

11 Community Services and Infrastructure

Introduction

The Community Services and Infrastructure Element addresses schools, libraries, law enforcement, fire and emergency medical services, water, sewer, storm drainage, solid waste, energy, and telecommunication facilities in San Rafael. While this element is not required by State law, it addresses systems that are vital to San Rafael's future. The city's prosperity is dependent on high-quality community services and efficiently operated, well maintained infrastructure.

This Element anticipates the impacts of potential growth on each service it covers, and includes goals, policies and programs to respond to current and future needs. The Element provides a brief summary of each topic area, including data and trends. Many of the services described are covered by independent system plans (sewer master plans, master facilities plans, etc.) that may be consulted for further detail. In addition, some of the services described here are provided by other agencies. The policies and programs express an intent to collaborate with the service providers, since the City's direct authority over these services is limited.

The City owns and maintains buildings that house public safety, public works, and administrative activities. It also owns and operates facilities to meet recreational and cultural needs. In addition, San Rafael is responsible for maintaining and managing public rights-of-way, including street surfaces, signals, curbs, gutters, sidewalks, street trees, landscape medians, signs, and streetlights. Some of these facilities are addressed in other elements of this Plan, including the Mobility Element, the Community Design and Preservation Element, and the Parks, Recreation and Open Space Element.

Funding for facility construction, modernization, and repair is addressed through the City's Capital Improvement Program (CIP). Government Code Section 65103(c) requires the CIP to be reviewed for consistency with the General Plan. The CIP is a major element of the City's budget. It includes fully funded projects as well as projects where funding is not yet available. Funding priorities are identified in the program; these priorities may change as new funding sources become available.

San Rafael uses a three-year period for capital improvements programming. The FY 2018-2021 CIP identified about \$35 million for new projects over this period. Major funding sources include the gas tax and Measure A/AA (for transportation projects), Measure A (for parks), the Stormwater Fund, and the Building Maintenance Fund. Other sources include grants, donations, assessment districts, local bond funds, and funds from development impact fees such as the Traffic Mitigation Fee. Because potential expenses typically exceed available revenues, some CIP projects may be deferred.

Schools

Goal CSI-1: Educational Excellence

Promote excellent schools and high-quality, equitable education.

The City will support school district and County Office of Education efforts to ensure access to quality education for everyone. San Rafael's schools will provide a safe, supportive, and collaborative learning environment that engages all students. Lifelong learning will be supported through adult education, literacy tutoring, career development, and technology courses.

The City of San Rafael recognizes the value of schools and education to the community. The City is committed to collaborating with local school districts to ensure that exceptional education is provided to all students. San Rafael is also committed to offering and supporting classes and programs that provide lifelong educational opportunities.

San Rafael is served by three school districts. Under the City Charter, San Rafael City Schools (SRCS) was created with a separate elementary school district and high school district. The elementary school district covers the southern part of the city, while the high school district covers the entire city. Both of these districts also encompass portions of unincorporated Marin County.¹ The elementary and high school districts are governed by the same five-member Board of Trustees.

A separate elementary-middle school district dating back to 1864 serves K-8 students in the northern part of the city and in nearby unincorporated Los Ranchitos, Lucas Valley, and Marinwood. Originally known as the Dixie School District, the district was renamed the Miller Creek School District (MCSD) in 2019. Students graduating from MCSD matriculate to Terra Linda High School, which is operated by SRCS.

The location of San Rafael's schools is shown in Figure 11-1. SRCS has a total of eleven K-8 properties, including seven elementary schools, one middle school, one K-8 school and two closed campuses. One of the two closed campuses (Old Gallinas) has been repurposed as a children's center. SRCS also operates three high schools (Grades 9-12). Two of these high schools (San Rafael High and Madrone Continuation School) share a campus in the Montecito area and the third (Terra Linda) is located in North San Rafael. MCSD has a total of three active K-5 elementary schools and one middle school. MCSD also owns three elementary schools that are leased to third parties and a fourth former school that includes the District's administrative offices.

Total enrollment for the 2018-19 school year was 4,614 for the SRCS elementary-middle schools, 2,640 for the SRCS high schools, and 1,982 for the MCSD. The total number of K-12 public school students was 9,235. This includes students residing in unincorporated San Rafael (e.g., Lucas Valley, Santa Venetia, etc.) as well as those in the City. It excludes Mark Day and Waldorf students, as well as those attending religious schools and other private schools. The 9,235 students represented 28 percent of the total K-12 public school population in Marin County.

San Rafael is also home to several K-12 private schools, enrolling about 1,800 students in 2019. The city is also home to Dominican University, also with about 1,800 students. The City of San Rafael itself also offers classes, including pre-kindergarten and adult education classes, as well as literacy and arts classes.

¹ The San Rafael City Schools Elementary School District also serves unincorporated neighborhoods, including Santa Venetia, Country Club, and Bayside Acres. It also serves San Quentin Village and a small portion of Larkspur. The High School District serves these areas and also serves Lucas Valley, Marinwood, and other parts of unincorporated Northern San Rafael.

