

Introduction

The Safety portion of the General Plan is aimed at reducing potential risk of death, injuries, damage to property, and the economic and social dislocation resulting from fire, flood, and geologic hazards, and other public health and safety hazards. The General Plan provides policies and standards for the type, location, intensity and design of development in areas of potential hazards. The intent is not to remove all risks associated with each specific type of hazard, but to reduce risks to life and property and to make informed decisions about land use and development near these hazards.



San Rafael police at work on Fourth Street.

GOAL 30: A SAFE COMMUNITY

It is the goal of San Rafael, as the first priority for city government, to provide excellent fire, public safety and paramedic services and to be prepared in the case of disaster or emergency. *San Rafael residents deserve to feel safe and secure wherever they live, work and play.*

General

S-1. Location of Future Development.

Permit development only in those areas where potential danger to the health, safety, and welfare of the residents of the community can be adequately mitigated.

S-1a. Entitlement Process. Through the entitlement process, evaluate applications for geoseismic and hazardous materials dangers and require appropriate mitigations.

Responsibility: Community Development, Fire

Timeframe: Ongoing

Resources: Fees

S-2. Location of Public Improvements.

Avoid locating public improvements and utilities in areas with identified flood, geologic and/or soil hazards to avoid any extraordinary maintenance and operating expenses. When the location of public improvements and utilities in such areas cannot be avoided, effective mitigation measures will be implemented.

See S-1a (Entitlement Process).

S-3. Use of Hazard Maps in Development Review.

Review Slope Stability, Seismic Hazard, and Flood Hazard Maps at the time a development is proposed. Undertake appropriate studies to assure identification and implementation of mitigation measures for identified hazards.

See S-1a (Entitlement Process).

Geologic and Seismic Safety

Significant geologic and seismic hazards that exist within the San Rafael Planning Area include earthquakes, liquefaction, flow failures, lateral spreading, lurching, differential settlement, landslides, mudslides, subsidence and expansive soil. These hazards have the potential to damage or destroy residences, streets and utilities.

Certain geologic hazards, such as liquefaction, expansive soils or small landslides, may be reduced or eliminated through engineering solutions such as special foundations or slide repair. In some instances, an engineering solution may not be economically feasible, and avoidance of the hazard may be the best way to assure public health and safety. High occupancy and emergency response facilities may not be appropriate in areas of high seismic or geologic hazard.

Geologic and seismic hazards should be considered in planning the location, design, intensity, density and type of land uses in a given area. Long term costs to the City, such as maintenance, liability exposure and emergency services, are potentially greater where high hazards exist.

S-4. Geotechnical Review.

Continue to require geotechnical investigations for development proposals as set forth in the City's Geotechnical Review Matrix (Appendix F). Such studies should determine the actual extent of geotechnical hazards, optimum design for structures, the advisability of special structural requirements, and the feasibility and desirability of a proposed facility in a specified location.

S-4a. Geotechnical Review of Proposed Development. Require soils and geologic peer review of development proposals in accordance with the Geotechnical Review Matrix to assess such hazards as potential seismic hazards, liquefaction, landsliding, mudsliding, erosion, sedimentation and settlement in order to determine if these hazards can be adequately mitigated. Levels of exposure to seismic risk for land uses and structures are also outlined in the Geotechnical Review Matrix, which shall be considered in conjunction with development review.

Responsibility: Community Development
Timeframe: Ongoing
Resources: Fees

S-4b. Geotechnical Review Matrix. Periodically review and update the Geotechnical Review Matrix, which describes procedures for site-specific investigations for projects being reviewed according to proposed occupancy, type and hazard zone(s) within which the site is located.

Responsibility: Community Development
Timeframe: Ongoing
Resources: Staff Time

S-5. Minimize Potential Effects of Geological Hazards.

Development proposed within areas of potential geological hazards shall not be endangered by, nor contribute to, the hazardous conditions on the site or on adjoining properties. Development in areas subject to soils and geologic hazards shall incorporate adequate mitigation measures. The City will only approve new development in areas of identified hazard if such hazard can be appropriately mitigated.

See LU-2a (Development Review).

S-6. Seismic Safety of New Buildings.

Design and construct all new buildings to resist stresses produced by earthquakes. The minimum level of seismic design shall be in accordance with the most recently adopted building code as required by State law.

S-6a. Seismic Design. The minimum seismic design of structures should be in accordance with the building code, as adopted in accordance with State law.

Responsibility: Community Development

Timeframe: Ongoing

Resources: Permit Fee

See CA-14a (Historic Building Codes).

S-7. Minimize Potential Effects of Landslides.

Development proposed in areas with existing landslides or with the potential for landslides (as identified by a registered engineering geologist or geotechnical engineer) shall not be endangered by, nor contribute to, the hazardous conditions on the site or on adjoining properties. Development in areas subject to landslide hazards shall incorporate adequate mitigation measures that have a design factor of safety of at least 1.5 for static conditions and 1.0 for pseudo-static (earthquake) conditions. The landslide mitigation should consider multiple options in order to reduce the secondary impacts (loss of vegetation, site grading, traffic, visual) associated with landslide mitigation. The City will only approve new development in areas of identified landslide hazard if such hazard can be appropriately mitigated.

See S-4a (Geotechnical Review of Proposed Development).

S-8. Seismic Safety of Existing Buildings.

Encourage the rehabilitation or elimination of structures susceptible to collapse or failure in an earthquake. Historic buildings shall be treated in accordance with the Historic Preservation Ordinance.

S-8a. Seismic Safety Building Reinforcement. Enforce State and local requirements for reinforcement of existing buildings.

Responsibility: Community Development

Timeframe: Ongoing

Resources: Staff Time

See CA-14c (Incentives).

