J. Libraries

Goals

- A library system that contributes to the quality of life through quality library collections, technologically improved services, and welcoming environments.
- A library system that is responsive to the specialized needs and desires of individual communities.

Discussion

The library system is a primary steward of the diverse cultural heritage of the San Diego community and of the enduring elements of world civilization; it is a portal to the world around us. It is a vital learning presence in the community, providing information objectively and offering lifelong learning opportunities to every citizen through the system's Central Library and 35 branches (see also Figure PF-6, Library Facilities). The Central Library functions as the hub of the library system, and all branches are vitally linked to it for the delivery of their services. Not only does the Central Library serve as the headquarters for the system, but it also supplements the limited collections which branch libraries can offer. The staff, collections, services, physical facilities, and programs exist to provide the best library service possible to all San Diegans. Each library strives to be a welcoming place.

Linda Vista Branch Library

The library system conducts regular evaluations of services to adapt to service demands, take advantage of constantly evolving technology, and to provide for facility construction and maintenance costs. Such assessments contribute to the provision of adequate collections that are responsive to community needs. Technological advances will continue to redefine what and how information and materials are provided and other library services. Some of the City's strategic library goals entail enhancing the system's information infrastructure and customers' access to digital information and the internet. While available and applied technologies continue to influence the modern evolution of the library system, the need for physical library facilities will remain an integral aspect of the City's public services. For guidance on the design of libraries (see also Urban Design Element, Section E).

Policies

PF-J.1. Develop and maintain a Central Library to adequately support the branch libraries and serve as a major resource library for the region and beyond.

PF-J.2. Design all libraries with a minimum of 15,000 square feet of dedicated library space, with adjustments for community-specific needs. Library design should incorporate public input to address the needs of the intended service area.

PF-J.3. Plan for larger library facilities that can serve multiple communities and accommodate sufficient space to serve the larger service area and maximize operational and capital efficiencies.

PF-J.4. Build new library facilities to meet energy efficiency and environmental requirements consistent with sustainable development policies (see also Conservation Element, Section A).

PF-J.5. Plan new library facilities to maximize accessibility to village centers, public transit, or schools.

PF-J.6. Design libraries to provide consistent and equitable services as communities grow in order to maintain service levels which consider operational costs and are based on established guidelines.

PF-J.7. Pursue joint use of libraries with other compatible community facilities and services including other City operations.

PF-J.8. Build and maintain a library system that adapts to technological changes, enhances library services, expands access to digital information and the internet, and meets community and library system needs.

PF-J.9. Adopt an equitable method for securing contributions from those agencies and organizations which benefit from the Central Library's services.

K. Schools

Goals

- A multi-level public and private school system that enables all students to realize their highest potential as individuals and as members of society.
- Educational facilities that are equitable, safe, healthy, technologically equipped, aesthetically pleasing, sustainable, and supportive of optimal teaching and learning for all students, and welcoming to parents and community members.
- A public school system that provides opportunities for students to attend schools within their residential neighborhoods as well as choices in educational settings outside their neighborhoods.

Discussion

One of the most important public services is the provision of schools and the offering of quality education to the residents of the City. San Diego has many levels of public and private educational institutions available: universities and colleges; adult education; numerous junior colleges; and the elementary and secondary school system. Figure PF-7 identifies many of these school facilities. This section addresses the K-12 educational level and presents policies calling for cooperation among the various independent educational authorities within the City.

Morning Creek Elementary School, Poway Unified School District

School districts must make construction and reconstruction investments to meet the needs of existing and planned housing and demographic shifts. Similarly, to meet the demands of a diverse and competitive economy, other educational institutions must invest in expanding opportunities to accommodate growth, demographic shifts, and increased competition (see also Economic Prosperity Element, Section D).

The San Diego Unified School District (SDUSD) is a K-12 district and provides educational services to approximately 80 percent of the City of San Diego. In addition to SDUSD, there are 16 smaller districts, including elementary and secondary levels, which service the outlying northern, eastern, and southern areas of the City.

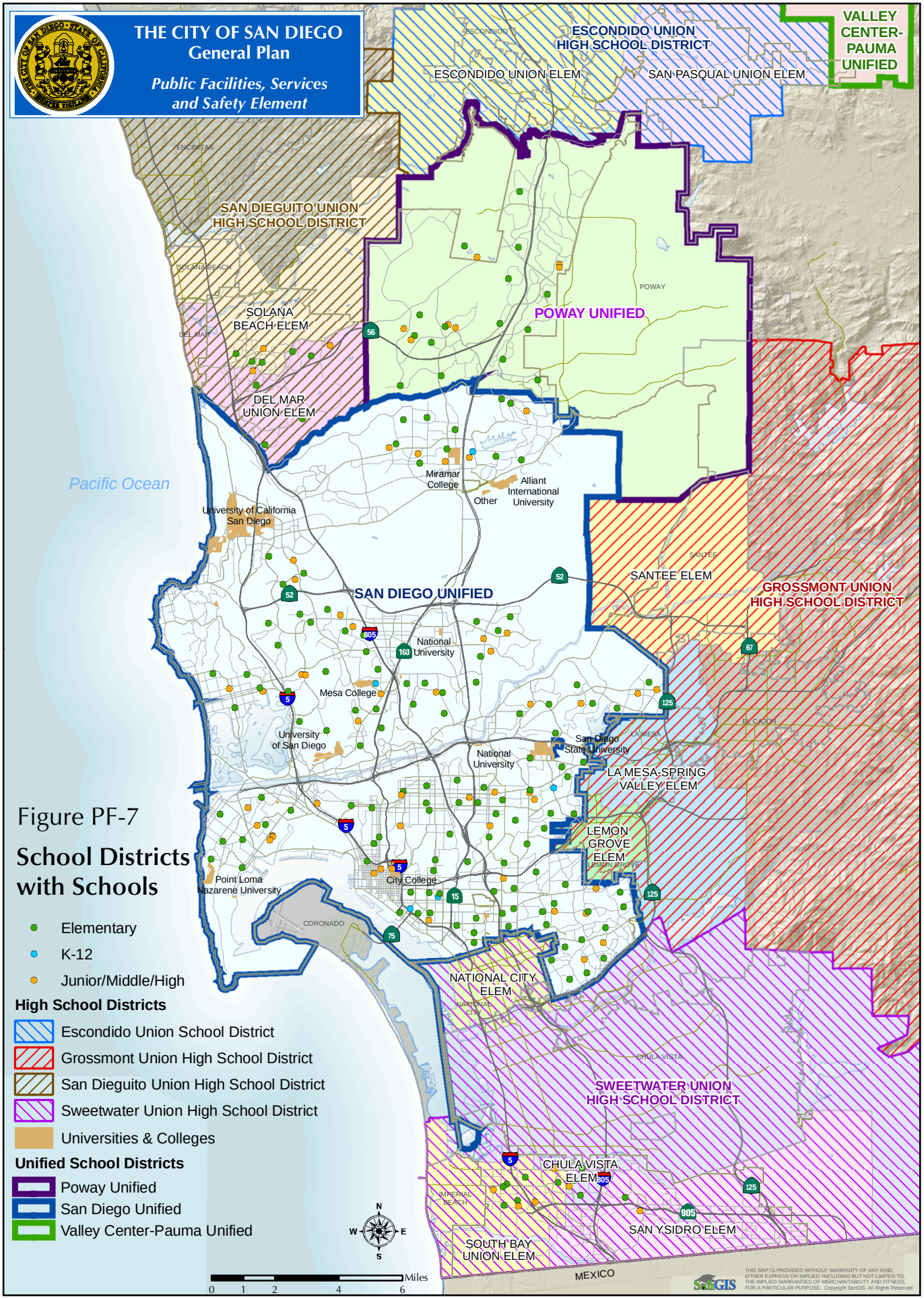
The San Diego Unified School District applies the following guidelines in the planning of its school facilities:

