



# Suisun City



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# Community Resilience Building Workshop Summary of Findings

## June 2022



# City of Suisun City Community Resilience Building Process *Summary of Findings*

## Overview

The need for municipalities, counties, states, and federal agencies to increase resilience to extreme weather events and a changing climate is strikingly evident amongst the communities across the state of California. Recent events such as severe wildfires, extreme precipitation events, high winds, and extended heat waves have reinforced this urgency and compelled leading communities like the City of Suisun City to proactively collaborate on planning and develop actions that mitigate risks and enhance resilience across their municipality. Ultimately, this type of leadership is to be commended because it will reduce the vulnerability and reinforce the strengths of people, infrastructure, and ecosystems and serve as a model for other communities in California and across the Nation.

Recently, Suisun City agreed to partner with Sustainable Solano and The Nature Conservancy on collaboratively launching a community-based process to assess extreme weather and climate change impacts and to generate and prioritize solutions that improve resiliency, sustainability, and equity for their community. In June 2022, the Suisun City Core Team hosted a workshop as part of the Community Resilience Building process that was facilitated by The Nature Conservancy, Sustainable Solano, and San Francisco Bay Development and Conservation Commission. The core directive of this effort was the engagement with and between community members to define strengths and vulnerabilities and develop and prioritize resilient actions for their community.

The Suisun City Community Resilience Building Workshop's central objectives were to:

- Define top local, natural, and climate-related hazards of concern;
- Identify existing and future strengths and vulnerabilities;
- Identify and prioritize actions for the community;
- Identify opportunities to collaboratively advance actions to increase resilience across the community, and beyond.

The Suisun City community benefited from a unique “anywhere at any scale”, community-driven process called Community Resilience Building (CRB) ([www.CommunityResilienceBuilding.org](http://www.CommunityResilienceBuilding.org)). The CRB’s tools, other relevant planning documents, and local maps were integrated into the workshop process to provide both decision-support and visualization around shared issues and existing priorities across Suisun City including the Local Hazard Mitigation Plan (2017) and the 2035 General Pan (2015). Using the CRB process, rich with information, experience, and dialogue, the participants produced the findings presented in this summary report including an overview of the top hazards, current concerns and challenges, existing strengths, and proposed actions to improve resilience to hazards and climate change for the community, today and in the future.

The summary of findings transcribed in this report, like any that concern the evolving nature of risk assessment and associated action, are proffered for comments, corrections and updates from workshop attendees and other stakeholders alike. The leadership displayed by Suisun City on community resilience building will benefit from the continuous and expanding participation of all those concerned.

## **Summary of Findings**

### **Top Hazards and Vulnerable Areas for the Community**

Prior to the CRB Workshop, the Suisun City CRB Core Team identified top hazards for the City of Suisun City. The hazards of greatest concern included flooding from higher tides and storm surge, sea level rise, earthquakes, and wildfire. The impacts from wildfire were expressed as both reduction in air quality and the threat of localized grassfires in association with high wind events. Additional hazards mentioned and discussed during the workshop included intense and extended heat waves and associated droughts. These hazards have direct and increasing impacts on the infrastructure, community members, and environment including neighborhoods, green open spaces/natural areas (Suisun Marsh, Suisun Slough etc.), roads, waterfront and levees, housing, local businesses, municipal facilities, schools, churches, social support services and other critical infrastructure and community assets.

## Current Concerns and Challenges Presented by Hazards

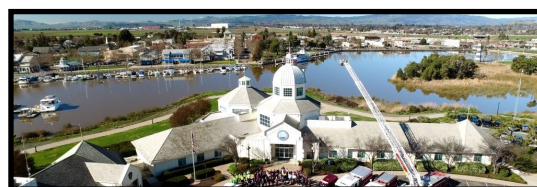
The Suisun City community has several concerns and faces multiple challenges related to the impacts of natural hazards and climate change. In recent years, Suisun City has experienced a series of highly disruptive and damaging weather events including the 2017 Labor Day weekend heat wave, state-wide droughts (2012-2016), October 2017 wildfires, and Covid-19 pandemic as well as other less impactful, but more frequent events (see Suisun City Local Hazard Mitigation Plan (2017)). Impacts from these events have included reduced air quality, rain-induced, localized flooding, high wind events, flooding along the waterfront, and heat waves that have knocked out power, isolated community members, closed facilities, and damaged property. The magnitude and intensity of these events and others across Suisun City, Solano County, and the state of California have increased awareness of natural hazards and climate change, while motivating communities such as Suisun City to proactively and comprehensively improve their resilience and sustainability for the longer term.

This series of extreme weather events coupled with a changing climate highlights that the impacts from hazards are diverse: ranging from poor air quality from wildfires that threaten the health of community members; direct wildfire threats along the Suisun Marsh; sea level rise and storm surge in the waterfront area; and localized flooding from stormwater runoff during intense storms and heavy precipitation events. Longer periods of elevated heat, particularly in July and August, have raised concerns about vulnerable segments of the City's population as well as the availability of drinking water during more and more frequent droughts. The combination of these issues presents a challenge to preparedness and mitigation priorities and requires comprehensive, yet tailored actions for specific locations and/or areas across Suisun City.

The workshop participants were generally in agreement that Suisun City and the entire Bay Area are experiencing more intense and frequent weather events that are being amplified by ongoing changes in the climate. Additionally, there was a general concern about the increasing challenges of being prepared for multiple and potentially overlapping worst case scenarios at any time of year. The impact of the current Covid-19 pandemic was raised frequently by workshop participants.



(Credit: suisuncitypatch)



(Credit: Suisun.com)



(Credit: capitolcorridor.org)

## ***Specific Categories of Concerns and Challenges***

As in any community, Suisun City is not uniformly vulnerable to hazards and climate change, and certain locations, assets, and populations have and will be affected to a greater degree than others. Workshop participants identified the following items as their community's key areas of concern and challenges across several broad categories.

### **Infrastructure, Societal, & Environmental Concerns and Challenges**

#### **Municipal Facilities & Systems Infrastructure:**

- Growing concerns about impacts from sea level rise and subsequent changes in groundwater levels that are impacting the underground infrastructure in Suisun City.
- Ongoing flooding of the Kellogg Pump Station and Mulberry Pump Station.
- Suisun Pump Station collects wastewater and pumps to treatment plant and is located in a low-lying area subjected to high risk from flooding.
- Ongoing challenges to maintain the integrity and longevity of municipal roads due to the underlying soils which are increasingly saturated and subject to liquefaction.
- Lack of municipal resources which leads to shortages in staff and equipment needed to continue to improve municipally managed infrastructure.
- Years of neglect of public waterfront has resulted in declining conditions at public boat launch, vandalism and closure of restrooms, and increasing amongst of theft and damage of private-owned automobiles and boat trailers.
- Groundwater levels are just below surface with little infiltration capacity in the downtown area for flood waters from Suisun Marsh, which are currently contained by the flood barriers around the harbor area.

#### **Emergency Management & Preparedness:**

- Concerns about the adequacy of emergency response procedures and plans for different and simultaneous extreme events including awareness and knowledge of the public as to how to properly prepare for and respond to disasters.
- Wildfire risk from unregulated campfires alongside Suisun Marsh and surrounding fields has resulted in four private residences burning down in 2021.
- Wildfire hazards for the community due to high winds and greater frequency and extent of wildfires in the Suisun Marsh which can spread very quickly once started.
- Flat terrain without much elevation change would allow flooding and eventually sea level rise to cover large swaths of the municipality quickly.

#### **Community Awareness, Engagement, & Services:**

- Current topographic elevation of the downtown area of Suisun City is already at or just above current sea levels with very little acknowledgement of this fact amongst residents and business owners.
- Currently limited staff capacity to effectively manage for the magnitude of projected impacts from sea level rise and flooding of Suisun City (1 planner, 1 engineer).

## ***Specific Categories of Concerns and Challenges (cont'd)***

- History of decision making via local and county leadership that hasn't prioritized flood mitigation resulting in limited awareness of the issue amongst residents and a small number of flood risk reduction projects underway, currently.
- Recognized shortfall in knowledge amongst residents of Suisun City about the projected impacts sea level rise on their community.
- Limited public forums available to encourage dialogue on risks to the community of various hazards such as sea level rise, flooding, wildfire, and heat/droughts.
- Frequently expressed denial about the vulnerabilities and risks related to hazards and climate change often due to the fear about the consequences on the local real estate market and property values.

### **Community Stability & Wellbeing:**

- Increasingly poor air quality due to wildfires with impacts on health of residents and visitors.
- Community members often have very little time to dedicate to civic engagements due to professional time demands including long commute times to and from workplaces outside Suisun City.
- Perception of transience amongst residents in Suisun City makes it challenging to bring the community together around important longer-term topics such as sea level rise.

### **Transportation, Housing, Food, & Livability:**

- Many private residences are settling, sinking, or shifting due to changes in the underlying soil and water volume characteristics which can result in significant and expensive damage to homes with many now in need of repair.
- Lack of an adequate and modestly priced grocery store within the city.
- Limited amount of certain public amenities that provide entertainment that draw community members out during weekday evenings and on weekends.
- Declining freshwater drinking water supply and increasing salinity levels in groundwater across the Suisun Marsh region and Solano County.
- Building codes and planning decisions are not reflecting the current and future realities of sea level rise and flooding despite the growing pressure to increase housing availability.

