) summarized in the "The Resilient City," policy paper adopted by the Board of the San Francisco Planning and Urban Research Association in 2008 (*http://www.spur.org/policy/the-resilient-city*). The document provides a vision for a resilient San Francisco as having:

> *"chosen to invest the time, energy, and political and economic capital to become a city that can rebound quickly from a natural disaster. It became a city that established performance objectives for buildings and for lifelines — those systems such as power, gas and water services, as well as communications and transportation systems. Enough homes have been retrofitted so that the vast majority of San Franciscans are able to shelter in place. A 'Lifelines Council' with influence over the preparation of critical services has ensured that the city's water, gas, electricity and sewer services are strong enough to be back in use within days. Seismic Silver and Seismic Gold buildings, defined by a new voluntary rating system, perform so well that they quickly become a model for all new housing in the region. The entire city is back on its feet within four months."*

SF Ready

A collaboration between the Chamber of Commerce, Department of Emergency Management and numerous concerned businesses. SF Ready produces roundtables every other month, free to the public, on topics of business emergency preparedness and business continuity.

Soft Story Wood-Frame Seismic Hazard Reduction Program

"Soft-story" buildings are wood-frame buildings with open fronts, usually large openings on the ground floor such as multiple garage doors or large storefront windows. Because of the lack of lateral in the first story, these buildings are at high risk for partial or total collapse in an earthquake. Particularly hazardous are corner buildings, where two sides of the building exhibit open fronts. DBI expects to require mandatory strengthening of soft-story wood-frame residential buildings of three or more stories and 5 or more residential units built before 1978. Other soft story buildings are expected to be subject to mandatory retrofit in following phases.

There are also several civic organizations and resources addressing the issue of seismic mitigation, preparation and recovery:

Unreinforced Masonry Building Program

An unreinforced masonry bearing wall building (UMB) is a building or structure having at least one unreinforced masonry (typically brick) bearing wall. UMBs have a strong likelihood of structural failure in the event of earthquakes, either by the collapse of walls or the entire building.

TARGET STATES OF RECOVERY FOR SAN FRANCISCO'S BUILDINGS AND INFRASTRUCTURE

INFRASTRUCTURE CLUSTER FACILITIES	Event occurs	Phase 1 Hours			Phase 2 Days		Phase 3 Months		
		4	24	72	30	60	4	36	36+
CRITICAL RESPONSE FACILITIES AND SUPPORT SYSTEMS									
Hospitals								X	
Police and fire stations			X						
Emergency Operations Center									
Related utilities						X			
Roads and ports for emergency				X					
CalTrain for emergency traffic					X				
Airport for emergency traffic				X					
EMERGENCY HOUSING AND SUPPORT SYSTEMS									
95% residence shelter-in-place								X	
Emergency responder housing				X					
Public shelters							X		
90% related utilities								X	
90% roads, port facilities and public transit							X		
90% Muni and BART capacity						X			
HOUSING AND NEIGBORHOOD INFRASTRUCTURE									
Essential city service facilities							X		
Schools							X		
Medical provider offices								X	
90% neighborhood retail services									X
95% of all utilities								X	
90% roads and highways						X			
90% transit						X			
90% railroads							X		
Airport for commercial traffic					X				
95% transit							X		
COMMUNITY RECOVERY									
All residences repaired, replaced or relocated									X
95% neighboorhood retail businesses open								X	
50% offices and workplaces open									X
Non-emergency city service facilities								X	
All businesses open									X
100% utilities									X
100% roads and highways									X
100% travel									X

Source: SPUR analysis

TARGET STATES OF RECOVERY

Performance measure	Description of usability after expected event	
	BUILDINGS	LIFELINES
	Category A: Safe and operational	
	Category B: Safe and usable during repairs	100% restored in 4 hours
	Category C: Safe and usable after moderate repairs	100% restored in 4 months
X	Expected current status	

San Francisco Urban Planning and Research Association – "Resilient City" Initiative (SPUR), 2008

In 1992, the Unreinforced Masonry Building Seismic Hazard Reduction Program and Ordinance required the retrofit of unreinforced masonry buildings (UMBs), to address their record of poor performance in earthquakes. The Department of Building Inspection is charged with oversight and enforcement of the program. As of February 2006, all UMB's were required to be in full compliance with the Ordinance. As of January 2007, all but approximately 270 of these buildings had been retrofit. The remaining upgrades should be carried out to complete the requirements of this program.

The Seismic Safety Retrofit Bond and Loan Program, also known as the UMB Loan Program, was authorized by San Francisco voters in 1992, authorizing $350 million in bonds for loans to owners of UMBs. As this program was intended to support the UMB Ordinance, it is largely completed. Approximately $3.5 million in market-rate funds remain, though additional bonds could be issued to restore funding. The program is administered by the Mayor's Office of Housing and a Loan Committee established by the Board of Supervisors.

Vial of Life

This program targets seniors and people with disabilities and provides a mechanism for first responders to gain life-saving information about these individuals when responding to an emergency at the individual's residence. Important medical information is recorded on a single form and inserted into a vial that is then placed in the individual's refrigerator. Magnets and window decals are provided along with the form and vial so that responders know to look in the refrigerator upon arriving on scene. This program is distributed in partnership with the SFFD and San Francisco State University Community Involvement Program, among other programs that work with the target population.

72hours.org

72hours.org is a public service campaign providing information to residents on how to prepare for emergencies such as earthquakes, fires, severe storms, power outages and acts of terrorism. The program includes a series of public service announcements and an emergency preparedness website developed and maintained by the Department of Emergency Management. The website offers step-by-step instructions on how to make a family emergency plan, build a disaster kit, and get training before a disaster occurs.

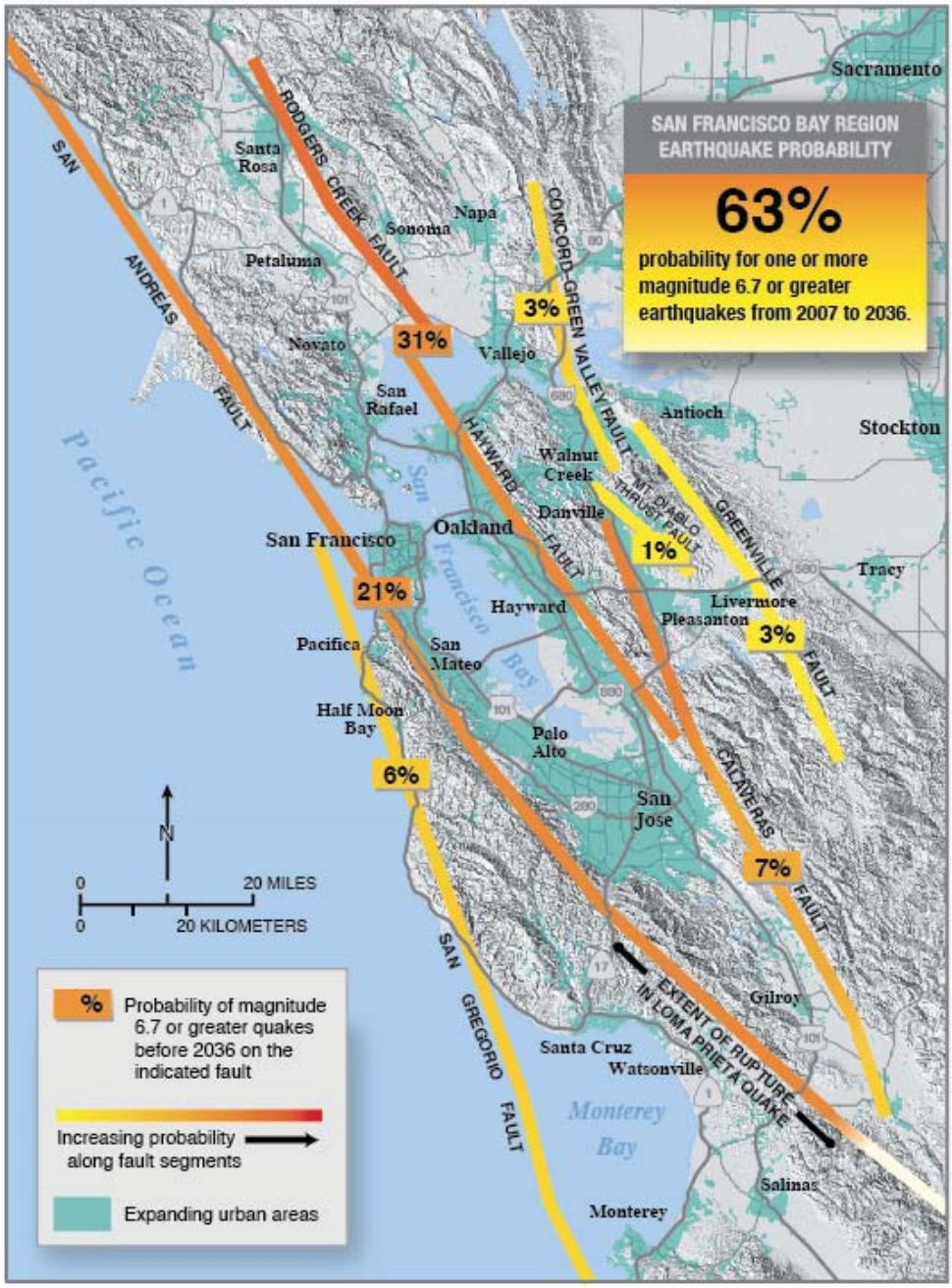
Natural Hazards in San Francisco

The greatest risks to life and property in San Francisco result directly from the ground shaking and ground failure associated with large earthquakes. Many of the other hazards San Francisco faces, such as urban fires, transportation disruption, communication or technical failures, and ground failure are often associated with an earthquake. Other, less common, natural hazards include flooding due to a tsunami, seiche or reservoir failure, which may occur as a result of an earthquake. Another risk category consists of disasters due to human activity, such as environmental disasters such from the release of hazardous materials, including oil spills, socially motivated catastrophes from civil disturbances and terrorism, and might even include large-scale road accidents, incidents on commercial aircraft or other large scale mechanical failure.
The section immediately following contains a brief review of the City's earthquake vulnerability and the risks associated with earthquakes: ground shaking and ground failures such as settlement, liquefaction and landslides. The subsequent section discusses inundation hazards such as tsunami and flooding. Human-caused disasters, such as terrorist activity, transportation disruptions or collisions, building collapses, and hazardous material spills or explosions are not discussed at length in this section, However, the mitigation, preparedness and response policies contained later in this Element apply to these kinds of disasters as well.

The City's Emergency Response Plan will provide more detail on disaster threats faced by the City of San Francisco. The recently adopted San Francisco Hazard Mitigation Plan will provide further analyses of these hazards, and as include specific hazard mitigation plans and programs to address them.

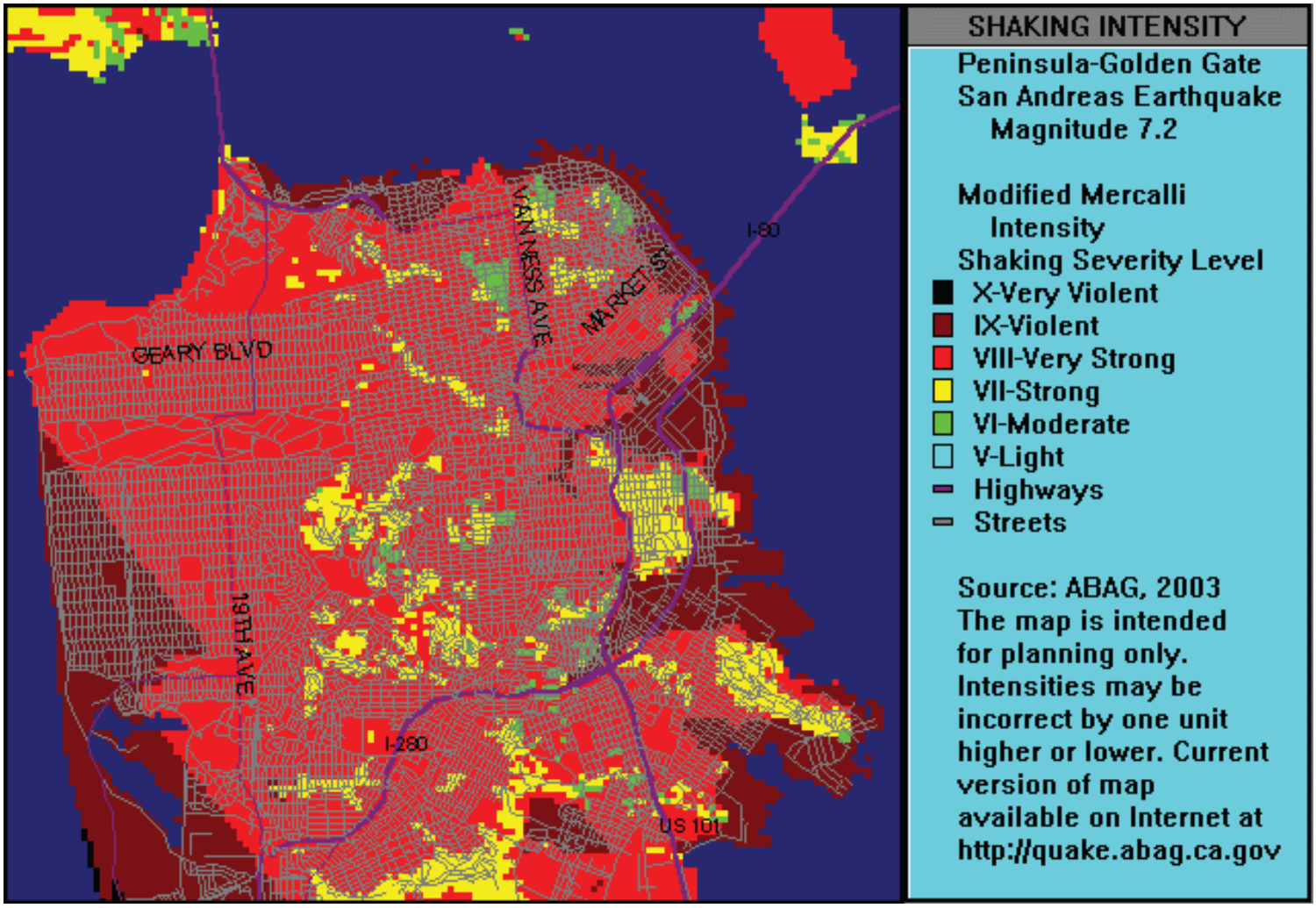
Earthquakes

Earthquakes have always occurred in the San Francisco area and will continue to occur in the future. There is a historical record of damaging earthquakes dating as far back as 1808 and trenching and other geological studies have identified earthquake events over many hundreds of years. Although few magnitude 6 or greater earthquakes occurred between 1906 and the late 1970s, many scientists believe that higher frequency of earthquakes since 1979 may represent a return to the higher rates of activity recorded before 1906.



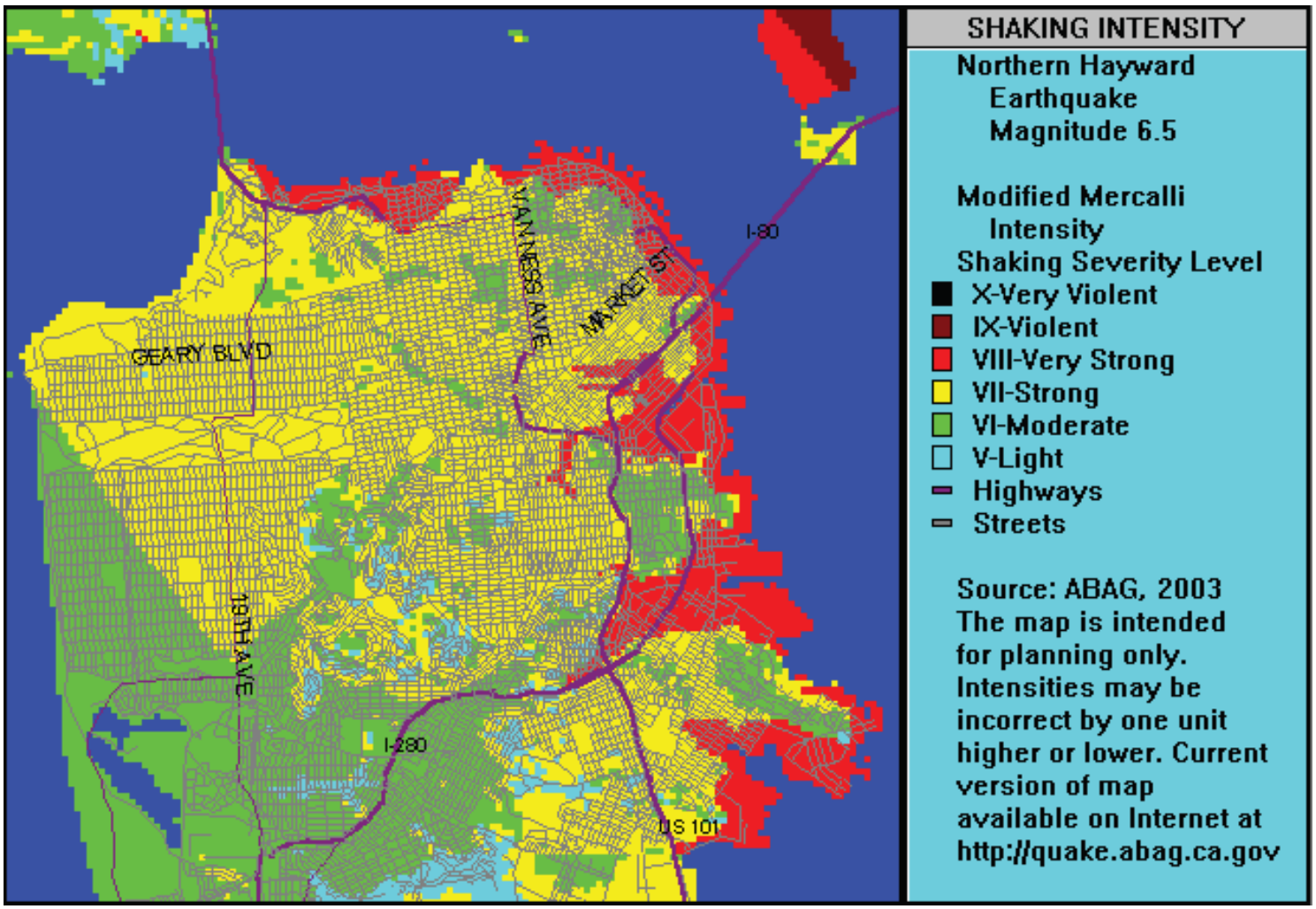
Bay Area Earthquake Faults
USGS 2007

MAP 01



Ground Shaking Intensity
Magnitude 7.2 Earthquake on the San Andreas Fault

MAP 02



Ground Shaking Intensity
Magnitude 6.5 Earthquake on the Hayward Fault

MAP 03

The great 1906 earthquake and the fire that it caused resulted in about 3,000 deaths. The worst building damage occurred on "made land": artificially filled areas created on former marshes, streams and bay. Wood-frame buildings in the South of Market area and brick buildings downtown were especially heavily damaged. Large ground displacements in the filled ground along the Bay damaged utilities. Damage to the gas generating and distribution system resulted in explosions and exacerbated the spread of fire. Breaks in the underground water pipes resulted in a loss of fire fighting capability. More than 28,000 buildings within a four square mile area were destroyed over a period of three days. About 100,000 people were left homeless. Refugee camps in parks and other open spaces continued for many months. A 1908 estimate of private property damage in the fire zone was $1 billion. Some of the municipal bonds that financed the rebuilding of public facilities were not paid off until the 1980s.