Elementary schools: maximum enrollment of 700 students. Site of approximately seven acres required to support the educational program.

Junior high/middle schools: maximum enrollment of 1,500 students. Site of approximately 15 acres required to support the educational program.

Comprehensive senior high schools: maximum enrollment of 2,000 students. Site of approximately 25 acres required to support the educational program.

A balance must be established between the competing needs of maintaining/developing housing and constructing/expanding schools. Due to limited land availability in urbanized areas, school sites are sometimes chosen that require the removal of existing housing units. The removal of these housing units may displace students that the school was intended to serve, thus reducing the projected student population. Other redevelopment which involves the conversion of housing supporting lower-income families can have the same impact. These multiple and interrelated impacts should be considered carefully in school siting decisions.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ESCONDIDO UNION HIGH SCHOOL DISTRICT
ESCONDIDO UNION ELEM
SAN PASQUAL UNION ELEM
VALLEY CENTER-PAUMA UNIFIED
SAN DIEGUITO UNION HIGH SCHOOL DISTRICT
SOLANA BEACH ELEM
POWAY UNIFIED
DEL MAR UNION ELEM
Pacific Ocean
Miramar College
Other
Alliant International University
University of California San Diego
SAN DIEGO UNIFIED
SANTEE ELEM
GROSSMONT UNION HIGH SCHOOL DISTRICT
National University
Mesa College
University of San Diego
San Diego State University
LA MESA-SPRING VALLEY ELEM
LEMON GROVE ELEM
Point Loma Nazarene University
City College
NATIONAL CITY ELEM
SWEETWATER UNION HIGH SCHOOL DISTRICT
CHULA VISTA ELEM
SAN YSIDRO ELEM
SOUTH BAY UNION ELEM
MEXICO
Figure PF-7
School Districts with Schools
Elementary
K-12
Junior/Middle/High
High School Districts
Escondido Union School District
Grossmont Union High School District
San Dieguito Union High School District
Sweetwater Union High School District
Universities & Colleges
Unified School Districts
Poway Unified
San Diego Unified
Valley Center-Pauma Unified
N
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Miles
0 1 2 4 6

School siting and design can also help strengthen communities by providing a center for community activities that extend beyond the school day. Joint use of school facilities can result in a more efficient use of scarce public resources and provide neighborhood/community amenities such as shared use of playing fields, auditoriums that double as community theaters, and libraries, health clinics and other community services incorporated into schools while also designed for greater community access. For additional guidelines on the planning and design of more neighborhood-centered schools (see also Mobility Element, Policy ME-A.2).

Section 17620 of the California Education Code authorizes school districts to collect fees to mitigate the impact of new development on enrollment in the district. The State Allocation Board determines the maximum level of fees a district can levy for residential and commercial/industrial development.

Policies

PF-K.1. Assist the school districts and other education authorities in resolving problems arising over the availability of schools and educational facilities in all areas of the City.

PF-K.2. Design schools as community learning centers, recognize them as an integral part of our neighborhoods, and encourage equitable access to quality schools and other educational institutions.

PF-K.3. Consider use of smaller school sites for schools that have smaller enrollments, and/or incorporate space-saving design features (multi-story buildings, underground parking, placement of playgrounds over parking areas or on roofs, etc.).

PF-K.4. Collaborate with school districts and other education authorities in the siting of schools and educational facilities to avoid areas with: fault zones; high-voltage power lines; major underground fuel lines; landslides and flooding susceptibility; high-risk aircraft accident susceptibility; excessive noise (see also Noise Element, Table NE-3, Noise Compatibility Guidelines); industrial uses; hazardous material sites, and significant motorized emissions.

PF-K.5. Work with school districts and other education authorities to better utilize land through development of multi-story school buildings and educational facilities.

PF-K.6. Expand and continue joint use of schools with adult education, civic, recreational (see also Recreation Element, Section E) and community programs, and also for public facility opportunities.

PF-K.7. Work with the school districts and other education authorities to develop school and educational facilities that are architecturally designed to reflect the neighborhood and community character, that are pedestrian-and cycling-friendly (see also Mobility Element, Policy ME-A.2), and that are consistent with sustainable development policies (see also Conservation Element, Section A) and urban design policies (see also Urban Design Element, Section A).

PF-K.8. Work with school districts and other education authorities to avoid environmentally protected and sensitive lands in the siting of schools and educational facilities.

PF-K.9. Work with school districts and other education authorities in evaluating best use of underutilized school district and other educational authority facilities and land for possible public acquisition and/or joint-use.