S-9. Post Earthquake Inspections.

Require post-earthquake building inspections of critical facilities, and restrict entry into compromised structures. Inspections shall be conducted when the earthquake intensity is VII or higher per the Modified Mercalli Intensity Scale. Require inspections as necessary in conjunction with other non-city public agencies and private parties for structural integrity of water storage facilities, storm drainage structures, electrical transmission lines, major roadways, bridges, elevated freeways, levees, canal banks, and other important utilities and essential facilities.

S-9a. Inspection List. Identify a list of facilities that would be inspected after a major earthquake. The list shall identify City-owned essential or hazardous facilities as defined by Category 1 and 2 of Table 16-K of the Uniform Building Code, and shall prioritize the list for inspection scheduling purposes in case of an earthquake.

Responsibility: Community Development





Timeframe: Short term

Resources: Staff time




Geology and Stability










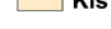

Surficial Deposits

-  Qaf Artificial fill
-  Qal Alluvial deposits
-  Qls Landslide deposits
-  Qmf Artificial fill over marine and marsh deposits

Tertiary overlap sequence

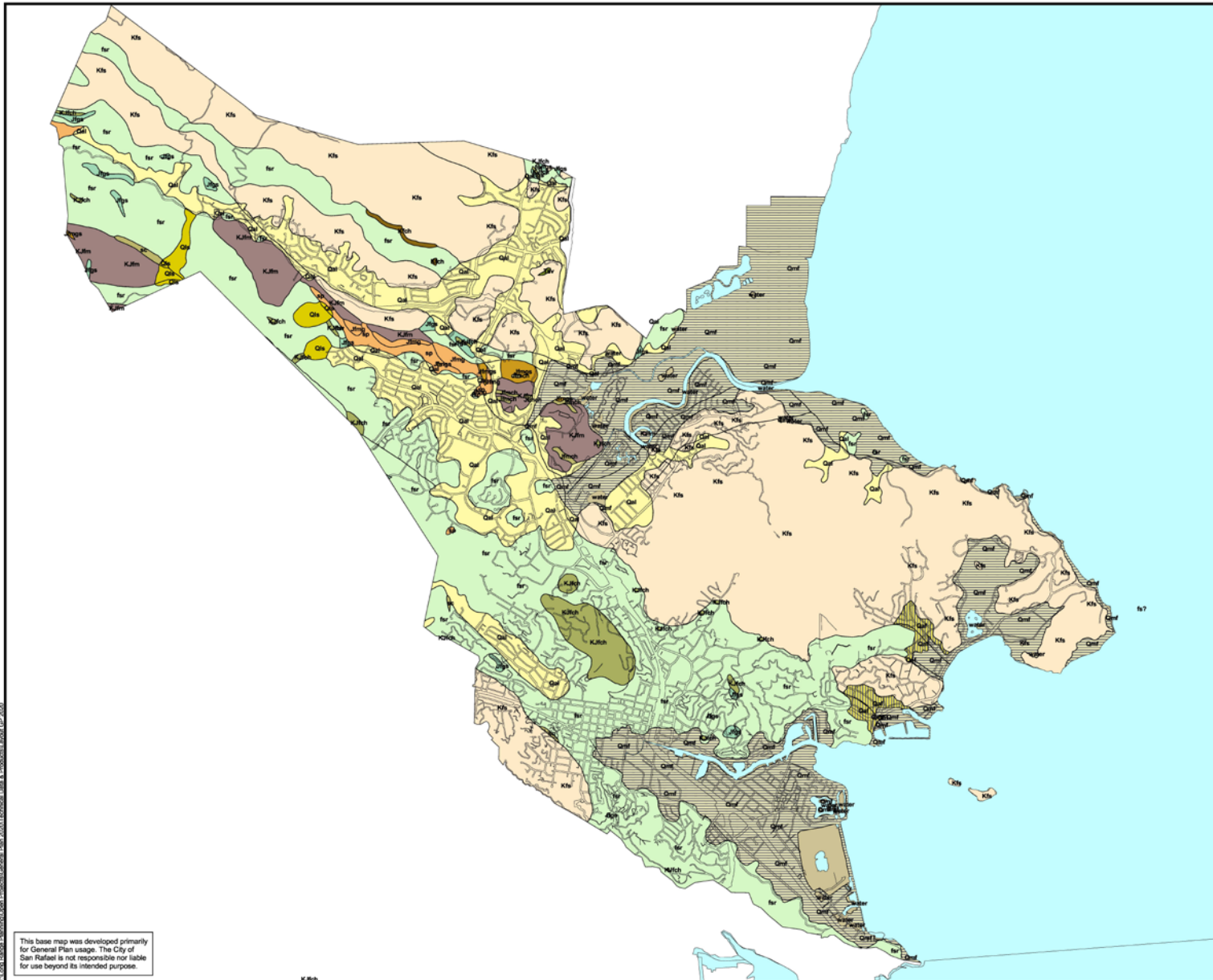
-  Tsv Sonoma Volcanics

Franciscan Complex

-  Jfgs Greenstone
-  Jfmch Metachert
-  Jfmgc Metagreenstone and Chert
-  Jfngs Metagreenstone
-  KJfch Chert
-  KJfm Metamorphic
-  Kfch Chert
-  Kfs Sandstone
-  fsr Melange
-  sc Silica-carbonate
-  sp Serpentine