### **Regionalization:**

- Lack of regional coordination around proactive steps to help reduce the current and future impacts of sea level rise including larger federal funding opportunities despite the relatively high number of municipalities with vulnerable waterfronts in Solano County.
- Concerns about the long-term availability of drinking water in Solano County.

## ***Specific Categories of Concerns and Challenges (cont'd)***

### **Vulnerable Populations:**

- Encampments populated by unhoused individuals along rail line is outside local jurisdiction and therefore presents management challenges when responding to reoccurring enforcement issues.
- Relatively large homeless/unhoused population that utilize the open space/natural areas present a high risk of wildfires sparked by unregulated campfires.

### **Open Space, Wetlands, Waterways:**

- Modeling conducted by University of California – Davis suggest Suisun Marsh will be converted into open water within 100 years due to the lack of undeveloped areas able to accommodate upslope advancement and re-establishment of the protective marsh habitat.
- Large focus by federal and state agencies on the Sacramento-San Joaquin Delta leaves little capacity for emphasis on Suisun Marsh which is in need of regional, state, and federal-level coordination to help conserve this critical resource.
- Suisun Marsh ecosystem is increasingly vulnerable to hydrologic changes coupled with impacts from wildfire.
- Lack of coordination between the City and the California Department of Fish and Wildlife which can add to tensions between the visions and mandate of each respective entity around shared assets.
- Jurisdictional regulations of McCoy Creek (county versus municipality) hamper ability of local law enforcement to monitor and respond to disturbances in this area and of residents wanting to conduct garbage clean-up activities.



(Credit: redfin.com)



(Credit: capitolcorridor.org)



(Credit: grizzlywaterskayaking.com)

## **Current Strengths and Assets**

Just as certain locations, features, and/or populations across the Suisun City community stand out as particularly vulnerable to the impacts of hazards and climate change, other features are notable assets for community resilience building. Workshop participants identified the following items as their community's key strengths and expressed interest in using them as the core of future resilience building actions.

- Clearly, the responsive and committed engagement by leaderships, staff, and many residents is a very appreciated strength within and across the Suisun City community. Ongoing collaboration between municipal staff, committee/commission volunteers, business community, faith-based organizations, NGOs, adjoining municipalities, Solano County entities, and various state-level organizations, among others, on priorities identified herein will help advance comprehensive, cost-effective, community resilience building solutions.
- Hardworking and committed community members that often grow from local, volunteer activities into elected leadership positions within Suisun City which results in highly informed and knowledgeable elected officials.
- Solano County is the first county to pass a green belt ordinance that disallows expansion outside current boundaries resulting in 98% of residents within city limits.
- The current trajectory of the community is positive with community-wide efforts ongoing and other outstanding improvements like the walkability of the waterfront.
- Suisun City serves as an attractive location for industry and businesses due to the Amtrak Station, major highway corridor, and a fair amount of attractive open space.
- Ideal proximity for access to nature and wildlife via the Suisun Marsh which is the largest tidal wetland complex on the West Coast.
- Three official languages recognized in Suisun City including English, Spanish, and Tagalog with public safety publications provided in all three languages.
- Diverse population of people residing in the municipality.
- Recent rehabilitation of Suisun City that included a waterfront promenade installation that has brought community members together in appreciation of the beauty of their city and Suisun Marsh.
- Suisun City has a small-town feel with active and engaged culture of volunteerism with contributions of many organizations such as the Elks, Rotary, and Veterans of Foreign Wars, among many others.



## **Current Strengths and Assets (cont'd)**

- Positioning of city parks along the water with promenade in close proximity to a highly productive and expansive tidal slough (Suisun Slough) and marsh ecosystem that supports many endemic, rare, threatened, and/or endangered flora and fauna species (Suisun Thistle, California Blackrail, Tri-colored Blackbirds, Suisun Marsh Wren, Suisun Song Sparrow).
- Federally protected Suisun Marsh is a major stop for waterfowl and other migratory species along the Pacific Flyway including the Tundra Swan.
- Proposed development in downtown area is looking to integrate walkability to Amtrak Station as a commuter benefit including other transit-oriented development ideas.
- Availability of previously dredged material from municipal navigational dredging stored at Peirce Island that could be used for marsh surface elevation in the face of ongoing sea level rise.
- Strong culture of collaboration among the local and county-wide non-profit organizations and public-private sectors that benefits from having many people that have known each other for many years.
- Great deal of institutional knowledge amongst community members about the place, contributions of residents, and efforts of city government over time.
- Growing awareness of the shared vulnerabilities to hazards such as flooding, sea level rise, wildfires, heat waves, and earthquakes as well as the acknowledgement that these threats are shared regionally, as well as locally.
- Inherently attractive community with outstanding waterfront helps to increase the attractiveness of Suisun City for new residents which helps increase property values.
- Long history of settlement, development, and growth stretching back to the Gold Rush (30<sup>th</sup> oldest municipality in North America) with many older Victorian homes.
- Shared sewer and school districts with the adjoining municipality of Fairfield.
- Suisun City is the most affordable city in the entire Bay Area as well as the most densely populated municipality in Solano County.
- Highly diverse array of businesses including restaurants representing most ethnicities and tastes with limited chain/fast food restaurants in the downtown area.

## **Current Strengths and Assets (cont'd)**

- Close proximity to farm stands and wineries in Suisun Valley as well as wineries further to the north in Napa Valley with Suisun City serving as a stopover destination for travelers on farm produce and wine tasting excursions.
- Recent engineering study indicates protective sea wall at the terminal end of the slough in the basin is in good shape and can withstand flooding scenarios of significant magnitude and duration to protect a limited area of Suisun City.
- City started a Climate and Environment Festival in 2021 and has committed to continuing it in 2022 because it provides an important means to educate residents about important issues and facilitate discussion on appropriate actions.
- Amtrak station within the city limits.
- High level of regional coordination with many organizations and agencies utilizing common datasets and working together to make informed decisions with respect to critical issues across Solano County and the larger Bay Area.
- Active yacht club and boating community located on the waterfront including kayaks and paddle boards.
- Relatively high number of local experts that are knowledgeable and involved with climate change and adaptive responses for the natural resources and municipality.
- Recognized and extraordinary physical and mental health benefits of the natural resources in Suisun City including the tree canopy, grasslands, creeks, slough, floodplains, wetlands, parks, and open spaces.
- Critical support and commitment by key NGOs and regulatory entities such as Sustainable Solano and San Francisco Bay Development and Conservation Commission to helping Suisun City and other municipalities in Solano County find meaningful solutions to current and future hazards.



(Credit: CBS News - 330-acre brushfire-Suisun City (2020))

## **Recommendations to Improve Resilience**

A common theme among workshop participants was the need to continue community-based planning efforts focused on developing adaptive measures to reduce community vulnerability to extreme weather, climate change, and other common concerns raised. To that end, the workshop participants helped to identify several overarching priority themes requiring more immediate and/or ongoing attention including:

- **Long-term vision and growth** (i.e. sustainability, conservation, transportation, housing, water & waste management, vibrant local economy, regionalization);
- **Infrastructure improvements** (i.e. facilities improvements, green stormwater infrastructure & waste management systems, multi-modal transportation, levee flood protection system, waterfront/downtown);
- **Quality of life improvements** (i.e. housing, affordability, mobility, walkability, sustainability, open space/park quality & access, food availability/affordability, water security, demographic diversity, air quality, urban tree canopy);
- **Emergency management** (i.e. education, outreach, continuation of services, sheltering, jurisdictional constraints, vulnerable populations, wildfire management).

In direct response, the workshop participants developed the following priority and additional action list. Mitigation/adaptation actions from the City of Suisun City Local Hazard Mitigation Plan (2017) are provided in Appendix A for cross reference.

### **Priority Actions**

- Continue to access grants that advance resilience efforts in Suisun City including further protection against flooding, development of engineering plans for sea level rise mitigation, installation of “living levee” concepts, and flood-proofing critical pump stations, among other projects.
- Conduct a comprehensive assessment of current zoning regulations in hopes of identifying alternative approaches that could help reduce future risk from hazards such as “no-development” or exclusionary zones, overlay districts, and/or areas of managed realignment in high-risk areas of the community which would also help to create the space needed for installation of flood reducing infrastructure longer-term.

## Priority Actions (cont'd)

- Provide presentations to City Council in hopes of stimulating the adoption of policies that will drive strategic planning and subsequent dedication of funding to address risks of sea level rise and storm surge. Examine and incorporate approaches and methods being considered and used to manage flooding in prevalent cities around the Bay Area (i.e. Redwood City) and elsewhere.
- Secure funding and advance the development of a flood mitigation implementation and operations plan that identifies, prioritizes, and designs projects along with an implementation over next 10 years.
- Create an inventory and list of projects that could help to mitigate wildfire risk through the progressive management of open space within and adjoining Suisun City within the context of better understanding the influence of wind on intensity and magnitude of wildfire.
- Design and install prominent warning signage along roadways in flood prone areas to help build awareness amongst residents of issues related to sea level rise and flood risks.
- Continue to support the recently initiated Homeless Committee within the City that is helping to provide more attention and resources to homelessness prevention locally and at the regional level.
- Engage with homeless/unhoused population to explore alternatives to campfires in encampments which puts them and Suisun City at greater risk as well as creating devastating ecological impacts on the adjoining Suisun Marsh.
- Review, coordinate, and prioritize with neighboring communities and partners innovative solutions for living alongside Suisun Marsh such as “living levees” or horizontal levee and the beneficial reuse of dredged material.
- Initiate efforts to further protect Suisun Marsh through better coordination of agencies and organizations and encourage greater public access, education, and community engagement including additional educational signage (i.e. marsh ecology and sea level rise) at prominent locations such as the marsh near City Hall, build walkway near boat launch for greater access, school field trips with local experts, and promotion of critical research needs to better protect both people and the ecosystem.

