

City of Brisbane Agenda Report

TO: Honorable Mayor and City Council

FROM: Randy Breault, Director of Public Works/City Engineer via City Manager

SUBJECT: Adoption of Updated Hazard Mitigation Plan

DATE: September 15, 2016

City Council Goals:

To provide public service that assures the safety of property and citizens residing, working, or visiting in Brisbane. (#9)

Purpose:

To complete the regular update of the hazard mitigation plan mandated by federal law; this action is consistent with the council's desire to provide appropriate emergency services for its citizens and businesses.

Recommendation:

Approve Resolution 2016-41, "Authorizing the Adoption of the San Mateo County Hazard Mitigation Plan Update".

Background:

In December of 2015, a coalition of San Mateo County cities and special districts embarked on a planning process to prepare for and lessen the impacts of specified natural hazards by updating the San Mateo County Hazard Mitigation Plan. Responding to federal mandates in the Disaster Mitigation Act of 2000 (Public Law 106-390), the partnership was formed to pool resources and to create a uniform hazard mitigation strategy that can be consistently applied to the defined planning area and used to ensure eligibility for specified grant funding success.

This effort represents the second comprehensive update to the initial hazard mitigation plan, approved by the Federal Emergency Management Agency (FEMA) in November of 2005 and developed in partnership with the Association of Bay Area Governments (ABAG), as well as a return to a truly regional effort following the 2010 planning process. The 29-member coalition of partners involved in this program includes unincorporated San Mateo County, 18 city and town governments and 10 special districts. The planning area for the hazard mitigation plan was defined as all incorporated and unincorporated areas of San Mateo County. The result of the organizational effort will be a FEMA and

California Office of Emergency Services (CalOES) approved multi-jurisdictional, multi-hazard mitigation plan.

Mitigation is defined in this context as any sustained action taken to reduce or eliminate long-term risk to life and property from a hazard event. Mitigation planning is the systematic process of learning about the hazards that can affect the community, setting clear goals, identifying appropriate actions and following through with an effective mitigation strategy. Mitigation encourages long-term reduction of hazard vulnerability and can reduce the enormous cost of disasters to property owners and all levels of government. Mitigation can also protect critical community facilities, reduce exposure to liability, and minimize post-disaster community disruption.

The hazard identification and profiling in the hazard mitigation plan addresses the following hazards of concern within the planning area:

1. Dam failure
2. Earthquake
3. Flood
4. Landslide
5. Severe weather
6. Tsunami
7. Wildfire

Climate change is incorporated as a summary assessment of current and anticipated impacts for each identified hazard of concern.

With the exception of dam failure, this plan does not provide a full risk assessment of human-caused hazards. However, brief, qualitative discussions of the following hazards of interest are included: terrorism, cyber threats, hazardous materials release, pipeline and tank failure, airline incidents.

A Planning Team consisting of local officials has taken the lead in developing the hazard mitigation plan. All participating local jurisdictions have been responsible for assisting in the development of the hazard and vulnerability assessments and the mitigation action strategies for their respective jurisdictions and organizations. The Plan presents the accumulated information in a unified framework to ensure a comprehensive and coordinated plan covering the entire San Mateo County planning area. Each jurisdiction has been responsible for the review and approval of their individual sections of the Plan.

Additionally, the plan has been aligned with the goals, objectives, and priorities of the State's multi-hazard mitigation plan.

A 10 member Steering Committee (SC) composed of representative stakeholders was formed early in the planning process to guide the development of the Plan. In addition, residents were asked to contribute by sharing local knowledge of their individual area's vulnerability to natural hazards based on past occurrences. Public involvement has been solicited via a comprehensive public outreach campaign that

included two rounds of public meetings, web-based information, a questionnaire, and multiple social media updates.

Why adopt this Plan?

Once the hazard mitigation plan is adopted by all of the jurisdictional partners and approved by FEMA, the partnership will collectively and individually become eligible to apply for hazard mitigation project funding from both the Pre-Disaster Mitigation Grant Program (PDM) and the Hazard Mitigation Grant Program (HMGP). Facts sheets on both of these programs are attached. Failure to adopt the plan will preclude Brisbane from eligibility.

Where do we go from here?

Upon adoption of Volume I and Brisbane's Annex of Volume II of the San Mateo County Hazard Mitigation Plan Update (HMP), the City will be eligible to apply for specified grants. The grant funds are made available to states and local governments and can be used to implement the long-term hazard mitigation measures specified within the City's annex of the HMP before and after a major disaster declaration. The HMP is considered a living document such that, as awareness of additional hazards develops and new strategies and projects are conceived to offset or prevent losses due to natural disasters, the HMP will be evaluated and revised on a continual 5-year period.

Discussion:

The following portions of the extensive countywide work completed during this effort will be approved by adoption of Resolution 2016-41:

San Mateo County Hazard Mitigation Plan - Volume I, July 2016 *(363 pages)*

San Mateo County Hazard Mitigation Plan - Volume II (Introduction), July 2016 *(21 pages)*

Chapter 4 of Volume II - City of Brisbane jurisdictional annex *(21 pages)*

Appendix A - Volume 1 *(230 pages)*

Appendix A - Volume 2 *(133 pages)*

Due to the massive quantity of paperwork in the above documents, and the limited relevance to the proposed action, only the bolded document is attached to this staff report. All of the documents are available online at <http://www.ci.brisbane.ca.us/>, then navigate to "Departments", and "Emergency Services".

One small disadvantage of participating in a multi-jurisdictional plan is that FEMA requires the plan be reviewed and approved first by Cal OES, and then by FEMA, and then returned to the jurisdiction for acceptance. If an individual agency were to make changes to the plan approved by Cal OES and FEMA, then they would be required to completely resubmit the plan on their own. All of the agencies within San Mateo County specifically chose to avoid the significant cost of individually completing a Hazard Mitigation Plan, and relied on the grant funds obtained by the San Mateo County Emergency Services JPA to meet the federal mandate.

The partners in this work effort are requesting approval from all agencies by early October 2016.

Fiscal Impact:

There is no immediate fiscal impact anticipated based on the recommended action. Future acceptance of grant funds may require some match money from the city, but acceptance of the grant will be a future action subject to Council's approval.

Measure of Success

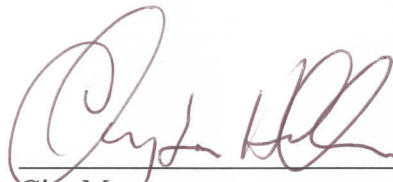
FEMA approval of the mandated Hazard Mitigation Plan.

Attachments:

Resolution No. 2016-41
City of Brisbane Jurisdictional Annex
HMGP and PDM Fact Sheet



Director of Public Works/City Engineer



City Manager

RESOLUTION NO. 2016-41

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF BRISBANE
AUTHORIZING THE ADOPTION OF THE
SAN MATEO COUNTY HAZARD MITIGATION PLAN UPDATE**

WHEREAS, all of San Mateo County has exposure to natural hazards that increase the risk to life, property, environment and the County's economy; and

WHEREAS; pro-active mitigation of known hazards before a disaster event can reduce or eliminate long-term risk to life and property; and

WHEREAS, The Disaster Mitigation Act of 2000 (Public Law 106-390) established new requirements for pre- and post-disaster hazard mitigation programs; and

WHEREAS; a coalition of San Mateo County, Cities, Towns and Special Districts with like planning objectives has been formed to pool resources and create consistent mitigation strategies within the San Mateo County planning area; and

WHEREAS, the coalition has completed a planning process that engages the public, assesses the risk and vulnerability to the impacts of natural hazards, develops a mitigation strategy consistent with a set of uniform goals and objectives, and creates a plan for implementing, evaluating and revising this strategy;

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Brisbane as follows:

- 1.) Adopts in its entirety Volume I, and the introduction section of Volume II, Chapter 4 of Volume II - the City of Brisbane jurisdictional annex, and the appendices of Volume II of the San Mateo County Hazard Mitigation Plan (HMP).
- 2.) Will use the adopted and approved portions of the HMP to guide pre- and post-disaster mitigation of the hazards identified.
- 3.) Will coordinate the strategies identified in the HMP with other planning programs and mechanisms under its jurisdictional authority.
- 4.) Will continue its support of the Steering Committee and continue to participate in the Planning Partnership as described by the HMP.
- 5.) Will help to promote and support the mitigation successes of all HMP Planning Partners.