The October 17, 1989 Loma Prieta earthquake occurred on the San Andreas fault about 60 miles (100 km) southeast of San Francisco. Sixty-two people were killed, including eleven in San Francisco. Forty-two of these fatalities occurred because of failures of bridges and freeways. Most of the remaining deaths resulted from the collapse of buildings in Santa Cruz and San Francisco. The total damage to private and public facilities throughout the region is estimated at more than $6 billion. Again, the damage was not evenly distributed through the City. Much of the severe damage occurred in the same areas that suffered in 1906 and those areas built on unengineered artificial fill in the Marina and South of Market districts. Many buildings severely damaged by the earthquake had structural weaknesses known to make them vulnerable to earthquake damage. They included "soft story" wood-framed buildings (with large openings and inadequate strength at the ground story) and unreinforced masonry buildings. Fire ignited in the Marina District did not spread beyond the immediate region, owing to efforts of San Francisco firefighters and benign wind conditions. About 130 buildings in San Francisco, containing more than 1,000 housing units, were destroyed or irreparably damaged. Many more could not be occupied for an extended length of time while repairs were carried out. Additional residents were displaced temporarily by a lack of utilities. The Red Cross provided overnight shelter for about 2,000 people on the night of the earthquake.

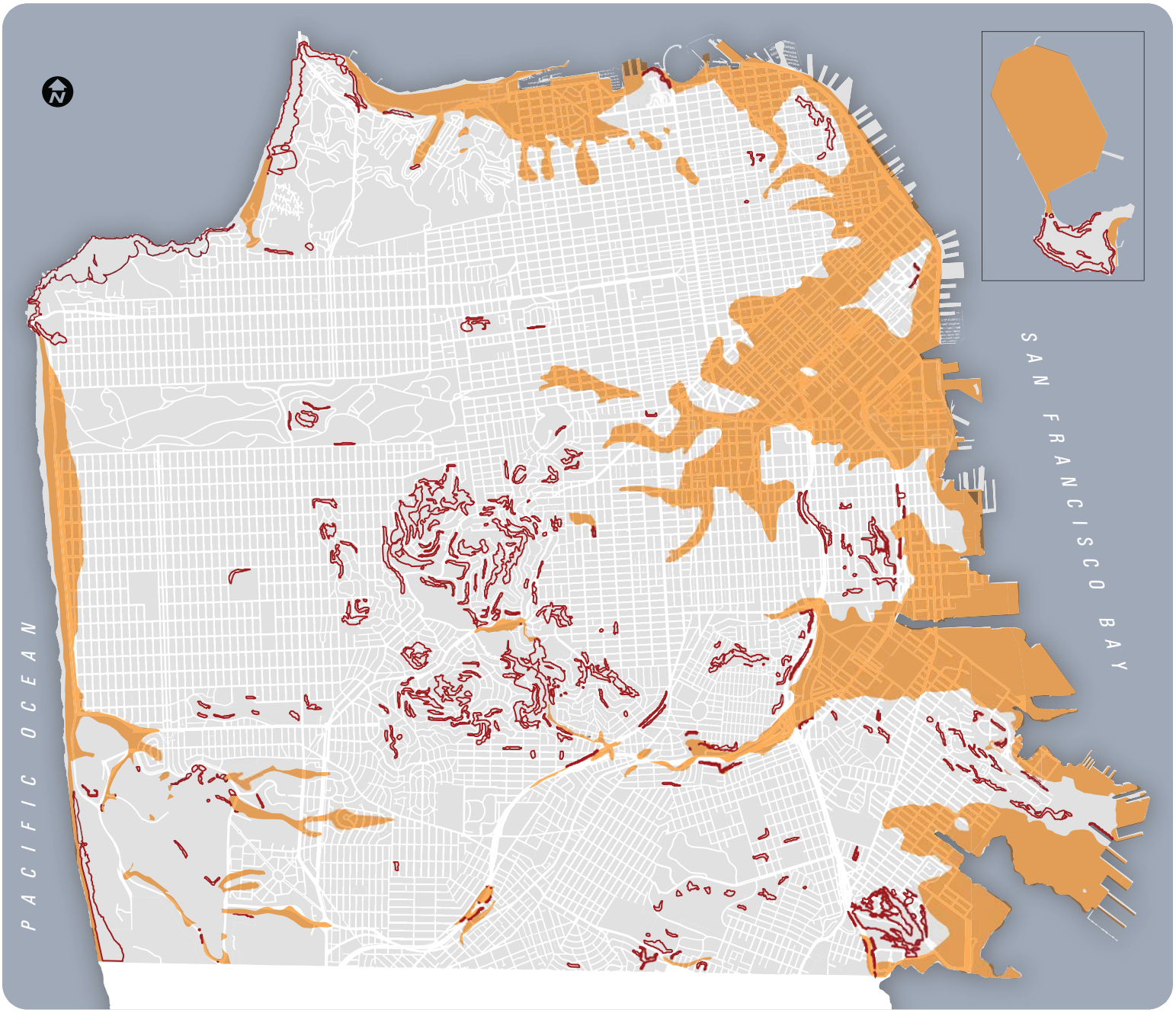
After the October 1989 Loma Prieta Earthquake, the National Earthquake Prediction Evaluation Council formed a Working Group of earthquake scientists to assess the probabilities of large earthquakes in the Bay Area. The Working Group's most recent assessment in 2008 concluded that there is a 67% likelihood of one or more major earthquakes (magnitude 6.7 or greater and capable of resulting in substantial damage) occurring in the Bay Area in the next 30 years (*http://earthquake.usgs.gov/regional/nca/ucerf/*). This means that a major quake is twice as likely to occur as it is not to occur. Most of our existing structures and infrastructure, and most of the new buildings and public works now contemplated, will probably be in place when the expected earthquake happens.

San Francisco Geology and Seismicity

The San Andreas fault system is a complex network of faults that extends throughout the Bay area. (See Map 1.) While no known active faults exist in San Francisco, major earthquakes occurring on the faults surrounding the City have resulted in substantial damage within the City. Similar damaging earthquakes in the future are inevitable.

Some of these faults are found beneath or close to the most heavily populated parts of the Bay Area. As a result, earthquakes on these faults could be much more damaging than the Loma Prieta earthquake, even if the magnitude is smaller. The Northridge earthquake of 1994 and the Kobe earthquake of 1995 illustrate how destructive earthquakes very close to urban areas can be. The Northridge earthquake, with a magnitude of 6.8 resulted in about 60 deaths and severe or total damage to about 3,000 buildings. The Kobe earthquake had a magnitude of 6.8 and resulted in more than 5,000 deaths and the loss of about 60,000 buildings, including those destroyed by fire.

The location and movement of earthquake faults do not explain all of the earthquake risk. Even in locations that are relatively far from faults, soils can intensify ground shaking, or the ground may settle or slide. The parts of San Francisco that experienced the greatest damage in 1989 were not those closest to Loma Prieta, but those with soils that magnified ground shaking or liquefied. These were the same areas that experienced damage in 1906, though the



Seismic Hazard Zones
San Francisco, 2012

0 Miles 1

MAP 04

Liquifaction Zone

Landslide Zone

epicenter of the 1906 earthquake was in a different direction.

The hills along the central spine of the San Francisco peninsula are composed of rock and soils that are less likely to magnify ground shaking, although they are sometimes vulnerable to landsliding during an earthquake. The soils most vulnerable during an earthquake are in low-lying and filled land along the Bay, in low-lying valleys and old creek beds, and to some extent, along the ocean. Those soils, as well as those at steep hillsides, are at the most serious risk during earthquakes from ground shaking and ground failure such as earthquake liquefaction and landslides.

Ground Shaking

Most earthquake damage comes from ground shaking. Ground shaking occurs in all earthquakes. All of the Bay area and much of California are subject to some level of ground shaking hazard. The impacts of ground shaking will be quite widespread. The severity of ground shaking varies considerably over the impacted region depending on the size of the earthquake, the distance from the epicenter of the earthquake, the nature of the soil at the site, and the nature of the geologic material between the site and the fault. It is likely that the intensities of ground shaking will vary considerably throughout the City during any given earthquake, and that the pattern of ground shaking will be fairly consistent, reflecting the underlying soils. In general, sites with stronger soils will experience shaking of less intensity than those in low-lying areas and along the Bay, with Bay mud or other weaker soils. Some sites, particularly those with poor soils, will experience strong ground shaking in most earthquakes.

Ground Failure, Liquefaction and Landslides

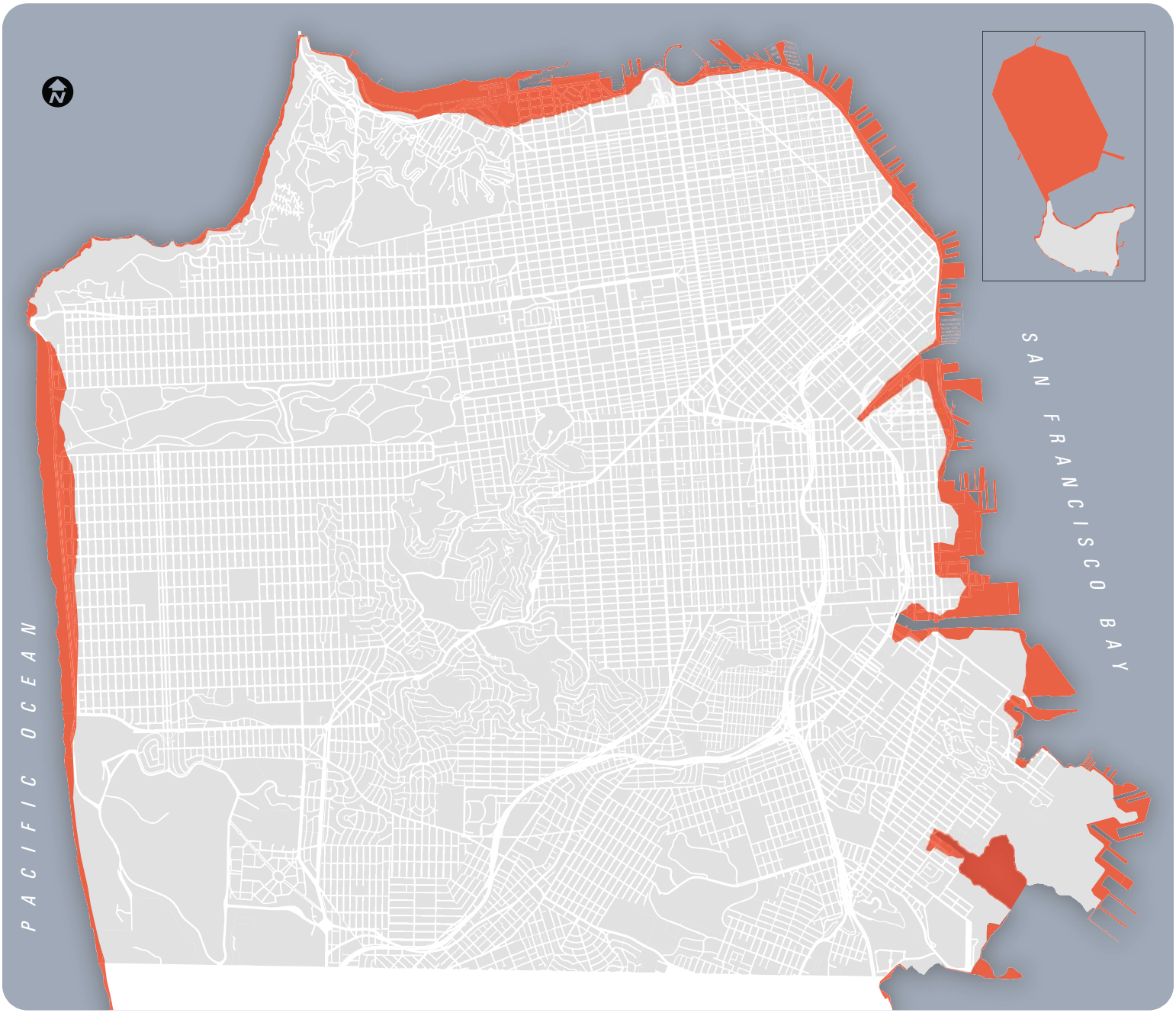
"Ground failure" means that the soil is weakened so that it no longer supports its own weight or the weight of structures. Ground failure can happen without earthquakes. For example, landsliding is a natural geological process. It is also likely to occur suddenly and catastrophically during earthquakes. The major types of ground failure associated with earthquakes are liquefaction, landslides, and lateral spreading.

Liquefaction is the transformation of a confined layer of sandy water-saturated material into a liquid-like state because of earthquake shaking. When soil liquefies during an earthquake, structures no longer supported by the soil can tilt, settle or break apart. Underground utilities can be substantially damaged. Localities most susceptible to liquefaction are underlain by loose, water-saturated, granular sediment within 40 feet of ground surface, a condition which is widespread in San Francisco. This susceptibility is exacerbated by the high risk of ground shaking from nearby active faults. The combination of these factors constitutes a significant seismic hazard in the City and County of San Francisco.

A landslide is a movement of a mass of soil down a steep slope when the soil loses strength and can no longer support the weight of overlying soil or rocks. Landslides vary in size and rate of movement. They can occur slowly over time or suddenly. Areas susceptible to landslides are those where masses of soils are weakly supported because of natural erosion, changes in ground water or surface water patterns, or human activities such as undercutting. Landslides can be triggered by heavy rains, as occurred during the high wind and rainstorms of the winter of 1995-1996 and in early 1997. Earthquakes will trigger landslides in susceptible areas, as occurred in the Santa Cruz Mountains during the 1989 Loma Prieta earthquake. A large earthquake in San Francisco may cause movement of active slides and could trigger new slides similar to those that have already occurred under normal conditions.

The California Geological Survey (CGS) has prepared maps of areas of liquefaction potential, as required by the Seismic Hazard Mapping Act of 1990. The map and evaluation report summarizing seismic hazard zone findings for potentially liquefiable soils show that liquefaction zones exist south of Market Street, in the Mission District, and at Hunters Point; in areas of artificial fill along the waterfront, especially the Marina District and at Treasure Island; and along the beaches facing the ocean. Liquefiable soils are also generally found in filled areas along the Bay front and former Bay inlets, and in sandy low-lying areas along the ocean front and around Lake Merced. The analysis also demonstrates the locations of steep slopes and cliffs that are most susceptible to landsliding. These earthquake-induced landslide hazard zones make up about 3 percent of the land in San Francisco.

This Seismic Hazard Zone Map, shown as Map 4, illustrates the areas with liquefaction potential and those subject to earthquake induced landslides. This map must be used by



Tsunami Hazard Zones
San Francisco, 2012

0 Miles 1

MAP 05

Tsunami Hazard Zone

the City when adopting land use plans and in its permitting processes. Development proposals within the Seismic Hazard Zones shown on the official maps must include a geotechnical investigation and must contain design and construction features that will mitigate the liquefaction hazard. The City's Department of Building Inspection uses these guidelines during independent building review of proposed projects.

Inundation Hazards

Tsunami

Tsunamis are large waves in the ocean generated by earthquakes, coastal or submarine landslides, or volcanoes. Damaging tsunamis are not common on the California coast. Most California tsunami are associated with distant earthquakes (most likely those in Alaska or South America, and recently in Japan), not with local earthquakes. Devastating tsunamis have not occurred in historic times in the Bay area. Because of the lack of reliable information about the kind of tsunami runups that have occurred in the prehistoric past, there is considerable uncertainty over the extent of tsunami runup that could occur. There is ongoing research into the potential tsunami run-up in California. Map 5 shows areas where tsunamis are thought to be possible.

Flooding

The National Flood Insurance Program (NFIP), which designates flood-prone areas, has recently completed mapping communities along the San Francisco Bay, including San Francisco. Areas currently designated as prone to surface flooding in San Francisco on the new floodplain maps are in portions of Mission Bay, Treasure Island, Hunters Point Shipyard and Candlestick Point, as well a significant portions of the Port. Designation as a federal flood hazard zones could necessitate the adoption of a Flood Plan Management Ordinance, which would restrict uses that could be dangerous due to water or erosion, require that uses be protected against flood damage when constructed, and require floodplain management by development in floodplain areas.

Reservoir Failure

Dams and reservoirs which hold large volumes of water represent a potential hazard due to failure caused by ground shaking. The San Francisco Water Department owns above ground reservoirs and tanks within San Francisco. The San Francisco Water Department monitors its facilities and submits periodic reports to the California Department of Water Resources, Division of Safety of Dams (DOSD), which regulates large dams.

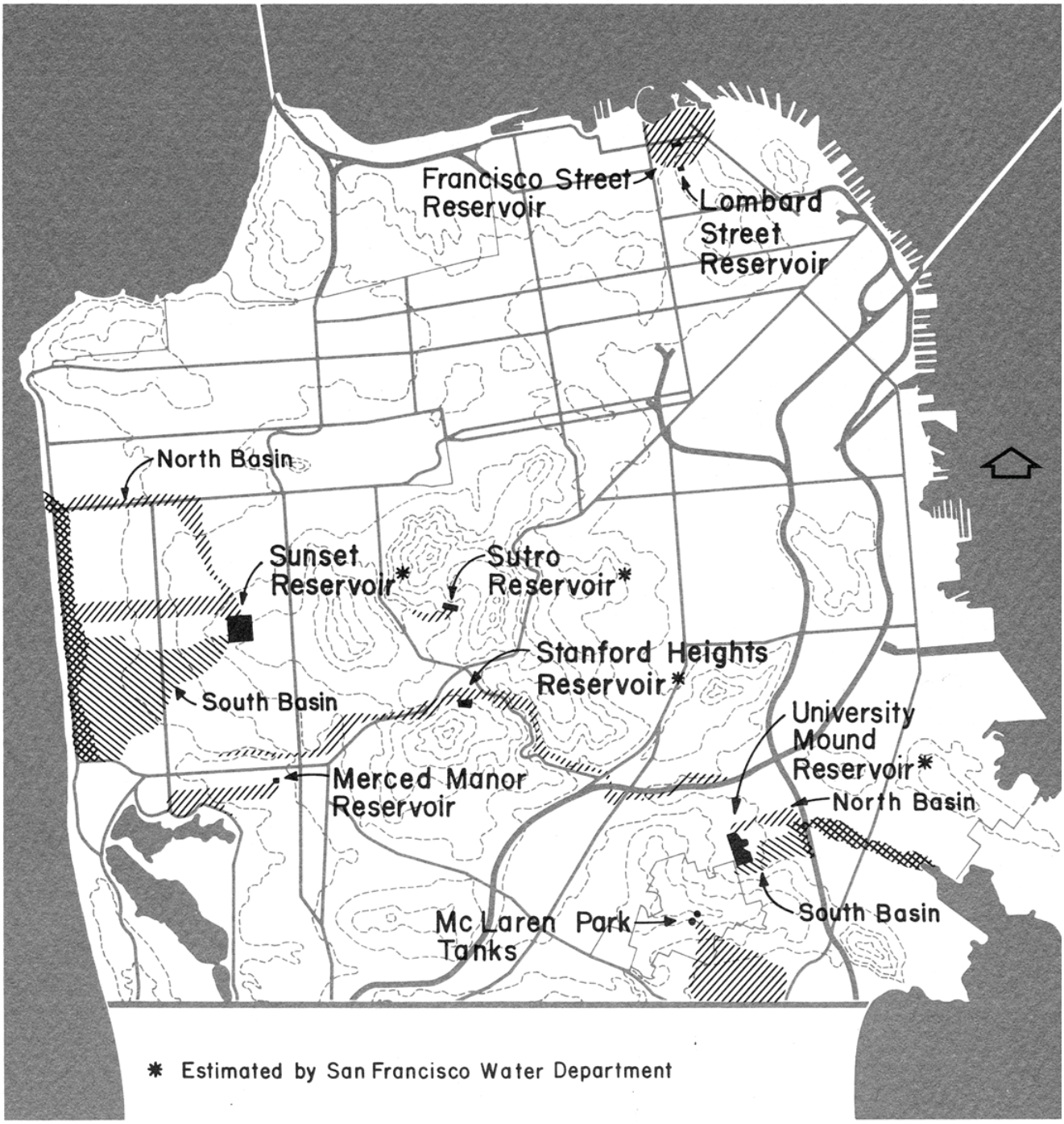
Sea Level Rise

Using multiple emissions scenarios, best available projections for California and the Bay Area currently assume 12-18 inches of sea level rise by 2050 and 21-55 inches of sea level rise by 2100, given current carbon emissions trends (see, for example, BCDC's sea level rise maps at *http://www.bcdc.ca.gov/planning/climate_change/index_map.shtml*). These projections are likely to change over time as climate science progresses. Perhaps the most obvious and widespread consequence of sea level rise is inundation and flooding of land. Sea level rise will not only cause permanent land inundation, it will increase and expand the 100-year floodplain. Thus, the number of residents at risk would increase during storm events. Land composed of bayfront fill is at risk for inundation because of low elevation and subsidence over time due to compaction from buildings and soil desiccation. Additionally, sea walls located along the Embarcadero and along the Great Highway may be at risk for overtopping and inundation.