L. Information Infrastructure

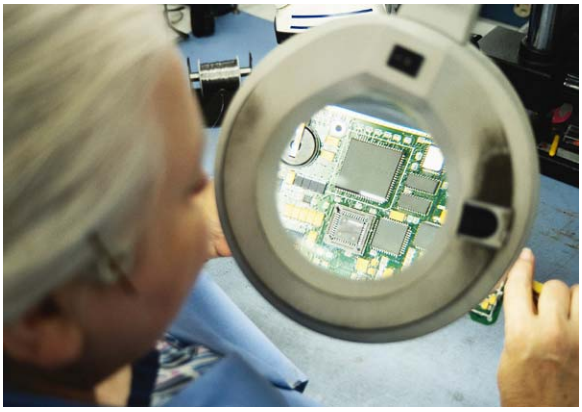
Goals

- Increased opportunities for connectivity in the information infrastructure system.
- An information infrastructure system that meets existing and future communication, access, and technology needs.
- An integrated information infrastructure system that enhances economic viability, governmental efficiency, and equitable universal access.
- A city that regulates and coordinates telecommunications to ensure and safeguard the public interest.

Discussion

In January 2000, the City developed its first Information Technology Strategic Plan (ITSP). The ITSP is intended to define the City's vision of the future for information technology and key strategies for achieving this vision. The plan also serves to provide citywide guidance and direction for the management and development of information technology.

The City recognizes that information technology can enable it to achieve its business goals and meet its challenges, including development of more efficient and cost-effective City services. Additionally, the City recognizes the need to develop and maintain the necessary information infrastructure in order to achieve the desired levels of communication, service, business, and access, internally and externally, for all public and private entities.



Information infrastructure is critical to the economy and for efficient services.

In addition to internal strategies, the City will continue to pursue and encourage the proper planning and provision of information infrastructure. Unlike planning for traditional

infrastructure such as water and sewer lines, planning for high-tech infrastructure has materialized in the new century in the wake of rapidly evolving technologies. The continuous evolution and coalescence of data, telephones, cellular telephones, televisions, video, satellites, personal digital assistants, internet, personal computers, and other technical devices has created a new era of unlimited interactive communications possibilities. Planning, providing, and supporting communication and information infrastructure will provide a vital framework for economic growth, educational opportunities, integrated development patterns, and quality of life issues in San Diego.

Policies

PF-L.1. Incorporate appropriate information infrastructure requirements into all relevant local policies, ordinances, and plans.

PF-L.2. Coordinate with all agencies and programmed project schedules to minimize disruptions to residents and public rights-of-way, and incorporate information infrastructure needs and opportunities.

PF-L.3. Provide infrastructure to ensure seamless communications and universally available access to data for all internal and external groups.

PF-L.4. Facilitate economic development citywide, with consideration of the City's status in the border region of Mexico, with adequate provision of an information infrastructure system.

PF-L.5. Work with private telecommunication service providers to develop and maintain an integrated information infrastructure system.

PF-L.6. Promote internally and externally cost-efficient delivery of services and exchange of information using telecommunication systems, including "hot zone" designations and other similar strategies.

PF-L.7. Encourage City departments and other employers to adopt telecommuting, wherever practical, to mitigate traffic congestion, air pollution, environmental concerns, and quality of life issues.

PF-L.8. Provide incentives for developers to pre-wire new and remodeled residential and non-residential structures to accommodate emerging technologies (fiber optic, wireless, Ethernet, digital subscriber line, voice over internet protocol, internet control panels, and many others) to allow seamless communications citywide.

PF-L.9. Improve the City's existing emergency telecommunication system so that it can better respond to and mitigate the impacts of various emergency situations.

PF-L.10. Provide public access workstations in all communities within the City.

PF-L.11. Support efforts to provide those with disabilities access to the most current technologies.

PF-L.12. Monitor emerging technologies to develop and maintain an effective information infrastructure system and strategy citywide.

PF-L.13. Ensure proper reuse, recycling and waste diversion efforts of communications equipment and other technologies upon expiration of use.

M. Public Utilities

Goals

- Public utility services provided in the most cost-effective and environmentally sensitive way.
- Public utilities that sufficiently meet existing and future demand with facilities and maintenance practices that are sensible, efficient, and well-integrated into the natural and urban landscape.

Discussion

The California Constitution vests in the California Public Utilities Commission (CPUC), the exclusive power and sole authority to regulate privately-owned or investor-owned public utilities such as San Diego Gas & Electric (SDG&E). This exclusive power extends to all aspects of the location, design, construction, maintenance, and operation of public utility facilities. Nevertheless, the CPUC has provisions for regulated utilities to work closely with local governments and give due consideration to their concerns. The state also regulates energy consumption under Title 24 of the California Code of Regulations. The Title 24 Building Energy Efficiency Standards apply to energy consumed for heating, cooling, ventilation, water heating, and lighting in new residential and non-residential structures.

The primary public utility in the region is SDG&E. This utility provides energy service to 3.3 million consumers through 1.3 million electric meters and more than 800,000 natural gas meters in San Diego and southern Orange counties. The utility's area spans 4,100 square miles. Figure PF-8, Gas and Electric Substations and Transmission Lines, identifies some of SDG&E's facilities within the City. In addition to the major energy utility, there are other prominent utilities serving the City and region. AT&T is the nation's largest telecommunications company providing local residents with integrated communications and entertainment services including IP (Internet Protocol)-based network capabilities which integrate voice, data and video. The dominant providers of communications networks and cable television programs are Cox Communications and Time Warner Cable. In addition to providing high quality cable, high-

speed internet, and digital telephone services, they offer the latest technologies to improve economic opportunities and quality of life.

The City also serves as a major public utility provider offering water, sewer, and solid waste management (collection, recycling, and disposal) services. Additional discussion and policies related to these services are provided in the respective sections of this element. In 1991, the City Public Utilities Advisory Commission was established to provide advice and recommendation to the City's elected officials and executive management on matters related to public utilities operations which impact ratepayers and residents of the City.

In 2002, the City formally adopted a policy for the undergrounding of overhead utility lines to protect public health, safety, and general welfare. As of 2005, the City has averaged approximately 30-35 miles of undergrounding each year and plans undergrounding nearly all major and collector streets within the next 20 years and streets in residential areas within approximately 50 years. The San Diego Metropolitan Transit System also functions as a major public utility in San Diego through its management and provision of transportation and transit services.