* * * *

PASSED AND ADOPTED at a regular meeting of the City Council of the City of Brisbane held on the ____ day of _____, 2016, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

Clifford R. Lentz, Mayor

ATTEST:

Sheri Marie Spediacci, City Clerk



Chapter 4. City of Brisbane

4.1 Hazard Mitigation Plan Point of Contact

Primary Point of Contact	Alternate Point of Contact
Randy Breault, Director - Public Works & OES	Ken Johnson, Senior Planner
50 Park Place	50 Park Place
Brisbane, CA 94005	Brisbane, CA 94005
Telephone: 415-508-2131	Telephone: 415-508-2123
e-mail address: rbreault@ci.brisbane.ca.us	e-mail address: kjohnson@ci.brisbane.ca.us

4.2 Jurisdiction Profile

The following is a summary of key information about the jurisdiction and its history:

- ❖ **Date of Incorporation**—November 27, 1961.
- ❖ **Current Population**— 4,699 (as of January 1, 2016 – CA DOF)
- ❖ **Population Growth**—The population of Brisbane grew 8.9-percent between the 2010 U.S. Census population of 4,282 and the estimated projection from the California Department of Finance for January 1, 2016. The Association of Bay Area Governments (ABAG)'s Projections 2009 predicts that Brisbane's population will grow to 5,300 in 2020, and to 7,700 in 2035.
- ❖ **Location and Description**—The city is located on the western edge of San Francisco Bay, with a western boundary generally delineated by San Bruno Mountain. Neighboring agencies to the north include Daly City and the City & County of San Francisco. South San Francisco is at the city's southern limit. Although the city's total land base is listed as 20.44 sq. miles, 17 sq. miles of this amount is covered by the San Francisco Bay; the city's eastern boundary with Contra Costa County is located in the Bay. The city is commonly identified as being located at latitude 37.69°N longitude 122.39°W.
- ❖ **Brief History**— Brisbane was originally part of the Rancho Canada de Guadalupe la Visitacion y Rodeo Viejo, a large tract of land that included Guadalupe Valley, the Bayshore District of Daly City, the Visitacion Valley District of San Francisco and San Bruno Mountain. Visitacion City, as Brisbane was originally known, was surveyed in 1908, adjacent to a new Southern Pacific Railroad line that offered a faster and more direct route to San Francisco. The town site remained largely undeveloped for many years, largely due to the "Panic of 1907," a nationwide financial banking crisis/economic recession. During the 1920s, the area's name was changed to Brisbane. Growth occurred slowly – by 1940, the town had grown to a population of just 2,500. The subject of home rule and city formation was a controversial subject among Brisbane residents during the 1940s and 1950s with some residents desiring a stronger voice in local politics, while others were concerned about losing their town's close-knit charm to another layer of government. Finally, an incorporation committee was formed in 1960, and after six months of study, recommended that the town vote to incorporate



a 2.5 square mile area. On September 12, 1961, the residents of Brisbane supported the incorporation committee's recommendations, with 710 residents voting in favor of incorporation and 296 opposed.

- ❖ **Climate**— Brisbane's climate is mild during summer when temperatures tend to be in the 60's and cool during winter when temperatures tend to be in the 50's. The warmest month of the year is September with an average maximum temperature of 72.70 degrees Fahrenheit, while the coldest month of the year is January with an average minimum temperature of 42.90 degrees Fahrenheit. Temperature variations between night and day tend to be limited during summer with a difference that can reach 16 degrees Fahrenheit, and fairly limited during winter with an average difference of 13 degrees Fahrenheit.

The annual average precipitation at Brisbane is 20.11 inches. Winter months tend to be wetter than summer months. The wettest month of the year is January with an average rainfall of 4.45 Inches. Brisbane's relative location to San Bruno Mountain tends to deflect seasonal fog to the north and south away from the city.

- ❖ **Governing Body Format**—Council/Manager (five member City Council elected at large; Mayor is chosen every year by the Council). The City Manager is appointed by the City Council as Chief Administrator. The City has two standing commissions and three committees whose members are appointed by the City council. A full description of the Council, Commissions, and Departments can be found under the "City Government" tab at www.brisbaneca.org. The City Council will by Resolution adopt the final approved version of the Brisbane Annex to the San Mateo County LHMP. The City's Office of Emergency Services will oversee the implementation and regular update of the plan.
- ❖ **Development Trends**— Anticipated development levels are low to moderate for the 5-year plan period, and that development would primarily occur as infill. A total of 389 potential infill housing sites were identified through either current zoning or rezoning in the City's 2015-2022 Housing Element. The primary opportunity for new housing has been identified at the City's center. The City is currently undertaking efforts to develop a precise plan and establish zoning at the City's center, adjacent to the Community Park and the existing downtown neighborhood commercial districts, to allow for redevelopment of warehouse sites to residential and mixed use (i.e. Parkside at Brisbane Precise Plan). That would include 228 of the 389 units identified in the Housing Element. Similarly, there are a limited number of commercial sites that remain vacant and may potentially be developed as infill over the next 5 years. These primarily consist of three large, vacant sites within the Sierra Point subarea, east of U.S. Highway 101, two of which received planning entitlements several years ago but have not yet applied for building permits. These two sites combined would include approximately 1 million square feet of research and development and commercial office. In addition, along Bayshore Boulevard, there are a number of smaller sites that could potentially accommodate commercial development, but due to site constraints, interest in development of these sites has been low. Finally, the City is currently processing a programmatic Environmental Impact Report for the Brisbane Baylands, a roughly 600-acre former railyard and landfill site located between U.S. 101 and Bayshore Boulevard, comprising most of the northern part of the City. The applicant's proposal would include approximately 7 million square feet of in commercial, retail, office, institutional, R & D and entertainment uses and 4,434 housing units. The study of alternatives to the applicant's proposal are also part of that EIR and these would have either similar or less



development intensity. However, the EIR has not yet been certified and entitlements have not been granted by the City. Given the scale of the development and the stage in the entitlement process, it is not anticipated that development of the Baylands would begin within this plan period.

4.3 Capability Assessment

An assessment of legal and regulatory capabilities is presented in Table 4-1. An assessment of fiscal capabilities is presented in Table 4-2. An assessment of administrative and technical capabilities is presented in Table 4-3. Information on National Flood Insurance Program (NFIP) compliance is presented in Table 4-4. Classifications under various community mitigation programs are presented in Table 4-5. An assessment of education and outreach capabilities is presented in Table 4-6.

TABLE 4-1. LEGAL AND REGULATORY CAPABILITY

	Local Authority	Other Jurisdiction Authority	State Mandated
Building Code	Yes	No	Yes
Comment: Title 15 of Brisbane Municipal Code (BMC), first adopted 1989 with regular revisions thereafter (latest 4/7/16)			
Zoning Code	Yes	No	Yes
Comment: Title 17 BMC first adopted 1998 with regular revisions thereafter (latest revision 4/21/16)			
Subdivisions	Yes	No	Yes
Comment: Title 16 BMC first adopted 1982 with regular revisions thereafter (latest revision 10/7/13)			
Stormwater Management	Yes	No	Yes
Comment: Chapter 13.06 BMC first adopted 1998 with regular revisions thereafter 1994 (latest revision 3/19/02)			
Post-Disaster Recovery	Yes	No	Yes
Comment: Chapter 2.28 BMC first adopted 1975 with regular revisions thereafter (latest revision 1/18/11)			
Real Estate Disclosure	No	No	Yes
Comment: CA. State Civil Code 1102 requires full disclosure on Natural hazard Exposure of the sale/re-sale of all real property.			
Growth Management	Yes	No	Yes
Comment: General Plan, 1994			
Site Plan Review	Yes	No	Yes
Comment: multiple chapters in Title 15 BMC provide site plan review requirements			
Environmental Protection	Yes	No	Yes
Comment: the city complies with state (CEQA) and federal requirements (NEPA)			
Flood Damage Prevention	Yes	No	Yes
Comment: Chapter 15.56 BMC first adopted 1988 with regular revisions thereafter (latest revision 2/23/15)			
Emergency Management	Yes	No	Yes
Comment: Chapter 2.28 BMC first adopted 1975 with regular revisions thereafter (latest revision 1/18/11)			
Climate Change	Yes	No	No
Comment: Climate Action Plan adopted 2015			



TABLE 4-1. LEGAL AND REGULATORY CAPABILITY

	Local Authority	Other Jurisdiction Authority	State Mandated
Other	No	Yes	No
Comment: currently participating in county-led Sea Level Rise Vulnerability study			
General or Comprehensive Plan	Yes	No	Yes
<i>Is the plan equipped to provide linkage to this mitigation plan?</i>			
Comment: The Conservation Element, Housing Element, and the Safety Element of the General Plan provide appropriate linkage to the LHMP			
Capital Improvement Plan	Yes	No	No
<i>What types of capital facilities does the plan address?</i>			
<i>How often is the plan updated?</i>			
Comment: The CIP covers all public facilities under the city's jurisdiction. The CIP is updated annually.			
Floodplain or Watershed Plan	Yes	No	No
Comment: 2003 Storm Drainage Master Plan			
Stormwater Plan	Yes	No	No
Comment: 2003 Storm Drainage Master Plan			
Habitat Conservation Plan	No	Yes	No
Comment: Significant portions of Brisbane fall within the San Bruno Mountain HCP established in 1982			
Economic Development Plan	Yes	No	Yes
Comment: Chapter 4 "Local Economic Development" of the 1994 General Plan			
Shoreline Management Plan	No	Yes	No
Comment: managed by the San Francisco Bay Conservation and Development Commission, created in 1965			
Community Wildfire Protection Plan	No	Yes	No
Comment: North County Fire Authority 2004 Wildland Pre-Fire Attack Plan			
Forest Management Plan	Yes	No	No
Comment: 2007 Vegetation Management Strategic Plan and Street Tree Inventory Summary Report			
Climate Action Plan	Yes	No	No
Comment: Climate Action Plan adopted 2015			
Other	No	No	No
Comment:			
Comprehensive Emergency Management Plan	Yes	No	No
Comment: 2015 Emergency Operations Plan (EOP)			
Threat & Hazard Identification & Risk Assessment	No	Yes	No
Comment: Appendix to 2015 EOP - completed by San Mateo County OES			
Post-Disaster Recovery Plan	Yes	No	No
Comment: 2015 Emergency Operations Plan (EOP)			
Continuity of Operations Plan	Yes	No	No
Comment: 2015 Emergency Operations Plan (EOP)			
Public Health Plan	No	Yes	No
Comment: San Mateo County Environmental Health has countywide responsibility for development of this plan			