Impacts of Future Earthquakes

The most immediate impacts from earthquakes are deaths and serious injuries, the extent of which depends on the number of people in the area at the time, and the types of structures that they occupy. Risk is related to more than distance from the earthquake; nevertheless, about 1.26 million people live within 10 km of the likely epicenter of a magnitude 7 earthquake on the Northern segment of the Hayward fault. This is about 10 times the number of people at a similar distance from the epicenter of the Loma Prieta earthquake.

Since the 1906 earthquake, San Francisco has made strides in ways to reduce impacts of earthquakes and other disasters. Improvements in building and fire codes, modern



Potential Inundation Areas Due to Reservoir Failure

MAP 06

construction techniques, and retrofits reduced vulnerability. However, the City's population has more than doubled, and the value of its buildings has increased significantly; these increases in population and appreciated building values result in heightened risk.

Most deaths and injuries will result from the failure of buildings and other structures. The number of casualties will be influenced by the time of day of the earthquake. At night more people are in relatively safe small wood-frame structures. During the day more people could be in more hazardous and higher occupancy buildings, on vulnerable bridges and freeways, or on streets subject to falling debris. In recent large earthquakes, buildings designed and constructed with current engineering techniques generally performed well. This means that they did not collapse or pose an unreasonable threat to the lives of occupants, although they may have suffered structural damage that is difficult, expensive or even impossible to repair.

The 1974 Community Safety Element specifically examined unreinforced masonry buildings (UMBs) because of their record of poor performance in earthquakes. Eight deaths during the Loma Prieta earthquake resulted from UMBs. In the Loma Prieta earthquake about 13% of all San Francisco UMBs were damaged to the extent that occupancy was limited, while about 2% of other San Francisco buildings were damaged. To date, most of the City's unreinforced masonry buildings have been upgraded via the 1992 UMB Ordinance. However, other hazardous building types remain. Most of San Francisco's private, noncommercial buildings are wood, and are highly susceptible to post-earthquake fire conflagration. Concrete frame structures with unreinforced masonry infill panels are also a concern, as they are prone to collapse during earthquakes. Non-ductile concrete structures often fail in large earthquakes. "Soft-story" buildings, wood-frame buildings with open fronts or other extensive wall openings are also at high risk for partial or total collapse.

A major earthquake will result in substantial damage to utility systems. It is likely that fires will break out, larger and in greater number than can be controlled by available professional fire fighters. There may be releases of hazardous materials.

In addition to these physical impacts, there will be social and economic impacts. Lost housing will result in the need for both temporary, short-term shelter and for permanent housing to replace that which is completely destroyed. People with limited English language facility or limited mobility may be at increased risk. Many businesses will be seriously disrupted. Valuable historic buildings will be lost.

The Earthquake Response Plan Enhancement, a part of the Emergency Response Plan contains an analysis of the potential impact of several possible scenarios of earthquakes on the City of San Francisco. The mid-range scenario viewed by the analysis looked at magnitude 7.1 to 7.2 earthquakes on the Peninsula-Golden Gate segment of the San Andreas Fault. The analysis showed that under this scenario, injuries requiring basic or significant medical aid could range from 5,300 to 8,700, and life threatening casualties or deaths could encompass anywhere from 350 to 650 depending on the time of day and day of the week. The greatest numbers of casualties are likely to occur during the daytime, when the commuting population nearly doubles the total population, and in areas where the working population is greatest. In terms of building damage, as much as 25% of the City's private residential buildings could be effectively destroyed under a mid-range scenario quake, from either the earthquake itself or from post-earthquake fires; and up to 23% percent of the City's stock of commercial and industrial buildings could be similarly destroyed by earthquake or related fires. In terms of social impacts and displacement, nearly 92,000 households, about 28% of the total, will require new housing, and over 56,000 people, 7 percent of San Francisco's total population, would need short-term shelter, with need greatest among the elderly and disabled populations.

MITIGATE
PREPARE
RESPOND
RECOVER

Photo by California Watch

III. Overall Objectives & Policies

One of the Priority Policies of the City's General Plan, with which all City actions are required to be consistent, is that the City achieves the greatest possible preparedness to protect against injury, loss of life, and economic impacts in an earthquake. The policies of the Community Safety Element are intended to direct all City actions to achieve this goal in the face of earthquakes and other natural and technological disasters, to reduce the social, cultural and economic dislocations of disasters, and to assist and encourage the rapid recovery from disaster should one occur. The Community Safety Element also sets forth the responsibilities of the many City departments who will need to implement these policies.

Objectives and Policies to advance this goal are classified into four general categories. They are:

1. **Mitigation.** Hazard mitigation policies and programs are intended to diminish long-term impacts to an appropriate level. Hazard mitigation activities, effectively carried out, reduce the need for response and recovery from disasters because they will reduce the amount of physical damage suffered.

2. **Preparedness.** Preparedness anticipates the effects of a disaster and takes appropriate countermeasures in advance, such as issuing warnings, stockpiling supplies, or establishing evacuation routes. Preparedness programs educate and organize people to respond appropriately to disasters.

3. **Response.** Response actions are those taken during an event and its immediate aftermath. Response programs are generally focused on those agencies with responsibility for providing emergency and other services to the public when a disaster occurs. The focus of response activities is saving lives and preventing injury, and reducing immediate property damage.

4. **Recovery and Reconstruction.** Recovery encompasses the steps necessary to bring a community back to life – fundamentals such as housing, business resumption, lifeline restoration, and provision of day-to-day services—as well as having the capacity to rebuild effectively in the post-disaster period. Reconstruction happens over the long term after a major disaster. Both recovery and reconstruction require that key decisions be made about short-term and long-term rebuilding, including the provision of housing for those displaced, resumption of services to homes and businesses, and the resumption of economic and government functions.

Communication is an important aspect of all of these steps. Knowledge about natural disasters is continually growing, and in order to deal with disasters effectively, it is critical that the public, City agencies, and decision-makers be well informed. It is also important that information about events and activities in the City be available to other government agencies and researchers. The general public needs to know how they can prepare for disaster. The City needs to facilitate contact with the community and among its various organizations and departments to be an effective responder. All stages need improved and enhanced coordination. Improved coordination among City programs, and others working to reduce the risks of disasters will result in more effective preparedness, response and recovery efforts. Coordination with outside agencies including regional, state and federal organizations will expand the City's network of support and the speed with which it responds in the case of a San Francisco disaster.

1. MITIGATION

OBJECTIVE 1

REDUCE STRUCTURAL AND NON-STRUCTURAL HAZARDS TO LIFE SAFETY AND MINIMIZE PROPERTY DAMAGE RESULTING FROM FUTURE DISASTERS.

Most earthquake-related deaths and injuries will result from the failure of buildings and other structures as a result of shaking or ground failure. Damage to structures results in substantial economic losses and severe social, cultural and economic dislocations. In addition to the characteristics of the earthquake and of the site, a structure's performance will depend on structural type, materials, design, and quality of construction and maintenance. The hazards posed by buildings and other structures can be reduced by assuring that all structures achieve performance that meet acceptable safety levels, by learning more about the risks posed by vulnerable structures and developing plans to reduce those risks, and by including a consideration of natural hazards in all land use, infrastructure, and public capital improvement planning.

POLICY 1.1

Continue to support and monitor research about the nature of seismic hazards in the Bay Area, including research on earthquake prediction, warning systems and ground movement measuring devices, and about earthquake resistant construction and the improved performance of structures.

Knowledge about geologic risks in the Bay Area is substantial, but always evolving. The City needs to keep informed, through the professional contacts of its staff, and through State and federal agencies like CalEMA and the United States Geological Survey, about advances in the field. New information will be shared with the public and decision-makers.

Similarly, new techniques are continually developing in the seismic design of structures, and new data is emerging about the actual seismic performance of previously retrofitted buildings. The risks of damage to life and property can be reduced by these improved engineering practices. The City should continue to support the institutions, professional organizations and individuals who carry out research in structural safety. Special attention should also be paid to support and seek out research that identifies innovative and low-cost retrofit concepts. Once the City sets new acceptable safety levels, this research should support the engineering requirements to meet safety levels.

POLICY 1.2

Research and maintain information about emerging hazards such as terrorism threats and communication failures.

Partially due to the recent events of September 11th, the South Indian Ocean Tsunamis, Hurricane Katrina, and the Christchurch New Zealand and Easter Japan earthquakes, this field of disaster research is growing in both scope and recognition. While research into disasters focused primarily on natural disasters, sticking close to the areas of science and environmental management, newer research strains extend into terrorism and cyber-failures, biological and chemical emergencies and other community-wide crises beyond natural hazards. They also encompass research components such as organizational response to disasters, the social ramifications of hazards and disasters, particularly the effects of large-scale terrorist attacks. The City's emergency management departments should keep abreast of evolutions in this field of research, particularly as new threats emerge and as new methods of mitigating those are developed. DEM should also continue its work with the San Francisco Citizen Corps Council, modeled after the national Citizen Corps program established after the

September 11th terrorist attacks, which aim to elevate the level of networking, emergency training and outreach to the public.

Regulations for New Development

The State of California requires the use of the California Building Code, based on the model International Building Code (IBC) prepared by the International Code Council (ICC). The International Building Code, prepared by the International Code Council, became effective as the model building code for San Francisco on January 1, 2008. Buildings built to current code provisions are expected to resist damage from minor earthquakes, experience some non-structural damage from moderate earthquakes, and incur non-structural and some structural damage (but not collapse) in major earthquakes (Specially-regulated buildings such as hospitals are designed for better performance). The Code is continually updated as knowledge grows about how structures respond to earthquakes. Recent earthquakes in Northridge and Kobe have demonstrated that buildings that incorporate current engineering knowledge about earthquakes generally perform well in earthquakes.

Local governments are permitted to impose more restrictive standards than those in the State codes when this can be justified by local conditions such as seismicity, topography (for example hilly terrain), or climate. San Francisco adopts the California Building Code with modifications which concern the resistance to ground-shaking and hillside construction, as well as some long-standing local provisions. The San Francisco Building Code is adopted by the Board of Supervisors and implemented by the Department of Building Inspection (DBI), which reviews building plans and inspects buildings under construction to ensure that the approved plans and codes are followed.

POLICY 1.3

Assure that new construction meets current structural and life safety standards.

The Department of Building Inspection and the Fire Department have ongoing responsibility for reviewing plans for proposed buildings and inspecting buildings under construction to ensure that they are built as shown on the approved plans and in accordance with applicable codes. This includes ongoing training for plan checkers and inspectors and the involvement of professional structural and civil engineers with expertise in seismic engineering.

The engineering of complex or unusual structures requires more than the routine application of set rules. It often involves creativity and judgment in solving new design problems. Because there can be considerable independent judgment required, the involvement of more than one design professional can often shed new light on structural issues, or uncover overlooked problems.

POLICY 1.4

Use best practices to review and amend at regular intervals all relevant public codes to incorporate the most current knowledge of structural engineering regarding existing buildings.

The State of California mandates the local adoption of the California Building Code, which is adopted from the International Building Code. Buildings built to these provisions are expected to resist damage from minor earthquakes, experience some non-structural damage from moderate earthquakes, and suffer some structural damage, but not collapse; from major earthquakes (specially-regulated buildings such as hospitals are designed for better performance.) The Code is updated triennially, with a provision for additional amendments as knowledge grows about how structures respond to earthquakes. Local governments may impose more restrictive standards than those in the State code. San Francisco adopts the State code with modifications that concern the resistance to ground-shaking and hillside construction, as well as other local equivalencies. San Francisco has adopted the 2010 California Building Code with local amendments.

Chapter 34 of the San Francisco Building Code includes long-standing local provisions that supplement those of the state and model codes with regard to required upgrades of existing structures. These provisions have been updated and modified to be in coordination with the current California Building Code. In addition, the City should consider provisions that explicitly endorse or adopt consensus standards for the seismic evaluation and retrofit of existing buildings. State amendments to the model code (for DSA-regulated structures) and related model code provisions (such as those in the International Existing Building Code) provide examples to follow.

Even with this new building code, however, the local code may, in time, lag behind technology advances. For example, recent advances in elevator safety make it possible for occupants to use elevators for escape and for firefighters

to use them to ascend to fight fires, which could be critical for taller buildings. Recognizing that San Francisco is at high risk to fires due to seismic issues, the Fire Department has developed local code amendments that would make elevators in new high-rises more resistant to fire, smoke and water. The City should continue this practice of proactively reviewing and updating codes to incorporate the latest knowledge and standards of safety and seismic design.

POLICY 1.5

Support development and amendments to buildings code requirements that meet City seismic performance goals.

The design and construction methods used in buildings are critical to community safety. Current seismic codes ensure that new buildings are earthquake- and fire-resistant, and protect people inside buildings by preventing collapse and allowing for safe evacuation. However, current code requirements do not necessarily limit damage to a structure, or ensure its function post-earthquake. A number of factors support the idea that new and retrofitted buildings in San Francisco should be built for better seismic performance than the default level provided by the current building code, or give options for quantifiably improved seismic performance, and that the seismic performance expectations of the current code should be made explicit. Among U.S cities in areas of very high seismic hazard, San Francisco is unique because of its geography, urbanization, and reliance on public transportation. Damage to new buildings and developments can have magnified impacts that affect adjacent structures and the city's lifelines. Seismic improvements can often be provided with measures that increase building costs by no more than a few percent, if at all.

The Bay Area is fortunate to be home to many of the country's foremost experts in the structural and earthquake engineering professions. These professional should be encouraged to design buildings to tiered, "enhanced" levels of seismic performance that are performance-based, and developers to finance these enhanced levels, by offering incentives such as priority processing. (Similar to a LEED certification for sustainable design.) Eventually the City should consider ways to formalize such "enhanced" design levels and use them as a basis for evaluating seismic risk.

POLICY 1.6

Consider site soils conditions when reviewing projects in areas subject to liquefaction or slope instability.

Building codes consider soil conditions only at a very general scale. But soils conditions vary enormously throughout the City. Different soils conditions can result in very different earthquake impacts and can result in damage at other times - for example landslides. Because of the importance of soil conditions, the California Seismic Hazards Mapping Act requires that a geotechnical investigation and geotechnical report be prepared for new or renovated buildings that are constructed in Seismic Hazard Zones.

Pursuant to this act, the Department of Building Inspection requires geotechnical reports prepared by a licensed geologist and geotechnical engineer for projects in areas with susceptibility to ground failure, including liquefaction and landslides. DBI requires that foundations and structural systems be designed that are more likely to survive these hazards. DBI has procedures in codes and bulletins for requesting additional review of proposed projects the Department believes present difficult or unusual issues in areas with the potential for ground failure.

POLICY 1.7

Consider information about geologic hazards whenever City decisions are made that will influence land use, building density, building configurations or infrastructure are made.

Land use decisions should be made with hazards in mind. The Planning Commission and other City decision-makers shall be aware of and consider geologic hazards when making decisions that will affect the types and structures that will exist in the future, including potential and existing structures, land uses and their associated densities, transportation and other infrastructure. Area plans, changes to the General Plan and amendments to the Planning Code should take into consideration the hazards resulting from geologic conditions, and the effects they may have on the safety of future development, while balancing these with other community welfare concerns, ranging from safety to community health to economic security to quality of life.
In order to protect City building, building codes and

technical knowledge must be as up to date as possible as new engineering expertise is gained. Keeping abreast of such information and technologies should be a priority for the City.

POLICY 1.8

Direct City actions to reduce its contributions towards climate change, and mitigate future releases of greenhouse gasses.

The significance of global warming, and its impact on disasters, has been clarified in recent years. Science correlates climate change with an increase in the frequency of natural disasters, and in economic losses from these disasters. Results of global warming include increasing runoff from urban storms, springtime floods from swollen rivers and rising sea levels.

Recent studies show that more than two-thirds of the measured climate change in the past 50 years has been human-induced, and human actions can also stem this tide. New urban systems to handle storm runoff, flood control structures will be needed. Continuation of the PUC's upgrade of the City sewer system is one facet of preparation, but also critical are more imaginative solutions, like capturing storm waters for irrigation, increasing urban forestry activities and other green uses.

Ways to mitigate against pending damage from climate change include installation of infrastructure systems that reuse resources, generate clean energy, and provide alternatives to automobile transportation; and implementation of policies that promote energy efficiency, renewable energy, and recycling. San Francisco's 2004 Climate Action Plan set a 2012 goal for greenhouse gas emissions, with a program for recommended emissions reduction actions. It presents next steps required over the near term to implement the Plan, including developing a process to support City departments and private entities to integrate climate protection into their standard operating procedures, to be led by SF Environment. Recent proposals for a local carbon tax, solar rebate and loan programs, grease recycling initiative, and a landmark green building ordinance are an outgrowth of this effort. The recently created San Francisco Carbon Fund also provides a city-based carbon offset program to funds local green activities.

POLICY 1.9

Mitigate and assess the risk of flooding in San Francisco by incorporating the Flood Insurance Rate Map for San Francisco and related programs from this map to mitigate against flood risks.

The National Flood Insurance Program (NFIP), managed by the Federal Emergency Management Agency (FEMA), provides for flood insurance for communities that adopt floodplain management programs to mitigate flood losses and damages. FEMA uses the Flood Insurance Rate Map (FIRM) to identify areas with 1% annual chance of flooding, and uses this as the basis for insurance rating.

FEMA approved San Francisco's application for participation in the NFIP in April 2010, and subsequently the City has amended the 2008 Floodplain Management Ordinance in order to meet the requirements of NFIP. The established flood damage reduction program provides homeowners and other property owners the opportunity to purchase federally subsidized flood insurance at affordable rates. FEMA issued a preliminary FIRM for San Francisco in 2007, and its final map has since been adopted (*http://www.sfgov.org/floodplain*).