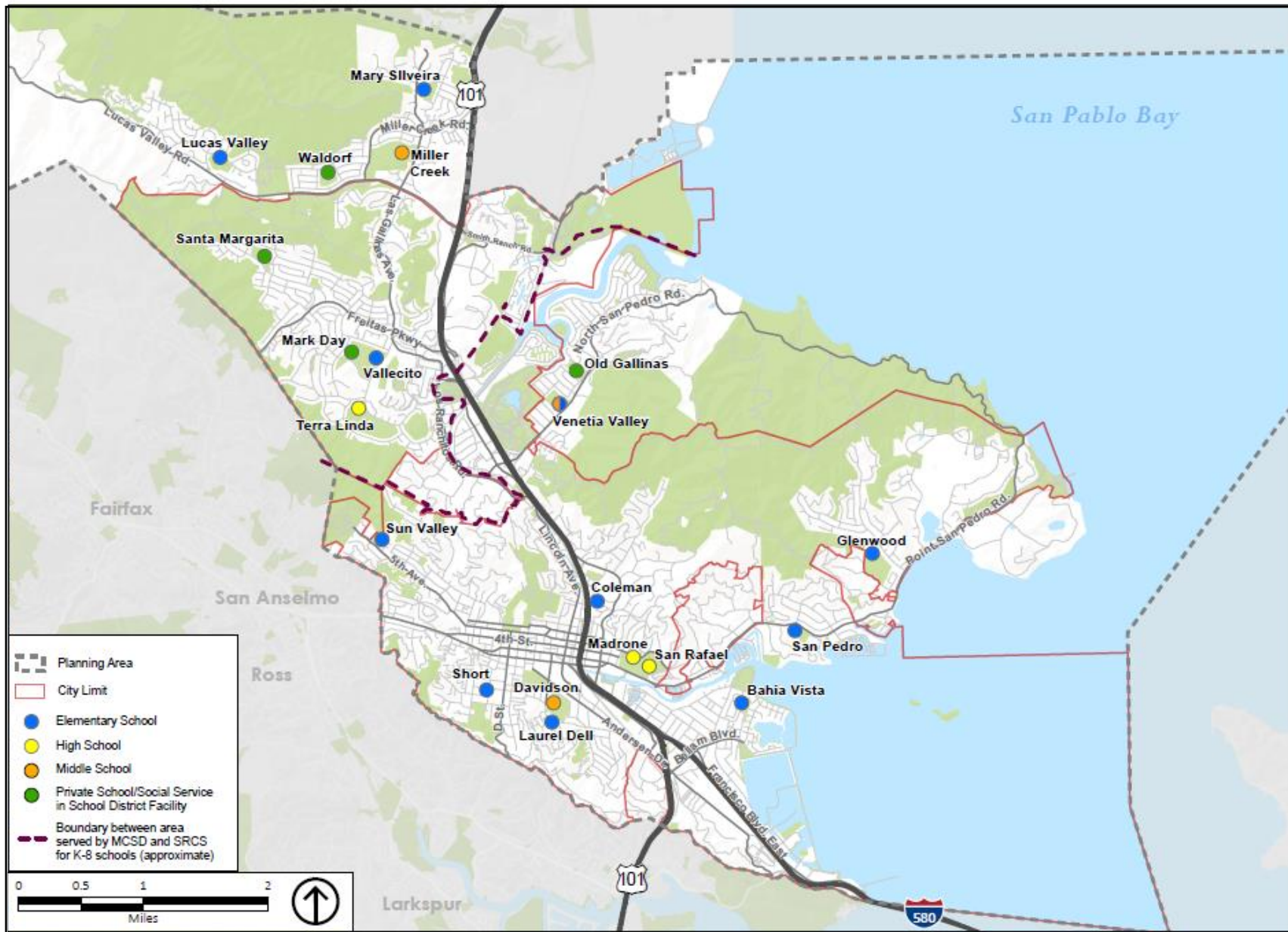
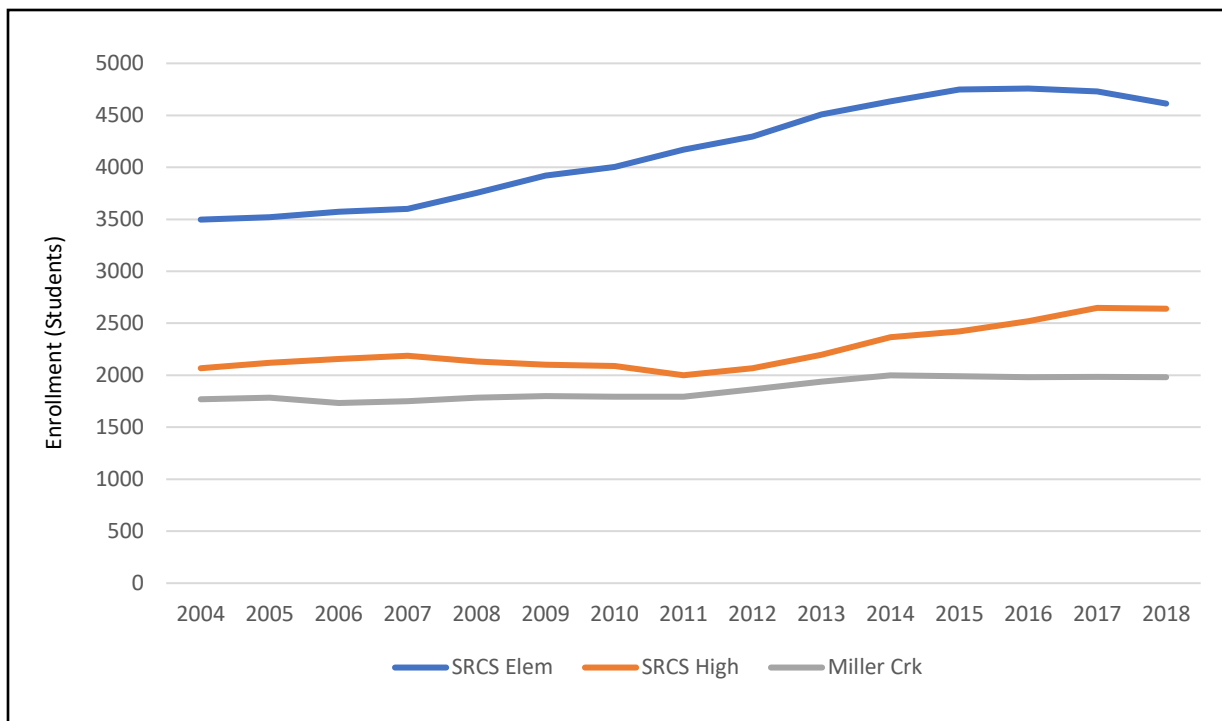


Figure 11-1:
Schools in San Rafael



Source: California Department of Education, 2020

Chart 11-1: Public School Enrollment in San Rafael, 2004-2018

Chart 11-1 (above) shows enrollment trends at San Rafael's public schools from 2004 to 2018. SRCS elementary schools experienced a 32 percent increase in enrollment between 2007 and 2015 but enrollment has levelled off since 2015. San Rafael High School's enrollment increased by 12 percent between 2014 and 2018. Miller Creek schools have seen relatively stable enrollment throughout the period. In general, changes in enrollment have been driven by demographic changes rather than by new housing construction in the city. Latino students represented 54 percent of the student body citywide in 2018, compared to 40 percent in 2004.

Both SRCS and MCSD have developed Master Facilities Plans to guide future capital improvements. These plans provided the foundation for voter-approved bond measures that are facilitating capital improvements in all three districts. The plans address the need to replace and modernize existing facilities and add new facilities to respond to growth. An important objective of the facility plans is to establish parity among schools, recognizing that some may be in greater need of amenities and new facilities than others.

Schools are an essential land use and valued community institution in San Rafael. Each campus serves not only as a center for education but also as a gathering place and a focal point for the community around it. Each school also exists within the context of an established neighborhood, creating the potential for conflicts and opportunities related to the types of activities that take place on campus. Common planning issues include congestion related to student drop-off and pick-up, faculty and student parking on residential streets, and the safety of students walking and bicycling to school. The School Districts and City work collaboratively to address facility planning and operational issues. Community engagement has been a hallmark of the recent modernization and expansion program, with great consideration given to construction impacts on neighbors.



Policy CSI-1.1: Educational Programs

Collaborate with schools to foster educational programs and opportunities that benefit the community.

Program CSI-1.1A: Communication. Maintain regular communications with the School Districts, including periodic joint City Council/ School Board meetings, to foster collaboration and address issues of mutual interest.

Program CSI-1.1B: Partnerships with Schools. Participate in school initiatives to educate students about local issues and City government.

Program CSI-1.1C: Higher Education. Expand partnerships with Dominican University, the College of Marin, and other nearby colleges and universities to support local education and lifelong learning.

See Goal EDI-5 for additional guidance on educational programming. See Policy LU-2.7 and Policy EDI-5.1 for guidance on child care.

Policy CSI-1.2: Schools as Community Hubs

Collaborate with schools to provide greater public access to school facilities for neighborhood and community activities.

Program CSI-1.2A: Joint Use Agreements. Develop joint use agreements with the School Districts and other local academic institutions to improve community access to facilities for recreation, child care, and/or community events.