TABLE 4-2. FISCAL CAPABILITY

Financial Resources	Accessible or Eligible to Use?
Community Development Block Grants	No
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for Specific Purposes	Yes - per requirements of CA Prop 218
User Fees for Water, Sewer, Gas or Electric Service	Yes - various fees across the utilities
Incur Debt through General Obligation Bonds	Yes
Incur Debt through Special Tax Bonds	Yes
Incur Debt through Private Activity Bonds	Yes
Withhold Public Expenditures in Hazard-Prone Areas	Yes, but no withholdings enacted
State-Sponsored Grant Programs	Yes (e.g., CalOES HMGP)
Development Impact Fees for Homebuyers or Developers	Yes
Other	No

TABLE 4-3. ADMINISTRATIVE AND TECHNICAL CAPABILITY

Staff/Personnel Resources	Available?	Department/Agency/Position
Planners or engineers with knowledge of land development and land management practices	Yes	Public Works - Director Community Development - Director
Engineers or professionals trained in building or infrastructure construction practices	Yes	Public Works Director Community Development - Building Official
Planners or engineers with an understanding of natural hazards	Yes	Public Works - Director Community Development - Director
Staff with training in benefit/cost analysis	Yes	Public Works - Senior Civil Engineer
Surveyors	Yes	All surveying provided under contract
Staff capable of making substantial damage estimates	Yes	Public Works - Director Public Works - Senior Civil Engineer
Personnel skilled or trained in GIS applications	Yes	Public Works - Engineering Technician
Scientist familiar with natural hazards in local area	Yes	Utilize resources of local USGS staff
Emergency manager	Yes	Office of Emergency Services
Grant writers	Yes	Administrative Services - Management Analyst

TABLE 4-4. NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

Criteria	Response
When did the community enter the NFIP?	3/9/83
When did the Flood Insurance Rate maps become effective?	3/29/83
What local department is responsible for floodplain management?	Public Works
Who is your floodplain administrator? (department/position)	Community Development/Building Official



TABLE 4-4. NATIONAL FLOOD INSURANCE PROGRAM COMPLIANCE

Criteria	Response
▪ Is this a primary or auxiliary role?	Auxiliary
Are any certified floodplain managers on staff in your jurisdiction?	No
What is the date of adoption of your flood damage prevention ordinance?	Latest revision 2/23/15
▪ Does your floodplain management program meet or exceed minimum requirements?	Meet
When was the most recent Community Assistance Visit or Community Assistance Contact?	4/25/14
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed?	No
Do your flood hazard maps adequately address the flood risk within your jurisdiction?	Yes
Does your floodplain management staff need any assistance or training to support its floodplain management program?	No
Does your jurisdiction participate in the Community Rating System (CRS)?	No
▪ If not, is your jurisdiction interested in joining the CRS program?	No
How many Flood Insurance policies are in force in your jurisdiction?	26
▪ What is the insurance in force?	\$12,650,000
▪ What is the premium in force?	\$86,400
How many total loss claims have been filed in your jurisdiction?	3
▪ How many claims were closed without payment/are still open?	2
▪ What were the total payments for losses?	\$5,216.07

TABLE 4-5. COMMUNITY CLASSIFICATIONS

	Participating?	Classification	Date Classified
Community Rating System	No	N/A	N/A
Building Code Effectiveness Grading Schedule	No	N/A	N/A
Public Protection	No	N/A	N/A
Storm Ready	No	N/A	N/A
NWS Weather Ready Nation Ambassador	Yes	N/A	N/A

TABLE 4-6. EDUCATION AND OUTREACH

Criteria	Response
Do you have a Public Information Officer or Communications Office?	Yes - Senior Management Analyst in Administrative Services
Do you have personnel skilled or trained in website development?	Yes - Senior Management Analyst in Administrative Services
Do you have hazard mitigation information available on your website?	Yes



TABLE 4-6. EDUCATION AND OUTREACH

Criteria	Response
<ul style="list-style-type: none"> If yes, please briefly describe. 	On OES department site
Do you utilize social media for hazard mitigation education and outreach?	Yes
<ul style="list-style-type: none"> If yes, please briefly describe. 	Regular updates are provided in our weekly blog with links to the main website. The city's website hosted the community survey for this LHMP update.
Do you have any citizen boards or commissions that address issues related to hazard mitigation?	Yes
<ul style="list-style-type: none"> If yes, please briefly specify. 	Emergency Services Council
Do you have any other programs already in place that could be used to communicate hazard-related information?	Yes
<ul style="list-style-type: none"> If yes, please briefly describe. 	Weekly blog and website
Do you have any established warning systems for hazard events?	No
<ul style="list-style-type: none"> If yes, please briefly describe. 	N/A

4.4 Integration with Other Planning Initiatives

The following describe the jurisdiction's process for integrating the hazard mitigation plan into local planning mechanisms.

4.4.1 Existing Integration

The following plans and programs currently integrate the goals, risk assessment and/or recommendations of the hazard mitigation plan:

- ❖ **General Plan, Chapter X, "Community Health And Safety"** - State law requires a General Plan address the protection of a community from the risks of natural hazards. Brisbane's plan exceeds this requirement by also speaking to the man-made hazards that are a part of urban life. The introduction to the safety element notes, "The underlying assumption of preparing the safety policy is that the City can reduce hazards if the probability of hazardous conditions is known in advance and plans for dealing with such conditions have been prepared." The requirements of this section are directly in alignment with the LHMP's goal of identifying natural hazards and of identifying strategies to mitigate them. The city's Safety Element in its General Plan has not been updated since 1994, but is scheduled for update in 2017. During that review, staff expects to adopt the LHMP within said element pursuant to AB 2140 (Hancock, 2006).
- ❖ **Brisbane Municipal Code - Chapter 2.28, "Disaster Services Council"** - This section of the municipal code creates a disaster services council and the positions of Director and Assistant Director of Emergency Services. The legislated purposes of this chapter are to "... provide for the preparation and carrying out of plans for the protection of persons and property within the city in the event of an emergency; the direction of the emergency organization; and the coordination of the emergency functions of the city with all other public agencies, corporations, organizations, and affected private



persons. Given that the local Office of Emergency Services has overall responsibility for implementing the LHMP, the creation of the Disaster Services Council and Office of Emergency Services is directly in alignment with the LHMP's goal of establishing a coordinated approach to implementing the plan.

- ❖ **California Environmental Quality Act, "Brisbane Baylands Draft Environmental Impact Report"** - The city is closely following these requirements as it reviews a planning application for an approximately 640-acre parcel that is directly connected to the San Francisco Bay by way of two primary drainage facilities. CEQA review is clearly in line with the LHMP's goal of identify natural hazards and identifying mitigation for it. For instance, there are specific chapters of the EIR that delve deeply into associated impacts of the project based on air quality, seismology, surface water hydrology, greenhouse gas emissions, etc.
- ❖ **North County Fire Authority 2004 Wildland Pre-Fire Attack Plan** - the cities of Daly City, Pacifica and Brisbane have entered into a JPA where administrative oversight and training of fire departments is provided by Daly City to the other cities. Two of the signatory cities are located in a potential urban wildland fire boundary on San Bruno Mountain. In response to this, NCFA developed and conducts an annual exercise plan that encompasses familiarization training with the boundary, integration of multiple fire responders (including Cal FIRE land and air crews), and citizen evacuation awareness. Extensive pre-planning to mitigate the effects of a fire on San Bruno Mountain is clearly consistent with the goals of the LHMP.

4.4.2 Opportunities for Future Integration

The following plans and programs do not currently integrate the goals, risk assessment and/or recommendations of the hazard mitigation plan, but provide an opportunity for future integration:

- ❖ **2015 Climate Action Plan** - Brisbane's holistic approach to addressing climate change was recognized when we became the first California city to win a Gold Beacon Award from the Institute for Local Government. The continuing implementation of the CAP is consistent with the LHMP's goal of mitigating natural hazards, in that it works to slow the impacts of climate change, and the associated risks of increased sea levels, higher summer temperatures, prevalence, and strength of storms, etc.
- ❖ **Sea Change San Mateo County** - the city is an active participant in a multi-stakeholder broad coalition of governments that is completing a sea level rise vulnerability assessment to test and plan for the future resilience of our community. The results of this study will provide information on the hazard and potential mitigations for multiple sea level rise scenarios.
- ❖ **2003 Storm Drainage Master Plan** - the largest dollar amount of structural projects identified in this plan are located in the planning application area known as the Baylands (see third bulleted item above in "Existing Integration"). If and when that project successfully completes the myriad planning processes and results in a development, the majority of the SD improvements necessary to mitigate flooding in this area have already been pre-studied. Pre-identification of natural hazards (i.e., flooding) and requiring mitigation of same while a land area is being developed from its current status as a brownfield is clearly consistent with the LHMP.



4.5 Jurisdiction-Specific Natural Hazard Event History

Table 4-6 lists all past occurrences of natural hazards within the jurisdiction.