The Floodplain Management Ordinance requires first floor of structures in flood zones to be constructed above the floodplain or to be flood-proofed with variances for exceptional circumstances. The map, as proposed, would designate portions of waterfront piers, Mission Bay, Bayview Hunters Point, Hunters Point Shipyard, Candlestick Point, and Treasure Island in coastal flood hazard zones, which may have implications for development plans and insurance requirements in those areas.

To mitigate against potential risks, the City should continue to pursue NFIP participation and use the information provided by FEMA to engage in additional floodplain improvements to at-risk areas. The City should continue to implement ordinance requirements for new construction, address flood hazards in the plans for refuse projects, and pursue substantial improvements for potential flood areas.

POLICY 1.10

Examine the risk of flooding due to climate change-related effects, such as storm surges, changes in

precipitation patterns, and sea level rise as well as adaptation actions that will reduce population, built environment, and ecosystem vulnerability due to these threats.

Despite best efforts to reduce greenhouse gas emissions and mitigate against future climate change, current CO2 levels are already causing changes in weather patterns, more extreme weather events, and an increase in sea levels. Even if greenhouse gas emissions were halted today, the long half life of many greenhouse gasses and the change in global ocean temperatures mean that we will be experiencing consequences of increased CO2 in our atmosphere for centuries.

Climate risks and the associated flooding due to storm surges, increased precipitation, and sea level rise have the potential to greatly increase permanently inundated land as well as expand and alter the current 100-year floodplain, making many more residents and structures vulnerable to flooding than current conditions. The City should review scientific emissions and sea level rise projections to become fully aware of risks to safety due to flooding, as well as support the institutions, professional organizations and individuals who carry out climate research.

These risks should be taken into account when making land use decisions, bearing in mind that the future landform, as well as perceptions of acceptable risk may change in the future. These risks should also be incorporated into appropriate city documents, such as the Planning and Zoning Codes, and the Planning Commission should be fully apprised of these risks as they conduct reviews.

The City should also review best practices, case studies, and current technology to mitigate these potentially harmful effects and adapt to future conditions that will reduce loss of life and loss of built structures and infrastructure. Adaptation actions should be considered for feasibility and incorporated into seismic upgrades and routine maintenance if possible. Special projects should also be considered based on cost, feasibility, and consequences.

POLICY 1.11

Continue to promote green stormwater management techniques.

As an urbanized area, San Francisco has an abundance of impervious surface. Buildings, streets, parking lots and other paved surfaces prevent the absorption of rainfall, so low lying areas of the City are particularly susceptible to flooding in heavy rains. In addition, urban storm water runoff can be highly polluted, and pollutants that go down street storm drains can have negative impacts on the sewer and storm system, contributing to system overflows. Natural systems can often be an effective supplement, helping to absorb the overflow and filter out pollutants from that runoff.

Building and site development should include natural systems wherever possible. Natural vegetation, landscaped swales and gardens included in site designs can reduce, filter or slow stormwater runoff. "Green streets" that include pervious concrete, planters and landscaped strips adjacent to sidewalks can assist the City's sewer discharge capabilities. Green roofs incorporated into buildings provide another method of absorption. Similarly, sustainable construction techniques can be used to mitigate against the effects of future disasters. Green building technologies now allow for buildings that can provide their own power and filter their own water from run-off. This helps reduce two problems associated with disasters, the need for power and the need for potable water.

POLICY 1.12

Ensure that new development on Treasure Island, Yerba Buena Island and Hunters Point Shipyard are resistant to natural disasters.

Landfill areas are at a high risk of liquefaction during an earthquake. Current plans for the development of approximately 6,000 new homes on Treasure and Yerba Buena Islands do recognize this risk, and require the seismic stabilization of the islands' perimeter.

In addition to soil stabilization, redevelopment plans should ensure new development is designed and constructed to ensure performance equivalent to that of similar structures built on firm ground.

Programs for Existing Building Stock and Infrastructure

Most of San Francisco's buildings predate modern seismic design and construction practice. Some older buildings, such as conventional wood frame houses, may not pose extreme risk to life safety in earthquakes, but even those expected to survive an earthquake are likely to sustain much more physical damage than their modern counterparts. Local and state legislation already addresses certain classes of hazardous and essential structures, such as UMBs and hospitals, but significant risks remain. Earthquake risk reduction requires an enhanced understanding of the current building stock, followed by focused efforts to address critical conditions in public and private buildings. The CAPSS program has undertaken both this enhanced understanding as well as laid out a 30-year plan for implementation of the CAPSS recommendations for private buildings. In addition to existing buildings, programs should be implemented to prepare existing infrastructure for a large scale disaster.

POLICY 1.13

Reduce the risks presented by the City's most vulnerable structures, particularly privately owned buildings and provide assistance to reduce those risks.

A significant earthquake could impact more than 25,000 buildings in the City, making them unsafe to occupy. This level of damage would impact where people live, gather, and work. The loss of the numerous facilities where people address their day-to-day needs would severely impact residents' abilities to stay in or return to their homes.

At particular risk are non-ductile concrete frame buildings, which perform poorly in earthquakes, with notable collapses having occurred in the 1971 San Fernando, 1985 Mexico City, and 1994 Northridge events. Buildings of these types exist in San Francisco but have not been inventoried. Non-ductile concrete frame buildings were constructed as factories, warehouses, or office buildings in the densest parts of the City until the San Francisco Building Code was changed in 1976 to require ductility. ABAG estimated that more than 30% of the commercial building stock and more than 50% of the industrial building stock is concrete, with an unknown but large number of these being non-ductile concrete. Standards for the evaluation and retrofit of non-ductile concrete buildings exist, but the engineering is more complicated and the retrofit is generally more disruptive and expensive than it is for other vulnerable structure types.

Also at risk are pre-cast concrete tilt-up buildings built before 1973, which have performed poorly in the 1971 San Fernando, 1989 Loma Prieta, and 1994 Northridge earthquakes. There are believed to be relatively few of these buildings in San Francisco, and many are used as warehouses with few occupants, but they have not been carefully inventoried. Such an inventory of vulnerable structures would assist in prioritizing where the City should direct resources.

A comprehensive approach is needed to address all at-risk buildings in the City. While San Francisco has numerous programs in place to bring public buildings into seismic compliance, addressing privately owned buildings is a political, legislative and financial challenge. To assist private property owners in retrofitting these and other challenging building types, the City should explore the development of a standard list of recommendations for retrofits, and dissemination of retrofit information. Furthermore the City should explore and develop tools to provide financial assistance for their retrofit. Particular groups to support include homeowners, commercial property owners, business owners and small institutions. And as many of these older buildings are often converted to new uses such as offices or residential units, the City should also encourage retrofits with conversions.

POLICY 1.14

Reduce the earthquake and fire risks posed by older small wood-frame residential buildings.

San Francisco's current programs for UMB and soft-story wood-frame buildings only apply to larger scale and commercial structures. Individual homes or buildings under 5 units are not required to be seismically strengthened, and therefore exist at varying levels of risk. Some individual homeowners make upgrades to their buildings voluntarily, but that number could be substantially increased with more programs designed to encourage homeowners to make safety improvements. "Soft-story" buildings, in which the ground story has much less rigidity and/or strength than the rest of the structure, pose significant hazards. Often the soft story is the result of multiple garage door openings or "tuckunder" parking. Soft-story collapses resulted in deaths in both the 1989 Loma Prieta and 1994 Northridge earthquakes.

These deficiencies can be fixed relatively easily and inexpensively, substantially reducing life safety hazards and the likelihood that the building will sustain substantial

damage in an earthquake. There are currently no requirements to undertake this work, although many owners do so voluntarily. Insurance companies sometimes encourage or require upgrade as a condition of providing insurance. The State of California requires sellers of homes built before 1960 to disclose the existence of a series of common weaknesses, including lack of foundation bolts and water heater bracing, and to provide a copy of the state publication, The Homeowners Guide to Earthquake Safety. This law does not require sellers to fix these deficiencies. The City of Berkeley has a program which rebates a portion of the City's real estate transfer tax, if the money is applied to the mitigation of seismic hazards. This program has funded over 1700 retrofits since it began in 1993. The City of San Leandro has published guidelines, and provides technical assistance to encourage owners of small wood-frame homes to reduce their seismic risks.

The City should adopt incentives and regulations to encourage relatively simple retrofit approaches that increase the structural stability and safety of smaller wood frame residential buildings, as well as consider a phased mandate for retrofits over a 30-year timeframe. The City's Soft Story Wood-Frame Seismic Hazard Reduction Program establishes an inventory of buildings with five or more units and notifies their owners of their risk. Future phases of the program should examine mandatory strengthening of larger soft story buildings. However, this strengthening may be financially difficult for homeowners , and they may not be aware of potential funding sources. The City should develop a funding "menu" with information about potential sources from loans to Mello Roos districts, to assist building owners in making upgrades.

POLICY 1.15

Abate structural and non-structural hazards in City-owned structures.

Both technical and financial resources are needed to repair and retrofit City-owned structures. The City shall utilize its capabilities to assess hazards and to create and implement bond and other funding opportunity and to carry out retrofit projects. A number of City buildings have already been structurally upgraded utilizing bond financing, including parts of the Laguna Honda Hospital and General Hospital complexes.

There are other important City-owned buildings that present seismic risks, but for which funding for retrofit or replacement have not yet been secured. Among the most critical are the remaining buildings of the Laguna Honda Hospital and General Hospital complexes and the Hall of Justice, all of which are vulnerable to severe earthquake damage. These proj¬ects should be prioritized for future bond measures.

The City's Capital Planning Committee acts as the policy body advising San Francisco's capital-planning process. Recognizing that certain kinds of public buildings are critical to the community's functioning, the Capital Planning Committee should work to establish a clear prioritization for these projects, develop an implementation program for their upgrade including funding sources (such as bond measures), and establish a timeline for the improvements.

POLICY 1.16

Preserve, consistent with life safety considerations, the architectural character of buildings and structures important to the unique visual image of San Francisco, and increase the likelihood that architecturally and historically valuable structures will survive future earthquakes.

Older buildings are among those most vulnerable to destruction or heavy damage from a large earthquake. They may not have the more recent engineering features that make buildings more resistant to ground shaking, and many of them are located in areas near the Bay and the historic Bay inlets that were among the earliest parts of the City to be settled, and have the softest soil. They are also likely to have ornate façade structures that, in the event of an earthquake, can detach and threaten people on the street. The part of the City most vulnerable to fire, the dense downtown area, also contains many historic structures. A major earthquake could result in an irreplaceable loss of the historic fabric of San Francisco. The City needs to achieve the related goals of increasing life safety and preserving these buildings for future generations by increasing their ability to withstand earthquake forces.

When new programs are being considered to abate hazards posed by existing buildings and structures, the likely impacts of those programs on historic buildings must be thoroughly investigated. The resulting programs should encourage the retrofit of historic buildings in ways that preserve their architectural design character while increasing life safety. When development concessions, transfers of development rights or City funds are granted to promote

preservation of historic buildings, there should be reasonable measures taken to increase the building's chances of surviving future earthquakes.

POLICY 1.17

Create a database of vulnerable buildings, seismic evaluations, and seismic retrofits to track progress, record inventories, and evaluate and report on retrofit data.

By maintaining a database of seismic retrofit data, the City has the ability to allow progress of mitigation activities and meet measurable goals, as well as learn valuable information about retrofit and vulnerability patterns, and develop unique solutions to problematic retrofit patterns. The City can use this data and analysis as feedback on how well certain programs are working as a base for evaluation and improvement. Regular reporting of the data can also inform the general public about specific, realistic risks and triumphs on the city's seismic status.

Lifelines

San Francisco's lifelines are part of regional systems that extend well beyond the City's boundaries. They include city services such as water, sewer and power provision, communication networks such as phone, radio, television and Internet, and transportation infrastructure. State and private agencies operate some of the regional lifelines. Caltrans operates most of the regional transportation network, which is vulnerable to earthquake damage resulting in significant impacts on San Francisco.

Disruption is inevitable in the event of a disaster. Many areas may be without power, at least temporarily, during some portion of the first 72 hours or longer. Natural gas systems will probably experience breaks in major transmission lines and innumerable breaks in the local and individual systems, particularly in areas of poor soils. Telephone communications will be hampered by overloading resulting from many calls being placed and from phones knocked off hooks. Cellular networks may be overwhelmed, and depending on locations of damage, radio and Internet capabilities may be limited. Damage to the City operated water system may result in many areas being dependent on tanker trucks to provide water. Sewage collection systems and sewage treatment facilities on poorer soils near the Bay are likely to suffer damage, resulting in the discharge of raw sewage into the Bay. Impacts to transportation systems will definitely include power outages, disabled traffic lights, and closed roads and bridges; and may also extend to transit networks including BART, bus and rail. However, with planning and mitigation, the extent of these disruptions can be minimized.

POLICY 1.18

Identify and replace vulnerable infrastructure and critical service lifelines in high-risk areas.

In the case of a disaster, two of the most critical networks will be the City's water system and its sewer and sanitation lines. Upgrades are already underway: The Water Department and the Department of Public Works have ongoing programs to replace vulnerable water mains and sewers and to improve performance of the systems during earthquakes by including system segmentation, safety shut-off systems and redundant back-up systems or other methods of reducing damage and providing alternative sources of service. The San Francisco Public Utilities Commission is undertaking a Water System Improvement Program to strengthen the Hetch Hetchy water transmission system against earthquake damage, with completion anticipated by 2015. A connecting pipeline is currently under construction to connect the region's major water supply systems of the Hetch Hetchy, managed by the SFPUC, and the reservoirs in Calaveras, Amador and Alpine counties managed by the East Bay Municipal Utility District (EBMUD), which will enable water to be distributed from one Bay Area system to another in the case of failure. However, aging infrastructure in the City's sewer and sanitation system is a concern – beyond ailing pipes, the City's tunnels, pump stations and treatment plants need upgrades and repairs. The SF Sewer System Master Plan project currently underway at the PUC will eventually provide a detailed roadmap for these major improvements, and provide a plan for funding these improvements.

Other upgrades underway include Pacific Gas and Electric's seismic program replacing vulnerable gas lines, and Caltrans' bridge and highway retrofit programs. BART is in the midst of a system wide seismic upgrade project; the City should lobby for continued seismic retrofit and disaster-resistance measures on our regional transportation systems such as Caltrans and AC Transit. More upgrades are needed to PG&E's electric system to reduce the risk of service disruption to customers, including transmission

improvements, replacement of vulnerable transformers, circuit breakers, and other at-risk components of the electric system. The City should require a specific plan detailing these improvements, and a timeline for their implementation.

POLICY 1.19

Mitigate against damage to City systems and infrastructure through awareness of threats posed by new forms of hazards such as terrorism and communication failures.

While San Francisco does maintain some risk of terrorism, it is more likely at risk of deliberate acts intended to impact its service and communication networks. Often the objective of such acts is not destruction or death, but disturbance - a visible impact to the City's public services, economies, and social networks; and its sources can include vandals, mentally disturbed individuals, domestic terrorist groups, disgruntled residents, and past or present City employees. Critical facilities include the City's communication systems including its fiber-optic data network, and network data, its physical infrastructure such as its water and power systems, important public facilities upgrades to enhance security, through physical security measures, cyber protection measures, and tight security procedures and policies should be made as technology and practices improve. Redundant networks will help ensure that incidental failures to not have grave impacts.

One such network is the Mayor's Emergency Telephone System (METS), which provides communication to key agencies and individuals in a disaster, linking City departments, fire and police stations with citywide call boxes in the case of an emergency. The METS telephone system is also connected to the State of California's satellite telephone system for direct communication with the Governor's Office of Emergency Services in Sacramento, as well as the emergency operations centers of surrounding counties. Another network is the 800 MHz trunked radio system that links the City's public safety departments and first responders including police and fire, which will help to avoid the kinds of communications failures that occurred during New York's September 11th tragedy.

POLICY 1.20

Increase communication capabilities in preparation for all phases of a disaster, and ensure communication abilities extend to hard-to-reach areas and special populations.

Strong communication systems are critical to a City's functioning in a hazard scenario. Communication will be necessary in the response phase immediately following a disaster, and continued conveyance of recovery efforts and their progress is an important aspect of the reconstruction period. The City should have redundant networks in place to communicate at all levels- to internal staff and emergency response personnel, to convey public information, to ensure communication with special needs populations such as the hearing impaired or non-English speakers.

In addition, existing neighborhood organizations can develop local models that serve the same purpose. Development of a neighborhood communications plan can allow community members to keep in touch with – and keep track of – their neighbors, particularly the elderly or disabled that may be most in need of support during a time of emergency. Elements of this plan could include phone trees, text message trains, and the establishment of physical block captains to perform door-to-door checks if necessary.

POLICY 1.21

Ensure plans are in place to support populations most at risk during breaks in lifelines.

As events have repeatedly shown, from the Loma Prieta earthquake in 1989 to Hurricane Katrina in 2005, the most vulnerable populations become even more vulnerable when their lives and communities are disrupted by disas¬ters. Gaps in transit service can drastically impact immobile populations such as the elderly, poor and medically fragile, especially in terms of their access to medical care. Loss of electrical power can also be a problem for homebound, medically dependent individuals. Programs to notify officials, especially power providers, of these individual locations should be developed so that patients who may be unable to help themselves during a power outage or any other emergency can get necessary support, including continuing medical care for chronic conditions and delivery of prescription refills.

Several programs already exist among City agencies and partners that provide support to vulnerable population planning, including the Care and Shelter Workgroup led by DEM and the Human Services Agency, the Disability

Disaster Preparedness Committee led by the Mayor's Office on Disability, and preparedness work performed by SFCARD. City agencies involved in disaster planning and serving vulnerable populations also participate in efforts to coordinate service providers to enable them to continue critical operations post-disaster, such as performing wellness check-ins on dependent clients. The In Home Supportive Services program of the Human Services Agency has 20,000+ clients who receive their services, and social workers assigned to the program have plans in place to do a post-disaster check on those consumers who are identified as being at highest risk in a disaster. DEM supports SF Paratransit, the paratransit broker for SFMTA, on emergency planning to ensure transportation services continue post-disaster for people with mobility disabilities, and coordinate primary feeding organizations that do both congregate feeding and home delivered meals to ensure that they have the capacity to maintain services post-disaster. Other service providers should be encouraged to engage in planning efforts to adopt similar policies and practices.

Hazardous Materials

Earthquake-initiated hazardous materials releases (EIHRs) are a high risk for industrialized, densely populated urban areas. San Francisco's industrial and research areas store and manufacture limited quantities of hazardous materials; and adjacent uses in close proximity means that more and more people live and work near facilities that may process or store hazardous materials. An earthquake can be the trigger for concurrent hazmat releases within a small area, and earthquake aftershocks can make hazmat releases more difficult to stabilize, causing follow-up releases. A study of hazmat releases during the Northridge earthquake found that almost 20% of industrial facilities in the area discharged potentially damaging chemicals. Efforts to minimize risk of EIHRs and related accidents are critical aspect of everyday mitigation activities.

POLICY 1.22

Reduce hazards from gas fired appliances and gas lines.

A large earthquake is likely to result in fires at a time when the water systems may be disrupted and personnel needed to fight fires may be overtaxed. One of the sources of ignition will be gas leaks from appliances. As a result of its experience in the Northridge earthquake, Los Angeles now requires installation of seismic gas shut-off valves in new buildings, in renovations over $10,000 and on transfer of ownership. The City may also encourage or require, as done in Los Angeles, the installation of shut-off valves in certain limited building types which are activated only by a major seismic shaking.