The City operates a utilities undergrounding program to relocate overhead utility lines underground. This process consists of five primary phases: public hearings, design, notifications, construction, and post construction. The City maintains an informative utilities undergrounding website where the public may access the master plan, get project information and details, and view photos and maps.

Providing and planning for adequate public utilities and the means to transmit, convey, or provide the service is essential to ensuring that services and utilities keep pace with anticipated growth. The scarcity of suitable facility sites and the sensitivity of conserved resource areas, especially in urbanized areas where many facilities are located, make planning for sufficient public utilities challenging. Given the increasingly urban nature of southern California, and as the City becomes fully urbanized, it is essential to fully integrate the design and space requirements for public utilities into all planning efforts.

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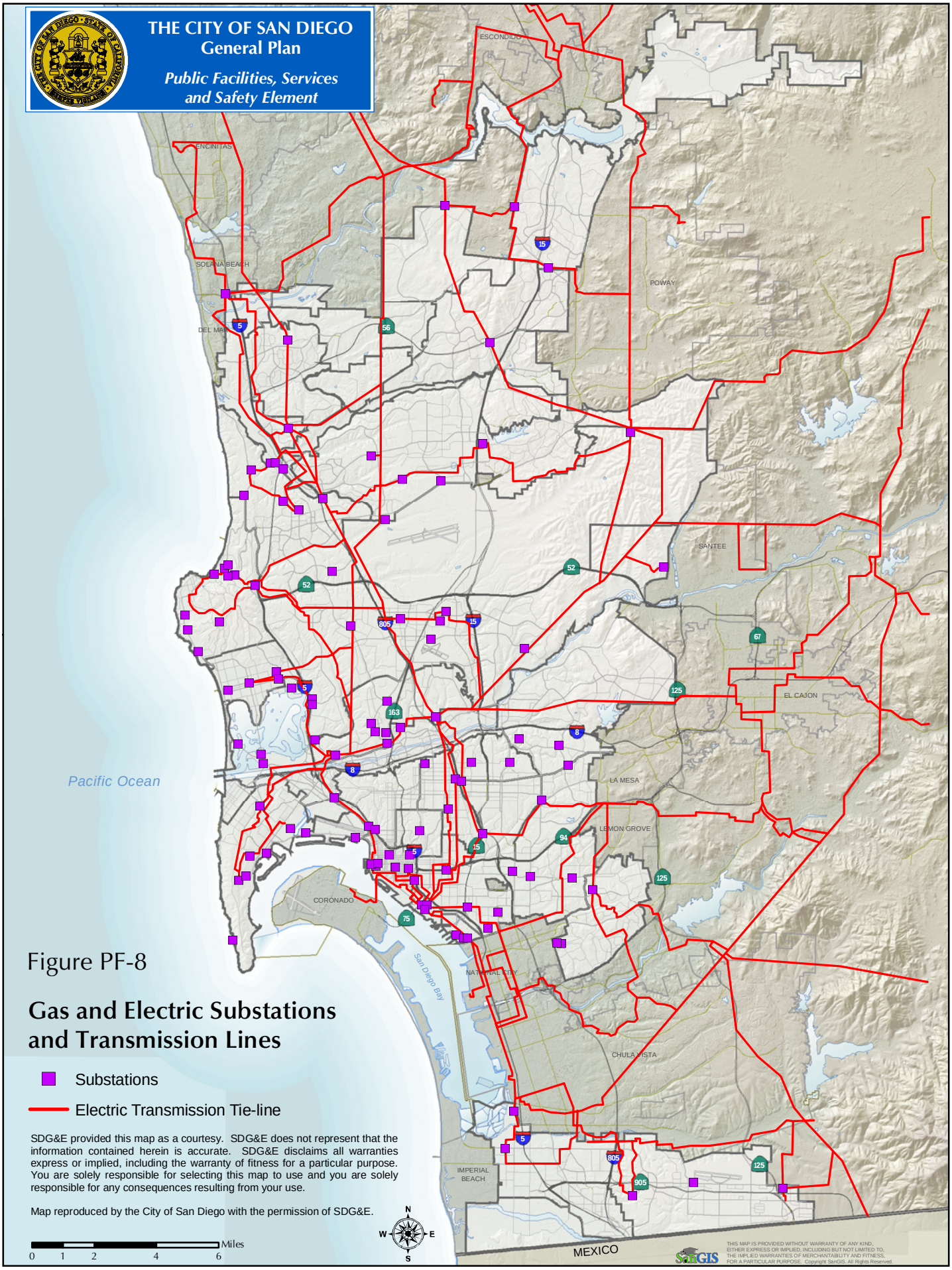

Figure PF-8

Gas and Electric Substations and Transmission Lines

- Substations
- Electric Transmission Tie-line

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Policies

PF-M.1. Ensure that public utilities are provided, maintained, and operated in a cost-effective manner that protects residents and enhances the environment.

PF-M.2. Coordinate with all public and private utilities to focus utility capital investments and design projects to help implement the City of Villages strategy.

PF-M.3. Integrate the design and siting of safe and efficient public utilities and associated facilities into the early stages of the long range planning and development process, especially in redevelopment/urban areas where land constraints exist.

PF-M.4. Cooperatively plan for and design new or expanded public utilities and associated facilities (e.g., telecommunications infrastructure, planned energy generation facilities, gas compressor stations, gas transmission lines, electrical substations and other large scale gas and electrical facilities) to maximize environmental and community benefits.

a. Use transmission corridors to enhance and complement wildlife movement areas and preserved open space habitat as identified in the City's Multiple Species Conservation Program (MSCP).

b. Provide adequate buffering and maintained landscaping between utility facilities and residential and non-residential uses, including the use of non-building areas and/or rear setbacks.

c. Maximize land use and community benefit by locating compatible/appropriate uses within utility easements/right-of-ways (e.g., passive parkland, natural open space, wildlife movement, urban gardens, plant nurseries, parking, access roads, and trails). Trails can be allowed in these easement/right-of-ways, provided proper indemnification, funding and maintenance is set forth in a written agreement between the public utility, the City, and project developer.

d. For projects, in particular large-scale developments (such as those requiring redevelopment plans, community plan updates, general plan amendments), consult and coordinate with all appropriate public utilities early on to determine the type, size, and location of facilities that are needed to accommodate the project's increased demand.

e. Incorporate public art with public utility facilities, especially in urban areas.

f. Ensure utility projects account for maintenance of community streetscape elements and street trees.

g. Coordinate projects in the public right-of-way with all utility providers.