TABLE 4-6. NATURAL HAZARD EVENTS

Type of Event	FEMA Disaster # (if applicable)	Date	Preliminary Damage Assessment
Severe Storm	N/A	2/6/15	none submitted
Severe Storm	N/A	Dec 2015	none submitted
Drought	N/A	1/17/14 - ?	none submitted
Drought	N/A	2/27/09	none submitted
Severe Storms	DR 1646	Spring 2006	\$340,000
Severe Storms	DR 1628	Dec 05/Jan 06	\$350,000 (includes Emergency Relief Funds from FHWA)
El Nino (Severe Storms)	DR 1203	2/2/98	not available
Loma Prieta Earthquake	845-DR-CA	10/17/89	not available
Severe Storms	651-DR-CA	January 1982	not available
Landslide	N/A	Winter 1980	not available - 12 homes damaged
Flood and Storms	not available	Fall 1962	not available

In addition to the Natural Hazards listed above, the city's emergency services organization also responded to the following major events:

TABLE 4-7. HEALTH AND HUMAN CAUSED HAZARD EVENTS

Type of Event	FEMA Disaster # (if applicable)	Date	Preliminary Damage Assessment
Ebola Threat Preparedness	N/A	Fall 2014	none submitted
SFO Air Crash (Asiana 214) mutual aid response	N/A	7/6/13	none submitted
Swine Flu	N/A	4/28/09	none submitted
Oil Spill (COSCO BUSAN)	N/A	11/9/07	none submitted - minimal
Gasoline Shortage	N/A	1979	none submitted
Gasoline Shortage	N/A	March 1974	none submitted

4.6 Jurisdiction-Specific Vulnerabilities

Repetitive loss records are as follows:

- ❖ Number of FEMA-identified Repetitive-Loss Properties: 0
- ❖ Number of FEMA-identified Severe-Repetitive-Loss Properties: 0
- ❖ Number of Repetitive-Loss Properties or Severe-Repetitive-Loss Properties that have been mitigated: 0

**Other noted vulnerabilities include:**

Due to the city limits being contiguous with the State & County Park of San Bruno Mountain, most of our southern and western city limit is a wildland urban interface potential fire area. The adjacent State parkland has been designated a State Responsibility Area, where the State of California is financially responsible for the prevention and suppression of wildfires. Fires have periodically occurred in this area since recorded time prior to the city's incorporation in 1961, with the most recent major event occurring in 2006. Although these events have fortunately not expanded to require a state proclamation or federal declaration of disaster, the potential impact of fires originating in the wildland and impacting the urban area of Brisbane is an ongoing focus of concern.

The city's mountainous topography and older roadway network has created at least one location that is exceptionally difficult to access by emergency equipment (specifically, fire engines & ladder trucks are unable to utilize this roadway). This roadway also adjoins an area that experienced a significant mudslide in 1980. A reconfiguration of Glen Park Way at its intersection with Humboldt Road is necessary to ensure ingress for emergency responders and egress for evacuees, particularly in the event of an urban wildland interface fire.

The scientific community is in a majority consensus that Sea Level Rise (SLR) is an upcoming vulnerability that will have to be addressed. The largest question as we prepare for SLR is to determine the timeframe and a most probable upper boundary of SLR that needs to be accommodated. Brisbane is participating in a San Mateo County led effort, "Sea Change San Mateo County", which has produced preliminary model results indicating that portions of our land mass known as "Sierra Point" (housing an office park and the city's 580-slip marina) could be overtopped under certain scenarios. One, and possibly two, pump stations are in potential SLR induced flooding zones.

Two facilities within the city need new or upgraded standby generators, Fire Station 81 and City Hall. The fire station's generator needs replacement due to age. City Hall's generator needs to be upsized to accommodate the relocation of the city's primary Emergency Operations Center to this location, especially in light of FEMA's pending NIMS update that proposes to create "Center Management Systems" that are expected to be supported primarily by day-to-day staff working from their traditional assigned workspace (i.e., City Hall).

4.7 Hazard Risk Ranking

Table 4-8 presents the ranking of the hazards of concern.

TABLE 4-8. HAZARD RISK RANKING

Rank	Hazard Type	Risk Rating Score (Probability x Impact)	Category
1	Earthquake	48	High
2	Wildfire	36	High
3	Severe Weather	33	Medium
4	Flood	30	Medium
5	Landslide	9	Low
6	Drought	3	Low



Rank	Hazard Type	Risk Rating Score (Probability x Impact)	Category
7	Tsunami	0	Low
8	Dam Failure	0	Low

4.8 Hazard Mitigation Action Plan and Evaluation of Recommended Actions

Table 4-9 lists the actions that make up the City of Brisbane's hazard mitigation action plan. Table 4-10 identifies the priority for each action. Table 4-11 summarizes the mitigation actions by hazard of concern and the six mitigation types.

Table 4-9. Hazard Mitigation Action Plan Matrix						
Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Sources of Funding	Timeline
BB-1 —Where appropriate, support retrofitting structures against earthquake.						
Existing	Earthquake	1, 2, 11	Planning and Community Development (PCD)	High	HMGP, PDM, FMA	On-going
BB-2 —Integrate the hazard mitigation plan into other plans, ordinances and programs that dictate land use decisions within the community.						
New and Existing	All Hazards	2, 4	PCD* and Office of Emergency Services (OES)	Low	Staff Time, General Funds	On-going
BB-3 —Develop and implement a program to capture perishable data after significant events (e.g. high water marks, preliminary damage estimates, damage photos) to support future mitigation efforts including the implementation and maintenance of the hazard mitigation plan. Additionally, develop a cost tracking system that will ensure maximum FEMA/CDAA reimbursement from recovery through response phases of disasters.						
Existing	All Hazards	1, 2, 4, 5	OES	Medium	Staff Time, General Funds	Short-term
BB-4 —Support the Countywide initiatives identified in Volume I of the hazard mitigation plan.						
New and Existing	All Hazards	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11	OES	Low	Staff Time, General Funds	Short-term
BB-5 —Actively participate in the plan maintenance protocols outlined in Volume I of the hazard mitigation plan.						
New and Existing	All Hazards	1, 2, 3, 5, 6	OES	Low	Staff Time, General Funds	On-going
BB-6 —Continue to maintain good standing and compliance under the National Flood Insurance Program (NFIP). This will be accomplished through the implementation of floodplain management programs that will, at a minimum, meet the requirements of the NFIP:						
<ul style="list-style-type: none"> Enforcement of the flood damage prevention ordinance Participate in floodplain identification and mapping updates Provide public assistance/information on floodplain requirements and impacts. 						



Table 4-9. Hazard Mitigation Action Plan Matrix

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Sources of Funding	Timeline
New and Existing	Flood	1, 4, 5, 8	Public Works (PW)	Low	Staff Time, General Funds	On-going
BB-7 —Continue to update local building codes with ICB and state building code revisions, and apply these standards to public and private renovation, replacement, and development.						
New	Earthquake, Flood, Landslide, Severe Weather, Wildfire	2, 3, 4, 7	PCD* and OES	Low	Staff Time, General Funds	Short-term
BB-8 —Continue to refine a post-disaster recovery plan and a debris management plan.						
Existing	All Hazards	1, 2, 5, 6	OES	Low	EMPG	Long-term
BB-9 —Critical Facility Upgrade. Provide new standby generator for Fire Station 81, and provide upgraded standby generator at City Hall to accommodate relocation of EOC to that facility.						
Existing	All Hazards	1, 4, 9	OES* and PW	Low	HMA Grant, General Fund	Short-term
BB-10 —Critical Fuel Supply. Provide local fuel supply (none presently exists in the community) capable of supporting 3-5 days of fuel needs for emergency responders and standby generators (including those at water & sewer pump stations).						
Existing	Earthquake, Severe Weather	1, 4, 6	OES* and PW	Medium	HMA Grant, General Fund	Long-term
BB-11 —Emergency responder ingress/egress. Design and construct a new intersection at Glen Park Way/Humboldt Road that will allow emergency responders access from the southern portion of the community, which is adjacent to an urban wildland interface.						
Existing	Earthquake, Landslide, Wildfire	1, 4, 7	OES and PW*	High	HMA Grant, General Fund	Long-term
BB-12 —Mutual Aid. Continue to participate in the San Mateo County Operational Area Emergency Services Organization, the San Mateo County Emergency Managers Association, and the San Mateo County Public Works Mutual Aid Agreement to leverage the city's ability to respond to emergencies.						
Existing	All Hazards	1, 2, 3, 5, 6, 8	OES*, PW, Brisbane Police Department, and Brisbane Fire Department	Low	Staff Time, General Fund	On-going
BB-13 —Disaster Response Staff Training. Continue to identify and provide training for response personnel.						
Existing	All Hazards	1, 2, 3, 5, 6	OES	Low	Staff Time, General Fund	On-going
BB-14 —Sea Level Rise Vulnerability Assessment. Continue participation in the San Mateo County led effort, "Sea Change San Mateo County", to develop an understanding of future vulnerability.						
Existing	Flood	1, 2, 3, 5, 6	OES, PW*, and PCD	Low	For current study, the project is fully funded via San Mateo County and external grants	Long-term



Table 4-9. Hazard Mitigation Action Plan Matrix

Applies to new or existing assets	Hazards Mitigated	Objectives Met	Lead Agency	Estimated Cost	Sources of Funding	Timeline
Existing	All	1, 3, 4, 5, 6, 7, 11	Jurisdictions	High	FEMA Hazard Mitigation Grants	Long-term (depending on funding)