## Priority Actions (cont'd)

- Learn from other communities about successful options to increase engagement and capacity building among residents such as resilience hubs and climate education academies.
- Look to initiate greater regional coordination at the county-scale with regularly reoccurring meetings where regional and local entities can gather, issues can be raised, and solutions can be discussed in the context of federal and state funding opportunities. Effort would help to elevate the needs of Solano County amongst other counties across the state of California.
- Engage and encourage scientists and other academic practitioners to examine how the Suisun Marsh can better protect communities such as Suisun City and Fairfield through socio-ecological focused research on marsh structure, configuration, hydrology, and morphology, among other attributes.



(Credit: romacollaborative.com)



(Credit: dailyrepublic.com)



(Credit: redfin.com)

## **Additional Actions**

- Create a community-based program designed to help inform the public and inspire residents to take actions such as public clean-up activities as well as providing education about natural hazards in schools and at community events (i.e. Climate and Environment Festival).
- Continue to gather resident advocates to help motivate City Council to address wild-fire hazards within and surrounding Suisun City.
- Work to ensure Suisun City is present and integrated into larger, more regional drinking water challenges and opportunities due to lack of immediate access to below ground freshwater resource as a result of positioning alongside Suisun Marsh.
- Explore the potential for using green stormwater infrastructure to reduce localized flooding and increase retention within pockets of marsh immediately adjacent to municipal facilities such as the marsh area near City Hall, Peytonia Slough Ecological Reserve, and other low lying, undeveloped areas near structures.
- Work towards attracting an affordable grocery store as well as establishing farmers markets within short walking distances for more residents in Suisun City.
- Continue to monitor the impacts of two habitat restoration projects – The Wings Landing Restoration (280 acres) and Hill Slough (700 acres) – on unexpected sedimentation patterns within the larger marsh system which is affecting hydrological flow and redirecting water into new channels and pathways.
- Explore opportunities for the beneficial use of dredged sediment from the City’s dredging operations to help elevate the marsh plain to stay ahead of projected sea level rise rates and maintain natural buffer or horizontal level to help protect Suisun City. Focus exploration on the future use of dredged materials at Pierce Island.
- Conduct investigations of the quality and condition of dredged materials at Pierce Island and elsewhere to determine the feasibility for beneficial reuse in the community for resilience related projects.
- Increase the education of city leadership regarding sea level rise projections, timeline, and the likely progression of impacts on Suisun City.
- Examine best practices and technical challenges for infrastructure improvements and realignment options given increasing risk from flooding and inundation from leading places, both locally and around the world, including the Netherlands, New Orleans, and Corte Madera.
- Increase efforts to flood-proof and secure the Suisun Pump Station.

## **Additional Actions (cont'd)**

- Identify a nature-based solutions ambassador to help elevate awareness and advance risk reducing projects from conception alongside residents to implementation on behalf of the community.
- Encourage use and improve access via all forms of transportation (i.e. bike and walking paths, roadways, etc.) to the Amtrak station in hopes of stimulating greater use by community members as well as attracting new businesses, transit-orientated housing, and more local employment opportunities.
- Strengthen partnerships between Suisun City and various local and state land managers to increase the effectiveness of the levees to accommodate sea level rise in lock step with protecting existing managed wetlands (i.e. strengthen intersection of flood reduction and habitat management).
- Update emergency response plan to include sea level rise, groundwater rise, and increasingly concerning impacts and interactions with freshwater systems (i.e. Laurel Creek, etc.) in Suisun City.
- Open dialogue between duck club owners, private property owners, and governmental entities to identify ways Suisun Marsh can be used to protect adjoining homeowners.
- Explore with academic partners the interaction and collective impacts of wildfire and sea level rise on Suisun Marsh.
- Increase preparedness and response strategies to ensure wildfires burning in Suisun Marsh are contained as quickly as possible to help minimize ecological impacts to wildlife, recreational uses, and the health and integrity of the marsh complex.
- Look to raise up and celebrate the recreational benefit and appeal of several neglected regions such as the Peytonia Slough Ecological Reserve and public boat launch in hopes of drawing in more recreational users and encouraging sound stewardship.
- Educate residents about home renovation options that can increase structural resilience as well as ways to create rain gardens to help mitigate localized flooding on residential parcels.
- Look for ways to increase awareness amongst homeowners about the impacts of earthquakes, steps to take to help minimize impacts, and identification of appropriate levels of earthquake insurance.
- Continue to seek out ways to increase growth of the city's population along with supportive amenities and resources in ways that minimizes exiting and ongoing risks from recognized hazards.

## Additional Actions (cont'd)

- Identify and fund a technical review by an engineering firm and environmentally focused organizations of opportunities for installation of nature-based solutions across Suisun City to help reduce the current and projected long-term implications of flooding and inundation.
- Periodically conduct Community Resilience Building workshops and exercises to ensure Suisun City is providing a forum through which community members can co-create a more resilient, sustainable, and equitable future for their community via genuine and diverse collaboration. Ideally, conduct a CRB every five years in lock step with required update of City of Suisun City's Local Hazard Mitigation Plan.
- Focus resources and staff capacity on helping community members without housing or shelter relocate away from vulnerable shorelines in Suisun City to alternative locations and/or facilities.
- Look for ways to retain more compost and organic waste in Suisun City via community gardens, tree nurseries, and other beneficial engagements and programs.
- Determine the current tree canopy extent and condition and look to increase the number of trees along streets, in and around parking lots, in residential front and backyards, at municipal facilities, and in business parks/sites to help reduce the growing threat of rising temperatures and unhealthy air quality (i.e. urban heat island) across Suisun City.
- Explore opportunities to enhance the Fire Departments ability to manage wildfire and brushfire via better tools and equipment such as a wildland fire truck.
- Identify natural areas such as riparian zones, wetlands, and grasslands within Suisun City that would benefit from ecological restoration to increase their protective quality for residents such as flood storage and air temperature reductions.
- Engage the youth of Suisun City in resilience work as positive civic actions.



(Credit: Wikimedia.org)



## **CRB Workshop Participants: Department/Organization**

City of Suisun City - Office of the Mayor Pro Tem

City of Suisun City - Environment and Climate Committee

City of Suisun City - Planning Commission

City of Suisun City - Historic Waterfront Business Improvement District

City of Suisun City - Residents

Fairfield-Suisun Sewer District

Sustainable Solano

Sustainable Solano - Food Forest Keepers

Suisun Resource Conservation District

Solano Land Trust

Grizzly Water Kayaking

San Francisco Estuary Institute

University of California - Davis - Center for Watershed Science

University of California - Davis - Department of Wildlife and Conservation Biology

California Department of Fish & Wildlife

## **Suisun City CRB Core Project Team**

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## **Online CRB Workshop Facilitation Team**

The Nature Conservancy - Adam Whelchel, Ph.D. (Lead Facilitator)  
Sustainable Solano - Elena Karoulina (Local Host/Community Coordinator)  
BCDC - Jaclyn Mandoske (Small Group Facilitator)  
Sustainable Connecticut - Jessica LeClair (Small Group Facilitator)  
BCDC - Viktoria Kuehn (Alternate Small Group Facilitator)  
Sustainable Solano - Alex Lunine (Scribe/Scribe Coordinator)  
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Sustainable Solano - Marcus Lopez (Scribe)

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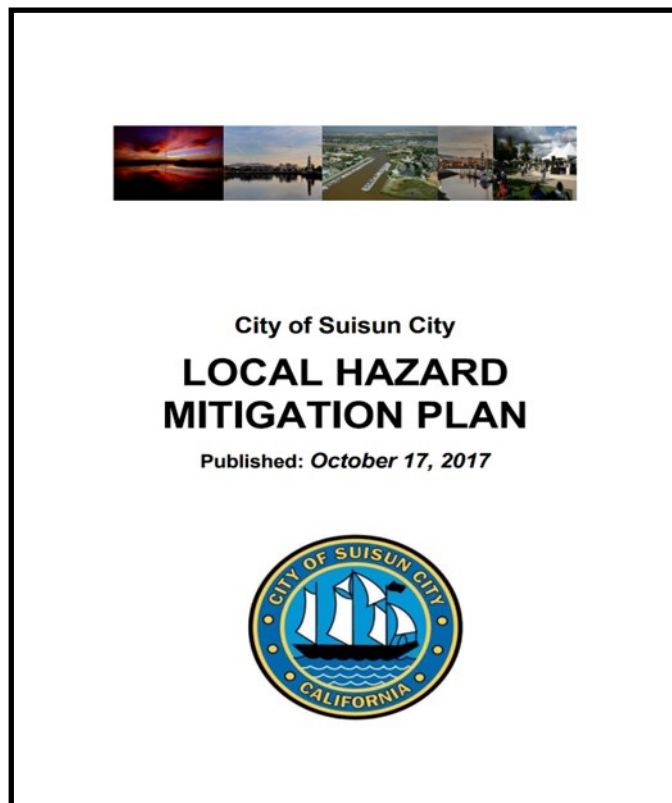
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**Appendix A**