N. Regional Facilities

Goal

- Regional facilities that promote and support smart growth and improve quality of life.

Discussion

San Diego has a number of facilities serving regional needs which directly affect land use decisions and quality of life. Some of these facilities include: freeways, highways, transit systems, parks, open space, stadiums, convention centers, solid waste, water, sewer, damns, detention, airports, healthcare, port, energy, education, military, and international border facilities. The Mobility Element, Figure ME-4 Intermodal Freight Facilities, identifies several of the region's major facilities and infrastructure. The region also has an equal or greater number of agencies involved in the provision, regulation, and management of such facilities.

Interstate 5 near Downtown San Diego

Planning, maintaining, expanding, or constructing new regional facilities requires great coordination and cooperation among participating agencies. The San Diego Association of Governments (SANDAG) is the chief agency responsible for regional planning and transportation issues. While other agencies may be responsible for a particular regional serving facility, SANDAG provides the forum for regional decision-making. SANDAG is accredited with building consensus, making strategic plans, obtaining and allocating resources, plans, engineers, and building public transportation, and providing information on a broad range of topics pertinent to the region's quality of life.

Lindbergh Field at San Diego International Airport

Expansion or construction of new regional facilities will have an impact on all City residents. The City must make efforts to align these capital investments so that they help to implement the City of Villages strategy.

Policies

PF-N.1. Assume an active leadership role in planning and implementing regional facility and infrastructure investments through collaborative efforts.

PF-N.2. Collaborate with public, private, and non-profit agencies to implement alternative investment policies and strategies that support growth in urban locations.

PF-N.3. Encourage infrastructure investments in regional capital facilities that provide a positive economic impact and leverage for competitive advantages.

PF-N.4. Coordinate the timing and development of new or expanded regional serving facilities to precede the development they will support.

PF-N.5. Adopt an equitable mechanism to secure fair-share contributions for both regional infrastructure and regional-serving public facilities within the City which benefit other agencies, organizations, and private parties in the region.

O. Healthcare Services and Facilities

Goal

- Public and private healthcare services and facilities that are easily accessible and meet the needs of all residents.

Discussion

Healthcare services and facilities are essential to protect and improve health, safety, and quality of life for all residents. Numerous healthcare facilities such as hospitals, emergency centers, clinics, treatment centers, and other similar offices and facilities are located throughout the City and region. The county of San Diego provides a number of healthcare facilities and services for residents. Overall, public, private, and non-profit agencies, provide, a wide range of environmental, mental, physical, public health, and alcohol and drug abuse services.

The City should continue to coordinate with public, private, and non-profit healthcare facility and service providers to help ensure that healthcare services and facilities are available to residents and that siting decisions are integrated with the City's growth strategy. For example, equitably and carefully locating these facilities and services in communities with village characteristics can help meet the healthcare needs of a growing population in a manner that increases accessibility, reduces driving trips, and provides for educational, employment, and training opportunities. For additional guidance on the siting of healthcare facilities and services see also Land Use Element, Section I.

Policies

PF-O.1. Encourage the provision of diverse, adequate, and easily accessible healthcare facilities and services to meet the needs of all residents.

a. Strive to locate healthcare facilities and services near public transit.

PF-O.2. Coordinate with providers so that the expansion or construction of new healthcare facilities addresses General Plan and community plan goals.

PF-O.3. Encourage the collocation and joint use of healthcare facilities and services among providers, and as appropriate with any City services.

P. Disaster Preparedness

Goals

- A city and region that, through diligent planning, organizing, and training is able to prevent, respond to, and recover from man-made and natural disasters.
- Reduced disruptions in the delivery of vital public and private services during and following a disaster.
- Prompt and efficient restoration of normal City functions and activities following a disaster.

The City's Emergency Operations Center

Discussion

The City's disaster preparedness program emphasizes the prevention of, response to, and recovery from natural, technological, and man-made disasters including acts of terrorism. The program is designed to improve the City's ability to protect employees, the community, and the environment; and to enhance its ability to recover from financial losses, regulatory fines, damages to facilities or equipment, and other impacts on service delivery or business continuity.

Prevention of disasters addresses prevention, mitigation, and educational activities which reduce or eliminate a threat, or reduce its impact on life, health, and property. The response efforts incorporate the functions of planning, training, exercising, and execution and are conducted in accordance with U.S. Department of Homeland Security Office of Domestic Preparedness requirements. In the event of a disaster, recovery efforts, including Local Assistance Center

(LAC) operations, are generally oriented toward activities that focus on returning to normalcy after an event. Key to recovery is the process of identifying critical services and their dependencies on infrastructures such as buildings, power, communications, and data systems.

The City's disaster preparedness efforts also include oversight of the City's Emergency Operations Center (EOC). The effort is responsible for maintaining the EOC in a continued state of readiness, training City staff and outside agency representatives in their roles and responsibilities, and coordinating EOC operations when activated in response to an emergency or major event/incident. Additionally, the City is responsible for the development and maintenance of emergency operational documents and guides for City facilities, Qualcomm Stadium, Petco Park, and potential major events or incidents.

All emergency responders and Emergency Operation Center (EOC) and Department Operation Centers (DOC) operate under the National Incident Management System (NIMS) and the Standardized Emergency Management System (SEMS). NIMS provides a consistent, flexible, and adjustable national framework within which Federal, State, territorial, tribal, and local governments can work effectively and efficiently together to prepare for, prevent, respond to, and recover from domestic incidents, regardless of their cause, size, location, or complexity. NIMS is required by Homeland Security Presidential Directive (HSPD)-5. SEMS, which integrates NIMS, is intended for managing response to multi-agency and multi-jurisdiction emergencies in California and is required by Government Code §8607(a).