See Policy PROS-1.12 for additional guidance on joint use agreements



Student Generation Rates

Student generation rates are used by school districts to estimate the probable number of students in a “typical” new single family or multi-family home. This data is used to estimate the expected impact of new housing units on school enrollment, which in turn helps inform facility planning and fee collection. The rates are based on data from existing homes in each district, or on State of California standards.

Statewide, the student generation factors in 2019 were 0.7 students per dwelling unit, including 0.5 students in K-8 and 0.2 students in Grades 9-12. The statewide rates tend to be higher in single family homes than in multi-family units due to the larger number of bedrooms. However, the opposite is true in San Rafael. A 2018 fee justification study prepared by San Rafael City Schools determined the local yields were 0.23 students per single family home and 0.44 students per unit for multi-family housing.

Policy CSI-1.3: Relationship to Business Community

Strengthen the relationships between businesses, non-profits, and schools to enhance the quality of education and support workforce development. This should include a better understanding of local business needs, as well as opportunities to meet those needs through academic partnerships.

Program CSI-1.3A: Internships. Provide City-sponsored internships for working-age students and assist with publicity about other internship opportunities through partnerships with the Marin County Office of Education and others. Encourage and facilitate local businesses and non-profits to provide internships, apprenticeships, mentoring, and vocational programs.

See Policies EV-1.8 and EDI-5.4 for policies on job training, mentoring, and workforce development

Policy CSI-1.4: Lifelong Learning

Offer programs and classes that provide the whole community with opportunities for lifelong learning (i.e., opportunities to continue learning beyond formal education and job training).

Program CSI-1.4A: City Programs and Classes. Continue to offer a variety of City-sponsored leisure, recreation, education, and personal enhancement courses and programs for all age groups. Regularly assess participation and public opinion to determine interest and support.

Policy CSI-1.5: Campus Land Use and Transportation Issues

Work with San Rafael City Schools, the Miller Creek School District, local private schools, and neighborhood organizations to address traffic, parking, and land use issues on and around school campuses.

Program CSI-1.5A: School Construction Projects. Coordinate with school personnel on campus construction, modernization, and improvement projects.



Photo Credit: Frank Johnson

Program CS I-1.5B: Long-Range Planning and Development Review. Collaborate with schools on long range planning and development review, including collection of appropriate fees, enrollment projections, and planning for future improvements.

See Mobility Element Program M-3.3D and Policy M-5.5 on staggering school start and end times to reduce peak hour congestion. See Program M-6.2D for Safe Routes to School Programs

Policy CSI-1.6: Private Schools

Recognize the role of private (e.g., independent) schools in San Rafael's education system and their potential as community partners and resources.

Libraries

Goal CSI-2: Modern, Welcoming Libraries that Meet Community Needs

Enhance library services and facilities to meet the informational and recreational needs of the community.

San Rafael's public library system will provide an expanded collection of materials, increased access to services and programs, and attractive, comfortable facilities for patrons. New and improved facilities will enable the City's libraries to fulfill their role as places to learn, explore, discover, and grow.

San Rafael's Public Library, founded in 1887, is one of the most heavily used services in the City of San Rafael. The original Downtown Library opened in 1909, one of 40 libraries in the Bay Area developed with funds donated by philanthropist Andrew Carnegie. The building was expanded in 1960 and again in 1976 to its current size of 14,800 square feet. The City also operates two small branch libraries—one at the Albert J Boro Community Center and another in an interior storefront in Northgate Mall.

In 2017, the City completed an evaluation of its library facilities and developed a vision for improvement. San Rafael currently has roughly 20,000 square feet of library space (including the main library plus two branches). This is less than half of what is recommended by national standards. The evaluation also concluded that the City's libraries require more diversity in collection formats and better integration of new technologies. There is no capacity for expanding the collection in the existing space, and there is also limited seating, an inadequate number of computers, and obsolete meeting space and staff space.

The City is reimagining future library services based on three key elements:

- Expanding core resources, including the collection and materials in the library. This not only includes books, but also computers and digital materials, and the accessibility and functionality of the building.
- Increasing access to services and programs, including expanded hours of operation, meeting space, activities for children, library events, and cultural events
- A place for people, based on the principle that the library should provide a clean, beautiful, modern, welcoming environment with comfortable seating and places to read, learn, and socialize.

An assessment of library needs and different options for meeting those needs was completed in 2019. The currently preferred alternative is to develop a new library integrated with the San Rafael Community Center in Albert Park. Recommendations also include a permanent 11,000 square foot library in Northgate Mall, and expanding the footprint of the library at the Al Boro Center. These recommendations continue to be refined based on funding availability and other factors.

Policy CSI-2.1: Library Facilities

Improve library facilities to meet current and future needs and recognize the changing role of libraries in community life.

Program CSI-2.1A: New Main Library. Fund, develop, and construct a new Main Library designed to provide adequate space for collection materials, City programs, public meeting rooms and technology, seating for visitors, and services for special user groups such as children and teens. Develop adaptive reuse plans for the historic Carnegie Library as part of library planning.

Policy CSI-2.2: Branch Libraries

Expand community-based library services in East and North San Rafael to ensure that library services are accessible to everyone in the community.

Program CSI-2.2A: Pickleweed and Northgate Libraries. *Modernize and expand the Pickleweed and Northgate Libraries so they are adequately equipped to deliver the services needed in the surrounding communities.*

Program CSI-2.2B: School Libraries. *Consider partnerships with the school district to make high school libraries available to the public.*

Policy CSI-2.3: Library Collections

Expand and adapt library collections to meet the changing needs of the community and respond to technological change, while preserving a core collection of materials of continuing value. This should include Spanish language materials.

Policy CSI-2.4: Libraries as Community Centers

Promote programs and events that affirm the role of the City's libraries as community gathering places and a setting for the open exchange of ideas and information.

Program CSI-2.4A: Focused Services. *Provide dedicated library programs for children, youth, older adults, and Spanish-speaking residents. Provide other services, such as free internet access and electrical power during an emergency.*

Program CSI-2.4B: Literacy Programs. *Continue to offer literacy and tutoring programs for English learners, as well as support and training for volunteer tutors.*



Public Safety

Goal CSI-3: Exceptional Public Safety Services

Provide and maintain exceptional fire, public safety, and paramedic services.

San Rafael's Police Department engages with the community to provide professional, fair, compassionate and dedicated law enforcement services with integrity and respect. San Rafael's Fire Department strives to provide quality public fire services, and to deliver fire and emergency medical services with skill, strength, and dedication. In its delivery of public safety services, the City will be a countywide and regional leader in addressing issues related to equity and social justice.

Law Enforcement

Law enforcement services in the San Rafael Planning Area are provided by several agencies. The City of San Rafael Police Department has primary responsibility for areas within the City limits and operates from the Public Safety Center at 1375 Fifth Avenue. The Marin County Sheriff's Department is located at 1600 Los Gatos Drive in San Rafael and provides services to unincorporated neighborhoods. The California Highway Patrol provides traffic enforcement in the unincorporated areas and on local freeways. Mutual aid agreements allow for joint responses to major incidents.