POLICY 1.23

Enforce state and local codes that regulate the use, storage and transportation of hazardous materials in order to prevent, contain and effectively respond to accidental releases.

Homes, businesses and other facilities contain many materials that, if not properly handled, can result in risks to life, health, or the environment. During a disaster, especially an earthquake, such materials could be accidentally released. The materials that generally pose the greatest hazard during a disaster are those that can, in the form of gas, spread and affect large numbers of people; those that are highly flammable or explosive; and those that are highly toxic or are strong irritants. Large earthquakes lead to release of hazardous materials while reducing the ability of emergency personnel to respond. The continued requirement of business and facility emergency plans and local inspections as part of the City's permitting process for hazardous material storage is critical to reducing an overload on public emergency response resources during a major earthquake.

POLICY 1.24

Educate public about hazardous materials procedures, including transport, storage and disposal.

Hazardous materials include chemical, physical and biological agents. Accidents such as toxic releases from facilities and vehicles, fires and explosions caused by chemical releases, and oil spills in the Bay are not uncommon. FEMA has estimated that an average of 60,000 accidents involving chemicals occur in this country every year, and cause over 200 deaths and many injuries.

Several of the City's agencies provide businesses and residents with information about disposal of hazardous materials. The City's Fire Department is responsible for administering local safety regulations for business operating with hazardous materials, and is the first responder to chemical and hazardous spill accidents, and risk/hazard assessments, capability assessments, and detailed response planning. The San Francisco Department of Public Health (DPH) enforces State and San Francisco environmental health laws, including hazardous materials storage, issues haz-

ardous materials use permits; investigates illicit discharge and disposal of hazardous materials. The SFPUC provides residents and businesses with information (through ads and website resources) on how to properly dispose of hazardous materials including waste oils such as motor oil.

POLICY 1.25

Prepare for medical emergencies and pandemics.

Emerging infectious diseases can pose as much of a natural disaster as other types. Many residents may become ill, leaving as much as one-third of the entire workforce at home, affecting local businesses because of absence and affecting the general public through its ripple effects. The impact to the City's economy, as well as its health, may be great.

San Francisco agencies are closely monitoring avian influenza and preparing for a pandemic in our region. The San Francisco City Department Avian/Pandemic Influenza Task Force coordinates planning for the City's response to a pandemic, and continuity of operations in its wake. The Health Department has completed a pandemic flu plan and has preparations in place to coordinate with local health providers to meet the needs of special populations, and the general public. They have developed health advisories for diagnosing, reporting, and treating patients, and the health department's disease control team has been trained to evaluate suspect cases.

Public information will be critical in the case of a pandemic. The City should ensure the public is kept well informed through the Joint Information Center. The City should also ensure systems are in place to ensure continuity of services as much as possible, following plans for emergency actions if necessary because of staff absence. The City should continue to maintain necessary emergency supplies, such as antiviral medication and protective equipment, and plans to deal with a possibly overwhelming need for emergency care and beds. While local hospitals have surge capacity plans to deal with patient overflows, things may become difficult in the case of a pandemic, as medical staff may also be sick and unavailable. The City should also reach out to neighborhoods to educate them about possibilities, to enable them to develop localized plans for identifying the ill if the City's resources become inundated, and for assisting with sick individuals if hospital bed space is limited.

POLICY 1.26

Monitor emerging industries like bioscience, and ensure that state and local codes manage risks effectively.

The City of San Francisco has made it a goal to encourage bioscience industry in the City because of its economic development potential. The University of California San Francisco (UCSF) is a generator of life science and bioscience companies, and has made the Bay Area a center for the industry, and the number of companies located in San Francisco is expected to continue to grow.

Many bioscience firms contain laboratories which handle biological materials, which may generate radioactive or otherwise hazardous materials and waste. Because of this, bioscience and biotechnology facilities are governed by a strict set of federal and state regulations. Bioscience firms in San Francisco are subject to regulation by the San Francisco Department of Public Health, and are required to generate Hazardous Materials Business Plans including storage and secondary containment policies; Emergency Response Plans; and training plans to educate staff about handling and disposal. Currently, state and federal regulations seem to be sufficient to govern bioscience activities, as no local jurisdiction in the state has yet adopted health and safety controls beyond those requirements.

One particular point about the bioscience industry is that it is likely to change over time with advances in research; thus functions of the firms located in San Francisco may shift in the future. And as noted previously, state and national-level codes may lag behind technology advances. As bioscience grows, the City should monitor the industry to ensure its current safety regulations continue to be applicable to bioscience facilities. In addition, the City should encourage performance-based design and engineering technologies at a high level of performance to protect the safety of critical bioengineering research projects, particularly if facilities have the potential to be of interest with regards to bioterrorism.

2. EMERGENCY PREPAREDNESS

OBJECTIVE 2

BE PREPARED FOR THE ONSET OF DISASTER BY PROVIDING PUBLIC EDUCATION AND TRAINING ABOUT EARTHQUAKES AND OTHER NATURAL AND MAN-MADE DISASTERS, BY READYING THE CITY'S INFRASTRUCTURE, AND BY ENSURING THE NECESSARY COORDINATION IS IN PLACE FOR A READY RESPONSE.

The City must be prepared to respond quickly and effectively in the case of a disaster. In order to meet the fundamental needs of its citizens after a disaster, the City must have plans in place. Response activities must be prepared in advance, and the coordination necessary to execute them must be in place for rapid realization.

In addition to readying its own agencies and departments, the City must ensure its residents are aware and prepared for the possibility of disaster. State and local emergency response offices advise people to be prepared to be self-sufficient for 72 hours after a large earthquake. Achieving preparedness is even more critical for vulnerable populations, including the elderly and the disabled, and those in geographical areas and building types that are more vulnerable to earthquake damage.

Emergency Awareness and Training

POLICY 2.1

Promote greater public awareness of disaster risks, personal and business risk reduction, and personal and neighborhood emergency response - a "culture of preparedness."

People and organizations that are well informed about possible disasters can take private and effective measures to reduce their vulnerability. They can also increase their effectiveness in responding after a disaster and helping others when public agencies are overwhelmed. Several of the City's agencies, including the Department of Emergency Management, the Fire Department, the Police Department, the Department of Public Works, and the Department of Building Inspection provide information to the general public on what to do in a disaster. The City's 72hours.org campaign has been successful in raising public awareness about personal steps to take in advance of an emergency. The Department of Building Inspection maintains a list of earthquake information, including information about PG&E, in its public reception and on its website.

Information accessibility can, however, be increased beyond these sources, especially in order to reach populations who may not be familiar with the City system nor are frequent visitors to City buildings. Materials should be placed in everyday materials like newspapers, alternative venues such as social clubs, community facilities or service agencies, and distributed via mobile sources at gatherings such as fairs and festivals in the City. Information distributed should be available in large print and on audio cassette for the visually impaired, as well as in a variety of non-English languages.

POLICY 2.2

Encourage businesses and homeowners to evaluate their earthquake risks.

Many businesses and residents hold a misguided perception that federal and state sources will provide financial assistance after a disaster. But the federal aid provided in a declared disaster does not protect individual homeowners. And when a major disaster hits an entire area, local governments are often unable to step up as well, being strapped simply to provide the funds necessary to repair major public infrastructure and buildings.

The most important thing the City can do is encourage residents and businesses to evaluate their own risk and the repercussions they might face from earthquake damage. Whether through a formal risk assessment, which businesses may undertake through a qualified consultant, or simply through a personal assessment that evaluates the potential for earthquake damage, property owners should consider the full range of methods of decreasing their risk, and pursue the strategy that works best for them. This risk should also be clearly communicated to tenants and upon sale of the building, and be made part of public City records.

Earthquake insurance can also provide mitigation, although it may not be for everyone. Residents of San Francisco should be made aware that standard homeowner and tenant insurance policies do not cover losses that result from earthquakes or other natural disasters, as most policies exclude "acts of God". Instead, California homeowners are entitled to purchase earthquake coverage at the time they purchase standard homeowner policy and every other year thereafter. Yet because the insurance is so costly, few do – a report issued at the drafting of this Element found that only 11 to 12 percent of recent insurance packages included earthquake coverage. The City should work with the state's insurance commissioner to encourage purchase by increasing information about and access to, earthquake insurance. Locally, there are other strategies the City government can pursue to support the purchase of earthquake insurance, such as or providing tax incentives or supporting interest rate reductions on mortgages where earthquake insurance is purchased. Tenants should also focus on getting "renters insurance," which does cover losses due to natural disaster, and businesses should focus on getting "business interruption insurance."

POLICY 2.3

Provide on-going disaster preparedness and hazard awareness training to all City employees and other responding agencies.

Under state law, all public employees are designated Disaster Service Workers. At any time during a catastrophic event, which places life or property in jeopardy, City employees could be assigned to any disaster service activity that promotes the protection of public health and safety. The Department of Emergency Management and the Department of Human Resources have been working together to develop and implement a comprehensive Disaster Service Worker Program. DEM recently conducted an optional introductory one-hour Disaster Service Worker training. The City should continue this training program and expand it to mandatory programs, so that all service workers can be trained in potential categories of risk. The City should also continue to hold multi-agency drills on a regular basis to test and refine emergency plans.

In addition to responding to the emergency, one of the post-disaster tasks of City agencies will be the resumption of normal public services as quickly as possible. City workers will be more effective emergency responders, will be able to provide necessary public service, and will be better equipped to aid in the recovery if they are not, themselves, victims of the disaster.

POLICY 2.4

Bolster the Department of Emergency Management's role as the City's provider of emergency planning and communication, and prioritize its actions to meet the needs of San Francisco.

The Department of Emergency Management has responsibility for developing the City's Emergency Response Plan, annexes, and other emergency plan elements; supporting the coordination of the response and recovery agencies; providing emergency training opportunities; conducting and advising on functional and discussion-based exercises, coordinating activities with regional, State and federal agencies; and maintaining the Emergency Operations Center. This agency must be maintained at an appropriate level, with sufficient personnel and resources to carry out these tasks.

The agency also manages Homeland Security Grants disbursed by the federal government. In recent years San Francisco has been the recipient of a significant amount of homeland security funds, most of which were targeted for urban centers. In the future, DEM should work with the state to improve its homeland security spending, to ensure that grant money can be effectively utilized and will not revert back to the federal government.

POLICY 2.5

Maintain a comprehensive, current Emergency Response Plan, in compliance with applicable state and federal regulations, to guide the response to disasters.

The Emergency Response Plan (ERP), formerly the Emergency Operations Plan, ensures that the roles of City Agencies and others are well defined. The ERP utilizes an all-hazards approach to emergency planning, and therefore encompasses all natural and man-made hazards applicable to San Francisco. The ERP was most recently updated in December 2009. The ERP addresses the roles and responsibilities of City agencies and personnel during an all-hazards emergency response. Specifically, the ERP identifies and describes City interaction with regional, State, and Federal entities, the role of the San Francisco Emergency Operations Center (EOC), and the coordination that occurs between the EOC and City agencies. The ERP has several annexes based on hazards and local emergency support functions that provide further guidance on those aspects of emergency management. Periodic functional and discussion-based exercises based on the directives of this Emergency Response Plan should be implemented within the framework of the Department of Emergency Management's Master Improvement Plan to test plans and identify gaps in emergency management practices.

POLICY 2.6

Create a consolidated website linking all of the City's disaster-related information for the general public.

Just as the responsibilities for different disaster planning programs and actions is distributed among many agencies and departments within the City, the related information about those programs and operations is dispersed. Much information is housed within the agencies responsible for their development, and it can be difficult for the layperson to secure all the information that exists.

The City should utilize technology to redress this issue – a simple solution would be to bring together all of the varied information that exists into one website. This site should contain links to hazard maps of geologic hazards and soil conditions; to the City's adopted emergency response plans and other related plans and documents; links to programs such as BORP and NERT; to programs for property owners, incentives and other action items; and to information about emergency services and locations. It should map relevant public information such as drinking areas, evacuation routes, emergency transport pick-up locations and locations of Public Information Centers to be set up in an emergency.

Water and Supplies

POLICY 2.7

Continue to expand the City's fire department prevention and firefighting capability with sufficient personnel and training.

Post-earthquake fires are part of the earthquake risk San Francisco faces. Huge numbers of structures were lost in the 1906 earthquake, not due to the quake itself, but because of the spreading fires that were difficult to battle in the aftermath of the quake. Fires continue to be a great threat, particularly in densely developed areas.

The supplemental water supply systems including the Auxiliary Water Supply System, the Portable Water Supply System, cisterns, Bay water suction devices, and fire boats have been extended and strengthened since the Loma Prieta earthquake. Staffing and equipment needs of the Fire Department must also be foreseen in advance, and met. The City also needs to improve water supply systems to cover those neighborhoods not served by the Auxiliary Water Supply.

The Fire Department should also consider expanding the scope and training of Neighborhood Emergency Response Training (NERT) to include fire suppression, fire reporting, and other neighborhood recovery assistance, and consider coordination with neighborhood disaster "hubs."

POLICY 2.8

Ensure potable water is available in an emergency.

In February 2005, the SFPUC completed an extensive Emergency Drinking Water Plan, and recent updates ensure that the region/state's water resources would be available to San Francisco if/when needed.

The plan sets forth procedures for immediate provision of critical drinking water to the City if regional and/or local water service is disrupted. The Plan locates emergency water distribution sites, and sets forth priority routes for the delivery of emergency drinking water. Beyond the primary assets used by the SFPUC to deliver water to San Francisco on a daily basis and the programs used to support those assets, the SFPUC has many alternative means to delivery water should those primary assets become partially or totally unavailable in an emergency. The SFPUC has other resources that include portable assets to move water

to areas where it is needed, including water trucks, water bagging machines and portable manifolds for drinking water hydrants. In addition, the SFPUC has plans in place for mutual assistance to ensure that the region/state's water resources would be available to San Francisco if/when needed.

If San Francisco's in-city reservoirs fail, or if the water shortage is prolonged, the City has other local water sources, such as East Bay and Peninsula Reservoirs and Lake Merced. The Water System Improvement Project (WSIP) will repair, replace, and seismically upgrade the system's deteriorating pipelines, tunnels, reservoirs, pump stations, storage tanks, and dams. The program is funded by a bond measure that was approved by San Francisco voters in November 2002 and includes more than 80 projects throughout the service area – from San Francisco to the Central Valley – to be completed by midyear 2016.

POLICY 2.9

Develop agreements with private facilities to ensure immediate supply needs can be met.

Supplies that may be critical and in short supply after a disaster include food, water, medical supplies. Hospitals and service providers may also have difficulty in obtaining replacement equipment and medication. The City should coordinate agreements with private facilities such as hospitals and warehouses to ensure that reasonable quantities of these necessities can be made available to the City and its residents in case of a disaster. The City should also maintain its up-to-date list of rental agreements, for use of temporary supplies and facilities should they be necessary.

POLICY 2.10

Maintain the San Francisco Disaster Debris Management Plan

The City's Emergency Response Plan includes a response strategy, and identifies post disaster debris management as a function of Emergency Response Function 3: Public Works and Engineering. The Post Disaster Debris Management Plan establishes a strategy for removal and disposal of disaster debris. However, having much of this plan mapped out in advance will speed up its execution. Designating appropriate temporary and permanent disposal sites as part of this plan will be critical for long-term land-use planning.

Post-disaster, the Plan aims to incorporate existing waste ordinances, diverting as much waste as possible from landfills though reuse and recycling. All vegetative debris should be composted; metals can be recycled; other wastes should be separated and reused or recycled wherever possible. Disaster recycling programs seeks to follow the City's recycling program already in place, so as not to require new permits or other legal permission to be developed. The City should develop clear guidelines to direct businesses and residents as they deal with their own debris and trash removal after the disaster.

Evacuation and Access Routes

POLICY 2.11

Ensure the City's designated system of emergency access routes is coordinated with regional activities for both emergency operations and evacuation.

After a large earthquake or other disaster, it is likely that many streets will be impassible. This will make fire fighting and other emergency response actions more difficult, hinder the movement of residents, and interfere with debris removal and other short-term recovery activities. In order to support post disaster transportation movement, the Department of Public Works has developed priority routes for opening during an emergency or disaster. These routes include routes which connect fire and police stations, hospitals, and other critical facilities; routes to emergency drinking water distribution sites and City shelters; and routes to staging areas for Disaster Service work around the City. These routes enable the necessary clearance width for emergency vehicles and support trucks, and have been prioritized for debris clearance immediately following a disaster.

The City should ensure that the regional sequence of clearance activities is coordinated to connect with these priority routes, and that the route openings are well timed to synch with the opening of bridges and regional highways. This coordination can be directed using information from the Transportation Management Center (TMC) staffed by Caltrans, the California Highway Patrol and the MTC, and specifically from its Emergency Resource Center (ERC) which was created for procedural disaster management.

POLICY 2.12

Utilize the City's and the region's bus and rail transit network to facilitate response and recovery during and after a disaster.

Dependence on cars will not work well in a state of emergency. San Francisco's vehicular network is limited by bridges and freeways with little redundancy. Damage caused by the event to roadway networks, security considerations and traffic control may restrict private automobile use for months after the event. And transit is a necessary part of the Bay Area's movement. According to the 2000 US Census, 12% of San Francisco households did not own a vehicle, which, based on recent estimates (771,121 residents as of 2006), translates to well over 90,000 residents that rely on the transit system for their travel needs. Many San Francisco workers living outside of the City rely on transit to get to their jobs, making regional transit a pivotal part of our local economy. The transit network will be a critical component of response during a disaster.

Transit should be used in emergency situations to move emergency workers to sites, to deliver equipment, and for communications. Evacuation plans should incorporate public transportation to efficiently evacuate residents who do not have access to cars, and include clear methods to convey information about evacuation possibilities in advance and at the time of disaster. Immediately following a disaster, the City should utilize its transit network to restore the City's mobility – to help bring significant numbers of evacuees back to their neighborhoods, to move daily workers to jobs, and to resume day-to-day life, as soon as possible. Coordinated transit, ferry and bus services can be used to provide long-range links across counties. Temporary transportation improvements such as limited stop buses, bus-only routes and the addition of HOV lanes may help relieve overtaxed freeway segments. And clear conveyance of route information and service maps can help connect riders to services.

The Bay Area region, under the leadership of a task force that included the CalEMA, Caltrans, the Metropolitan Transportation Commission (MTC) and Bay Area transportation agencies, has developed a Trans Response Plan (TRP). This TRP, adopted in 1997, sets out a framework for a coordinated, multimodal and timely response by Bay Area transportation providers to a major earthquake or other significant emergency in the region. The resulting procedures are tested on an annual basis through tabletop and functional exercises. The procedures have also been integrated into individual operator emergency plans so that the regional response can be automatically invoked, if needed.

San Francisco, in cooperation with MTC, also has plans that address immediate emergency transportation needs, and the day-to-day transportation routes that will need to be reinstated in order for the region's activities to resume. The Transportation Coordination and Recovery Plan (TCRP) focuses on 'emergency transportation' - evacuations and the movement of emergency workers. The Regional Transportation Emergency Management Plan (RTEMP) addresses the movement needs of the general public following a major disaster. Together, the two plans are expected to result in a single, unified program for direction of the region's transportation resources.

POLICY 2.13

Continue coordination with water transit agencies, ferries and private boat operators to facilitate water transportation as emergency transport.

Water transit has the potential to provide vital transportation support in response to a natural or man-made disaster. Ferries can play a particular role in moving people and goods after a disaster because of their flexibility and size. Smaller commercial boats can supplement the role of ferries in evacuating civilians, and can also provide transit to emergency personnel and equipment in reaching disaster sites.