**City of Suisun City**  
**Local Hazard Mitigation Plan**  
**(2017)**

**Mitigation Long Term Goals, Objectives, and Actions**  
**&**  
**Top Five Prioritized Mitigation Actions**



# Mitigation Long Term Goals, Objectives, and Actions

## ***Long Term Goals***

The City of Suisun City has developed the following Long Term Goals for their Hazard Mitigation Plan Program:

**Goal 1.** Promote Disaster-resistant future development.

**Goal 2.** Increase public understanding and support for effective hazard mitigation.

**Goal 3.** Build and support local support and commitment to become less vulnerable to hazards.

**Goal 4.** Enhance hazard mitigation coordination and communication with federal, state, local jurisdictions.

**Goal 5.** Reduce the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure, and City of Suisun City-owned facilities from the following high risks:

- Earthquake
- Flooding
- Hazardous Materials
- Transportation Hazards
- Wild land/Urban Interface Fire
- Severe Weather
- Utility Loss
- Water/Wastewater Disruption
- WMD/Terrorism

## ***Long Term Objectives & Actions***

The City of Suisun City developed the following broad list of objectives and actions to assist in the implementation of each of their identified goals. For selected objectives, specific actions were developed that would assist in their implementation.

Objective 1: Facilitate the development or updating of general plans and zoning ordinances to limit development in hazard areas.

Action 1 Update General Plan every 10 years.

Action 2 Attract and retain qualified, professional and experienced staff.

Action 3 Re-evaluate identified high hazard areas.

Objective 2: Continue facilitating the adoption of building codes that protect existing assets and restrict new development in hazard areas.

Action 1 Review Codes every 3 years.

Action 2 Support existing emergency review procedures for codes.

Objective 3: Continue facilitating consistent enforcement of general plans, zoning ordinances, and building codes.

Objective 4: Limit future development in hazardous areas

Action 1 Development should be in harmony with existing topography.

Action 2 Development patterns should respect environmental characteristics.

Action 3 Development should be limited in areas of known geologic hazards.

Objective 5: Review and re-evaluate identified data limitations regarding the lack of information about new development and build-out potential in hazard areas.

Objective 6: Continue promoting public understanding, support and demand for hazard mitigation for new developments.

Action 1 Gain public acceptance for avoidance policies in high hazard areas.

# Top Five Prioritized Mitigation Actions

Action Item #1: Develop the integral use of the Local Hazard Mitigation Plan by periodic review, maintenance and updating of the document. Incorporate appropriate updates into other City plans and documents such as the General Plan, Building Code, Zoning Ordinances, Site Plan Requirements and Disaster Emergency Response and Recovery Plans.

Coordinating Individual/Organization: City Staff and Departments. working together with stakeholder-members of other planning jurisdictions.

Potential Funding Source: FEMA Grants/General Funds for Planning Agencies & Jurisdictions.

Integration Timeline: Ongoing with periodic review

Action Item #2: Through review and experience, identify and publicize updated hazard mitigation actions through community education, forums and media. Include input from stakeholders and other agencies and jurisdictions, as appropriate, into the process.

Coordinating Individual/Organization: Hazard Mitigation Planning Team

Potential Funding Source: General Fund/Federal or State grants.

Integration Timeline: Ongoing with periodic review

Action Item #3: Stay informed of new standards and regulations in building requirements by working with County and State agencies tasked with their development. Use the information to update Building Codes and Land Use plans to reflect current requirements.

Coordinating Individual/Organization: Public Works and Building Department

Potential Funding Source: General Fund/Federal or State Grants.

Integration Timeline: Ongoing with periodic review

Action Item #4: Develop and compare existing standards for zoning and development with current state and county documents. Update local standards in zoning and development as necessary.

Coordinating Individual/Organization: Planning Division of Developmental Services Dept.

Potential Funding Source: General Fund/Federal or State Grants

Integration Timeline: Ongoing with periodic review

Action Item #5: Encourage the public to prepare for disasters by developing personal emergency response plans and by maintaining a 3-day preparedness kit for home and work. Do this through community forums, presentations and media.

Coordinating Individual/Organization: Fire/Police, Community Development

Potential Funding Source: General Fund/Federal or State grants

Integration Timeline: Ongoing

## Specific Goals and Objectives

Specific Goal 1: Increase **public understanding** and support for effective hazard mitigation.

Objective 1: Educate the public to increase awareness of hazards and opportunities for mitigation actions.

Action 1 - Publicize and encourage the adoption of appropriate hazard mitigation actions.

Action 2 - Provide information to the public on the Suisun City's website.

Action 3 - Gain public acceptance for avoidance policies in high hazard areas.

Specific Goal 2: Enhance **hazard mitigation coordination and communication** with federal, state, county and local-area jurisdictions.

Objective 1: Maintain close working relationships with state agencies, county departments and local-area jurisdictions and stakeholders.

Action 1 – Participate in and encourage multi-jurisdictional/multi-functional training and exercises to enhance hazard mitigation.

Objective 2: Encourage other organizations to incorporate hazard mitigation activities.

Action 1 - Leverage resources and expertise that will further hazard mitigation efforts.

Action 2 - Update the Suisun City's local hazard mitigation plan on a regular basis.

Action 3 - Maintain lasting partnerships through existing City organizations.

Action 4 - Maintain coordination, communication and cooperation with the State in administering recovery programs.

Action 5 - Exchange resources and work with local and regional partners.

Specific Goal 3: Reduce the possibility of damage and losses to existing assets, including people, critical facilities/infrastructure, and public facilities due to **Earthquakes**.

Objective 1: Review and update the comprehensive approach to reducing the possibility of damage and losses due to earthquakes.

Action 1 – Review and update Building Codes to reflect current earthquake standards.

Action 2 – Host and organize community awareness meetings.

Action 3 - Distribute printed publications to the community concerning hazard mitigation.

Objective 2: Protect existing assets with the highest relative vulnerability to the effects of earthquakes.

Action 1 - Identify and catalog hazard-prone structures.

Action 2 – Stay attuned with studies of ground motion and liquefaction and how they apply to the community.

### Objective 3: Take the lead in continuing efforts to mitigate known earthquake hazards.

Action 1 - Identify new projects for pre-disaster mitigation funding.

Action 2 – Continue the ongoing public seismic risk assessment program.

Action 3 – Continue to collaborate with Federal, State, County and local agencies' mapping efforts.

### Objective 4: Continue to build data regarding and information with regard to the relative vulnerability of assets from earthquakes.

Action 1 – Evaluate the City's utility infrastructure with regard to earthquake risk, including public and private utilities.

Action 2 – Encouraging the public to prepare and maintain a 3-day preparedness kit for home and work for all hazards

Specific Goal 4: Implement programs to reduce the possibility of damage and losses to existing and future assets, including people, critical facilities/infrastructure, and public facilities due to damage and loss caused by **Flood**.

Specific Goal 5: Implement programs to reduce the possibility of damage and losses to existing and future assets, including people, critical facilities/infrastructure, and public facilities due to damage and loss caused by **Severe Weather Events**.

### Objective 1: Continue the comprehensive approach to reducing the possibility of damage and losses from severe weather events.

Action 1: Continue to mitigate potential loss by trimming and maintaining trees on city-owned and operated properties.

Action 2: Improve drainage systems and storm sewer inlets and outfalls in troubled-areas indicated by previous damage from severe weather events.