* Identified Lead Agency

TABLE 4-10. MITIGATION STRATEGY PRIORITY SCHEDULE

Action #	# of Objectives Met	Benefits	Costs	Do Benefits Equal or Exceed Costs?	Is Project Grant-Eligible?	Can Project Be Funded Under Existing Programs/Budgets?	Implementation Priority ^a	Grant Priority ^a
BB-1	3	High	High	Yes	Yes	No	Medium	High
BB-2	2	Medium	Low	Yes	No	Yes	High	Low
BB-3	4	Low	Low	Yes	No	Yes	High	Low
BB-4	11	Low	Low	Yes	No	Yes	High	Low
BB-5	5	Low	Low	Yes	No	Yes	High	Low
BB-6	4	Medium	Low	Yes	No	Yes	High	Low
BB-7	4	Medium	Low	Yes	No	Yes	High	Low
BB-8	4	Medium	Low	Yes	Yes	Yes	High	Low
BB-9	3	Medium	High	No	Yes	No	Medium	High
BB-10	3	Medium	High	No	Yes	No	Medium	High
BB-11	3	High	High	Yes	Yes	No	Medium	High
BB-12	6	Medium	Low	Yes	No	Yes	High	Low
BB-13	5	Medium	Low	Yes	No	Yes	Medium	Low
BB-14	5	Low	Low	Yes	No	Yes	Medium	Low
G-1	7	High	High	Yes	Yes	No	High	High

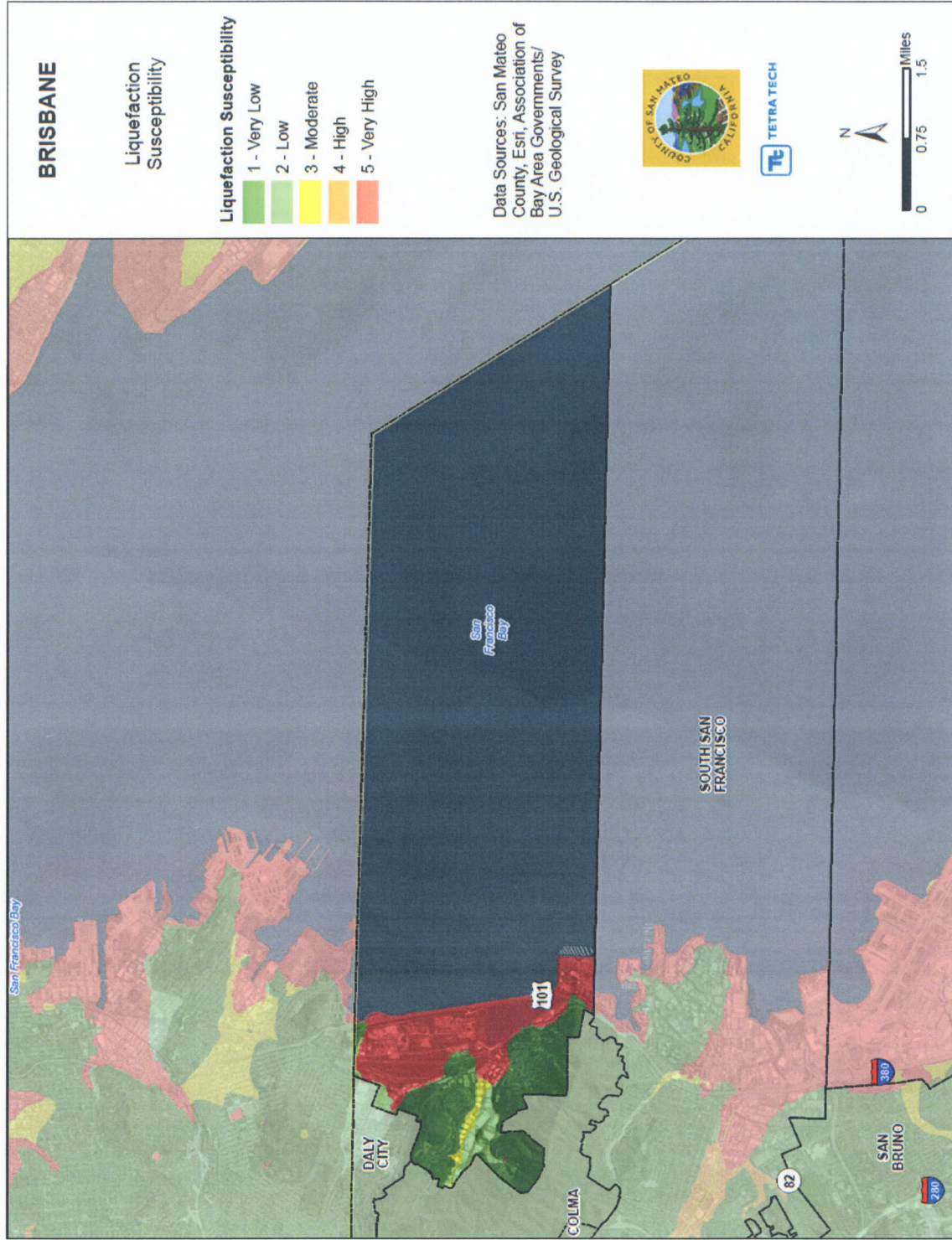
TABLE 4-11. ANALYSIS OF MITIGATION ACTIONS

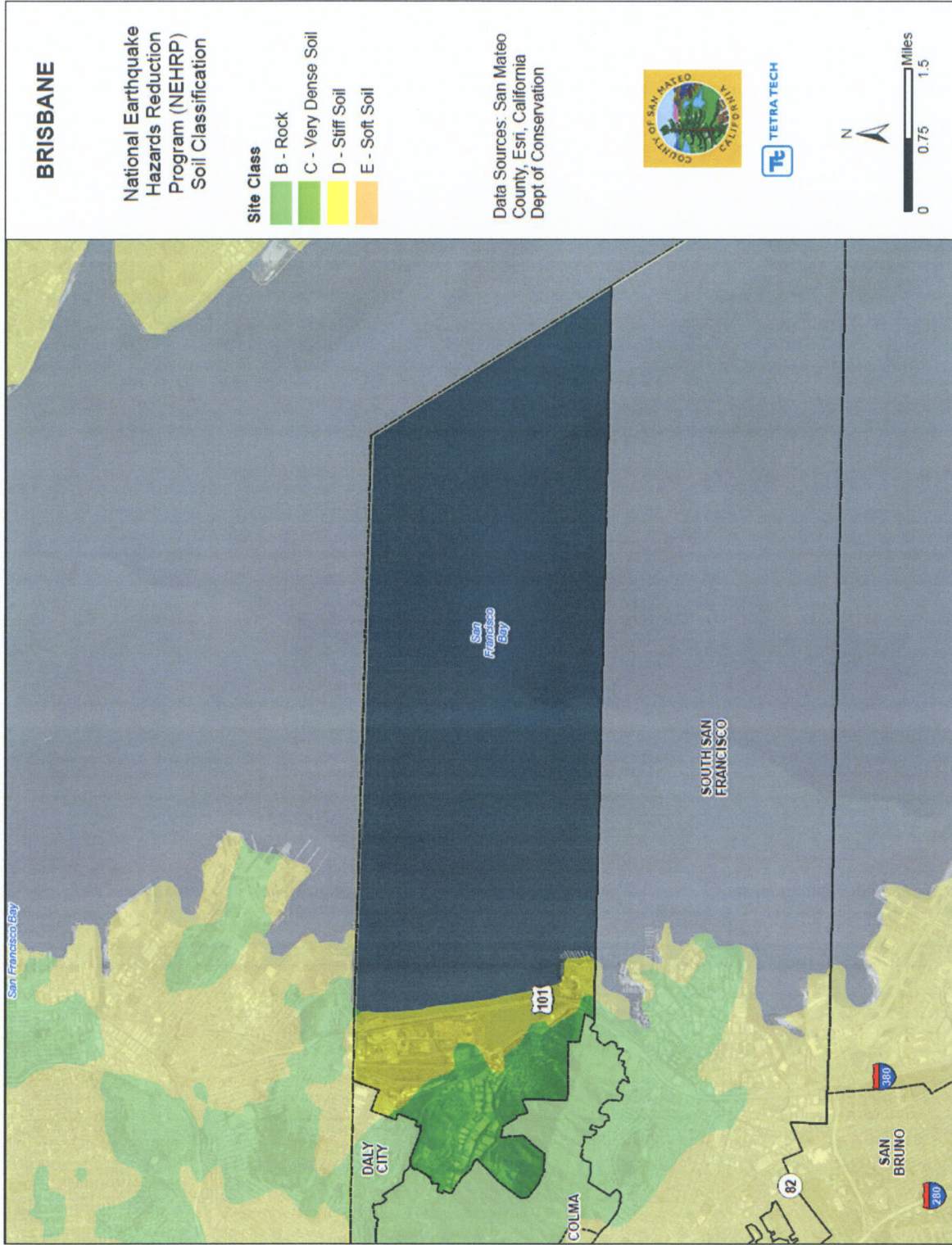
Hazard Type	Action Addressing Hazard, by Mitigation Type ^a					
	1. Prevention	2. Property Protection	3. Public Education and Awareness	4. Natural Resource Protection	5. Emergency Services	6. Structural Projects
Earthquake	BB-2, BB-3, BB-4, BB-5, BB-7, BB-8	BB-1, BB-7	BB-4		BB-8, BB-9, BB-10, BB-11, BB-12, BB-13	
Wildfire	BB-2, BB-3, BB-4, BB-5, BB-7	BB-1, BB-7	BB-4		BB-8, BB-11, BB-12, BB-13	