National and international events continue to focus attention on homeland security and public safety issues. The City is coordinating efforts to improve staff's ability to manage vital information and limited resources during a major emergency such as an earthquake, chemical spill, or act of terrorism, through the use of technology. The City is also responsible for securing and managing homeland security and other grant funds to enhance its, and the region's, security and overall preparedness to prevent, respond to, and recover from any hazard whether natural or man-made.

City Administration Building Security

The City is a participating jurisdiction in San Diego County's 2004 Multi-Jurisdictional Hazard Mitigation Plan as approved by City Council Resolution R-299121 on April 26, 2004 and the Federal Emergency Management Agency (FEMA) on February 22, 2005. The countywide plan identifies risks posed by natural and manmade disasters including fires, earthquakes, landslides, and floods and ways to minimize damage from those disasters. The plan serves many purposes, including enhancing public awareness and understanding, creating a decision tool for management, promoting compliance with state and federal program requirements, enhancing local policies for hazard mitigation capability, and providing inter-jurisdictional coordination. The federal Disaster Mitigation Act of 2000 (P.L.

106-390) requires all local governments to create such a disaster plan in order to qualify for funding in the future.

Policies

PF-P.1. Ensure operational readiness of the City's EOC.

PF-P.2. Establish communications with all City elected officials and managers regarding Office of Homeland Security issues.

PF-P.3. Develop and maintain current, integrated, and comprehensive Emergency Operations and Disaster Plans on an annual basis (see also PF-H.3).

a. Prepare and maintain a comprehensive multi-modal evacuation plan.

PF-P.4. Coordinate the development and implementation of a City business continuity plan to ensure the continuity of operations and government in the event of a major disaster or emergency.

PF-P.5. Ensure that citywide guidelines for Operational Conditions (OPCON) are aligned with the U.S. Department of Homeland Security and integrated into each City department's procedures and Emergency Operations Plans.

PF-P.6. Coordinate citywide emergency management and disaster planning and response through the integration of key City departments into the preparedness and decision-making process.

PF-P.7. Develop a comprehensive exercise program consistent with the U.S. Department of Homeland Security Office of Domestic Preparedness requirements.

PF-P.8. Coordinate with other urban area jurisdictions to execute a variety of exercises to test operational and emergency plans.

PF-P.9. Collaborate with other local, state, and federal jurisdictions and private entities to plan and promote the integration and improvement of regional response capabilities.

PF-P.10. Facilitate the execution of the City's Community Emergency Response Team (CERT) program to meet the requirements set forth by the Emergency Preparedness and Response directorate of the U.S. Department of Homeland Security and the San Diego Citizen's Corps Council.

PF-P.11. Ensure that disaster recovery efforts involving the disposal of materials adhere to the policies in Section I of this element.

PF-P.12. Develop, implement, and sustain a robust disaster preparedness community outreach and education program.

PF-P.13. As part of the community plan update process, update plans and zoning to limit future development in hazard areas.

PF-P.14. Continue to participate in and implement the San Diego County Multi-Jurisdictional Hazard Mitigation Plan to further coordinate hazard mitigation planning on a regional level.

Q. Seismic Safety

Goals

- Protection of public health and safety through abated structural hazards and mitigated risks posed by seismic conditions.
- Development that avoids inappropriate land uses in identified seismic risk areas.

Discussion

The fundamental objective of the seismic safety policies is to reduce the risk of hazard resulting from future seismic and related events. The seriousness of seismic risk to public safety is a function not only of local seismic conditions, but also a public awareness of the seismic hazards present, and the effectiveness of mitigation policies and practices utilized to reduce the risk resulting from the hazards. This section identifies existing and potential land use planning efforts which are instrumental in planning for seismic safety.

Southern California is considered one of the most seismically active regions in the United States, with numerous active faults and a history of destructive earthquakes. San Diego is located approximately 100 miles west of the San Andreas Fault, the predominate earthquake hazard in the state, and is close to several large active faults capable of producing intense ground shaking. Faults influencing local seismicity include the Elsinore, San Jacinto, Coronado Bank, San Diego Trough, San Clemente, and La Nación. In addition, the downtown area of the City is underlain by the active Rose Canyon Fault. Local geologic maps show that most neighborhoods in San Diego are underlain by numerous smaller faults (see also Figure PF-9 Geo-Technical Relative Risk Areas).

Situated in such proximity to large faults creates a significant seismic risk to the City. Damage to structures and improvements caused by a major earthquake will depend on the distance to the epicenter, the magnitude of the event, the underlying soil, and the quality of construction. The severity of an earthquake can be expressed in terms of both intensity and magnitude. The magnitude of an earthquake is measured by the amount of energy released at the source of the quake. The Richter scale, developed in the 1930s for Southern California, is used to rapidly define earthquake size and estimate damage.

The City uses the San Diego Seismic Safety Study, a set of geologic hazard maps and associated tables, as a guideline to correlate acceptable risk of various land uses with seismic (and geologic) conditions identified for the site. Large and complex structures, and places attracting large numbers of people, are most restricted as to geographic location based on site conditions. These facilities include dams, bridges, emergency facilities, hospitals, schools, churches, and multi-story, high-density residential structures. Low and medium residential development is considered land use of a lesser sensitivity and is therefore "suitable" or "provisionally suitable" (requiring mitigation) under most geologic conditions. Uses with only minor or accessory structures can be located on sites with relatively greater risk due to lower user-intensity associated with activities such as parks and open space, agriculture, and most industrial land uses. Geotechnical investigations are required to be performed prior to site development. The scope of investigations can range from feasibility surveys to extensive field exploration and engineering/geologic/seismic analyses depending upon the complexity of site conditions and the intensity of the proposed land use.

San Diego has been required to enforce the State Earthquake Protection Law (Riley Act of 1933) since its enactment in 1933. However, the seismic resistance requirements of the law were minimal for many years and San Diego did not embrace more restrictive seismic design standards until the adoption of the 1952 Uniform Building Code. Other applicable state regulations include the Alquist-Priolo Earthquake Fault Zoning Act, the Seismic Hazards Mapping Act, and the Unreinforced Masonry Law.

The California Earthquake Loss Reduction Plan was developed by the California Seismic Safety Commission in fulfillment of a mandate enacted by the Legislature in the California Earthquake Hazards Reduction Act of 1986. The plan is a comprehensive strategic document that sets forth the vision for a safer California and provides guiding policies. Incorporating lessons learned from all previous earthquakes, the plan is periodically updated for approximately five-year timeframes to continue to support new and ongoing efforts to protect California residents and the built environment. Such efforts are effective in reducing damage and injury from succeeding earthquakes. The City's development guidelines are consistent with state regulations and requirements.