### Objective 2: Create and improve new efforts to mitigate damage and loss to the City from Severe Weather Events.

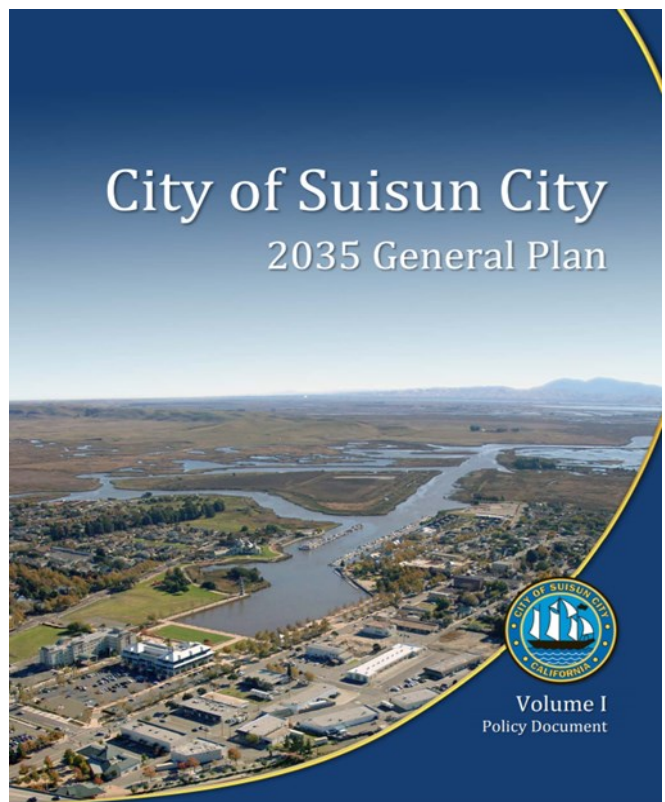
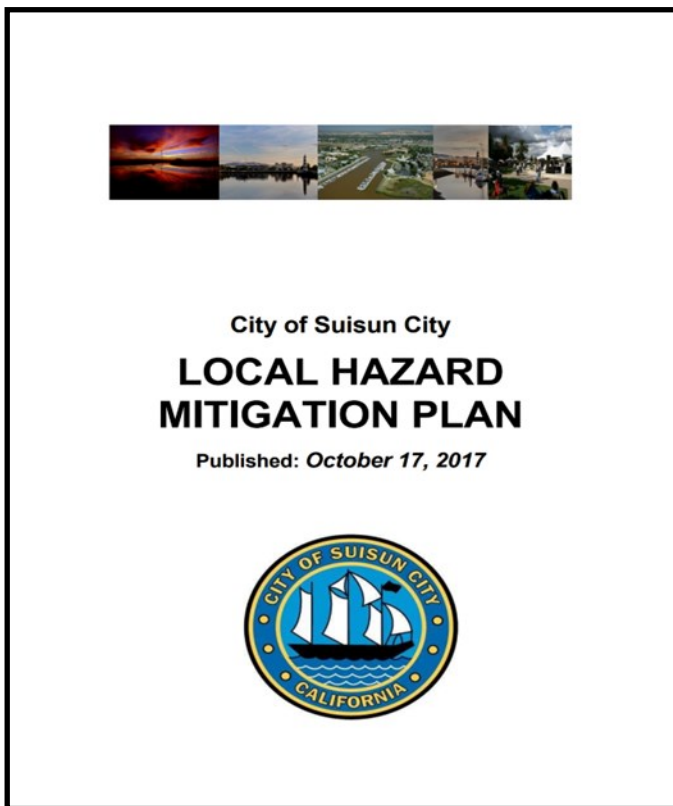
Action 1: Work with neighborhoods at the grass roots level in devising ways to keep storm runoff from causing damage by keeping drains and run-off channels clear.

Action 2: Respond to citizens' reports of potential utility interruptions with regard to trees and power/telephone lines proximities.



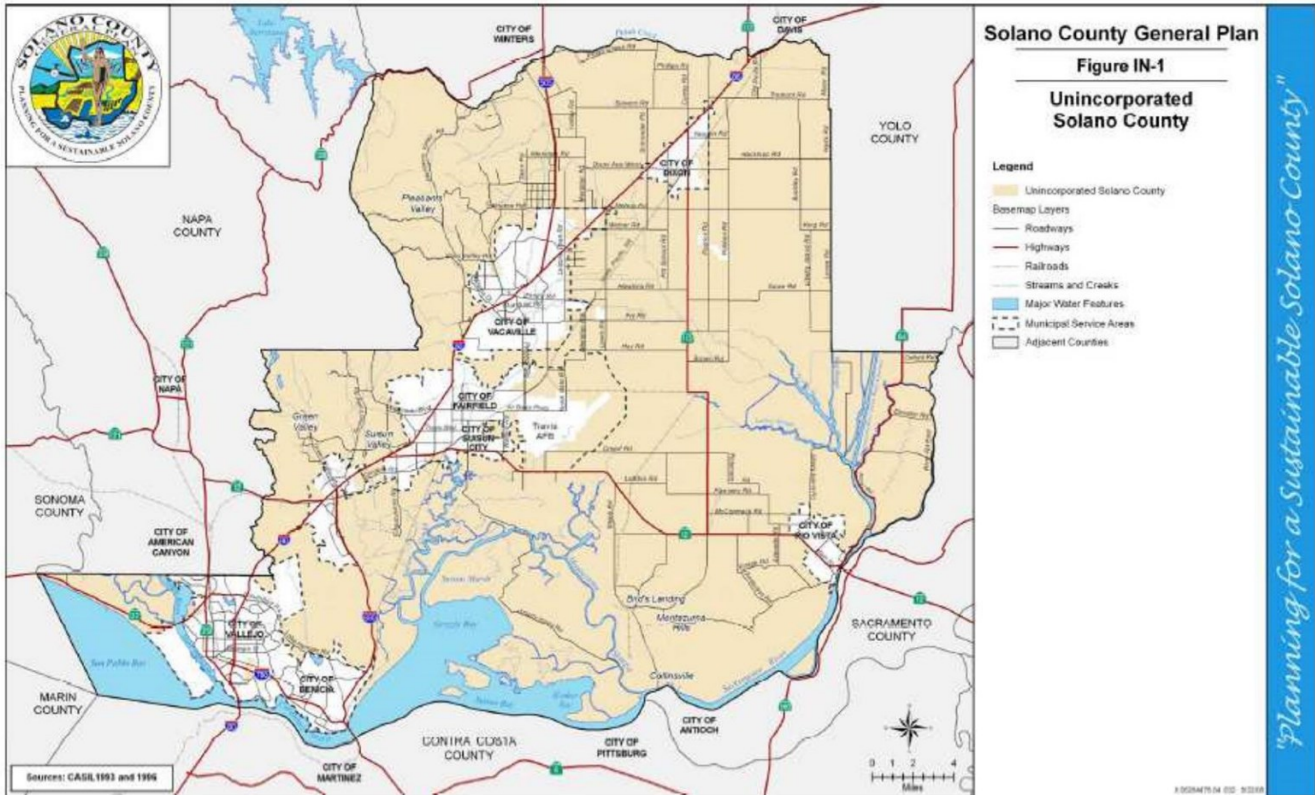
# Appendix B

## City of Suisun City Community Resilience Building Workshop Map Resource Packet\* Used During Workshop

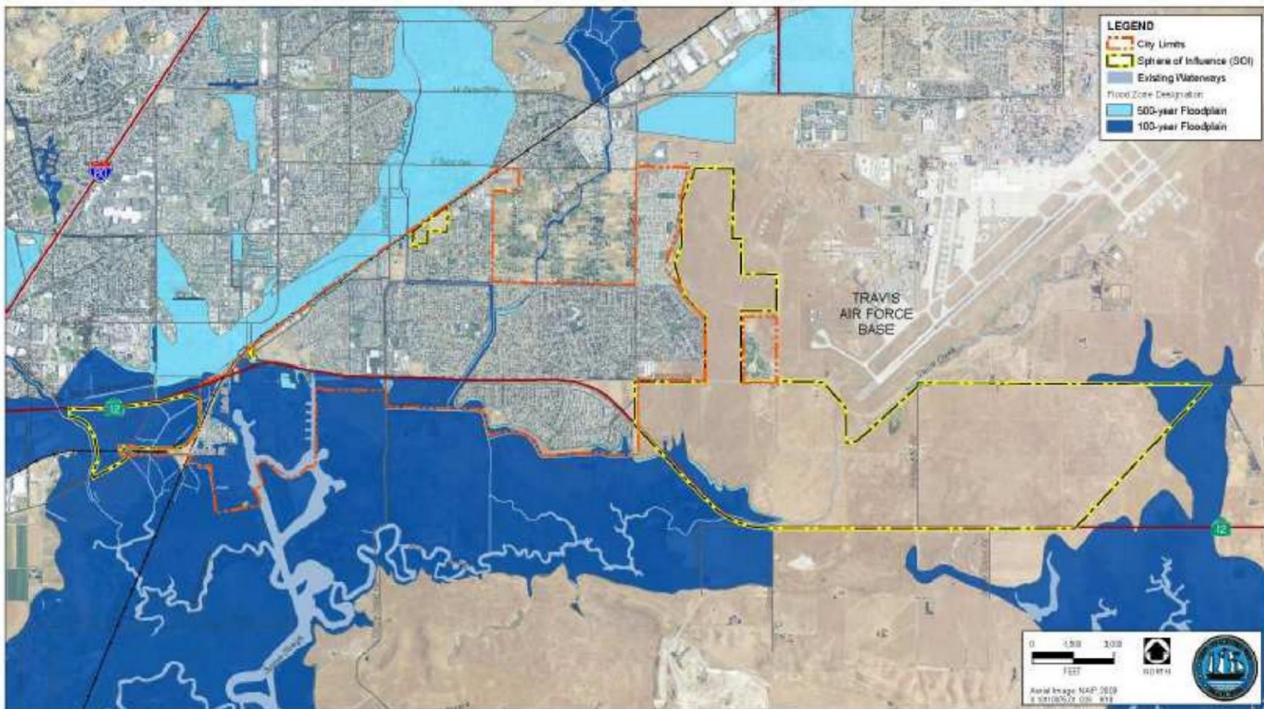


**\*Maps Gathered from City of Suisun Local Hazard Mitigation Plan (2017), City of Suisun City General Plan 2035 (2015), and from the San Francisco Bay Development and Conservation Commissions Adapting to the Rising Tides.**