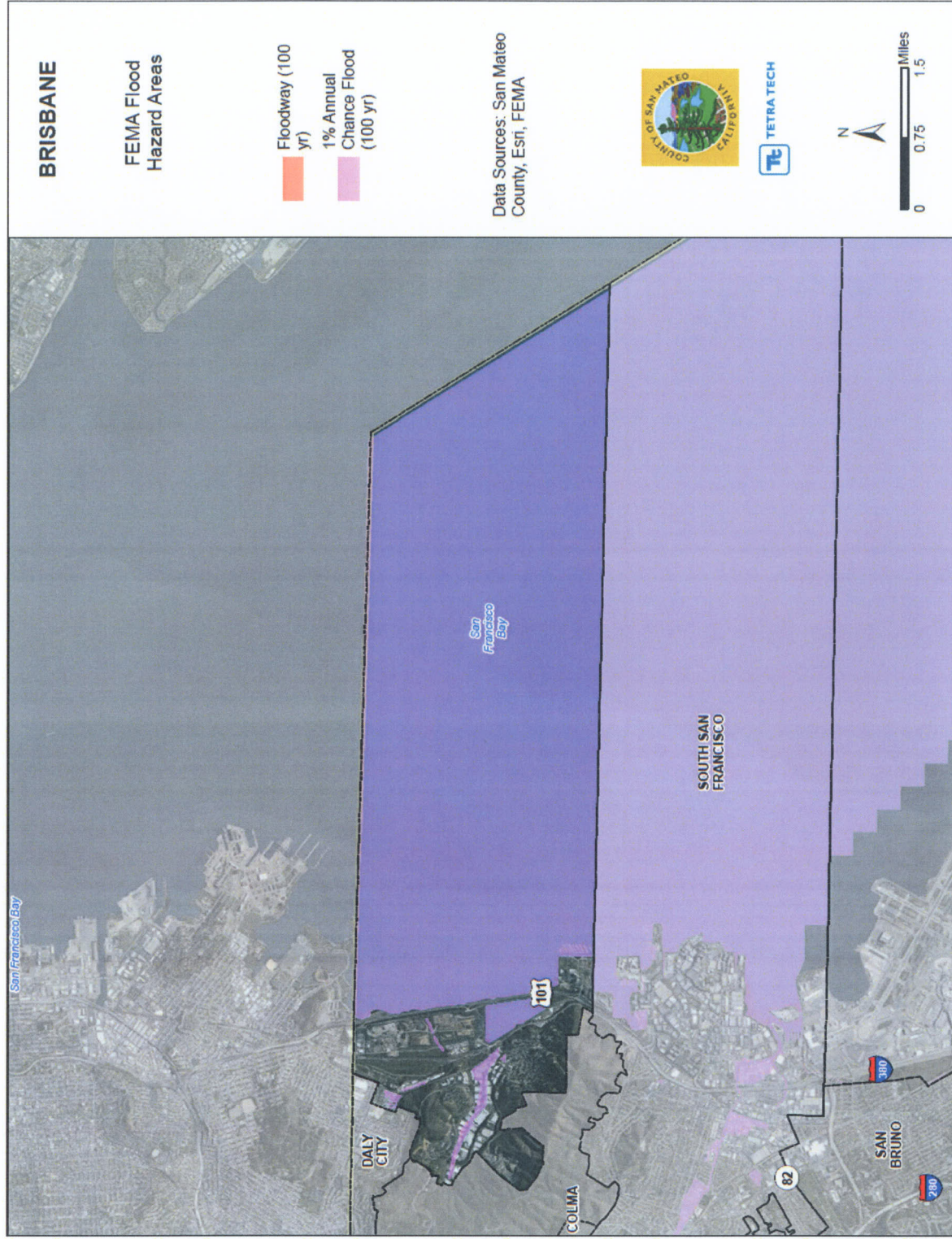


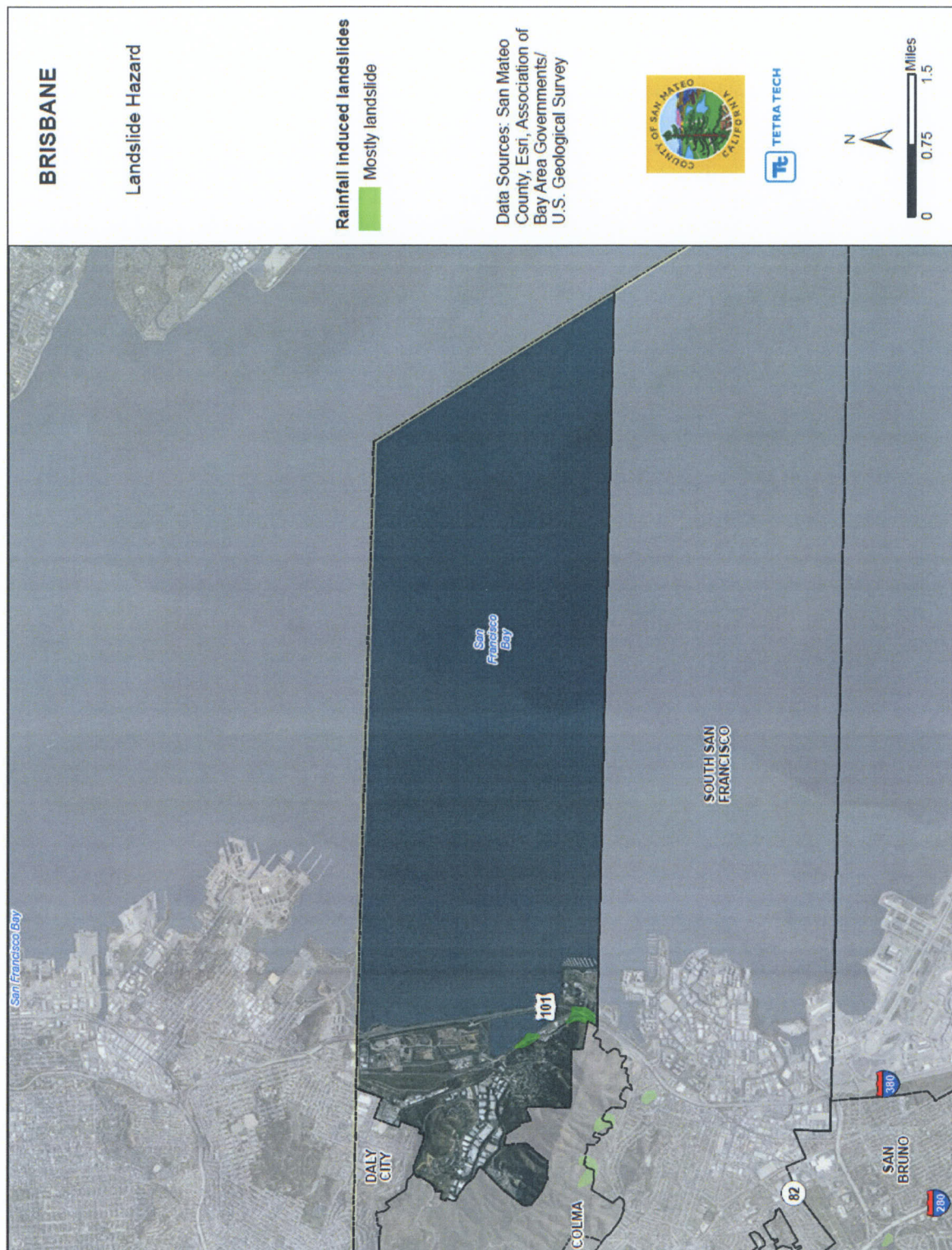
Hazard Type	Action Addressing Hazard, by Mitigation Type ^a					
	1. Prevention	2. Property Protection	3. Public Education and Awareness	4. Natural Resource Protection	5. Emergency Services	6. Structural Projects
Severe Weather	BB-2, BB-3, BB-4, BB-5, BB-7, BB-8	BB-1, BB-7	BB-4		BB-8, BB-9, BB-11, BB-12, BB-13	*
Flood	BB-2, BB-3, BB-4, BB-5, BB-6, BB-7, BB-8	BB-1, BB-6, BB-7	BB-4, BB-6		BB-8, BB-12, BB-13, BB-14	*
Landslide	BB-3, BB-4, BB-5, BB-7, BB-8	BB-1, BB-7	BB-4	BB-2	BB-8, BB-11, BB-12, BB-13	
Drought	BB-2, BB-3, BB-4, BB-5, BB-8	BB-1	BB-4		BB-8	
Tsunami	N/A - 0 Risk	N/A - 0 Risk	N/A - 0 Risk	N/A - 0 Risk	N/A - 0 Risk	N/A - 0 Risk
Dam Failure	N/A - 0 Risk	N/A - 0 Risk	N/A - 0 Risk	N/A - 0 Risk	N/A - 0 Risk	N/A - 0 Risk