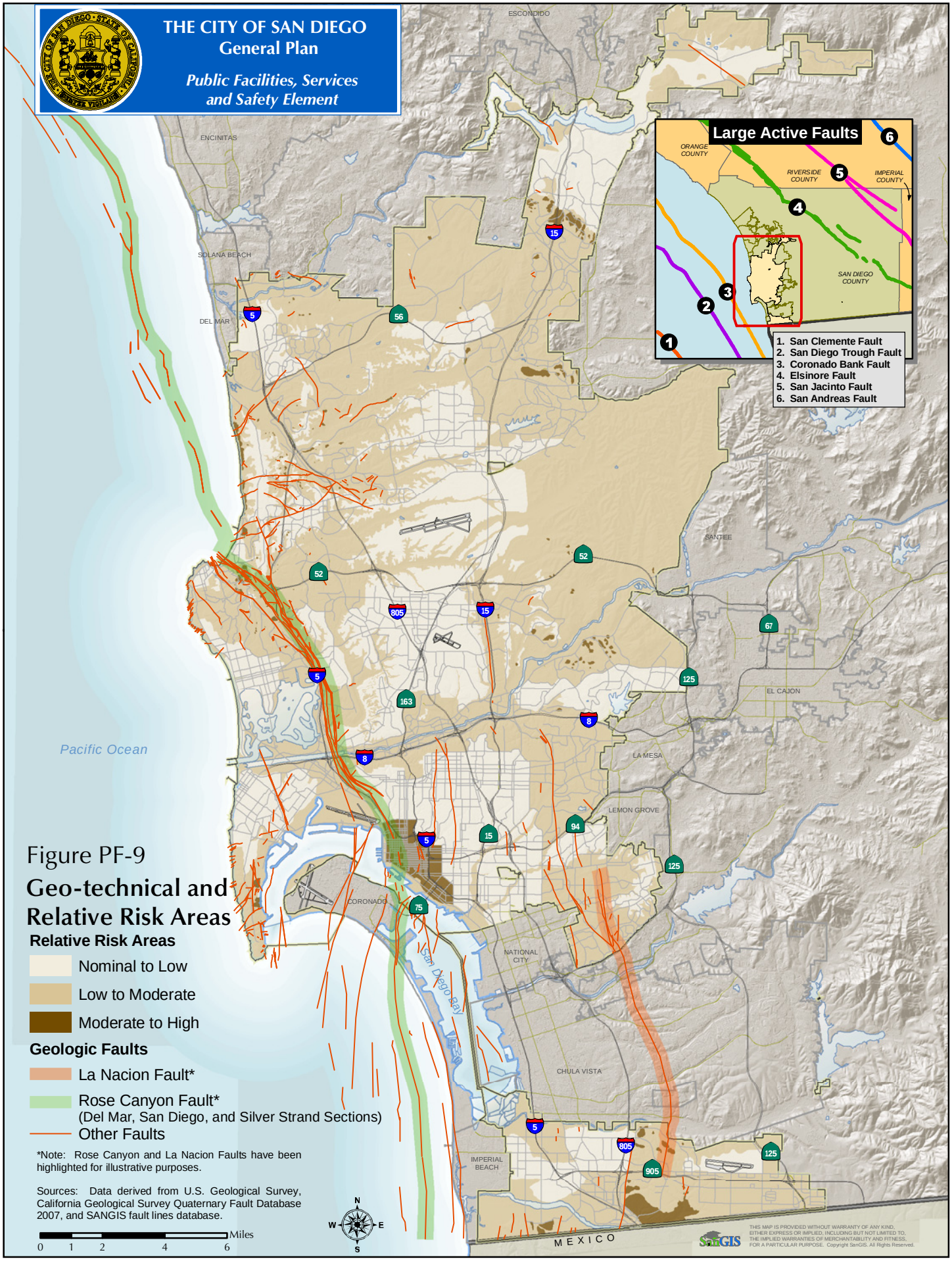
THE CITY OF SAN DIEGO
General Plan
Public Facilities, Services and Safety Element
Large Active Faults
ORANGE COUNTY
RIVERSIDE COUNTY
IMPERIAL COUNTY
SAN DIEGO COUNTY
1. San Clemente Fault
2. San Diego Trough Fault
3. Coronado Bank Fault
4. Elsinore Fault
5. San Jacinto Fault
6. San Andreas Fault
ESCONDIDO
ENCINITAS
SOLANA BEACH
DEL MAR
SANTEE
EL CAJON
LA MESA
LEMON GROVE
CORONADO
NATIONAL CITY
CHULA VISTA
IMPERIAL BEACH
Pacific Ocean
San Diego Bay
MEXICO
Figure PF-9
Geo-technical and Relative Risk Areas
Relative Risk Areas
Nominal to Low
Low to Moderate
Moderate to High
Geologic Faults
La Nacion Fault*
Rose Canyon Fault*
(Del Mar, San Diego, and Silver Strand Sections)
Other Faults
*Note: Rose Canyon and La Nacion Faults have been highlighted for illustrative purposes.
Sources: Data derived from U.S. Geological Survey, California Geological Survey Quaternary Fault Database 2007, and SANGIS fault lines database.
Miles
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Table PF-3 identifies those seismic, geologic, and structural hazards which the City must consider in all planning and development efforts.