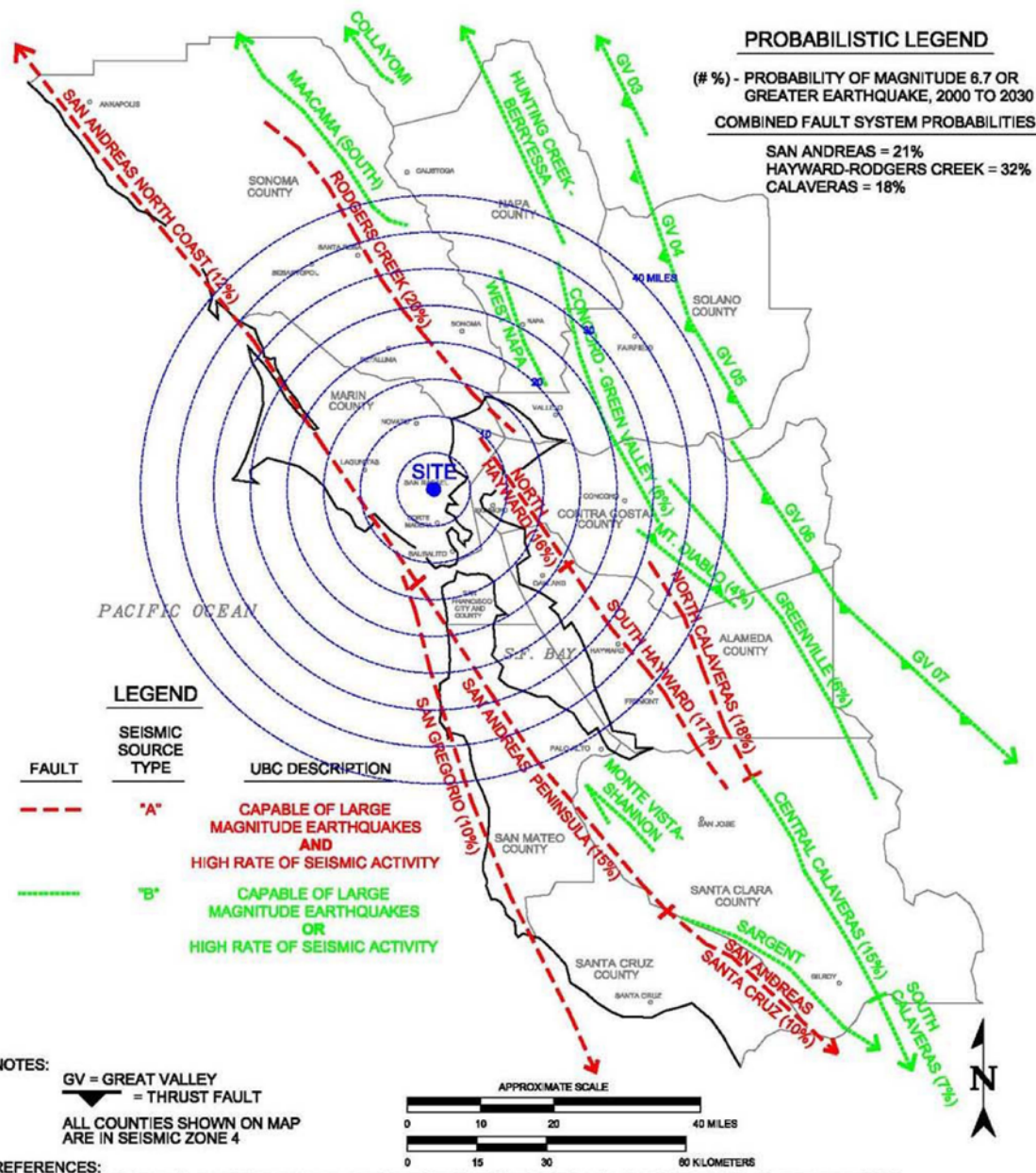
Source: USGS, 2000; map file MF2337

NOTE:
 Spatial resolution of original map data is 1:62,500. This map is intended to be of general use to engineers and land-use planners. However, its small scale does not provide sufficient detail for site development purposes. In addition, this map does not take the place of fault-rupture hazard zones designated by the California State Geologist (Hart and Bryant, 1997). For a more complete depiction of landslide distribution, see Nilsen and others (1979), Ellen and others (1988; 1997), Pike(1997), and Wentworth and others (1997).



This base map was developed primarily for General Plan usage. The City of San Rafael is not responsible nor liable for use beyond its intended purpose.

Active Regional Faults



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Hazardous Materials

Hazardous materials exist in San Rafael because they are used by businesses, transported on highways and streets, and are present in small quantities in private homes in the form of solvents, cleaning fluids and other substances. Although there are no hazardous waste (Class I) landfill sites in Marin County, such materials may be present in the Planning Area due to historic industrial uses, the types of material used to fill low lying sites for development, or due to materials deposited in dump sites prior to current regulations governing sanitary landfills. Being in the vicinity of sites with hazardous materials is an everyday experience for residents; they may be exposed through various ways including personal use and handling of hazardous materials, excavation of contaminated sites, and improperly disposed hazardous materials.

The City of San Rafael is authorized by the California State Environmental Protection Agency as a Certified Unified Program Agency (CUPA) for the administration, regulation, and enforcement of environmental programs that fall under the CUPA umbrella.

CUPA provides oversight on hazardous materials management and enforces State environmental programs at the local and regional level. CUPA collaborates with other regulatory agencies in the management of identified hazards to ensure safety standards are met.

The San Rafael Fire Department manages the Marin Household Hazardous Waste (HHW) Program for most cities in Marin County. The Fire Department, together with the Marin County Hazardous and Solid Waste Joint Powers Authority (Zero Waste Marin) and Marin Recycling & Resource Recovery Association, operate the Marin HHW Facility. Residents of San Rafael may bring paint, adhesives, motor oil, pesticides, household batteries, latex paint, computer monitors, televisions, and bleach cleaners to the facility free of charge. The Fire Department also assists businesses in determining actions needed to comply with State and Federal laws regarding storage and handling of hazardous materials on site. San Rafael businesses may dispose of small quantities of hazardous waste by appointment and for a fee.