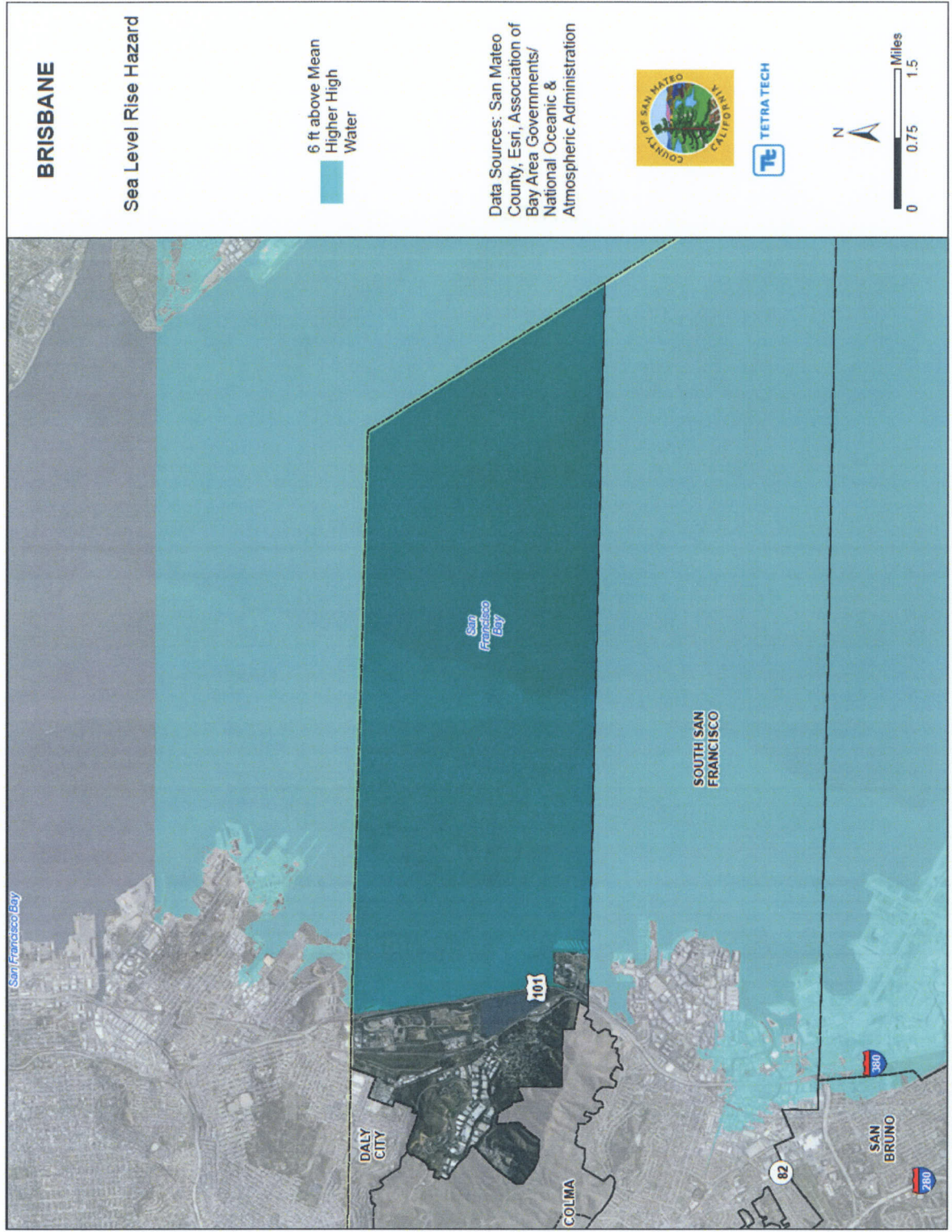
Note: see third bullet point under “Opportunities for Future Integration” regarding discussion on storm drain structural projects that will address flooding issues.