The mission of the San Rafael Police Department is to engage with the community to provide fair, compassionate, and dedicated law enforcement with integrity and respect. In 2019, the Department had 60 full-time sworn personnel and 22 full-time non-sworn personnel, which was comparable to similarly sized North Bay cities on a per capita basis. The Department includes an Operations Division, which provides uniformed police services 24 hours a day, and an Administration Division, which provides services such as training, criminal investigation, and dispatch.

Relative to comparably sized communities, San Rafael is a safe city. Based on FBI Uniform Crime Reporting data, violent crime trended downward following a peak in the late 1990s. The rate increased during the great recession (2007-09), declined during the economic recovery and has been relatively stable since 2011. Property crime peaked in the early 1990s and has been declining overall, with slight increases some years and decreases in others. Burglary and larceny-theft rates in 2015 were less than half of what they were in the early 1990s.

The relocation of the Police Department to the new Public Safety Center addresses the space shortages that previously affected the Department. Resources continue to be needed for training, new equipment and technology, and crime prevention. An important part of crime prevention is to provide "eyes on the street" in new development and ensure that lighting, architecture, and landscapes are designed to maximize public safety. The Police Department participates in planning and development processes to ensure these issues are addressed.

San Rafael Police also provides services to residents experiencing mental health challenges and homelessness, and administers other initiatives focused on compassionate law enforcement and public safety. It also provides traffic enforcement services. Many of the Department's programs build on the philosophy of community policing, including more direct public contact with officers and stronger ties with the community.

Fire and Emergency Medical Services

Fire services in the San Rafael Planning Area are provided by the City of San Rafael, the County of Marin, and the California Division of Forestry and Fire Protection (in China Camp State Park). The City Fire Department provides primary fire protection to the unincorporated areas of Country Club, Bayside Acres, Los Ranchitos, the small area adjacent to the Mount Tamalpais Cemetery in Sun Valley, California Park and Santa Venetia (through County Service Area 19). The City also serves as the Fire Department for the Marinwood Community Services District. Additionally, the various fire departments in Marin County have joint powers agreements and standard mutual aid agreements. The San Rafael Fire Department also provides paramedic services under a joint powers agreement to the entire Planning Area.

San Rafael's Fire Stations

Station	Address
51	1375 Fifth Ave
52	52 Union St
54	46 Castro Av
55	955 Pt San Pedro Rd
56	650 Del Ganado Rd
57	3530 Civic Ctr Dr

In 2013, San Rafael voters approved Measure E, extending an existing 0.5% sales tax and adding 0.25% to the tax, which was subsequently dedicated to upgrade critical public safety facilities. Measure E provided funding for the new Public Safety Center and replacement of Fire stations 52 and 57. Subsequent phases of the City's essential public safety facility improvement plan include seismic and operational upgrades to other fire stations.

Fire prevention techniques differ for structural fires and wildfires, but successful fire control and extinguishment in all cases depends on rapid response. Fire codes, prevention, and inspection programs ensure that standards are met when structures are built, when there is a change in occupancy for commercial buildings, and over the life of each structure.

In 2020, the San Rafael Fire Department had 69 uniformed emergency shift personnel, a fire chief, two administrative staff, an emergency manager, a household hazardous waste coordinator, and four part-time inspectors. The Department includes a Fire Prevention Bureau and a Fire Marshal who works closely with the City's Code Enforcement personnel to ensure that all structures meet Fire Code standards. The Bureau also manages the City's Vegetation Management Program, which focuses on reducing fire hazards throughout the City. Other Fire Department functions include monitoring the storage and use of hazardous materials, managing household hazardous waste, and delivering fire response and rescue services for urban and wildland fires.

The Fire Department's Insurance Service Office (ISO) rating is Class 1, the highest rating possible. The City has worked proactively to reduce fire risks through amendments to the Fire Code, including special requirements for properties in Wildland Urban Interface areas, vegetation clearance, and requirements for hydrant upgrades. The Fire Department calculates required fire flow for new development based on building construction, size, type, location, and the availability of sprinklers.

In 1979, San Rafael voters approved a special parcel assessment to have paramedic services provided through the Fire Department. The number of certified Paramedics has increased since that time, in response to population growth, the aging of the population, and increased demand. Every firefighter is a certified Emergency Medical Technician (EMT) and many of the City's firefighters have taken more advanced training and are Paramedic certified.

See the Safety and Resilience Element for a discussion of wildland fires, fire prevention programs, and emergency preparedness



Fire and EMS: By the Numbers

During calendar year 2019, the San Rafael Fire Department responded to:

- 27 residential structure fires
- 27 non-residential structure fires
- 22 vehicle fires
- 16 outdoor property fires
- 16 wildland fires
- 28 dumpster/rubbish fires.

There were a total of 10,980 calls for service, including 7,048 for rescue, EMS, ambulances, and similar services. There were also:

- 664 false alarms
- 39 mutual aid responses
- 185 hazardous response incidents
- 2,885 other incidents (animal rescue, smoke, etc.).

Policy CSI-3.1: Investment in Public Safety Services

Maintain cost-effective police, fire protection, and paramedic facilities, equipment, and services. Manage increases in costs through effective preventative measures, such as fire prevention and community policing.

Program CSI-3.1A: Police Department Strategic Plan. Develop a Strategic Plan for police services to evaluate trends, establish goals, prioritize future actions, determine budget needs, and align services with other City departments. The Plan should include a proactive response to issues relating to social justice and compassionate law enforcement. Engage the community, including local businesses, in this process.

Program CSI-3.1B: Capital Facilities. Complete improvements to essential public safety facilities made possible by voter-approved measures. Conduct periodic evaluations of facility and technology needs in the future to ensure that the Police and Fire Departments are equipped to respond to emergencies and deliver quality services.

Program CSI-3.1C: Public Safety Training. Provide and encourage ongoing employee training to ensure public safety staff skills remain current and innovative. Continue to provide training in de-escalation and least harm techniques, as well as mental health and racial bias training.

Program CSI-3.1D: Vehicle and Equipment Maintenance. Maintain and upgrade vehicles and equipment as necessary.

Policy CSI-3.2: Mitigating Development Impacts

Engage the Police and Fire Departments in the review of proposed development and building applications to ensure that public safety, fire prevention, and emergency access and response needs are considered and effectively addressed.

Program CSI-3.2A: Crime Prevention through Environmental Design. Design new public and private development to achieve “eyes on the street,” including site planning, lighting, landscaping, and architectural design features that reduce the potential for crime.

Program CSI-3.2B: Emergency Response Time. Use the development review process to identify appropriate measures to reduce fire hazards and ensure adequate emergency response capacity.

See Safety Element Programs S-4.2A, S-4.3A and S-4.3B for guidance on landscaping and building design measures to reduce fire hazards and maintain defensible space, and to ensure adequate emergency access and water supply for fire-fighting.

Policy CSI-3.3: Community-Based Public Safety

Actively promote a community-based approach to public safety services. This approach should emphasize a high degree of communication and interaction between officers, residents, neighborhood groups, schools, and businesses.

Program CSI-3.3A: Community Safety Programs. Implement community public safety programs such as National Night Out and the Citizens Police Academy to support a safer community and promote positive relationships between law enforcement officials and residents. Implement similar programs promoting fire prevention and preparedness.