“ C U P A ”

The **Unified Program** (UP) was created by Senate Bill 1082 (1993) to consolidate, coordinate, and make consistent the administrative requirements, permits, inspections, and enforcement activities for the following environmental and emergency management programs:

- Hazardous Materials Release Response Plans and Inventories (Business Plans)
- California Accidental Release Prevention (CalARP) Program
- Underground Storage Tank Program
- Aboveground Petroleum Storage Act Requirements for Spill Prevention, Control and Countermeasure (SPCC) Plans
- Hazardous Waste Generator and Onsite Hazardous Waste Treatment (tiered permitting) Programs
- California Uniform Fire Code: Hazardous Material Management Plans and Hazardous Material Inventory Statements

The Unified Program is intended to provide relief to businesses complying with the overlapping and sometimes conflicting requirements of formerly independently managed programs. The Unified Program is implemented at the local government level by a Certified Unified Program Agency (CUPA).

S-10. Location of Public Improvements.

To minimize threat to human health or any extraordinary construction and monitoring expenses, avoid locating improvements and utilities in areas with dangerous levels of identified hazardous materials. When the location of public improvements and utilities in such areas cannot feasibly be avoided, effective mitigation measures will be implemented.

See LU-2a (Development Review).

S-11. Restriction of Businesses.

Restrict siting of businesses or expansion of businesses that have the potential for a significant hazardous materials release within one-quarter mile of schools.

S-11a. Survey of Facilities. Survey existing industrial facilities within one-quarter mile of the schools. The survey would be used to determine the presence of hazardous materials and evaluate the risk of an accidental release that could adversely affect the health and safety of students and school staff.

Responsibility: Community Development

Timeframe: Short term

Resources: Staff time

S-12. Use of Environmental Databases in Development Review.

When development is proposed, determine whether the site has been recorded as contaminated. Undertake appropriate studies to assure identification and implementation of mitigation measures for sites on or near identified hazards.

S-12a. Environmental Database. Maintain environmental and hazardous materials-related databases, and update information on an ongoing basis. In addition, include the information in the State GeoTracker database (database of contaminated Underground Storage Tanks sites).

Responsibility: CUPA

Timeframe: Ongoing

Resources: Staff Time

S-12b. Environmental History. Through the environmental review process, provide information about available environmental history of a site and proposed mitigation measures if warranted.

Responsibility: CUPA

Timeframe: Ongoing

Resources: Staff Time



CUPA is responsible for the safe disposal of hazardous materials.

S-13. Potential Hazardous Soils Conditions.

Where development is proposed on sites with known previous contamination, sites filled prior to 1974 or sites that were historically auto service, industrial or other land uses that may have involved hazardous materials, evaluate such sites for the presence of toxic or hazardous materials. The requirements for site-specific investigation are contained in the Geotechnical Review Matrix.

S-13a. Potentially Hazardous Soils Map. Prepare a map showing sites with known soil and groundwater contamination, in order to identify new developments that warrant environmental investigation and testing.

Responsibility: CUPA

Timeframe: Long Term

Resources: Staff Time

S-13b. Hazardous Soils Cleanup. Require remediation and cleanup in accordance with regional and local standards in order to develop on sites where hazardous materials have impacted soil or groundwater. At a minimum, remediation and clean up of contaminated sites shall be in accordance with regional and local standards. The required level of remediation and clean-up shall be determined by the Certified Unified Program Agency (CUPA) based on the intended use of the site and health risk to the public.

Responsibility: CUPA
Timeframe: Short Term
Resources: Staff Time

S-13c. Local Implementing Agency. The Certified Unified Program Agency (CUPA) shall oversee the investigation and closure of contaminated underground storage tank sites.

Responsibility: CUPA
Timeframe: Ongoing
Resources: Staff Time

S-14. Hazardous Materials Storage, Use and Disposal.

Enforce regulations regarding proper storage, use and disposal of hazardous materials to prevent leakage, potential explosions, fires, or the escape of harmful gases, and to prevent individually innocuous materials from combining to form hazardous substances, especially at the time of disposal.

S-14a. CUPA Program. Continue to participate in the CUPA program.

Responsibility: City Manager
Timeframe: Ongoing
Resources: Staff Time, Fees

S-15. Hazardous Waste Management.

Support measures to responsibly manage hazardous waste consistent with protection of the public health, welfare, safety and the environment. The City of San Rafael supports the Marin County Hazardous Waste Management Plan as adopted by the State, County and Cities within Marin County.

See S-14a (CUPA Program).

S-16. Transportation of Hazardous Materials.

Enforce Federal, State and Local requirements and standards regarding the transportation of hazardous materials. Support, as appropriate, legislation that strengthens safety requirements for the transportation of hazardous materials.

S-16a. Safe Transport of Hazardous Materials. Support California Highway Patrol's efforts to ensure the safe transport of hazardous materials.

Responsibility: Fire, Police, CUPA
Timeframe: Ongoing
Resources: Staff Time

Settlement

Settlement occurs from structures and other loads that cause deformation of the subsurface soils. Settlement from structures is usually minor and usually occurs during construction or within the first few weeks after construction. However, it can occur up to 30 years following construction.

Consolidation of the San Francisco Bay mud can result in significant settlement of the ground surface. Bay mud underlies the eastern portion of San Rafael. San Rafael's filled areas continue to consolidate and settle causing a variety of problems for property users and the City alike.