**City of Suisun City  
Local Hazard Mitigation Plan**



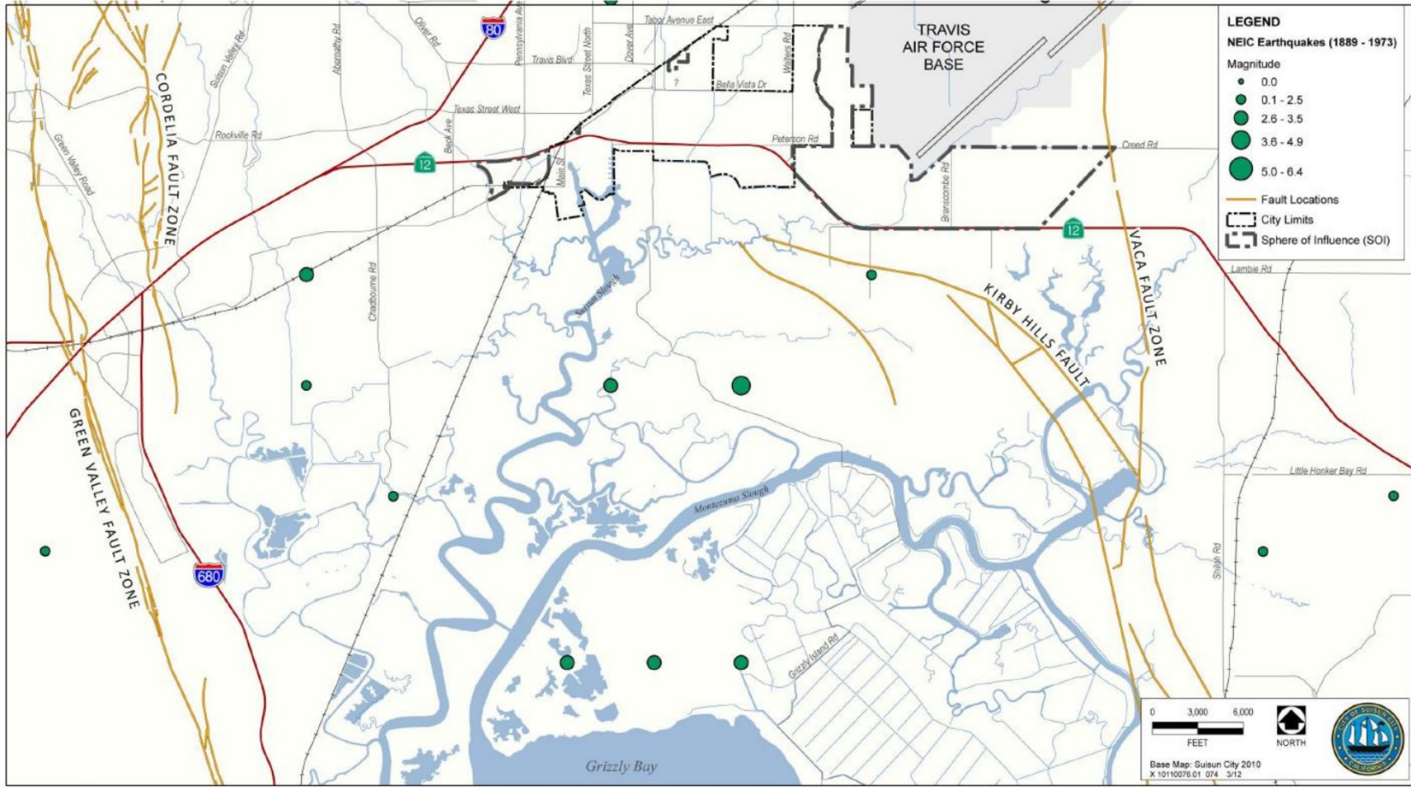
**City of Suisun City  
Local Hazard Mitigation Plan**



Source: FEMA 2010  
Exhibit HWQ-2

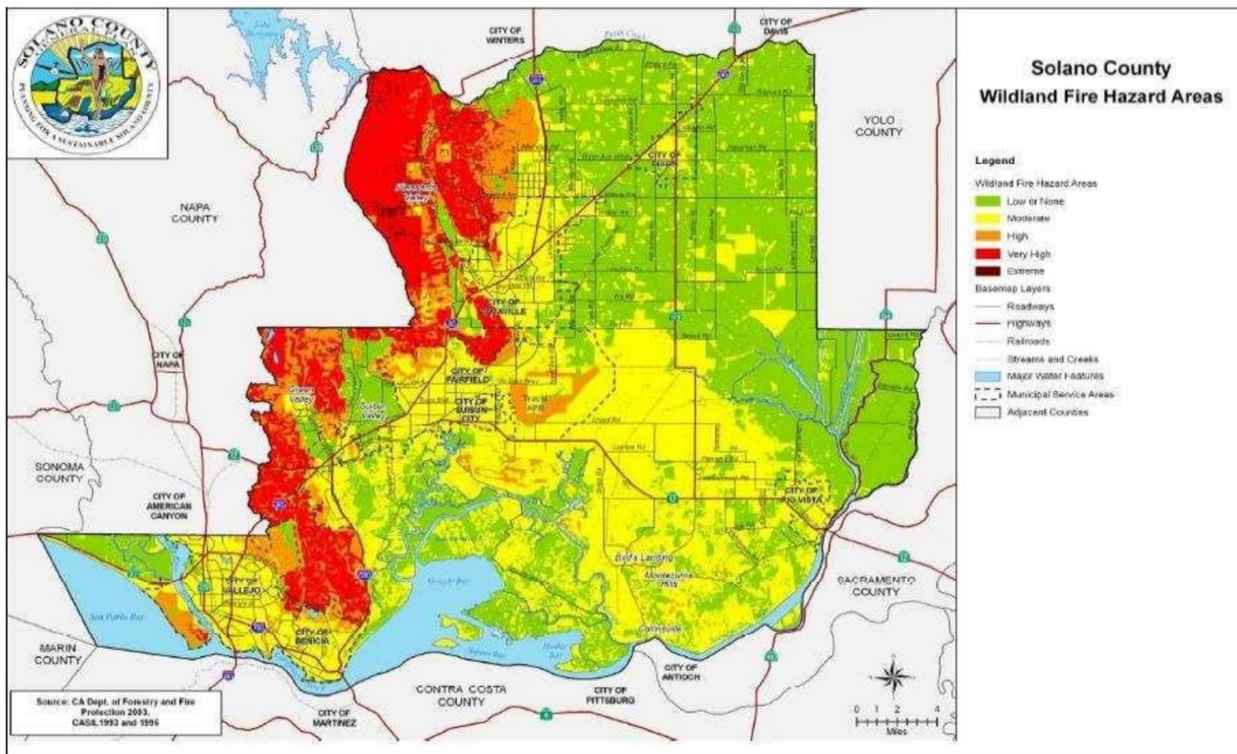
100 & 500 Year Flood Plain for Suisun City