For disaster relief to be successful, vessels must be quickly deployed where most needed, and the response needs to be coordinated with land transit providers to get evacuees to/from the shoreline. The Trans Response Plan (TRP) includes a Regional Maritime Contingency Plan, which aims to establish this coordination through its guidelines and procedures for utilizing the Bay's water transit system in the recovery phase of a major disaster.

The Water Emergency Transit Authority (WETA), which replaced the Water Transit Authority in 2007, published their Emergency Water Transportation System Management Plan in June 2009, which lays out emergency response and communication procedures in the case of an emergency. WETA also has plans to add seven new routes through its Ferry Implementation and Operations Plan (WTA, July 2003), and will add a number of new boats and terminals. The increase in capacity gained by these new improvements would allow the Bay Areas ferries to carry over 20,000 trips per hour during a response to disaster,

which is almost the evacuation capacity provided during the Loma Prieta by ferries. The City should support these plans, and should ensure coordination is in place so these new boats and facilities can be added to the existing fleet designated by the Ferry Implementation and Operations Plan. While WETA has plans to slowly transition existing public transportation ferry services within the Bay Area region to WETA, the City should coordinate with private operators not yet transitioned to WETA, with the aim of establishing emergency aid agreements for the boats as well as the operators in the case of need.

Internal Coordination

The City agencies with lead roles during the response phase of a natural disaster, a catastrophic hazardous waste incident, a large-scale crime or terrorist attack, are the same agencies that have a day-to-day responsibility for responding to fires, accidents, crimes or other emergencies: the Fire Department, the Department of Public Health, the Police Department, the Department of Public Works, and others to a lesser extent and as needed. However, in a major disaster, the needs for assistance are greater than the resources of the usual responders; in fact this could be said to be the definition of a disaster. During and after a major disaster, additional organizations, including City agencies, other public safety agencies, and private organizations, will be called into service. Therefore, a significantly heightened level of coordination, and different type of organization, is necessary. The Department of Emergency Management is responsible for this coordination. The recently updated Emergency Response Plan provides the blueprint for coordination among city responders, other governmental agencies, non-governmental agencies involved in response (such as the American Red Cross), and the public during a major disaster of any kind.

POLICY 2.14

Support the Emergency Operations Center, and continue maintenance of alternative operations centers in the case of an emergency.

The City completed an Emergency Operations Center (EOC) in 1999 to serve as a secure well-equipped location for centralized communications and direction. This center houses the Department of Emergency Management, including its Division of Emergency Communication; and consolidates 911 calls and Fire, Police and Medical Dispatch. It is managed by the Department of Emergency Management.

However, emergency centers may be destroyed or rendered inaccessible in a major catastrophe. The City should prepare for this possibility in advance, by ensuring duplication of information and systems in multiple locations, by identifying alternative sites for temporary EOCs, and by establishing a mobile command center with the necessary technology and information infrastructure for flexible operations.

POLICY 2.15

Utilize advancing technology to enhance communication capabilities in preparation for all phases of a disaster, particularly in the high-contact period immediately following a disaster.

Reducing the impacts of natural and technological hazards requires extraordinary cooperation and coordination among City departments, and between departments and other governments and non-government agencies. During the immediate response period, the City will need to determine the extent and location of damage, marshal resources for response, provide information to the public, and provide critically needed services to the affected populations. The Division of Emergency Communications of DEM maintains responsibility for coordinating communication among emergency responders, private partners and citizens in San Francisco to ensure an effective and successful emergency operations system. Reporting to DEM, and assisting in preparation of departmental emergency response plans, are key staff of each department.

The City currently uses technologies such as geographic information systems and global positioning to allow wide access to everyday information, and is extending these net¬works to enhance disaster communication. The City has adopted the use of EOC information management software to increase the speed and efficiency of its operations as well as provide a method to track critical documentation and should continue to fund the licensing of this software to ensure that efficiency in critical events. San Francisco has developed an emergency text-message alerting system, AlertSF, which delivers disaster notifications to registered users, and allows users to access neighborhood specific in¬formation. It has reestablished the old World

War II sirens to provide alerts to residents, and is further upgrading the system to broadcast voice instructions for responding to an emergency.

The City has established a 311 Customer Service Center, where callers will get assistance from an agent 24 hours a day, seven days a week, and will provide real-time instructions during an actual emergency.

Continuing advances in technology and information systems will enable information to be more widely, quickly, and reliably accessible. Under the direction of CalEMA, the City should keep abreast of these advances and utilize them to bolster the existing local information network. DT and DEC should explore opportunities to use technology to keep San Franciscans informed during an emergency, using the full potential of the Internet as a primary communications medium. The City should ensure redundant networks exist to communicate at all levels- to internal staff and emergency response personnel, to convey public information, to ensure communication with special needs populations such as the hearing impaired or non-English speakers.

The City should also continue to implement solutions for interoperable communications to ensure that communication is possible among departments in a disaster. San Francisco's police, fire and most other City depart-ments are on the same 800 MHz radio system, and other agencies such as the City's Municipal Railway and the California Highway Patrol are expecting to switch to the same system in near-future funding cycles. In the interim, the City should make sure that those agencies not on the same system are able to patch in during a disaster event.

Historically, public safety agencies throughout the Bay Area have used a varied network of radio frequencies and equipment, making direct intercom¬munication difficult. The Bay Area continues to focus on improving interoperable communications across disparate agencies. In 2011, the region formed the Bay Area Regional Communications System Authority (BayRICS) to oversee initiatives and projects that improve communications capabilities. BayRICS consists of representatives from San Francisco, as well as Alameda County, Contra Costa County, Marin County, Sonoma County, San Mateo County, Santa Clara County, and Cities of Oakland, San Jose, and several cities throughout the Bay Area. The region is promoting the build out of standards-based, regional communications systems, including BayWEB, a 700MHz Broadband System dedicated for Public Safety. This system will allow public safety agencies across the region to better share information and data, independent of which jurisdiction they are responding in. The City should continue to support this effort.

POLICY 2.16

Plan to address security issues that may arise post-disaster, and balance these issues with the other demands that will be placed on public safety personnel as emergency response providers.

Community violence, including looting and rioting, have recently surfaced as forces to contend with in the aftermath of disaster. Desperate situations, such as being without food, or being stranded with no expectation of rescue, can occur in the face of disaster, and such desperation can lead to rash or risky personal actions. However, many disaster researchers regard looting as rare in disasters in developed societies. Experts state that perceptions of widespread community violence, which occurred most recently in Hurricane Katrina, are often based on misinformation, and cite human tendency to misread crowds as more malevolent than they really are.

Whether violent activities such as looting do actually occur, fear of these activities is definite. Past disasters have shown people may be unwilling to evacuate because they fear the loss of their property. The City should make efforts to manage fears of looting or other criminal activity through a visible police presence across the City and assure residents their property will be protected by police officers who will remain in the City after the evacuation. The City should also maintain the ability to dispatch special mobile forces if needed to maintain peace post-disaster.

Police will be needed to deal with issues beyond looting, such as search-and-rescue activities, directing traffic or dealing with other emergency duties. Police response must be coordinated so that it can respond to both social and physical needs in the face of disaster. Law enforcement agencies, including the San Francisco Police Department and the Sheriff's Department, District Attorney's Office, agency forces such as San Francisco Municipal Railway Police Department, and institutional agencies such as the San Francisco Community College District Police Department, should work to ensure better organization among agencies, so that their magnitude can be leveraged towards the many services that will be required. The City should

also maintain relationships with State and federal level peacekeepers that may be needed in an emergency, such as the Coast Guard and National Guard. Finally, security forces should establish communication with Disaster Service Workers to mobilize civilians if necessary to support their efforts.

POLICY 2.17

Ensure the City's plan for medical response is coordinated with its privately owned hospitals.

The Department of Public Health is the City's lead health response agency in the event of a natural disaster or terrorist attack that led to a major health emergency. They should continue efforts to coordinate with Bay Area private hospitals, community based clinics and CBO's in the Bay Area.

POLICY 2.18

Ensure all Response Plans are coordinated with the Disaster Council.

The San Francisco Disaster Council is the City's central body for emergency planning, and has been accredited by the California Emergency Council. The Disaster Council is codified by the San Francisco Administrative Code, Chapter 7, and is chaired by the Mayor and composed of the Director of Emergency Services, key department heads and City officials, three members of the Board of Supervisors, and representatives of private organizations having official emergency responsibilities. The Council reviews the efforts of the Emergency Response Planning task force, and recommends emergency actions such as mutual aid plans and agreements and such ordinances and resolutions and rules and regulations for adoption by the Board of Supervisors.

In order to coordinate the actions of the various agencies throughout the City, the Disaster Council should serve as a central repository for all mitigation, preparedness, and response and recovery activities. The Disaster Council, through its contact with the State Emergency Council and the several local disaster councils within this metropolitan area, can ensure that the work of the City is coordinated with those of the surrounding region. All actions recommended this Safety Element, and developed in other efforts or documents, should be brought forth to the Disaster Council for their review and approval.

POLICY 2.19

Seek funding for preparedness projects.

A significant amount of preparedness funding exists at the state and federal level. Several recent state propositions provide funding for specific disaster mitigation projects. The Disaster Preparedness and Flood Prevention Bond Act funds storm water flood management projects throughout California. The Strategic Growth Plan education proposal authorizes state dollars for seismic safety improvements to schools and education facilities. In addition, the Department of Homeland Security has lately been a large source of funding for preparedness and mitigation projects.

Since so much of the available funding is disbursed beyond the local level, access to these funds requires coordination for project proposals. As noted above, the Department of Emergency Management is responsible for coordination of preparedness funds. Securing these grant dollars, and effective utilization of them, should remain a priority in coming years. The City should explore the creation of a grant officer specifically tasked with coordinating with state and federal grant offices, as well as designate internal coordinators to work with each individual City department as they navigate applications and grant requirements.

External Coordination

Being prepared to address the impacts of natural and technological hazards requires extraordinary cooperation and coordination beyond the City itself. San Francisco is dependent on regional systems for transportation, evacuation, supply of goods and other necessities. In order to be effective in meeting needs, the City will need to have strong working relationships with regional and local governments and agencies.

It is also important to remember that while local governments bear the responsibility of being the first responders to any emergency or disaster, our interaction with our state and federal partners is critical to the safety of our citizens and to rapid recovery from a major disaster. Like any independent municipality, San Francisco depends on these partners for pre-planning, emergency response, and post-disaster recovery.

POLICY 2.20

Enhance communications with nearby jurisdictions.

Local Emergency Planning Committees (LEPCs) are regional entities set up to enhance coordination among adjacent municipalities. LEPCs are comprised of representatives from local government, the fire service, law enforcement, the local community, and industry; and are intended to facilitate the coordination and flow of mutual aid. CalEMA Coastal Regional Branch-Mutual Aid Region 2 is the LEPC for the San Francisco Bay Area and nearby counties.

The City of San Francisco acted as the lead agency to develop a Regional Emergency Coordination Plan (RECP) to help the Coastal Region CalEMA address gaps in regional emergency plans. The plan details how the communities which make up our LECP will work together on evacuation, housing and transportation of displaced residents. It also outlines how medical professionals will interact and how to cope with threats to the water supply, among other issues. The City should continue to utilize this plan as a basis for emergency operations issues that transcend City boundaries, such as emergency transportation, evacuation and the movement of emergency workers.

POLICY 2.21

Develop and maintain mutual aid agreements with local, regional and state governments as well as other relevant agencies.

Many state and local governments and private nonprofit organizations enter into mutual aid agreements to provide emergency assistance to each other in the event of disasters or other crises. The California Master Mutual Aid Agreement has been adopted by San Francisco, as well as most cities and counties in the state. This agreement creates a formal structure for giving and receiving assistance in emergency situations. The City should expand its network of mutual aid beyond local governments to include relevant agencies such as transit providers, utilities, volunteer agencies and professional organizations for groups like health workers and emergency managers. Numerous agencies and businesses may have resources – facilities, trained staff, transportation or equipment – that can be valuable in emergencies. The City should pursue Memorandums of Understanding or other contracts with any local agencies or businesses that can be identified as resources, including the Unified School District. Discipline-specific mutual aid agreements, such as those for public works, engineering, Emergency Managers Mutual Aid, or public information, may also be useful.

POLICY 2.22

Develop partnerships with private businesses, public service organizations and local nonprofits to meet disaster-time needs.

The City should continue to seek opportunities to partner with private sector businesses and organizations where possible. For example, drug stores can be used to distribute medical supplies and pharmaceuticals during emergencies, medical institutions and university health centers can be set up to provide medical treatment such as inoculations in the event of a chemical or biological emergency; sundry stores can provide educational materials to customers, such as essential items for disaster kits; hospitality sector can serve an important role in housing Disaster Service Workers; and other private businesses can help with critical donations.

Private and community-based organizations can assist with recovery activities, and in the dissemination of disaster information. The American Red Cross and the Salvation Army can be supportive partners in providing emergency shelter, food, clothing, and physical and mental health support. The City's relationships with these agencies and organizations should be mutually supportive. Local services, particularly in lower-income areas, such as food banks, senior centers, child care centers, may be ill-prepared to cope with disaster. The City should assist in developing support networks for these organizations, providing them with employee response training, assisting them in securing insurance coverage and helping to develop contingency plans for their operations' continuance post-disaster.

3. RESPONSE

OBJECTIVE 3

ESTABLISH STRATEGIES TO ADDRESS THE IMMEDIATE EFFECTS OF A DISASTER.

The first days after a major earthquake or other large disaster make up the response phase. Immediate response will focus on saving life and property damaged by the disaster. The City of San Francisco has a network of emergency response strategies in place which have been discussed above. The City's Emergency Response Plan is the primary source which will direct the City's response in the case of a disaster, and describes specific responses to be undertaken by the emergency response agencies and other supporting City departments toward the recovery process, such as emergency building assessment and repairs, debris removal, and meeting the immediate needs of federal and state agencies for information. The City of San Francisco is also leading a Bay Area-wide planning effort to create a disaster plan for the nine county Bay Area plus Santa Cruz, which will detail how the counties will work together to respond to a disaster, including evacuation, housing and transportation.

Relief activities to provide aid for the population left in its wake will follow response activities. These include securing food and shelter for victims, and stabilization of day-to-day conditions for the area's remaining residents. Economic welfare, social networks, and emotional well being are as critical as the City's physical infrastructure to the City's long-term recovery.

POLICY 3.1

After an emergency, follow the mandates of the Emergency Response Plan and Citywide Earthquake Response Plan

The Emergency Response Plan directs the City's actions after a disaster, assigning responsibility to agencies and departments. Many of the immediate actions needed to begin the recovery process, such as debris removal, emergency building assessment and repairs, and meeting the immediate needs of federal and state agencies for information, are described in the Emergency Response Plan. The Citywide Earthquake Response Plan supports this plan by providing response actions for the incident of an earthquake. Both plans should be used to guide all responsibilities and activities in the case of a disaster.

POLICY 3.2

Follow the National Incident Management System (NIMS) Procedures in declared emergency scenarios.

A major disaster will entail assistance from far beyond San Francisco's borders, involving the assistance of other Bay Area jurisdictions, the state of California and even the federal government. To coordinate this assistance, the federal government has developed a national approach to incident management, called the NIMS, to act as the common language and procedural guide bridging different entities. NIMS was developed so responders from different jurisdictions and disciplines could talk to each other in a common language, and work together better to respond to natural disasters and emergencies, including acts of terrorism. NIMS uses a systems approach to integrate the best of existing processes and methods into a unified national framework for incident management. Its concepts and practices cover incident management; standard command and management structures; and emphasis on preparedness, mutual aid and resource management.

The City's various agencies, particularly those who are its first responders, are already familiar with the NIMS system, and utilizing its framework in the development of emergency response and other plans. The City should continue this practice, and ensure it is kept up-to-date with current NIMS practices. New approaches that will improve effectiveness are likely to result in refinement of the NIMS

over time, so the City should maintain an awareness of any changes and incorporate them into its response planning and practices.

POLICY 3.3

Have plans to accept, organize and utilize convergence workers.

Post-disaster, it is likely that the City will see an outpouring of citizens willing and wanting to help with recovery efforts. Mobilization and reinforcement of these resources will require significant management by City responders. If no system is in place to harness the potential provided by these spontaneous, or "convergent", volunteers, this resource will be lost.

The City should continue the effort currently underway with the Red Cross on a plan for organizing and mobilizing convergent volunteers. The Volunteer Centers of the Bay Area have developed a program the City should review as a model for managing disaster volunteers. The City may also want to consider a civilian program similar to the Disaster Service Worker program, which deputizes non-employees to provide similar service functions after a disaster, This program should set forth how to receive volunteers, assess their skills and experience, and match them to the tasks, and be designed to work in concert with the City's ongoing disaster service volunteer programs such as NERT. The City should also, as a part of this program, identify and establish a volunteer mobilization center as a meeting point to coordinate volunteer activity post-disaster.

POLICY 3.4

Have vendors and contractors available to respond immediately after a disaster.

When a disaster strikes, essential resources for managing emergency and continuity of business operations may become scarce. The deficit of these resources may impact public safety operations, food distribution, removal of solid waste, recycling and debris, traffic control, shelter operations, and many other functions critical in a disaster. The City should address the immediacy of need post-disaster by making arrangements with local and regional contractors before disaster strikes. Pre-qualifying of contractors who can respond in emergency and who have equipment to handle the work is another solution for immediate response.

The Office of Contract Administration (OCA) maintains an emergency list of supply vendors. OCA should work with other departments to understand the types of supplies that may be necessary in the case of a disaster and have contracting options readily available, including an up-to-date list of qualified contractors. The list should contain sufficient sources for the kinds of goods that will be most in demand after a disaster, such as shelter supplies, medical supplies, etc. As-needed contracts should be readily implementable to meet emergency need, and existing contracts and franchise agreements should be reviewed for their applicability in the case of a disaster.

DPW maintains a registry of construction-related contractors. This list can be a valuable resource after a disaster. The agency should ensure it is kept up-to-date, and that old or unavailable contractors are removed on an annual basis. The City should also explore methods that will enable small and local firms, including minority- and women-owned businesses, to take a more active role in the response and rebuilding process, it may be beneficial to develop a program to train and qualify local contractors for government-backed projects.

POLICY 3.5

Develop strategies for cooperating with the media.

Having a media communication strategy is an important component of responding to a disaster. Beyond communicating to local and regional residents, the media is the means by which the outside world understands what has happened. Media coverage leads to national, even global understanding, of a disaster and its impacts. Coverage can be a primary factor in attracting public and private aid. It can also fuel demands for action, and stimulate public support for actions to prevent or mitigate disasters.

The Mayor's Office of Communication will direct all media responses, in cooperation with the Department of Emergency Management's joint information center, which will provide a centralized source for department information. The Mayor's Office's crisis communications plan should include strategies for openly and honestly dealing with the media. Procedures for disaster media relations should also ensure that the designated spokesperson – and in the case of a disaster, this may not be the usual media spokesperson - understands the depth of the disaster and the details of its impacts. Media kits should be prepared and ready for distribution as soon as possible.

There are frequently concerns about the negative impact of media coverage on a community post-disaster. Because of the nature of media, often stories can be overtaken by a focus on deaths and damage to property. Political leaders may be concerned about publicity's impact on tourism and outside investment, or fear that it could incite mass departure of business and residents. Even in the face of these fears, it is important that the City take a positive view of media operations, and cooperate with the media based on a policy of openness. Rather than restricting information, the City should work to present media organizations with a balance of information, about the kinds of public actions and safety measures that have succeeded well as those that have failed, so that coverage can go beyond simply accounting for totals of loss. A news story giving the amount of earthquake damage inflicted could just as easily include information about the number and types of structures that survived because of mitigation measures.