Flood Control, Subsidence and Erosion

Once the San Rafael Basin storm drain improvement projects are completed, they will nearly achieve the flood protection objectives set by the Department of Public Works over the last 50 years. However, subsidence of the areas underlain with bay mud will continue for several decades. Subsidence or settlement may result in flooding as ground levels are lowered. Without levee maintenance, flooding poses a serious threat to the east San Rafael area. Title 18 "Protection of Flood Hazard Areas" of San Rafael Municipal Code establishes standards and regulations governing development in flood-prone sites.

Sandy soils on moderate to steep slopes or clayey soils on steep slopes are susceptible to erosion when exposed to concentrated surface water flow. The potential for erosion is increased when established vegetation is disturbed or removed. Within the valley areas, stream and river flow erodes the banks and causes the location of the stream or river to meander. The erosion undercuts the stream banks and leads to slope instability. The natural erosion and stream meander can undermine structures or roadways and cause damage or collapse. The potential for erosion damage is limited to localized areas.

S-17. Flood Protection of New Development.

Design new development within the bay mud areas to minimum floor elevation that provides protection from potential impacts of flooding during the "100-year" flood. The final floor elevation (elevation of the first floor at completion of construction) shall account for the ultimate settlement of the site due to consolidation of the bay mud from existing and new loads, taking into account soils conditions and the type of structure proposed. Design for settlement over a 50-year period is typically considered sufficient.

S-17a. Title 18 Flood Protection Standards. Evaluate and revise the City's Title 18 flood protection standards for new development based on Federal and regional criteria.

Responsibility: Community Development

Timeframe: Ongoing

Resources: Fees

See LU-2a (Development Review).

S-18 Storm Drainage Improvements.

Require new development to improve local storm drainage facilities to accommodate site runoff anticipated from a "100-year" storm.

S-18a. Storm Drainage Improvements. Require that new development proposals which are likely to affect the limited capacity of downstream storm drainage facilities provide a

hydrological analysis of the storm drain basin of the proposed development and evaluate the capacity of existing downstream storm drainage facilities and fund improvements to accommodate increased drainage from the project site resulting from a 100-year storm, where practical.

Responsibility: Community Development



Timeframe: Ongoing

Resources: Fees



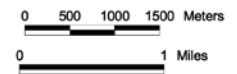
Funding from storm drain improvements come from the General Fund and Federal and State grants.

Flood Hazard Areas

-  Area of the 100 Year Flood
-  Areas Between Limits of the 100 Year Flood and the 500 Year Flood

This map is based upon the 1995 release of FEMA's digital Q3 Flood Data product and is a digital representation of certain features of FEMA's FIRM product.

Other areas of localized flooding not identified by the Federal Emergency Management Agency may also occur within the Planning Area. This map does not indicate changes effected by Letters of Map Revision (LOMR).



San Pablo Bay

San Rafael Bay

Map Data: Esri, DeLorme, GeoEye, Earthstar, United States Geological Survey, & Swirebird, Inc., © 2009

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S-19. Flood Control Improvements Funding.

Support Federal and State legislation that provide funding for the construction of flood control improvements in urbanized areas, and seek such funding as it becomes available. Additionally, continue to use any available local sources of funding to provide flood control improvements.

S-19a. Incremental Flood Control Improvements. Where needed and possible, new development/redevelopment projects shall include measures to improve area flood protection. Such measures would be identified and required through the development review process.

Responsibility: Community Development, Public Works

Timeframe: Ongoing

Resources: Fees

S-20. Levee Upgrading.

When waterfront properties are developed or redeveloped, require levee upgrading, as appropriate, based on anticipated high tide and flood conditions, to maintain an appropriate levee height.

S-20a. Levee Maintenance Funding. Coordinate with property owners to ensure adequate levee heights. Evaluate potential ways for affected private property owners to fund levee maintenance such as Assessment or Maintenance Districts.

Responsibility: Public Works Department

Timeframe: Ongoing

Resources: CIP, Federal funds (FEMA for emergency repairs), Mitigation Funds, Assessment District.

S-20b. Ground Elevation Surveys. Perform periodic ground elevation surveys within the Canal Neighborhood to determine ground elevations throughout the area, including the levee system. The result of the survey shall be used to determine the need for levee heightening for flood protection purposes. When a need for levee heightening is determined, the City shall heighten the levees as necessary on public property and require that levees on private property be heightened.

Responsibility: Public Works

Timeframe: Ongoing

Resources: Staff time

See LU-2a (Development Review).

S-21. Rise in Sea Level.

Support efforts to address rise in sea level by: a) continually monitoring changes in projection information, data and technology; b) utilizing the “Climate Adaptation – Sea Level Rise” San Rafael White Paper (January 2014) as a starting point for pursuing critical tasks and actions including the preparation of a vulnerability assessment; and c) coordinating with the County of Marin and other local, state, federal agencies in planning for long-term adaptation.

S-21a. Rise in Sea Level. (Deleted per Amendment on 12/5/16)

S-21a. Local Hazard Mitigation Plan. Prepare and adopt a local/multi-hazard mitigation plan, which includes addressing rise in sea level and measures for disaster preparedness and adaptation.

Responsibility: Fire Department

Timeframe: Short-term

Resources: Staff time; available grants

S-21b. Vulnerability Assessment- BayWAVE Program. Coordinate and work with the County of Marin and other local jurisdictions in the BayWAVE Program to prepare and adopt a vulnerability assessment of the bay shoreline and areas susceptible to rise in sea level.

Responsibility: Public Works and Community Development
Timeframe: Short-term
Resources: Staff time

S-22. Erosion.

Require appropriate control measures in areas susceptible to erosion, in conjunction with proposed development. Erosion control measures and management practices should conform to the most recent editions of the Regional Water Quality Control Board's *Erosion and Sediment Control Field Manual* and the Association of Bay Area Governments' *Manual of Standards for Erosion and Sediment Control* or equivalent.