Program CSI-3.3B: Business Outreach. Engage the business community in public safety program development and implementation. This should include increasing awareness of existing programs and developing new initiatives and partnerships to address property crime and other public safety issues affecting local businesses.

See the Safety Element for a discussion of emergency preparedness and wildfire prevention programs

Policy CSI-3.4: Quality of Life Programming

Maintain programs to proactively address quality of life issues, such as peace disturbances, loitering, littering, and vandalism. Focus on personal contact with residents and businesses and build positive relationships with all segments of the community.

Program CSI-3.4A: Foot Patrol Services. Maintain and potentially expand foot patrol services. Continue to work with homeless service organizations, mental health professionals, and the business community to create a safe, welcoming environment in Downtown San Rafael and other parts of the city.

Policy CSI-3.5: Traffic Safety

Maintain traffic enforcement programs to ensure the safety of pedestrians, bicycles, and motorists on San Rafael streets, sidewalks, paths, and bikeways. Evaluate and mitigate potential traffic hazards as changes to the circulation system are proposed, and as new modes of travel are introduced.

See Mobility Policy M-6.2 for additional guidance on traffic safety.

Policy CSI-3.6: Mutual Aid

Maintain mutual aid agreements for police and fire service with other jurisdictions and community service districts to ensure that the capacity exists to adequately respond to local emergencies.

See the Safety Element for policies on communication systems improvements

Infrastructure

Goal CSI-4: Reliable, Efficiently Managed Infrastructure

Support reliable, cost-effective, well-maintained, safe and resilient infrastructure and utility services.

Streets, water, sewer, storm drainage, energy and telecommunication systems will be managed by the City and allied agencies to sustain high-quality service delivery, while protecting the environment and responding to the challenges of a changing climate. Advances in technology will improve service quality, efficiency, security, and sustainability. A high level of communication and coordination will take place between service providers, ensuring that assets are prudently managed and funding is provided for capital, operating, and maintenance costs.

Water

Marin Municipal Water District (MMWD), a public utility governed by an elected board, provides water service to eastern Marin County south of Novato. Approximately 27 percent of MMWD's customers are within San Rafael. MMWD's water supplies presently come from a combination of local surface water supplies, imported water from the Sonoma County Water Agency (SCWA), and recycled water. Local surface water is stored in seven local, rain-fed reservoirs, all located outside the San Rafael Planning Area. The total reservoir storage capacity is nearly 25.9 billion gallons.

Like all water districts in California, MMWD prepares an Urban Water Management Plan and updates this Plan every five years. The most recent Plan for MMWD estimated the reasonable amount of water available from surface sources to be roughly 142,000 acre feet per year (AFY).² As noted above, MMWD also has an agreement with SCWA for up to 14,300 AFY, primarily from the Russian River. This water enters the MMWD system at the Ignacio Pump Station. This agreement is effective through June 2025 and includes a renewal provision extending it through 2040.

MMWD operates three water treatment plants, treating about 20.4 million gallons per day (MGD) for its customers. Treated water is distributed through a network of 886 miles of water mains, 94 pump stations, and 127 treated water storage tanks. MMWD also operates 27 miles of reclaimed water pipeline, capable of delivering 1.9 million gallons of treated wastewater for irrigation and other non-potable purposes.

MMWD considers San Rafael's long-range growth plans in its own water system planning. In 2015, demand in the service area was 38,866 AFY. By 2040, it is projected to increase to 42,109 AFY. This is within the system's capacity, even during periods of multiple dry years. Given the potential for drought and impacts of climate change, water conservation and efficiency remain imperative. MMWD—and the City of San Rafael—continue to actively promote conservation measures. MMWD also implements an ongoing capital improvement program to replace water pipelines and storage tanks and seismically strengthen its infrastructure.

² An "Acre Foot" is used to measure water volume. It is the amount of water needed to cover one acre of land with one foot of water.



Wastewater

Wastewater collection and treatment in San Rafael is provided by three entities: Las Gallinas Valley Sanitary District (LGVSD), San Rafael Sanitary District (SRSD), and Central Marin Sanitation Agency (CMSA). LGVSD operates both a collection system and a wastewater treatment plant. SRSD operates a collection system that delivers wastewater to a treatment plant operated by CMSA.

LGVSD's service area includes North San Rafael and neighboring parts of unincorporated Marin County. The District operates 105 miles of gravity sewer pipelines, 6.7 miles of force mains, and 28 pump stations. LGVSD also operates a wastewater treatment plant, located at the east end of Smith Ranch Road. The LGVSD treatment plant provides secondary treatment followed by ammonia removal and filtration, chlorination and dechlorination, and discharge. A portion of the treated effluent is directed to MMWD's water recycling facility.

SRSD collects wastewater in the area south of Puerto Suelo Hill, including San Rafael, San Quentin, and adjacent unincorporated areas. The District operates 134 miles of sewer pipelines, 13 miles of force mails, and 32 pump stations. Wastewater is transported to the CMSA treatment plant on Andersen Drive near Point San Quentin. The CMSA plant also serves Larkspur, Corte Madera, Fairfax, Ross, and San Anselmo, as well as portions of unincorporated Marin County. Wastewater receives preliminary treatment, primary treatment, secondary treatment, disinfection, and dechlorination. Treated wastewater is discharged to Central San Francisco Bay via a two-mile outfall pipe.

Operating revenue for LGSVD and SRSD is primarily derived from sewer rates paid by customers and by property taxes. Preventive maintenance is an important part of operations, and is necessary to limit the frequency of overflows, reduce infiltration and inflow, and prevent and minimize blockages. The Sanitary Districts both have capital improvement programs that address capacity, storage, structural, and other issues, as well as needs associated with growth and technology. In general, the systems function adequately, even during flooding and wet weather conditions. Capacity assessments are periodically performed to identify potential deficiencies.

Both wastewater treatment plants have adequate capacity to meet San Rafael's long-term needs. However, capital projects are necessary to responding to regulatory changes, operational needs, and climate change impacts, including sea level rise. LGVSD is in the process of a multi-year, multi-million dollar plant upgrade. The District has also reached an agreement with MMWD to expand the recycled water treatment plant to provide tertiary treated wastewater to MMWD customers. CMSA has prepared a Facilities Master Plan which identifies 26 projects that respond to future needs.

Storm Drainage

The City of San Rafael Department of Public Works (DPW) owns and maintains San Rafael's storm drain system. The system includes 3,800 drain inlets, 116 miles of pipe, 35 miles of open ditches and culverts and 12 pump stations. The City maintains drains on City property while property owners are responsible for drains within their properties. Outside the City limits, the Marin County Flood Control and Water Conservation District operates and maintains the storm drainage system. This includes a system of pumping stations, levees, and tide gates that provide flood protection to Santa Venetia.

Storm drainage improvements are generally implemented through San Rafael's Capital Improvement Program (CIP). The list of CIP projects and funding priorities changes based on available sources of funding. CIP funding is provided in part by the City's Stormwater Fund and covers repair, replacement and improvement of various system components. The City is currently studying ways to comply with State requirements for the installation of trash capture devices in all storm drains, as well as methods of improving the levee system and responding to sea level rise.