**City of Suisun City  
Local Hazard Mitigation Plan**

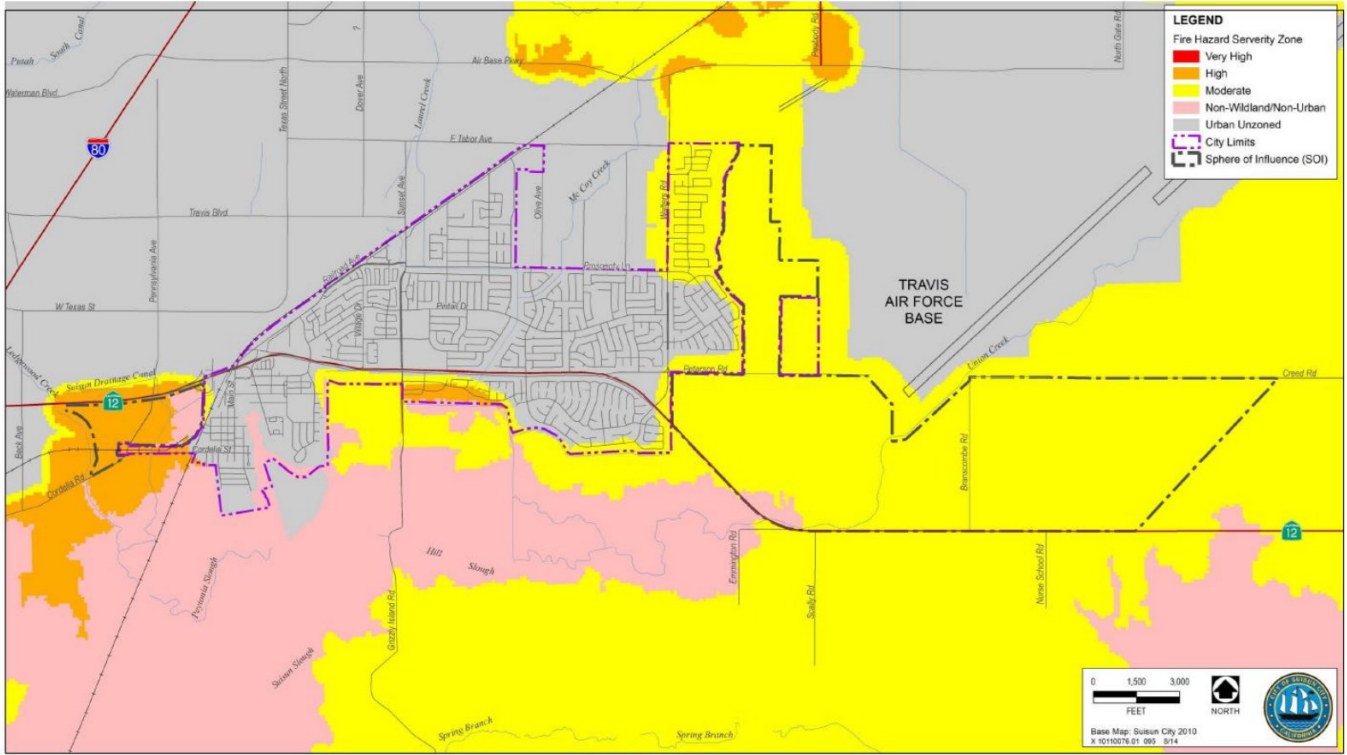


Regional Seismicity for Suisun City

**City of Suisun City  
Local Hazard Mitigation Plan**

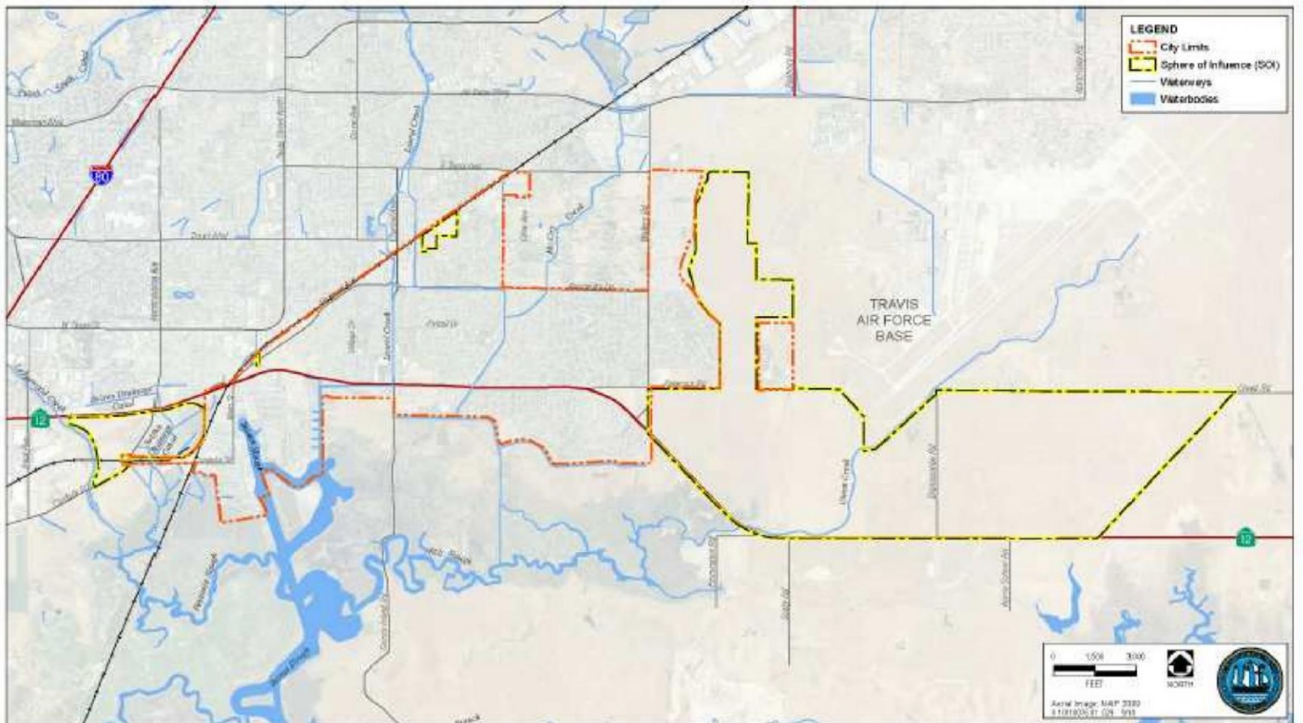


**City of Suisun City  
Local Hazard Mitigation Plan**



Wild Fire Risk for Suisun City

**City of Suisun City  
Local Hazard Mitigation Plan**



Source: Solano County 2007  
Exhibit HWQ-1

Water Bodies

Water Bodies in Suisun City Vicinity