POLICY 3.6

Support the ability to shelter-in-place for residents.

The term "shelter in place" refers to San Franciscans ability to remain in their home while it is being repaired after an earthquake. For a building to have shelter-in-place capacity, it must be strong enough to withstand a major earthquake without substantial structural damage. This is a different standard than that employed by the current building code, which requires buildings to meet life-safety standards. In some cases a building may not collapse, but might be deemed unusable because of the level of damage. Shelter-in-place housing standards would mean that a building is safe enough to live in during the months after an earthquake, but may not be fully functional, as a hospital or other public facilities would need to be.

Supporting shelter-in-place standards can help to minimize the need for emergency housing post-disaster, keep current residents in their homes, and minimize disruption of the housing market units. This type of standard could greatly minimize recovery costs and allow communities to remain intact.

POLICY 3.7

Develop a system to convey personalized information during and immediately after a disaster.

In addition to conveying general public information about the disaster to citizens and the outside world, the City will also need to respond to more personal inquiries by impacted residents. This can include questions about what services and aid is available, as well as inquiries about the location, health and welfare of relatives or other residents.

The City should plan for an information system composed of a series of local Public Information Centers intended to convey this more personalized information to the public. These centers should be located in accessible community locations such as libraries, but should also be sited away from the centers of emergency activity. These centers should be connected to receive up-to-date information from law enforcement agencies, other City departments, the school district, -HSA, public shelters, local hospitals, and the coroner, and should also be linked to regional centers in other parts of the Bay Area. During a disaster, these regional information centers should be directly linked to consumers via the 311 City phone service.

POLICY 3.8

Establish centers to facilitate permits for repairs.

Rebuilding can be facilitated by increasing the points of access where permitting can occur. Satellite permitting centers that offer City services such as building permits, electrical, plumbing, and mechanical inspections can be one way to increase building owners' access to services in their own neighborhood, and can reduce the possibility of overload at the central permitting facilities at Planning and the Department of Building Inspection. These centers can be operated on a temporary basis, perhaps until a targeted number of buildings are brought back on line.

POLICY 3.9

Work collaboratively with nonprofit partners to assist vulnerable populations during and immediately after a disaster and to ensure resumption of social services directly after a disaster.

In addition to disrupted infrastructure such as transit and transportation, power, water, gas and sewer, phone service, the City will also face disruptions to its social services at a time when they may be most needed. The City's most vulnerable populations, including seniors, shut-ins, disabled, institutionalized or incarcerated youth and adults, children who have been separated from their parents due

to the disaster, and residents of single-room occupancy hotels and public housing, will be at risk of falling through the cracks. Hospitals and clinics may be damaged or overcrowded, schools and daycare centers will be closed, and families may be separated. Centers for special needs populations may be temporarily shut down, due to damage or unavailability of employees. Local services, particularly those meeting the needs of residents in lower-income areas, may be ill-prepared to cope.

The City should have continuity policies and plans in place for its municipally-run and municipally-funded services. One way of supporting their immediate resumption would be to establish a policy clarifying that for specified City employees, maintaining continuity of social service provision by carrying out their everyday positions is their primary role as disaster service workers. In advance of a disaster, processes should be established to ensure the continuity of payments to social service organizations under contract with the City.

The City is not, however, the only service provider that needs to plan for this inevitability. Nonprofit groups are key players in disaster response, providing food and shelter in the short term, and assisting in longer term recovery through health care and job placement. But in past disasters, lack of coordinated planning – between the City and among agencies - has resulted in gaps in aid or in redundant services. Therefore, the City should also assist local service providers, including mental health centers, substance abuse services, homeless shelters, community health centers, senior services and aids activities, so that they can resume services, to cope in a disaster. They can support religious and community organizations by providing them with employee response training, insurance coverage, and encouraging development of contingency plans.

POLICY 3.10

Support the efforts of the Controller's Office to ensure service continuation and financing of post-disaster.

The Controller's Office is the designated lead agency for the Finance and Administration Section of the Emergency Response Plan, supported by the Department of Administrative Services and the Office of the Treasurer. These groups are tasked with ensuring employee payment and compensation, and with payment of contractor and vendor accounts, in the immediate response phase of a disaster. These elements will be critical to the continuing operation of City services.

In order to ensure continuation, the Controller's Office has programs underway to ensure that payroll continues to be processed for all City workers, implementing off- site payroll processing if needed; that employee compensation is resumed; that financial and accounting computer systems can recover and resume as soon as possible; and all payments, both to City workers and to outside vendors, are processed within a reasonable time.

The City should actively encourage the use of direct deposit by all City employees, and inform all employees of the potential loss of pay in the event of a disaster for those who do not use direct deposit. Additionally, the Controller's Office should work with City employees not currently using direct deposit in order to provide backup account information that can be switched to direct deposit in the event of a disaster. The City should assist those employees without access to a bank account to open an account with a bank or credit union.

The Controller's Office will also direct the financial policies established to guide the City in its response to an emergency, particularly as it relates to personnel time, contracts, and equipment and supplies relating to the emergency. As a part of this responsibility, the Office should work with other City agencies to determine need for contracts with vendors who do not already occur on existing approved vendor lists; and set up these new vendor contracts well before the emergency occurs.

POLICY 3.11

Ensure historic resources are protected in the aftermath of a disaster.

Preservation of the City's historic resources is an immediate concern when damage is being assessed. The older construction techniques of historic buildings make them more vulnerable to damage, and if the damage is noted without recognition of the resources historic value, the building can be at risk of further damage or demolition.

Accurate information about heritage resources is fundamental to ensuring resources are not lost. Complete survey information ensures that resource documentation of relevant buildings exists, and this information can be mapped and used by assessors in the tagging of buildings post-disaster. Since the year 2000, the Planning Department has been actively engaged in survey work through

the Citywide Survey Program. The focus of the program is on neighborhoods that are undergoing long-range planning efforts or are the focus of intense development activity, but the Citywide Survey Program will continue survey efforts in neighborhoods outside of Area Plan study areas as resources become available. While that Citywide Survey is underway, the City should make use of existing survey information, including privately developed property reviews, and ensure it is made available to DBI and any other relevant contractors who may be charged with doing evaluations of damaged buildings.

Post-disaster assessment should include an analysis of the extent of the damage to historic areas and resources. In a typical assessment scenario, assessors will attach a green tag if a building is structurally sound, a yellow tag where repairs are needed, and a red tag if the structure is uninhabitable. This system should ensure sufficient protection for historic resources post-disaster, in that all tagged buildings receive further detailed evaluation considering survey information before any steps towards demolition are taken. The system could also include separate placards identifying the building as a historic resource. Without such identification, the buildings are at risk.

Policy 3.12

Address hazardous material and other spills by requiring appropriate cleanup by property owners per local, state, and federal environmental laws.

Accidental spills and releases of hazardous waste or hazardous substances can cause severe damage not only to the environment, but to the public's health. This is a particular issue for other older industrial properties with toxic spill issues as they convert to other uses or forms of development. In cases where environmental damage or hazardous conditions have occurred, the City shall require all property owners and other responsible parties to report spills or leakages and to perform clean up to the level required by local, state, and federal environmental regulations. Where such parties delay in this required cleanup, the City, working with other regulatory agencies, shall take all measures necessary to ensure the public's health and safety is protected.

4. RECOVERY AND RECONSTRUCTION

OBJECTIVE 4

ASSURE THE SOUND, EQUITABLE AND EXPEDIENT RECONSTRUCTION OF SAN FRANCISCO FOLLOWING A MAJOR DISASTER.

Short term recovery actions – ensuring re-connection of utilities, short term housing, re-initiation of services - are often an outgrowth of the response phase. Long-term recovery begins once many of those short-term actions are underway or have been completed – as the rubble and debris have been cleared, major urban services are restored, and daily urban operations – movement, employment, etc – are reinitiating. The actual reconstruction can typically takes 5 to 10 years, but it can be much longer, and even across the City, full recovery – return to the pre-disaster state, or improvement beyond that state – can vary considerable from neighborhood to neighborhood.

A major disaster resulting in extensive destruction in the City will require a public and private commitment to rebuild San Francisco, as quickly as possible, while providing needed interim facilities where people can live, conduct businesses, and provide services. The rebuilding of areas with extensive damage will present choices that have to be made between retaining existing land uses, regulations, land ownership patterns, circulation and infrastructure configurations, and other physical characteristics as they existed before the disaster, or, alternatively, reconsidering the area's physical patterns, or a combination of the two approaches. While these issues are being considered, the City's established development objectives and procedures (embodied in the General Plan) should be respected. A balance should be struck to enable new development to take advantage of opportunities to improve the building stock, neighborhood quality and City as a whole, while respecting the values of the past. Some areas might best be repaired and rebuilt in ways similar to their pre-disaster conditions, while new area plans applying citywide objectives may be needed in others with pervasive damage.

Preparation and planning prior to a disaster can improve the effectiveness of post-disaster efforts. Longer-term recovery and reconstruction decisions will need to be made by decision-makers including the Mayor, the Board of Supervisors, the Planning Commission and others, with considerable public involvement. Advance planning for the recovery process will improve the City's ability to make these decisions quickly, equitably, and effectively, which will profoundly influence the future of the City.

Advance Recovery Planning

POLICY 4.1

Before an emergency occurs, establish an interdepartmental working group to develop an advance recovery framework that will guide long-term recovery, manage reconstruction activities, and coordinate rebuilding activity.

Advance recovery planning has a critical role in the City's disaster preparedness. A previously agreed-upon recovery and rebuilding planning process can reduce debates and disagreements about how to rebuild, and result in a much faster reconstruction period. Other disaster histories, including our own, have proven that rush to rebuild often takes place before the necessary planning is completed. Therefore, it is critical that the governance and planning framework for recovery and reconstruction be established before the disaster occurs

To provide direction for any planning that happens post disaster, the Mayor and the Board of Supervisors should establish an interdepartmental working group to create

a framework for recovery. The working group should be comprised of representatives from relevant City agencies and departments.

The recovery framework should outline the City's top priorities for improving the City's capacity to manage post-disaster recovery and reconstruction, and contain guidelines that outline how reconstruction planning will be undertake after a disaster has occurred. This framework should provide the basis for the eventual development of a post-disaster recovery and reconstruction plan. While such an effort cannot anticipate the impact that such a disaster might have, and therefore will not have detailed recommendations to address every eventuality, the effort can provide a vision and a framework for how our community will rebuild after a disaster. Developing and adopting this framework prior to a disaster will allow for a well throughout process and prioritization within a "normal" environment.

POLICY 4.2

As a part of the advance recovery framework, develop and adopt a repair and reconstruction ordinance, to facilitate the repair and reconstruction of buildings.

The rebuilding and reconstruction efforts that will need to be undertaken after a disaster will need to be much more swift in repairing lifelines, homes, and other resources the City depends on. In the period after a disaster, the Department of Building Inspection and Planning will likely see a surge in permit applications. While the Department of Building Inspection already maintains procedures to deal with emergency repairs, the City does not have plans to deal with the sustained demand that may result from large-scale reconstruction. Upon completion of the advance recovery framework, the task force should develop a recovery and repair ordinance that help implement the framework and facilitate the repair and reconstruction of buildings following disaster.

The recovery and repair ordinance should build upon existing building and planning code standards and policies to facilitate an efficient reconstruction process, help to streamline and expedite the permitting and review process, while avoiding a hastily administered permitting process. The Ordinance should establish clear permit processing and review procedures to expedite rebuilding in the post-disaster period, while providing the amount of review necessary to ensure that reconstruction meets the City's objectives and appropriate local policies, plans, and code standards, yet is economically feasible.

The ordinance should consider policies to address nonconforming uses and buildings, explore modifications to outdated codes and standards, consider the applicability of the City's notification or other review procedures, and address historic buildings to ensure repairs maintain the integrity of the structure without adversely affecting its historic nature. The ordinance should also revise post-earthquake building inspection protocols to identify buildings that can be occupied safely despite damage and loss of utilities, allowing residents to safely shelter-in-place while waiting to make repairs.

The ordinance should create priority categories for building types, prioritizing critical response facilities first. The ordinance should also be clear on the length of time during which it is applicable. It is important that the ordinance not work at cross-purposes with other City goals. Large-scale damage to confined areas might warrant specific neighborhood-level plans or reconstruction guidelines, and these will take time to prepare. If necessary, the ordinance should allow for periods of non-building while important changes are adopted into law. The ordinance should also include sufficient provisions to ensure that it is evaluated and amendments can be made as needed, post-disaster, to appropriately address the disaster impacts.

POLICY 4.3

As a part of the advance recovery framework, coordinate the realignment of government post-disaster, so City employee's skills can be used effectively towards recovery and reconstruction efforts.

New roles and responsibilities for governments will emerge after a disaster strikes. It is imperative that government be able to be nimble enough to adjust to the various roles after the disaster. The City should be willing to reconfigure offices, departments, and services to be best serve the public after a disaster.

One example of such realignment might be the need for the Planning Department or Department of Building Inspec-

tion to be decentralized and set up offices in neighborhoods that were particularly devastated by a disaster. By placing them in neighborhoods their time can be better spent on the ground understanding what type of reconstruction is necessary and possible. Another example of such realignment might call for certain departments to assist others for a longer-term as the original department's services are not required until the City is fully functioning.

POLICY 4.4

Update the advance recovery framework on a regular basis.

The advance recovery framework should be updated as necessary to reflect changing conditions, changes in City policy and technology, and changes in state and federal regulations that affect post-disaster recovery management, financing, and other processes. The task force should set, in its creation of the plan, a schedule for regular updates to ensure it keeps up with shifting community priorities as well as to keep it present and important in the public's mind.

POLICY 4.5

Develop and maintain public support for the advance recovery framework to ensure its eventual implementation.

Once an advance recovery framework is developed, its work is not over. Implementation of the framework post-disaster is its critical conclusion, and achieving this in the aftermath of a disaster will require vigilance on the City's part. The Burnham Plan, developed for the City's reconstruction after the 1906 earthquake, was never implemented, for several reasons. The plan required money from the City's taxpayers, cooperation from property owners, and strength from the City's leadership – things that were difficult to garner from populations who were not a part of its development. Whether or not one supported the specific Burnham vision or an alternative prospect, it is clear that no plan could have succeeded without community and City leadership support. Community demands for rapid reconstruction will likely be perceived by many to be in conflict with calls for post-disaster planning and time needed to complete such a process.

The City should develop an ongoing program to regularly train the City's leadership and build community support for the framework to ensure its implementation in a time-compressed, and high-pressure post-disaster environment. While there will always be tensions to rebuild quickly post-disaster, the desire for haste should not preempt the implementation of the recovery framework or undermine a potentially necessary recovery and rebuilding process. The community outreach process for the advance recovery framework should provide a vehicle to strengthen community support.

Recovery and Reconstruction Policies

POLICY 4.6

Post-disaster, build upon the advance recovery framework to create a recovery and reconstruction plan to direct the City's reconstruction activities, manage the long-term recovery period, and coordinate rebuilding activity.

Using the pre-disaster framework as the basis for all planning, the next step is turning that framework into tangible actions to direct and manage the specific impacts of an actual disaster.

Therefore, after a disaster occurs, the City shall establish a recovery and reconstruction task force to guide the planning process and plan development built upon the City's recovery framework. The task force should be made up not only of City agencies represented in the working group, but also a range of community representatives, including business interests, nonprofits and industry leaders, policy advocates, and neighborhood representatives. The task force should also engage with and involve representatives of other counties, state and federal agencies. The task force's efforts should be directed by a designated lead agency or individual who can facilitate the recovery and reconstruction planning process and plan development, and oversee its implementation.

The task force will be responsible for the development, drafting and adoption of the post-disaster recovery and reconstruction plan, following the established framework and guidelines. Perversely, a disaster may present the City with a unique opportunity to physically, economically, and socially strengthen the City and the region; and the

recovery and reconstruction plan should take advantage of this opportunity.

POLICY 4.7

Ensure the recovery and reconstruction plan is comprehensive and consistent with already established City programs and policies.

The recovery and reconstruction plan will need to prepare the City to meet immediate changing needs after a disaster. Special services and facilities will be needed on a short-term basis, including temporary housing, commercial facilities, and health and human services. It may be necessary to locate these facilities in areas not normally available for development, or at higher densities than is normally allowed. The damage may warrant reconsideration of large-scale issues such as housing locations, transit and public infrastructure such as streets.

The recovery and reconstruction plan should build upon established General Plan objectives and policies, and ensure consistency with City programs, policies, and regulations. The plan should include clear policies and programs addressing the following issues, including the following at a minimum:

- Coordination with federal and state agencies
- Coordination with other regional cities and counties
- Plans for interim housing (considered to be a part of long-term planning, because many of the housing solutions may become permanent).
- Planning for, financing and incentivizing housing repairs and construction of potentially large numbers of replacement housing units, including consideration for affordability needs.
- Land use decisions and recommended changes in response to local opportunities.
- Establishment of public reconstruction priorities

The recovery and reconstruction plan may also consider potential changes to the City's physical framework and development pattern, potentially reviewing issues such as:

- Structurally and geologically hazardous conditions and mitigation options
- Re-examination of street patterns, street design, and standards such as required width, etc.
- Designation of areas for consideration of land acquisitions, reconfigurations, consolidations, and subdivisions.
- Recommendations for changes and improvements to major transportation routes, transit networks and other lifelines.
- Revisions to City infrastructure networks, including possible undergrounding of utilities, and use of new technologies in service provision.
- Guidance for financing and advancing the City's long-term economic recovery.

POLICY 4.8

Where necessary, use public authority to expedite repair, reconstruction and rebuilding.

In the aftermath of a disaster, there may be properties that lie fallow for some time. The damage may be so severe that owners without insurance simply abandon properties; absentee owners and landlords could choose simply to not return, and there may be cases where it is not be economically feasible or possible for owner to rebuild.

The City maintains the authority to impose policies, rules and regulations to protect the public welfare, order, and security. If public welfare is at stake – for example in damaged rental properties that remain unrepaired and unoccupied, are a safety or health hazard, or have deteriorated to such a degree that they are unlikely to be restored to quality housing – the City may need to explore ways of restoring these units through partnerships with nonprofits.

POLICY 4.9

Engage the community in the reconstruction planning process.

Reconstruction is too important and too big a task for City departments to take on their own. Residents themselves must play a central role in the decisions determining how their city is rebuilt.

The leaders of the process must develop an education-based involvement process. Recovery planning efforts should not

only identify, but actively engage, the varied interests of the community. They should hold citywide workshops and utilize social media o encourage at large participation. They should also structure a planning process which fosters engagement at the neighborhood scale, through neighborhood-based workshops, committees and special issue focus groups. Citizens should be presented with options for the City's future, and with all of the information necessary to make a choice from those alternatives. Based on the information provided, and the exercises in which they are engaged, the community should come together around a vision for how they want to rebuild after a disaster, what they want their future to look like, and how, physically, that future should take shape. In the end, the entity tasked with recovery and reconstruciton planning must build public support for the plan, and further its adoption as the community's vision for its future.