See the Safety and Resilience Element (Goal S-3) for additional information on flooding and sea level rise and the Conservation and Climate Change Element (Goal C-3) for policies on water quality.



Energy and Telecommunications

Marin Clean Energy (MCE) provides electricity to all communities in Marin County, including San Rafael. MCE is a Community Choice Aggregation Program run by representatives from participating communities. It provides electricity that is primarily generated from renewable sources such as solar and wind power. MCE offers several program options to customers that include varying amounts of renewable energy, including an “opt out” program that allows continued service from Pacific Gas and Electric (PG&E). The electric energy provided by MCE is conveyed to customers using infrastructure owned and operated by PG&E. PG&E maintains the transmission grid, distribution lines, transformers, and substations. PG&E also continues to generate electricity through coal-fired and nuclear power plants, as well as from renewable sources.

Natural gas service is provided to San Rafael customers by PG&E. This gas originates in California, other southwestern states, the Rocky Mountains, and Canada. Pipelines transport natural gas from fields and storage facilities in large pipes under high pressure. Smaller distribution pipelines deliver gas to individual businesses and residences. Gas lines are regularly inspected and monitored.

Components of the regional gas and electric delivery systems run through San Rafael. These include two north-south corridors containing overhead 60 kV and 115 kV transmission lines, one roughly parallel to US 101 and another passing through Southeast San Rafael, the San Pedro Peninsula, and the McInnis Marsh area. Substations are located near Second and Lindero in Downtown San Rafael and near Smith Ranch/US 101 in North San Rafael. There are also several natural gas pipelines running underground through the city.

Telecommunication services include traditional landline telephone services, cable and satellite television services, and mobile telephone services, as well as fiber/broadband and other internet services. These services are offered by multiple providers and are regulated to varying degrees by the California Public Utilities Commission and Federal Communications Commission. The City seeks to provide information and communication access to all residents in order to facilitate education and economic opportunity. Telecommunication infrastructure should be designed to minimize its visual impacts and be compatible with adjacent uses.

Solid Waste

Marin Sanitary Service provides residential, multi-family, and commercial garbage, recycling, and compostable collection services within the City and nearby unincorporated areas. Residential and commercial curbside recyclable materials are processed at the Marin Resource Recovery Center / Marin Recycling Center (MRC) located at 565 Jacoby Street in San Rafael. The MRC also has a Buy Back center that accepts recyclables as well as facilities for construction and demolition debris, landscaping materials, and bulky items. Waste at the Resource Recovery Center goes through a customized system of screens, conveyors, blowers, and magnets and is also sorted by hand. About 3,000 tons of recyclables are processed each month. The Marin Household Hazardous Waste Facility is also located at the Jacoby Street site, providing a repository for paint, household cleaning products, automotive products and similar materials that would be hazardous if disposed in a landfill.

Waste that is not recycled is transported to one of several landfills. About 54 percent of the city's landfilled waste goes to Redwood Landfill north of Novato and about 41 percent goes to the Potrero Hills Landfill near Suisun City. The remaining five percent goes to landfills around the state. The Redwood Landfill includes a gas to energy plant that converts landfill gas to renewable electricity for use by Marin Clean Energy (MCE) customers. The landfill is expected to close in 2024. The Potrero Hills landfill is expected to be operational through 2048.

Given the limited capacity of landfills and the environmental benefits of recycling and waste reduction, the City strongly supports solid waste diversion initiatives. These are administered by Zero Waste Marin, an organization created through a Joint Powers Agreement between 11 cities and towns within Marin County as well as the County itself. Zero Waste Marin has established the goal of reducing landfilled waste to zero by 2025. In 2011, Marin County and its cities had an overall landfill diversion rate of 75 percent. The diversion rate actually declined to 66 percent by 2018. Continued public education and outreach will be essential to reverse this trend and move toward full diversion.



Policy CSI-4.1: Capital Investment

Provide for ongoing, preventative maintenance of infrastructure and timely replacement, repair, and upgrading of City equipment.

Program CSI-4.1A: Capital Improvement Programming. Maintain and regularly update a multi-year Capital Improvement Plan (CIP) covering City owned and operated infrastructure and public facilities. Seek the input of other local service providers (MMWD, LGVSD, etc.) when preparing the City's CIP and encourage these agencies to seek City input as they prepare their own CIPs.

Program CSI-4.1B: Funding for Maintenance and Capital Costs. Consider ways to improve the reliability of maintenance funding, such as establishing a reserve fund or voter-approved parcel taxes and special assessments. Identify potential funding sources for unmet and anticipated future capital project needs, such as grants, bond measures, and impact fees.

Program CSI-4.1C: Community-Supported Services. Consider community-supported (e.g., cooperative) services as an alternative to bring fundamental service upgrades to neighborhoods and managing capital costs.

Policy CSI-4.2: Adequacy of City Infrastructure and Services

As part of the development review process, require applicants to demonstrate that their projects can be adequately served by the City's infrastructure. All new infrastructure shall be planned and designed to meet the engineering standards of the City and various local service and utility providers.

See also Policy LU-1.2 requiring adequate infrastructure as a condition of development approval

Program CSI-4.2A: Long-Term Planning. *Continue to use the CIP to analyze and respond to local capital facility needs.*

Program CSI-4.2B: Engineering Standards. *Require new development to comply with the subdivision standards in the San Rafael Municipal Code, as well as relevant Marin County and utility district engineering standards. Where feasible, encourage development to reach beyond current standards and collaborate with the community to innovate and define new best practices.*

Program CSI-4.2C: Impact Fees. *Continue to collect impact fees and use other funding mechanisms to ensure that new development pays its fair share of providing/ upgrading services associated with that development.*

Policy CSI-4.3: Public Involvement in Infrastructure Planning

Encourage public participation in the planning and design of City infrastructure projects. As resources allow, this could include advisory committees, task forces, and similar community consultation efforts.

Program CSI-4.3A: Design Review. *Require design review for City projects. Provide complementary design review for major projects proposed by other public agencies.*

Program CSI-4.3B: CIP Process. *Continue to make the City's CIP easily available and to solicit public input in the CIP process, including web-based and social media applications that facilitate community feedback.*

Policy CSI-4.4: Sustainable Design

Plan, design, and operate infrastructure to minimize non-renewable energy and resource consumption, improve environmental quality, promote social equity, and reduce greenhouse gas emissions. An evaluation of costs and benefits must be a factor in all improvements. This includes the potential costs of inaction and potential for "avoided costs," particularly with respect to climate change.

Program CSI-4.4A: Public Space and Infrastructure. *Seek opportunities to improve environmental quality in the design of streets, infrastructure, and public spaces. For example, public space improvements provide an opportunity to retain and treat stormwater through groundwater infiltration and subsurface water storage.*

Program CSI-4.4B: Reducing Impervious Surfaces. *Pursue porous pavement, rain catchment areas, and similar elements that reduce runoff.*

See also Green Streets policies and programs in the Conservation/ Climate Change Element

Policy CSI-4.5: Infrastructure Technology

Encourage the use of technology to improve service efficiency and environmental quality.