S-22a. Erosion Control Programs. Review and approve erosion control programs for projects involving grading one acre or more or 5,000 square feet of built surface as required by Standard Urban Stormwater Management Plans (SUSUMP). Evaluate smaller projects on a case-by-case basis.

Responsibility: Public Works, Community Development
Timeframe: Ongoing
Resources: Fees

S-22b. Grading During the Wet Season. Discourage grading during the wet season and require that development projects implement adequate erosion and/or sediment control and runoff discharge measures.

Responsibility: Public Works, Community Development
Timeframe: Ongoing
Resources: Clean Water Program

S-23. Septic Systems.

Discourage the use of septic systems within San Rafael's Planning Area. If no other alternatives exist, then soil tests shall be required to determine if the on-site soils are suitable for development of a septic system for disposal of wastewater. In hillside areas, an evaluation of the additional water from a septic system on hillside stability shall also be required. New or improved septic systems shall be designed by a registered civil engineer that specializes in septic design.

See LU-2a (Development Review).

S-24. Creeks and Drainageways.

Seek to retain creek channels in their natural state in order to prevent undue erosion of creek banks. Protect creekside habitat and provide maintenance access along creeks where appropriate.

S-24a. Agency Permits. Through development review, consult with and require necessary permits from State and Federal resource agencies, such as U.S. Army Corps of Engineers, California Fish and Game, Bay Conservation and Development Commission, and the Regional Water Quality Control Board.

Responsibility: Community Development, Public Works
Timeframe: Ongoing
Resources: Fees

See CON-6a (Municipal Code Compliance) and CON-8a (Creek Restoration).

S-25. Regional Water Quality Control Board (RWQCB)

Requirements

Continue to work through the Marin County Stormwater Pollution Prevention Program to implement appropriate Watershed Management plans as dictated in the RWQCB general National Pollutant Discharge Elimination System permit for Marin County and the local stormwater plan.

S-25a. Compliance with RWQCB. Review development plans for compliance with RWQCB permit, in conjunction with Marin County Stormwater Pollution Prevention Program (MCSTOPP).

Responsibility: Public Works

Timeframe: Ongoing

Resources: Stormwater funds, Fees

Public Safety and Emergency Response

Police Department

The mission of the San Rafael Police Department is to provide police services to the community, and to reduce crime and the fear of crime through the development of partnerships with the community it serves and other public and private agencies through the utilization of all available resources. Reductions in crime since 1988 have resulted from several proactive policing programs.

- Participation in the interdepartmental Health and Safety Coordinating Committee, with joint inspection teams investigating the health and safety conditions in San Rafael's residences.
- Creation of the award winning Mental Health Liaison Program, which is instrumental in assisting mentally-ill homeless who are repeat criminal violators to receive the treatment they need to live a crime-free life.
- Partnership with social service agencies to investigate the criminal aspect of criminal violence, while other agencies provide advocacy for victims of domestic violence and counseling for anger management.
- Neighborhood outreach to community groups to improve traffic safety and reduce traffic accidents through monitoring and reducing speeding on local streets, and participating in Public Works' Traffic Coordinating Committee to identify and reduce neighborhood traffic problems.
- Improved School Liaison Program to reduce and prevent crimes on school campuses.
- Continued monitoring of gang activity and partnerships with community organizations to provide alternative activities for youth.

Policing programs involve continually building on the Department's Community Policing strategy, which is the foundation for the department's direction and long-term goals. The "Commitment to Community" which appears on all patrol cars, the department website, and more direct public contact with officers are direct results of this strategy.

Fire Department

The mission of the San Rafael Fire Department is to ensure the safety, health and well-being of all individuals, property, and the environment through a comprehensive range of programs designed to respond to threats from fire, illness and injury, environmental hazards and natural disasters. The Department is responsive to the community's growing needs through its programs for Community Fire Servicing, Emergency Response, Fire Prevention, Disaster Preparedness and Environmental Services. The San Rafael Fire Department recently completed a "Standard of Cover Plan" to identify appropriate response times and the number of personnel required to mitigate an emergency, and to provide an overall risk assessment of fire in San Rafael.

Because of the Fire Department's effectiveness in adopting and implementing firesafe construction, the volume of fire-related calls has declined dramatically over the years; calls for emergency medical service total 70 to 80 percent of calls for service. With the aging of San Rafael's population over the next decade, calls for paramedic service will increase, as will the cost and expectations of service. The Fire Department is committed to providing quality, accessible and cost-effective paramedic care in response to changing needs.

The City has prepared a number of studies and regulations related to wildland safety. The Fire Department's recent study *Wildland Urban Intermix Threat Analysis* evaluated safety issues related to wildland fires in San Rafael's hillside areas. A *Fire Management Plan*, which includes a Transportation and Evacuation Plan component, was prepared for each "High Hazard" area identified in the study. San Rafael's ISO rating is Class 3 (on a scale of 1 to 10, with 1 being the highest rating). Water supply received a relative classification of 1. Minimum roadway width requirements are set forth in the Fire Department's "Access Road Requirements," which are implemented as part of development review. In addition, required vegetation clearances around structures are addressed in the California Fire Code, as adopted by the City of San Rafael.

Disaster Preparedness

Emergency (disaster) preparedness planning consists of three major components: government actions, private organization emergency response actions, and individual or small group actions. Emergency preparedness planning recognizes that in the first 72-hours after a major disaster, people must be self-sufficient. Governments cannot provide all of the services that may be needed. Therefore, disaster preparedness involves planning efforts by local government, private organizations and local groups to identify resources, provide public awareness and formulate plans about what to do in an emergency situation. The Community Emergency Response Team (CERT) program offers training for neighbors to work together and to be self-sufficient during a major disaster.

S-26. Fire and Police Services.