TABLE PF-3 Seismic, Geologic, and Structural Hazards

Seismic Hazards	
Ground Shaking	When a break or rapid relative displacement occurs along the two sides of a fault, the tearing and snapping of the earth's crust creates seismic waves which are felt as a shaking motion at the ground surfaces. The most useful measure of severity of ground shaking for planning purposes is the Modified Mercalli Intensity scale. This scale, ranging from Intensities I to XII, judges shaking severity by the amount of damage it produces. Intensity VII marks the point at which damage becomes significant. Intensity VIII and above correspond to severe damage and problems that are of great community concern. For comparison, the Rose Canyon Fault, capable of producing a 6.9 magnitude earthquake, would have an intensity of VII-IX. Intensity IX earthquakes are characterized by great damage to structures including collapse.
Ground Displacement	Ground displacement is characterized by slippage along the fault, or by surface soil rupture resulting from displacement in the underlying bedrock. Such displacement may be in any direction and can range from a fraction of an inch to tens of feet. In San Diego, exposures are generally poor and most faults are either potentially active or inactive. However, if ground displacement were to occur locally, it would most likely be on an existing fault. Failure of the ground beneath structures during an earthquake is a major contributor to damage and loss of life. Many structures would experience severe damage from foundation failures resulting from the loss of supporting soils during the earthquake.
Seismically Induced Settlement / Subsidence	Settlement of the ground may come from fault movement, slope instability, and liquefaction and compaction of the soil at the site. Settlement is not necessarily destructive. It is usually differential settlement that damages structures. Differential or uneven settlement occurs when the subsoil at a site is of non-uniform depth, density, or character, and when the severity of shaking varies from one place to another.
Liquefaction	Liquefaction is a process by which water-saturated granular soils transform from a solid to a liquid state during strong ground shaking.
Soil Lurching	Soil lurching is the movement of land at right angles to a cliff, stream bank, or embankment due to the rolling motion produced by the passage of surface waves. It can cause severe damage to buildings because of the formation of cracks in the ground surface. The effects of lurching are likely to be most significant near the edge of alluvial valleys or shores where the thickness of soft sediments varies appreciably under a structure.
Tsunamis and Seiches	A tsunami is a sea wave generated by a submarine earthquake, landslide, or volcanic action. A major tsunami from either of the latter two events is considered to be remote for the San Diego area. However, submarine earthquakes are common along the edge of the Pacific Ocean, and all of the Pacific coastal areas are therefore exposed to the potential hazard of tsunamis to a greater or lesser degree. A seiche is an earthquake-induced wave in a confined body of water, such as a lake, reservoir, or bay.

TABLE PF-3 Seismic, Geologic, and Structural Hazards (Continued)

Geologic Hazards	
Landslide and Slope Stability	Old landslides and landslide-prone formations are the principal non-seismic geologic hazards with the City. Conditions which should be considered in regard to slope instability include inclination, characteristics of the soil and rock orientation of the bedding, and the presence of groundwater. The causes of classic landslides start with the preexisting condition inherent within the rock body itself that can lead to failure. The actuators of landslides can be both natural events such as earthquakes, rainfall and erosion and human activities such as grading and filling. Some of the areas where landslides have occurred are: Otay Mesa; the east side of Point Loma; the vicinities of Mount Soledad, Rose Canyon, Sorrento Valley, and Torrey Pines; portions of Rancho Bernardo and Los Peñasquitos; and along Mission Gorge in the vicinity of the second San Diego Aqueduct.
Coastal Bluffs	Coastal bluffs are land features that have resulted from the actions of sea wave forces on geologic formations and soil deposits. Geologic factors that affect the stability of bluffs include rock type, jointing and fracturing, faulting and shear zones, and base erosion. Where bluffs are eroding quickly, measures to reduce bluff degradation may be necessary in order to preserve the bluff line. In the Torrey Pines area, the coastal bluffs have experienced sizeable landslides where oversteepening of the sea cliff has resulted in unstable conditions. In addition, rock falls have occurred in the Sunset Cliffs area due to undermining of the sandstone.
Debris Flows or Mudslides	A debris flow or mudslide is a form of shallow landslide involving soils, rock, plants, and water forming a slurry that flows downhill. This type of earth movement can be very destructive to property and cause significant loss during periods of heavy rainfall. The City is susceptible to mudslides due to abundant natural, hilly terrain and steep manufactured slopes. Steeply graded slopes tend to be difficult to landscape and are often planted with shallow-rooted vegetation on a thin veneer of topsoil. When saturated, these loose soils behave like a liquid and fail.
Buildings	It is roughly estimated that about 800 (mainly nonresidential) masonry buildings within the City may constitute structural hazards. The majority of these are located in the downtown area; however, appreciable numbers are also found in the older sections of the Hillcrest, North Park, and La Jolla business districts, among others. Policies regulating the rehabilitation of such structures, and construction of new structures, are addressed in the City's Land Development Code.
Utility Systems	Utility systems are peculiarly subject to failure in earthquakes because of their largely underground location, and the inevitability that some lines will cross faults. Major transmission lines crossing fault zones should be carefully designed and constructed so that ground movement can be accommodated. In general, this suggests the use of flexible pipe and rubber ring joints rather than rigid lengths of pipe that are welded or glued. Frequent valving to permit the isolation of broken mains is also indicated, along with provision for utilizing redundant routes or systems.

Policies

PF-Q.1. Protect public health and safety through the application of effective seismic, geologic and structural considerations.

a. Ensure that current and future community planning and other specific land use planning studies continue to include consideration of seismic and other geologic hazards. This information should be disclosed, when applicable, in the California Environmental Quality Act (CEQA) document accompanying a discretionary action.

b. Maintain updated citywide maps showing faults, geologic hazards, and land use capabilities, and related studies used to determine suitable land uses.

c. Require the submission of geologic and seismic reports, as well as soils engineering reports, in relation to applications for land development permits whenever seismic or geologic problems are suspected.

d. Utilize the findings of a beach and bluff erosion survey to determine the appropriate rate and amount of coastline modification permissible in the City.

e. Coordinate with other jurisdictions to establish and maintain a geologic "data bank" for the San Diego area.

f. Regularly review local lifeline utility systems to ascertain their vulnerability to disruption caused by seismic or geologic hazards and implement measures to reduce any vulnerability.

g. Adhere to state laws pertaining to seismic and geologic hazards.

PF-Q.2. Maintain or improve integrity of structures to protect residents and preserve communities.

a. Abate structures that present seismic or structural hazards with consideration of the desirability of preserving historical and unique structures and their architectural appendages, special geologic and soils hazards, and the socio-economic consequences of the attendant relocation and housing programs.

b. Continue to consult with qualified geologists and seismologists to review geologic and seismic studies submitted to the City as project requirements.

c. Support legislation that would empower local governing bodies to require structural inspections for all existing pre-Riley Act (1933) buildings, and any necessary remedial work to be completed within a reasonable time.