Photo Credit: Florian Kainz



Policy CSI-4.6: Climate Change Impacts

Incorporate sea level rise and increased storm intensity forecasts in the planning and design of local infrastructure projects.

See also Policy S-2.3 on Infrastructure Resilience and Program S-1.3A on Critical Public Facilities

Program CSI-4.6A: Guidance Document. Prepare a guidance document for incorporating sea level rise into the City's capital planning process.

Program CSI-4.6B: Coordination with Service Providers. Coordinate with water, sewer, energy, solid waste, and telecommunication service providers to prepare a plan for retrofitting critical infrastructure for rising sea levels, more intense storms, and other climate-related impacts.

Policy CSI-4.7: Street Maintenance

Provide efficient, effective street maintenance, sweeping, and lighting programs. Safe, well-maintained neighborhood streets are an important part of the public realm and the local transportation network.

Program CSI-4.7A: Pavement Management. Continue participation in the Pavement Management Program to assist in prioritizing street resurfacing projects. Adjust prioritization criteria as needed to ensure that pavement condition, traffic safety, equity, and community input are addressed.

Program CSI-4.7B: Street Sweeping. Continue to maintain a street sweeping program. Work with neighborhoods on ways to improve street sweeping efficiency and to publicize street sweeping programs. Investigate alternative funding sources for street sweeping.

Program CSI-4.7C: Sidewalk Repair. Continue to implement a cost-sharing program for Sidewalk Repair with residential property owners that is consistent with the State Streets and Highway Code, property owner interest, and funding availability. The success of the program, as well as sidewalk conditions and repair priorities, should be monitored. Potential funding sources and other cost-sharing approaches should be considered to address equity.

Program CSI-4.7D: Street Lighting Program. Continue efforts to improve street lighting, staying mindful of the need to balance financial, public safety, and environmental objectives.

See also Policy C-1.19 and Program C-1.19A on night lighting and dark skies. See Policy C-1.16 on urban forestry and Policy CD-5 on street trees. See Policy EDI-4.2 on equitable maintenance.

Policy CSI-4.8: Potable Water Supply and Delivery

Work with Marin Municipal Water District (MMWD) to meet projected water demand, encourage water conservation, and ensure the reliability and safety of the water supply and distribution system.

Program CSI-4.8A: Urban Water Management Plan. Support MMWD's efforts to regularly update and implement an Urban Water Management Plan.

Program CSI-4.8B: Water Supplies. Monitor efforts by the MMWD to implement conservation standards and expand the local water supply to meet long-term needs and potential future drought conditions. If desalination facilities are proposed along the bayfront in the future, ensure adequate review of environmental, design, and economic issues.

Program CSI-4.8C: Water Pressure and Storage. Work with MMWD to ensure that water pressure and storage remains adequate for fire-fighting, and to implement standards for new development that ensure adequate water flow.

See also Policy C-3.8 on water conservation



Policy CSI-4.9: Wastewater Facilities

Ensure that wastewater collection, treatment and disposal infrastructure is regularly maintained and meets projected needs. Improvements should be programmed to meet state and federal standards, respond to sea level rise and seismic hazards, repair and replace aging or leaking pipes, and protect environmental quality.

Program CSI-4.9A: Coordination of Services. Support efforts by the Las Gallinas Sanitary District, Central Marin Sanitation Agency and San Rafael Sanitation District to maintain high-quality wastewater collection and treatment facilities.

Policy CSI-4.10: Storm Drainage Facilities

Continue to monitor and pursue improvements to the storm drainage system, including programs to reduce flooding, improve water quality, remove trash, and respond to climate-related changes. Evaluate the potential for restoration of the natural hydrologic function of creeks and drainageways where possible.

Program CSI-4.10A: Replacement of Aging Facilities. Pursue the replacement of older or failing drainage facilities such as metal pipes and stormwater pumping stations with more durable and resilient materials, or with new structures and pumps.

Program CSI-4.10B: Silt Removal. Continue to remove accumulated silt from City maintained drainageways, ponds, and creeks subject to tidal siltation such as Mahon and Irwin Creeks. Sediment from stream flow and deposition should be considered a potential resource.

Program CSI-4.10C: Sustainable Stormwater Management. Seek funding for projects that restore the natural characteristics and functions of stormwater systems, such as bioswales and conversion of concrete ditches to natural creeks. Such projects should mitigate the effects of urban runoff, reduce flood hazards, and improve water quality and habitat value

See Conservation / Climate Change Element Policies C-3.3 and C-3.4 for additional guidance on “green Infrastructure”



Policy CSI-4.11: Canal Dredging

Periodically dredge the San Rafael Canal to reduce flood risks, maintain environmental health, and keep the canal viable as a commercial and recreational waterway. Dredge spoils should be disposed in an environmentally sensitive manner.

Program CSI-4.11A: Funding. Utilize federal Army Corps of Engineers funds to survey and plan for Canal dredging. Pursue additional funding for dredging and maintenance, and for levee repair and sea level rise adaptation improvements.

Policy CSI-4.12: Recycled Water

Encourage additional wastewater recycling by the Las Gallinas Valley Sanitary District, initiation of wastewater recycling by the Central Marin Sanitation Agency, additional recycled water distribution by MMWD, and additional use of reclaimed water where supply (“purple pipe”) is available.

Program CSI-4.12A: CMSA Capacity Expansion. Support implementation of the CMSA/MMWD Recycled Water Study recommendations, enabling increased use of recycled water and reduced potable water demand.

Program CSI-4.12B: Las Gallinas Expansion Project. Support completion of the Recycled Water Expansion Project and continued expansion of recycled water capacity.

Program CSI-4.12C: Sewer Line Replacement. Replace low-lying sewer pipes as needed to reduce saltwater intrusion, thereby reducing the cost of producing reclaimed water.

Policy CSI-4.13: Energy Reliability

Support efforts by local energy service providers and other public agencies to improve the safety and resilience of the local power grid.

Program CSI-4.13A: Backup Energy Provision. Evaluate backup energy provisions for critical public facilities, mass transit (including rail crossings), and wireless infrastructure and upgrade as needed. Encourage the use of fuel cell, battery storage, and solar generator backups, rather than gasoline-powered generators.

Program CSI-4.13B: Microgrids. Encourage further exploration of microgrids (see text box on page 6-35), allowing locally-generated renewable energy networks to supplement the electrical distribution system and provide back-up power in the event of an emergency,

Program CSI-4.13C: Emergency Power and Communication. Use public facilities as emergency centers for electricity, communication, and cooling in the event of a disaster, extreme heat event, or extended power outage.

Policy CSI-4.14: Utility Undergrounding

Continue to pursue undergrounding of overhead utility lines, and support maintenance and replacement programs to reduce wildfire hazards.

Program CSI-4.14A: Funding for Undergrounding. Explore funding opportunities and financing mechanisms to accelerate the undergrounding of utilities, including Rule 20A and B funds, private funding, and assessment districts.

Program CSI-4.14B: Prioritizing of Undergrounding Projects. *Develop a process to prioritize utility undergrounding projects. Among the factors to be considered are aesthetics, visibility, fire hazards, and vulnerability to flooding and sea level rise.*

Program CSI-4.14C: Public Information. *Provide information to the public on the costs of undergrounding projects, and the options for funding.*

See the Safety Element for additional policies and programs on fire safety and power lines

Policy CSI-4.15: Technology Infrastructure

Upgrade the City's technology infrastructure to improve public access to City services.