Maintain adequate cost-effective fire protection, paramedic and police services. Minimize increases in service needs from new development through continued fire prevention and community policing programs.

S-26a. Public Safety Training. Provide and encourage public safety employee training to ensure team members' skills remain current. Encourage and support new employees to join programs, such as Urban Search and Rescue and disaster relief training programs (CERT).

Responsibility: Fire, Police, Public Works

Timeframe: Ongoing

Resources: Staff Time, Grants

S-26b. Vehicle and Equipment Maintenance. Maintain and upgrade vehicles and equipment as necessary.

Responsibility: Fire, Police, Public Works

Timeframe: Ongoing

Resources: Capital Improvements, Grants

S-26c. Fire Prevention and Safe Design. Through the development review process, require review by Fire Department and Police Department for fire prevention and safe design.

Responsibility: Fire, Police

Timeframe: Ongoing

Resources: Fees

S-27. Community Policing and Fire Service.

Actively promote Community Policing and Community Fire Servicing in order to facilitate closer relations between police and fire departments and neighborhood groups, businesses and residents.

S-27a. Restorative Justice Program. Develop a community-based restorative justice program, which would provide for alternative sentencing methods and a diversion program where offenders are accountable to the community. Cooperate with County authorities to review, identify and evaluate alternative sentencing methods to enhance the community.

Responsibility: Police

Timeframe: Ongoing

Resources: Staff Time, Grants, Fines

S-27b. Business Regulation. Maintain and adopt, as necessary, regulatory ordinances and regulatory procedures for businesses determined to be susceptible to criminal activities not otherwise regulated by Federal and State agencies, such as massage parlors.

Responsibility: Police

Timeframe: Ongoing

Resources: Fees

S-27c. Community Fire Servicing. Continue to provide health and fire safety outreach programs to community groups.

Responsibility: Fire

Timeframe: Ongoing

Resources: Staff Time



Community policing became a City philosophy in 1997.

What Is Restorative Justice?

Restorative justice is a response to crime that recognizes that criminal behavior injures victims and the entire community. It is a process that seeks to repair the harm caused by crime by involving victims and communities in the justice system through processes such as direct restitution, victim-offender mediation and policies that promote victims' rights.

S-28. Paramedic Services.

Continue to seek adequate and cost-effective ways to provide accessible and reasonable emergency medical services.

S-28a. Paramedic Tax. Continue to support the paramedic tax.

Responsibility: City Manager
Timeframe: Ongoing
Resources: Volunteers

S-28b. Partnerships for Prevention Programs.

Seek public and private partnerships, such as cooperating with hospitals and other public and private medical providers, to offer prevention programs and medical information.

Responsibility: Fire, Police
Timeframe: Long Term
Resources: Staff Time



San Rafael's paramedic services are funded in part by a paramedic tax.

S-29. Effective Communication System.

Ensure that all City agencies with public safety responsibilities are provided with effective, reliable and robust emergency communications systems and equipment. The system and equipment should have adequate capacity and redundancy to ensure these agencies can accomplish their missions. Appropriate consideration should also be given to the communications needs of agencies that may be required to supply mutual aid to or from other jurisdictions.

S-29a. Involvement with Marin Emergency Radio Authority. Maintain active involvement with Marin Emergency Radio Authority (MERA) and pursue installation and activation of the MERA radio system.

Responsibility: Fire, Police, Public Works
Timeframe: Ongoing
Resources: Staff Time

S-30. Maintenance and Landscaping for Fire Safety.

Encourage, where appropriate, special planting, removal and maintenance programs to reduce potential fire hazards in the hills, wildland areas and urban interface areas.

S-30a. Fire Hazard Maps. As part of the City's Fire Hazard Program, maintain maps identifying potential fire hazard areas in San Rafael.

Responsibility: Fire
Timeframe: Long Term
Resources: Staff Time, Grant

S-30b. Fire Protection Ordinance. Continue to implement Wildlife Urban Interface (WUI) standards within the Ordinance to reduce fire hazards in areas in the urban interface area.

Responsibility: Fire
Timeframe: Long Term
Resources: Staff Time

See OS-2 (Open Space Management).

S-31. New Development in Fire Hazard Areas.

Design new development located on or adjacent to natural hillsides to minimize fire hazards to life and property.

S-31a. New Development. Through the development review process, require appropriate mitigation measures such as fire preventive site design, landscaping and building materials, and the use of fire suppression techniques such as sprinklering.

Responsibility: Fire, Community Development

Timeframe: Ongoing

Resources: Fees

S-32. Safety Review of Development Projects.

Require crime prevention and fire prevention techniques in new development, including adequate access for emergency vehicles.

S-32a. Safe Buildings. Continue to review development applications to insure that landscaping, lighting, building siting and design, emergency access, adequate water pressure and peakload storage capacity, and building construction materials reduce the opportunity for crime and fire hazards.

Responsibility: Fire, Community Development, Police

Timeframe: Ongoing

Resources: Fees

See LU-2a (Development Review).

S-33. Disaster Preparedness Planning.

Ensure disaster preparedness in cooperation with other public agencies and appropriate public-interest organizations. Expand abilities of residents to assist in local responses to disasters.

S-33a. Disaster Preparedness Plan. Update and publicize the City's emergency response (disaster) plan in conformance with State guidelines.

Responsibility: Public Works

Timeframe: Ongoing

Resources: Staff Time

S-33b. Urban Search and Rescue Techniques. Continue to ensure that Urban Search and Rescue techniques remain current.

Responsibility: Fire, Public Works

Timeframe: Ongoing

Resources: Staff Time

S-33c. Neighborhood Disaster Preparedness. Continue to coordinate neighborhood disaster response preparedness planning efforts through Fire and Police Department programs and through coordination with the American Red Cross, American Heart Association and other community groups. Provide technical assistance as needed to review adequacy of neighborhood disaster plans.