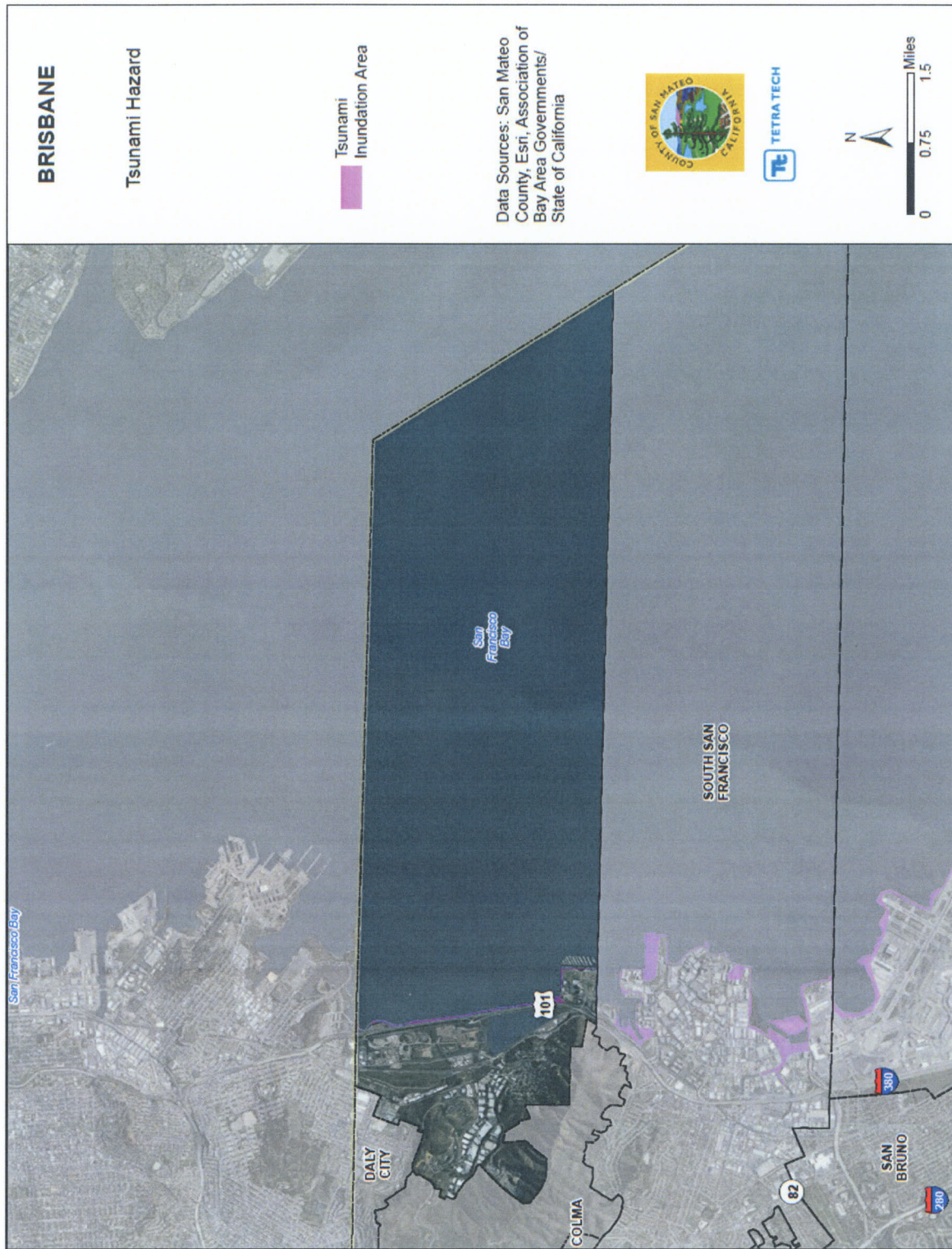


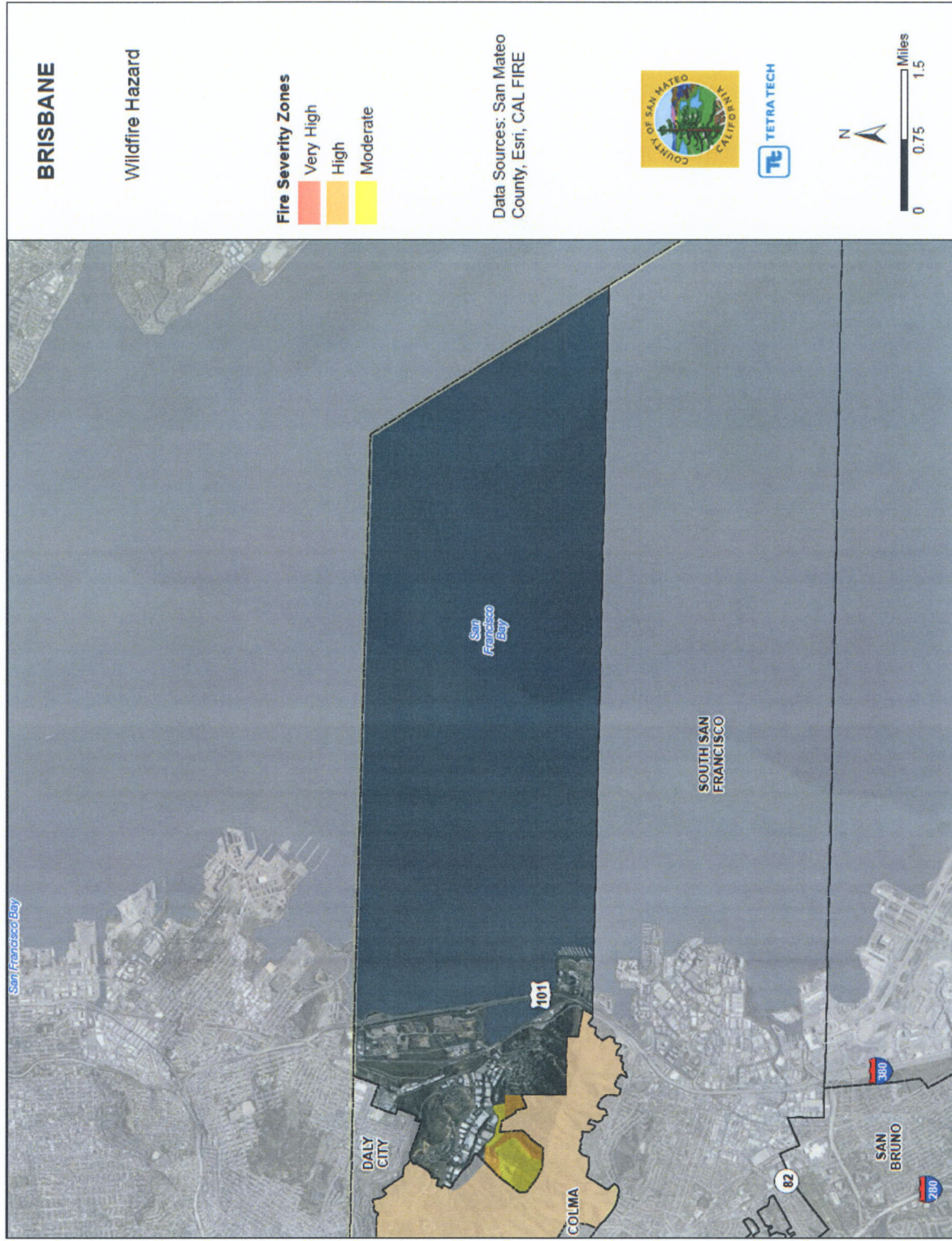












**Hazard Mitigation Grant Program (HMGP)
Pre-Disaster Mitigation Grant Program (PDM)**

FACT SHEET

I. HAZARD MITIGATION GRANT PROGRAM (HMGP)

What is the Hazard Mitigation Grant Program?

HMGP is authorized by Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended (the Stafford Act), Title 42, United States Code (U.S.C.) 5170c. The key purpose of HMGP is to provide the opportunity to take critical mitigation measures to reduce future loss of life and property during the reconstruction process following a disaster.

HMGP is available, when authorized under a Presidential major disaster declaration, in the Tribe or areas of the State requested by the Governor. The amount of HMGP funding available is based upon the estimated total Federal assistance provided by FEMA for disaster recovery under the Presidential major disaster declaration.

Who is eligible to apply?

Hazard Mitigation Grant Program funding is only available to applicants that reside within a Presidentially declared disaster area. Eligible applicants are

- State and local governments
- Indian tribes or other tribal organizations
- Certain non-profit organizations

What types of projects can be funded by the HMGP?

HMGP funds may be used to fund projects that will reduce or eliminate the losses from future disasters. Projects must provide a long-term solution to a problem, for example, elevation of a home to reduce the risk of flood damages as opposed to buying sandbags and pumps to fight the flood. In addition, a project's potential savings must be more than the cost of implementing the project. Funds may be used to protect either public or private property or to purchase property that has been subjected to, or is in danger of, repetitive damage. Examples of projects include, but are not limited to:

- Acquisition of real property for willing sellers and demolition or relocation of buildings to convert the property to open space use
- Retrofitting structures and facilities to minimize damages from high winds, earthquake, flood, wildfire, or other natural hazards
- Elevation of flood prone structures
- Safe room construction
- Development and initial implementation of vegetative management programs
- Minor flood control projects that do not duplicate the flood prevention activities of other Federal agencies
- Localized flood control projects, such as certain ring levees and floodwall systems, that are designed specifically to protect critical facilities
- Post-disaster building code related activities that support building code officials during the reconstruction process

What are the minimum project criteria?

There are five issues you must consider when determining the eligibility of a proposed project.

- Does your project conform to your State's Hazard Mitigation Plan?
- Does your project provide a beneficial impact on the disaster area i.e. the State?
- Does your application meet the environmental requirements?
- Does your project solve a problem independently?
- Is your project cost-effective?

II. **PRE-DISASTER MITIGATION GRANT PROGRAM (PDM)**

What is the Pre-Disaster Mitigation competitive grant program?

The Pre-Disaster Mitigation (PDM) competitive grant program provides funds to State, Tribal, and local governments for pre-disaster mitigation planning and projects primarily addressing natural hazards. Cost-effective pre-disaster mitigation activities reduce risk to life and property from natural hazard events before a natural disaster strikes, thus reducing overall risks to the population and structures, while also reducing reliance on funding from actual disaster declarations. Funds will be awarded on a competitive basis to successful applicants for mitigation planning and project applications intended to make local governments more resistant to the pacts of future natural disasters.

Who can apply for a PDM competitive grant?

Eligible PDM competitive grant applicants include state and territorial emergency management agencies, or a similar office of the State, District of Columbia, U.S. Virgin Islands, Commonwealth of Puerto Rico, Guam, American Samoa, Commonwealth of the Northern Mariana Islands, and Federally-recognized Indian Tribal governments.

- ✓ Eligible Sub-applicants include State agencies; Federally-recognized Indian Tribal governments; and local governments (including State recognized Indian Tribal governments and Alaska native villages).
- ✓ Applicants can apply for PDM competitive grant funds directly to FEMA, while Sub-applicants must apply for funds through an eligible Applicant.
- ✓ Private non-profit organizations are not eligible to apply for PDM but may ask the appropriate local government to submit an application for the proposed activity on their behalf.

What are eligible PDM projects?

Multi-hazard mitigation projects must primarily focus on natural hazards but also may address hazards caused by non-natural forces. **Funding is restricted to a maximum of \$3M Federal share per project.** The following are eligible mitigation projects:

- ✓ Acquisition or relocation of hazard-prone property for conversion to open space in perpetuity;
- ✓ Structural and non-structural retrofitting of existing buildings and facilities (including designs and feasibility studies when included as part of the construction project) for wildfire, seismic, wind or flood hazards (e.g., elevation, flood proofing, storm shutters, hurricane clips);
- ✓ Minor structural hazard control or protection projects that may include vegetation management, Stormwater management (e.g., culverts, floodgates, retention basins), or shoreline/landslide stabilization; and,
- ✓ Localized flood control projects, such as certain ring levees and floodwall systems, that are designed specifically to protect critical facilities and that do not constitute a section of a larger flood control system.

Mitigation Project Requirements

Projects should be technically feasible (see Section XII. Engineering Feasibility) and ready to implement. Engineering designs for projects must be included in the application to allow FEMA to assess the effectiveness and feasibility of the proposed project. The project cost estimate should complement the engineering design, including all anticipated costs. FEMA has several formats that it uses in cost estimating for projects. Additionally, other Federal agencies' approaches to project cost estimating can be used as long as the method provides for a complete and accurate estimate. FEMA can provide technical assistance on engineering documentation and cost estimation (see Section XIII.D. Engineering Feasibility).

Mitigation projects also must meet the following criteria:

1. Be cost-effective and substantially reduce the risk of future damage, hardship, loss, or suffering resulting from a major disaster, consistent with 44 CFR 206.434(c)(5) and related guidance, and have a Benefit-Cost Analysis that results in a benefit-cost ratio of 1.0 or greater (see Section X. Benefit-Cost Analysis). **Mitigation projects with a benefit-cost ratio less than 1.0 will not be considered for the PDM competitive grant program;**
2. Be in conformance with the current FEMA-approved State hazard mitigation plan;
3. Solve a problem independently or constitute a functional portion of a solution where there is assurance that the project as a whole will be completed, consistent with 44 CFR 206.434(b)(4);
4. Be in conformance with 44 CFR Part 9, Floodplain Management and Protection of Wetlands, and 44 CFR Part 10, consistent with 44 CFR 206.434(c)(3);
5. Not duplicate benefits available from another source for the same purpose, including assistance that another Federal agency or program has the primary authority to provide (see Section VII.C. Duplication of Benefits and Programs);
6. Be located in a community that is participating in the NFIP if they have been identified through the NFIP as having a Special Flood Hazard Area (a FHBM or FIRM has been issued). In addition, the community must not be on probation, suspended or withdrawn from the NFIP; and,
7. Meet the requirements of Federal, State, and local laws.

What are examples of Ineligible PDM Projects?

The following mitigation projects are not eligible for the PDM program:

- ✓ Major flood control projects such as dikes, levees, floodwalls, seawalls, groins, jetties, dams, waterway channelization, beach nourishment or re-nourishment;
- ✓ Warning systems;
- ✓ Engineering designs that are not integral to a proposed project;
- ✓ Feasibility studies that are not integral to a proposed project;
- ✓ Drainage studies that are not integral to a proposed project;
- ✓ Generators that are not integral to a proposed project;
- ✓ Phased or partial projects;
- ✓ Flood studies or flood mapping; and,
- ✓ Response and communication equipment.