Program CSI-4.15A: Technology Improvement Plan. *Develop and maintain a multi-year plan for funding and prioritizing major City technology projects.*

Policy CSI-4.16: Telecommunication Improvements

Ensure that residents, schools, businesses and organizations have access to reliable, modern and cost-effective telecommunications. A variety of network options, including fiber optics and wireless, should be encouraged and expanded throughout the city.

Program CSI-4.16A: Fiber Optic Infrastructure. *Continue to encourage and permit the expansion of fiber optics infrastructure from existing "backbone" conduits to potential "last mile" customers.*

Program CSI-4.16B: Service Providers. *Work with telecommunication service providers to improve access to state-of-the-art systems and services.*

Program CSI-4.16C: Reliability. *Support efforts to "harden" mobile communication infrastructure so it is operational or can be quickly restored during a power outage or emergency,*

See the Community Design Element for policies to mitigate the visual effects of antennae and collocate new telecommunication facilities

Policy CSI-4.17: Reducing Landfilled Waste Disposal

Reduce landfilled waste disposal and related greenhouse gas emissions by reducing material consumption; requiring curbside collection and composting of organic materials; increasing recycling, re-use, and resource recovery; and encouraging the use of recyclable goods and materials.

Program CSI-4.17A: Waste Reduction. *Implement waste reduction programs consistent with the San Rafael Climate Change Action Plan and Zero Waste Goal. These include partnerships with Zero Waste Marin, Marin Sanitary Service, and other organizations; requirements for construction and demolition debris recycling; increased monitoring of waste diversion targets; waste audits; and additional infrastructure for removal of recoverable materials from the waste stream.*

Program CSI-4.17B: Recycling. *Continue recycling programs and expand these programs to increase waste diversion rates for homes, apartments and workplaces. .*

Program CSI-4.17C: Construction and Demolition Waste. Continue to implement programs requiring recycling of construction and demolition debris. Encourage the reuse of recycled building materials in future projects.

Program CSI-4.17D: Waste Reduction Programs. Continue efforts to reduce electronic waste, refrigerants, and single use plastics; and ensure proper disposal of household hazardous waste. This should include enforcement of City bans on plastic bags and polystyrene foam and potential new programs to reduce microplastics from waterways,

Program CSI-4.17E: Community Composting. Consider a mandatory community-scale program for curbside collection and composting of food and green waste, as well as vegetation cleared through fire prevention efforts

Program CSI-4.17F: Food to Energy. Support the Central Marin Sanitation/ Marin Sanitary Food to Energy Program.

Program CSI-4.17G: Recyclable Waste Receptacles. Support efforts by Marin Sanitary to install waste receptacles for recyclables in areas of heavy pedestrian traffic.

Policy CSI-4.18: Waste Reduction Advocacy and Education

Work with other cities and the County of Marin to advocate for programs and legislation to reduce waste and share waste reduction responsibilities with the manufacturers of consumer products.

Program CSI-4.18A: Recycling Education. Encourage Marin Sanitary to continue its recycling education programs and to expand awareness of “reduce, reuse, and recycle” principles among all residents and employees. Programs to promote reuse and repair of consumer goods rather than landfill disposal should also be supported.



Compost and Climate Change

Compost is the final product of a managed process through which micro-organisms break down organic materials into a form that is beneficial for soil. It can be a beneficial greenhouse gas reduction strategy because it increases sequestration (the drawdown of carbon into the soil), mitigates methane and other emissions from landfilled waste, and enhances resilience against flooding and drought. It also provides agricultural and home gardening benefits, as it enhances water-holding capacity and provides a source of nutrients. The Marin Carbon Project advocates for composting as one of several strategies to manage farming and grazing so they support carbon sequestration.



Municipal Finance

Goal CSI-5: Sound Municipal Financial Practices

Maintain sound financial practices and sufficient revenue sources to provide high quality City services.

San Rafael provides a broad range of services to meet diverse community needs. Maintaining and enhancing the City's revenue base is essential to providing desired services. The City continues to implement sound financial practices to maintain and improve services while minimizing the cost burden to residents and businesses.

Maintaining and enhancing San Rafael's revenue base is necessary for the City to provide essential and desired services. The City must maintain sound financial practices that meet applicable standards and direct San Rafael's financial resources to achieve its short and long-term goals.

Policy CSI-5.1: Cost-Benefit Analysis

Incorporate cost-benefit analysis to better understand the costs and impacts of City projects and programs relative to the revenues they may generate and benefits they may provide.

Program CSI-5.1A: Cost-Benefit Methodology. *Develop guidelines and procedures to more formally incorporate cost-benefit and fiscal impact analysis in the evaluation of new projects and programs.*

See also Policy M-2.3 on cost-benefit analysis for transportation improvements

Policy CSI-5.2: Transparent Budgeting

Maintain an open dialogue with the public during the budget process to evaluate and prioritize City services.

Program CSI-5.2A: Public Involvement. Continue to involve residents and businesses in the budget process to the extent feasible, through community meetings, focus groups, social media, and other outreach methods. Issues associated with rising pension costs also should be reported in a transparent manner.

Policy CSI-5.3: Program Assessments

Evaluate the performance of City programs and services in achieving their stated goals as part of the City's budget process. Retain, adjust or eliminate programs or services as appropriate.

Program CSI-5.3A: Program Assessment. Continue to provide budget and finance progress reports to the City Council. Continue to use benchmarks and quantifiable metrics, as well as qualitative evaluations, to monitor performance and determine progress in achieving program goals and objectives.

Program CSI-5.3B: Surveys. Regularly survey residents on their satisfaction with specific City services and programs (see also Program EDI-1.3B).

Policy CSI-5.4: Diversifying Funding Sources

As an alternative to increased taxation, pursue methods to diversify funding sources for public services, including grants, public-private partnerships, user fees for specific services, and development fees. As appropriate, the City should also consider streamlined services that cost less to deliver.

Program CSI-5.4A: Revenue Monitoring. Continue to maintain a revenue monitoring system to assist in trend analysis and revenue forecasting.

Program CSI-5.4B: Grants. Actively seek grants and encourage interdepartmental cooperation in preparing grant applications.

Program CSI-5.4C: Cost of Services. Periodically evaluate the cost of providing services and adjust revenue sources accordingly.

Program CSI-5.4D: New Revenue Sources. Consider establishing new revenue sources to adequately fund services and respond to changing conditions, including sources that require voter approval.

Policy CSI-5.5: Local Government Partnerships

Partner with other local governments and organizations to provide community services and resolve shared problems cost-effectively.

Program CSI-5.5A: Funding Strategies for Infrastructure and Services. In cooperation with other jurisdictions, develop funding strategies and joint powers agreements for infrastructure and services that create economies of scale for the contributing parties.

Policy CSI-5.6: Public-Private Partnerships

Explore public-private partnerships as a way to develop community facilities or achieve other community benefits (for example, public parking, affordable housing, and child care in new development projects).

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