Responsibility: Fire, Police

Timeframe: Ongoing

Resources: Staff Time

Disaster

A natural (i.e. flood, earthquake) or man-made (terrorist, chemical release) event that exceeds City capability to respond using normal resources.



Urban Search and Rescue teams train regularly.

S-33d. Standardized Emergency Management System. Continue to train City employees in the Standardized Emergency Management System offered by the Governor's Office of Emergency Services.

Responsibility: Fire, Public Works
Timeframe: Ongoing
Resources: Staff Time

See S-26a (Public Safety Training).

S-33e. Training of Citizen Police Academy and DART Graduates. Organize neighborhood teams of Citizen Police Academy and CERT graduates, and provide training on how to maintain public safety in their neighborhood during emergency situations.

Responsibility: Fire, Police
Timeframe: Ongoing
Resources: Staff Time



S-34. Emergency Operation Center.
Create a well-equipped Emergency Operation Center that is permanent and centrally located to coordinate emergency responses to emergencies.

S-34a. Emergency Operations Center. Determine the location of, and explore funding sources for a permanent and centrally located Emergency Operation Center as well as alternative emergency locations.

Responsibility: City Manager, Public Works
Timeframe: Long Term
Resources: Staff Time, Grants

S-35. Safety Personnel in Times of Emergency.
Make provisions to continue essential emergency public services during natural and other catastrophes.

S-35a. Employee Transportation. To ensure adequate safety personnel in an emergency, explore ways to transport public safety employees from outlying areas when damaged infrastructure prevents them from driving to San Rafael.

Responsibility: Fire, Public Works
Timeframe: Long Term
Resources: Staff Time

S-35b. Mutual Aid Agreements. Continue to explore the feasibility of mutual aid agreements that provide public safety personnel in times of emergency.

Responsibility: Fire, Police
Timeframe: Long Term
Resources: Staff Time

S-35c. Housing Incentives. Support State legislation and City initiatives that would provide incentives for public safety employees to live in San Rafael, so that they may be readily available if a disaster should occur.

Responsibility: City Manager
Timeframe: Long Term
Resources: Staff Time

Through Community Fire Servicing, the Fire Department reaches out to residents of all ages.

S-36. Emergency Connectors.

Pursue the development of local emergency connectors in the short-term and permanent roadway connections between Terra Linda and Downtown San Rafael. Seek adequate emergency connectors to all areas of San Rafael, and between San Rafael and adjacent communities.

EMERGENCY CONNECTORS

Emergency connectors are defined as routes available only for emergency vehicle use, as well as general circulation routes that are needed/important for emergency vehicle use.

S-36a. Emergency Connectors. Evaluate and improve the following emergency connectors in light of costs, effectiveness, and impacts:

1. Provide emergency street connectors throughout the City, including the existing connection between Freitas Parkway and Fawn Drive, the all-weather connection between Freitas and Fawn and between Ridgewood and Fawn, and the connection between Del Ganado and Butterfield Road;
2. Maintain the ability to use the private portion of Sienna Way in Dominican in case of emergency, as an alternative exit for Mountain View.
3. Maintain emergency access between Peacock and Biscayne Drives for emergency vehicle use only.

Responsibility: Fire, Public Works

Timeframe: Ongoing

Resources: Staff Time

See C-23a (Better Signage).

S-37. Functioning Public Utilities Following Earthquake.

Locate and construct vital public utilities as well as communication and transportation facilities in a way that maximizes their potential to remain functional during and after an earthquake.

S-37a. Engineering Standards. Continue to build public utilities to adopted engineering standards.

Responsibility: Community Development

Timeframe: Ongoing

Resources: Staff Time, Capital Improvements Program

S-38. Building Code and Fire Code Update.

Continue updating the Building and Fire Codes as necessary to address earthquake, fire and other hazards and support programs for the identification and abatement of existing hazardous structures.

S-38a. State Required Code Updates. Continue to adopt State-required code updates with provisions for public review and input.

Responsibility: Fire, Community Development

Timeframe: Short Term

Resources: Staff Time

S-39. Public Safety Facilities.

Ensure that public safety facilities are designed and constructed adequately to efficiently operate paramedic, fire and police services, including in times of disaster.

S-39a. Public Safety Facilities. Evaluate needed upgrades to public safety facilities, particularly seismic safety improvements, and seek funding mechanisms. In order to meet the existing and projected future needs of the San Rafael Police Department, the City will determine the department’s existing and project facility needs; obtain the necessary funding for the needed improvement; and, purchase, construct, and/or renovate the necessary additional facilities.

Responsibility: Fire, Police
Timeframe: Long Term
Resources: Staff Time

See I-2a (Long Term Needs).

S-40. Outreach.

Encourage educational outreach to promote awareness and caution among residents regarding disaster preparedness of possible natural hazards, including soil conditions, earthquakes, flooding, and fire hazards. Establish an outreach program, including establishing programs. Publicize disaster plans by neighborhood.

S-40a. City’s Website. Manage and update the Fire Department’s website to provide information and links to meet the fire servicing needs of the community.

Responsibility: Fire
Timeframe: Ongoing
Resources: Staff Time

S-40b. Enrollment in Training Programs.

Increase enrollment in the training programs for residents and neighborhood associations.

Responsibility: Fire
Timeframe: Long Term
Resources: Staff Time

S-40c. Neighborhood Educational Programs. Support educational programs, such as CERT and Citizen’s Police Academy in the neighborhoods.

Responsibility: Fire, Police
Timeframe: Ongoing
Resources: Staff Time



Police work as partners with the schools on educational programs.

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