The City should also help to develop community skill sets pre-disaster, on both an individual and neighborhood level, to empower residents to meaningfully participate in a post-disaster reconstruction planning process, being able to working effectively together to identify and prioritize community needs, and work collaboratively with the City to communicate these needs and ensure that they are met. Programs such as the Department of Emergency Management Community Engagement and the Neighborhood Empowerment Network help to build community capacity and develop these essential skills before the disaster strikes, so that residents are ready to participate effectively in the reconstruction planning process after the disaster.

POLICY 4.10

View recovery as a partnership with neighborhoods.

Neighborhoods can be a driving force in recovery efforts. They understand their priorities, and they have personal motivation – often lacking at the government level - to ensure projects and programs are carried out. In the worst-case scenario – where the City government is unable to meet its commitment to the residents - community-directed recovery is a good option. Pre-existing community organizations provide a ready structure for development of a strong local force that can step into roles that an overtaxed government may not be able to fill. These groups, if strong, can be the lynchpin for the rebuilding effort. And even in cases where government is prepared and able to meet its citizens' needs, its efforts can be made stronger if it views response and recovery as a partnership with its neighborhoods.

In recognition of the neighborhoods' critical role in recovery, the City should work to increase the capacity of neighborhoods and neighborhood groups. The City currently maintains a number of programs, such as NERT and the Neighborhood Empowerment Network, that empower residents and community groups to share in mitigation and recovery efforts. These programs should be viewed as part of developing framework of efforts to prepare communities in advance of a disaster, beginning with outreach and provision of information, and extending into disaster preparedness activities such as mapping projects and emergency management planning development. These programs should also include community capacity building to teach residents the skills and capacities they need to participate in problem solving activities that support post-disaster decision making around issues such as land use, transportation planning, economic development, etc.

POLICY 4.11

Promote partnerships with non-governmental agencies, including public/private partnerships, to ensure support is ready to step in after a disaster.

Public/private partnerships can be a strong tool in revitalization after a community disaster. Relationships with corporate entities, particularly those with local ties, can lead to financial and other support in reconstruction and restoration efforts. In the Broadmoor neighborhood example of New Orleans following Hurricane Katrina, public/private partnership enabled neighborhood planning, helped secure grants to fund rebuilding efforts, and led to donations of corporate services, marketing materials and even construction support. By laying the groundwork necessary for strong public/private partnerships now - by establishing relationships with universities, corporations and foundations – the City can put itself in a strong position to receive support outside of state and federal aid, which could be critical if disaster is widespread and government resources must be extended.

POLICY 4.12

Rebuild after a major disaster consistent with established General Plan objectives and policies.

Case Study: New Orleans and the Recovery from Hurricane Katrina

The possibility of land speculation may impact the ability of residents to rebuild. In the wake of Hurricane Katrina in New Orleans, several communities have seen developers take advantage of residents' losses to purchase large swaths of property


Photo by Golden-Eye-/ Flickr

The Broadmoor neighborhood in New Orleans, which first developed a neighborhood recovery plan and is currently implementing it with the reconstruction of a local elementary school, library, and eventual community center, provides an example of results that can occur from community directed recovery, provided it is fostered with public and even private support


Photo by infrogmation/ Flickr

The result of a soft story collapse.

Photo by dsb_nola/ Flickr

The Broadmoor Improvement Association played a pivotal role in response and recovery for its neighborhood.


Rendering by Eskew + Dumez + Ripple

Rosa Keller Public Library and Community Center

The General Plan has been adopted, after much public consideration, to assure the preservation and enhancement and safety of this very desirable urban environment. In the efforts to restore damaged areas of the City, existing development policies and regulations should be respected. Opportunities may be created for realizing General Plan policies, such as improvements to circulation systems, the provision of needed public or private open space, or hazard reduction. In areas with extensive building and infrastructure damage, coordinated rebuilding to take advantage of opportunities for neighborhood improvement, may be best achieved with an area plan approach. The rebuilding process may also enable possibilities for increasing mobility through improved and increased public transit, as well as other alternatives to the private automobile. Future Elements and Area Plans of the General Plan, transportation policies and guiding principles developed by the City should be formulated with an awareness of their potential applicability in relation to earthquake recovery.

Restoration of Housing & Infrastructure

POLICY 4.13

Support existing policies to create and maintain affordable housing choices.

Post-disaster, the City's already existing affordable housing shortage will be exacerbated. Some of the neighborhoods most vulnerable to serious damage in an earthquake provide a significant portion of the City's affordable housing stock. Much of the City's lowest-cost housing is located in older buildings, which are more likely to sustain damage in the case of an earthquake. Many of these older units are kept affordable through rent control, which through state-mandated vacancy decontrol may be increased when the unit is vacated, and does not have to be restored if the unit is replaced. And when reconstruction begins, many of these units, if significantly damaged or destroyed, will be replaced with more profitable, higher priced rental units or for-sale condominiums, shrinking the rental pool and driving up housing costs in the City.

Policies to protect affordability after a disaster are easy to identify but difficult to finance, particularly through the private market. Damaged affordable housing and single-room occupancy hotels should be replaced at as close to a one-to-one basis as possible, using cooperation among the private market, nonprofit agencies, and local, state or federal government sources to achieve a similar level of affordability as units being replaced. Eviction regulations in the post-disaster period should ensure the disaster is not misused as a way to "cleanse" projects of low-paying tenants. However, we are limited to what we can do locally, so the City should also support any policy changes at the state level that enable more local control over the methods used to stabilize rents post-disaster and long-term.

POLICY 4.14

Utilize emergency exemptions for rebuild projects with limited or no environmental impacts.

The California Environmental Quality Act (CEQA) currently allows emergency exemptions for projects which are necessary to prevent or mitigate an emergency. In cases where projects are being restored to their pre-disaster state, the sum of their impact has already been reviewed by previous assessments, and thus CEQA enables categorical exemptions for projects reconstructing to standards existing prior to the disaster. The City should ensure these statutes are utilized wherever they make sense to avoid unnecessary delay, while ensuring that new or large-scale projects which may alter the balance of the City receive sufficient review.

POLICY 4.15

Utilize green building practices in rebuilding.

Destroyed buildings and infrastructure will be a consequence of any large-impact earthquake. Salvaging their building material not only aids in the objective of reducing the amount of debris going to a landfill, it supports the rebuilding process. The City should support the establishment of new businesses that can reclaim, warehouse and resell debris for reconstruction. They should also provide incentives, either financial or otherwise, for the use of recycled materials in redevelopment.

One way the City could ensure a market for these recycled materials is to require green building in new development and redevelopment. The City has many green building

requirements already in place that should be reconsidered and perhaps revised in light of projected post-earthquake reconstruction needs.

POLICY 4.16

Ensure design character and quality is paramount in consideration of all rebuilding projects.

The City's attitude toward rebuilding will have to balance two sometimes competing objectives – the need to rebuild quickly, and the desire to maintain and even improve design character. A lesson can be gleaned from the never-executed Burnham Plan, which was developed but then discarded after the 1906 earthquake: the political pressure of property owners to rebuild can overtake other interests, and thus could affect the quality of rebuild architecture and design.

It is important that the next such large-scale rebuilding not follow this same path, and that design be considered hand in hand with haste. The damage of a natural or other disaster may damage many of the neighborhoods and buildings that contribute to the City's urban design character, and it is imperative that reconstruction be done in a way that will restore and strengthen, not further weaken that character. While many of the preceding policies speak to the need for timeliness in review of reconstruction projects, the policies developed must ensure that design character and quality are not ignored in the urgency of rebuilding. All reconstruction should follow the framework put in place by the post-disaster recovery and reconstruction plan, as well as the urban design standards and residential design guidelines already in place in the City.

POLICY 4.17

Provide adequate interim accommodation for residents and businesses displaced by a major disaster in ways that maintain neighborhood ties and cultural continuity to the extent possible.

While the City's first priority should be to encourage and enable the retrofit of residential buildings to minimize damage and allow residents to shelter in place following a disaster, the Department of Emergency Management estimates that after a major earthquake, anywhere from 20,000 to 90,000 housing units may be destroyed or substantially damaged (based on projected impact scenarios driven by events on the Hayward and San Andreas earthquake faults, which are believed to present the greatest risk). Many businesses that provide necessary services to residents will also be displaced. Repair and reconstruction will take several years. The Care and Shelter Plan establishes a framework for the provision of emergency shelter for the general population, but no specific agency is tasked with the responsibility of interim housing, and no department is specifically tasked with finding temporary space for displaced businesses.

The Mayor and the Board should designate a lead agency, to deal with interim housing and business needs. This agency/agencies should work in collaboration with state and federal agencies providing post-disaster interim housing and related services to ensure that plans consider City goals and to also mediate between these agencies and the affected communities to assure that the interim housing solutions are adequate, convenient and includes necessary businesses and social services. In order to maintain relationships and connections within the community, interim housing and other facilities should prioritize keeping residents in their neighborhoods and near their pre-disaster homes as much as possible.

POLICY 4.18

Repair damaged neighborhoods in a manner that facilitates resident return and maintains neighborhood community quality.

San Francisco neighborhoods have distinct characters, and often have long-term residents, businesses and institutions. Many of its neighborhoods have distinct cultural identities, and provide the bonds of community for their residents. The City, in cooperation with state and federal agencies, and community-based organizations, must manage rebuilding to maintain neighborhood character and identity, and to ensure that new development does not weaken this quality.

As such, plans should provide opportunities for those who lived in the area to return to new or repaired homes and other facilities there. The City should explore methods of providing rights to reoccupancy for tenants that must vacate their unit because of reconstruction, renovation or improvement.

POLICY 4.19

Consider homelessness in the wake of disaster.

Homelessness, and the risk of becoming homeless, are epidemics already in the Bay Area, and an earthquake will exacerbate housing issues for these populations. The Loma Prieta earthquake damaged homeless shelters and a number of the single-room-occupancy hotels that were an important source of housing for the very poor.

Prior to a disaster the City should inventory and document its pre-existing stock of homeless shelters, single-room-occupancy hotels and transitional living facilities. The City must ensure its post-disaster plans consider major social issues such as homelessness. With many properties destroyed or uninhabitable, it will be even more difficult for this challenged population to find suitable housing after an earthquake. Transition to long-term shelter will be needed for those already homeless, requiring long-term aid and greater assistance than is typically required by disaster victims.

POLICY 4.20

Ensure sufficient workforce housing during reconstruction.

Lack of housing can have a severe impact on economic recovery. If the labor pool has nowhere to live, they are unable to work. Limited housing opportunities, particularly at the lower end of the income spectrum, can curtail the available labor pool for construction during rebuilding, and the absence of permanent housing once businesses have come back online may cause local employees to seek work elsewhere.

The City should partner with business community in restoring workforce housing for the community after a disaster. The most useful assistance local businesses can provide may be financial contributions, whether they are at-large contributions coordinated by the City or direct subsidies offered to their own workers. Some possible methods include the development of employer-directed community land trusts or rental deposit and down payment grants for displaced workers.

Economic Recovery

POLICY 4.21

Have an economic recovery strategy in place before the disaster strikes.

An earthquake or other disaster can have a major impact on the economic landscape of the City. Previous earthquakes have resulted in dramatic losses in office space and subsequent relocation of businesses; in drops in tourism, which is one of San Francisco's major industries; and disproportionate impacts on small businesses, who have fewer resources with which to recover.

The City should ensure an economic recovery strategy is in place to foster business resumption, and even growth, after a disaster.

In the wake of a disaster, many local businesses, particularly small businesses, will struggle to resume activity. They may have lost assets, necessary facilities or equipment, access to employees and even their customer base. While the City's own taxed financial resources will limit direct financial assistance from City funds, there are many other things it can do to support businesses.

The City can encourage loan and grant funding from non-government sources, and further affected businesses' ability to secure loans from local banks or unions by offering government guarantees on loans. Tax incentives, including temporary payroll tax exclusion, sales tax exemption and tax write-offs on replaced business equipment and furniture, and property tax abatements, should be explored to encourage re-investment and growth of businesses.

The economic recovery strategy should prioritize the elements of the City necessary to support business activity, such as the restoration of transit and regional roadways; utilities and services available to the business community, and housing availability for the workforce. The City should work with the business community to develop this strategy, and solicit wide advice on how to facilitate business revitalization. The strategy may include recommendations to hasten the resumption of business such as loans, funding for workplace building repair, and financial assistance. Updates to the City's Economic Strategy, created by OEWD, should include plans for economic recovery in case of a disaster

POLICY 4.22

Explore expansion of the City's disaster relief programs.

The City of San Francisco provides financial relief to property owners through tax programs including disaster relief on property taxes, and participation in the state's Section 69.3 property tax disaster relief program which enables former residents who move to other counties to maintain their previous level of property taxation prior to the disaster.

The City should review other forms of tax relief to affected residents and business owners, including reductions on other fees and taxes. A temporary moratorium on payroll taxes may be one way to get business back up and running directly after a disaster. In the wake of their 2000 earthquake, Napa Valley's ordinance provided a month-long extension of a number of taxes and fees, including sales taxes; reduced property tax assessment and deferral of property taxes on damaged property, and refunds on taxes paid for unmarketable goods.

Educating citizens about the lack of access to funds in the event of a disaster is critical. The Office of the Treasurer and Tax Collector should be involved in working with financial institutions and educating the public on how to access private funds during a time when typical procedures will not be possible.

POLICY 4.23

Ensure effective use of public emergency funds and expenditures, and recovery of those expenditures.

The Controller's Office is responsible for tracking expenditures account for the cost of responding to, and recovering from, the disaster. This includes tracking, recording, and reporting on all payments made in response to the emergency, including personnel working during the emergency, outside contractor work, and expenses such as supplies, materials, equipment and vehicle inventory records.

It is important that the tasks that are authorized are relevant and necessary, and that their completion is well-documented by the Controller's Office and its supporting agencies. This documentation will be critical in submitting disaster reimbursement claims to the State and Federal government, and ensuring support funding is received.

POLICY 4.24

Foster access to capital for individuals, families and businesses.

The Treasurer's Office should work with financial institutions to prepare for the period immediately following a disaster, encouraging them to allow customers access to money and removing restrictions that might foster this access, such as high fees early withdrawal penalties, restrictions on check cashing and cash limits at ATMs. The Treasurer's Office should also assist banks and other financial institutions if they need to relocate because of damage, by facilitating the permitting process locally, and doing what it can to allow the opening and closing of branches without the usual paperwork required by financial regulators at the federal level.

BOARD of SUPERVISORS

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NOTICE OF PUBLIC HEARING

LAND USE AND TRANSPORTATION COMMITTEE

BOARD OF SUPERVISORS OF THE CITY AND COUNTY OF SAN FRANCISCO

NOTICE IS HEREBY GIVEN THAT the Land Use and Transportation Committee of the City and County of San Francisco will hold a public hearing to consider the following hearing matter and said public hearing will be held as follows, at which time all interested parties may attend and be heard:

Date: **November 28, 2022**

Time: **1:30 p.m.**

Location: **IN-PERSON MEETING INFORMATION**
Legislative Chamber, Room 250, located at City Hall
1 Dr. Carlton B. Goodlett Place, San Francisco, CA

REMOTE ACCESS
Watch: www.sfgovtv.org
Watch: SF Cable Channel 26, 28, 78 or 99 *(depending on your provider)* once the meeting starts, the telephone number and Meeting ID will be displayed on the screen.

Public Comment Call-In: https://sfbos.org/remote-meeting-call

Subject: **File No. 221065.** Ordinance amending the San Francisco General Plan by repealing the 2012 Community Safety Element and adopting the 2022 Safety & Resilience Element; affirming the Planning Department's determination under the California Environmental Quality Act; and making findings of public necessity, convenience, and general welfare under Planning Code, Section 340, and findings of consistency with the General Plan, and the eight priority policies of Planning Code, Section 101.1.

In accordance with Administrative Code, Section 67.7-1, persons who are unable to attend the hearing on this matter may submit written comments prior to the time the hearing begins. These comments will be made as part of the official public record in this matter and shall be brought to the attention of the Board of Supervisors. Written comments should be addressed to Angela Calvillo, Clerk of the Board, City Hall, 1 Dr.

Carlton B. Goodlett Place, Room 244, San Francisco, CA, 94102 or sent via email (board.of.supervisors@sfgov.org). Information relating to this matter is available in the Office of the Clerk of the Board or the Board of Supervisors' Legislative Research Center (https://sfbos.org/legislative-research-center-lrc). Agenda information relating to this matter will be available for public review on Wednesday, November 23, 2022.

For any questions about this hearing, please contact the Assistant Clerk for the Land Use and Transportation Committee:

Erica Major (Erica.Major@sfgov.org ~ (415) 554-4441)

Please Note: *The Department is open for business, but employees are working from home. Please allow 24 hours for us to return your call or email.*

Angela Calvillo
Clerk of the Board of Supervisors
City and County of San Francisco

em:sc:ams

DATED/POSTED/PUBLISHED: November 18, 2022

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Ad Description
EDM 11/28/2022 Land Use - 221065 General Plan

To the right is a copy of the notice you sent to us for publication in the SAN FRANCISCO EXAMINER. Thank you for using our newspaper. Please read this notice carefully and call us with ny corrections. The Proof of Publication will be filed with the County Clerk, if required, and mailed to you after the last date below. Publication date(s) for this notice is (are):

11/18/2022

The charge(s) for this order is as follows. An invoice will be sent after the last date of publication. If you prepaid this order in full, you will not receive an invoice.

Publication	$360.00
Total	$360.00

NOTICE OF PUBLIC HEARING SAN FRANCISCO BOARD OF SUPERVISORS LAND USE AND TRANSPORTATION COMMITTEE MONDAY, NOVEMBER 28, 2022 - 1:30 PM NOTICE IS HEREBY GIVEN THAT the Land Use and Transportation Committee of the City and County of San Francisco will hold a public hearing to consider the following hearing matter and said public hearing will be held as follows, at which time all interested parties may attend and be heard: File No. 221065. Ordinance amending the San Francisco General Plan by repealing the 2012 Community Safety Element and adopting the 2022 Safety & Resilience Element; affirming the Planning Department's determination under the California Environmental Quality Act; and making findings of public necessity, convenience, and general welfare under Planning Code, Section 340, and findings of consistency with the General Plan, and the eight priority policies of Planning Code, Section 101.1. IN-PERSON MEETING INFORMATION Legislative Chamber, Room 250, located at City Hall 1 Dr. Carlton B. Goodlett Place, San Francisco, CA REMOTE ACCESS Watch: www.sfgovtv.org Watch: SF Cable Channel 26, 28, 78 or 99 (depending on your provider) once the meeting starts, the telephone number and Meeting ID will be displayed on the screen. Public Comment Call-In: https://sfbos.org/remote-meeting-call In accordance with Administrative Code, Section 67.7-1, persons who are unable to attend the hearing on this matter may submit written comments prior to the time the hearing begins. These comments will be made as part of the official public record in this matter and shall be brought to the attention of the Board of Supervisors. Written comments should be addressed to Angela Calvillo, Clerk of the Board, City Hall, 1 Dr. Carlton B. Goodlett Place, Room 244, San Francisco, CA, 94102 or sent via email (board.of.supervisors@sfgov.org). Information relating to this matter is available in the Office of the Clerk of the Board or the Board of Supervisors' Legislative Research Center (https://sfbos.org/legislative-research-center-lrc). Agenda information relating to this matter will be available for public review on Wednesday, November 23, 2022. For any questions about this hearing, please contact the Assistant Clerk for the Land Use and Transportation Committee: Erica Major (Erica.Major@sfgov.org ~ (415) 554-4441) Please Note: The Department is open for business, but employees are working from home. Please allow 48 hours for us to return your call or email.

EXM-3643579#

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