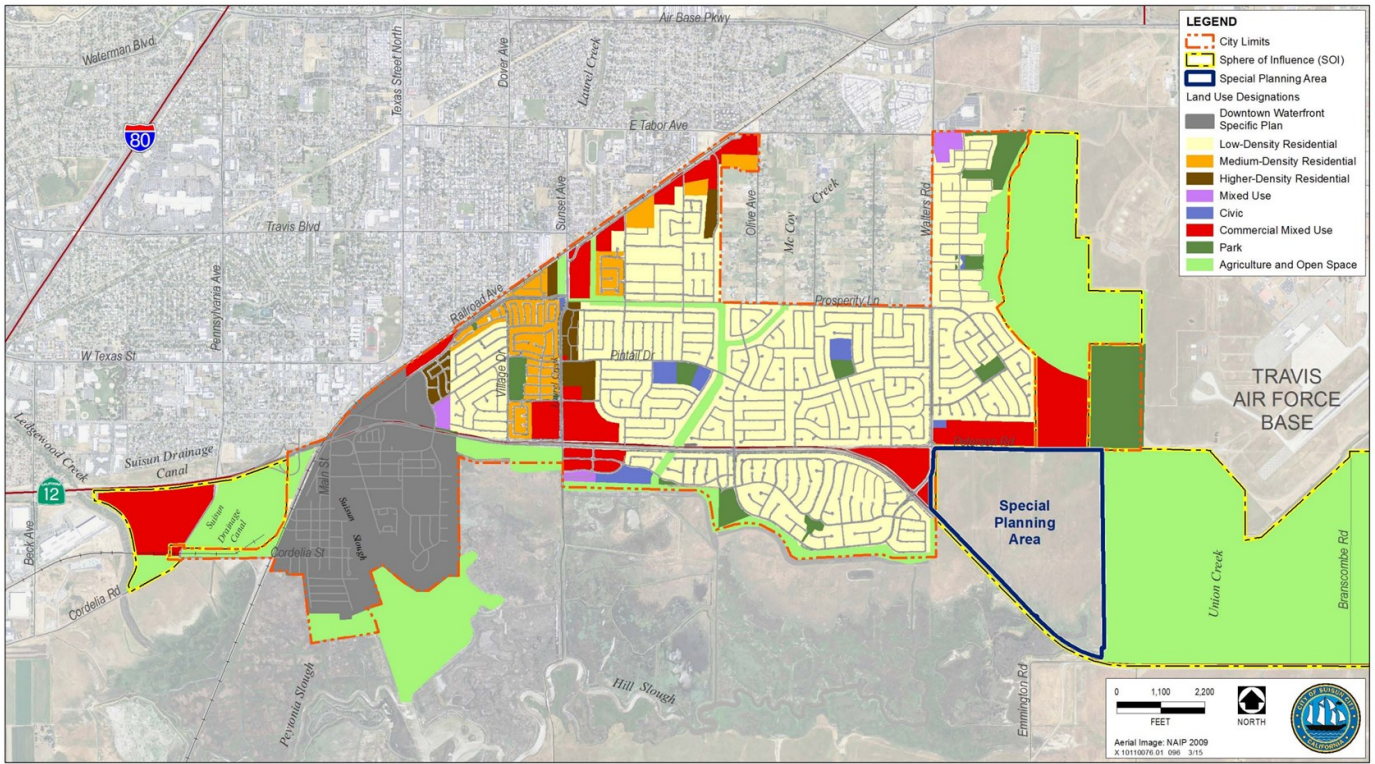
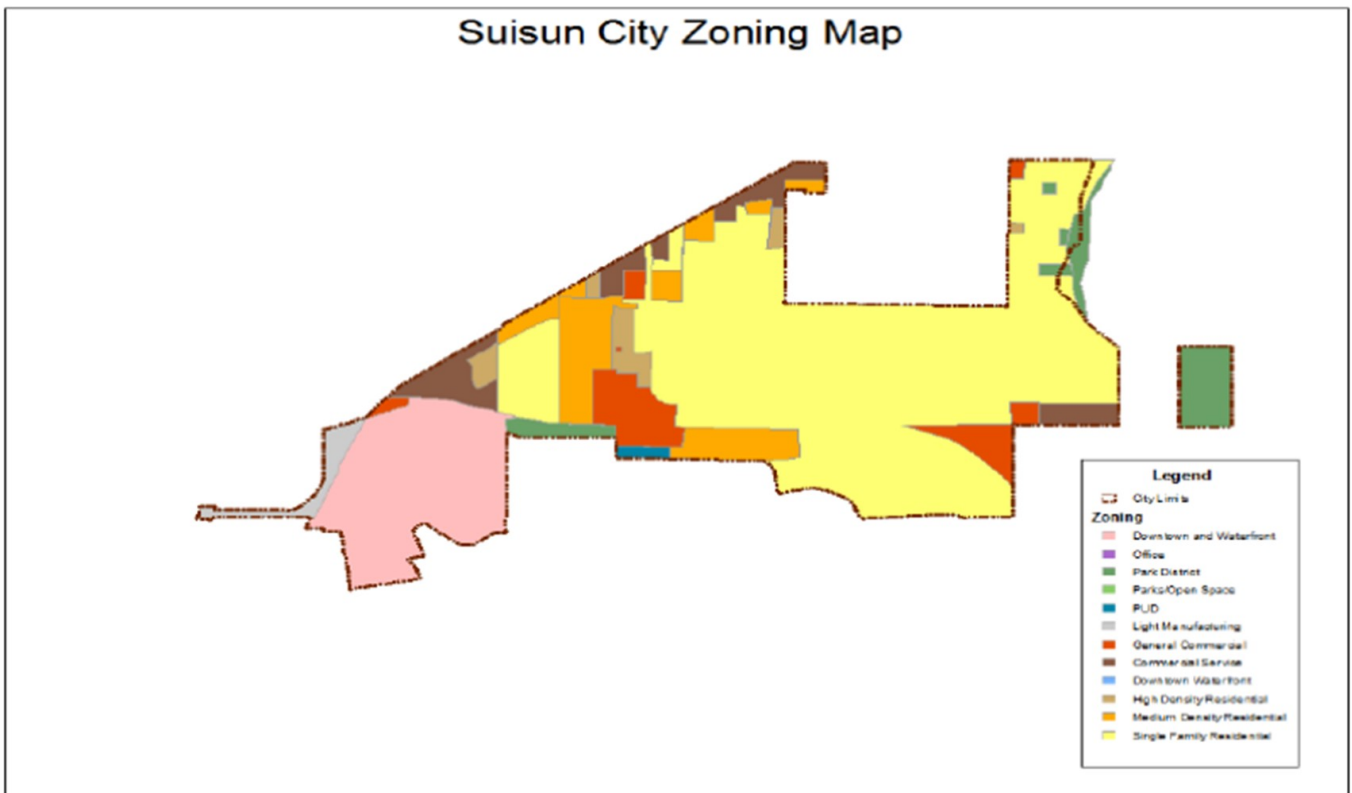
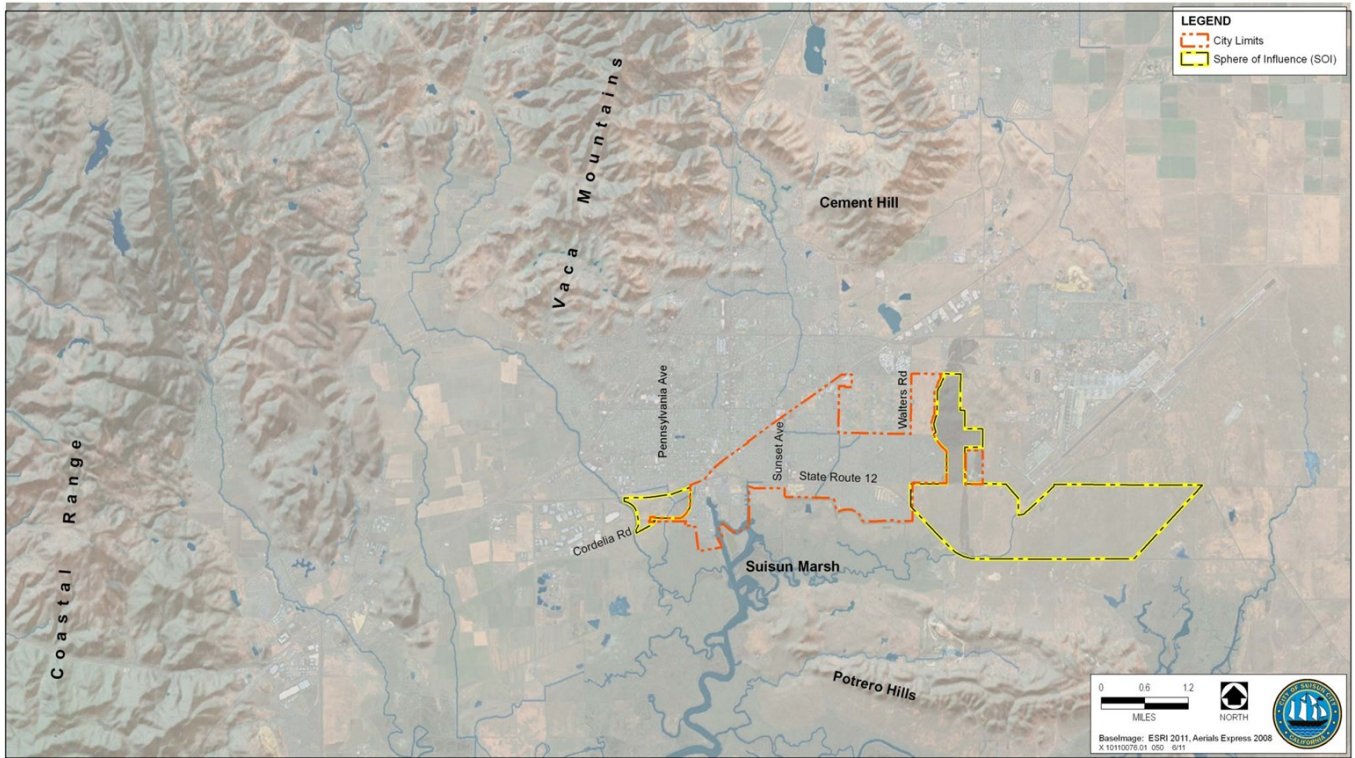


Exhibit 3-3

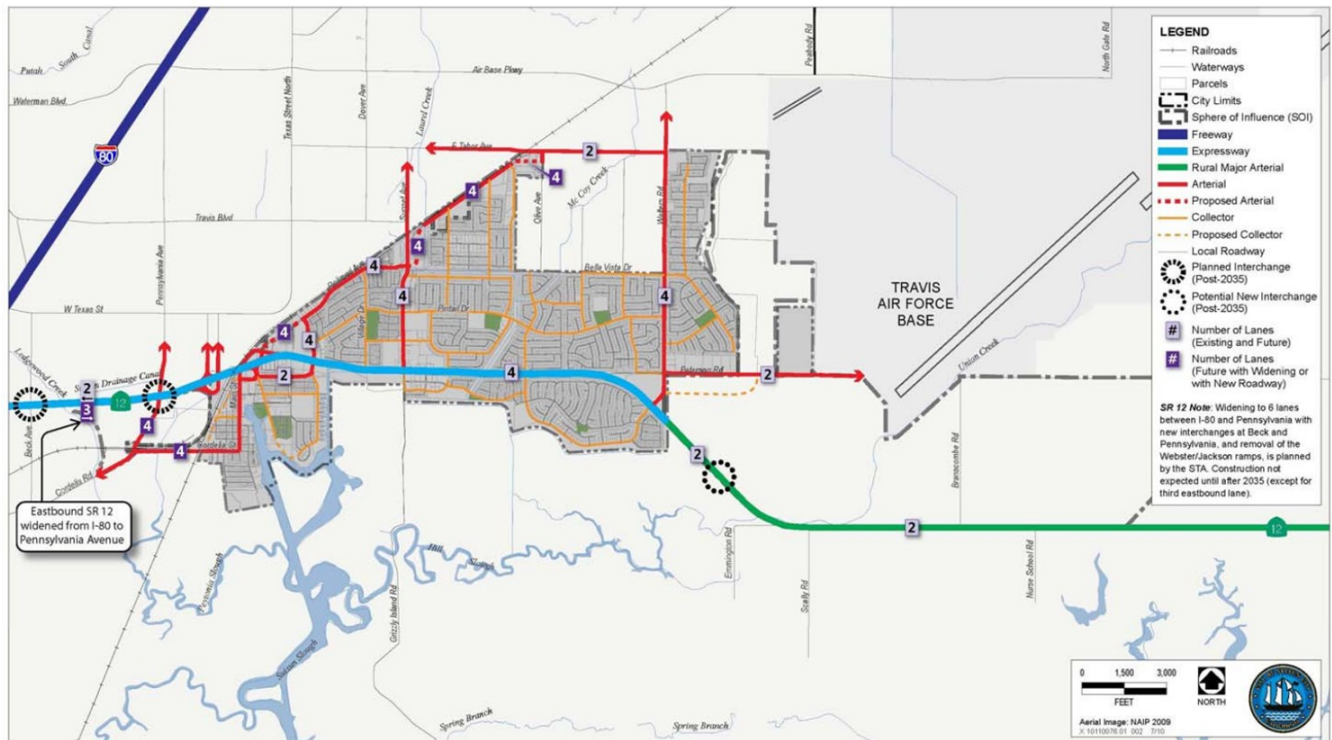
Land Use Diagram





Source: Suisun City 2011  
Exhibit 2-9

Scenic Resources



Source: Suisun City 2012.  
Exhibit 4-4

Vehicular Transportation Diagram





(Credit: Sustainable Solano)



(Credit: Aleta George)



[www.CommunityResilienceBuilding.org](http://www.CommunityResilienceBuilding.org)